



Bayswater Street Revetment Repairs and Restoration

Expanded Environmental Notification Form



Prepared For:
Massachusetts Port Authority
Boston, Massachusetts

Prepared by:
Foth Infrastructure and Environment
15 Creek Road Marion, MA 02738

December 2023

Project ID: 0022M056.00

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

<i>For Office Use Only</i>
EEA#: _____
MEPA Analyst: _____

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Bayswater Revetment Repairs and Restoration		
Street Address: Bayswater Street		
Municipality: Boston	Watershed: Boston Harbor	
Universal Transverse Mercator Coordinates: 335237.63E, 4694271.85N	Latitude: 42°22'59.77" N Longitude: 71°00'05.32"W	
Estimated commencement date: April 2024	Estimated completion date: 2026	
Project Type: Coastal Infrastructure	Status of project design: 50 %complete	
Proponent: Massachusetts Port Authority		
Street Address: 1 Harborside Dr STE 216S		
Municipality: East Boston	State: MA	Zip Code: 02128
Name of Contact Person: Chris Busch		
Firm/Agency: Foth Infrastructure and Environment, LLC.	Street Address: 15 Creek Road	
Municipality: Marion	State: MA	Zip Code:
Phone:(401) 626-7208	Fax:	E-mail: Kaitlyn.Cross@foth.com
<p>Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)? <input checked="" type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:</p> <p>a Single EIR? (see 301 CMR 11.06(8)) <input checked="" type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>a Rollover EIR? (see 301 CMR 11.06(13)) <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p>a Special Review Procedure? (see 301CMR 11.09) <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p>a Waiver of mandatory EIR? (see 301 CMR 11.11) <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p>a Phase I Waiver? (see 301 CMR 11.11) <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> <p><i>(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)</i></p> <p>Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?</p>		
<p><i>11.03 (3)(b)1.a. Provided that a permit is required: Alteration of coastal dune, barrier beach, or coastal bank</i></p> <p><i>11.06(7)(b) The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area around the Environmental Justice Population</i></p>		

Which State Agency Permits will the project require?

*Massachusetts DEP- Combined Waterways Ch 91 License and Water Quality Certification
Coastal Zone Management- Federal Consistency Review (if required)*

Massachusetts Environmental Policy Act – Secretary Certificate

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

Not Applicable.

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	15.8		
New acres of land altered		0.64	
Acres of impervious area	N/A	N/A	N/A
Square feet of new bordering vegetated wetlands alteration		N/A	
Square feet of new other wetland alteration		Total: 23,062 SF 1,600 LF 19,062 SF Land Subject to Coastal Storm Flowage 1,600 LF Coastal Bank 4,000 SF Coastal Beach	
Acres of new non-water dependent use of tidelands or waterways		N/A	
STRUCTURES			
Gross square footage	N/A	N/A	N/A
Number of housing units	N/A	N/A	N/A
Maximum height (feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
WASTEWATER			
Water Use (Gallons per day)	N/A	N/A	N/A
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment (GPD)	N/A	N/A	N/A
Length of water mains (miles)	N/A	N/A	N/A
Length of sewer mains (miles)	N/A	N/A	N/A
Has this project been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			
Has any project on this site been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site: _____

The proposed project is located on the shoreline of Boston Harbor, north of Logan Airport and adjacent to Bayswater Street in Boston, Massachusetts (Parcel ID 01041260000). The project is located within FEMA Flood Zone AE (EL. 10' NAVD88), Maps 25025C0019J and 25025C0038J dated March 16, 2016.

Historically, the Bayswater Embankment buffer has been maintained as an airport edge buffer park for the Boston Logan International Airport, along with various other locations surrounding the airport, to protect the adjacent environment and built community.

The existing roadway embankment along the shoreline is armored at the toe of the slope and offers limited protection from erosion and wave action. The stone size along the embankment is approximately ±12 inches in depth and is failing in several locations. Some sections of the embankment are greater than 1:1 with some undercutting. A narrow salt marsh and beach are located at the bottom of the roadway embankment. See the Project Narrative for additional information.

Describe the proposed project and its programmatic and physical elements: _

The proposed repairs consist of a 1,600 linear foot stone/riprap revetment along the entire length of the site. The proposed repairs will include the:

- ◆ Excavation of the existing slope in order to accommodate the proposed revetment.
- ◆ Installation of a 1,650 linear foot temporary sheet pile wall along the limits of the proposed repairs in order to eliminate any temporary or permanent impacts to the adjacent resource areas.
- ◆ Installation of a 1.0-foot-thick layer (minimum) of approximately 1.0-inch to 5.0-inch filter stone over filter fabric or geotextile fabric.
- ◆ Installation of toe stones sized approximately 3.0 tons to 4.0 tons, to support the armor stone layers.
- ◆ Installation of a 3.5±-foot-thick layer of armor stone comprised of a primary layer of 1 ton to 2 ton stone under a secondary layer of 0.25 ton to 1 ton stone along the embankment slope between the top of the slope and the toe stones.
- ◆ Removal of the temporary sheet pile wall and regrading as necessary.
- ◆ Reinstall 2 new sets of stairs in order to restore public access to the shoreline.
- ◆ Restoration and seeding of the existing bank and beach as necessary.

In addition to the stabilization of critical areas of erosion, the embankment repairs will provide protection against a 100-year storm event. Foth Infrastructure and Environment, LLC (Foth) in cooperation with the Massachusetts Port Authority (Massport) and in accordance with Climate Ready Boston and the Massachusetts Port Authority Floodproofing Design Guide, has developed this design based on the 1% Annual Coastal Flood Rise predicted by 2070 to accommodate a maximum of 3.0 feet of future sea level rise without jeopardizing the structure's stability. The designed shoreline protection will have a service life of approximately 50-years.

Construction is to be performed from the top of the existing bank. The project will have impacts to Coastal Bank, Coastal Beach, and Land Subject to Coastal Storm Flowage. The proposed project is not anticipated to have any direct impacts on the existing salt marsh that is adjacent to the project site. BMPs will be used to minimize impacts to resource areas throughout the construction process. Please see the Project Narrative for additional information.

NOTE: The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

Several alternatives were considered and evaluated prior to selecting the preferred 1H:1V & 1.5H:1V Slope Stone Revetment option. The considered alternatives include:

1. Combined 1.5H:1V & 1H:1V Sloped Armor Stone Revetment (Preferred)
2. 1H:1V Sloped Armor Stone Revetment
3. 1.5H:1V Sloped Armor Stone Revetment
4. Engineered Vegetated Bank
5. Vertical Wall
6. No-Build

1. Combined 1.5H:1V & 1H:1V Sloped Armor Stone Revetment (Preferred)

Repairs will consist of a riprap revetment containing installation of a 1.0-foot-thick layer of approximately 1.0-inch to 5.0-inch filter stone overlaid over filter fabric or geotextile fabric, a 3.5-foot-thick layer of armor stone sized approximately 12.0-inches to 32.0-inches based on the proposed slope, and installation of a toe stone supporting the armor stone layers sized approximately 3.0 Tons to 4.0 Tons. A 1.5V:1H slope will be utilized to the greatest extent possible while also maintaining a sufficient offset from the adjacent resource areas. This will allow for a stable slope throughout the majority of the revetment while also maintaining the integrity of the adjacent resource areas. In areas where a 1.5H:1V slope is not possible a 1H:1V slope shall be utilized. A temporary sheet pile wall shall be utilized in order to eliminate temporary impacts to adjacent resource areas which may result in the excavation or sloughing of material due to the installation of the revetment.

2. 1H:1V Sloped Armor Stone Revetment

Alternative 2 has the same components as Alternative 1; however, the entire revetment would be sloped at a 1H:1V. The utilization of a 1H:1V armored slope produces a revetment which is less stable than both Alternative 1 and Alternative 3. Due to this, this alternative does not meet project goals and is not recommended. A temporary sheet pile wall shall be utilized in order to eliminate temporary impacts to adjacent resource areas which may result in the excavation or sloughing of material due to the installation of the revetment. The total length of temporary sheet pile would be reduced in this alternative as compared to 4.1.1 because the use of a steeper slope reduces the total project footprint and impacts to resource areas. However, use of a 1H:1V slope throughout the entire length of the proposed revetment is not recommended because it is less stable than a 1.5H:1V slope.

3. 1.5H:1V Sloped Armor Stone Revetment

Alternative 3 has the same components as Alternative 1; however, the entire revetment would be sloped 1.5H:1V. This would create both temporary and permanent impacts to the adjacent resource areas through the larger revetment footprint. The use of temporary sheet piles at the landward limits of resource areas is not warranted in this scenario because the anticipated permanent impacts from the revetment installation would extend into the salt marsh. Temporary sheet piles could be utilized at the seaward limit of proposed work to reduce further impacts to the salt marsh from excavation. This alternative does not meet project goals and is not recommended.

4. Engineered Vegetated Bank

Alternative 4 represents using the perceived similar methods that were used to construct the existing embankment to construct the replacement embankment. Foth does not recommend this alternative due to the proven ineffectiveness of the existing embankment in protecting the adjacent Bayswater Street and adjacent resource areas. This alternative does not meet project goals and is not recommended.

5. Vertical Wall

This alternative would involve replacing the existing revetment with either a steel sheet pile bulkhead or vertical concrete seawall to an elevation of approximately +15.0' NAVD88 to accommodate for potential sea level rise. Foth does not recommend this alternative as it could lead to additional environmental impact through the placement of a steel or concrete structure within a coastal resource area. This alternative also leads to increased risk of scour at the base of the structure and thus undermining the adjacent resource areas or causing excessive erosion along the coastal beach. This alternative does not meet project goals and is not recommended.

6. No-Build

The no-build alternative would involve leaving the site as-is with no improvements. If left in its current state, the existing revetment will continue to deteriorate. This alternative does not meet project goals and is not recommended.

NOTE: *The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

1. The seaward limit of excavation will not impact with the Salt Marsh
2. Construction equipment won't be refueled within buffer zones.
3. Construction materials won't be stored within buffer zones.
4. Soft start pile driving/removal will be conducted. This is to protect any threatened or endangered species that may be in the project vicinity.
5. The extent of the project disturbance and ground disturbance shall be limited to the minimum necessary during construction.
6. All debris generated as a result of the project construction shall be removed from the site and disposed of at an appropriate upland disposal location.
7. Appropriate BMPs shall be implemented throughout the project site.
8. Native species will be utilized during the restoration process by planting/seeding within the temporarily impacted areas.
9. All local, state, and federal requirements shall be adhered to maintain and preserve air quality in and around the vicinity of the Bayswater St revetment construction.
10. Project activities will employ dust suppression measures during construction to minimize impacts. In order to reduce any impacts due to the construction phase, anti-idling and other measures to limit emissions from construction equipment shall be implemented.
11. All construction equipment will be maintained in compliance with all applicable state and federal emission regulations. Equipment will not be idled without an operator in the cab.
12. Noise shall not exceed a maximum permitted sound level of 60 dBA and shall be restricted to Monday – Friday 7 AM to 5 PM and Saturday 9 AM to 3 PM or whatever other time frame will be stipulated in the permits.

If the project is proposed to be constructed in phases, please describe each phase:

The Project will be completed in phases over multiple construction seasons. It is anticipated that construction will be completed on the critical areas which have experienced the greatest amount of scour within the 2025 construction season. Critical areas are detailed within the plans provided in Appendix E. The remainder of the work is anticipated to be phased over following construction season as funding allows. The project schedule may change as it is subject to budgeting constraints, permitting timeframes, and conditioned Time of Year Restrictions.

Is the project within or adjacent to an Area of Critical Environmental Concern?

- Yes (Specify _____)
 No

if yes, does the ACEC have an approved Resource Management Plan? ___ Yes ___ No;

If yes, describe how the project complies with this plan.

Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes ___X___ No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm)

- Yes (Specify _____) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES:

Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify _____) No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? Yes (Specify _____) No

WATER RESOURCES:

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? Yes No; if yes, identify the ORW and its location.

Belle Isle Inlet/ Rumney Marshes ACEC is located approximately 800 feet north of the proposed project site.

wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)

Are there any impaired water bodies on or within a half-mile radius of the project site? Yes No; if yes, identify the water body and pollutant(s) causing the impairment: _____

Water body: Winthrop Bay Watershed,
pollutants: PCBs in Fish Tissue, Enterococcus, Fecal Coliform, Additional unknown sources.

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? Yes No

STORMWATER MANAGEMENT:

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations: _____

There will be no increase to impervious area from the existing site.

MASSACHUSETTS CONTINGENCY PLAN:

Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan?; if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification): Yes No

Is there an Activity and Use Limitation (AUL) on any portion of the project site? Yes No ; if yes, describe which portion of the site and how the project will be consistent with the AUL: _____.

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN? Yes No ; if yes, please describe: _____

SOLID AND HAZARDOUS WASTE:

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood:

(NOTE: Asphalt pavement, brick, concrete and metal are banned from disposal at Massachusetts landfills and waste combustion facilities and wood is banned from disposal at Massachusetts landfills. See 310 CMR 19.017 for the complete list of banned materials.)

Will your project disturb asbestos containing materials? Yes No ; if yes, please consult state asbestos requirements at <http://mass.gov/MassDEP/air/asbhom01.htm>

Describe anti-idling and other measures to limit emissions from construction equipment:

All construction equipment will be maintained in compliance with all applicable state and federal emission regulations. Equipment will not be idled without an operator in the cab. No refueling of construction equipment shall be permitted in the immediate vicinity of any coastal resource areas. Equipment used will be in accordance with 310 CMR 7.11 and there shall be no unnecessary operation of motor vehicles while said vehicle is stopped for a foreseeable period of time in excess of 5 minutes.

DESIGNATED WILD AND SCENIC RIVER:

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? Yes ___ No ___ ;
if yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the "outstandingly remarkable" resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River? Yes ___ No ___ ; if yes, specify name of river and designation: _____;

if yes, will the project will result in any impacts to any of the designated "outstandingly remarkable" resources of the Wild and Scenic River or the stated purposes of a Scenic River.

Yes ___ No ___ ;

if yes, describe the potential impacts to one or more of the "outstandingly remarkable" resources or stated purposes and mitigation measures proposed.

ATTACHMENTS:

1. Assessor's Card and Parcel Map
2. FEMA (FIRMette) Map
3. Historical High Tide Line Graphic
4. Site Photographs
5. Project Drawings
6. NHESP Priority & Estimated Habitat Map
7. Environmental Justice Populations
8. Environmental Justice Screening Form
9. MEPA Advance Notification
10. RMA Climate Resilience Design Standards Tool Project Report

LAND SECTION – all proponents must fill out this section

I. Thresholds / Permits

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1))
 Yes No; if yes, specify each threshold:

II. Impacts and Permits

A. Describe, in acres, the current and proposed character of the project site, as follows:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Footprint of buildings	<u>0</u>	<u>0</u>	<u>0</u>
Internal roadways	<u>0</u>	<u>0</u>	<u>0</u>
Parking and other paved areas	<u>0</u>	<u>0</u>	<u>0</u>
Other altered areas	<u>0.64</u>	<u>0</u>	<u>0.64</u>
Undeveloped areas	<u>0</u>	<u>0</u>	<u>0</u>
Total: Project Site Acreage	<u>0.64</u>	<u>0</u>	<u>0.64</u>

B. Has any part of the project site been in active agricultural use in the last five years?
 Yes No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to nonagricultural use?

C. Is any part of the project site currently or proposed to be in active forestry use?
 Yes No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? Yes No; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction?
 Yes No; if yes, does the project involve the release or modification of such restriction? Yes No; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? Yes No; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes No ; if yes, describe:

III. Consistency

A. Identify the current municipal comprehensive land use plan
Title: Imagine Boston 2030 Date: July 2017

- B. Describe the project's consistency with that plan with regard to:
- 1) economic development: The proposed project will protect waterside infrastructure from potential storm damage by enhancing the coastal resiliency of the coastal protection structure. The proposed improvement will reduce the maintenance costs and frequency.
 - 2) adequacy of infrastructure: The proposed project will improve the current shoreline protection infrastructure so that it can provide better protection to the properties on the adjacent street.
 - 3) open space impacts: The proposed project will not impact any open space areas.
 - 4) compatibility with adjacent land uses: The proposed project involves the repair of the existing coastal protection structure. The current use of the land will not be altered from its existing use and the project will not impact land uses on adjacent sites.

C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)
RPA: _ Metropolitan Area Planning Council _____

Title: _ MetroCommon 2050 _____ Date _ September 2021 _____

D. Describe the project's consistency with that plan with regard to:

- 1) economic development: The proposed project will protect waterside infrastructure _____ from potential storm damage by enhancing the coastal resiliency of the coastline. The proposed improvement will reduce the maintenance costs and frequency.
- 2) adequacy of infrastructure: The proposed project will improve the current shoreline protection infrastructure so that it can provide better protection to the properties on the adjacent street.
- 3) open space impacts: The proposed project will not impact any open space areas.

RARE SPECIES SECTION

I. Thresholds / Permits

- A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? ___ Yes X No; if yes, specify, in quantitative terms:

(NOTE: If you are uncertain, it is recommended that you consult with the Natural Heritage and Endangered Species Program (NHESP) prior to submitting the ENF.)

- B. Does the project require any state permits related to **rare species or habitat**? ___ Yes X No
- C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)? ___ Yes X No.
- D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

II. Impacts and Permits

- A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? ___ Yes ___ No. If yes,
1. Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? ___ Yes ___ No; if yes, have you received a determination as to whether the project will result in the "take" of a rare species? ___ Yes ___ No; if yes, attach the letter of determination to this submission.
 2. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ___ Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts
 3. Which rare species are known to occur within the Priority or Estimated Habitat?
 4. Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? ___ Yes ___ No
 4. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? ___ Yes ___ No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? ___ Yes ___ No
- B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ___ Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate impacts to significant habitat:

WETLANDS, WATERWAYS, AND TIDELANDS SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? Yes No; if yes, specify, in quantitative terms:

The project includes the replacement of the existing 1,600± linear feet of the shoreline protection structure with a 1,600± linear foot long riprap revetment. The project proposes the installation of a revetment adjacent to a salt marsh. No impacts to adjacent salt marsh are anticipated. Any construction impacts during the installation of the revetment will be minor and temporary. Best Management Practices will be used to avoid and minimize impacts. Please see the Project Narrative for additional information.

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? Yes No; if yes, specify which permit:

1. Massachusetts DEP – Section 401 Water Quality Certification & Waterways Chapter 91 License
2. Boston Conservation Commission – Order of Conditions
3. Massachusetts Coastal Zone Management – Consistency Review (if required)

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

II. Wetlands Impacts and Permits

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? Yes No; if yes, has a Notice of Intent been filed? Yes No; if yes, list the date and MassDEP file number: _____; if yes, has a local Order of Conditions been issued? Yes No; Was the Order of Conditions appealed? Yes No. Will the project require a Variance from the Wetlands regulations? Yes No.

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

The project is not anticipated to have any permanent, direct impacts to the adjacent salt marsh. Impacts to Coastal Beach, Coastal Bank, and Land Subject to Coastal Storm Flowage will occur as a result of this project. Best Management Practices will be used to avoid impacts where possible and minimize impacts to the maximum extent practicable where avoidance is not feasible.

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

<u>Coastal Wetlands</u>	<u>Area (square feet) or Length (linear feet)</u>	<u>Temporary or Permanent Impact?</u>
Land Under the Ocean	_____	_____
Designated Port Areas	_____	_____
Coastal Beaches	<u>5,675 SF</u>	<u>(4,000 Permanent, 1,675 Temporary)</u>
Coastal Dunes	_____	_____
Barrier Beaches	_____	_____
Coastal Banks	<u>1,650 LF</u>	<u>(1,600 Permanent, 50 LF Temporary)</u>

Rocky Intertidal Shores	_____	_____
Salt Marshes	_____	_____
Land Under Salt Ponds	_____	_____
Land Containing Shellfish	_____	_____
Fish Runs	_____	_____
Land Subject to Coastal Storm Flowage	<u>34,310 SF</u>	(19,060 Permanent, 15,250 Temporary)

Inland Wetlands

Bank (lf)	_____	_____
Bordering Vegetated Wetlands	_____	_____
Isolated Vegetated Wetlands	_____	_____
Land under Water	_____	_____
Isolated Land Subject to Flooding	_____	_____
Bordering Land Subject to Flooding	_____	_____
Riverfront Area	_____	_____

D. Is any part of the project:

1. proposed as a **limited project**? ___ Yes X No; if yes, what is the area (in sf)? _____
2. the construction or alteration of a **dam**? ___ Yes X No; if yes, describe: _____
3. fill or structure in a **velocity zone** or **regulatory floodway**? ___ Yes X No
4. dredging or disposal of dredged material? ___ Yes X No; if yes, describe the volume of dredged material and the proposed disposal site: _____
5. a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**? ___ Yes X No
6. subject to a wetlands restriction order? ___ Yes X No; if yes, identify the area (in sf): _____
7. located in buffer zones? X Yes ___ No; if yes, how much (in sf) _____

7,113 sf

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw? ___ Yes X No
2. alter any federally-protected wetlands not regulated under state law? ___ Yes X No; if yes, what is the area (sf)? _____

III. Waterways and Tidelands Impacts and Permits

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? X Yes ___ No; if yes, is there a current Chapter 91 License or Permit affecting the project site? ___ Yes X No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

C. Does the project require a new or modified license or permit under M.G.L.c.91? X Yes ___ No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current 0 Change 0 Total 0
 If yes, how many square feet of solid fill or pile-supported structures (in sf)?
 N/A

C. For non-water-dependent use projects, indicate the following:

Area of filled tidelands on the site: _____

Area of filled tidelands covered by buildings: _____

For portions of site on filled tidelands, list ground floor uses and area of each use:

Does the project include new non-water-dependent uses located over flowed tidelands?

Yes ___ No ___

Height of building on filled tidelands _____

Also show the following on a site plan: Mean High Water, Mean Low Water, Water-dependent Use Zone, location of uses within buildings on tidelands, and interior and exterior areas and facilities dedicated for public use, and historic high and historic low water marks.

D. Is the project located on landlocked tidelands? ___ Yes __X No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? ___ Yes __X No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? ___ Yes __X No;
(NOTE: If yes, then the project will be subject to Public Benefit Review and Determination.)

G. Does the project include dredging? ___ Yes __X No; if yes, answer the following questions:

What type of dredging? Improvement ___ Maintenance ___ Both ___

What is the proposed dredge volume, in cubic yards (cys) _____

What is the proposed dredge footprint ___length (ft) ___width (ft)___depth (ft);

Will dredging impact the following resource areas?

Intertidal Yes___ No___; if yes, ___ sq ft

Outstanding Resource Waters Yes___ No___; if yes, ___ sq ft

Other resource area (i.e. shellfish beds, eel grass beds) Yes___ No___; if yes ___ sq ft

If yes to any of the above, have you evaluated appropriate and practicable steps to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either avoidance or minimize is not possible, mitigation?

If no to any of the above, what information or documentation was used to support this determination?

Provide a comprehensive analysis of practicable alternatives for improvement dredging in accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the sediment shall be included in the comprehensive analysis.

Sediment Characterization

Existing gradation analysis results? ___ Yes ___ No; if yes, provide results.

Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? ___ Yes ___ No; if yes, provide results.

Do you have sufficient information to evaluate feasibility of the following management options for dredged sediment? If yes, check the appropriate option.

Beach Nourishment ___

Unconfined Ocean Disposal ___

Confined Disposal:

Confined Aquatic Disposal (CAD) ___

Confined Disposal Facility (CDF) ___

Landfill Reuse in accordance with COMM-97-001 ___

Shoreline Placement ___

Upland Material Reuse ___

In-State landfill disposal ___

Out-of-state landfill disposal ___

(NOTE: This information is required for a 401 Water Quality Certification.)

IV. Consistency:

A. Does the project have effects on the coastal resources or uses, and/or is the project located within the Coastal Zone? Yes No; if yes, describe these effects and the projects consistency with the policies of the Office of Coastal Zone Management:

Please see below for responses regarding the project's consistency with applicable CZM policies:

Coastal Hazard Policies 1 and 2:

The proposed project will occur within areas of Coastal Beach, Coastal Bank, and Land Subject to Coastal Storm Flowage. The project has been designed to minimize impacts to these resource areas to the greatest extent possible through the use of a sheet pile wall as well as the proposed BMPs detailed in the narrative. Please see project narrative for a summary of mitigation measures intended to be implemented during this project. The proposed project is anticipated to have no interference with water circulation and sediment transport since the area currently consists of an armored embankment. Site changes are anticipated to be minimal and overall site use shall remain the same. There will be no significant adverse effects on the project site or on adjacent or downcoast areas.

Growth Management Policy 1:

The proposed project encourages sustainable development consistent with state, regional, and local plans as it takes into consideration sea level rise and involves the repair of the existing coastal protection structure. This will allow for the structure to provide better protection to the properties on the adjacent street. Enhancing the coastal resiliency of the coastal protection structure will support the quality and character of the community.

Habitat Policies 1 and 2:

The proposed project has been designed to minimize impacts to the resource areas surrounding the project site through the use of a temporary sheet pile wall to ensure that impacts beyond the project footprint are minimized. The proposed project will assist in protecting the resource areas that surround the site. The existing embankment consists of unstable slopes which are at risk of eroding. If the bank were to erode to a degree that the adjacent road is impacted, the homes and infrastructure along Bayswater St would be left exposed during coastal storm or flooding events. The reconstructed revetment will improve the bank's ability to retain sediment and will reduce the erosion currently occurring in exposed areas. The proposed project will also stabilize the slopes along the toe of the embankment which will help protect the adjacent habitat from negative impacts.

Public Access Policy 1

The existing site currently contains two (2) serviceable public access ways from the street to the shoreline. These stair accessways will be maintained. It is anticipated as part of this project that the stairways will be temporarily removed for the duration of construction and reinstalled following the completion of construction.

B. Is the project located within an area subject to a Municipal Harbor Plan? Yes No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

WATER SUPPLY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

II. Impacts and Permits

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Municipal or regional water supply	_____	_____	_____
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____
Interbasin transfer	_____	_____	_____

(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? ___ Yes ___ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? ___ Yes ___ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results. _____

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? _____ Will the project require an increase in that withdrawal? ___ Yes ___ No; if yes, then how much of an increase (gpd)? _____

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? ___ Yes ___ No. If yes, describe existing and proposed water supply facilities at the project site:

	<u>Permitted Flow</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Capacity of water supply well(s) (gpd)	_____	_____	_____	_____
Capacity of water treatment plant (gpd)	_____	_____	_____	_____

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:

1. new water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? ___ Yes ___ No
2. a Watershed Protection Act variance? ___ Yes ___ No; if yes, how many acres of alteration?
3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? ___ Yes ___ No

III. Consistency

Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

WASTEWATER SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **wastewater**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

II. Impacts and Permits

A. Describe the volume (in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge of sanitary wastewater	_____	_____	_____
Discharge of industrial wastewater	_____	_____	_____
TOTAL	_____	_____	_____

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge to groundwater	_____	_____	_____
Discharge to outstanding resource water	_____	_____	_____
Discharge to surface water	_____	_____	_____
Discharge to municipal or regional wastewater facility	_____	_____	_____
TOTAL	_____	_____	_____

B. Is the existing collection system at or near its capacity? ___ Yes ___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

C. Is the existing wastewater disposal facility at or near its permitted capacity? ___ Yes ___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? ___ Yes ___ No; if yes, describe as follows:

	<u>Permitted</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Wastewater treatment plant capacity (in gallons per day)	_____	_____	_____	_____

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?

(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? ___ Yes ___ No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? ___ Yes ___ No; if yes, what is the capacity (tons per day):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment	_____	_____	_____
Processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

III. Consistency

- A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

- B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? ___ Yes ___ No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

TRANSPORTATION SECTION (TRAFFIC GENERATION)

I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **state-controlled roadways**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Number of parking spaces	_____	_____	_____
Number of vehicle trips per day	_____	_____	_____
ITE Land Use Code(s):	_____	_____	_____

B. What is the estimated average daily traffic on roadways serving the site?

	<u>Roadway</u>	<u>Existing</u>	<u>Change</u>	<u>Total</u>
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

C. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

D. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

C. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? ___ Yes ___ No; if yes, describe if and how will the project will participate in the TMA:

D. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? ___ Yes ___ No; if yes, generally describe:

E. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)?

III. Consistency

Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

TRANSPORTATION SECTION (ROADWAYS AND OTHER TRANSPORTATION FACILITIES)

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

II. Transportation Facility Impacts

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

B. Will the project involve any

- 1. Alteration of bank or terrain (in linear feet)? _____
- 2. Cutting of living public shade trees (number)? _____
- 3. Elimination of stone wall (in linear feet)? _____

III. Consistency -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

ENERGY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))?
___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

II. Impacts and Permits

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are:

1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way? ___Yes ___No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

III. Consistency

Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

AIR QUALITY SECTION

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? ___ Yes ___ No; if yes, describe existing and proposed emissions (in tons per day) of:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____
Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

SOLID AND HAZARDOUS WASTE SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? ___ Yes ___ No; if yes, what is the volume (in tons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? ___ Yes ___ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Recycling	_____	_____	_____
Treatment	_____	_____	_____
Disposal	_____	_____	_____

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos?
___ Yes ___ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

III. Consistency

Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION

I. Thresholds / Impacts

A. Have you consulted with the Massachusetts Historical Commission? ___ Yes X No; if yes, attach correspondence. For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources? ___ Yes X No; if yes, attach correspondence

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes X No; if yes, does the project involve the demolition of all or any exterior part of such historic structure? ___ Yes ___ No; if yes, please describe:

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes X No; if yes, does the project involve the destruction of all or any part of such archaeological site? ___ Yes ___ No; if yes, please describe:

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

II. Impacts

Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

III. Consistency

Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

CLIMATE CHANGE ADAPTATION AND RESILIENCY SECTION

This section of the Environmental Notification Form (ENF) solicits information and disclosures related to climate change adaptation and resiliency, in accordance with the MEPA Interim Protocol on Climate Change Adaptation and Resiliency (the “MEPA Interim Protocol”), effective October 1, 2021. The Interim Protocol builds on the analysis and recommendations of the 2018 Massachusetts Integrated State Hazard Mitigation and Climate Adaptation Plan (SHMCAP), and incorporates the efforts of the Resilient Massachusetts Action Team (RMAT), the inter-agency steering committee responsible for implementation, monitoring, and maintenance of the SHMCAP, including the “Climate Resilience Design Standards and Guidelines” project. The RMAT team recently released the RMAT Climate Resilience Design Standards Tool, which is available [here](#).

The MEPA Interim Protocol is intended to gather project-level data in a standardized manner that will both inform the MEPA review process and assist the RMAT team in evaluating the accuracy and effectiveness of the RMAT Climate Resilience Design Standards Tool. Once this testing process is completed, the MEPA Office anticipates developing a formal Climate Change Adaptation and Resiliency Policy through a public stakeholder process. Questions about the RMAT Climate Resilience Design Standards Tool can be directed to rmat@mass.gov.

All Proponents must complete the following section, referencing as appropriate the results of the output report generated by the RMAT Climate Resilience Design Standards Tool and attached to the ENF. In completing this section, Proponents are encouraged, but not required at this time, to utilize the recommended design standards and associated Tier 1/2/3 methodologies outlined in the RMAT Climate Resilience Design Standards Tool to analyze the project design. However, Proponents are requested to respond to a respond to a [user feedback survey](#) on the RMAT website or to provide feedback to rmat@mass.gov, which will be used by the RMAT team to further refine the tool. Proponents are also encouraged to consult general guidance and best practices as described in the [RMAT Climate Resilience Design Guidelines](#).

Climate Change Adaptation and Resiliency Strategies

- I. Has the project taken measures to adapt to climate change for all of the climate parameters analyzed in the RMAT Climate Resilience Design Standards Tool (sea level rise/storm surge, extreme precipitation (urban or riverine flooding), extreme heat)? Yes No

Note: Climate adaptation and resiliency strategies include actions that seek to reduce vulnerability to anticipated climate risks and improve resiliency for future climate conditions. Examples of climate adaptation and resiliency strategies include flood barriers, increased stormwater infiltration, living shorelines, elevated infrastructure, increased tree canopy, etc. Projects should address any planning priorities identified by the affected municipality through the Municipal Vulnerability Preparedness (MVP) program or other planning efforts, and should consider a flexible adaptive pathways approach, an adaptation best practice that encourages design strategies that adapt over time to respond to changing climate conditions. General guidance and best practices for designing for climate risk are described in the [RMAT Climate Resilience Design Guidelines](#).

