Notice of Intent

West Rodney French Boulevard Beach Nourishment New Bedford, Massachusetts

October 2019

Prepared by:

Applied Coastal Research and Engineering, Inc.
766 Falmouth Road, Suite A1
Mashpee, Massachusetts 02649

Prepared for:

New Bedford Department of Public Infrastructure
1105 Shawmut Avenue
New Bedford, Massachusetts 02746

Notice of Intent and Supplemental Materials for West Rodney French Boulevard Nourishment

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Bureau of Resource Protection - Wetlands

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Provided by MassDEP:

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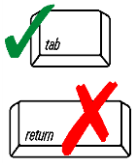
Document Transaction Number

City/Town

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



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

A. General Information

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

West Rodney French Boulevard — a. Street Address
New Bedford — b. City/Town
02744 — c. Zip Code

Latitude and Longitude:
41.603652 N — d. Latitude
70.914975 W — e. Longitude

7, 9, & 11 — f. Assessors Map/Plat Number
7-1, 7-5, 7-112,9-286, 9-287,11-30 — g. Parcel /Lot Number

2. Applicant:

Adam — a. First Name
Hart — b. Last Name
New Bedford Department of Public Infrastructure — c. Organization
1105 Shawmut Ave — d. Street Address
New Bedford — e. City/Town
MA — f. State
02746 — g. Zip Code
508-979-1550 — h. Phone Number
508-991-6152 — i. Fax Number
Adam.Hart@newbedford-ma.gov — j. Email Address

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

a. First Name
b. Last Name
City of New Bedford — c. Organization
133 William Street — d. Street Address
New Bedford — e. City/Town
MA — f. State
02740 — g. Zip Code
508-979-1410 — h. Phone Number
508-991-6189 — i. Fax Number
j. Email address

4. Representative (if any):

John — a. First Name
Ramsey — b. Last Name
Applied Coastal Research and Engineering, Inc. — c. Company
766 Falmouth Road, Suite A1 — d. Street Address
Mashpee — e. City/Town
MA — f. State
02649 — g. Zip Code
508-539-3737 — h. Phone Number
508-639-3739 — i. Fax Number
jramsey@appliedcoastal.com — j. Email address

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

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

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A. General Information (continued)

6. General Project Description:

This project will place a 31,150 cubic yard beach nourishment and nine new nearshore breakwaters along West Rodney French Blvd., between Hazelwood Park and the West Rodney French Blvd. boat ramp, to improve storm resiliency of the area and protect the city's main sewer line.

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

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

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

1. ☐ Yes ☒ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

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

8. Property recorded at the Registry of Deeds for:

Bristol, See Attachment 6
a. County

b. Certificate # (if registered land)

c. Book

d. Page Number

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☒ Land Under the Ocean	133,498 1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☒ Coastal Beaches	111,516 1. square feet	31,150 2. cubic yards beach nourishment
e. ☒ Coastal Dunes	11,227 1. square feet	2. cubic yards dune nourishment

	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☒ Land Containing Shellfish	201,404 1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☒ Land Subject to Coastal Storm Flowage	122,743 1. square feet	

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

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

a. ☒ Yes ☐ No

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

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

Aug 1, 2017
b. Date of map

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

c. Submit Supplemental Information for Endangered Species Review*

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

(a) within wetland Resource Area: 1.7% / 0.1 acres (tip of groin to be removed) — percentage/acreage

(b) outside Resource Area: 98.3 % / 5.78 acres — percentage/acreage

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

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

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

(b) ☒ Photographs representative of the site

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

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

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

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

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

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

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

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

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

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

a. ☐ Not applicable – project is in inland resource area only b. ☒ Yes ☐ No

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

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

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

North Shore - Hull to New Hampshire border:

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

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

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

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

a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

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

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

a. ☐ Yes ☒ No

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

a. ☐ Yes ☒ No

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

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

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

2. ☐ A portion of the site constitutes redevelopment

3. ☐ Proprietary BMPs are included in the Stormwater Management System.

b. ☐ No. Check why the project is exempt:

1. ☐ Single-family house

2. ☐ Emergency road repair

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

D. Additional Information

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

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

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

1. ☐ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☐ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

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D. Additional Information (cont'd)

3. ☐ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

West Rodney French Boulevard Beach Nourishment Project
a. Plan Title

Foth CLE Engineering
b. Prepared By

John Ramsey
c. Signed and Stamped by

7/30/19
d. Final Revision Date

1 inch = 150 feet
e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☒ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☒ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name

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F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant — 2. Date: 10/16/2019

3. Signature of Property Owner (if different) — 4. Date

5. Signature of Representative (if any) — 6. Date: 10/22/19

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

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

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

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

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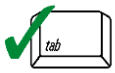

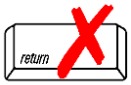

A. Applicant Information

1. Location of Project:

West Rodney French Boulevard	New Bedford
a. Street Address	b. City/Town
N/A - Fee exempt	N/A - Fee Exemp
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Adam	Hart	
a. First Name	b. Last Name	
New Bedford Department of Public Infrastructure		
c. Organization		
1105 Shawmut Avenue		
d. Mailing Address		
New Bedford	MA	02746
e. City/Town	f. State	g. Zip Code
508-979-1550	508-991-6189	Adam.Hart@newbedford-ma.gov
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

a. First Name	b. Last Name	
City of New Bedford		
c. Organization		
113 William St.		
d. Mailing Address		
New Bedford	MA	02740
e. City/Town	f. State	g. Zip Code
508-979-1400		
h. Phone Number	i. Fax Number	j. Email Address

B. Fees

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

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

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

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

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

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

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

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

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B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2 - Beach Nourishment			N/A - fee exempt

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee:	N/A - fee exempt a. Total Fee from Step 5
State share of filing Fee:	N/A - fee exempt b. 1/2 Total Fee **less $**12.50
City/Town share of filling Fee:	N/A - fee exempt c. 1/2 Total Fee **plus** $12.50

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

ATTACHMENT 1: USGS MAP


COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
NEW BEDFORD SOUTH QUADRANGLE
MASSACHUSETTS
7.5 MINUTE SERIES (TOPOGRAPHIC)
NEW BEDFORD
F A I R H A V E N
SOUTH DARTMOUTH
Project Area
CLARKS COVE
APPONAGANSETT BAY
FORT RODMAN MILITARY RESERVATION
FT PHOENIX BEACH STATE RESERVATION
Bliss Corner
Redgate Corner
Little Island
Bayview
Nonquitt
Shore Acres
Keel Rock
Barekneed Rocks
Ricketsons Pt
Padanaram Breakwater Light
Butler Flats Lighthouse
Little Egg Island
Clarks Pt
Sewage Disposal
Hospital
Library
Playground
Floodgate
Palmer Island
Lights
Golf Course
RURAL CEMETERY
SEAWALL
CORPORATE BOUNDARY

ATTACHMENT 2: PROJECT DESCRIPTION

2.1 Introduction

The proposed project is to construct a beach nourishment project seaward of the seawall along West Rodney French Boulevard along a 2,222-foot section of West Rodney French Boulevard that extends from West Rodney French Boulevard boat ramp (at the south end) to Hazelwood Park (at the north end), as indicated in Figure 2-1. The beach fill will be contained with a series of T-head groins, consisting of shore perpendicular trunks, and heads that parallel the orientation of the shoreline, shown in Figure 2-2. The T-head groin field will provide environmental protection to nearshore eelgrass beds by preventing nourishment sediment from migrating offshore. Use of T-head structures in this manner represents an innovative approach that provides enhanced storm resiliency while also protecting the sensitive eelgrass habitat that exists in close proximity to the project shoreline.

While expansion of coastal engineering structures is generally discouraged by environmental regulatory agencies, recommendations to "trade" structures, where there is no overall increase in the cumulative "footprint" of coastal engineering structures, may have merit to maximize shore protection goals. This can be accomplished by dismantling portions of existing structures in the Project Area and "trading" them for optimized new structures. Specifically, several of the existing groins constructed along the West Rodney French Boulevard shoreline extend further seaward than necessary or do not provide any sand-trapping function at this time. Dismantling a portion of these unneeded structures and constructing T-head groins with the same overall "footprint" that optimize beach nourishment longevity allows improved shore protection without increasing the overall extent of shoreline armoring.

The West Rodney French Boulevard shoreline has experienced modest erosion of the shoreline in areas that have been not protected by nourishment (nourishment projects along the northern beach areas were conducted in 1958 and 1977). While this beach erosion has not been severe when reviewing shoreline change since 1938, lowering of the beach over time has led to the need for revetment protection along the toe of the exposed seawall sections.

The long-term effect of this beach lowering is to expose this shoreline to larger depth-limited waves due to deeper water depths fronting the seawall. During severe conditions, these larger waves can destabilize the seawall protecting the sewer line behind the seawall. Moreover, the Coastal Structures Inventory indicates that while the vertical concrete seawall backing the beach is in fairly good condition, the toe revetment that protects against seawall undermining is in poor condition. Due to the loss in beach width and condition of the shore protection, concerns have been raised by the City regarding critical infrastructure within West Rodney French Boulevard, specifically the sewer main.

Figure 2-1. August 2016 aerial of the study shoreline between the West Rodney French Blvd. boat ramp and Hazelwood Park.