A. If no, explain why.

B. If yes, describe the measures the project will take, including identifying the planning horizon and climate data used in designing project components. If applicable, specify the return period and design storm used (e.g., 100-year, 24-hour storm).

The proposed repairs were designed considering a 100-year storm event and 36 inches of sea level rise without jeopardizing the structure’s slope stability. The service life of the proposed structure is approximately 50 years.

C. Is the project contributing to regional adaptation strategies? Yes No; If yes, describe.

II.

The proposed project contributes to regional adaptation strategies presented in Climate Ready Boston 2016 and CRB East Boston 2022 by protecting coastal resources and the adjacent roadway from storm events and sea level rise.

Has the Proponent considered alternative locations for the project in light of climate change risks?
 Yes No

A. If no, explain why.

The purpose of the project is to protect the Bayswater Street public right-of-way by repairing the existing revetment along the shoreline, so no alternative locations can be considered for the proposed project.

B. If yes, describe alternatives considered.

III. Is the project located in Land Subject to Coastal Storm Flowage (LSCSF) or Bordering Land Subject to Flooding (BLSF) as defined in the Wetlands Protection Act? Yes No

If yes, describe how/whether proposed changes to the site's topography (including the addition of fill) will result in changes to floodwater flow paths and/or velocities that could impact adjacent properties or the functioning of the floodplain. General guidance on providing this analysis can be found in the CZM/MassDEP Coastal Wetlands Manual, available [here](#).

The proposed project involves the reconstruction of existing shoreline protection within the footprint of the existing stone revetment and will not change floodwater flow paths or velocities. The project will not impact adjacent properties or floodplain functionality.

ENVIRONMENTAL JUSTICE SECTION

I. Identifying Characteristics of EJ Populations

- A. If an Environmental Justice (EJ) population has been identified as located in whole or in part within 5 miles of the project site, describe the characteristics of each EJ populations as identified in the EJ Maps Viewer (i.e., the census block group identification number and EJ characteristics of "Minority," "Minority and Income," etc.). Provide a breakdown of those EJ populations within 1 mile of the project site, and those within 5 miles of the site.

See Appendix G.

- B. Identify all languages identified in the "Languages Spoken in Massachusetts" tab of the EJ Maps Viewer as spoken by 5 percent or more of the EJ population who also identify as not speaking English "very well." The languages should be identified for each census tract located in whole or in part within 1 mile and 5 miles of the project site, regardless of whether such census tract contains any designated EJ populations.

1 mile: Spanish, Spanish Creole, Arabic
5 miles: Spanish, Spanish Creole, Chinese, Vietnamese, French Creole, Portuguese, Portuguese Creole, Other Indic Language, Arabic, Korean, MonKhmer/Cambodian

- C. If the list of languages identified under Section I.B. has been modified with approval of the EEA EJ Director, provide a list of approved languages that the project will use to provide public involvement opportunities during the course of MEPA review. If the list has been expanded by the Proponent (without input from the EEA EJ Director), provide a list of the additional languages that will be used to provide public involvement opportunities during the course of MEPA review as required by Part II of the MEPA Public Involvement Protocol for Environmental Justice Populations ("MEPA EJ Public Involvement Protocol"). If the project is exempt from Part II of the protocol, please specify.

II. Potential Effects on EJ Populations

- A. If an EJ population has been identified using the EJ Maps Viewer within 1 mile of the project site, describe the likely effects of the project (both adverse and beneficial) on the identified EJ population(s).

The project will benefit the EJ population within 1 mile of the project site by allowing for additional protection of the existing shoreline and roadways. The proposed revetment is anticipated to increase the safety of use of the adjacent street for the EJ Population as well as protect the immediately adjacent communities against severe storms and sea level rise.

- B. If an EJ population has been identified using the EJ Maps Viewer within 5 miles of the project site, will the project: (i) meet or exceed MEPA review thresholds under 301 CMR 11.03(8)(a)-(b) Yes No; or (ii) generate 150 or more new average daily trips (adt) of diesel vehicle traffic, excluding public transit trips, over a duration of 1 year or more. Yes No
- C. If you answered "Yes" to either question in Section II.B., describe the likely effects of the project (both adverse and beneficial) on the identified EJ population(s).

III. Public Involvement Activities

- A. Provide a description of activities conducted prior to filing to promote public involvement by EJ populations, in accordance with Part II of the MEPA EJ Public Involvement Protocol. In particular:
1. If advance notification was provided under Part II.A., attach a copy of the Environmental Justice Screening Form and provide list of CBOs/tribes contacted (with dates). Copies of email correspondence can be attached in lieu of a separate list.
 2. State how CBOs and tribes were informed of ways to request a community meeting, and if any meeting was requested. If public meetings were held, describe any issues of concern that were raised at such meetings, and any steps taken (including modifications to the project design) to address such concerns.
 3. If the project is exempt from Part II of the protocol, please specify.

A virtual public meeting was held by the Orient Heights Neighborhood Council (the Council) on February 28, 2023 where Massport presented on the proposed project. An additional meeting was held by the Council on September 18, 2023 where Massport presented on the proposed project. In the EJ Screening form that was distributed to applicable CBOs and tribes, contact information was included for a project representative that they may contact to request additional information. In addition to CBOs and Tribes, the EJ Screening form was sent to contacts provided by Massport as necessary.

- B. Provide below (or attach) a distribution list (if different from the list in Section III.A. above) of CBOs and tribes, or other individuals or entities the Proponent intends to maintain for the notice of the MEPA Site Visit and circulation of other materials and notices during the course of MEPA review.
- C. Describe (or submit as a separate document) the Proponent's plan to maintain the same level of community engagement throughout the MEPA review process, as conducted prior to filing.

At any point throughout the MEPA review process, community members are welcome to contact a project representative to request information. Project information can also be found on the Massachusetts Port Authority website: <https://www.massport.com/massport/community/ongoing-projects/>



CERTIFICATIONS:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

(Name) The Boston Globe (Date) December 14, 2023

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

Signatures:

<u>12/11/23</u>	<u></u>	<u>12/12/2023</u>	<u></u>
Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing ENF (if different from above)

<u>Chris Busch</u>	<u>Scott Skuncik</u>
Name (print or type)	Name (print or type)

<u>Massachusetts Port Authority</u>	<u>Foth Infrastructure and Environment, LLC</u>
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Phone	Phone

Bayswater Street Revetment Repairs and Restoration Expanded Environmental Notification Form

Project ID: 0011M056.00

Prepared for

Massachusetts Port Authority

1 Harborside Dr. STE 216S
East Boston, MA 02128

Prepared by

Foth Infrastructure & Environment, LLC

December 2023

REUSE OF DOCUMENTS

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Massachusetts Port Authority Bayswater Street Revetment Repairs and Restoration EENF

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Appendix J MEPA Advance Notification
Appendix K RMat Climate Resilience Design Standards Tool Project Report
Appendix L ENF Distribution List

1. Project Overview

1.1 Introduction

The Massachusetts Port Authority (Massport) is submitting an Expanded Environmental Notification Form (EENF) in accordance with the Massachusetts Environmental Policy Act (MEPA) (M.G.L. c. 30, ss. 61-62L) and its associated regulations (301 CMR 11.00, Section 11.00) for the proposed repair of 1,600± linear feet of existing embankment along Bayswater Street, between Saint Edward Road and Annavoy Street, in Boston, Massachusetts. The project is located along the coastline of Boston Harbor, directly north of Logan International Airport (Parcel ID 0104126000). **Figure 1-1** below shows the project limits.

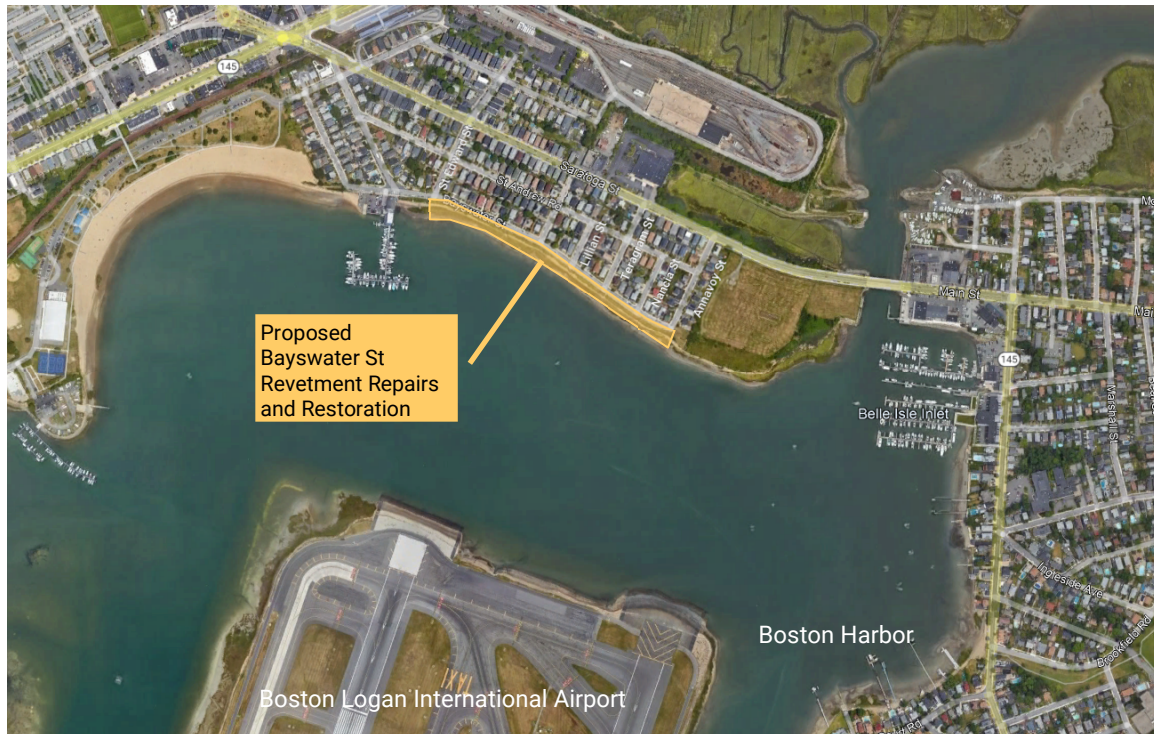


Figure 1-1: Aerial View of Bayswater Street

This EENF and supporting narrative fully describes the project and its alternatives, and assesses its potential environmental impacts and mitigation measures, as described in 301 CMR 11.05(5). Overall, the Project will improve coastal resiliency of the existing shoreline by protecting the existing roadway infrastructure, utilities, and neighboring residential properties from sea level rise, wave damage and erosion. The proposed project will provide a barrier between the existing roadway and the saltmarsh while protecting the sloped bank from eroding into the salt marsh.

1.2 Existing Conditions

Bayswater Street is a local road maintained by the City of Boston bordering Boston Harbor. The roadway is constructed out of bituminous concrete and granite curbing with one lane of traffic in each direction and parking on each side of the road. A concrete sidewalk is located on the north of the road and ornamental lighting and landscaping is located along the south side of the road. Bollards are located on the south side at each cross street to prevent vehicles driving over the roadway embankment. Utilities within the project area include water, sewer and underground and above ground electric, cable and phone.

Bayswater Street is within a residential neighborhood with the Orient Heights Yacht Club located to the west of the project limits, maintained grasslands associated with Logan International Airport to the east and Boston Harbor to the south of the project limits. The Belle Isle Inlet/ Rumney Marshes Area of Critical Environmental Concern is located approximately 800 feet north of the project limits.

Public access to Boston Harbor along Bayswater Street is provided at two locations within the project limits. Concrete stairs with metal railings are used to access the beach located across from Teragram Street. A second access point to the beach is via a set of wood stairs with wood railings located across from 114-116 Bayswater Street.

Historically, the Bayswater Embankment buffer has been maintained as an airport edge buffer park for the Boston Logan International Airport, along with various other locations surrounding the airport, to protect the adjacent environment and built community.

The existing roadway embankment along the shoreline is armored at the toe of the slope and offers limited protection from erosion and wave action. The stone size along the embankment is approximately ± 12 inches in depth and is failing in several locations. Some sections of the embankment are greater than 1:1 with some undercutting. A narrow salt marsh and beach are located at the bottom of the roadway embankment.

1.3 Proposed Improvements

Massport is proposing to repair the existing 1,650 linear foot embankment along the south side of Bayswater Street from Saint Edward Road to Annavoy Street. The project is anticipated to be completed in phases, with the first phase of construction involving the repair of critically eroded areas and future phases involving the repair of the remaining revetment sections.

The proposed repairs consist of a 1600 linear foot stone/riprap revetment along the entire length of the site. The proposed repairs will include the:

- ◆ Excavation of the existing slope in order to accommodate the proposed revetment.
- ◆ Installation of a 1,650 linear foot temporary sheet pile wall along the limits of the proposed repairs in order to eliminate any temporary or permanent impacts to the adjacent critical habitat.
- ◆ Installation of a 1.0-foot-thick layer (minimum) of approximately 1.0-inch to 5.0-inch filter stone over filter fabric or geotextile fabric.
- ◆ Installation of toe stones sized approximately 3.0 tons to 4.0 tons, to support the armor stone layers.
- ◆ Installation of a 3.5 \pm -foot-thick layer of armor stone comprised of a primary layer of 1 ton to 2 ton stone under a secondary layer of 0.25 ton to 1 ton stone along the embankment slope between the top of the slope and the toe stones.
- ◆ Removal of the temporary sheet pile wall and regrading as necessary.
- ◆ Reinstall 2 new sets of stairs in order to restore public access to the shoreline.
- ◆ Restoration and seeding of the existing bank and beach as necessary.

Additional information on the proposed repairs is detailed in Appendix E.

In addition to the stabilization of critical areas of erosion, the embankment repairs will provide protection against a 100-year storm event. Foth Infrastructure and Environment, LLC (Foth) in cooperation with Massport and in accordance with Climate Ready Boston and the Massachusetts Port Authority Floodproofing Design Guide, has developed this design based on the 1% Annual Coastal Flood Rise

predicted by 2070 to accommodate a maximum of 3.0 feet of future sea level rise without jeopardizing the structure's stability. The designed shoreline protection will have a service life of approximately 50-years.

The proposed project is a water-dependent project that has been designed and will be implemented using the best available measures to avoid and minimize adverse impacts to coastal resource areas.

1.4 Purpose and Need

The purpose of this project is to restore the existing eroding embankment and to improve the existing shoreline protection along Bayswater Street in order to protect the adjacent roadway infrastructure and the adjacent community from coastal impacts. Massport is proposing to repair the entire length of the embankment that has been subject to severe coastal erosion. Some areas of the existing embankment have scoured slopes in excess of 1.0' horizontal to 1.0' vertical (1H:1V). Repairing the entire length of the embankment will return the shoreline to a continuous stable condition, which will protect the public roadway infrastructure and the adjacent community from future potential storm or wave damage.

The proposed repaired revetment will stabilize the existing embankment and protect the roadway infrastructure, utilities, and nearby parcels during a 100-year storm event. In accordance with *Climate Ready Boston* and the Massachusetts Port Authority Floodproofing Design Guide, the new revetment will accommodate a maximum of 36-inches of future sea level rise, without jeopardizing the structure's slope stability and will have a design service life of approximately 50-years.

1.5 Construction Methodology

It is anticipated that the revetment repairs will be constructed using a long-reach excavator, hydraulic hammer, small-crane with bucket, front-end loader, backhoe, dump trucks and/or other large-scale equipment needed to remove the existing stone, regrade the slope and install the new stone revetment.

Work may proceed as follows:

1. Sedimentation and erosion controls will be installed prior to the start of work.
2. A temporary sheet pile wall to be installed at the seaward limit of the proposed revetment prior to any excavation and grading in order to prevent the disturbance to adjacent vegetation.
3. The existing stone and vegetation will be removed from the site, to be restored upon completion of construction.
4. The embankment will be regraded to a 1:1 to 2:1 slope.
5. Filter fabric will be added to the slope followed by a 12" layer (minimum) of filter stone. The 3-4 ton toe stones will be installed at the base of the slope to retain the revetment.
6. A primary layer of 1-2 ton armor stones will be installed on top of the filter stone.
7. A secondary layer of 0.25-1 ton armor stone will be installed over the primary armor stones.
8. Slopes and disturbed areas will be stabilized.
9. The temporary sheet pile wall will be removed and site conditions will be restored.
10. All equipment, materials, and sedimentation and erosion controls will be removed from the site.

Equipment will likely be stationed in the upland area, on the roadway side of the coastal bank. The extent of the project disturbance and ground disturbance shall be limited to the minimum necessary during construction.

1.6 Schedule

The Project will be completed in phases over multiple construction seasons. It is anticipated that construction on the critical areas which have experienced the greatest amount of scour will be completed within the 2025 construction season. Critical areas are detailed within the plans provided in Appendix E.

The remainder of the work is anticipated to be phased over the following construction seasons as funding allows. The project schedule may change due to budgeting constraints, permitting timeframes, and conditioned Time of Year Restrictions.

2. MEPA Review

In accordance with the MEPA Regulations, the Project requires the preparation and filing of an Environmental Impact Report (EIR) because the project is located within a one (1) mile Designated Geographic Area of an Environmental Justice (EJ) Population (301 CMR 11.06(7)(b)) and will alter a coastal bank (301 CMR 11.03(3)(b)1(a)).

2.1 Single Environmental Impact Report Request

Massport is respectfully requesting the Secretary of the MA Executive Office of Energy and Environmental Affairs (EEA) allow for a Single Environmental Impact Report in accordance with 301 CMR 11.06(8).

2.2 Greenhouse Gas Emissions Policy Waiver Request

The project is subject to the MEPA Greenhouse Gas Emission Policy and Protocol (GHG Policy) since it exceeds the thresholds for a mandatory EIR. The Proponent is seeking a waiver from compliance with the GHG Policy pursuant to the policy's De Minimis Exemption since the Project does not result in an increase in the number of stationary or mobile sources of GHG. While the project will result in minor and temporary construction-related vehicle trips, Massport is committed to reducing air quality impacts associated with vehicular emissions during construction by requiring the use of ultra-low sulfur diesel fuel and anti-idling measures.

2.3 Environmental Justice Considerations

Section 60 of Chapter 8 of the Acts of 2021: An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy (the "Climate Roadmap Act") (Adding new Section 62J to M.G.L. c. 30), directs the Secretary of the EEA to provide opportunities for meaningful public involvement by EJ populations during the MEPA review process. Section 60 also specifies certain requirements for ENFs filed with the MEPA office. For new projects filed after January 1, 2022, all ENFs must provide a narrative identifying EJ population within one (1) mile of the project site and describe whether the project is reasonably likely to negatively affect such EJ populations. If the proposed project is anticipated to affect air quality, then the radial influence to EJ populations increases to within five (5) miles of the project site. The proposed project improvements to be implemented as part of the preferred alternative selected by Massport to advance into permitting is not anticipated to affect air quality. Accordingly, EJ populations within the vicinity of the project site have been identified using the Massachusetts GIS EJ Mapping tool and are shown in Appendix G.

The proposed project is intended to enhance the coastal resiliency of the shoreline. The project does not pose a threat to public health and will ensure the future safety of pedestrian and vehicular travel along Bayswater Street during coastal storm events. The project will not negatively affect EJ populations within the designated geographic area and there are no existing unfair or inequitable environmental burdens or related health consequences associated with this project.

The project has complied with Section II of the Protocol and 301 CMR 11.05(4)(b) by providing advance notification of the EENF filing no later than 45 days, and no earlier than 90 days prior to filing the EENF. Advanced notification of the project filing was provided on (date), see Appendices H and I.

2.4 Climate Change Adaptation and Resiliency

The Resilient Massachusetts Action Team (RMAT) Climate Resilience Design Standards Tool was utilized for the project: Bayswater Revetment Repairs and Restoration. Execution of the design standards tool resulted in an Ecosystem Benefits score of Moderate. The results also indicated High Exposure to Sea Level Rise/Storm Surge and Extreme Heat, Moderate Exposure to Extreme Precipitation - Urban Flooding, and Not Exposed to Extreme Precipitation – Riverine Flooding. The RMAT Climate Resilience Design Standards Tool Project Report is provided in Appendix J.

3. Environmental Impacts, Avoidance and Minimization Measures

3.1 Coastal Resource Areas

The proposed Project directly impacts the following coastal wetland resource areas regulated under the Massachusetts Wetlands Protection Act (MA WPA) and their associated Regulations: Coastal Beach, Coastal Bank, Land Subject to Coastal Storm Flowage (LSCSF) and the 100-foot Buffer Zone. A Notice of Intent will be filed with the Boston Conservation Commission in accordance with the MA WPA and the associated regulations. It is anticipated that the Commission will issue an Order of Conditions (OOC) approving the project.

Coastal resource areas were identified using a combination of Massachusetts GIS with field confirmation. Tidal datums were used to identify the limits of Coastal Beach and several of the resource areas. The reported temporary impacts are the result of the installation of steel shoring during construction to minimize impacts to resource areas and include the area between the proposed final structure and the limit of excavation.

Table 3-1: Coastal Resource Area Impacts

	Square Feet		Linear Feet	
	Permanent	Temporary	Permanent	Temporary
Coastal Beach	4,000	1,675	-	
Land Containing Shellfish	0*			
Coastal Bank	-		1,600	50
Land Subject to Coastal Storm Flowage	19,060	15,250	-	

* Massachusetts GIS shows mapped shellfish suitability areas within the immediate area of the project; however, the project is located above the MHW line.

3.1.1 Coastal Beach (310 CMR 10.02)

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

A narrow strip of Coastal Beach is located on site between the bottom of the Coastal Bank and the landward side of Salt Marsh. The Coastal Beach contains a narrow strip of vegetation and is subject to recreational

pedestrian traffic and used to store dinghies and other small watercrafts. The limits of Coastal Beach are shown on the plans (Appendix E).

The repairs to the existing eroding and failed embankment will impact approximately 4,000 square feet of coastal beach. These impacts are due to the regrading of the bank and the construction of the new stone revetment, specifically the installation of the toe stone at the bottom of the revetment. Temporary impacts to adjacent beach and salt marsh will be minimized by installing a sheet pile wall at the seaward limit of the work area as well as using sedimentation controls at the limits of work. Additional Best Management Practices will be used during construction to protect the adjacent beach and salt marsh from the introduction of pollutants. The installation of the sheet-pile serves to reduce the limits of excavation by retaining the soil adjacent to the salt marsh. Sheet piles are intended to be temporarily installed for the duration of construction and will be localized to the area of repairs.

There will be no increase in beach erosion associated with the proposed revetment as its intent is to stop the current erosion. Boston Harbor is a protected embayment with minimal potential for coastal longshore drift. Adjacent beaches will not be starved of sand and sediments after the repair and construction of the proposed revetment.

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:

(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 project does not adversely affect coastal beach by increasing erosion, decreasing the volume or changing the form of the coastal beach or an adjacent or down drift coastal beach.

(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)

The project does not include a groin, jetty, solid pier, or other such solid fill structure.

(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 project does not include beach nourishment.

(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...

The project does not involve work in tidal flats. A temporary sheet pile wall will be installed prior to construction to protect any adjacent marine habitat.

(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.

The project does not adversely affect habitat sites or rare vertebrate or invertebrate species by altering water circulation, altering distribution of sediment grain size, or changing water quality. The project limits are outside mapped NHESP Estimated and Priority Habitat.

3.1.2 Coastal Bank (310 CMR 10.02)

According to 310 CMR 10.30(2), "*Coastal Bank means the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetlands.*"

Coastal Bank is located on site and is shown on the project plans (Appendix E). The existing Coastal Bank is partly armored and eroded in some areas with a greater than 1H:1V slope.

The repair of the existing failed embankment by constructing a new revetment will impact 1,600 linear feet of an existing, partly armored Coastal Bank. These impacts are due to the removal of the existing vegetation and remaining original armoring stone, the regrading of the bank, and the construction of the new stone revetment. Impacts to adjacent beach and salt marsh will be avoided and minimized by installing a 1,650 linear foot sheet pile wall at the seaward limit of the work area as well as using sedimentation controls at the limits of work. Additional Best Management Practices will be put into place to protect the adjacent beach and salt marsh from the introduction of pollutants.

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:

(6) Any project on such a coastal bank or within 100 feet landward of the top of such coastal bank is intended to improve the stability of the existing coastal embankment. The proposed work shall have no adverse effects on the stability of the coastal bank.

The project will have no adverse effects on the stability of the coastal bank. The project will repair and reconstruct an existing armored bank. The goal of the project is to better stabilize the existing coastal bank to protect Bayswater Street from being undermined.

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

The bank does not supply sediment to coastal beaches, dunes, or barrier beaches because it is already partly armored and there is minimal longshore drift in this area due to the level of vegetation.

(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 under 310 CMR 10.37.

The project will not adversely affect habitat sites or rare vertebrate or invertebrate species. The project limits are outside any NHESP mapped Estimated or Priority Habitats.

3.1.3 Land Subject to Coastal Storm Flowage (310 CMR 10.02)

According to 310 CMR 10.02(2), *“Land Subject to Coastal Storm Flowage means land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater.”*

LSCSF extends from Mean Low Water to the Base Flood Elevation at the project location. As shown on the plans provided in Appendix E, the proposed work is located within the FEMA 100-year flood AE zone (El. +10.0' NAVD88), and therefore impacts approximately 19,060 sf of LSCSF. The proposed work was designed to alleviate flooding during extreme tide cycles and resist environmental forces during 100-year storm events. The proposed design has been developed to accommodate a maximum of 36-inches of future sea level rise, in accordance with Climate Ready Boston and the Massachusetts Port Authority Floodproofing Design Guide, without jeopardizing the structure's slope stability. There are currently no performance standards for LSCSF.

3.1.4 Land Containing Shellfish (310 CMR 10.02)

According to 310 CMR 10.34 Land Containing Shellfish means land under the ocean, tidal flats, rocky intertidal shores, salt marshes and land under salt ponds when any such land contains shellfish.

There is no land containing shellfish within the revetment footprint, but there is shellfish habitat near the toe of the excavation limits. Little to no impact is anticipated to occur to this resource area and any impacts that would occur would be limited to the time during construction. Massachusetts GIS shows mapped shellfish suitability areas within the immediate area of the project; however, this is not believed to be accurate as it is located above the MHW line. The limits of shellfish suitability areas are shown on the plans (Appendix E).

In addition to most of the work being done above the Mean High Water Line, a sheet pile wall will be installed at the seaward extent of the work area prior to the start of construction to help protect any adjacent shellfish or marine habitat. The project will not directly impact Land Under Ocean, Salt Marsh, Tidal Flats, Rocky Intertidal Shores, or Salt Ponds. The proposed work will not have an adverse effect on shellfish productivity.

3.1.5 Salt Marsh

According to 310 CMR 10.32(2), *“Salt Marsh means a coastal wetland that extends landward up to the highest high tide line, that is, the highest spring tide of the year, and is characterized by plants that are well adapted to or prefer living in, saline soils. Dominant plants within salt marshes typically include salt meadow cord grass (*Spartina patens*) and/or salt marsh cord grass (*Spartina alterniflora*), but may also include, without limitation, spike grass (*Distichlis spicata*), high-tide bush (*Iva frutescens*), black grass (*Juncus gerardii*), and common reedgrass (*Phragmites*). A salt marsh may contain tidal creeks, ditches and pools.”*

Salt marsh is located near the proposed project site, seaward of the coastal beach. The limits of salt marsh were field surveyed by Foth on August 20, 2022, and are shown on the plans (Appendix E). A sheet pile wall will be installed at the seaward extent of the work area prior to the start of construction to provide protection to the adjacent coastal resource areas, including the salt marsh.

3.2 100-Foot Buffer Zone

A 100-foot Buffer Zone from Coastal Bank has been shown on the plans (Appendix E). The MA WPA regulates work within 100 feet from Coastal Bank in order to protect the resource area.

The proposed construction and equipment staging will be permitted in the immediate vicinity of any coastal resource areas. Measures will be taken to avoid impacts to adjacent resource areas while working within the buffer zone. Best management practices including the installation of sedimentation and erosion controls and the development and implementation of a Storm Water Pollution Prevention Plan and Spill Prevention, Control, and Countermeasures Plan will protect resource areas from unnecessary impacts.

3.3 Biological Resources

The proposed project is not expected to significantly impact biological resources in the vicinity of the project. The existing coastal bank is currently partly armored with stone. The top of the bank has been planted with landscape species and is immediately adjacent to a paved road within a densely developed residential area.

According to the Natural Heritage and Endangered Species Program (NHESP) Atlas (15th edition; effective August 1, 2021), the project limits are not located within designated Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife and therefore will not require review pursuant to the Massachusetts Endangered Species Act (MESA). There are no certified or potential vernal pools within the project area.

The armoring of the Coastal Bank may impact common species such as striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), common raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), grey fox (*Urocyon cinereoargenteus*) or coyote (*Canis latrans*). However, these species are common and abundant and the armoring of the Coastal Bank and loss of cover and foraging habitat for these species will not significantly impact the populations in Massachusetts.

Temporary construction impacts to shellfish resource areas may occur if sediment is allowed to leave the site during construction. Siltation and erosion controls will be installed to avoid construction related impacts to shellfish. Any impacts to shellfish resources located in the immediate vicinity of the project are expected to be minimal and limited to the duration of construction.

3.4 Water Quality

The project is located within the Winthrop Bay Watershed. Known potential pollutants within the project area may include PCBs in Fish Tissue, Enterococcus, Fecal Coliform and additional unknown sources. It is not anticipated that the project will have an impact on the water quality of Boston Harbor.

In order to avoid impacting water quality during construction, construction Best Management Practices (BMPs) will be implemented throughout the project site. Sedimentation and erosion controls such as catch basin inserts, silt fence, fiber rolls, silt socks, and/or the covering of soil piles etc. will be used to avoid and minimize impacts to adjacent resource areas. Only clean fill will be brought onto the site to repair and construct the revetment.

3.5 Stormwater

The project does not involve changes to the stormwater system or roadway corridor. No stormwater improvements are proposed. Catch basins will be fitted with protection as necessary to protect the stormwater system from construction related sediment, materials and debris. The Contractor will be required to prepare a Stormwater Pollution Prevention Plan prior to the start of work and will have sufficient sorbent pads and booms on site to contain an accidental spill.

3.6 Hazardous Materials

No known hazardous material remains have been located within the project limits. It is not anticipated that the project will generate or come in contact with hazardous material remains. Known areas with hazardous material near the project site include:

- ◆ 9 facilities listed as Major Air and Waste Facilities,
- ◆ 3 Tier 1 21E Facilities,
- ◆ 10 facilities Tier 2 21E Facilities,
- ◆ 12 sites with activities and use limitations,
- ◆ 12 sites containing underground storage tanks, and
- ◆ 2 EPA facilities.

The project will not intercept hazardous materials remains associated with these facilities. During construction, absolutely no release of any petroleum product, epoxies, resins, admixtures, touch-up coatings or the like will be allowed into the harbor. Accidental releases will be reported to Massport Fire Alarm, the project manager, Massport Environmental, and if applicable based on the location and volume of the release, MassDEP, the US Coast Guard, and/or the National Response Center. Any hazardous materials on site will be marked with the name of the material on the container and stored in the contractor's vehicle or in secondary containment.

No washing or refueling of vehicles will be allowed on site. The refueling of construction equipment will not be permitted within 100' of any resource area. Catch basins will be protected from potential spills. The Contractor will be required to prepare a Storm Water Pollution Prevention Plan and Spill Prevention, Control, and Countermeasures Plan prior to the start of work and will have sufficient sorbent pads and booms on site to contain an accidental spill.

3.7 Solid Waste

The project will generate a minor amount of contained solid waste during construction. All construction debris generated as a result of the project will be removed from the site and disposed of at an appropriate upland disposal location. Dumpsters and/or waste bins will be located on site and will remain covered at all times. The contractor will be required to remove all construction equipment, materials, debris and waste from the site upon completion of the project.