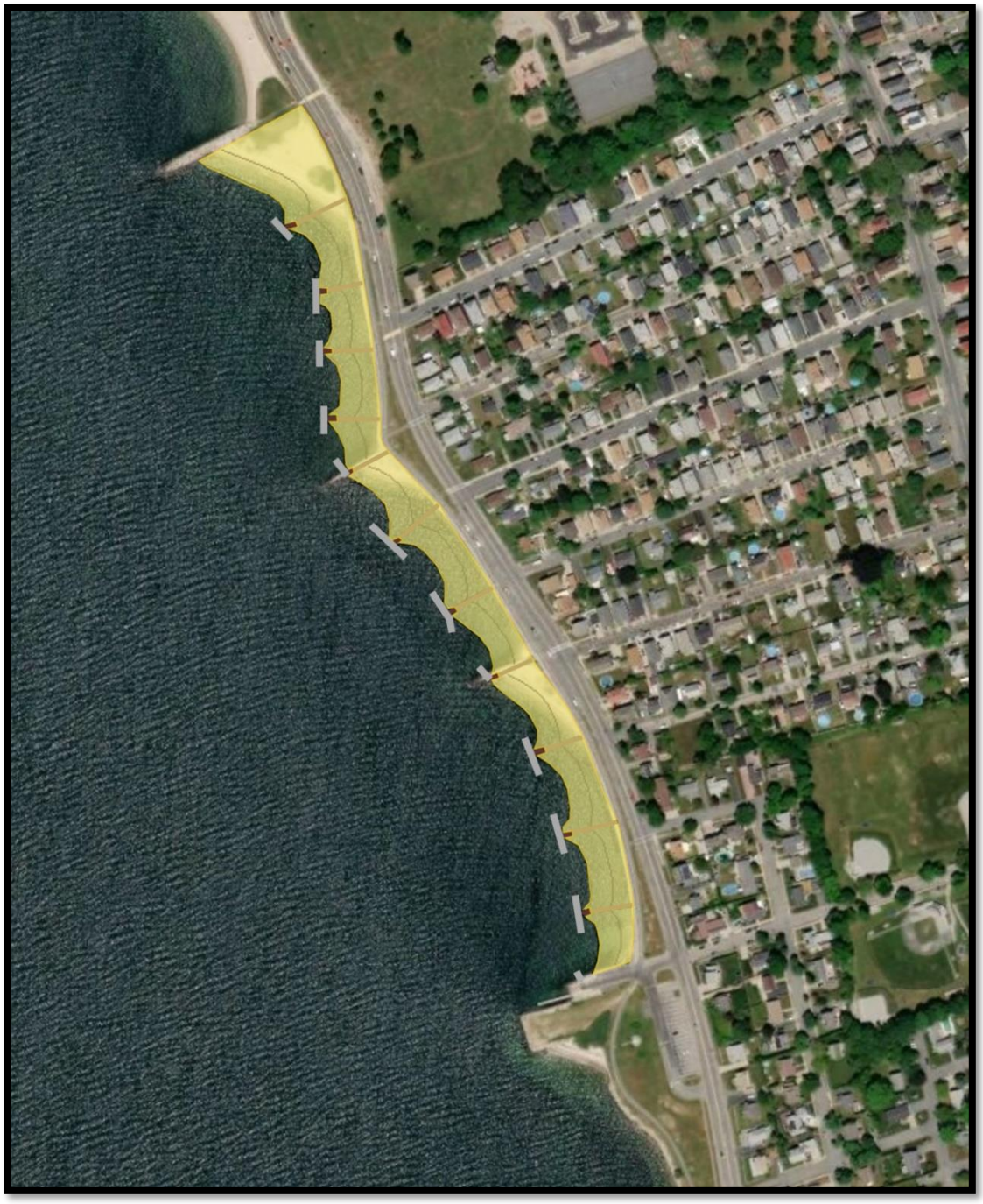

Figure 2-2. Proposed Project Area illustrating sand nourishment (tan shading) and T-head structures (breakwater sections shown in gray)

2.2 Existing Conditions

There is a vertical concrete seawall that extends along the length of West Rodney French Boulevard and serves to protect the upland infrastructure including the City sewer main that leads to the sewage treatment plant near the southern tip of Clarks Point. In many sections, the base of the seawall is fronted by a low profile armor stone revetment. In the vicinity of Hazelwood Park, Valentine Street, and Dudley Street, a sandy beach area exists that provides additional protection to the existing seawall and upland infrastructure.

A series of six (6) shore-perpendicular groins exists north of the West Rodney French Boulevard Boat Ramp. In general, these groins trap sand on their updrift (south) side, where beach widths tend to be widest adjacent to the south side of each groin. South of Hazelwood Park, little high tide beach exists along the shoreline, and evidence of long-term lowering of the area fronting the seawall demonstrates that portions of the coastal engineering structure may be nearing the end of their effective design life.

A total of seven (7) cast iron outfalls pipes are located along the length of the seawall (see Attachment 5 for photos of existing outfall pipes). These pipes extend out to/below Mean Low Water (MLW). Based upon available documentation, it is unclear as to the nature of the flow or associated volumes that presently discharge from these pipes. Further review of these structures should be conducted with the City to determine their current and future need and functionality.

The beach continues to lower and expose the seawall to wave action, and therefore wave protection continues to deteriorate, as well. The seawall protects infrastructure from failing behind it, but also accelerates erosion by reflecting wave energy, thereby removing sand from the front of the structure. As erosion continues unabated, the beach profile along the wall will continue to lower. As the profile lowers, storm waves impacting the seawall will increase in height due to less breaking in the deeper depths fronting the wall. With larger wave heights, overtopping rates will also increase during storms, resulting in more frequent and severe erosion and damage to the paved and unpaved upland area behind the wall.

CLE Engineering, Inc. (CLE) performed topside (visual) field inspections of existing structures in February 2017. The inspection was limited to the topside visual condition evaluation of structures with no below water or subsurface investigations. Findings are summarized here and the full report is provided as Appendix A to the Expanded ENF (Applied Coastal 2019). A comparison of the conditions identified as part of the Massachusetts Department of Conservation and Recreation (MADCR) inspections performed in 2006 and 2013 to those recently performed by CLE in 2017 show that, in general, the stone groins remain in Excellent to Good (“A” to “B” rating, respectively) condition and the seawall is in Good to Fair (“B” to “C” rating, respectively) condition with observed surface spalling and cracking but no visual signs of global failure (sliding, rotation, settlement, etc.). All of the structures were found to be in a condition which would provide protection to the upland along West Rodney French Boulevard during a major storm event, however, should these structures be allowed to continue to deteriorate, it may not be possible to repair and/or augment them without a complete replacement. The condition assessment should be considered preliminary since it is limited to visual inspection of exposed structures.

Historically, eelgrass within this area appears to be ‘rebounding’ from historical conditions. As shown in Figure 2-3, very little eelgrass was present in the 1980s, likely as a combination of CSO discharges into this portion of the coast, as well as the status of the

wastewater treatment facility. By 1996, it appears that eelgrass had recovered as a result of CSO improvements and wastewater treatment plant upgrades.

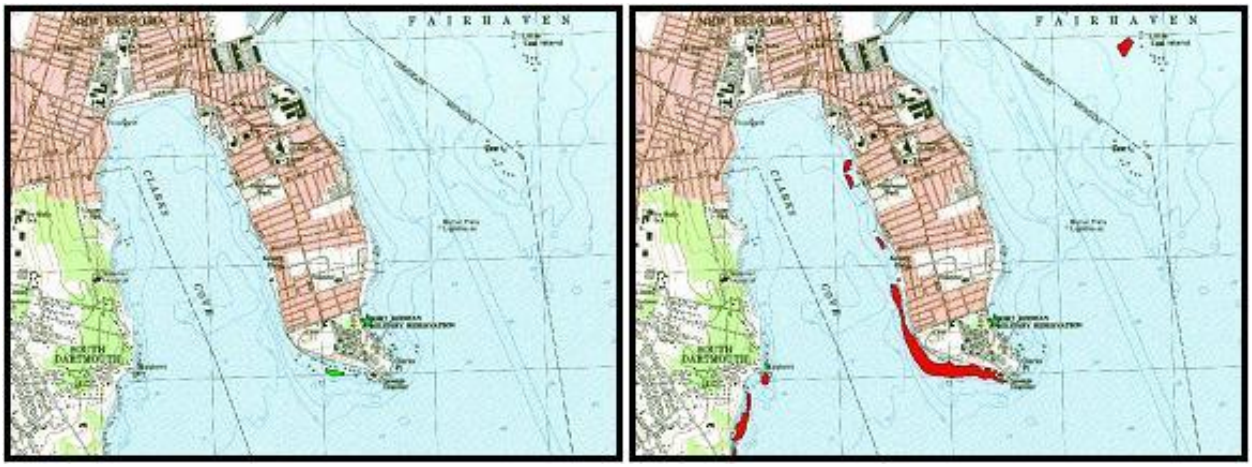

Figure 2-3. Comparison between the Costa 1980s (left) and DEP's 1996 (right) showing increase in eelgrass cover around Clarks Point New Bedford area. This was one of the few areas of increase between the two surveys and may have resulted from the improvements to the wastewater facility, and perhaps more importantly, the elimination of dry weather discharges from CSOs on both sides of Clarks point.

The project area is proximal to Natural Heritage & Endangered Species Program (NHESP) Priority and Estimated Habitats for Rare Species (PH945) and Wildlife (EH756), as shown in Figure 2-4.

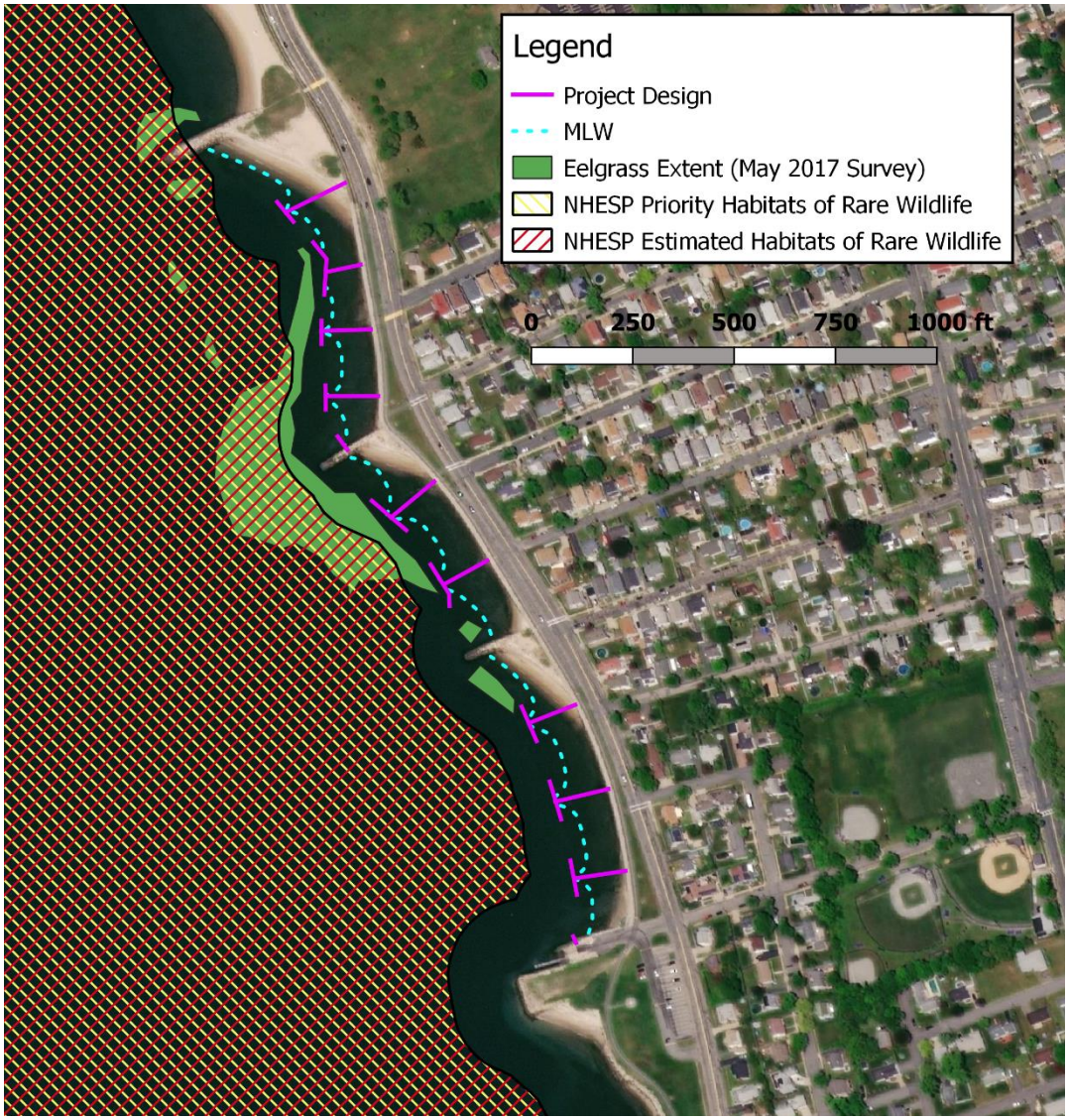

Figure 2-4. Project Area is a barrier beach resource area but is not within any Natural Heritage and Endangered Species Program (NHESP) habitat areas (Mass GIS, August 1, 2017 priority/estimated habitat map).

2.3 Proposed Project Description

The project includes approximately 31,150 cubic yards (cy) of beach nourishment on the site to create a 50-ft wide berm with an elevation of 4.5 ft NAVD and a 1 Vertical:6 Horizontal (1 V:6H) seaward slope. The nourishment profile will be reworked by coastal processes to create an equilibrated beach profile with a 30-ft wide berm and a seaward slope of 1 V: 10H. Appropriate gradation of material for nourishment was determined from sediment sampling and is provided in Table 2-1. These values best represent the current natural composition of the berm along the shoreline of West Rodney French Boulevard.

The project also includes construction of nine T-head groins, consisting of wooden shore perpendicular trunks and stone heads that parallel the shoreline, and modifications to three existing groins to create L-shaped structures. The groins will have a total footprint of approximately 24,079 square feet (sf). To offset these new structures, the project will remove portions of five groins in the project area, totaling 25,577 sf. Periodic beach

nourishment is necessary to maintain the beach profile and level of protection provided by the project.

The additional construction of the T-head field will provide environmental mitigation to contain nourishment sediment from migrating offshore into eelgrass habitat. While expansion of coastal engineering structures is generally discouraged by environmental regulatory agencies, recommendations to "trade" structures, where there is no overall increase in the cumulative "footprint" of coastal engineering structures. Therefore, shore protection can be improved without causing a cumulative increase in overall shoreline armoring. This can be accomplished by dismantling portions of existing structures and "trading" them for optimized new structures.

The repurposing of existing structure footprint (or "structure trading") is proposed as a way that the nine new T-head groin breakwater sections of the proposed West Beach project will be constructed with no net increase in area permanently occupied by coastal engineering structures along West Rodney French Boulevard. In this manner, the overall impact of the proposed structures would by offset by removal of unneeded portions of existing structures. As proposed, portions of the Hazelwood Park and Valentine Street groins and the entire Woodlawn Street groin would be removed to the approximate elevation of the adjacent ocean bottom. It is anticipated that structure removal will leave the base layer of armor stone (i.e. boulders) along the seafloor that will provide enhanced fisheries habitat within the area of structure removal. The footprint area removed from these structures (as indicated in Figure 2-4) is roughly equivalent to the area occupied by the new, more effective, breakwater sections.

In addition to the footprint removed from existing structures, groins at Oaklawn and Aquidneck Streets would be reshaped by turning their outer-most 50 foot to the north so that the ends are configured in an L-shape. Repurposing the groin tips in this fashion allows these structures to be better integrated into the proposed project, and to hold the sand nourishment more effectively.

Table 2-1 D_{16}, D_{50}, and D_{84} values for the mean upper and lower beach locations.

		D_{16}	D_{50}	D_{84}
	Location	**(mm)**	**(mm)**	**(mm)**
Sample	**Upper Beach**	0.2	0.46	1.1
	Lower Beach	0.7	1.5	8.9

Figure 2-5. Aerial photo of the existing structure footprint (shaded in red) to be traded for the new T-head structures (shaded in blue).

2.4 Potential Environmental Effects of Preferred Design

The proposed project has been designed and will be constructed using the best available measures to minimize adverse impacts to coastal resource areas as defined by the Massachusetts Wetlands Protection Act (WPA). The proposed project is located within and/or abutting the following coastal resource areas:

- Land Subject to Coastal Storm Flowage (310 CMR 10.25)
- Land Under the Ocean (310 CMR 10.25(2))
- Coastal Beach (310 CMR 10.27)
- Coastal Dune (310 CMR 10.28)
- Coastal Bank (310 CMR 10.30(2))
- Land Containing Shellfish

The following presented below provide definitions of coastal resource areas that will be affected by the proposed project, a description of the proposed work to occur within each resource area, and how the project meets performance standards.

Land Subject to Coastal Storm Flowage

Pursuant to 310 CMR 10.04, Land Subject to Coastal Storm Flowage (LSCSF) 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". The areas mapped by the Federal Emergency Management Agency (FEMA) on community Flood Insurance Rate Maps (FIRM) as the 100-year flood plain within the coastal zone are included within LSCSF. LSCSF may be significant to the interests of storm damage prevention, flood control, pollution prevention, and wildlife habitat. LSCSF in this area contains other jurisdictional resource areas which are important for storm damage prevention and flood control.

The current flood insurance rate map for this area, depicted in Figure 2-5, indicates that the entire Project Area is within the VE zone and is therefore subject to inundation by a 100-year storm with additional hazards due to wave activity. There are currently no state performance standards for work in LSCSF

The proposed project will permanently affect approximately 122,743 square feet (2.8 acres) of LSCSF. The proposed project is not anticipated to alter the existing drainage patterns of the site and will enhance the storm damage prevention capacity of the site. Overall, the project will reduce flooding in some areas during the 100-year storm.

The existing partially-buried cast iron drainage pipes that exit onto the beach will be replaced with polyethylene pipes with check valves to improve roadway drainage. This work will be performed as part of the final design, after consultation with the New Bedford DPI to optimize placement if the drainage system within the constructed beach. The pipe discharges will be located within the breakwater sections of the T-head groins.