3.8 Noise

No long-term impacts to noise quality will occur as a result of the project. Any noise impacts associated with the project will occur during construction and will cease once the revetment is complete. Construction equipment will be fitted with mufflers or other noise reducing equipment. No blasting is anticipated as part of this project. Noise shall not exceed a maximum permitted sound level of 60 dBA and shall be restricted to Monday – Friday 7 AM to 5 PM and Saturday 9 AM to 3 PM or whatever other time frame will be stipulated in the permits.

3.9 Air Quality

No direct or indirect increases or other changes in local or regional air quality are likely to occur with construction of the proposed project. Emissions of air pollutants during construction will be below de minimis levels. Construction equipment and vehicles will be required to use ultra-low sulfur fuels. Dust suppression measures such as the use of a water truck or hose and the covering of soil piles will be used during construction to minimize impacts.

All construction equipment will be maintained in compliance with all applicable state and federal emission regulations. In accordance with the Massachusetts Ani-Idling Law (MGL Ch. 90, Section 16A and its associated regulation at 310 CMR 7.11), equipment and vehicles will not be allowed to idle for more than 5 minutes at the site during construction. Equipment will not be allowed to idle without an operator in the cab.

3.10 Recreation

The project will temporarily impact pedestrian access to the shore during construction. These access ways will be reconstructed after the revetment is complete.

3.11 Cultural Resource

There are no National Register Listed, National Register Eligible or properties listed on the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets with the project limits. There are several properties listed on the Massachusetts Inventory located along Saint Andrew Road, in the Orient Heights sub-area, which is located immediately north of Bayswater Street. It is not expected that the project will impact any cultural resources. If any cultural or archaeological resources or human remains are encountered during construction, the contractor will be required to stop work and report the siting to the Massport and Foth project managers. Massport will direct the contractor to resume work after all appropriate actions have occurred.

3.12 Transportation

There may be a minor impact to local transportation during construction. Construction vehicles will be working from the top of the slope, in the Bayswater Street Right of Way to complete the work. Traffic may be limited to one lane during certain periods of construction. A traffic management plan will be put into place to minimize impacts to the motoring public. A traffic monitor or police control will be stationed on side during times when traffic and pedestrians must be routed around the work. If a detour is used, detour signs will be installed to route traffic to other roads. Impacts to transportation will return to normal upon completion of construction.

4. Alternatives Analysis

4.1 Development of Proposed Design

Several alternatives were considered and evaluated prior to selecting the preferred 1H:1V & 1.5H:1V Slope Stone Revetment option. During the evaluation process, alternatives were selected based on which alternative best meets the project goals of protecting adjacent infrastructure and minimizes impacts to coastal resources. The project design is intended to improve resiliency of the existing embankment and minimize environmental impacts. The considered alternatives include:

1. Combined 1.5H:1V & 1H:1V Sloped Armor Stone Revetment (Preferred)
2. 1H:1V Sloped Armor Stone Revetment
3. 1.5H:1V Sloped Armor Stone Revetment
4. Engineered Vegetated Bank
5. Vertical Wall
6. No-Build

4.1.1 Combined 1.5H:1V & 1H:1V Sloped Armor Stone Revetment (Preferred)

Repairs will consist of a riprap revetment containing instillation of a 1.0-foot-thick layer of approximately 1.0-inch to 5.0-inch filter stone overlaid over filter fabric or geotextile fabric, a 3.5-foot-thick layer of armor

stone sized approximately 12.0-inches to 32.0-inches based on the proposed slope, and installation of a toe stone supporting the armor stone layers sized approximately 3.0 Tons to 4.0 Tons. A 1.5V:1H slope will be utilized to the greatest extent possible while also maintaining a sufficient offset from the adjacent resource areas. This shall allow for a stable slope throughout the majority of the revetment while also maintaining the integrity of the adjacent resource areas. In areas where a 1.5H:1V slope is not possible a 1H:1V slope shall be utilized. A temporary sheet pile wall shall be utilized in order to eliminate temporary impacts to adjacent resource areas which may result in the excavation or sloughing of material due to the installation of the revetment.

4.1.2 1H:1V Sloped Armor Stone Revetment

Alternative 2 has the same components as Alternative 1; however, the entire revetment would be sloped at a 1H:1V. The utilization of a 1H:1V armored slope produces a revetment which is less stable than both Alternative 1 and Alternative 3. Due to this, this alternative does not meet project goals and is not recommended. A temporary sheet pile wall shall be utilized in order to eliminate temporary impacts to adjacent resource areas which may result in the excavation or sloughing of material due to the installation of the revetment. The total length of temporary sheet pile would be reduced in this alternative as compared to 4.1.1 because the use of a steeper slope reduces the total project footprint and impacts to resource areas. However, use of a 1H:1V slope throughout the entire length of the proposed revetment is not recommended because it is less stable than a 1.5H:1V slope.

4.1.3 1.5H:1V Sloped Armor Stone Revetment

Alternative 3 has the same components as Alternative 1; however, the entire revetment would be sloped 1.5H:1V. This would create both temporary and permanent impacts to the adjacent resource areas through the larger revetment footprint. The use of temporary sheet piles at the landward limits of resource areas is not warranted in this scenario because the anticipated permanent impacts from the revetment installation would extend into the salt marsh. Temporary sheet piles could be utilized at the seaward limit of proposed work to reduce further impacts to the salt marsh from excavation. This alternative does not meet project goals and is not recommended.

4.1.4 Engineered Vegetated Bank

Alternative 4 represents using the perceived similar methods that were used to construct the existing embankment to construct the replacement embankment. Foth does not recommend this alternative due to the proven ineffectiveness of the existing embankment in protecting the adjacent Bayswater Street and adjacent resource areas. This alternative does not meet project goals and is not recommended.

4.1.5 Vertical Wall

This alternative would involve replacing the existing revetment with either a steel sheet pile bulkhead or vertical concrete seawall to an elevation of approximately +15.0' NAVD88 to accommodate for potential sea level rise. Foth does not recommend this alternative as it could lead to additional environmental impact through the placement of a steel or concrete structure within coastal resource areas. This alternative also leads to increased risk of scour at the base of the structure and thus undermining the adjacent resource areas or causing excessive erosion along the coastal beach. This alternative does not meet project goals and is not recommended.

4.1.6 No-Build

The no-build alternative would involve leaving the site as-is with no improvements. If left in its current state, the existing revetment will continue to deteriorate. This alternative does not meet project goals and is not recommended.

5. Mitigation Measures

The proposed repairs to the existing armored embankment with a stone riprap revetment will be conducted to minimize the impacts to the surrounding coastal resource areas.

- ◆ The seaward limit of excavation shall not interfere with the Salt Marsh
- ◆ Construction equipment won't be refueled within buffer zones.
- ◆ Construction materials won't be stored within buffer zones.
- ◆ Soft start pile driving/removal will be conducted. This is to protect any threatened or endangered species that may be in the project vicinity.
- ◆ The extent of the project disturbance and ground disturbance shall be limited to the minimum necessary during construction.
- ◆ All debris generated as a result of the project construction shall be removed from the site and disposed of at an appropriate upland disposal location.
- ◆ Appropriate BMPs shall be implemented throughout the project site.
- ◆ Native species will be utilized during the restoration process by seeding within the temporarily impacted areas.
- ◆ All local, state, and federal requirements shall be adhered to maintain and preserve air quality in and around the vicinity of the Bayswater St revetment construction.
- ◆ Project activities will employ dust suppression measures during construction to minimize impacts. In order to reduce any impacts due to the construction phase, anti-idling and other measures to limit emissions from construction equipment shall be implemented.
- ◆ All construction equipment will be maintained in compliance with all applicable state and federal emission regulations. Equipment will not be idled without an operator in the cab.
- ◆ Noise shall not exceed a maximum permitted sound level of 60 dBA and shall be restricted to Monday – Friday 7 AM to 5 PM and Saturday 9 AM to 3 PM or whatever other time frame will be stipulated in the permits.

5.1 Construction Best Management Practices

The following is a list of construction Best Management Practices that will be put into place in order to avoid and minimize impacts to resource areas.

- ◆ The installation of sedimentation and erosion controls such as catch basin inserts, silt fence, fiber rolls, silt socks, and/or the covering of soil piles.
- ◆ Contractor is responsible for the implementation of a spill control plan.
- ◆ Contractor to prepare a Storm Water Pollution Prevention Plan and Spill Prevention, Control, and Countermeasures Plan prior to the start of work.
- ◆ All accidental releases of hazardous materials will be reported to Massport Fire Alarm, the project manager, Massport Environmental, and if applicable based on the location and volume of the release, MassDEP, the US Coast Guard, and/or the National Response Center.
- ◆ All construction equipment will be maintained in compliance with all applicable state and federal emission regulations.
- ◆ A traffic management plan will be put into place to minimize impacts to the motoring public, pedestrians, and bicyclists.

6. Regulatory Permitting

6.1 Anticipated Regulatory Filings:

There are no known existing or historic licenses or permits for the stone revetment that would allow the project to be classified as "maintenance of an existing licensed structure" through the State and Federal

Permitting Agencies. It is anticipated that the project will need the following Federal, State, and Local permits and reviews:

- ◆ Order of Conditions in accordance with the MA Wetlands Protection Act (MA WPA) - City of Boston Conservation Commission
- ◆ MGL Chapter 91 Waterways License - Massachusetts Department of Environmental Protection (MA DEP)
- ◆ Section 401 Water Quality Certification – MA DEP
- ◆ U.S. Army Corps of Engineers (ACOE) Massachusetts General Permit 3, Preconstruction Notice
- ◆ MA Coastal Zone Management Federal Consistency Review (if required)

7. Analysis of Project Impacts on EJ Populations

The following information is provided as required by 301 CMR 11.07(6)(n)(1) and detailed in Part II of the MEPA Interim Protocol for Analysis of Project impacts on EJ Populations and intends to provide an assessment of existing unfair or inequitable environmental burden and related public health consequences impacting the environmental justice population from any prior or current private, industrial, commercial, state, or municipal operation or project that has damaged the environment. The project area falls within 1-mile of the following EJ Populations in Suffolk County, MA:

Block Group	Census Tract	Characteristic
Block Group 3	0510.00	Minority
Block Group 1	0511.01	Minority and English isolation
Block Group 4	0511.01	Minority
Block Group 3	0511.01	Minority
Block Group 2	0511.01	Minority and income
Block Group 1	0510.00	Minority
Block Group 2	0510.00	Minority and income

7.1 Assessment of Existing Unfair or Inequitable Environmental Burden:

The following assessment provides the results of a survey performed of past and current polluting activities which may have contributed to an “existing environmental burden” impacting the EJ population Census block group, which may be “unfair and inequitable” as compared to the general population.

7.1.1 Vulnerable Health EJ Criteria

The vulnerable health EJ Criteria are four environmentally related health indicators used to identify populations with evidence of higher-than average rates of environmentally related health outcomes. The Massachusetts Department of Health’s Bureau of Climate and Environmental Health worked with EOEAA to identify the following health indicators of EJ populations.

- ◆ Heart Attack: Boston does not meet the Vulnerable Health EJ Criterion for Heart Attack.
- ◆ Childhood Blood Lead: Boston does not meet the Vulnerable Health EJ Criterion for childhood blood lead.
- ◆ Low Birth Weight: Boston meets the Vulnerable health EJ criterion for low birth weight.
 - The Project will not increase or generate any new risks to this EJ population.
- ◆ Childhood Asthma: Boston meets the Vulnerable health EJ criterion for childhood asthma.
 - The Project will not increase or generate any new risks to this EJ population.

7.1.2 Potential Sources of Pollution

The DPH EJ Tool was utilized to survey potential sources of pollution within the Designated Geographic Area (1 mile radius) of the Project Limits. The potential sources and results of the survey are provided below:

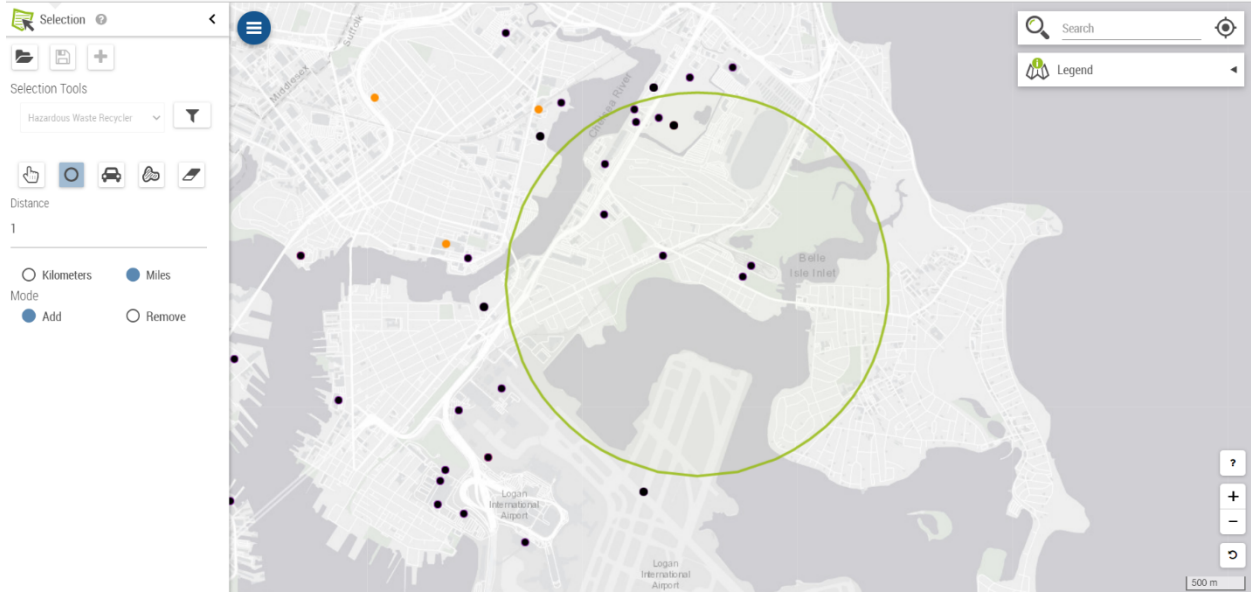


Figure 7-1: MassDEP Major Air and Waste Facilities: 9 Sources

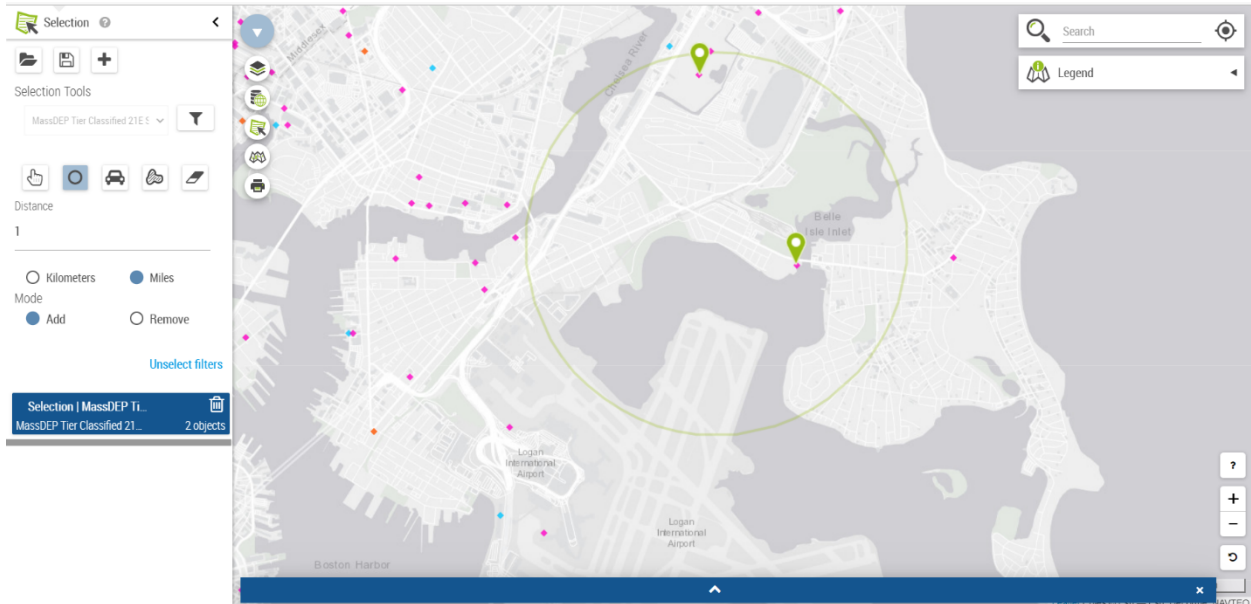


Figure 7-2: MassDEP Tier Classified 21E Sites: 3 Sources

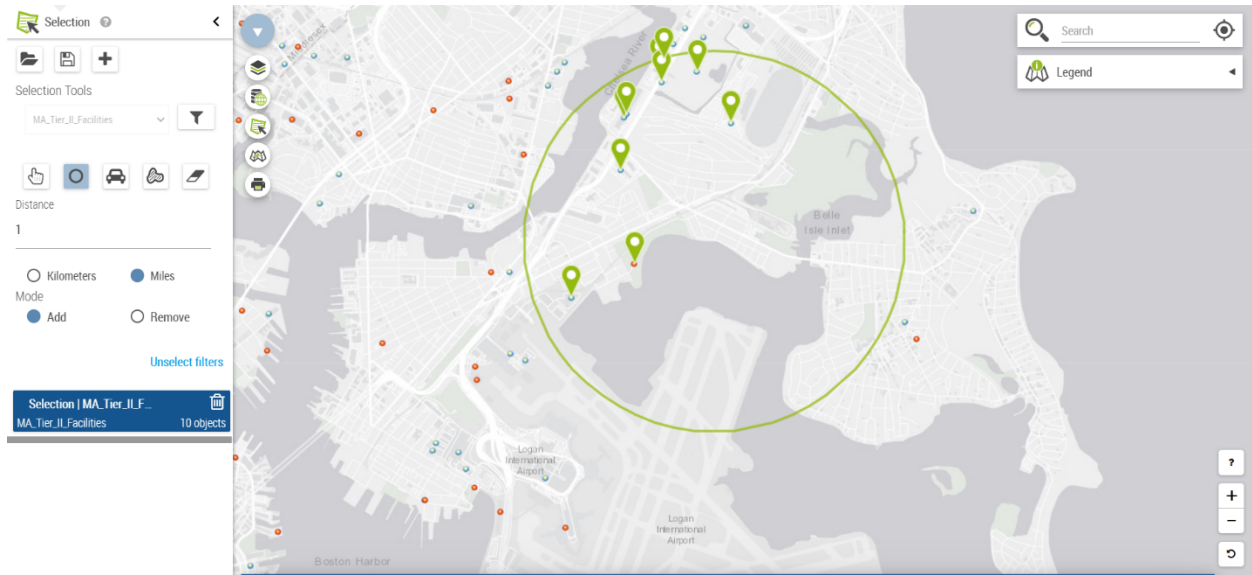


Figure 7-3: Tier 2 Facilities: 10 Sources

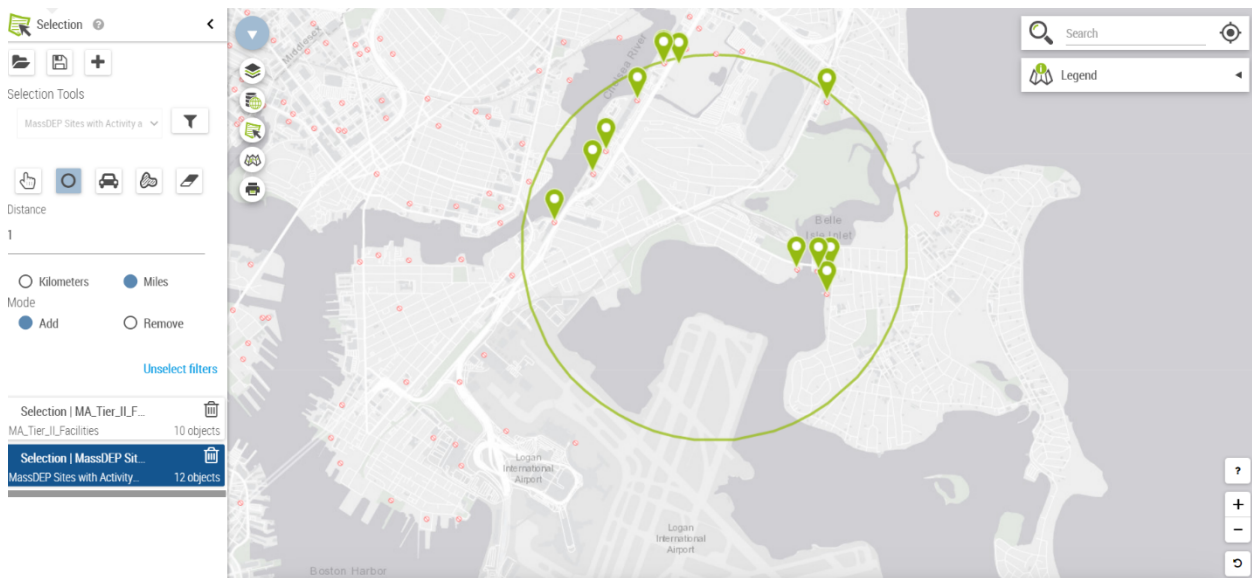


Figure 7-4: MassDEP Sites w/ Activities and Use Limitations (AUL): 12 Sources



Figure 7-5: MassDEP Groundwater Discharge Permits: 0 Sources



Figure 7-6: MassDEP Public Water Suppliers: 1 Source

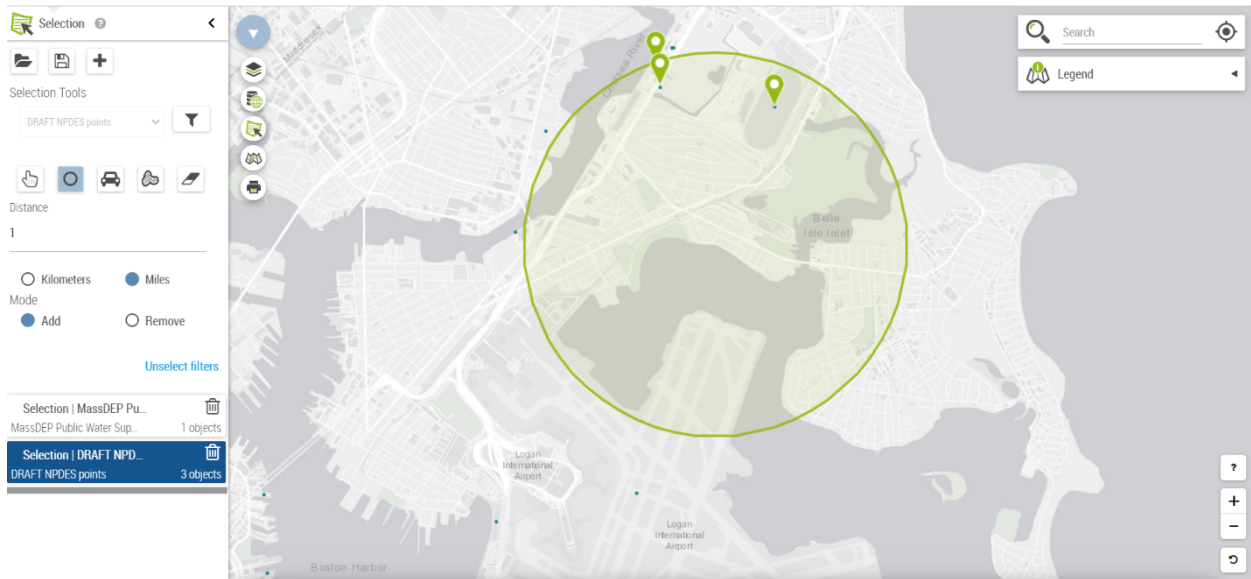


Figure 7-7: Wastewater Treatment Plants: 3 Sources

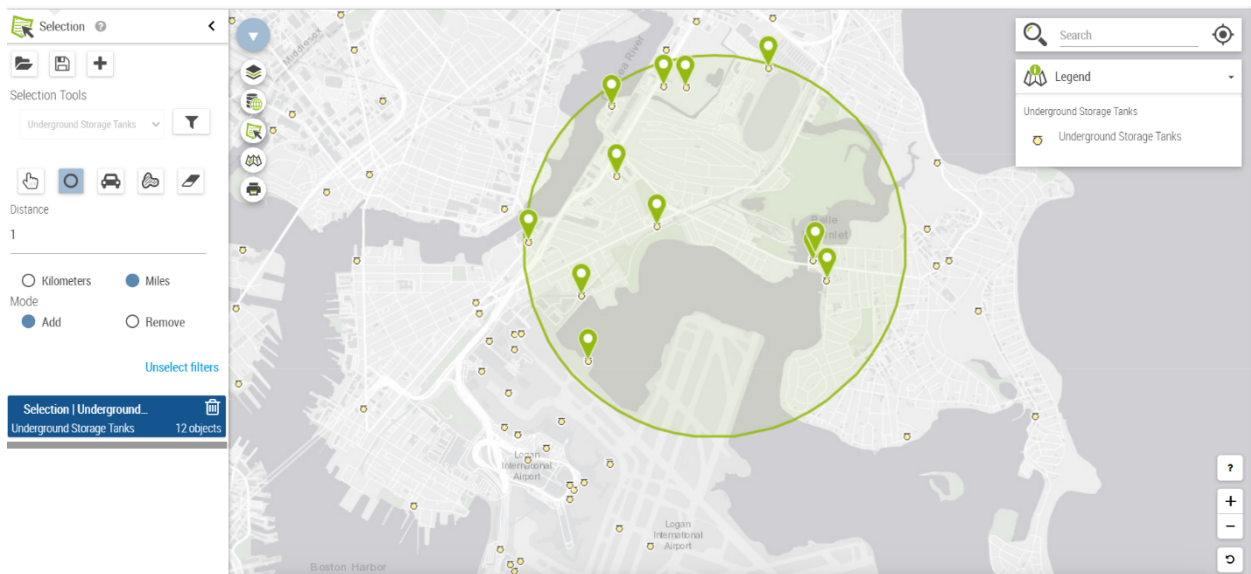


Figure 7-8: Underground Storage Tanks: 12 Sources

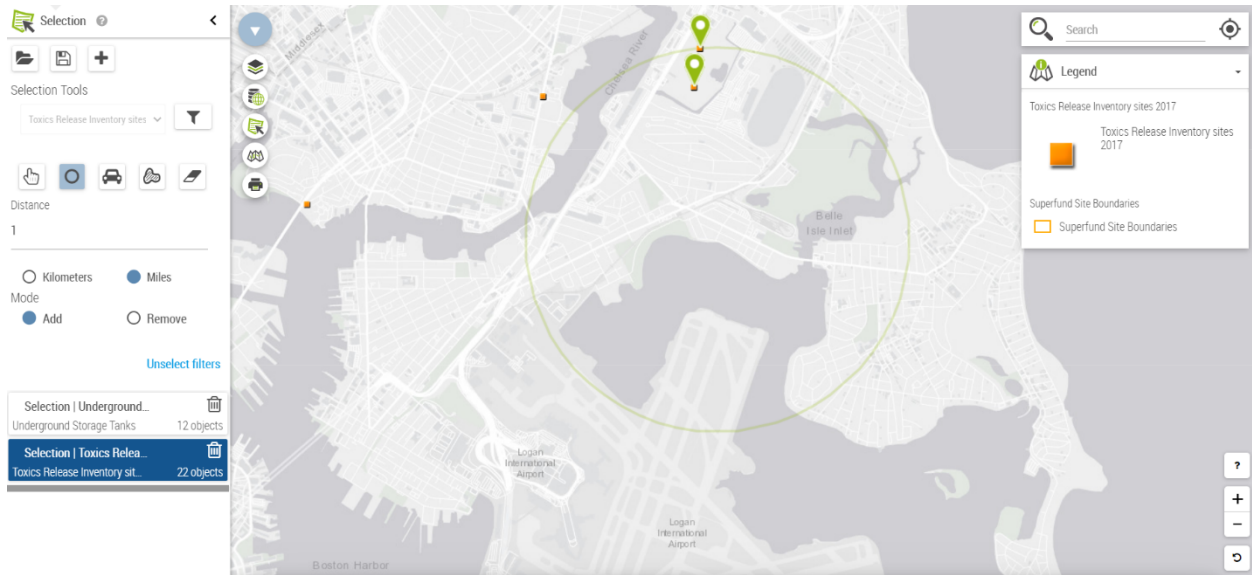


Figure 7-9: EPA Facilities: 2 Sources

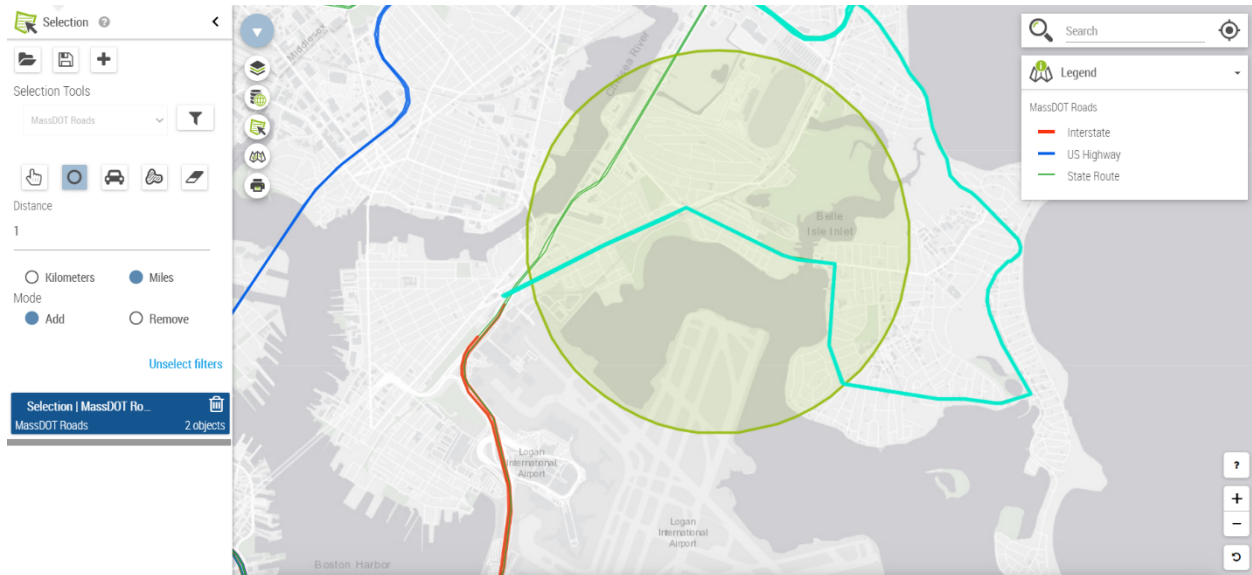


Figure 7-10: Road Infrastructure: 2 Sources



Figure 7-11: MBTA Bus and Rapid Transit: 83 Sources

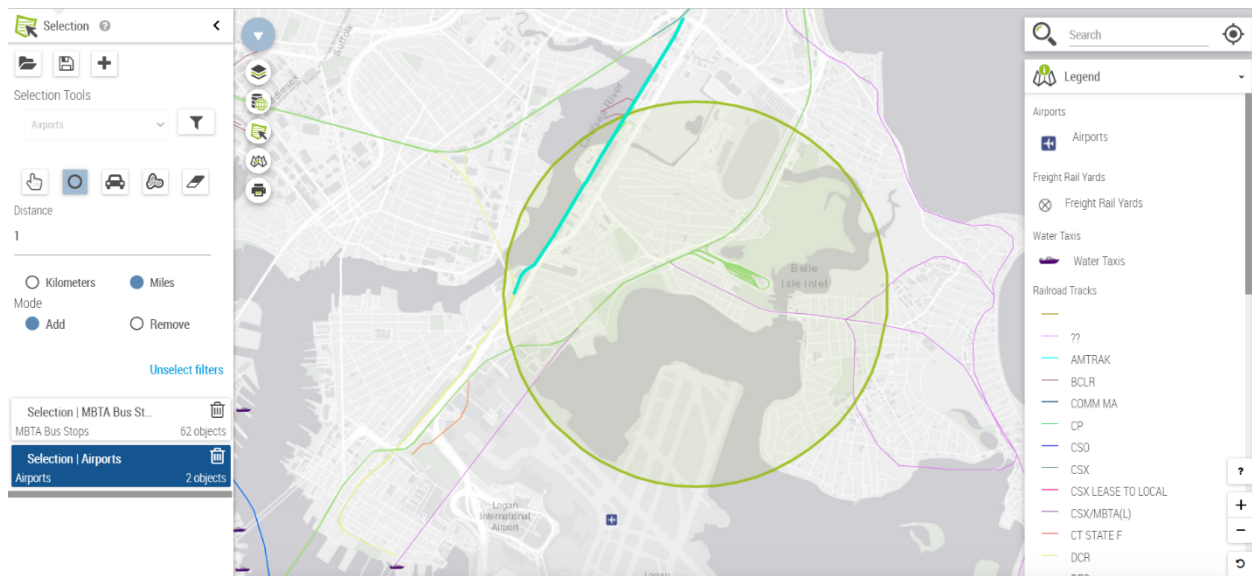


Figure 7-12: Other Transportation Infrastructure: 3 Sources



Figure 7-13: Regional Transit Agencies: 1 Source

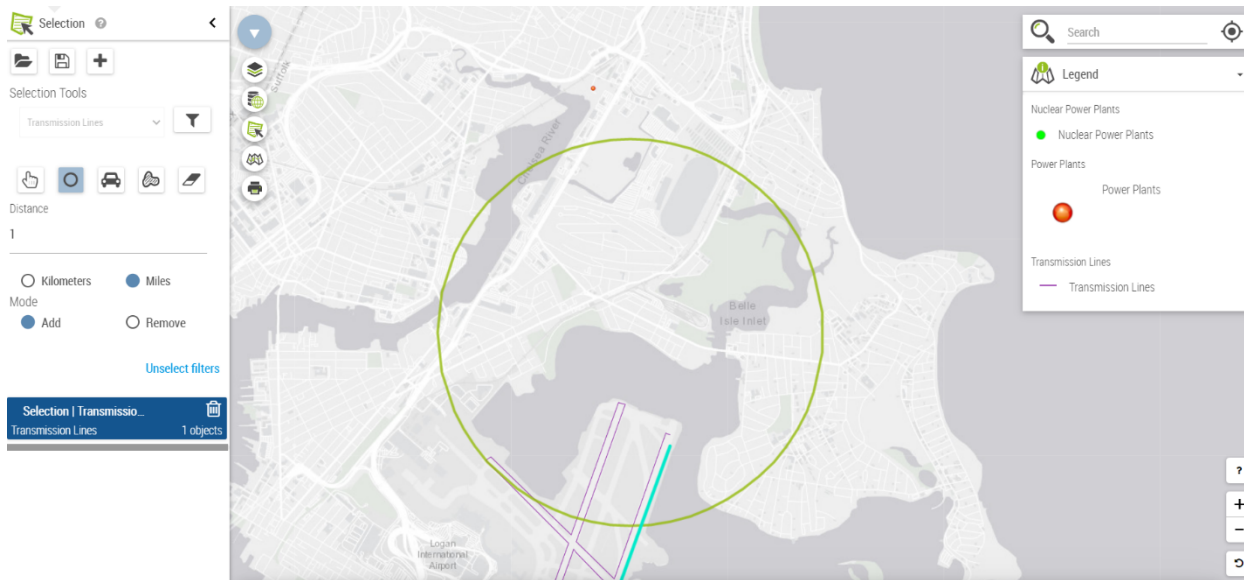


Figure 7-14: Energy Generation and Supply: 1 Source

7.1.3 Pre-Filing Feedback:

The project has not received pre-filing feedback from community-based organizations. However, copies of the application and supporting documentation will be provided to the MEPA EJ reference list.

7.1.4 Public Involvement Activities

A virtual public meeting was held by the Orient Heights Neighborhood Council (the Council) on February 28, 2023, where Massport presented on the proposed project. An additional meeting was held by the Council on September 18, 2023, where Massport presented on the proposed project. In the EJ Screening form that was distributed to applicable CBOs and tribes, contact information was included for a project representative that they may contact to request additional information. In addition to CBOs and Tribes, the EJ Screening form was sent to contacts provided by Massport as necessary.

7.1.5 Assessment Findings of Existing Unfair or Inequitable Environmental Burden:

The factors reviewed in section 7.1, the Vulnerable Health EJ Criteria, Potential Sources of Pollution, EPA's EJ Screening, and Pre-Filing Feedback did not indicate that the proposed project will have a disproportionate adverse effect on the EJ Populations compared to the general population.

The proposed project will improve public safety by repairing the existing revetment to protect the adjacent street and local environment and will improve public access at the site by rehabilitating the two existing serviceable stairways. It will also protect against coastal flooding and sea level rise as it involves coastal armoring of a shoreline.

The proposed project is also located near MassDEP Major Air and Waste Facilities, MassDEP Tier Classified 21E Sites, Tier 2 Facilities, MassDEP Sites w/ Activities and Use Limitations (AUL), MassDEP Public Water Suppliers, Wastewater Treatment Plants, Underground Storage Tanks, EPA Facilities, Road Infrastructure, MBTA Bus and Rapid Transit, Other Transportation Infrastructure, Regional Transit Agencies, and Energy Generation and Supply. The project will have no adverse impacts on these locations.

The proposed project is intended to improve the coastal environment and its resiliency and does not pose a threat to public health. The project will not negatively affect EJ populations within the designated geographic area.

7.1.6 Analysis of Project Impacts to Determine Climate Change Effects

The proposed project was designed using sustainable concepts to rehabilitate the existing revetment and improve its resiliency. The updated revetment will have an improved ability to withstand sea-level rise and other climate change related events. It is concluded that the project would have no detrimental effects on the EJ population or general populations due to climate change impacts.

Appendix A

Assessor's Card and Parcel Map

Assessing On-Line

[< New search](#)

[Map](#)

Parcel ID:	0104126000
Address:	MAVERICK ST BOSTON MA 02128
Property Type:	Exempt
Classification Code:	0985 (Exempt Property Type / OTHER EXEMPT BLDG)
Lot Size:	101,513,565 sq ft
Gross Area:	6,982,322 sq ft
Year Built:	1960
Owner on Saturday, January 1, 2022:	MASSACHUSETT PORT AUTHORITY
Owner's Mailing Address:	ONE HARBORSIDE DR STE 200S EAST BOSTON MA 02128
Residential Exemption:	No
Personal Exemption:	No

Value/Tax

Assessment as of Friday, January 1, 2021, statutory lien date.

FY2022 Building value:	\$95,152,500.00
FY2022 Land Value:	\$486,046,900.00
FY2022 Total Assessed Value:	\$581,199,400.00

FY2022 Tax Rates (per thousand):

- Residential:	\$10.88
- Commercial:	\$24.98

FY2023 Preliminary Tax (Q1 + Q2):

Estimated Tax:	\$0.00
Community Preservation:	\$0.00
Total Tax, First Half:	\$0.00

Abatements/Exemptions

Applications for Abatements for FY2023 will become available for download on January 1, 2023.

This type of parcel is not eligible for a residential or personal exemption.

Current Owner

1 MASSACHUSETT PORT AUTHORITY

Owner information may not reflect any changes submitted to City of Boston Assessing after December 28, 2021.

Value History

Fiscal Year	Property Type	Assessed Value *
2022	Exempt	\$581,199,400.00
2021	Exempt	\$581,199,400.00
2020	Exempt	\$581,199,400.00
2019	Exempt	\$581,199,500.00
2018	Exempt	\$581,199,500.00
2017	Exempt	\$581,199,500.00
2016	Exempt	\$581,199,500.00
2015	Exempt	\$581,199,500.00
2014	Exempt	\$581,199,500.00
2013	Exempt	\$581,199,500.00
2012	Exempt	\$581,199,500.00
2011	Exempt	\$581,199,500.00
2010	Exempt	\$581,199,500.00
2009	Exempt	\$581,199,500.00
2008	Exempt	\$581,199,500.00
2007	Exempt	\$581,199,500.00
2006	Exempt	\$581,199,500.00

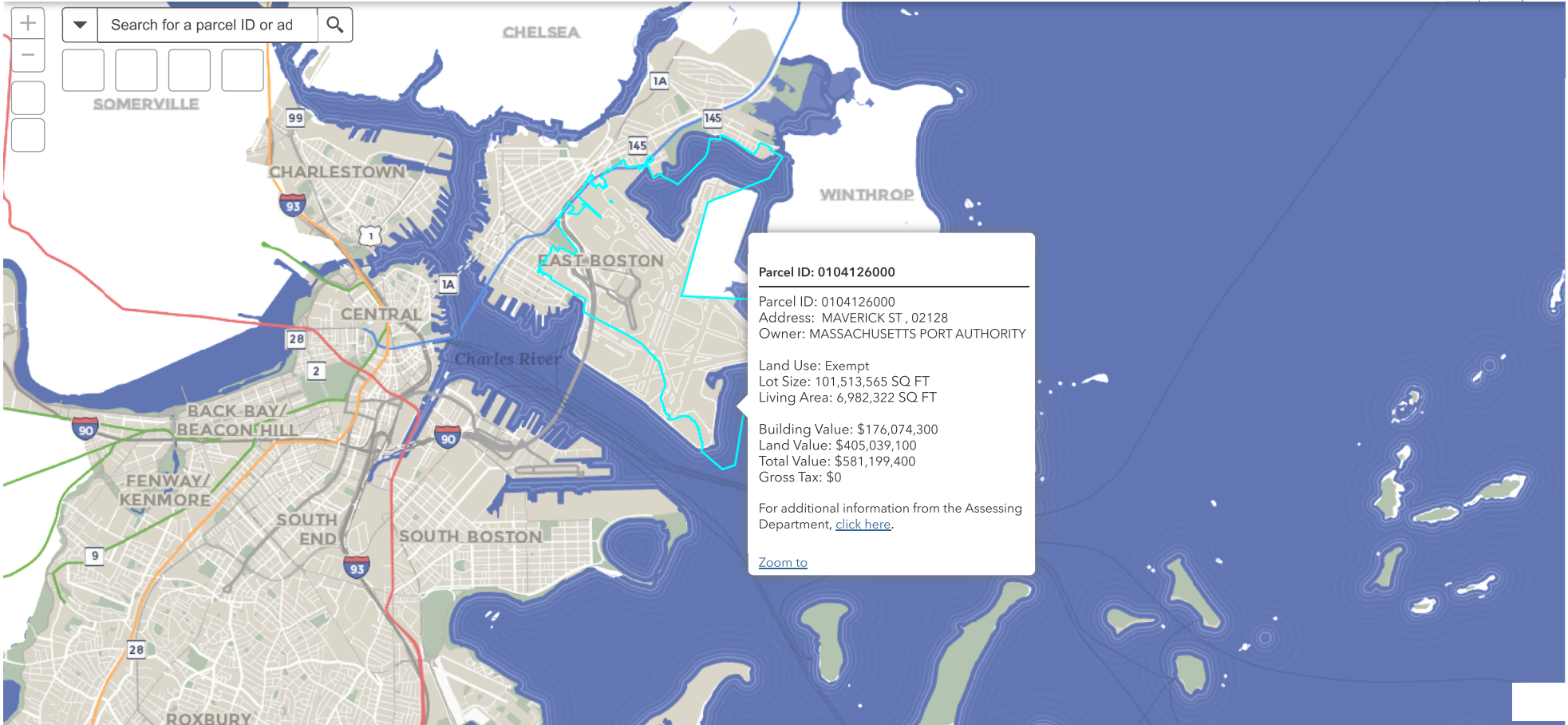
2005	Commercial	\$472,095,500.00
2004	Commercial	\$472,095,500.00
2003	Commercial	\$455,368,100.00
2002	Exempt	\$460,926,884.00
2001	Exempt	\$455,368,084.00
2000	Exempt	\$301,863,500.00
1999	Exempt	\$301,863,500.00
1998	Exempt	\$301,863,500.00
1997	Exempt	\$308,581,000.00
1996	Exempt	\$298,849,000.00
1995	Exempt	\$299,782,500.00
1994	Exempt	\$306,454,500.00
1993	Exempt	\$306,454,500.00
1992	Exempt	\$154,587,504.00
1991	Exempt	\$95,137,504.00
1990	Exempt	\$105,516,504.00
1989	Exempt	\$72,305,000.00
1988	Exempt	\$59,266,500.00
1987	Exempt	\$50,226,048.00
1986	Exempt	\$963,510,000.00
1985	Exempt	\$1,229,627,264.00

* Actual Billed Assessments

View [Quarterly Tax Bill and Payment Information](#) for this parcel for FY2022 and FY2023.

View [approved building permits](#) associated with this parcel.

Questions? For CURRENT fiscal year tax bill Questions, contact the [Taxpayer Referral & Assistance Center](#). For PRIOR fiscal year tax payments, interest charges, fees, etc. contact the Collector's office at 617-635-4131.



Parcel ID: 0104126000

Parcel ID: 0104126000
Address: MAVERICK ST, 02128
Owner: MASSACHUSETTS PORT AUTHORITY

Land Use: Exempt
Lot Size: 101,513,565 SQ. FT
Living Area: 6,982,322 SQ. FT

Building Value: \$176,074,300
Land Value: \$405,039,100
Total Value: \$581,199,400
Gross Tax: \$0

For additional information from the Assessing Department, [click here.](#)

[Zoom to](#)

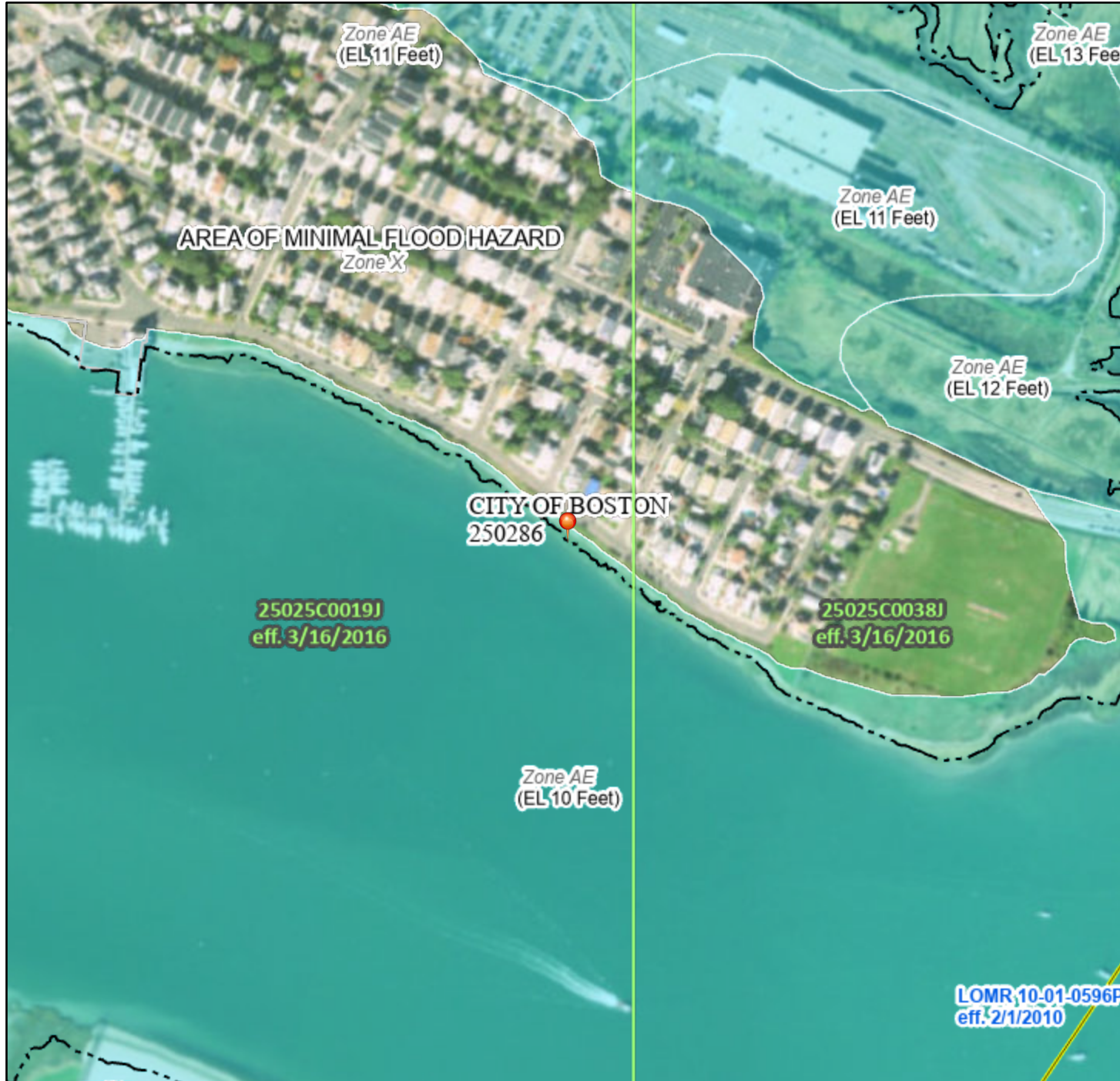
Appendix B

FEMA (FIRMette) Map

National Flood Hazard Layer FIRMMette



71°0'21"W 42°23'11"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
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		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/16/2022 at 9:24 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 unmodernized areas cannot be used for regulatory purposes.

Appendix C

USGS Quad Maps



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

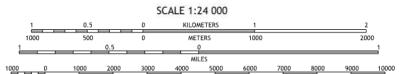
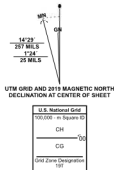


BOSTON NORTH QUADRANGLE
MASSACHUSETTS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1 000-meter grid (Universal Transverse Mercator, Zone 19T)
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands with government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery:.....NAP July 2016 - September 2016
Roads:.....U.S. Census Bureau 2016
Names:.....GNV 1974 - 2018
Hydrography:.....National Hydrography Dataset, 2005 - 2016
Contours:.....National Elevation Dataset, 2008 - 2012
Boundaries:.....Multiple sources; see metadata file 2016 - 2017
Wetlands:.....FWS National Wetlands Inventory 1991 - 2011



QUADRANGLE LOCATION

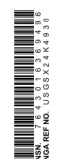
1	2	3
4	5	6
7	8	9

ADJACENT QUADRANGLES

1 Wilmington
2 Reading
3 Salem
4 Lexington
5 Lynn
6 Newton
7 Boston South
8 Hull



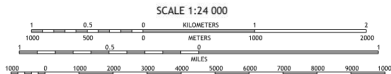
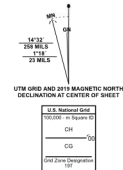
BOSTON NORTH, MA
2021



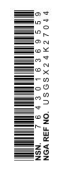


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1 000-meter grid (Universal Transverse Mercator, Zone 19T)
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery:.....NAP, July 2016 - September 2016
Roads:.....U.S. Census Bureau, 2016
Names:.....GNIS, 1974 - 2018
Hydrography:.....National Hydrography Dataset, 2005 - 2016
Contours:.....National Elevation Dataset, 2008 - 2012
Boundaries:.....Multiple sources; see metadata file 2016 - 2017
Wetlands:.....FWS National Wetlands Inventory 1991 - 2011



LYNN, MA
2021



Appendix D

Historical High Tide Graphic

Chapter 91 Tidelands



Tidelands Jurisdiction Chapter 91
Inferred Historic High Water

Tidelands Jurisdiction Chapter 91
Inferred Contemporary High Water

Tidelands Jurisdiction Chapter 91
Contemporary High Water

Tidelands Jurisdiction Chapter 91 Marsh
Boundary - seaward

Tidelands Jurisdiction Chapter 91
Historic High Water

Tidelands Jurisdiction Chapter 91
Jurisdiction

Tidelands Jurisdiction Chapter 91
Landlocked Tidelands

Tidelands Jurisdiction Chapter 91 Marsh
Boundary - landward

Appendix E

Site Photographs



Figure 1: Existing Revetment along Bayswater Street facing Southeast



Figure 2: Existing Revetment along Bayswater Street facing Northwest



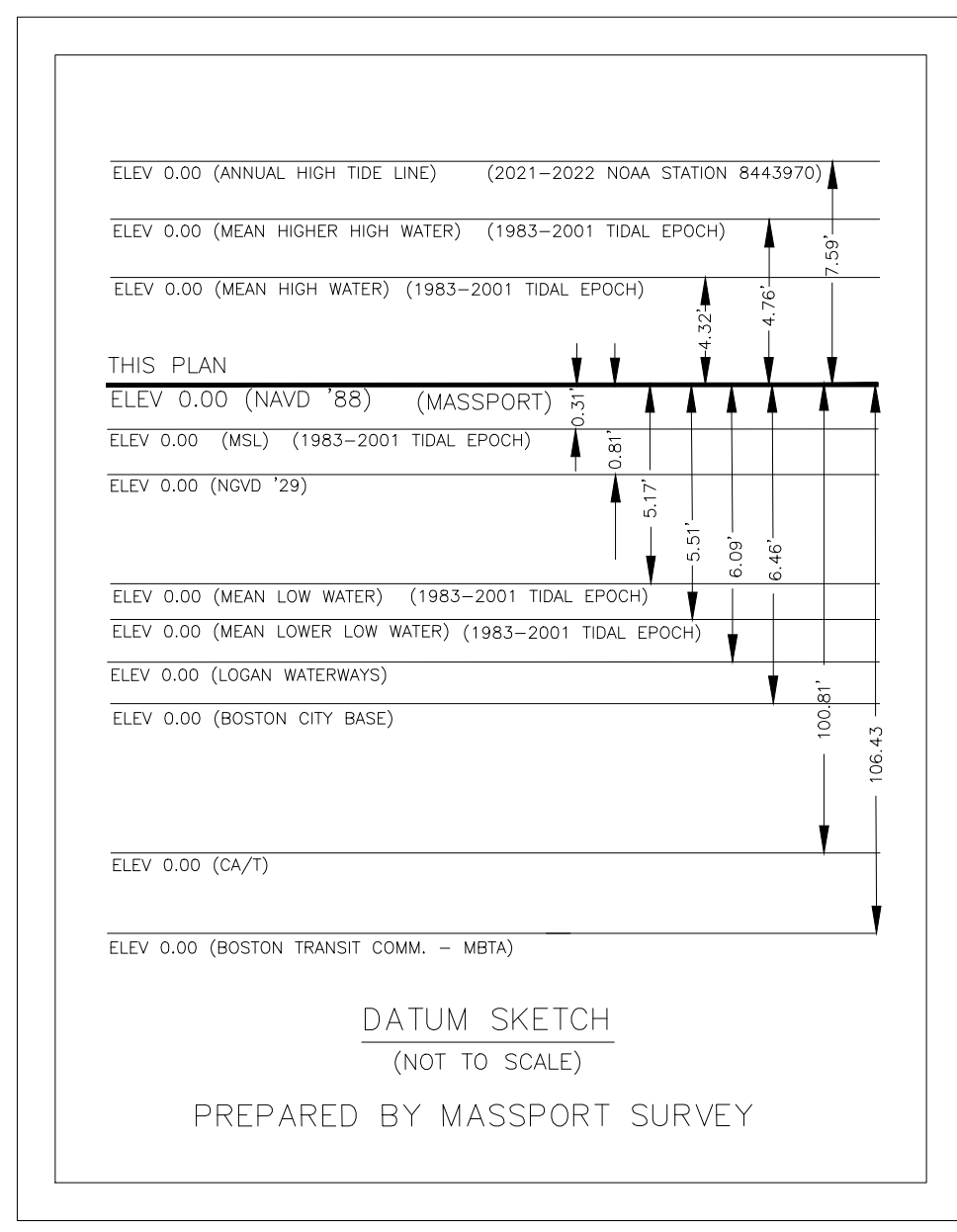
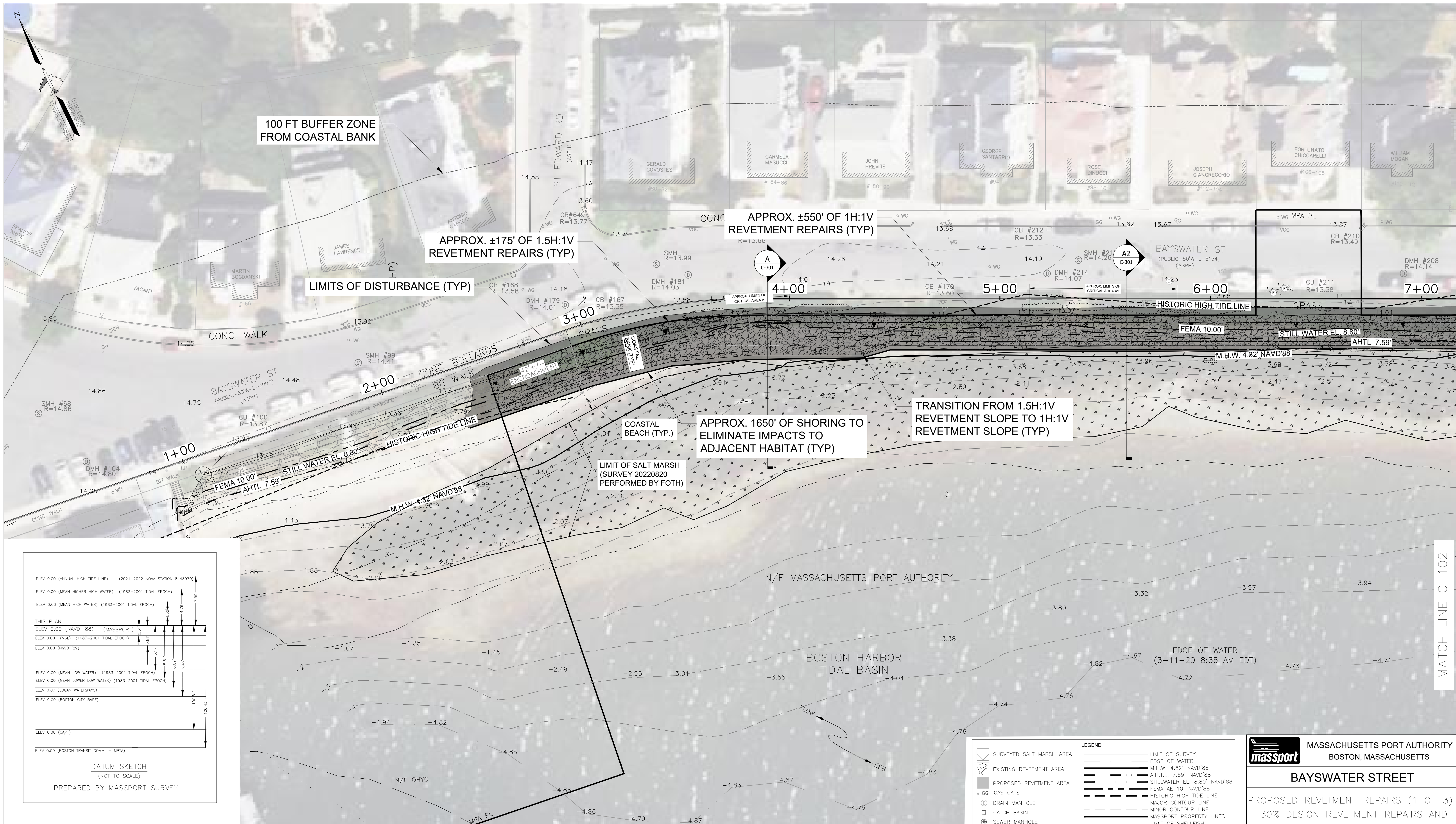
Figure 3: Existing Beach Access Stairway along Bayswater Street, facing Southeast



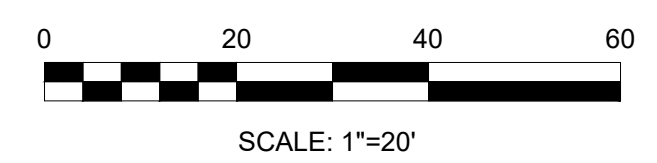
Figure 4: Existing Revetment along Bayswater Street facing Southeast

Appendix F

Project Drawings: “Proposed Revetment Repairs and Restoration – Bayswater Street”, 4 Sheets, Dated September 2023



- NOTES:
- 1.) COORDINATES SHOWN HEREON REFER TO THE NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) IN U.S. SURVEY FEET MASSACHUSETTS MAINLAND ZONE. SOURCE CONTROL REFERS TO POINT MSU 4 AS WELL AS CORS STATION "MAMI" OPERATED BY MASSDOT.
 - 2.) ELEVATIONS AND CONTOURS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) SOURCE CONTROL IS POINT MSU 4
 - 3.) UNDERGROUND UTILITIES MAY EXIST AND ARE NOT SHOWN HEREON.
 - 4.) BUILDINGS OUTLINES SHOWN ARE APPROXIMATE IN LOCATIONS UNLESS OTHERWISE NOTED.