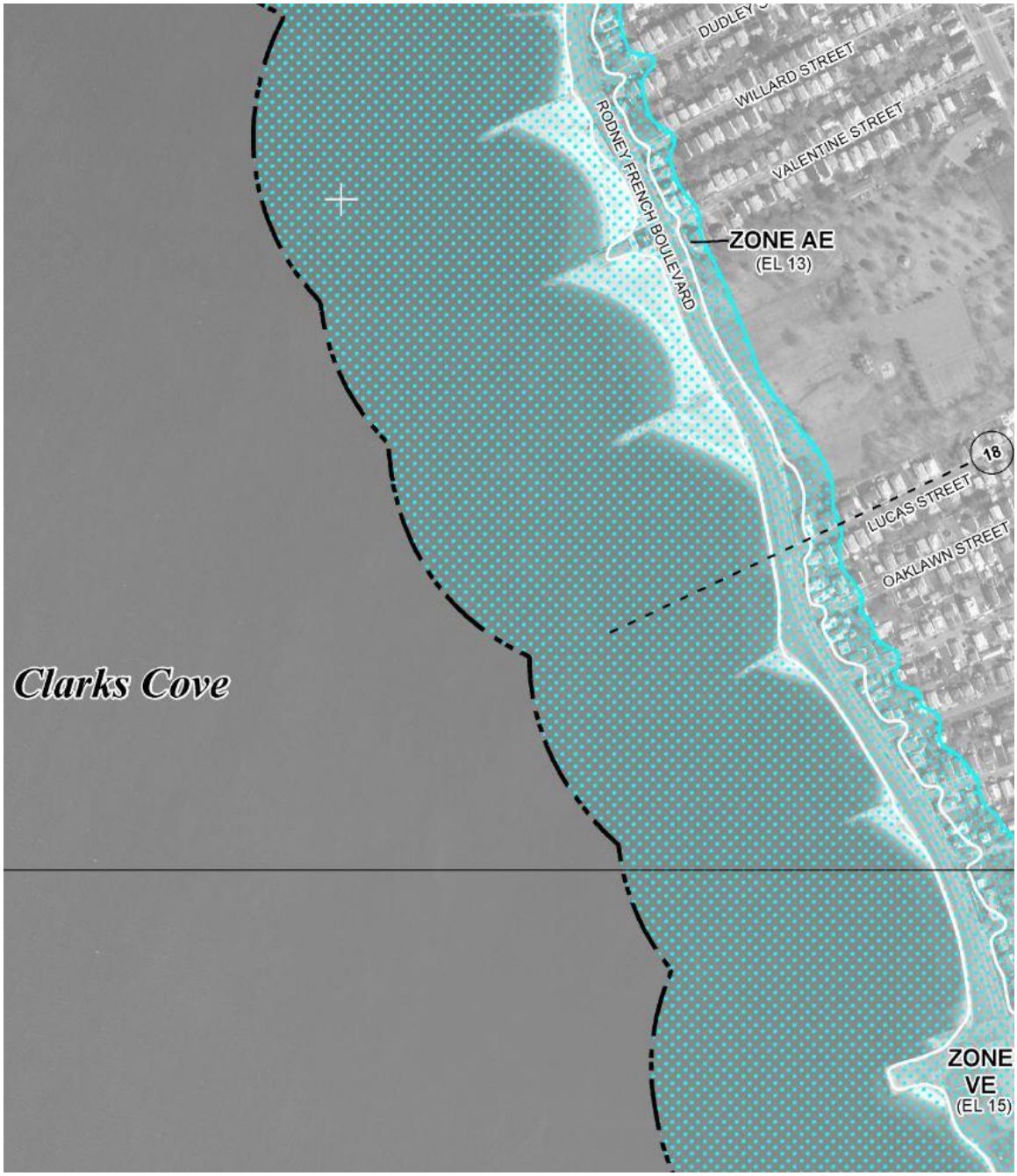

Figure 2-5. FEMA flood insurance rate map. Regions in turquoise are subject to inundation by the 1% annual chancel flood, as determined by FEMA (https://msc.fema.gov/portal/).

Land Under the Ocean

Pursuant to 310 CMR 10.25(2), Land Under the Ocean (LUO) is defined as "land extending from the mean low water line seaward to the boundary of the municipality's jurisdiction and includes land under estuaries". This resource area is presumed significant to provide feeding areas, spawning and nursery grounds and shelter for coastal organisms, to reduce storm damage and flooding by diminishing and buffering the high energy effects of storms, provide a source of sediment for seasonal rebuilding of coastal beaches and dunes, and to provide important food for birds and invertebrates.

The proposed beach nourishment template will convert 109,419 square feet (2.5 acres) from LUO to Coastal Beach. Additionally, the T-head groins will fill 24,079 square feet (0.6 acres) of LUO. However, removal of three existing groin sections and the repositioning of one groin tips (shown on the Project Plans in Attachment 8) will create 25,577 square feet of new LUO. Therefore, impacts associated with coverage of LUO resources is offset by net creation of LUO in the historic 'footprint' of the groin structures. In the groin removal areas, it is anticipated that the surficial layer of armor stone will be retained to serve as mitigation for the coarse-grained material (shown as "Anthropogenic Stone, Brick, etc." on the plans in Attachment 8) that exists within the intertidal zone of the Coastal Beach. In total, there is approximately 11,200 square feet of this man-created area within the project "footprint".

Coastal Beach

Pursuant to 310 CMR 10.27(2), Coastal Beach refers to 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 to the coastal bank or the seaward edge of existing man-made structures. Coastal beaches dissipate wave energy, serve as sediment source, serve the purposes of storm damage prevention and flood control by dissipating wave energy, and provide habitats for shellfish, marine fisheries, birds and marine mammals.

Based on the existing conditions shown on the plans (Attachment 8), a coastal beach exists for the length of the Project Area. Due to the low natural sediment supply to this stretch of shoreline, the beach has lowered over time, and in many areas, the coastal beach elevation is below the mean high water elevation, providing minimal storm protection. It is anticipated that ongoing natural processes, along with relative sea-level rise, will cause complete loss of the remaining beach fronting the Project Area over the next few decades.

A total of approximately 111,516 square feet (2.6 acres) of Coastal Beach, measured from the existing mean low water line to the toe of the existing revetment/seawall in the Project Area, will be enhanced by the proposed sediment berm nourishment. The performance standards for Coastal Beach state that any project on a Coastal Beach shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent downdrift coastal beach.

The proposed project will protect the critical characteristics for Coastal Beaches (310 CMR 10.27(1)) as follows:

a. Volume (quantity of sediments) and form: *The proposed nourishment is not expected to impede the transport of beach sediments along the Project Area. The nourishment will provide an improved sediment supply.*
b. Ability to respond to wave action: *The proposed nourishment will have a higher elevation and, compared to the existing beach, and have a greater ability to dissipate wave energy.*
c. Distribution of sediment grain size: *Sediment consistency (i.e., grain size) of the nourishment will be consistent with sediment from the existing beach of the project area, as well as adjacent to the existing groins in the project area. Due to anthropogenic alterations to the beach system along the areas where no high tide beach exists, the existing sediments should not be considered native.*
d. Water circulation: *The proposed beach nourishment will not affect water circulation.*
e. Water quality: *No impacts to water quality will be caused by the proposed nourishment. Nourishment material will consist of clean sand and gravel, with less than 2% fines.*
f. Relief and elevation: *The proposed nourishment will raise the existing beach elevation to approximately +4.5 ft NAVD88 to reduce wave overtopping.*

The proposed project will meet the performance standards for Coastal Beach (310 CMR 10.27(3, 5, and 7)) as follows:

a. 310 CMR 10.27(3): *The proposed nourishment will not increase erosion, decrease the volume, or change the form of the existing beach. As designed, the project will increase the beach volume.*
b. 310 CMR 10.27(5): *The project consists of a nourishment of clean sediment of a grain size compatible with the native beach material located to the north of the project area. The project also consists of the construction of T-head groin sections.*
c. 310 CMR 10.27(7): *None of the nourishment or new groin heads are within habitat of rare vertebrate or invertebrate species. Approximately 4,291 square feet (0.1 acre) of existing groin #4 planned for removal is within this habitat, therefore the habitat will be increased at the completion of the project.*

Coastal Dune

The Act defines Coastal Dune (310 CMR10.28(2)) as “any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm overwash. …also means sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control”. It is an active feature defined by a steeper foreslope relative to coastal beach and helps to dissipate wave energy and reduce flooding. Coastal dunes naturally migrate in response to storm and wave activity. The proposed nourishment will affect approximately 11,227 square feet (0.3 acres) of Coastal Dune.

The proposed project will protect the critical characteristics for Coastal Dunes (310 CMR 10.28(1)) as follows:

a. The ability of the dune to erode in response to coastal beach conditions: *The proposed nourishment will not affect the ability of the dune to erode in*

response to coastal beach conditions. Rather, the nourishment will enhance the existing dune resources and provide additional sediment that can erode during storm conditions.

b. Dune volume: *The proposed nourishment is expected to provide an improved sediment supply and increase dune volume.*

c. Dune form, which must be allowed to be changed by wind and natural water flow: *The proposed nourishment is not expected to impede natural flow of wind or water and therefore is not expected to affect the dune form after placement.*

d. Vegetative cover: *The proposed nourishment will match sediment type. There is very limited vegetative cover of the existing dune, as it becomes mobile during storm wave activity and consists of primarily coarse-grained (gravel and cobble) sediments. Any disturbed vegetation will be re-established; however, the construction of the beach nourishment project will utilize access locations at the boat ramp and concrete ramp in the vicinity of Oaklawn Street, well away from any existing Coastal Dune resource areas It is anticipated that the nourishment will be maintained without vegetative cover.*

e. The ability of the dune to move landward or laterally: *The proposed reconstructed berm will not impede the ability of the dune to move landward or laterally.*

f. The ability of the dune to continue serving as bird nesting habitat: *The proposed nourishment will increase dune volume; however, due to the coarse-grained nature of both the existing dune and the proposed compatible reconstructed berm, the Project Area likely will not be suitable for shorebird nesting, as the adjacent sandy beach area does not have a history of shorebird nesting.*

The proposed project will meet the performance standards for Coastal Dune (310 CMR 10.28(3) and the New Bedford Code of Ordinances Section 15-101 as follows:

Any alteration of, or structure on, a coastal dune or within 100 feet of a coastal dune shall not have an adverse effect on the coastal dune by:

a. Affecting the ability of waves to remove sand from the dune *The proposed nourishment will not affect the ability of waves to remove sand from the dune.*

b. Disturbing the vegetative cover so as to destabilize the dune *There is no vegetative cover on the dune that currently exists in the project area due to high wave energy and large sediment composition. The proposed nourishment will match the current natural conditions.*

c. Causing any modification of the dune form that would increase the potential for storm or flood damage *The proposed nourishment will decrease potential for storm or flood damage.*

d. Interfering with the landward or lateral movement of the dune *The proposed nourishment will not interfere with the landward or lateral movement of the dune.*

e. Causing removal of sand from the dune artificially *The proposed nourishment will increase sediment supply to the Project Area. It will not cause artificial removal of sand from the dune.*

f. Interfering with mapped or otherwise identified bird nesting habitat. *The Project Area does not contain shorebird nesting habitat.*

Coastal Bank

The Act defines Coastal Bank (310 CMR 10.30(2)) as "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 wetland". The Coastal Bank is determined to be significant to storm damage prevention because it is a vertical buffer to storm waters. Therefore 310 CMR 10.30(7) applies: *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 proposed beach nourishment will be placed in front of the existing seawall/revetments on West Beach and increase shore protection. As part of the project, spalling portions of the existing concrete seawall will be repaired. In addition, the nourishment material fronting the seawall represents an improvement to the storm damage prevention aspects of Coastal Bank.