LEGEND	
	SURVEYED SALT MARSH AREA
	EXISTING REVETMENT AREA
	PROPOSED REVETMENT AREA
	GG GAS GATE
	DMH DRAIN MANHOLE
	CB CATCH BASIN
	SMH SEWER MANHOLE
	EMH ELECTRIC MANHOLE
	FH FIRE HYDRANT
	WG WATER GATE
	CMH COMMUNICATION MANHOLE
	16.30 SPOT GRADE
	LIMIT OF SURVEY
	EDGE OF WATER
	M.H.W. 4.82' NAVD'88
	A.H.T.L. 7.59' NAVD'88
	STILLWATER EL. 8.80' NAVD'88
	FEMA AE 10' NAVD'88
	HISTORIC HIGH TIDE LINE
	MAJOR CONTOUR LINE
	MINOR CONTOUR LINE
	MASSPORT PROPERTY LINES
	LIMIT OF SHELLFISH SUITABILITY AREA BOUNDARY (MASS GIS)
	LIMIT OF WETLAND AREA (MASS GIS)
	100' BUFFER ZONE FROM COASTAL BANK

MASSACHUSETTS PORT AUTHORITY
BOSTON, MASSACHUSETTS

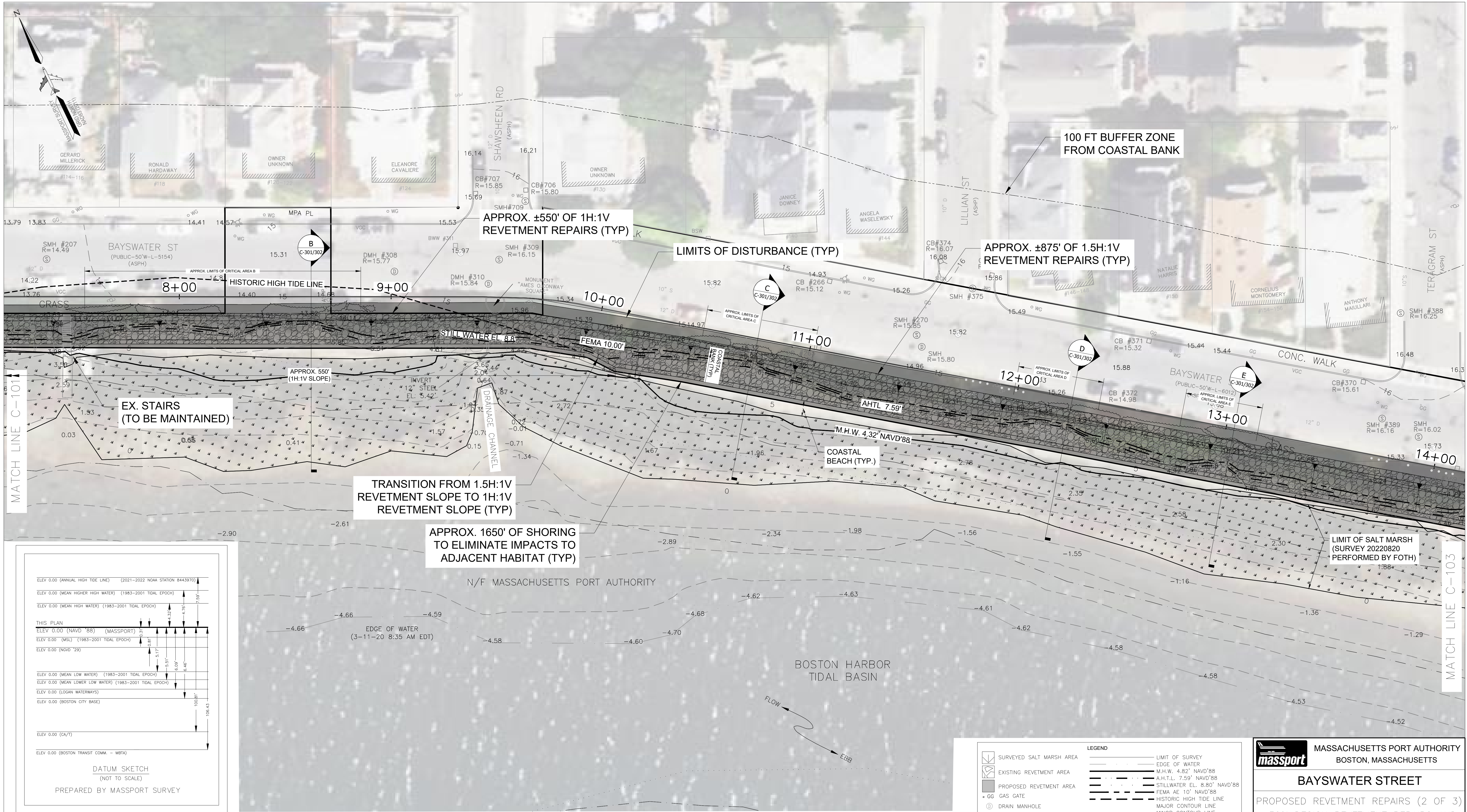
BAYSWATER STREET

PROPOSED REVETMENT REPAIRS (1 OF 3)
30% DESIGN REVETMENT REPAIRS AND RESTORATION
BAYSWATER ST EAST BOSTON MA

MASSPORT SURVEY UNIT
1 HARBORSIDE DRIVE
LOGAN AIRPORT, EAST BOSTON, MA. 02128
617 561-1799

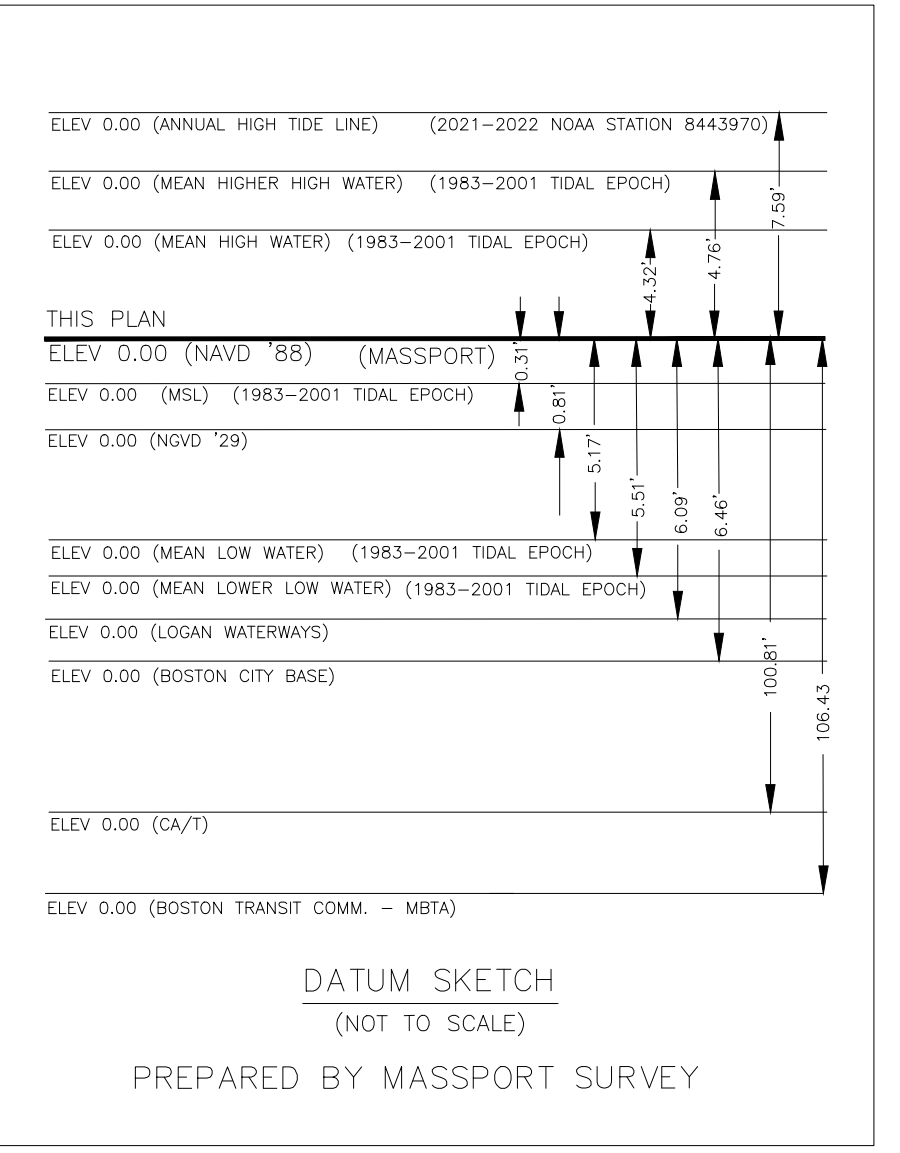
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DRAWN BY: WFG/BPF/EDB	DATE: 09/29/2023
CHECKED BY:	DRAWING NO.: C-101
JOB NO.:	SHEET 1 OF 4

MATCH LINE C-102

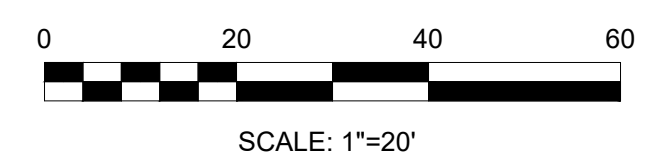


MATCH LINE C-101

MATCH LINE C-103

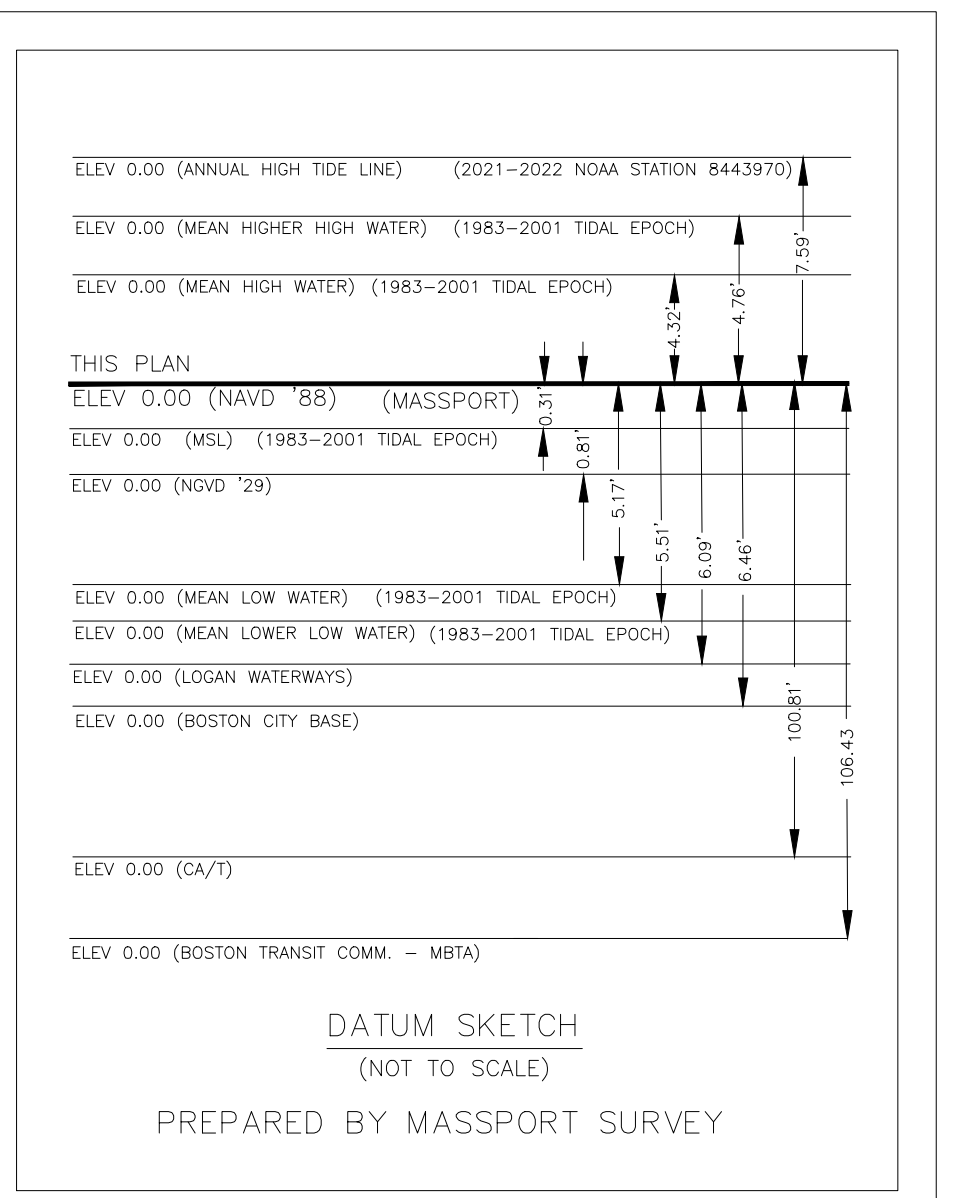


- NOTES:
- COORDINATES SHOWN HEREON REFER TO THE NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) IN U.S. SURVEY FEET MASSACHUSETTS MAINLAND ZONE. SOURCE CONTROL REFERS TO POINT MSU 4 AS WELL AS CORS STATION "MAMI" OPERATED BY MASSDOT.
 - ELEVATIONS AND CONTOURS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) SOURCE CONTROL IS POINT MSU 4
 - UNDERGROUND UTILITIES MAY EXIST AND ARE NOT SHOWN HEREON.
 - BUILDINGS OUTLINES SHOWN ARE APPROXIMATE IN LOCATIONS UNLESS OTHERWISE NOTED.



LEGEND	
	SURVEYED SALT MARSH AREA
	EXISTING REVETMENT AREA
	PROPOSED REVETMENT AREA
	GG GAS GATE
	DMH DRAIN MANHOLE
	CB CATCH BASIN
	SMH SEWER MANHOLE
	EMH ELECTRIC MANHOLE
	FH FIRE HYDRANT
	WG WATER GATE
	CMH COMMUNICATION MANHOLE
	16.30 SPOT GRADE
	LIMIT OF SURVEY
	EDGE OF WATER
	M.H.W. 4.82' NAVD'88
	A.H.T.L. 7.59' NAVD'88
	STILLWATER EL. 8.80' NAVD'88
	FEMA AE 10' NAVD'88
	HISTORIC HIGH TIDE LINE
	MAJOR CONTOUR LINE
	MINOR CONTOUR LINE
	MASSPORT PROPERTY LINES
	LIMIT OF SHELLFISH SUITABILITY AREA BOUNDARY (MASS GIS)
	LIMIT OF WETLAND AREA (MASS GIS)
	100' BUFFER ZONE FROM COASTAL BANK

MASSACHUSETTS PORT AUTHORITY BOSTON, MASSACHUSETTS	
BAYSWATER STREET PROPOSED REVETMENT REPAIRS (2 OF 3) 30% DESIGN REVETMENT REPAIRS AND RESTORATION BAYSWATER ST EAST BOSTON MA	
MASSPORT SURVEY UNIT 1 HARBORSIDE DRIVE LOGAN AIRPORT, EAST BOSTON, MA. 02128 617 561-1799	
FIELD: DF/ST/RP/SJ	DATE: 03-04-2020
DRAWN BY: WFG/BPF/EDB	DATE: 09/29/2023
CHECKED BY:	DRAWING NO.: C-102
JOB NO.:	SHEET 2 OF 4

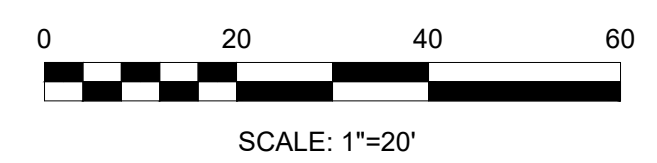


LEGEND

	SURVEYED SALT MARSH AREA		LIMIT OF SURVEY
	EXISTING REVETMENT AREA		EDGE OF WATER
	PROPOSED REVETMENT AREA		M.H.W. 4.82' NAVD'88
	GG GAS GATE		A.H.T.L. 7.59' NAVD'88
	DMH DRAIN MANHOLE		STILLWATER EL. 8.80' NAVD'88
	CB CATCH BASIN		FEMA AE 10' NAVD'88
	SMH SEWER MANHOLE		HISTORIC HIGH TIDE LINE
	EMH ELECTRIC MANHOLE		MAJOR CONTOUR LINE
	FH FIRE HYDRANT		MINOR CONTOUR LINE
	WG WATER GATE		MASSPORT PROPERTY LINES
	CMH COMMUNICATION MANHOLE		LIMIT OF SHELLFISH SUITABILITY AREA BOUNDARY (MASS GIS)
	16.30 SPOT GRADE		LIMIT OF WETLAND AREA (MASS GIS)
			100' BUFFER ZONE FROM COASTAL BANK

NOTES:

- COORDINATES SHOWN HEREON REFER TO THE NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) IN U.S. SURVEY FEET MASSACHUSETTS MAINLAND ZONE. SOURCE CONTROL REFERS TO POINT MSU 4 AS WELL AS CORS STATION "MAMI" OPERATED BY MASSDOT.
- ELEVATIONS AND CONTOURS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) SOURCE CONTROL IS POINT MSU 4
- UNDERGROUND UTILITIES MAY EXIST AND ARE NOT SHOWN HEREON.
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MASSACHUSETTS PORT AUTHORITY
BOSTON, MASSACHUSETTS

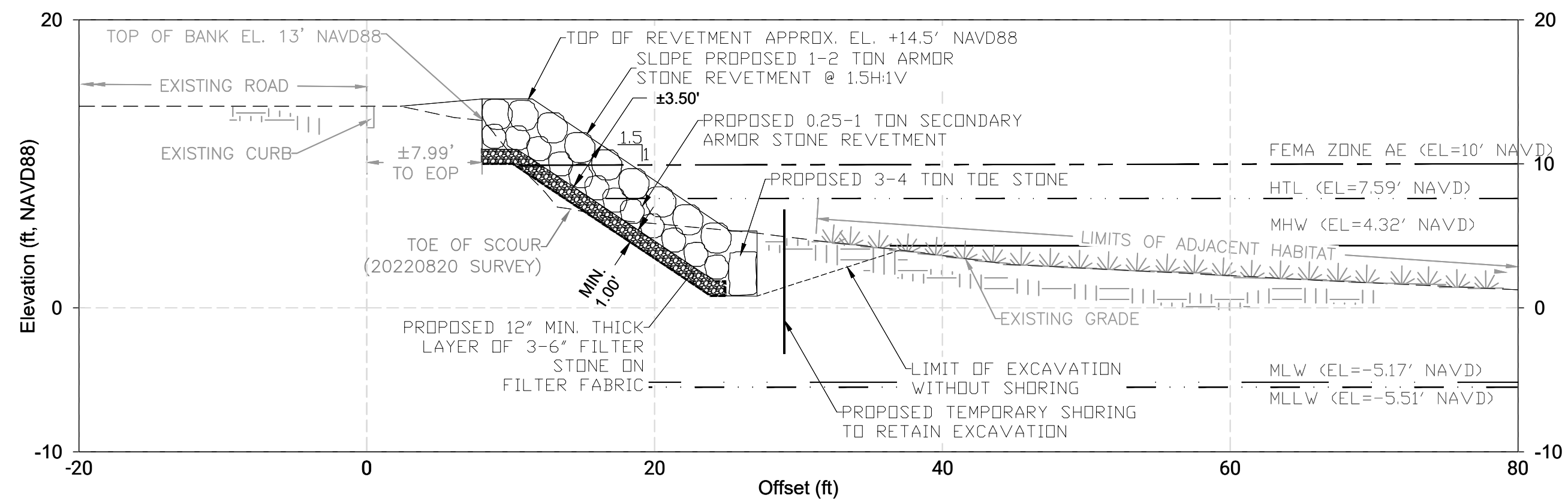
BAYSWATER STREET

PROPOSED REVETMENT REPAIRS (3 OF 3)
30% DESIGN REVETMENT REPAIRS AND RESTORATION
BAYSWATER ST EAST BOSTON MA

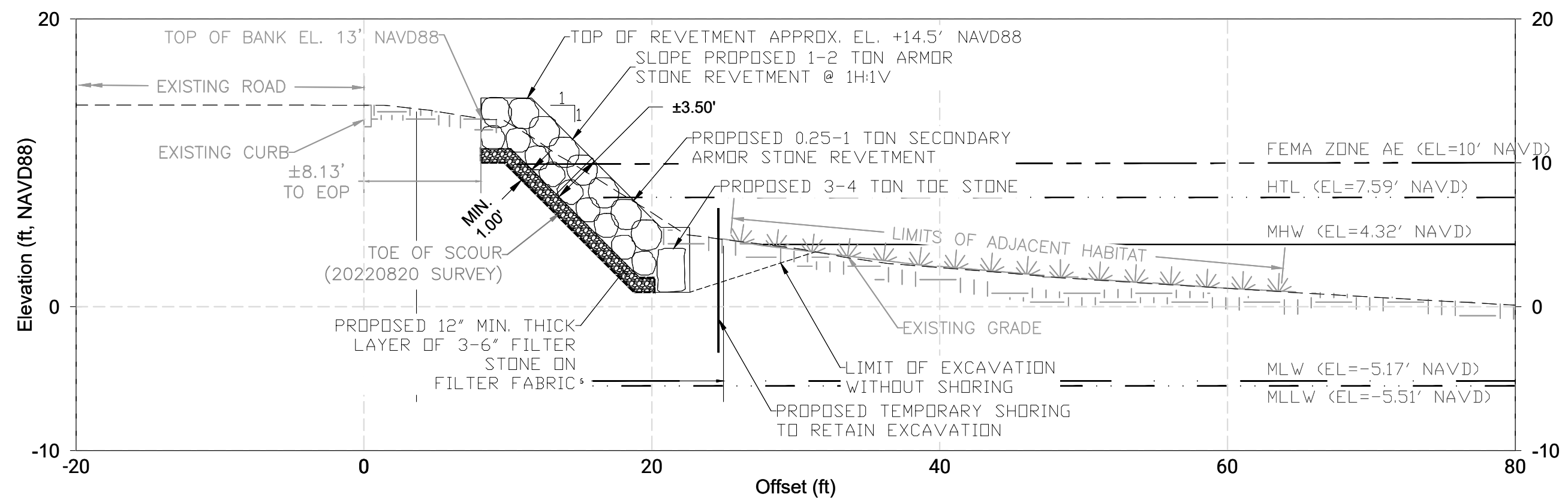
MASSPORT SURVEY UNIT
1 HARBORSIDE DRIVE
LOGAN AIRPORT, EAST BOSTON, MA. 02128
617 561-1799

FIELD: DF/ST/RP/SJ	DATE: 03-04-2020
DRAWN BY: WFG/BPF/EDB	DATE: 09/29/2023
CHECKED BY:	DRAWING NO.: C-103
JOB NO.:	SHEET 3 OF 4

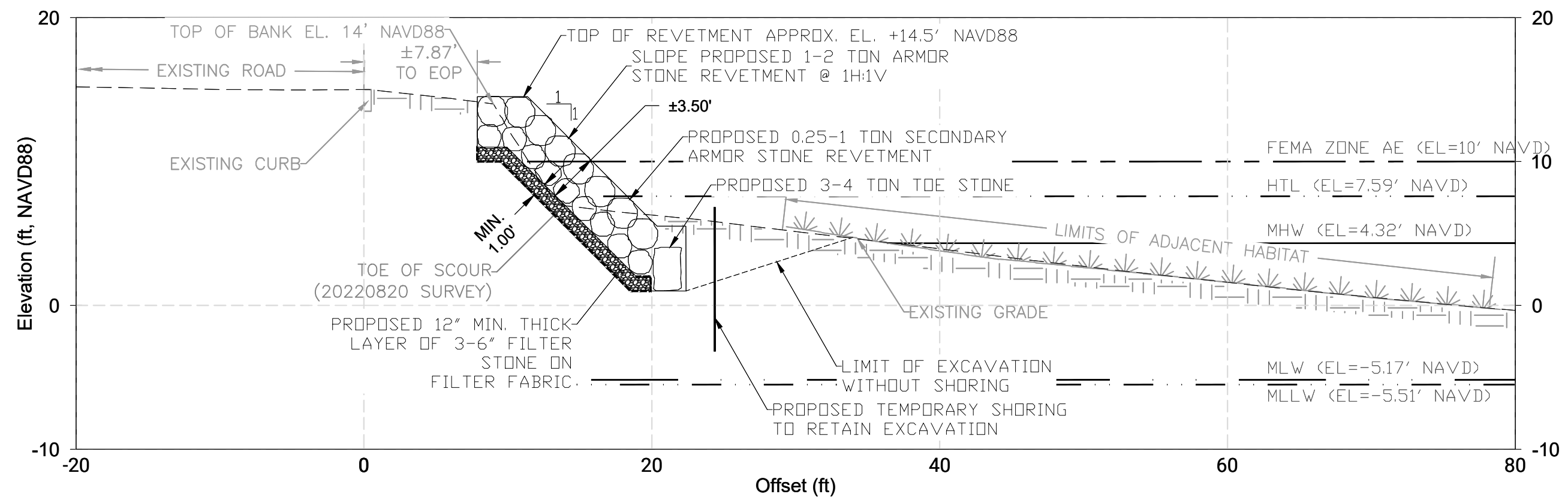
MATCH LINE C-102



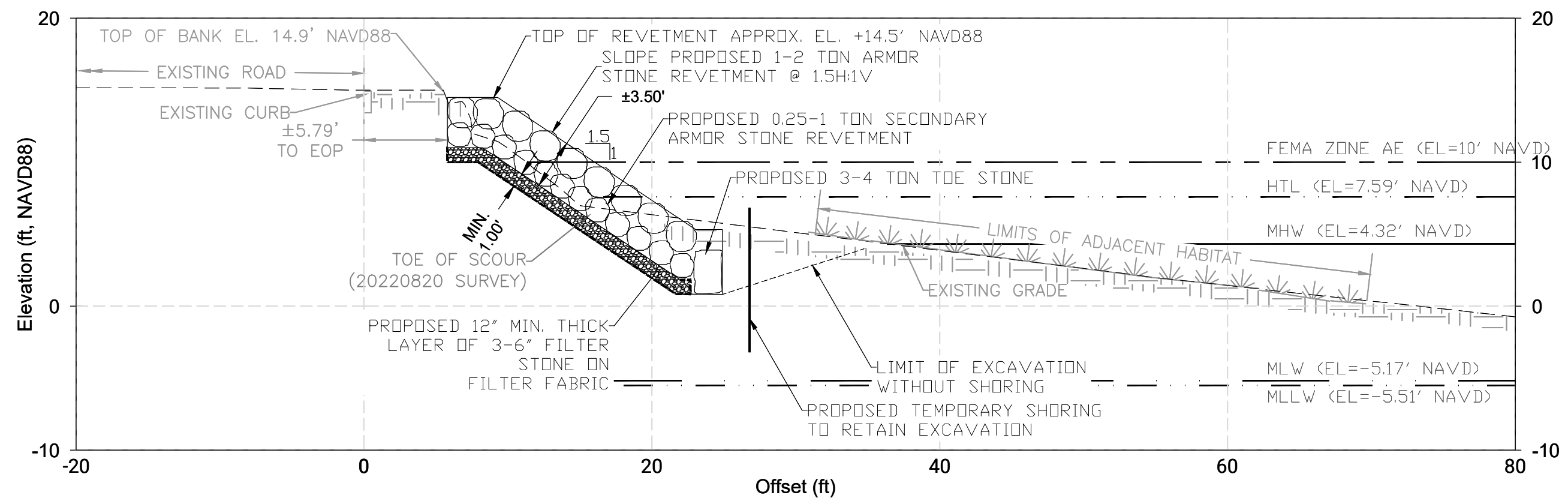
PROPOSED REPAIR EROSION AREA A
STA 3+90
SCALE 1"=8'



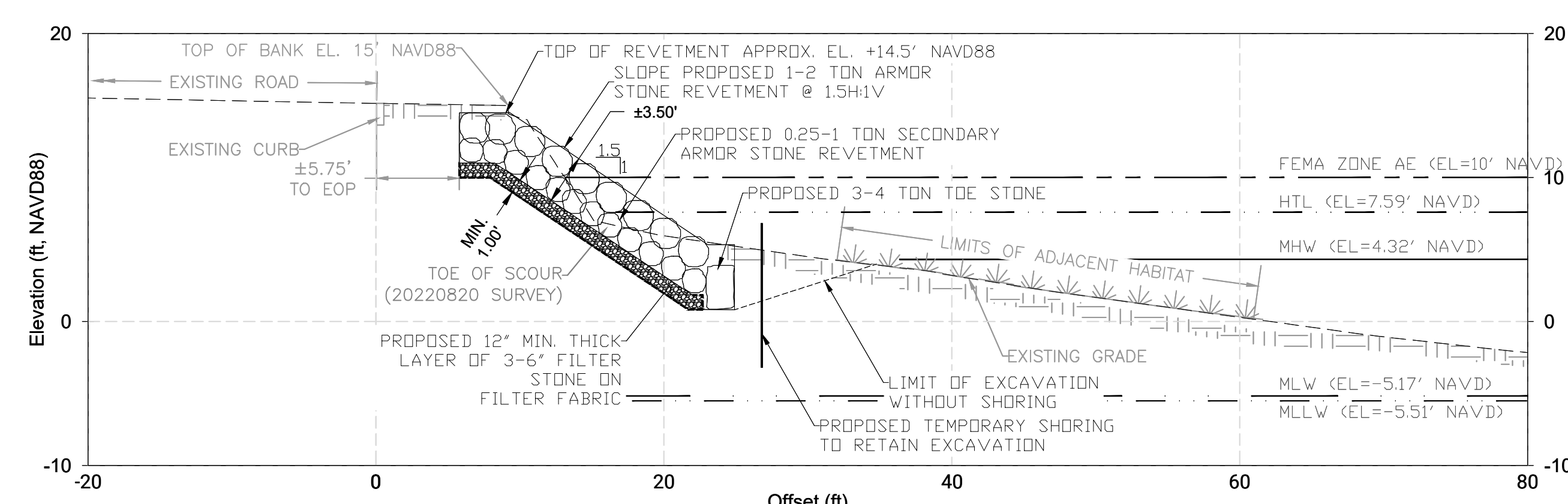
PROPOSED REPAIR EROSION AREA A2
STA 5+60
SCALE 1"=8'



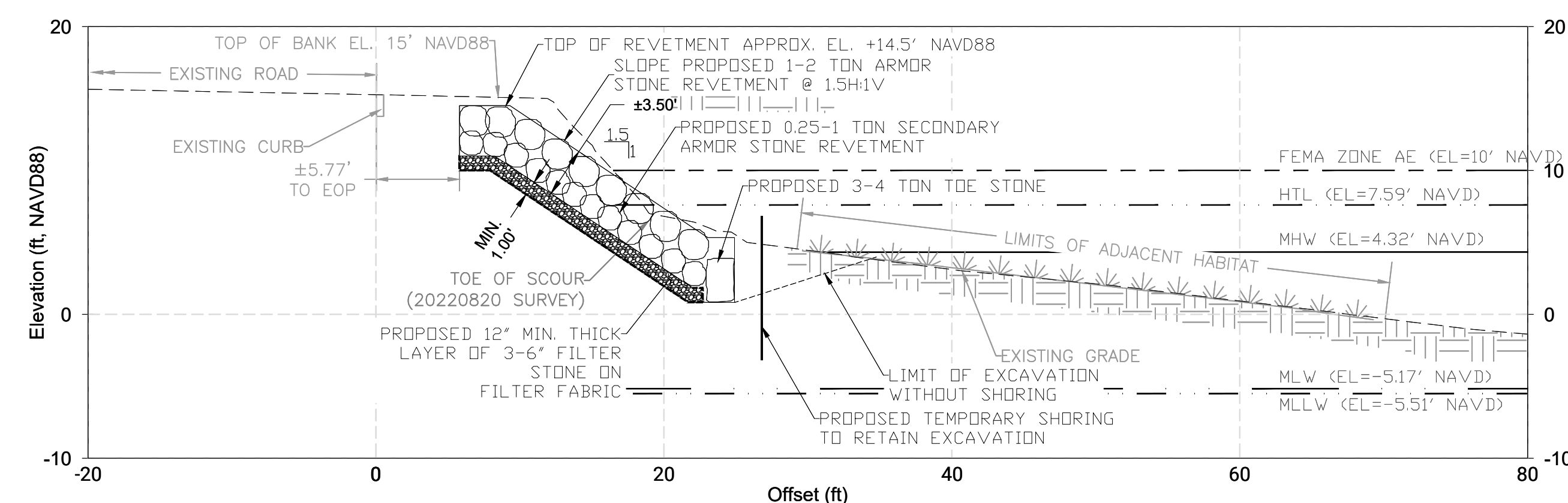
PROPOSED REPAIR EROSION AREA B
STA 8+62
SCALE 1"=8'



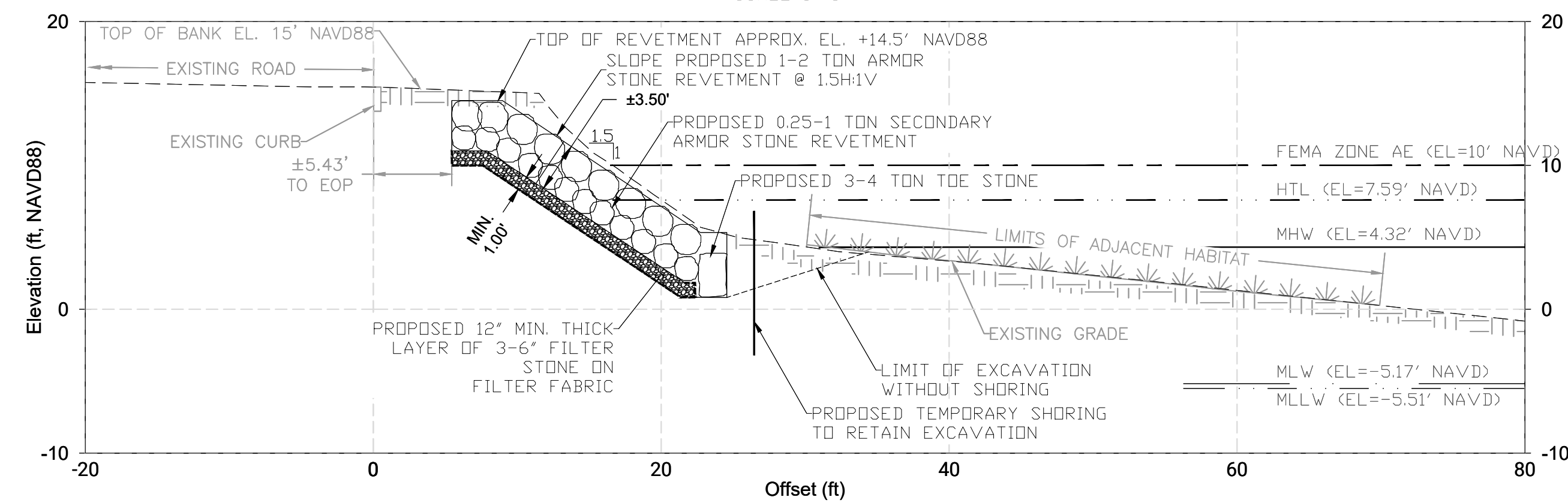
PROPOSED REPAIR EROSION AREA C
STA 10+75
SCALE 1"=8'



PROPOSED REPAIR EROSION AREA D STA
12+30
SCALE 1"=8'