Land Containing Shellfish

Land Containing Shellfish is defined as "those resource areas likely to contain shellfish, to provide criteria for determining the significance of land containing shellfish, and to establish regulations for projects which will affect such land." Land Containing Shellfish can include Land under the Ocean, Tidal Flats, Rocky Intertidal Shores, Salt Marshes, and Land under Salt Ponds when any such land contains shellfish. From the Division of Marine Fisheries comments regarding the EENF (dated May 7, 2019), the subtidal shoreline parallel to West Rodney French Boulevard is mapped shellfish habitat for both bay scallop (*Argopecten irradians*) and quahog (*Mercenaria mercenaria*). The northern section of the project also contains mapped habitat for American oyster (*Crassostrea virginica*), razor clam (*Ensis directus*), and soft shell clam (*Mya arenaria*). Mapped razor clam and oyster habitat is also present in the southern section of the project. A shellfish survey performed by Stantec in May, 2017 identified bay scallops and quahogs within the project area and is included as Attachment 9. The project area is particularly important as a recreational quahog harvest site. The project will impact approximately 201,404 square feet (4.6 acres) of Land Containing Shellfish within the Coastal Beach and LUO resource areas. The planned beach nourishment may temporarily affect shellfish populations; however, productivity is expected to recover within one year. Additional responses to specific comments from the DMF, as well as the City of New Bedford Conservation Commission, are provided in Attachment 3, including proposed mitigation measures to ensure the Land Containing Shellfish is not adversely impacted by the project. Overall, the project will increase the intertidal area along the shoreline, which is important to several of the mapped shellfish species.

ATTACHMENT 3: MEPA CERTIFICATE AND COMMENT RESPONSES

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
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May 10, 2019

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: West Beach Berm Nourishment
PROJECT MUNICIPALITY	: New Bedford
PROJECT WATERSHED	: Buzzards Bay
EEA NUMBER	: 16008
PROJECT PROPONENT	: New Bedford Department of Public Infrastructure
DATE NOTICED IN MONITOR	: March 20, 2019

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project includes beach nourishment and construction of stone groins seaward of an existing seawall along West Beach in New Bedford. The concrete seawall and an intermittent stone revetment extend along the length of the shoreline and separate it from West Rodney French Boulevard, located landward of the seawall. The seawall and revetment provide protection to upland infrastructure, including the City's main sewer interceptor (7-feet by 7-feet 8-inches), which is located adjacent and parallel to West Rodney French Boulevard. The sewer interceptor collects and conveys the majority of the City's wastewater flows to the proximate treatment plant. Continued erosion has lowered the beach and exposed the toe of the seawall, reducing its ability to protect this infrastructure.

Failure of the seawall during a storm event could expose or damage this critical infrastructure and create a significant public health and safety concern.

According to the ENF, the project was designed to achieve the goals of increasing protection to upland infrastructure, including the sewer main, while reducing impacts to proximate eelgrass beds. The project includes approximately 31,150 cubic yards (cy) of beach nourishment on the site to create a 50-ft wide berm with an elevation of 4.5 ft NAVD and a 1 Vertical:6 Horizontal (1V:6H) seaward slope.[1] The nourishment profile will be reworked by coastal processes to create an equilibrated beach profile with a 30-ft wide berm and a seaward slope of 1V:10H. The nourishment material will likely come from an upland source. The project also includes construction of nine T-head groins, consisting of wooden shore perpendicular trunks and stone heads that parallel the shoreline, and modifications to three existing groins to create L-shaped structures. The groins will have a total footprint of approximately 24,271 square feet (sf). To offset these new structures, the project will remove portions of five groins in the project area, totaling 25,577 sf. According to the ENF, the design life of the project is approximately 9 to 12 years. Periodic beach nourishment is necessary to maintain the beach profile and level of protection provided by the project.

Project Site

The 6.88-acre project site contains approximately 3,830 linear feet (lf) of shorefront facing Clarks Cove, which opens into Buzzards Bay. Large-scale armoring of the project site has been ongoing since the late 1800s. In addition to the seawall and intermittent revetment, the project site contains six shore-perpendicular stone groins which trap sand on the updrift (south) sides and seven combined sewer outfall (CSO) pipes which extend below Mean Low Water (MLW). Wetland resource areas in the vicinity of the project include: Land Under Ocean (LUO), Coastal Beach, Land Containing Shellfish, Coastal Bank, and Land Subject to Coastal Storm Flowage (LSCSF). According to the Federal Emergency Management Agency's (FEMA), Flood Insurance Rate Map (FIRM) (Map No. 25005C0481G, effective on 7/16/2014), the project site is located within a designated Velocity (VE) Zone with a Base Flood Elevation (BFE) ranging from 15 to 18-ft. Portions of the project limits are located in *Priority* and *Estimated* Habitat as mapped by the Division of Fisheries and Wildlife's (DFW) Natural Heritage and Endangered Species Program (NHESP). Surveys identified eelgrass (*Zostera marina*) beds located immediately seaward of the proposed work areas. According to the Division of Marine Fisheries (DMF), the project site lies within mapped shellfish habitat for several shellfish species.

Environmental Impacts and Mitigation

As described in the ENF, the project will permanently impact Land Under the Ocean (LUO) (143,572 sf), Coastal Beach (113,974 sf), Land Containing Shellfish (257,500 sf), and Land Subject to Coastal Storm Flowage (LSCSF) (266,315 sf). All temporary impacts to these resource areas are within the footprint of the permanent impacts. Project impacts include changes in the beach profile and temporary increases in turbidity and suspended solids associated with groin construction.

[1] All elevations referenced in this Certificate are based on North American Vertical Datum of 1988 (NAVD88) unless otherwise specified.

Measures to avoid, minimize and mitigate environmental impacts include: adherence to time-of-year (TOY) restrictions; nourishment with clean sediment of compatible grain size; implementation of nearshore eelgrass monitoring protocols; staging and maintenance of construction equipment in designated areas to prevent leakage of fuel or other fluids to the marine environment; harvesting shellfish prior to construction and re-seeding the area subsequent to project construction (if warranted); designing the project to result in a net reduction in the footprint of coastal engineering structures; and implementation of a beach monitoring and nourishment program.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to preparation of an ENF because it requires Agency Actions and it meets/exceeds the following review thresholds: 301 CMR 11.03(3)(b)(1)(e), new fill in a velocity zone; 301 CMR 11.03(3)(b)(1)(f), alteration of one half or more acres of any other wetlands; and 301 CMR 11.03(3)(b)(6), construction, reconstruction, or expansion of an existing solid fill structure of 1,000 or more sf of base area. The project will require a Section 401 Water Quality Certification (401 WQC) and a Chapter 91 (c.91) Waterways License from the Massachusetts Department of Environmental Protection (MassDEP). The project may require a Conservation and Management Permit (CMP) from NHESP. The Town has received grants from CZM's Coastal Community Resilience Grant Program for the planning and design of the project and may seek additional Financial Assistance from State Agencies for construction of the project.

The project will require an Order of Conditions from the New Bedford Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP). The project requires authorization from the U.S. Army Corps of Engineers (ACOE) under the General Permits for Massachusetts in accordance with Section 404 of the Federal Clean Water Act, as well as Federal Consistency Review from the Office of Coastal Zone Management (CZM).

Because the project has received Financial Assistance from the Commonwealth, MEPA jurisdiction is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

Review of the ENF

The ENF provided a detailed description of existing and proposed conditions, a discussion of project alternatives, preliminary project plans, and identified measures to avoid, minimize, and mitigate project impacts. The ENF provided detailed modeling and analyses of the nearshore wave environment, sediment transport, and cross-shore equilibration which was used to inform project design. The Proponent provided supplemental information regarding temporary wetland impacts, calculations to demonstrate the project will result in a net reduction in the footprint of coastal engineering structures, and construction sequencing and methodology to

facilitate MEPA review of the project.[2] For purposes of clarity, references to the ENF in this Certificate include this supplemental information.

Comments from State Agencies, including CZM, NHESP, DMF, and MassDEP do not identify significant impacts that were not reviewed in the ENF or identify additional alternatives for further review. Comments from CZM are supportive of the project. Comments from DMF, CZM, and the Conservation Commission stress the importance of implementing a detailed monitoring plan to avoid impacts to proximate eelgrass during and after construction.

Alternatives Analysis

The ENF described four alternatives to the project: No-Action, Seawall Improvements, Beach Nourishment, and Beach Nourishment with Structural Enhancements. The No-Action Alternative would result in further deterioration of the existing revetment and destabilization of the seawall. The beach would continue to lower, which would exacerbate overtopping and coastal storm damage to landward infrastructure, including the sewer main.

The Seawall Improvements Alternative would increase the height of the seawall to reduce overtopping and strengthen it by rebuilding or installing a fronting sheet pile. This alternative was dismissed as it would not address erosion and lowering of the beach profile. Additionally, increasing the height of the seawall would prohibit receding water from flowing back over the wall, which would create ponding and channelize erosive flows along the seawall. The ENF used the sediment transport model to evaluate two beach nourishment scenarios: a 40-ft wide berm (34,400 cy) and an 80-ft wide berm (75,300 cy). The modeling results identified the design life of these scenarios as three to seven years and greater than 10 years, respectively. Based on modeling results, the ENF indicated that beach nourishment would increase protection to infrastructure by absorbing and dissipating wave energy. The Proponent dismissed this alternative because modeling also indicated that cross-shore migration of nourishment sediment would impact adjacent eelgrass beds.

The ENF evaluated two structural enhancements (toe berm and T-head groins) which could be implemented with beach nourishment to contain nourishment material and prevent it from migrating to adjacent eelgrass beds. The Toe Berm Alternative consisted of a 10-ft wide stone berm located parallel to the shoreline and approximately 25 ft landward of existing eelgrass beds. The ENF indicated that this alternative would limit the cross-shore movement of sediment and prevent it from migrating to eelgrass beds, however, it was dismissed based on the size of the footprint (49,400 sf) and inability to limit along-shore sediment transport necessary to extend the design life of the nourishment project. The ENF identified beach nourishment in combination with a series of 30-ft wide T-head groins as the Preferred Alternative. T-head groins were selected as they limit both the cross-shore and along-shore movement of sediment. According to the ENF, the Preferred Alternative was selected because it is consistent with the project purpose and will minimize the footprint of the stone structures (24,271 sf), reduce wave energy, increase the longevity of the nourishment project and avoid migration of sand into eelgrass habitat.

[2] Emails from Sean Kelley (Applied Coastal) to Page Czepiga (MEPA Office) sent 4/23/19 and 4/25/19.

Wetlands/Water Quality

The project will impact the following overlapping resource areas: LUO, Coastal Beach, Land Containing Shellfish, and LSCSF. The New Bedford Conservation Commission will review the project to determine its consistency with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and associated performance standards. I refer the Proponent to comments from the Conservation Commission that identify concerns regarding potential construction period impacts that should be addressed during permitting. Beach nourishment will convert 119,301 sf of LUO to Coastal Beach and the groins will impact 24,271 sf of LUO. Approximately 31,150 cy of beach compatible sand will be placed on approximately 113,974 sf of Coastal Beach. Nourishment and groin construction will also impact Land Containing Shellfish and LSCSF. Approximately 25,577 sf of existing groins will be removed and 24,271 sf of rock structures will be added, resulting in a net reduction of 1,306 sf within the groin field. I refer the City to DMF comments which provide design guidance to maximize the biological value of the new groins.

The City will conduct a pre- and post-construction monitoring program to document beach geometry and shoreline condition trends. The monitoring program will obtain two transects in each of the groin compartments. A pre-construction survey will be performed immediately preceding the project and transects will be surveyed over a minimum five-year period post-construction. The monitoring program will collect data on the position of the berm relative to the seawall, accretion or erosion along adjacent beaches, and variability in berm width to identify potential areas of "hot spot" erosion. The monitoring results will be used to assess when maintenance nourishment should be performed to maintain shore protection and berm width. I refer the City to comments from the Conservation Commission and CZM which provide guidance on the monitoring plan.

MassDEP will review the project to determine its consistency with the c. 91 regulations (310 CMR 9.00) and the 401 WQC regulations (314 CMR 9.00). The Town may choose to file a combined c. 91 and WQC application with MassDEP (BRP WW 26). MassDEP comments indicate that the project will be classified as a water-dependent use pursuant to 310 CMR 9.12 and identify information that should be identified on project plans. Pursuant to 301 CMR 13.02, I am declining to require a Public Benefit Review for this project. The project is water-dependent and, as such, is presumed to provide adequate public benefits pursuant to 301 CMR 13.04(1). The project's impacts to tideland resources can be adequately addressed during permitting.

Marine Fisheries

According to DMF, the project area contains mapped shellfish habitat for bay scallop *(Argopecten irradians)*, quahog *(Mercenaria mercenaria)*, American oyster *(Crassostrea virginica)*, razor clam *(Ensis directus)*, and soft shell clam *(Mya arenaria)*. A shellfish survey performed in May 2017 identified bay scallops and quahogs within the project area. Land Containing Shellfish is deemed significant to the interest of the WPA (310 CMR 10.34) and the protection of marine fisheries. The project will impact approximately 5.9 acres of Land Containing Shellfish. At the MEPA site visit, the Proponent indicated that impacts to shellfish will be mitigated by harvesting them prior to construction and re-seeding the area upon

completion of the project. The Proponent should coordinate with DMF and the shellfish constable to minimize disturbance to shellfish resources and fisheries. The DMF comments also indicate that Clarks Cove provides spawning habitat for Winter Flounder *(Pseudopleuronectes americanus)*. The DMF recommends a TOY restriction from January 15 to November 15 to avoid impacts to spawning fish and shellfish.

According to the ENF, historic and existing eelgrass *(Zostera marina)* beds are located immediately adjacent to the project site. Eelgrass beds provide a highly productive habitat that supports a variety of marine species. Construction and nourishment activities will maintain a minimum 30-ft buffer from eelgrass beds. Post-construction diver surveys will be conducted for two consecutive years to map eelgrass habitat. Comments from DMF request that survey data be collected prior to construction and that the City develop an eelgrass monitoring plan to assess any impacts to adjacent eelgrass resources. As requested by DMF and the Conservation Commission, the Proponent should develop and adhere to a detailed construction protocol to ensure that construction related impacts are avoided or minimized. I refer the Proponent to comments from DMF which identify alternative layouts that could further reduce the footprint of the groins and recommend a number of construction period BMPs to reduce siltation and turbidity to avoid impacts to eelgrass.

Rare Species

Clarks Cove and surrounding waters provide habitat for the Roseate Tern *(Sterna dougallii)* and Common Tern *(Sterna hirundo)* which are state- and federally-listed as Endangered and state-listed as Special Concern, respectively. These species and their habitat are protected pursuant to the Massachusetts Endangered Species Act (MESA) (MGL c.131A) and its implementing regulations (321 CMR 10.00). The City should prepare and submit a filing to NHESP in accordance with the MESA regulations. This review process will determine whether the project may result in a "take" of state-listed rare species and if a CMP would be required in compliance with MESA. Preliminary comments from NHESP note the beach nourishment may create habitat for and attract additional state-listed coastal nesting species which would also be protected pursuant to MESA. Preliminary comments from NHESP note the the project can likely be conditioned to avoid a direct "take" of individuals and identify potential conditions including measures to prevent disturbance of foraging terns and habitat and monitoring requirements.

Climate Change

The project received grants from the CZM Coastal Resilience Program in 2017 and 2018 to evaluate project feasibility and to design the project. This grant program is part of the Commonwealth's effort to address the effects of climate change. Massachusetts coastal cities and towns experience coastal storm damage to property, infrastructure, and natural resources, along with associated economic disruptions. These impacts are projected to worsen and broaden with the effects of climate change. Comments from CZM note the project will increase protection of one of the City's most vulnerable pieces of wastewater infrastructure.

The City has been designated as a participating community in the Commonwealth's Municipal Vulnerability Preparedness (MVP) program which provides support for the process of

planning for climate change resiliency and implementing priority projects. Through the MVP program, the City received funding to conduct a planning process for climate change resiliency and implementing priority projects. The results of the initial community-driven process were presented in the *"Community Resilience Building Workshop – Summary of Findings Report"* (dated June 2018). The Report identified Sea Level Rise (SLR) as a threat and infrastructure improvements (including sewer) as a high priority action. Through the MVP Program, the City will have access to technical support and funding for project implementation.

The ENF assumed a 2-ft increase in relative SLR over the design life of the project. At the MEPA site visit, the Proponent's consultant indicated the groin stones would be sized to withstand intense wave energy associated with coastal storm events. According to the ENF, the design of the project will not preclude improvement or expansion of the armor stone revetment fronting the seawall, should it become necessary. The ENF also indicated that monitoring data will be used to assess whether design modifications are necessary to address SLR.

Construction

The ENF indicated that construction will occur in phases over an approximately 6 month period. It is anticipated that land-based equipment will be used but it is possible that equipment mounted on shallow draft barges will be used. If constructed from the land, a total of 1,420 to 1,560 truck trips will be required to bring the nourishment material to the site. Equipment mounted on barges would reduce truck trips. Land-based construction equipment will operate from a platform constructed of sand within the nourishment footprint. Beach nourishment will occur between pairs of T-head groins after they are constructed. This sequence will be repeated until all groin sections are constructed and the nourishment template has been filled. I expect that MassDEP will require observance of the TOY restrictions recommended by the DMF and refer the Proponent to the DMF comment letter for additional recommendations to reduce construction period impacts. The project must comply with MassDEP Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. c.40, s.54. All construction activities should be undertaken in compliance with the conditions of all State and local permits.

Conclusion

The ENF has adequately described and analyzed the project and its alternatives, and assessed its potential environmental impacts and mitigation measures. Based on review of the ENF and comments received on it, and in consultation with State Agencies, I have determined that an EIR is not required.