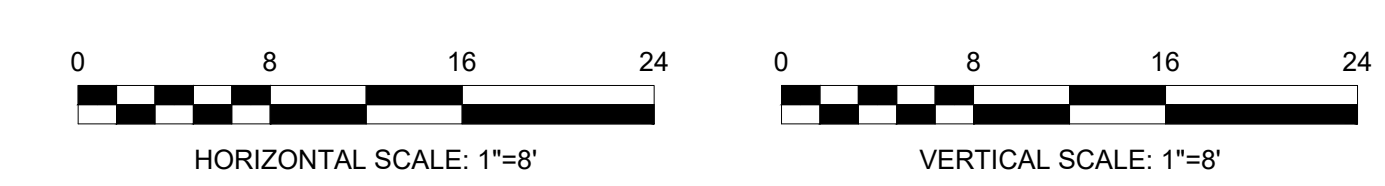
PROPOSED REPAIR EROSION AREA E STA
13+10
SCALE 1"=8'



PROPOSED REPAIR EROSION AREA F STA
15+35
SCALE 1"=8'

PRELIMINARY REVETMENT STONE SIZING DESIGN:
1:1.5 SLOPE
 ARMOR STONE: (LAYER THICKNESS= 3 FT)
 AVG. WEIGHT (W₅₀): 400 LBS.; - D₅₀: 16 INCHES
 MIN. WEIGHT (W_{MIN}): 150 LBS.; - D_{MIN}: 12 INCHES
 MAX. WEIGHT (W_{MAX}): 1500 LBS.; - D_{MAX}: 24 INCHES
 FILTER LAYER: (LAYER THICKNESS= 1 FT)
 AVG. WEIGHT (W₅₀): 1 LBS.; - D₅₀: 3 INCHES
 MIN. WEIGHT (W_{MIN}): 0.5 LBS.; - D_{MIN}: 1 INCH
 MAX. WEIGHT (W_{MAX}): 4 LBS.; - D_{MAX}: 4 INCHES
1:1 SLOPE
 ARMOR STONE: (LAYER THICKNESS= 3.5 FT)
 AVG. WEIGHT (W₅₀): 700 LBS.; - D₅₀: 20 INCHES
 MIN. WEIGHT (W_{MIN}): 250 LBS.; - D_{MIN}: 14 INCHES
 MAX. WEIGHT (W_{MAX}): 2800 LBS.; - D_{MAX}: 32 INCHES
 FILTER LAYER: (LAYER THICKNESS= 1 FT)
 AVG. WEIGHT (W₅₀): 1.5 LBS.; - D₅₀: 3 INCHES
 MIN. WEIGHT (W_{MIN}): 0.5 LBS.; - D_{MIN}: 1 INCH
 MAX. WEIGHT (W_{MAX}): 8 LBS.; - D_{MAX}: 5 INCHES

NOTES:
 1.) ELEVATIONS AND CONTOURS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) SOURCE CONTROL IS POINT MSU 4



MASSACHUSETTS PORT AUTHORITY BOSTON, MASSACHUSETTS	
BAYSWATER STREET PROPOSED SECTIONS 30% DESIGN REVETMENT REPAIRS AND RESTORATION BAYSWATER ST, EAST BOSTON MA	
MASSPORT SURVEY UNIT 1 HARBORSIDE DRIVE LOGAN AIRPORT, EAST BOSTON, MA. 02128 617 561-1799	
FIELD: DF/ST/RP/SJ	DATE: 03-04/2020
DRAWN BY: WFG/BPF/KEC	DATE: 07/31/2023
CHECKED BY:	DRAWING NO.: C-301
JOB NO.:	SHEET 4 OF 4

Appendix G

NHESP Priority & Estimated Habitats Map

NHESP Map



NHESP Priority Habitats of Rare Species



NHESP Estimated Habitats of Rare Wildlife



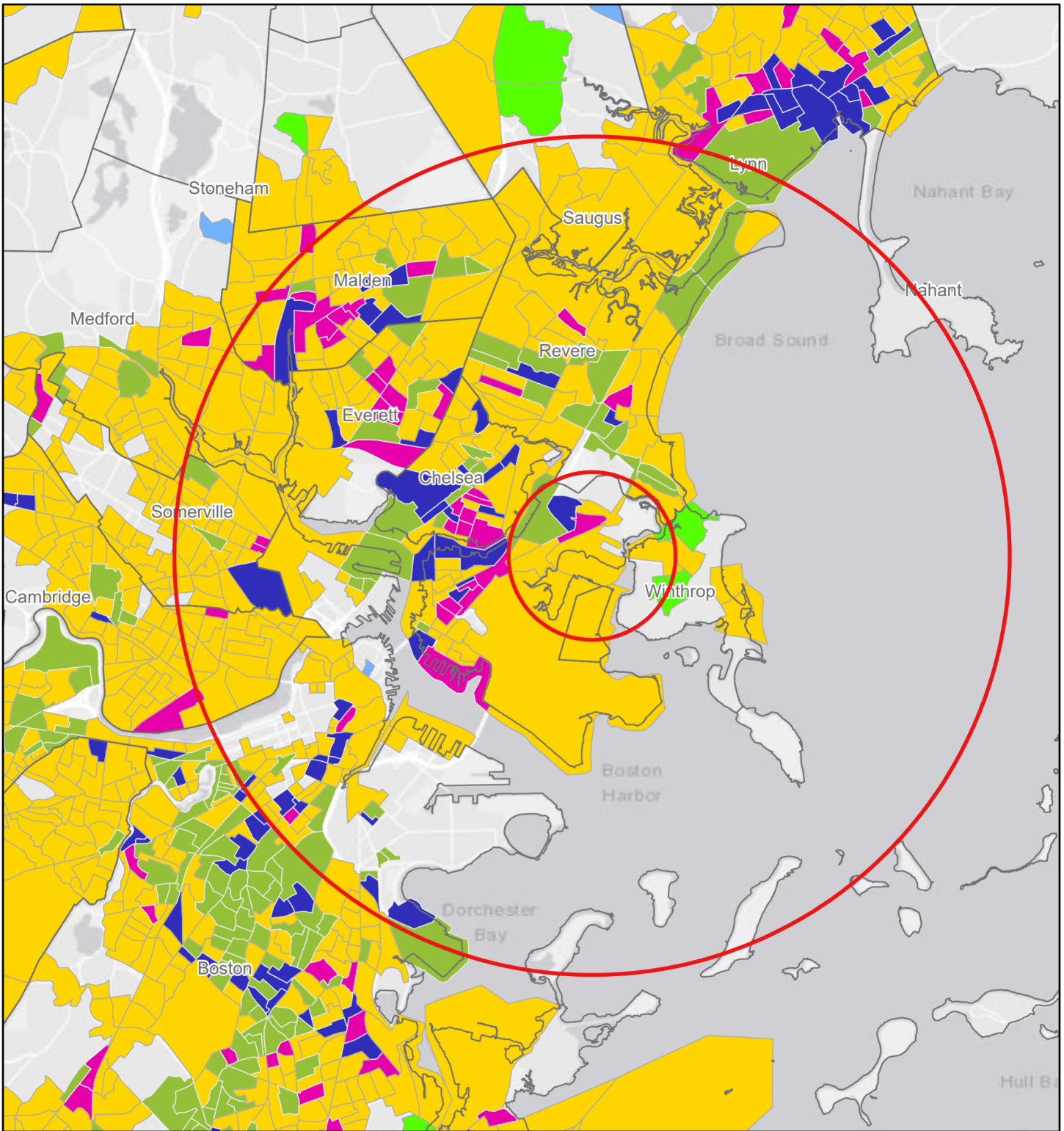
MassMapper

Leaflet | MassGIS 2021 Aerial Imagery

Appendix H

Environmental Justice Populations

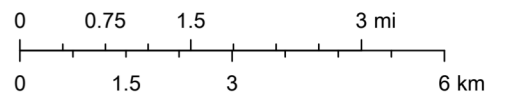
2020 Environmental Justice Neighborhoods



1/6/2023, 10:00:21 AM

 Override 1

1:144,448



City of Boston, MassGIS, Esri, HERE, Garmin, USGS, EPA, NPS

City of Boston, MassGIS, Esri, HERE, Garmin, USGS, EPA, NPS | EEA GIS |

5 Mile Radius

Block Group 2	2081.01	Minority
Block Group 4	2081.01	Minority
Block Group 4	2081.02	Minority
Block Group 1	2081.02	Minority
Block Group 2	2081.02	Minority
Block Group 3	2081.02	Minority
Block Group 2	3398.04	Minority
Block Group 1	3399.00	Minority
Block Group 1	3398.02	Minority
Block Group 4	3398.02	Minority
Block Group 1	3398.04	Minority
Block Group 1	3398.03	Minority
Block Group 2	3398.03	Minority
Block Group 3	3398.04	Minority
Block Group 1	3411.02	Minority and English isolation
Block Group 1	3412.00	Minority
Block Group 2	3412.00	Minority and English isolation
Block Group 3	3412.00	Minority
Block Group 1	3413.01	Minority, income and English isolation
Block Group 2	3413.01	Minority and English isolation
Block Group 3	3413.01	Minority and income
Block Group 4	3413.01	Minority and English isolation
Block Group 1	3413.02	Minority
Block Group 1	3415.00	Minority
Block Group 3	3415.00	Minority
Block Group 4	3412.00	Minority
Block Group 1	3414.00	Minority and English isolation
Block Group 2	3414.00	Minority and English isolation
Block Group 3	3414.00	Minority
Block Group 4	3414.00	Minority
Block Group 2	3415.00	Minority and English isolation
Block Group 5	3414.00	Minority
Block Group 5	3415.00	Minority and English isolation
Block Group 1	3416.00	Minority
Block Group 5	3416.00	Minority
Block Group 2	3417.00	Minority
Block Group 4	3417.00	Minority and income
Block Group 5	3417.00	Minority
Block Group 4	3415.00	Minority
Block Group 3	3416.00	Minority
Block Group 4	3416.00	Minority
Block Group 6	3416.00	Minority
Block Group 3	3417.00	Minority
Block Group 2	3416.00	Minority
Block Group 1	3417.00	Minority
Block Group 1	3418.00	Minority and English isolation
Block Group 2	3418.00	Minority and income
Block Group 3	3418.00	Minority
Block Group 4	3418.00	Minority, income and English isolation
Block Group 5	3418.00	Minority, income and English isolation
Block Group 6	3418.00	Minority, income and English isolation
Block Group 2	3419.01	Minority
Block Group 1	3419.03	Minority
Block Group 2	3419.03	Minority
Block Group 1	3419.04	Minority
Block Group 2	3419.04	Minority and income
Block Group 2	3421.01	Minority
Block Group 4	3421.01	Minority and English isolation
Block Group 1	3421.02	Minority

1 Mile Radius

Block Group 1	0510.00	Minority
Block Group 2	0510.00	Minority and income
Block Group 3	0510.00	Minority
Block Group 1	0511.01	Minority and English isolation
Block Group 3	0511.01	Minority
Block Group 4	0511.01	Minority
Block Group 2	0511.01	Minority, income and English isolation
Block Group 1	1802.00	Minority
Block Group 4	1708.00	Minority

Block Group 3 3421.02 Minority
Block Group 4 3421.02 Minority
Block Group 1 3422.01 Minority and income
Block Group 2 3422.01 Minority and English isolation
Block Group 1 3422.02 Minority and income
Block Group 3 3422.02 Minority
Block Group 1 3423.01 Minority
Block Group 2 3423.01 Minority
Block Group 2 3423.02 Minority
Block Group 1 3424.01 Minority
Block Group 3 3424.01 Minority
Block Group 1 3424.02 Minority
Block Group 3 3424.02 Minority and English isolation
Block Group 1 3425.01 Minority and English isolation
Block Group 1 3425.02 Minority and English isolation
Block Group 2 3425.02 Minority
Block Group 1 3426.00 Minority
Block Group 2 3426.00 Minority, income and English isolation
Block Group 3 3426.00 Minority
Block Group 1 3501.05 Minority
Block Group 1 3501.06 Minority
Block Group 1 3501.07 Minority
Block Group 1 3501.08 Minority and income
Block Group 2 3501.08 Minority
Block Group 1 3501.09 Minority
Block Group 1 3502.01 Minority
Block Group 2 3502.01 Minority
Block Group 3 3502.01 Minority
Block Group 2 3502.02 Minority
Block Group 3 3502.02 Minority
Block Group 1 3419.01 Minority
Block Group 3 3419.03 Minority
Block Group 1 3423.02 Minority
Block Group 3 3419.04 Minority and income
Block Group 1 3421.01 Minority and income
Block Group 3 3421.01 Minority, income and English isolation
Block Group 2 3421.02 Minority
Block Group 3 3422.01 Minority and English isolation
Block Group 4 3422.01 Minority
Block Group 2 3422.02 Minority
Block Group 3 3423.02 Minority
Block Group 2 3425.01 Minority and income
Block Group 2 3424.01 Minority, income and English isolation
Block Group 2 3424.02 Minority
Block Group 2 3512.04 Minority
Block Group 1 3514.03 Minority and English isolation
Block Group 2 3514.03 Minority
Block Group 4 3514.03 Minority
Block Group 5 3514.03 Minority and English isolation
Block Group 1 3514.04 Minority
Block Group 3 3514.04 Minority
Block Group 4 3514.04 Minority
Block Group 4 3515.00 Minority, income and English isolation
Block Group 1 3521.01 Minority
Block Group 3 3521.01 Minority
Block Group 2 3521.02 Minority
Block Group 3 3523.00 Minority
Block Group 1 3524.00 Minority
Block Group 1 3526.00 Minority
Block Group 2 3527.00 Minority and English isolation

Block Group 1	3531.02	Minority
Block Group 2	3512.03	Minority
Block Group 3	3513.00	Minority
Block Group 1	3513.00	Minority
Block Group 2	3513.00	Minority
Block Group 3	3514.03	Minority
Block Group 2	3514.04	Minority and income
Block Group 1	3515.00	Minority
Block Group 2	3515.00	Minority
Block Group 3	3515.00	Minority
Block Group 2	3521.01	Minority
Block Group 2	3531.02	Minority
Block Group 1	3521.02	Minority
Block Group 1	3523.00	Minority
Block Group 2	3523.00	Minority
Block Group 1	3522.00	Minority
Block Group 1	3525.00	Minority
Block Group 2	3526.00	Minority
Block Group 1	3527.00	Minority
Block Group 1	3528.00	Minority
Block Group 1	0105.00	Minority and income
Block Group 2	0105.00	Minority, income and English isolation
Block Group 3	0105.00	Minority
Block Group 1	0106.00	Minority
Block Group 2	0106.00	Minority
Block Group 3	0106.00	Minority
Block Group 1	0107.01	Minority
Block Group 1	0108.01	Minority
Block Group 1	0202.00	Minority
Block Group 2	0202.00	Minority
Block Group 1	0203.01	Minority
Block Group 1	0203.04	Minority
Block Group 2	0203.05	Minority
Block Group 1	0303.02	Minority
Block Group 1	0402.00	Minority and income
Block Group 2	0402.00	Minority
Block Group 1	0403.00	Minority
Block Group 2	0203.04	Minority
Block Group 3	0304.00	English isolation
Block Group 1	0203.05	Minority
Block Group 1	0404.01	Minority
Block Group 1	0406.00	Minority
Block Group 2	0501.01	Minority, income and English isolation
Block Group 1	0502.00	Minority
Block Group 2	0502.00	Minority
Block Group 4	0502.00	Minority and English isolation
Block Group 3	0503.00	Minority, income and English isolation
Block Group 2	0504.00	Minority
Block Group 1	0408.01	Minority and income
Block Group 1	0501.01	Minority
Block Group 3	0501.01	Minority
Block Group 2	0408.01	Minority and income
Block Group 3	0502.00	Minority, income and English isolation
Block Group 1	0503.00	Minority
Block Group 2	0503.00	Minority and income
Block Group 1	0504.00	Minority
Block Group 1	0505.00	Minority
Block Group 1	0506.00	Minority and English isolation
Block Group 2	0506.00	Minority
Block Group 1	0507.00	Minority and English isolation

Block Group 2	0507.00	Minority, income and English isolation
Block Group 3	0509.01	Minority, income and English isolation
Block Group 1	0510.00	Minority
Block Group 3	0507.00	Minority and English isolation
Block Group 1	0509.01	Minority and English isolation
Block Group 2	0509.01	Minority
Block Group 2	0510.00	Minority and income
Block Group 3	0510.00	Minority
Block Group 1	0511.01	Minority and English isolation
Block Group 3	0511.01	Minority
Block Group 4	0511.01	Minority
Block Group 2	0606.04	Minority
Block Group 1	0607.00	Minority and income
Block Group 2	0607.00	Minority, income and English isolation
Block Group 2	0610.00	Minority and income
Block Group 1	0612.03	Minority
Block Group 2	0701.02	Minority
Block Group 3	0701.02	Minority
Block Group 1	0701.03	Minority
Block Group 1	0702.01	Minority, income and English isolation
Block Group 2	0702.01	Minority
Block Group 1	0702.02	Minority, income and English isolation
Block Group 2	0702.02	Minority, income and English isolation
Block Group 2	0703.01	Minority
Block Group 1	0703.02	Minority
Block Group 2	0704.02	Minority, income and English isolation
Block Group 2	0705.01	Minority
Block Group 1	0705.02	Minority
Block Group 1	0708.02	Minority
Block Group 2	0708.02	Minority
Block Group 2	0709.02	Minority
Block Group 1	0711.01	Minority
Block Group 4	0711.01	Minority
Block Group 2	0712.01	Minority and income
Block Group 3	0712.01	Minority
Block Group 4	0712.01	Minority, income and English isolation
Block Group 2	0511.01	Minority, income and English isolation
Block Group 1	0512.00	Minority and English isolation
Block Group 2	0512.00	Minority
Block Group 3	0512.00	Minority
Block Group 1	0712.01	Minority
Block Group 1	0606.04	Minority
Block Group 3	0610.00	Minority and income
Block Group 2	0611.01	Minority, income and English isolation
Block Group 1	0611.01	Minority and income
Block Group 1	0701.04	Minority
Block Group 2	0701.04	Minority
Block Group 3	0701.04	Minority and English isolation
Block Group 1	0701.02	Minority, income and English isolation
Block Group 3	0711.01	Minority and English isolation
Block Group 3	0703.02	Minority
Block Group 1	0704.02	Minority
Block Group 2	0705.02	Minority, income and English isolation
Block Group 1	0707.00	Minority and income
Block Group 2	0707.00	Minority
Block Group 1	0709.02	Minority
Block Group 1	0909.01	Minority, income and English isolation
Block Group 1	1601.02	Minority and English isolation
Block Group 2	1601.02	Minority and English isolation
Block Group 3	1601.02	Minority

Block Group 4	1601.02	Minority, income and English isolation
Block Group 1	1601.03	Minority and English isolation
Block Group 2	1601.03	Minority and English isolation
Block Group 3	1601.03	Minority
Block Group 4	1601.03	Minority and English isolation
Block Group 1	1602.00	Minority and English isolation
Block Group 2	1602.00	Minority, income and English isolation
Block Group 3	1602.00	Minority and English isolation
Block Group 4	1602.00	Minority and income
Block Group 1	1603.00	Minority
Block Group 3	1604.00	Minority
Block Group 4	1604.00	Minority and income
Block Group 1	1605.01	Minority
Block Group 2	1605.01	Minority and income
Block Group 3	1605.01	Minority
Block Group 4	1605.01	Minority, income and English isolation
Block Group 5	1605.01	Minority and income
Block Group 1	1605.02	Minority, income and English isolation
Block Group 3	1605.02	Minority
Block Group 4	1605.02	Minority, income and English isolation
Block Group 5	1605.02	Minority
Block Group 3	1606.01	Minority
Block Group 4	1606.01	Minority
Block Group 2	1606.02	Minority
Block Group 2	1603.00	Minority and income
Block Group 1	1604.00	Minority, income and English isolation
Block Group 2	1604.00	Minority, income and English isolation
Block Group 1	1606.01	Minority and income
Block Group 2	1606.01	Minority
Block Group 1	1606.02	Minority
Block Group 4	1606.02	Minority, income and English isolation
Block Group 5	1606.02	Minority
Block Group 1	1701.01	Minority
Block Group 2	1701.01	Minority
Block Group 3	1701.01	Minority
Block Group 1	1701.02	Minority and English isolation
Block Group 2	1701.02	Minority
Block Group 3	1701.02	Minority
Block Group 4	1701.02	Minority and income
Block Group 1	1702.00	Minority and income
Block Group 2	1702.00	Minority, income and English isolation
Block Group 4	1702.00	Minority and income
Block Group 1	1703.01	Minority
Block Group 2	1703.01	Minority
Block Group 3	1703.01	Minority
Block Group 4	1703.01	Minority
Block Group 1	1703.02	Minority
Block Group 2	1703.02	Minority
Block Group 3	1703.02	Minority
Block Group 5	1704.00	Minority
Block Group 2	1705.02	Minority and income
Block Group 3	1705.02	Minority and income
Block Group 1	1705.03	Minority
Block Group 1	1705.04	Minority
Block Group 2	1705.04	Minority
Block Group 2	1706.01	Minority
Block Group 2	1707.01	Minority
Block Group 1	1707.02	Minority, income and English isolation
Block Group 2	1707.02	Minority and income
Block Group 4	1707.02	Minority and English isolation

Block Group 1	1708.00	Minority
Block Group 4	1801.01	Minority
Block Group 1	1802.00	Minority
Block Group 2	1802.00	Income
Block Group 3	1802.00	Income
Block Group 1	1805.00	Minority
Block Group 3	1805.00	Minority
Block Group 1	9813.00	Minority
Block Group 3	1606.02	Minority
Block Group 3	1702.00	Minority and income
Block Group 1	1704.00	Minority
Block Group 2	1704.00	Minority and income
Block Group 3	1704.00	Minority and income
Block Group 4	1704.00	Minority and English isolation
Block Group 1	1705.02	Minority
Block Group 1	1706.01	Minority
Block Group 3	1706.01	Minority
Block Group 4	1706.01	Minority and income
Block Group 3	1707.02	Minority and income
Block Group 5	1707.02	Minority
Block Group 2	1708.00	Minority and income
Block Group 3	1708.00	Minority and income
Block Group 1	1707.01	Minority and income
Block Group 4	1708.00	Minority
Block Group 3	1801.01	Income



Appendix I

Environmental Justice Screening Form

Environmental Justice Screening Form

Project Name	Bayswater Embankment Restoration Project
Anticipated Date of MEPA Filing	10/31/2023
Proponent Name	Massachusetts Port Authority
Contact Information (e.g., consultant)	Foth Infrastructure and Environment, LLC
Public website for project or other physical location where project materials can be obtained (if available)	https://www.massport.com/logan-airport/about-logan/environmental-reports/ or via email below: MA Port Email (General information): AGuerriero@massport.com MA Port Email (Permitting information): Bwashburn@massport.com Foth Email (Representative): Kaitlyn.Cross@foth.com
Municipality and Zip Code for Project (if known)	Boston, 02128
Project Type* (list all that apply)	Coastal Infrastructure
Is the project site within a mapped 100-year FEMA flood plain? Y/N/unknown	Yes
Estimated GHG emissions of conditioned spaces (click here for GHG Estimation tool)	N/A

Project Description

<p>1. Provide a brief project description, including the overall size of the project site and square footage of proposed buildings and structures if known.</p> <p>The proposed project involves the repair of shoreline protection for Bayswater Street in Boston, Massachusetts. There are seven (7) proposed critical areas to be repaired initially with the remainder of the shoreline to be repaired in a phased manner. In total, the eroded area consists of 1,650± linear feet. Repairs will consist of a riprap revetment containing a 1.0-foot thick layer of approximately 1.0-inch to 5.0-inch filter stone with filter fabric, a 12.0 inch – 32.0 inch layer of armor stone, and a toe stone supporting the armor stone layer sized approximately 3.0 Tons to 4.0 Tons.</p> <p>These repairs are anticipated to stabilize the existing shoreline embankment and shall provide protection during a 100-year storm event. Foth has developed this design to accommodate a maximum of 3.0’ of future beach erosion without jeopardizing the structure’s slope stability as well as eliminate permanent impacts to the adjacent habitat. Foth has prepared this design with a service life of approximately 50-years.</p>
<p>2. List anticipated MEPA review thresholds (301 CMR 11.03) (if known)</p> <ul style="list-style-type: none"> • 11.03 (3)(b)1.a. Provided that a permit is required: Alteration of coastal dune, barrier beach, or coastal bank • 11.03(3)(b)1.e New fill or structure or Expansion of existing fill or structure, except a pile-supported structure, in a velocity zone or regulatory floodway

<p>3. List all anticipated state, local, and federal permits needed for the project (if known)</p> <p>Massachusetts DEP- Waterways Ch 91 License Massachusetts DEP- Water Quality Certification Boston Conservation Commission- Order of Conditions Massachusetts Environmental Policy Act – Secretary Certificate United States Army Corps of Engineers- Anticipated General Permit 7, Pre-Construction Notification (If required) Coastal Zone Management- Federal Consistency Review (If required)</p>
<p>4. Identify EJ populations and characteristics (Minority, Income, English Isolation) within 5 miles of the project site (can attach map identifying 5-mile radius from EJ Maps Viewer in lieu of narrative)</p> <p>See attached map and list of EJ Populations within 1 and 5 miles of the site.</p>
<p>5. Identify any municipality or census tract meeting the definition of “vulnerable health EJ criteria” in the DPH EJ Tool located in whole or in part within a 1-mile radius of the project site</p> <p>Vulnerable health EJ criteria located within a 1-mile radius of the project site in Boston include: Low Birth Weight, Pediatric Asthma, Heart Attack, and Childhood Blood Lead</p>
<p>6. Identify potential short-term and long-term environmental and public health impacts that may affect EJ Populations and any anticipated mitigation</p> <p>The project will have little to no effect on resource areas and the environment. The proposed revetment is anticipated to provide additional armoring for the preservation of the coastal bank resource areas. The proposed revetment has been designed to produce no impacts to the adjacent salt marsh or shellfish suitability areas. A temporary sheet pile wall will be installed seaward of the project site during construction to avoid potential impacts to the adjacent habitat area and will be removed once construction is complete. Any additional potential impacts from the revetment construction shall be temporary and are anticipated to resolve naturally. There are no anticipated public health impacts.</p>
<p>7. Identify project benefits, including “Environmental Benefits” as defined in 301 CMR 11.02, that may improve environmental conditions or public health of the EJ population</p> <p>The project will benefit the environmental conditions and public health of the EJ population by allowing for additional protection of the existing shoreline and roadways. The proposed revetment is anticipated to increase the safety of use of the adjacent street for the EJ Population as well as protect the immediate adjacent communities against severe storms and sea level rise. The proposed revetment has been designed to account for 100-year storm events as well as projected sea level rise over the 50-year design life. The revetment will also provide protection to the adjacent salt marsh and shellfish resource areas by not only reducing the runoff from the roadway but also by providing additional support to the existing bank. This shall prevent erosion or potential burying of the adjacent salt marsh and shellfish resource areas.</p>
<p>8. Describe how the community can request a meeting to discuss the project, and how the community can request oral language interpretation services at the meeting. Specify how to request other accommodations, including meetings after business hours and at locations near public transportation.</p> <p>Anthony Guerriero is the public outreach contact person for the Massachusetts Port Authority; he can be most easily reached at AGuerriero@massport.com. Additional information for the project can be found at https://www.massport.com/logan-airport/about-logan/environmental-reports/.</p>

Formulario de evaluación de justicia ambiental

Nombre del proyecto	Proyecto de restauración del dique de Bayswater
Fecha prevista de presentación ante MEPA	31-oct-2023
Nombre del proponente	Massachusetts Port Authority
Información de contacto (p. ej., consultor)	Foth Infrastructure and Environment, LLC
Sitio web público para el proyecto u otra ubicación física donde se pueden obtener materiales del proyecto (si está disponible)	https://www.massport.com/logan-airport/about-logan/environmental-reports/ o por correo electrónico: Correo electrónico del Puerto de MA (Información general): AGuerrero@massport.com Correo electrónico del Puerto de MA (Información de permisos): Bwashburn@massport.com Correo electrónico de Foth (Representante): Kaitlyn.Cross@foth.com
Municipio y código postal del proyecto (si se conoce)	Boston, 02128
Tipo de proyecto* (indique todos los que correspondan)	Infraestructura Costera
¿Se encuentra el sitio del proyecto dentro de un terreno inundable dentro de 100 años mapeado por la FEMA? S/N/Se desconoce	Sí
Emisiones estimadas de GEI de los espacios acondicionados (haga clic aquí para acceder a la herramienta de estimación de GEI)	N/A

Descripción del Proyecto

1. Proporcione una breve descripción del proyecto, incluido el tamaño total del sitio del proyecto y los pies cuadrados de los edificios y estructuras propuestos, si se conocen.

El proyecto propuesto consiste en la reparación de la protección costera de Bayswater Street en Boston, Massachusetts. Se han propuesto siete (7) zonas críticas que se repararán inicialmente y el resto del litoral se reparará de forma escalonada. En total, la zona erosionada consta de 1.650 pies lineales. Las reparaciones consistirán en un revestimiento de escollera que contendrá una capa de 1,0 pie de espesor de aproximadamente 1 a 5 pulgadas de piedra de filtración con tela filtrante, una capa de 12 a 32 pulgadas de piedra de protección y una piedra de soporte de la capa de piedra de protección de aproximadamente 3 a 4 toneladas.

Se prevé que estas reparaciones estabilizarán el terraplén costero existente y brindarán protección durante un evento de tormenta de 100 años. Foth ha desarrollado este diseño de manera que se permita un máximo de 3.0' de erosión futura de las playas sin poner en riesgo la estabilidad de la pendiente de la estructura así como eliminar los impactos permanentes en el hábitat adyacente. Foth ha preparado este diseño con una vida útil de aproximadamente 50 años.

2. Indique los niveles de revisión anticipada de MEPA (301 CMR 11.03) (si se conocen).

- 11.03 (3)(b)1.a. Siempre que se requiera un permiso: alteración de dunas costeras, playas de barrera o franjas costeras
- 11.03(3)(b)1.e Nuevo relleno o estructura o Expansión del relleno o estructura existente, excepto una estructura soportada por pilotes, en una zona de velocidad o aliviadero reglamentario

3. Enumere todos los permisos estatales, locales y federales previstos necesarios para el proyecto (si se conocen).

Licencia del Cap. 91 para Vías Fluviales – Dep. de Protección Ambiental de Massachusetts [DEP]

Certificación de Calidad del Agua - DEP Massachusetts

Orden de Condiciones - Comisión de Conservación de Boston

Certificado de Secretaría - Ley sobre Políticas Ambientales de Massachusetts

Permiso General Anticipado 7, Aviso de Pre-Construcción (si se requiere) - Cuerpo de Ingenieros del Ejército de los Estados Unidos

Revisión de Consistencia Federal (Si se requiere) – Administración de Zona Costera

4. Identifique las poblaciones y características de justicia ambiental (EJ) (minoría, ingresos, aislamiento inglés) dentro de las 5 millas del sitio del proyecto (puede adjuntar un mapa que identifique un radio de 5 millas desde la opción Visor de mapas de EJ en lugar de texto)

Ver mapa adjunto y el listado de Poblaciones de EJ que se encuentran en un radio de entre 1 y 5 millas del lugar.

5. Identifique cualquier municipio o sección censal que cumpla con la definición de “criterios de población de EJ con salud vulnerable” en la Herramienta de EJ del Departamento de Salud Pública (DPH) ubicado en su totalidad o en parte dentro de un radio de 1 milla del sitio del proyecto.

Los criterios de EJ con vulnerabilidad sanitaria que se encuentran dentro de un radio de 1 milla del lugar del proyecto en Boston incluyen: bajo peso al nacer, asma infantil, ataque cardíaco y plomo en la sangre durante la infancia

6. Identifique los potenciales impactos a corto y largo plazo sobre el ambiente y la salud pública que pueden afectar a las poblaciones de EJ y cualquier mitigación prevista.

El proyecto tendrá muy poco o ningún efecto para las áreas de recursos y el medioambiente. Se anticipa que el muro de contención propuesto brindará mayor protección para la preservación de las áreas de recursos de la franja costera. El muro de contención propuesto fue diseñado de manera que no se produzcan impactos para las áreas cercanas de marismas salinas o aptas para moluscos. Durante el período de la construcción se instalará temporalmente un muro de tablestacas de cara al mar en la zona del proyecto para evitar posibles impactos para el hábitat cercano, y se retirará esa estructura cuando la obra se haya completado. Cualquier otro potencial impacto de la construcción del muro de contención será temporal y se anticipa que se resuelva de manera natural. No se espera ningún tipo de impacto para la salud pública.