May 10, 2019
Date

K. Theoharides
Kathleen A. Theoharides

Comments received:

04/29/2019	New Bedford Conservation Commission
04/30/2019	Natural Heritage and Endangered Species Program (NHESP)
04/20/2019	Massachusetts Department of Environmental Protection (MassDEP)
04/30/2019	Office of Coastal Zone Management (CZM)
05/07/2019	Division of Marine Fisheries (DMF)

KAT/PRC/prc

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

MEMORANDUM

TO: Matthew A. Beaton, Secretary, EEA
ATTN: Page Czepiga, MEPA Unit
FROM: Lisa Berry Engler, Director, CZM
DATE: April 30, 2019
RE: EEA 16008, West Beach Expanded Environmental Notification Form; New Bedford

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The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Expanded Environmental Notification Form (EENF), noticed in the *Environmental Monitor* dated April 10, 2019, attended a pre-application site visit in the Fall of 2017, worked extensively with New Bedford since the Fall of 2015 on the development and design of the project, and believes any remaining design details or issues can be addressed in state and federal permitting processes, and with ongoing agency consultation.

Project Description

The proposed project is to construct a 3,830-foot long beach nourishment project seaward of an existing seawall along West Rodney French Boulevard that protects the road as well as the main sewer line that conveys the city's wastewater to the treatment facility located at the end of the peninsula at Fort Rodman. The existing seawall was substantially damaged during the 1938 Hurricane, and rebuilt afterward. The area was nourished in 1958 and 1977. Continued erosion over the long-term has lowered the beach and exposed the toe of the seawall, and caused concerns with the seawall's ability to protect the road and sewer line infrastructure directly behind the road. Should significant damage occur to the main sewer line, wastewater service to the entire city would be jeopardized.

The volume of sand needed to implement the project is estimated to be 31,150 cubic yards. To increase the longevity of the nourished sand, the project will include approximately eleven T-head groins to act as breakwaters that will reduce the wave energy hitting the nourished beach and the existing seawall. The footprint of the T-head groins will be approximately 24,271 square feet. To mitigate the resource area impacts of these new structures, portions of five existing groins in the project area will be removed. The estimated area of the groins to be removed is approximately 25,577 square feet. The T-head groins also help reduce the projects impacts on eel grass resources located seaward of the proposed project.

CZM has partnered with the City of New Bedford on this project for several years. New Bedford received CZM Coastal Resilience Grants in FY 2017, and FY 2018 to investigate project feasibility, develop preliminary and final designs, and begin the development of an Expanded Environmental Notification Form. Currently New Bedford is working through an EEA Dam and Seawall Grant to complete the MEPA review process.

Comments

CZM supports New Bedford's West Beach nourishment and T-head groin project. The project has significant coastal resilience ramifications for the city and will significantly improve the protection from coastal storms of one of the city's most vulnerable pieces of wastewater infrastructure. CZM has partnered with the city throughout the assessment, feasibility, design, and now MEPA review of the proposed project, and will continue to work with New Bedford through the permitting and construction of the project. The EENF provides a solid basis upon which to begin the local, state, and permitting processes. Any remaining issues may be addressed in the permitting processes. Additional information required during the permitting process includes: 1) a detailed maintenance and monitoring plan that includes extension of the beach profiles to -4 MLW to detect migration of the nourishment seaward of the breakwaters; and 2) representative cross-sections showing the existing and proposed configurations of the groins to be removed.

Further CZM Review

This project may be subject to CZM federal consistency review, which requires that the project be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Bob Boeri, Project Review Coordinator, at 617-626-1050 or visit the CZM web site at www.mass.gov/czm.

LBE/dsj, rlb, rh

cc: Jim Mahala, Chief, Wetlands & Waterways Program
Southeast Regional Office, MassDEP
Dan Gilmore,
MassDEP, Wetlands Program SERO, Lakeville
John Logan,
MassDMF, New Bedford
Barbara Newman,
U.S. Army Corp of Engineers
Michele Paul,
New Bedford Director of Resilience and Environmental Stewardship,
New Bedford, MA 02740
Sarah Porter,
New Bedford Conservation Agent
John Ramsey,
Applied Coastal Research and Engineering, Mashpee, MA 02649

Commonwealth of Massachusetts
Division of Marine Fisheries
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David E. Pierce, Ph.D.
Director

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Karyn E. Polito
Lieutenant Governor
Matthew A. Beaton
Secretary
Ronald Amidon
Commissioner
Mary-Lee King
Deputy Commissioner

May 7, 2019

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Page Czepiga, EEA No. 16008
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Beaton:

The Division of Marine Fisheries (MA DMF) has reviewed the Expanded Environmental Notification Form (EENF) for the New Bedford Department of Public Infrastructure's West Beach Berm Nourishment project on Clark's Cove in the City of New Bedford. MA DMF attended a pre-application meeting on November 22, 2017 and a MEPA site visit on April 23, 2019 for this project. The overall project area includes a 3,830 foot section of shoreline along West Rodney French Boulevard extending from the boat ramp north to the hurricane barrier. Proposed work consists of the installation of nine stone T-headed groins that would each contain a wooden trunk running perpendicular to the shoreline. In addition to the nine proposed new T-headed groins, the project also proposes modifications to three existing groins to create L-shaped groins. Proposed new T-headed groins would occupy 24,271 square feet of seafloor. To offset the addition of new hard structures, the project also proposes to remove the northernmost existing groin in the project area and the seaward ends of two additional groins totaling 25,577 square feet. Following T-headed groin installation, 31,150 cubic yards of beach nourishment material is proposed to be deposited on a 1:6 (v:h) slope. The proposed project design life is estimated to be 9-12 years with regular maintenance required to maintain shoreline protection objectives. Existing marine fisheries resources and habitat and potential project impacts to these resources are outlined in the following paragraphs.

As documented in the EENF, eelgrass (*Zostera marina*) beds are present immediately seaward of the proposed nourishment and groin installation sites. The Massachusetts Department of Environmental Protection (MA DEP) has mapped eelgrass along much of the project shoreline, and diver surveys performed by Stantec in May 2017 documented an even greater eelgrass footprint than the area previously mapped by MA DEP. MA DMF surveyed this area in June 2018 and also observed extensive eelgrass along several sections of the project area. Eelgrass beds provide one of the most productive habitats for numerous marine species (Jackson et al. 2001; Heck et al. 2008) and are designated "special aquatic sites" under the Federal Clean Water Act 404(b) (1) guidelines.

The project footprint also contains mapped habitat for several shellfish species. Specifically, the overall project footprint is mapped habitat for both bay scallop (*Argopecten irradians*) and quahog (*Mercenaria mercenaria*). The northern section of the project also contains mapped habitat for American oyster (*Crassostrea virginica*), razor clam (*Ensis directus*), and soft shell clam (*Mya arenaria*). Mapped razor clam and oyster habitat is also present in the southern section of the project. A shellfish survey performed by Stantec in May, 2017 identified bay scallops and

quahogs within the project area. The project area is particularly important as a recreational quahog harvest site.

Clark's Cove has also been identified by MA DMF as winter flounder (*Pseudopleuronectes americanus*) spawning habitat (Evans et al. 2011). Winter flounder spawn from January through May, laying clumps of eggs directly on the substrate. These demersal eggs hatch approximately fifteen to twenty days later. The Atlantic States Marine Fisheries Commission has designated winter flounder spawning habitat as "Habitat Areas of Particular Concern" (HAPC).

MA DMF offers the following comments for your consideration:

- This project should develop additional alternatives that reduce the footprint of proposed new T-headed groins to the maximum extent possible. The EENF presents alternative design types, but alternative versions are not presented for the proposed T-headed groin with nourishment preferred alternative. Alternative layouts could include a) the use of smaller footprints, b) the use of T-headed groins only in areas with high sediment transport rates (sediment transport modeling depicted in Figure 4.8 of the EENF shows low net sediment transport along the southern extent of the project footprint between the boat ramp and the Aquidneck Street groin that would seem to suggest additional structures in this sub-section may not be necessary to maintain sediment in the nourishment footprint), and c) a phased approach as a way of field-testing modeled sediment transport and retention and anticipated avoidance of impacts to adjacent eelgrass resources (since the more northerly beaches were nourished and retained their sand via existing groin structures, it is unclear why the T-headed groins are really necessary).
- MA DMF does not object to removing the portions of the existing hard structures that serve no shoreline protection function (northernmost groin and seaward sections of several groins within the proposed T-headed groin footprint).
- Land side construction is anticipated for T-headed groin construction, but seaward approach via floating barge is also considered in the EENF supplemental filing. As eelgrass has been mapped in the nearshore environment seaward of the proposed T-headed groin locations, best management practices need to be further detailed to ensure avoidance of eelgrass impacts if a barge is used. Given that the mapped eelgrass is as close as 30 feet to the proposed T-headed groins in some locations, the proponent should clarify how they will mark the shoreward extent of the eelgrass as mapped in the pre-construction survey so construction activities do not accidently impinge on the eelgrass. No anchoring, sediment movement, or fill placement should occur within 25 feet of the eelgrass.
- The EENF project plan includes annual diver surveys in late May to map eelgrass habitat for the first two years post-construction. Survey data should also be collected in late May prior to the construction period to provide the most up-to-date delineation of eelgrass habitat prior to nourishment. The survey plan for assessing construction impact should be reviewed and approved by MA DMF.
- Given existing shellfish resources and an active recreational quahog fishery within the project footprint, the applicant should consult with the shellfish constable to minimize disturbance to shellfish resources and fisheries. MA DMF expects this project to result in unavoidable impacts to quahog habitat, which will likely require mitigation in the permitting process.
- The design of the T-headed groins should incorporate materials and methods to maximize the biological value of the hardened structure such as creating tide pools and creating a wide variety of pore spaces.
- Since winter flounder utilize Clark's Cove as spawning habitat, the project should be designed to minimize work within the time of year (TOY) restriction period of **January 15 to November 15** (Evans et al. 2011). This TOY period is designed to protect sensitive life history phases of all of the marine resources outlined previously (winter flounder, shellfish, and diadromous fishes).