7. Identifique los beneficios del proyecto, incluidos los “beneficios ambientales”, tal como se definen en 301 CMR 11.02, que pueden mejorar las condiciones ambientales o la salud pública de la población de EJ.

El proyecto favorecerá las condiciones ambientales y la salud pública de la población de EJ al brindar una mayor protección de la ribera existente y las calzadas. Se espera que el muro de contención propuesto incremente la seguridad de uso de la calle adyacente para la Población de EJ y que proteja a las comunidades aledañas frente a tormentas fuertes y aumentos del nivel del mar. El muro de contención propuesto fue diseñado tomando en consideración eventos de tormentas de 100 años y crecidas proyectadas del nivel del mar durante los 50 años de vida del diseño. El muro de contención también ofrecerá protección para las áreas adyacentes de marisma salina y recursos de moluscos al reducir los vertidos desde la calzada y proporcionará mayor soporte a la ribera existente. Esto evitará la erosión o potencial hundimiento de las áreas cercanas de marisma salina y recursos de moluscos.

8. Describa cómo la comunidad puede solicitar una reunión para analizar el proyecto y cómo la comunidad puede solicitar servicios de interpretación de lenguaje oral en la reunión. Especifique cómo solicitar otras adaptaciones, incluidas reuniones fuera del horario laboral y en lugares cercanos al transporte público.

Anthony Guerriero es la persona de contacto para difusión pública de la Autoridad Portuaria de Massachusetts; la mejor manera de contactarlo es a través de AGuerriero@massport.com. Puede obtener más información del proyecto en <https://www.massport.com/logan-airport/about-logan/environmental-reports/>.

نموذج مسح العدالة البيئية

اسم المشروع	مشروع ترميم شارع بايزووتر (Bayswater Embankment Restoration) (Project)
التاريخ المتوقع للتقديم بمكتب قانون السياسة البيئية (MEPA)	2023/10/31
اسم مقدم الاقتراح	هيئة موانئ ماساتشوستس (Massachusetts Port Authority)
معلومات الاتصال (على سبيل المثال، المكتب الاستشاري)	Foth Infrastructure and Environment, LLC
الموقع الإلكتروني العام للمشروع أو موقع مادي آخر حيث يمكن الحصول على المواد المتعلقة بالمشروع (إذا توفرت)	https://www.massport.com/logan-airport/about-logan/environmental-reports/ أو عبر عنوان البريد الإلكتروني أدناه: البريد الإلكتروني لهيئة موانئ ماساتشوستس (معلومات عامة): AGuerriero@massport.com البريد الإلكتروني لهيئة موانئ ماساتشوستس (معلومات التصاريح): Bwashburn@massport.com البريد الإلكتروني لمؤسسة (Foth) (المنسوب): Kaitlyn.Cross@foth.com
البلدية والرمز البريدي للمشروع (إذا كان معروفاً)	Boston, 02128
نوع المشروع* (أدرج كل ما ينطبق)	البنية التحتية الساحلية
هل يقع موقع المشروع ضمن سهل فيضان مخطط له لمدة 100 عام من وكالة إدارة الطوارئ الفدرالية (FEMA)؟ نعم / لا / غير معروف	نعم
انبعاثات غازات الدفيئة المقدرة من المساحات المكيفة لا ينطبق (انقر هنا للحصول على أداة تقدير غازات الدفيئة)	

وصف المشروع

<p>1. قدم وصفاً موجزاً للمشروع، بما في ذلك الحجم الكلي لموقع المشروع والمساحة المربعة للمباني والهياكل المقترحة إذا كانت معروفة.</p> <p>يتضمن المشروع المقترح إصلاح حماية الخط الساحلي لشارع بايزووتر (Bayswater Street) في بوسطن، ماساتشوستس. وهناك سبع (7) مناطق حرجة يقترح إصلاحها في البداية مع إصلاح ما تبقى من الخط الساحلي على مراحل. في المجموع، تتكون المناطق المتأكلة من 1,650 قدم ± طولي. سوف تتكون الإصلاحات من طبقة مصدات تحتوي على طبقة سمكها 1.0 قدم تقريباً من 1.0 بوصة إلى 5.0 بوصة من حجر الترشيح مع نسيج مرشح، وطبقة من الحجر المدرج مقاس 12.0 بوصة - 32.0 بوصة، وحجر أساس يدعم طبقة الحجر المدرج بحجم 3.0 طن تقريباً 4.0 طن.</p> <p>ومن المتوقع أن تؤدي هذه الإصلاحات إلى تثبيت السد الساحلي الحالي وتوفير الحماية من العواصف لمدة 100 عام. وقد طورت شركة (Foth) هذا التصميم لاستيعاب 3.0 بوصة كحد أقصى من تآكل الشاطئ في المستقبل دون تعريض استقرار المنحدر للهيك للخطر وكذلك القضاء على التأثيرات الدائمة على الموائل المجاورة. وقد أعدت شركة (Foth) هذا التصميم لفترة خدمة تقترب من 50 عاماً.</p>
<p>2. أدرج حدود مراجعة مكتب قانون السياسة البيئية (MEPA) المتوقعة (301 CMR 11.03) (إذا كان معروفاً)</p> <ul style="list-style-type: none"> • المادة (11.03 (3)(b)1.a.) شريطة أن يكون التصريح مطلوباً: تغيير الكثبان الرملية الساحلية أو الشاطئ الحاجز أو الضفة الساحلية • المادة (11.03(3)(b)1.e) ردم جديد أو هيكل جديد أو التوسع في الردم أو الهيكل الحالي، باستثناء الهيكل المدعوم بالأكوام، في منطقة السرعة أو مجرى الفيضان التنظيمي

3. أسرد كافة التصاريح المتوقعة الخاصة بالولاية والمحلية والفيدرالية اللازمة للمشروع (إذا كانت معروفة)

إدارة حماية البيئة بولاية ماساتشوستس (Massachusetts DEP) - رخصة الممرات المائية (Waterways Ch 91)
إدارة حماية البيئة بولاية ماساتشوستس (Massachusetts DEP) - شهادة جودة المياه
لجنة الحفاظ على بوسطن (Boston Conservation Commission) - نظام الشروط
قانون السياسة البيئية لولاية ماساتشوستس (Massachusetts Environmental Policy Act) - شهادة المفوض
فيلق المهندسين التابع لجيش الولايات المتحدة (United States Army Corps of Engineers) - التصريح العام المتوقع 7، إخطار ما
قبل البناء (إذا كان مطلوباً)
إدارة المناطق الساحلية (Coastal Zone Management) - استعراض الاتساق الفيدرالي (إذا كان مطلوباً)

4. تحديد فئات سكان منطقة العدالة البيئية وخصائصهم (الأقلية، الدخل، العزلة بسبب عدم إجادة الإنكليزية) ضمن 5 أميال من موقع المشروع
(يمكن إرفاق خريطة تحدد دائرة نصف قطرها 5 أميال من عارض خرائط منطقة العدالة البيئية [EJ Maps Viewer](#) بدلاً من السرد)
راجع الخريطة المرفقة وقائمة مجموعات السكان في منطقة العدالة البيئية ضمن مسافة 1 و5 أميال من الموقع.

5. تحديد أي بلدية أو مسالك التعداد التي تستوفي تعريف "معايير العدالة البيئية الصحية الضعيفة" في أداة [DPH EJ Tool](#) الموجودة كلياً أو
جزئياً ضمن دائرة نصف قطرها ميلاً واحداً (1) من موقع المشروع

تشمل معايير الصحة المتعلقة بالعدالة البيئية المعرضة للخطر التي تقع ضمن نطاق ميل واحد من موقع المشروع في بوسطن ما يلي: انخفاض
الوزن عند الولادة، والربو عند الأطفال، والنوبات القلبية، ونسبة الرصاص في دم الأطفال

6. تحديد التأثيرات البيئية والصحية العامة المحتملة على المدى القصير والطويل والتي قد تؤثر على العدالة البيئية للسكان وأي تخفيف متوقع
وسيكون للمشروع تأثير ضئيل أو معدوم على مناطق الموارد والبيئة. ومن المتوقع أن يوفر التعديل المقترح تدريجياً إضافياً للحفاظ على مناطق
موارد الضفة الساحلية. تم تصميم التعديل المقترح بحيث لا ينتج عن أي آثار على المستنقعات الملحية المجاورة أو مناطق ملائمة معيشة
المحارات. سيتم تركيب جدار عازل حديدي مؤقت من موقع المشروع أثناء البناء لتجنب الآثار المحتملة على منطقة الموائل المجاورة وسيتم
إزالته بمجرد اكتمال البناء. أي آثار محتملة إضافية ناجمة عن تشييد الصهريج ستكون مؤقتة ويتوقع أن تحل بصورة طبيعية. ولا توجد آثار
متوقعة على الصحة العامة.

7. تحديد فوائد المشروع، بما في ذلك "الفوائد البيئية" كما هي محددة في القانون 301 CMR 11.02، التي قد تحسن الظروف البيئية أو
الصحة العامة لفئات سكان منطقة العدالة البيئية.

سيعود المشروع بالفائدة على الظروف البيئية والصحة العامة لسكان منطقة العدالة البيئية من خلال السماح بحماية إضافية للخط الساحلي والطرق
الحالية. ومن المتوقع أن يؤدي التعديل المقترح إلى زيادة سلامة استخدام الشوارع المجاور لسكان منطقة العدالة البيئية إلى جانب حماية المجتمعات
المجاورة مباشرة من العواصف الشديدة وارتفاع مستوى سطح البحر. تم تصميم التعديل المقترح لمراعاة أحداث العواصف التي استمرت على
مدار 100 عام بالإضافة إلى الارتفاع المتوقع في مستوى سطح البحر على مدار عمر التصميم البالغ 50 عاماً. ستوفر عملية إعادة الإغلاق
أيضاً الحماية لمناطق المستنقعات المالحة المجاورة وموارد المحارات ليس فقط من خلال تقليل الجريان السطحي من الطريق ولكن أيضاً من
خلال توفير دعم إضافي للضفة الحالية. ويمنع ذلك تآكل المنطقة المجاورة أو احتمال دفتها
مناطق موارد المستنقعات المالحة والمحار.

8. صف كيف يمكن للمجتمع أن يطلب اجتماعاً لمناقشة المشروع، وكيف يمكن للمجتمع أن يطلب خدمات الترجمة الشفوية في الاجتماع. حدد
كيفية طلب تسهيلات أخرى، بما في ذلك الاجتماعات بعد ساعات العمل وفي المواقع القريبة من وسائل النقل العام.

أنثوني غويريرو/Anthony Guerriero هو طرف الاتصال العام لهيئة موانئ ماساتشوستس؛ يمكن الوصول إليه بسهولة على عنوان البريد
الإلكتروني AGuerriero@massport.com. ويمكن الاطلاع على معلومات إضافية عن المشروع على الرابط
<https://www.massport.com/logan-airport/about-logan/environmental-reports/>

Appendix J

MEPA Advance Notification

Marshall, Carrie

From: Marshall, Carrie
Sent: Friday, September 15, 2023 2:13 PM
To: MEPA-EJ (EEA); Danielle V. Dolan; juliablatt@massriversalliance.org; elvis@n2nma.org; ben@environmentmassachusetts.org; claire@uumassaction.org; cluppi@cleanwater.org; deb.pasternak@sierraclub.org; Heather Clish; Heidi Ricci; kelly.boling@tpl.org; kerry@msaadapartners.com; Nancy Goodman (she/her); rob@oceanriver.org; robb@massland.org; Staci Rubin; Sylvia Broude; tribalcouncil@chappaquiddickwampanoag.org; crwritings@aol.com; john.peters@mass.gov; acw1213@verizon.net; melissa@herringpondtribe.org; rockerpatriciad@verizon.net; rhalsey@naicob.org; Coradot@yahoo.com; Solomon.Elizabeth@gmail.com; Bettina Washington; Brian.Weeden@mwtribe-nsn.gov; david.queeley@mysticriver.org; julie.wormser@mysticriver.org; hmiller@crwa.org; joy@bostonfarms.org; abrown@bostonharbornow.org; KSherman@BostonHarborNow.Org; karen@cpaboston.org; lee@massclu.org; Bruce@bostonharbor.com; lydia@chinatownclt.org; mimi.neunited4justice@gmail.com; dfastino@aol.com; may.lui@asiancdc.org; Laura Jasinski; mariabelenp@greenrootschelsea.org; cbmarchi@gmail.com; eugene.b.benson@gmail.com; gladysv@chelseacollab.org; RoseannB@GreenRootsChelsea.org; magdalena.ayed@gmail.com; bob.damico@boston.gov; gabriela.coletta@boston.gov; lydia.edwards@masenate.gov; adrian.madaro@mahouse.gov; Jason.Ruggiero@Boston.gov; Kathleen.Hardaway@masenate.gov; NATHALIA.BENITEZPEREZ@BOSTONCITY.GOV; lina.tramelli@boston.gov; bab2123@aol.com; mary.berninger@gmail.com; aarontoffler@massportcac.orf
Cc: Cross, Kaitlyn E; Skuncik, Scott R; Bowe, Ethan D; AGuerriero@massport.com; BWashburn@massport.com; ablakebaldwin@massport.com; CBusch@massport.com
Subject: EJ Screening Form Secondary Advanced Notification - Bayswater St. Revetment Repairs Project
Attachments: EJ screening form Bayswater.pdf; EJ screening form Bayswater _Spanish.pdf; EJ screening form Bayswater_Arabic.pdf

To Whom it May Concern,

On behalf of the Massachusetts Port Authority, and pursuant to 301 CMR 11, Foth Infrastructure & Environment, LCC is pleased to provide the attached Environmental Justice(EJ) Screening Form as part of the Secondary Advanced Notification for the Bayswater St Revetment Repairs project as required under 301 CMR 11.05(4). Enclosed is an electronic copy of the EJ Screening form in English, Spanish, and Arabic.

- Project name: Bayswater St Revetment Repairs Project
- Project Location: Bayswater Street, Boston, MA (Directly north of the Boston Logan Airport)
- Project Description: The proposed project involves the repair of shoreline protection for Bayswater Street in Boston, Massachusetts. There are seven (7) proposed critical areas to be repaired initially with the remainder of the shoreline to be repaired in a phased manner. In total, the eroded area consists of 1,650± linear feet. Repairs will consist of a riprap revetment containing a 1.0-foot thick layer of approximately 1.0-inch to 5.0-inch filter stone with filter fabric, an approximately 3.5-foot thick layer of 12.0-inch to 32.0-inch armor stone, and a toe stone supporting the armor stone layer sized approximately 3.0 Tons to 4.0 Tons.

Community-based organizations and tribal organizations are receiving this notification in accordance with the MEPA Public Involvement Protocol for Environmental Justice Populations, which took effect on January 1, 2022. More information is available on the [MEPA website](#).

Please let me know if you have any questions or require additional information.

Thank you,
Carrie Marshall
Civil Engineer, EIT



Foth Infrastructure & Environment, LLC

114 Touro St.

Newport, RI 02840

Cell: (239) 247-3997

foth.com

Appendix K

RMAT Climate Resilience Design Standards Tool Project Report

Climate Resilience Design Standards Tool Project Report

Bayswater Revetment Repairs

Date Created: 11/3/2022 3:01:36 PM

Created By: Carrie.Marshall

Date Report Generated: 11/14/2023 8:24:26 AM

Tool Version: Version 1.2

Project Contact Information: Scott Skuncik (Representative) (Scott.Skuncik@Foth.com)

Project Summary

[Link to Project](#)

Estimated Capital Cost: \$1000000.00

End of Useful Life Year: 2075

Project within mapped Environmental Justice neighborhood: Yes

Ecosystem Service	Scores
Benefits	
Project Score	Moderate
Exposure	
Sea Level Rise/Storm Surge	High
Urban Flooding	Moderate
Extreme Precipitation - Riverine Flooding	Not Exposed
Extreme Heat	High



Asset Preliminary Climate Risk Rating

Number of Assets: 3

Summary

Asset Risk	Sea Level Rise/Storm Surge	Extreme Precipitation - Urban Flooding	Extreme Precipitation - Riverine Flooding	Extreme Heat
Land Subject to Coastal Storm Flowage	Natural Resource project assets do not receive a preliminary climate risk rating.			
Coastal Bank	Natural Resource project assets do not receive a preliminary climate risk rating.			
Coastal Beach	Natural Resource project assets do not receive a preliminary climate risk rating.			

Climate Resilience Design Standards Summary

	Target Planning Horizon	Intermediate Planning Horizon	Percentile Return Period	Tier
Sea Level Rise/Storm Surge				
Land Subject to Coastal Storm Flowage	2070	2050		
Coastal Bank	2070	2050		
Coastal Beach	2070	2050		
Extreme Precipitation				
Land Subject to Coastal Storm Flowage	2070			Tier 2
Coastal Bank	2070			Tier 2
Coastal Beach	2070			Tier 2
Extreme Heat				
Land Subject to Coastal Storm Flowage	2070		50th	Tier 2
Coastal Bank	2070		50th	Tier 2

Scoring Rationale - Project Exposure Score

The purpose of the Exposure Score output is to provide a preliminary assessment of whether the overall project site and subsequent assets are exposed to impacts of natural hazard events and/or future impacts of climate change. For each climate parameter, the Tool will calculate one of the following exposure ratings: Not Exposed, Low Exposure, Moderate Exposure, or High Exposure. The rationale behind the exposure rating is provided below.

Sea Level Rise/Storm Surge

This project received a "High Exposure" because of the following:

- Located within the predicted mean high water shoreline by 2030
- Exposed to the 1% annual coastal flood event as early as 2030
- Historic coastal flooding at project site

Extreme Precipitation - Urban Flooding

This project received a "Moderate Exposure" because of the following:

- Maximum annual daily rainfall exceeds 10 inches within the overall project's useful life
- No historic flooding at project site
- No increase to impervious area
- Existing impervious area of the project site is less than 10%

Extreme Precipitation - Riverine Flooding

This project received a "Not Exposed" because of the following:

- No historic riverine flooding at project site
- The project is not within a mapped FEMA floodplain [outside of the Massachusetts Coast Flood Risk Model (MC-FRM)]
- Project is more than 500ft from a waterbody
- Project is not likely susceptible to riverine erosion

Extreme Heat

This project received a "High Exposure" because of the following:

- 30+ days increase in days over 90 deg. F within project's useful life
- Less than 10% of the existing project site has canopy cover
- Located within 100 ft of existing water body
- No increase to the impervious area of the project site
- No tree removal

Scoring Rationale - Asset Preliminary Climate Risk Rating

A Preliminary Climate Risk Rating is determined for each infrastructure and building asset by considering the overall project Exposure Score and responses to Step 4 questions provided by the user in the Tool. Natural Resource assets do not receive a risk rating. The following factors are what influenced the risk ratings for each asset.

Asset - Land Subject to Coastal Storm Flowage

Primary asset criticality factors influencing risk ratings for this asset:

No score available

Asset - Coastal Bank

Primary asset criticality factors influencing risk ratings for this asset:

No score available

Asset - Coastal Beach

Primary asset criticality factors influencing risk ratings for this asset:

No score available

Project Climate Resilience Design Standards Output

Climate Resilience Design Standards and Guidance are recommended for each asset and climate parameter. The Design Standards for each climate parameter include the following: recommended planning horizon (target and/or intermediate), recommended return period (Sea Level Rise/Storm Surge and Precipitation) or percentile (Heat), and a list of applicable design criteria that are likely to be affected by climate change. Some design criteria have numerical values associated with the recommended return period and planning horizon, while others have tiered methodologies with step-by-step instructions on how to estimate design values given the other recommended design standards.

Asset: Land Subject to Coastal Storm Flowage

Natural Resources

Sea Level Rise/Storm Surge

Target Planning Horizon: 2070

Intermediate Planning Horizon: 2050

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

The projected values, Standards, and Guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence.

Applicable Design Criteria

Projected Tidal Datums: APPLICABLE

Planning Horizon	MHHW	MHW	MTL	MLW	MLLW
	(ft - NAVD88)				
2050	7.7	7.3	2.5	-2.3	-2.6
2070	9.6	9.2	4.3	-0.7	-0.9

Projected Water Surface Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Land Subject to Coastal Storm Flowage	2050	5% (20-Year)	11.1	11.1	11.1
	2070		12.9	12.9	12.9

Projected Wave Action Water Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Land Subject to Coastal Storm Flowage	2050	5% (20-Year)	13.0	11.1	11.9
	2070		14.8	12.9	13.7

Projected Wave Heights: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(Feet)		
Land Subject to Coastal Storm Flowage	2050	5% (20-Year)	4.0	0.0	1.7
	2070		4.0	0.0	1.7

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Duration of Flooding: NOT APPLICABLE

Projected Design Flood Velocity: NOT APPLICABLE

Projected Scour & Erosion: APPLICABLE
[Methodology to Estimate Projected Values](#)

Extreme Precipitation

Target Planning Horizon: 2070

LIMITATIONS: The recommended Standards for Total Precipitation Depth & Peak Intensity are determined by the user drawn polygon and relationships as defined in the Supporting Documents. The projected Total Precipitation Depth values provided through the Tool are based on the climate projections developed by Cornell University as part of EEA's Massachusetts Climate and Hydrologic Risk Project, GIS-based data as of 10/15/21. For additional information on the methodology of these precipitation outputs, see Supporting Documents.

While Total Precipitation Depth & Peak Intensity for 24-hour Design Storms are useful to inform planning and design, it is recommended to also consider additional longer- and shorter-duration precipitation events and intensities in accordance with best practices. Longer-duration, lower-intensity storms allow time for infiltration and reduce the load on infrastructure over the duration of the storm. Shorter-duration, higher-intensity storms often have higher runoff volumes because the water does not have enough time to infiltrate infrastructure systems (e.g., catch basins) and may overflow or back up during such storms, resulting in flooding. In the Northeast, short-duration high intensity rain events are becoming more frequent, and there is often little early warning for these events, making it difficult to plan operationally. While the Tool does not provide recommended design standards for these scenarios, users should still consider both short- and long-duration precipitation events and how they may impact the asset.

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Applicable Design Criteria

Tiered Methodology: Tier 2

Projected Total Precipitation Depth & Peak Intensity for 24-hr Design Storms: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period (Design Storm)	Projected 24-hr Total Precipitation Depth (inches)	Step-by-Step Methodology for Peak Intensity
Land Subject to Coastal Storm Flowage	2070	25-Year (4%)	8.3	Downloadable Methodology PDF

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Riverine Peak Discharge & Peak Flood Elevation: NOT APPLICABLE

Extreme Heat

Target Planning Horizon: 2070

Percentile: 50th Percentile

Applicable Design Criteria

Projected Annual/Summer/Winter Average Temperatures: NOT APPLICABLE

Projected Heat Index: NOT APPLICABLE

Projected Growing Degree Days: NOT APPLICABLE

Projected Days Per Year With Max Temp > 95°F, >90°F, <32°F: NOT APPLICABLE

Projected Number of Heat Waves Per Year & Average Heat Wave Duration: NOT APPLICABLE

Projected Cooling Degree Days & Heating Degree Days (base = 65°F): NOT APPLICABLE

Asset: Coastal Bank

Natural Resources

Sea Level Rise/Storm Surge

Target Planning Horizon: 2070

Intermediate Planning Horizon: 2050

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

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Applicable Design Criteria

Projected Tidal Datums: APPLICABLE

Planning Horizon	MHHW	MHW	MTL	MLW	MLLW
	(ft-NAVD88)				

2050	7.7	7.3	2.5	-2.3	-2.6
2070	9.6	9.2	4.3	-0.7	-0.9

Projected Water Surface Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Coastal Bank	2050	5% (20-Year)	11.1	11.1	11.1
	2070		12.9	12.9	12.9

Projected Wave Action Water Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Coastal Bank	2050	5% (20-Year)	13.0	11.1	11.9
	2070		14.8	12.9	13.7

Projected Wave Heights: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(Feet)		
Coastal Bank	2050	5% (20-Year)	4.0	0.0	1.7
	2070		4.0	0.0	1.7

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Duration of Flooding: NOT APPLICABLE

Projected Design Flood Velocity: NOT APPLICABLE

Projected Scour & Erosion: APPLICABLE
[Methodology to Estimate Projected Values](#)

Extreme Precipitation

Target Planning Horizon: 2070

LIMITATIONS: The recommended Standards for Total Precipitation Depth & Peak Intensity are determined by the user drawn polygon and relationships as defined in the Supporting Documents. The projected Total Precipitation Depth values provided through the Tool are based on the climate projections developed by Cornell University as part of EEA's Massachusetts Climate and Hydrologic Risk Project, GIS-based data as of 10/15/21. For additional information on the methodology of these precipitation outputs, see Supporting Documents.

While Total Precipitation Depth & Peak Intensity for 24-hour Design Storms are useful to inform planning and design, it is recommended to also consider additional longer- and shorter-duration precipitation events and intensities in accordance with best

practices. Longer-duration, lower-intensity storms allow time for infiltration and reduce the load on infrastructure over the duration of the storm. Shorter-duration, higher-intensity storms often have higher runoff volumes because the water does not have enough time to infiltrate infrastructure systems (e.g., catch basins) and may overflow or back up during such storms, resulting in flooding. In the Northeast, short-duration high intensity rain events are becoming more frequent, and there is often little early warning for these events, making it difficult to plan operationally. While the Tool does not provide recommended design standards for these scenarios, users should still consider both short- and long-duration precipitation events and how they may impact the asset.

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Applicable Design Criteria

Tiered Methodology: Tier 2

Projected Total Precipitation Depth & Peak Intensity for 24-hr Design Storms: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period (Design Storm)	Projected 24-hr Total Precipitation Depth (inches)	Step-by-Step Methodology for Peak Intensity
Coastal Bank	2070	25-Year (4%)	8.3	Downloadable Methodology PDF

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Riverine Peak Discharge & Peak Flood Elevation: NOT APPLICABLE

Extreme Heat

Target Planning Horizon: 2070

Percentile: 50th Percentile

Applicable Design Criteria

Projected Annual/Summer/Winter Average Temperatures: NOT APPLICABLE

Projected Heat Index: NOT APPLICABLE

Projected Growing Degree Days: NOT APPLICABLE

Projected Days Per Year With Max Temp > 95°F, >90°F, <32°F: NOT APPLICABLE

Projected Number of Heat Waves Per Year & Average Heat Wave Duration: NOT APPLICABLE

Projected Cooling Degree Days & Heating Degree Days (base = 65°F): NOT APPLICABLE

Asset: Coastal Beach

Natural Resources

Sea Level Rise/Storm Surge

Target Planning Horizon: 2070

Intermediate Planning Horizon: 2050

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

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Applicable Design Criteria

Projected Tidal Datums: APPLICABLE

Planning Horizon	MHHW	MHW	MTL	MLW	MLLW
	(ft-NAVD88)				
2050	7.7	7.3	2.5	-2.3	-2.6
2070	9.6	9.2	4.3	-0.7	-0.9

Projected Water Surface Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Coastal Beach	2050	5% (20-Year)	11.1	11.1	11.1
	2070		12.9	12.9	12.9

Projected Wave Action Water Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Coastal Beach	2050	5% (20-Year)	13.0	11.1	11.9
	2070		14.8	12.9	13.7

Projected Wave Heights: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(Feet)		
Coastal Beach	2050	5% (20-Year)	4.0	0.0	1.7
	2070		4.0	0.0	1.7

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Duration of Flooding: NOT APPLICABLE

Projected Design Flood Velocity: NOT APPLICABLE

Projected Scour & Erosion: APPLICABLE

[Methodology to Estimate Projected Values](#)

Extreme Precipitation

Target Planning Horizon: 2070

LIMITATIONS: The recommended Standards for Total Precipitation Depth & Peak Intensity are determined by the user drawn polygon and relationships as defined in the Supporting Documents. The projected Total Precipitation Depth values provided through the Tool are based on the climate projections developed by Cornell University as part of EEA's Massachusetts Climate and Hydrologic Risk Project, GIS-based data as of 10/15/21. For additional information on the methodology of these precipitation outputs, see Supporting Documents.

While Total Precipitation Depth & Peak Intensity for 24-hour Design Storms are useful to inform planning and design, it is recommended to also consider additional longer- and shorter-duration precipitation events and intensities in accordance with best practices. Longer-duration, lower-intensity storms allow time for infiltration and reduce the load on infrastructure over the duration of the storm. Shorter-duration, higher-intensity storms often have higher runoff volumes because the water does not have enough time to infiltrate infrastructure systems (e.g., catch basins) and may overflow or back up during such storms, resulting in flooding. In the Northeast, short-duration high intensity rain events are becoming more frequent, and there is often little early warning for these events, making it difficult to plan operationally. While the Tool does not provide recommended design standards for these scenarios, users should still consider both short- and long-duration precipitation events and how they may impact the asset.

The projected values, standards, and guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence

Applicable Design Criteria

Tiered Methodology: Tier 2

Projected Total Precipitation Depth & Peak Intensity for 24-hr Design Storms: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period (Design Storm)	Projected 24-hr Total Precipitation Depth (Inches)	Step-by-Step Methodology for Peak Intensity
Coastal Beach	2070	25-Year (4%)	8.3	Downloadable Methodology. PDE

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Riverine Peak Discharge & Peak Flood Elevation: NOT APPLICABLE

Extreme Heat

Target Planning Horizon: 2070
 Percentile: 50th Percentile

Applicable Design Criteria

Projected Annual/Summer/Winter Average Temperatures: NOT APPLICABLE

Projected Heat Index: NOT APPLICABLE

Projected Growing Degree Days: NOT APPLICABLE

Projected Days Per Year With Max Temp > 95°F, >90°F, <32°F: NOT APPLICABLE

Projected Number of Heat Waves Per Year & Average Heat Wave Duration: NOT APPLICABLE

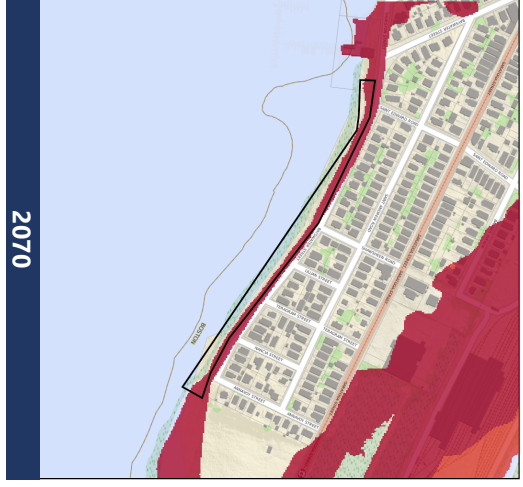
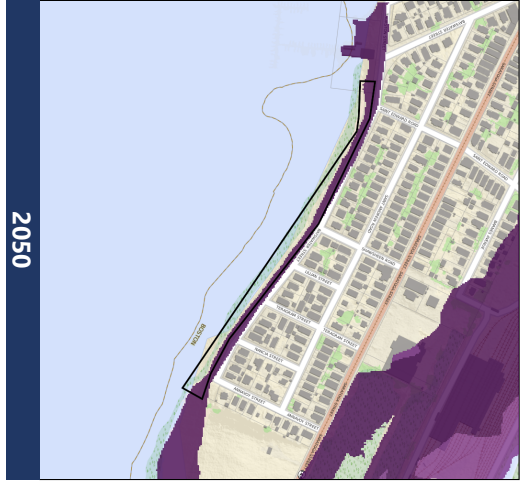
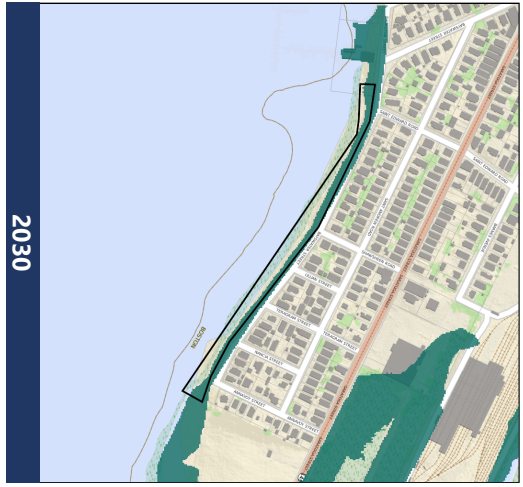
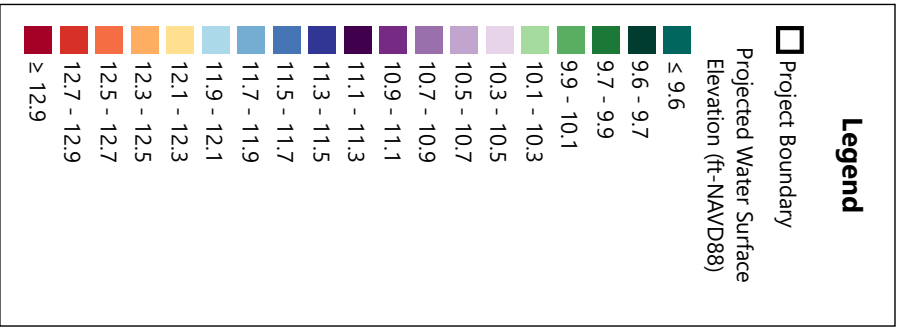
Projected Cooling Degree Days & Heating Degree Days (base = 65°F): NOT APPLICABLE

Sea Level Rise/Storm Surge Project Maps

The following three maps illustrate the Projected Water Surface Elevation for the 2030, 2050, and 2070 planning horizons corresponding to the lowest return period (largest design storm) recommended across the assets identified for this project in the Tool. For projects that only have Natural Resource assets, the maps will show the Projected Water Surface Elevations corresponding to the 5% (20-year) return period. Refer to the Climate Resilience Design Standards Output - Sea Level Rise/Storm Surge Section for additional values associated with other assets. The maps include the project area as drawn by the user with a 0.1 mile minimum buffer, but do not reflect the location of specific assets on the site.

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values and maps provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

The projected values, maps, Standards, and Guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence.



**Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 5% (20-yr)**

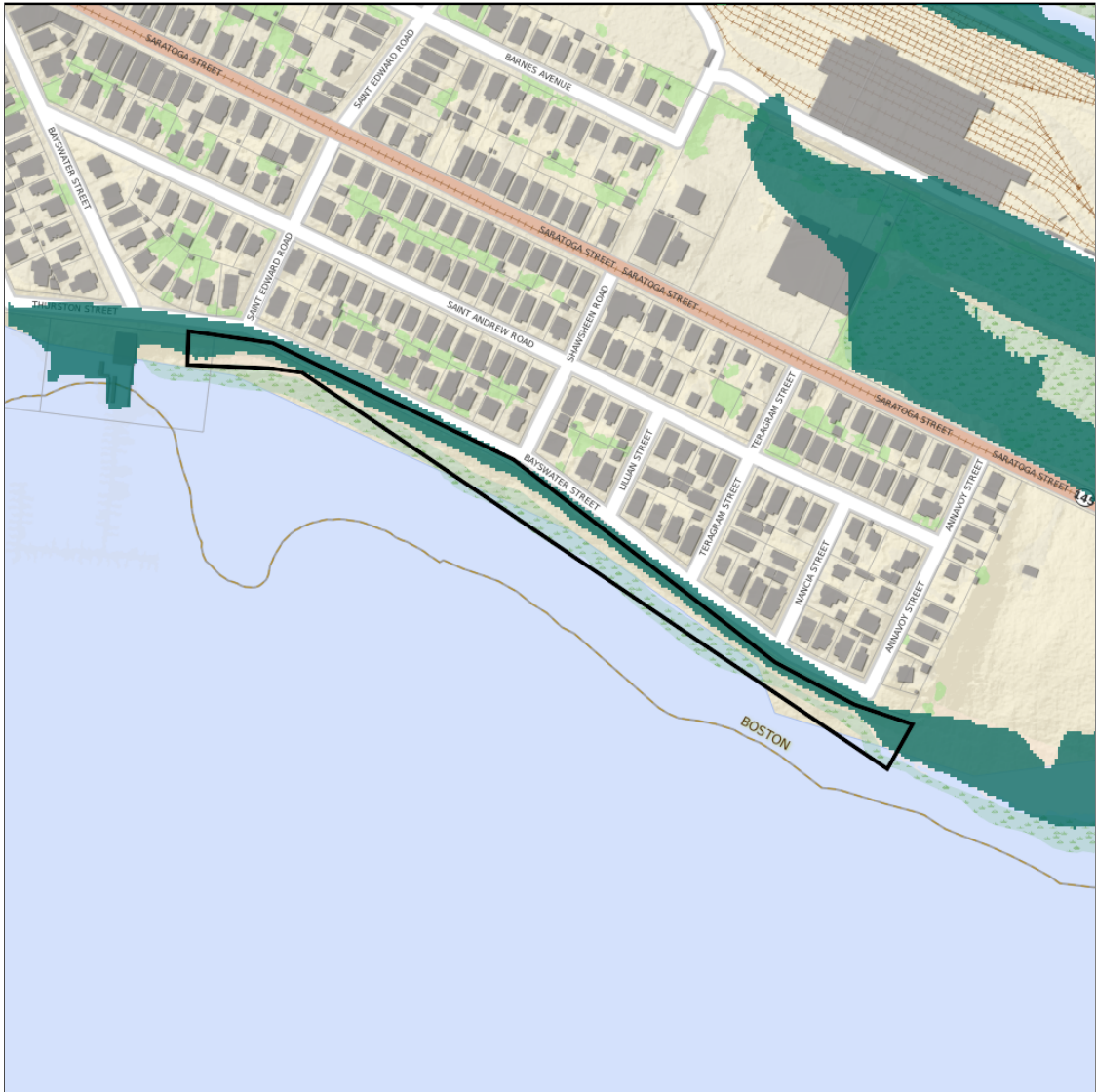
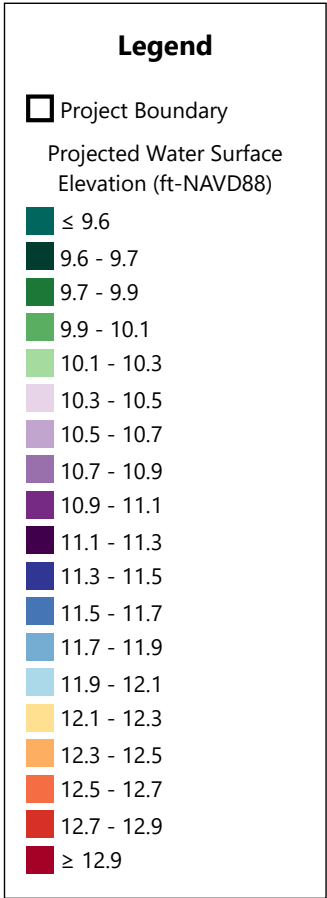
Project Name: Bayswater Revetment Repairs
Location (Town): Boston



Created by: Carrie Marshall
Date Created: 11/3/2022
Tool Version: 1.3



Asset Name	Planning Horizon	Return Period	Max/Min Area Weighted Average (ft-NAVD88)	
			Max	Min
Land Subject to Coastal Storm Flowage, Coastal Bank, Coastal Beach	2030	5% (20-yr)	9.6	9.6
	2050	5% (20-yr)	11.1	11.1
	2070	5% (20-yr)	12.9	12.9



**Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 2030, 5% (20-yr)**

Project Name: Bayswater Revetment Repairs
Location (Town): Boston



Created by: Carrie.Marshall
Date Created: 11/3/2022
Tool Version: 1.3



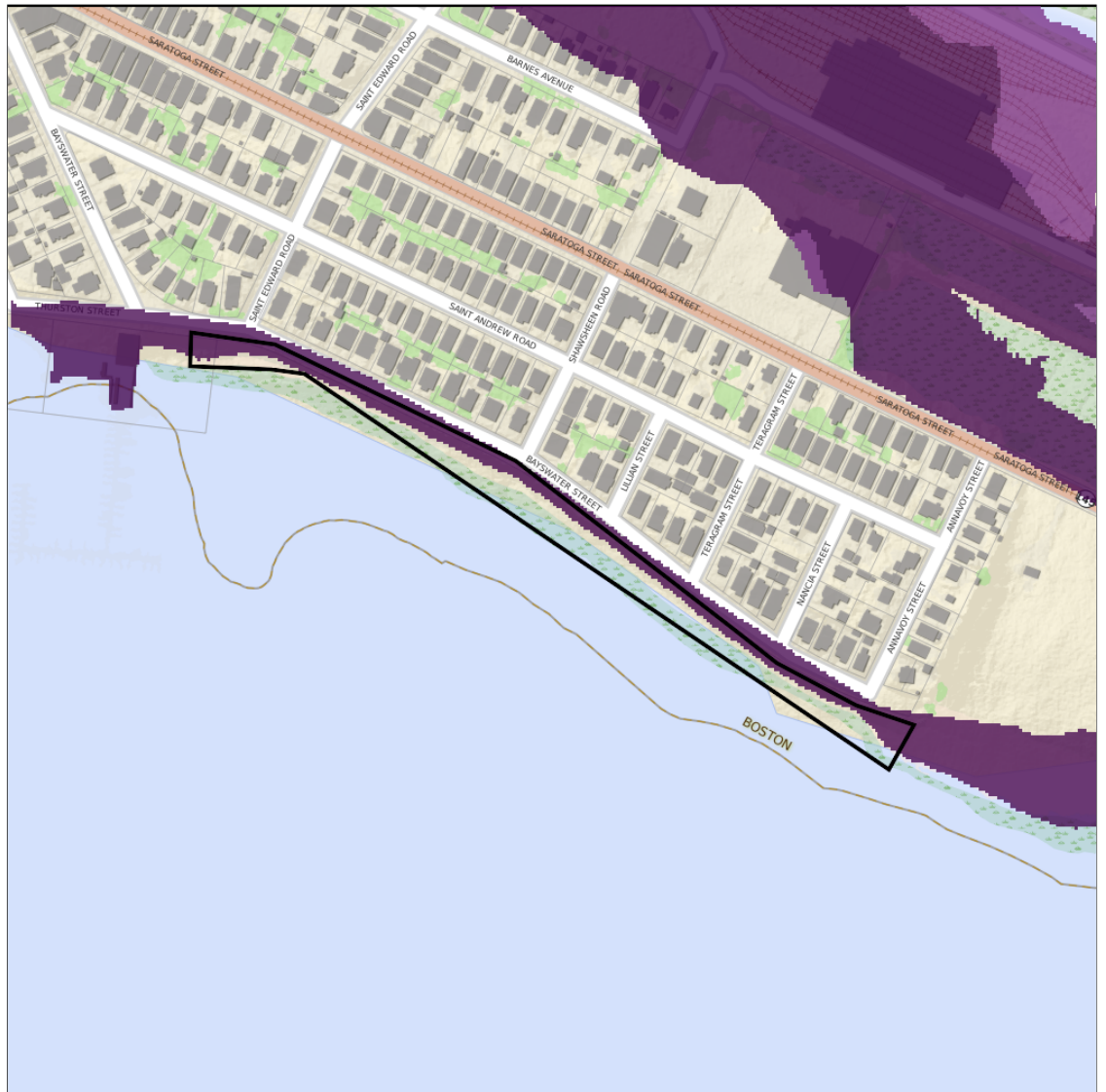
Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Land Subject to Coastal Storm Flowage, Coastal Bank, Coastal Beach	2030	5% (20-yr)	9.6	9.6	9.6

Legend

□ Project Boundary

Projected Water Surface Elevation (ft-NAVD88)

- ≤ 9.6
- 9.6 - 9.7
- 9.7 - 9.9
- 9.9 - 10.1
- 10.1 - 10.3
- 10.3 - 10.5
- 10.5 - 10.7
- 10.7 - 10.9
- 10.9 - 11.1
- 11.1 - 11.3
- 11.3 - 11.5
- 11.5 - 11.7
- 11.7 - 11.9
- 11.9 - 12.1
- 12.1 - 12.3
- 12.3 - 12.5
- 12.5 - 12.7
- 12.7 - 12.9
- ≥ 12.9



**Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 2050, 5% (20-yr)**

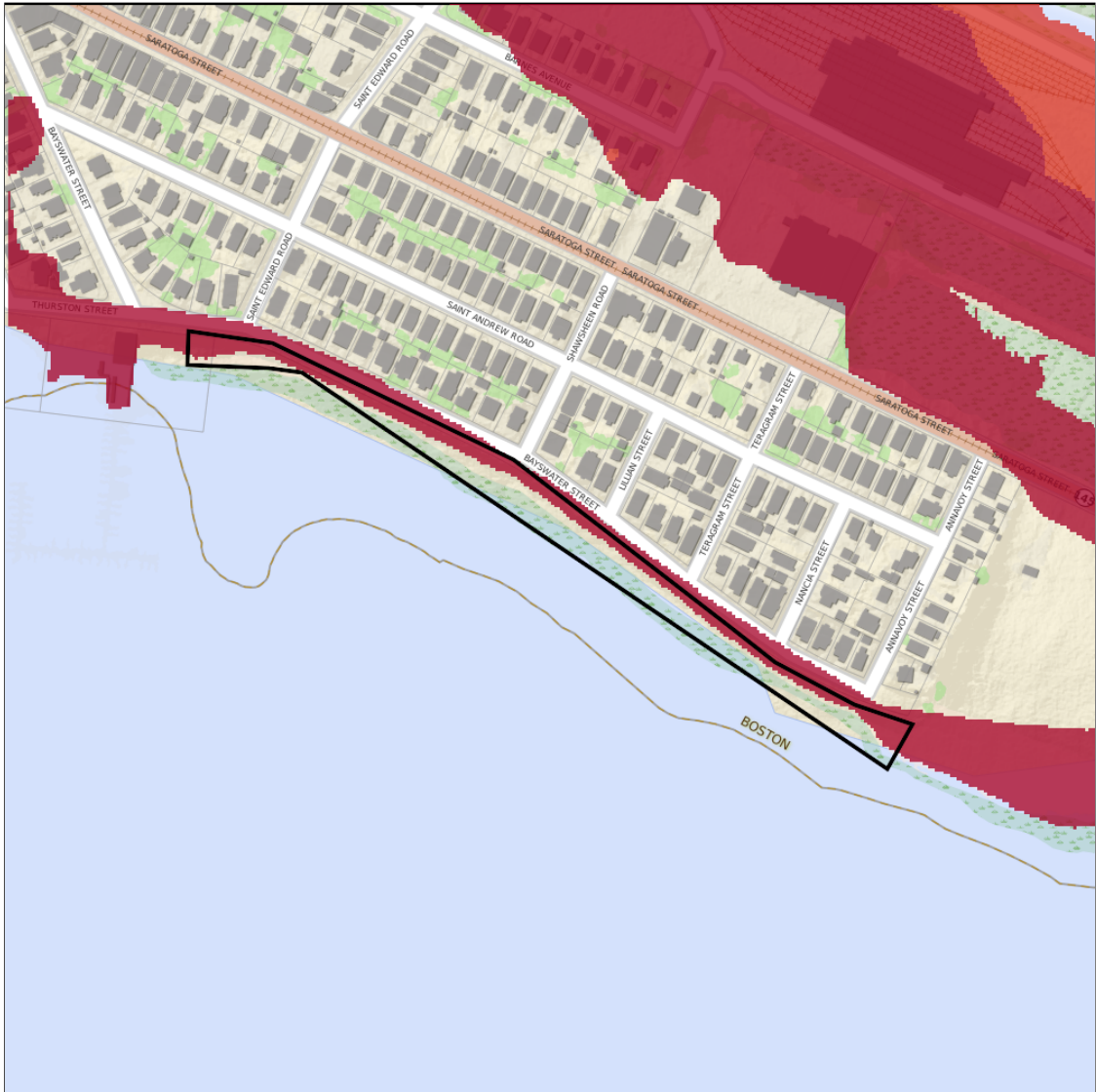
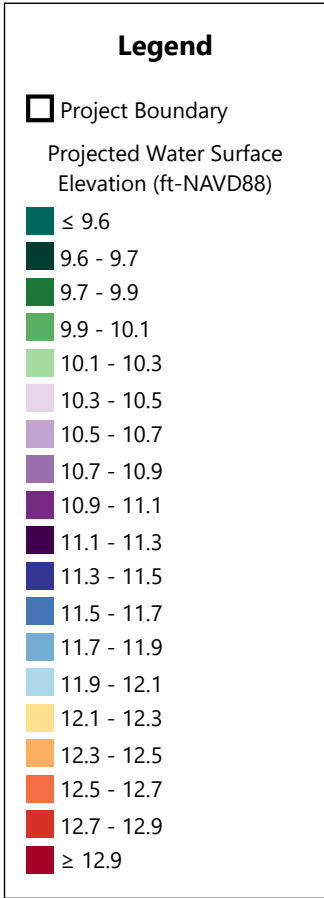
Project Name: Bayswater Revetment Repairs
Location (Town): Boston



Created by: Carrie.Marshall
Date Created: 11/3/2022
Tool Version: 1.3



Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Land Subject to Coastal Storm Flowage, Coastal Bank, Coastal Beach	2050	5% (20-yr)	11.1	11.1	11.1



**Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 2070, 5% (20-yr)**

Project Name: Bayswater Revetment Repairs
Location (Town): Boston



Created by: Carrie.Marshall
Date Created: 11/3/2022
Tool Version: 1.3



Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Land Subject to Coastal Storm Flowage, Coastal Bank, Coastal Beach	2070	5% (20-yr)	12.9	12.9	12.9

Project Inputs

Core Project Information

Name:	Bayswater Revetment Repairs
Given the expected useful life of the project, through what year do you estimate the project to last (i.e. before a major reconstruction/renovation)?	2075
Location of Project:	Boston
Estimated Capital Cost:	\$1,000,000
Who is the Submitting Entity?	Private Other Massachusetts Port Authority Scott Skuncik (Representative) (Scott.Skuncik@Foth.com)
Is this project being submitted as part of a state grant application?	No
Which grant program?	
What stage are you in your project lifecycle?	Permitting
Is climate resiliency a core objective of this project?	Yes
Is this project being submitted as part of the state capital planning process?	No
Is this project being submitted as part of a regulatory review process or permitting?	Yes
Brief Project Description:	The proposed project involves the repair of shoreline protection for Bayswater Street in Boston, Massachusetts. There are seven (7) proposed critical areas to be repaired initially with the remainder of the shoreline to be repaired in a phased manner. In total, the eroded area consists of 1,650± linear feet. Repairs will consist of a riprap revetment containing a 1.0-foot thick layer of approximately 1.0-inch to 5.0-inch filter stone with filter fabric, a 12.0 inch – 32.0 inch layer of armor stone, and a toe stone supporting the armor stone layer sized approximately 3.0 Tons to 4.0 Tons. These repairs are anticipated to stabilize the existing shoreline embankment and shall provide protection during a 100-year storm event. Foth has developed this design to accommodate a maximum of 3.0' of future beach erosion without jeopardizing the structure's slope stability as well as eliminate permanent impacts to the adjacent habitat. Foth has prepared this design with a service life of approximately 50-years.

Project Submission Comments:

Project Ecosystem Service Benefits

Factors Influencing Output

- ✓ Project reduces storm damage
- ✓ Project filters stormwater using green infrastructure
- ✓ Project improves water quality
- ✓ Project enables carbon sequestration
- ✓ Project protects fisheries, wildlife, and plant habitat
- ✓ Project remediates existing sources of pollution
- ✓ Project prevents pollution

Factors to Improve Output

- ✓ Increase plants, trees, and/or other vegetation to provide oxygen production

Is the primary purpose of this project ecological restoration?

No

Project Benefits

Provides flood protection through nature-based solutions	No
Reduces storm damage	Yes
Recharges groundwater	No
Protects public water supply	No
Filters stormwater using green infrastructure	Yes
Improves water quality	Yes
Promotes decarbonization	No
Enables carbon sequestration	Yes
Provides oxygen production	Maybe
Improves air quality	No
Prevents pollution	Yes
Remediates existing sources of pollution	Yes
Protects fisheries, wildlife, and plant habitat	Yes

Protects land containing shellfish	No
Provides pollinator habitat	No
Provides recreation	No
Provides cultural resources/education	No

Project Climate Exposure

Is the primary purpose of this project ecological restoration?	No
Does the project site have a history of coastal flooding?	Yes
Does the project site have a history of flooding during extreme precipitation events (unrelated to water/sewer damages)?	Unsure
Does the project site have a history of riverine flooding?	No
Does the project result in a net increase in impervious area of the site?	No
Are existing trees being removed as part of the proposed project?	Unsure

Project Assets

Asset: Land Subject to Coastal Storm Flowage
 Asset Type: Coastal Resource Area
 Asset Sub-Type: Land subject to coastal 100-year storm flowage
 Construction Type: Restoration or enhancement
 Construction Year: 2025
 Monitoring Frequency: 50
 Asset: Coastal Bank
 Asset Type: Coastal Resource Area
 Asset Sub-Type: Coastal bank
 Construction Type: Restoration or enhancement
 Construction Year: 2025
 Monitoring Frequency: 50
 Asset: Coastal Beach
 Asset Type: Coastal Resource Area
 Asset Sub-Type: Coastal beach
 Construction Type: Restoration or enhancement
 Construction Year: 2025
 Monitoring Frequency: 50

Report Comments

N/A

Appendix L

ENF Distribution List

MEPA Distribution List

Agency	Email Address	Address
Massachusetts Environmental Policy Act (MEPA) Office	MEPA@mass.gov	MEPA Office 100 Cambridge Street, Suite 900 Boston, MA 02114
Department of Environmental Protection, Boston Office	helena.boccardo@mass.gov	Commissioner's Office One Winter Street Boston, MA 02108
Department of Environmental Protection, Appropriate Regional Office and to each program from which a permit will be sought	kathleen.fournier@mass.gov Catherine.Skiba@mass.gov	DEP/Western Regional Office Attn: MEPA Coordinator State House West - 4th floor 436 Dwight Street Springfield, MA 01103
	george.zoto@mass.gov jonathan.hobill@mass.gov	DEP/Southeastern Regional Office Attn: MEPA Coordinator 20 Riverside Drive Lakeville, MA 02347
	andrea.briggs@mass.gov	DEP/Central Regional Office Attn: MEPA Coordinator 8 New Bond Street Worcester, MA 01606
	john.d.viola@mass.gov	DEP/Northeast Regional Office Attn: MEPA Coordinator 150 Presidential Way Woburn, MA 01801
Massachusetts Department of Transportation - Boston	MassDOTPPDU@dot.state.ma.us	Public/Private Development Unit 10 Park Plaza, Suite #4150 Boston, MA 02116
Massachusetts Department of Transportation – District Office	patrick.tierney@dot.state.ma.us	District #1 Attn: MEPA Coordinator 270 Main Street Lenox, MA 01240
	bao.lang@dot.state.ma.us garrett.postema@dot.state.ma.us	District #2 Attn: MEPA Coordinator 811 North King Street Northampton, MA 01060
	jeffrey.r.gomes@dot.state.ma.us	District #3 Attn: MEPA Coordinator 499 Plantation Parkway Worcester, MA 01605
	timothy.paris@dot.state.ma.us	District #4 Attn: MEPA Coordinator 519 Appleton Street Arlington, MA 02476

	Cindy.McConarty@dot.state.ma.us	District #5 Attn: MEPA Coordinator 1000 County Street Taunton, MA 02780
	michael.garrity@dot.state.ma.us	District #6 Attn: MEPA Coordinator 185 Kneeland Street Boston, MA 02111
Massachusetts Historical Commission	Mail a hard copy of the filing to MHC.	The MA Archives Building 220 Morrissey Boulevard Boston, MA 02125
Applicable Regional Planning Agency	Refer to Regional Planning Agency list.	View list of Regional Planning Agency contacts appended to this document.
In each municipality affected by the Project	Coordinate with each municipality.	City Council or Board of Selectmen
		Planning Board/Department
		Conservation Commission
		Department/Board of Health
If the Project is located within five miles of an Environmental Justice Population	EEA Environmental Justice Director MEPA-EJ@mass.gov	MEPA Office Attn: EEA EJ Director 100 Cambridge Street, Suite 900 Boston, MA 02144
If the project is in a Coastal Zone Community	sean.duffey@mass.gov patrice.bordonaro@mass.gov	Coastal Zone Management Attn: Project Review Coordinator 100 Cambridge Street, Suite 900 Boston, MA 02144
	DMF.EnvReview-North@mass.gov	From Hull to New Hampshire Border DMF – North Shore Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930

	DMF.EnvReview-South@mass.gov	From Cohasset to Rhode Island Border DMF – South Shore Attn: Environmental Reviewer 836 South Rodney French Blvd New Bedford, MA, 02744
If the project site has been in agricultural use within the last fifteen years	barbara.hopson@mass.gov	Department of Agricultural Resources Attn: MEPA Coordinator 138 Memorial Avenue, Suite 42 West Springfield, MA 01089
If the Project site is within or contains designated significant or estimated habitat, or priority sites of endangered or threatened species or species of special concern in accordance with the Massachusetts Endangered Species Act	melany.cheeseman@mass.gov emily.holt@mass.gov	Natural Heritage and Endangered Species Program Division of Fisheries & Wildlife 1 Rabbit Hill Road Westborough, MA 01581
If the Project affects DCR roadways, watersheds or other properties or an ACEC	andy.backman@mass.gov	DCR Attn: MEPA Coordinator 251 Causeway St. Suite 600 Boston MA 02114
If the Project implicates public health impacts	dph toxicology@massmail.state.ma.us	Department of Public Health Director of Environmental Health 250 Washington Street Boston, MA 02115
If the Project is subject to Greenhouse Gas Emissions Policy or to review by Energy Facilities Siting Board	andrew.greene@mass.gov geneen.bartley@mass.gov	Energy Facilities Siting Board Attn: MEPA Coordinator One South Station Boston, MA 02110
	paul.ormond@mass.gov	Department of Energy Resources Attn: MEPA Coordinator 100 Cambridge Street, 10th floor Boston, MA 02114
If the Project is in a municipality served by the Massachusetts Water Resources Authority (MWRA)	katherine.ronan@mwra.com	Massachusetts Water Resource Authority Attn: MEPA Coordinator 100 First Avenue Charlestown Navy Yard Boston, MA 02129
If the Project affects Massachusetts Bay Transportation Authority (MBTA) facilities or properties	MEPAcoordinator@mbta.com	Massachusetts Bay Transit Authority Attn: MEPA Coordinator 10 Park Plaza, 6th Fl. Boston, MA 02116-3966

Regional Planning Agency Distribution List

Find your Regional Planning Agency (RPA) [here](#) by clicking on the statewide map at the bottom of the webpage.

Regional Planning Agency	Email and/or Mailing Address
Berkshire Regional Planning Commission (BRPC)	tmatuszko@berkshireplanning.org mprovencher@berkshireplanning.org OfficeAssistant@berkshireplanning.org
Cape Cod Commission (CCC)	kseatori@capecodcommission.org regulatory@capecodcommission.org
Central Massachusetts Regional Planning Commission (CMRPC)	mepafiling@cmrpc.org
Franklin Regional Council of Governments (FRCoG) 12 Olive Street Greenfield, MA 01301	KMacPhee@frcog.org PSloan@frcog.org and 2 hard copies (Attn Kimberly MacPhee and Peggy Sloan; see address to the left)
Martha's Vineyard Commission (MVC)	turner@mvcommission.org morrison@mvcommission.org
Merrimack Valley Planning Commission (MVPC)	info@mvpc.org
Metropolitan Area Planning Council (MAPC)	mpillsbury@mapc.org afelix@mapc.org
Montachusett Regional Planning Commission (MRPC)	mrpc@mrpc.org
Nantucket Planning and Economic Development Commission (NPEDC)	avorce@nantucket-ma.gov
Northern Middlesex Council of Governments (NMCoG) 40 Church Street Lowell, MA 01852-2686	jraitt@nmcog.org lshahbazian@nmcog.org and 1 hard copy (Attn Jennifer Raitt; see address to the left)
Pioneer Valley Planning Commission (PVPC) 60 Congress Street, 1 st Floor Springfield, MA 01104-3419	gmroux@pvpc.org and 1 hard copy (Attn Gary Roux; see address to the left)
Old Colony Planning Council (OCPC)	mwaldron@ocpcrpa.org kmowatt@ocpcrpa.org ckilmer@ocpcrpa.org
Southeastern Regional Planning and Economic Development District (SRPEDD)	jwalker@srpedd.org gking@srpedd.org hincavage@srpedd.org bnap@srpedd.org

EENF Distribution List

Email	Affiliation
danielledolan@massriversalliance.org , juliablatt@massriversalliance.org	Mass Rivers Alliance
elvis@n2nma.org	Neighbor to Neighbor
ben@environmentmassachusetts.org	Environment Massachusetts
claire@uumassaction.org	Unitarian Universalist Mass Action Network
cluppi@cleanwater.org	Clean Water Action
deb.pasternak@sierraclub.org	Sierra Club MA
hclish@outdoors.org	Appalachian Mountain Club
hricci@massaudubon.org	Mass Audubon
kelly.boling@tpl.org	The Trust for Public Land
kerry@msaadapartners.com	Browning the GreenSpace
ngoodman@environmentalleague.org	Environmental League of MA
rob@oceanriver.org	Ocean River Institute
robb@massland.org	Mass Land Trust Coalition
srubin@clf.org	Conservation Law Foundation
sylvia@communityactionworks.org	Community Action Works
tribalcouncil@chappaquiddickwampanoag.org	Chappaquiddick Tribe of the Wampanoag Nation
crwritings@aol.com	Nipmuc Nation (Hassanamisco Nipmucs)
john.peters@mass.gov	Massachusetts Commission on Indian Affairs (MCIA)
acw1213@verizon.net	Chaubunagungamaug Nipmuck Indian Council
melissa@herringpondtribe.org	Herring Pond Wampanoag Tribe
rockerpatriciad@verizon.net	Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan
rhalsey@naicob.org	North American Indian Center of Boston
Coradot@yahoo.com	Pocasset Wampanoag Tribe
Solomon.Elizabeth@gmail.com	Massachusetts Tribe at Ponkapoag
thpo@wampanoagtribe-nsn.gov	Wampanoag Tribe of Gay Head (Aquinnah)
Brian.Weeden@mwtribe-nsn.gov	Mashpee Wampanoag Tribe
david.queeley@mysticriver.org	Mystic River Watershed Association
julie.wormser@mysticriver.org	Mystic River Watershed Association
hmillier@crwa.org	Charles River Watershed Assoc.
joy@bostonfarms.org	Boston Farms Community Land Trust
abrown@bostonharbornow.org	Boston Harbor Now
KSherman@BostonHarborNow.Org	Boston Harbor Now
karen@cpaboston.org	Chinese Progressive Association
lee@massclu.org	Mass Community Labor United
Bruce@bostonharbor.com	Save the Harbor/Save the Bay
lydia@chinatownclt.org	Chinatown Community Land Trust
mimi.neunited4justice@gmail.com	New England United for Justice

dfastino@aol.com	Coalition for Social Justice
may.lui@asiancdc.org	Asian Community Development Corporation
ljasinski@thecharles.org	Charles River Conservancy
mariabelenp@greenrootschelsea.org	GreenRoots, Inc.
cbmarchi@gmail.com	Air, Inc.
eugene.b.benson@gmail.com	GreenRoots, Inc.
gladysv@chelseacollab.org	Chelsea Collaborative, Inc.
RoseannB@GreenRootsChelsea.org	GreenRoots, Inc.
magdalena.ayed@gmail.com	Harborkeepers
bob.damico@boston.gov	BTD
gabriela.coletta@boston.gov	Boston City Councilor
lydia.edwards@masenate.gov	Mass. State Senator
adrian.madaro@mahouse.gov	Mass. State Representative
Jason.Ruggiero@Boston.gov	Boston Plannig and Development Administration
Kathleen.Hardaway@masenate.gov	Orient Heights Neighborhood Assocaition
manuela.villagomez@boston.gov	City of Bostob Neighborhood Services
Kathleen.Hardaway@masenate.gov	Massachusetts Senate
lina.tramelli@boston.gov	East Boston Senior Center
bab2123@aol.com	Bayswater Resident
mary.berninger@gmail.com	Bayswater Resident
aarontoffler@massportcac.orf	Massport CAC