Questions regarding this review may be directed to John Logan in our New Bedford office at (508) 742-9722.

Sincerely,

David E. Pierce, Ph.D.
Director

cc: New Bedford Conservation Commission
John Ramsey, Applied Coastal Research and Engineering, Inc.
Thomas Ringuette, New Bedford Shellfish Constable
Alison Verkade, NMFS
David Wong, DEP
Robert Boeri, CZM
Ed Reiner, EPA
Richard Lehan, DFG
Kathryn Ford, Neil Churchill, Tom Shields, Ryan Nuttall, DMF

References

Evans NT, Ford KH, Chase BC, Sheppard J (2011) Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Fisheries Resources in Massachusetts. Massachusetts Division of Marine Fisheries Technical Report, TR-47

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Jackson EL, Rowden AA, Attrill MJ, et al (2001) The importance of seagrass beds as a habitat for fishery species. Oceanogr Mar Biol Annu Rev 39:269–303

DP/JL/sd

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

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April 30, 2019

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Page Czepiga, EEA No. 16008
100 Cambridge St.
Boston, Massachusetts 02114

Project Name:	*West Beach Berm Nourishment*
Proponent:	*New Bedford Department of Public Infrastructure*
Location:	*West Rodney French Boulevard, New Bedford, MA*
Project Description:	*Beach Nourishment and Groin Reconfiguration*
Document Reviewed:	*Expanded Environmental Notification Form*
EEA File Number:	*16008*
NHESP Tracking No.:	*17-37395*

Dear Secretary Beaton:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the Division) has reviewed the *Expanded Environmental Notification Form* (EENF) for the proposed beach nourishment project with removal and reconfiguring groins into T-head groins in Clarks Cove along a 3,830 foot section of West Rodney French Boulevard in New Bedford, MA and would like to offer the following comments.

Based on the information contained within the EENF portions of the West Beach Berm Nourishment Project will occur within *Priority* and *Estimated Habitat* as indicated in the *Massachusetts Natural Heritage Atlas* (14th Edition). Clarks Cove and surrounding waters provide important foraging habitat proximate to critical island nesting sites for state-listed tern species, including Roseate Tern (*Sterna dougallii*), state- and federally listed as Endangered and the Common Tern (*Sterna hirundo*) state-listed as Special Concern. These species are protected pursuant to the Massachusetts Endangered Species Act (M.G.L c. 131A) and its implementing regulations (MESA, 321 CMR 10.00) as well as the Massachusetts Wetlands Protection Act and its implementing regulations (WPA, 310 CMR 10.37, 10.58(4)(b) and 10.59). This project will require direct filing with the Division for compliance with the Massachusetts Endangered Species Act (M.G.L c. 131A) and its implementing regulations (MESA, 321 CMR 10.00).

As proposed, the project includes the creation of a ±30 foot wide beach berm for ±3,830 linear feet along West Rodney French Boulevard with T-head groins and/or breakwaters to reduce migration of sand into adjacent eelgrass beds. The beach nourishment has the potential to create habitat for state-listed coastal nesting species, including Piping Plover (*Charadrius melodus*) and Least Tern (*Sternula antillarum*). If state-listed species are drawn to this area then the Proponent would have the responsibility of protecting these birds, their eggs, and chicks. Thus, the Division recommends that the Proponent include a plan to survey suitable nesting habitat by a qualified shorebird monitor (as

determined by the Division) for these species during the nesting season (April 1 – August 31) as a component of the project.

Based on the information contained within the ENF and in advance of a formal filing pursuant to the MESA, the Division anticipates this project may require conditions to avoid a prohibited Take of state-listed species. Protections may include measures to prevent disturbance of foraging terns and alterations to foraging habitat while state-listed terns are present in Massachusetts (approximately May 15 – September 30) and monitoring for state-listed beach nesting birds that may be attracted to areas of beach nourishment (April 1 – August 31).

As our MESA review is not complete, no alteration to the soil, surface, or vegetation and no work associated with the proposed project shall occur on the property until the Division has made a final determination.

If you have any questions about this letter, please contact Amy Hoenig, Endangered Species Review Biologist, at (508) 389-6364 or Amy.Hoenig@state.ma.us. We appreciate the opportunity to comment on this project.

Sincerely,

Jonathan V. Regosin, Ph.D.
Deputy Director

cc: John Ramsey, Applied Coastal
City of New Bedford Mayor's Office
City of New Bedford City Council
City of New Bedford Conservation Commission
DEP Southeast Regional Office, MEPA

Commonwealth of Massachusetts
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Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

April 30, 2019

Mathew A. Beaton,
Secretary of Environment and Energy
Executive Office of Energy &
Environmental Affairs
ATTN: MEPA Office,
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: EENF Review EOEEA #16008
NEW BEDFORD. West Beach Berm Nourishment
at West Rodney French Boulevard, New Bedford

Dear Secretary Beaton,

The Southeast Regional Office of the Department of Environmental Protection (MassDEP) has reviewed the Expanded Environmental Notification Form (ENF) for the West Beach Berm Nourishment Project at West Rodney French Boulevard, New Bedford, Massachusetts (EOEEA # 16008). The Project Proponent provides the following information for the Project:

The recommended Project is to construct a beach nourishment Project seaward of the seawall along West Rodney French Boulevard. The beach fill will be contained with a series of T-head groins, consisting of shore perpendicular trunks, and heads that parallel the orientation of the shoreline. The beach nourishment will extend the berm seaward and provide additional sediment to the system. The berm can be designed to absorb and dissipate storm wave energy, thereby increasing protection to the infrastructure behind the seawall. The additional shore protection will reduce risk of seawall destabilization during a large event (e.g., hurricane). Once beach nourishment material is in place, coastal processes will rework the nourishment material to create an equilibrated beach profile. The additional construction of the T-head field will provide environmental mitigation to contain nourishment sediment from migrating offshore into eelgrass habitat. While expansion of coastal engineering structures is generally discouraged by environmental regulatory agencies, recommendations to "trade" structures, where there is no overall increase in the cumulative "footprint" of coastal engineering structures, may have merit to maximize shore protection goals. This can be accomplished by dismantling portions of existing structures and "trading" them for optimized new structures.

Bureau of Water Resources Comments

Wetlands Comments: The SERO Wetlands Program has reviewed the EENF from the City of New Bedford proposing to nourish a section of West Beach, remove sections of multiple shore-perpendicular groins, and install multiple T-head groins in order to increase coastal resiliency.

The program offers the following comments.

- This Project will require the submittal of a 401Water Quality Certification (WQC) Application. The Proponent may choose to file a MassDEP BRP WW26 Combined Application for Chapter 91 and WQC.

- The applicant will require the submittal of a Notice of Intent (NOI) to DEP and the New Bedford Conservation Commission for the Project. DEP notes that if the minimum submittal requirements have been met a File Number will be issued. It is anticipated that the New Bedford Conservation Commission will conduct a Public Hearing and issue an Order of Conditions. A final Order of Conditions must be obtained before any work within Areas Subject to Jurisdiction commences.

- The Coastal Beach performance standards at 310 10.27(4)(a-c) require that any groin be the minimum length and height demonstrated to be necessary to maintain beach form and volume. Further, immediately after construction any groin shall be filled to entrapment capacity in height and length with sediment of grain size compatible with that of the adjacent beach. In order to avoid impacts to downdrift or adjacent beaches, periodic re-nourishment will be required to maintain the groins at or near entrapment capacity.

- The Coastal Beach performance standard at 310 10.27(5) requires that beach nourishment have clean sediment of a grain size compatible with that on the existing beach.

- The Project site is mapped as estimated habitat for rare and endangered species (eel grass) and therefore the Proponent must file a copy of the NOI with the Natural Heritage and Endangered Species Program.

- Multiple obsolete outfall pipes were identified in the CLE Engineering structures assessment. Has the city considered removing these structures as part of the Project?

Waterways Comments: The Waterways Program has reviewed the referenced Environmental Notification Form (ENF), proposing the removal and relocation and reconstruction of several groins and creation of T Head groin structures and beach nourishment.

The Department has performed a cursory review of the area and some authorizations exist at the boat ramp. It appears the existing groins, and the seawall have been authorized by the Department of Public Works Contract No. 2905. As indicated within the ENF, submittal of a new Chapter 91 Waterways License application for the groin structures and any associated dredging to install said structures will be required.

The Proponent shall clearly show Mean High and Low Water Marks on the Application plans and detail the proposed wooden connector groins (perpendicular to the shoreline), as well as provide a beach nourishment schedule to ensure public passage along the shoreline is not impeded in the event that these wooden groins become exposed above grade (at any tide).

The Department has determined the Project to be a water-dependent use pursuant to the Waterways Regulations at 310 CMR 9.12.

Bureau of Waste Site Cleanup Comments

EENF #16008 – Based upon the information provided, the Bureau of Waste Site Cleanup (BWSC) searched its databases for disposal sites and release notifications that have occurred at or might impact the proposed Project area. A disposal site is a location where there has been a release to the environment of oil and/or hazardous material that is regulated under M.G.L. c. 21E, and the Massachusetts Contingency Plan [MCP – 310 CMR 40.0000].

There are no listed MCP disposal sites located at or in the vicinity of the site that would appear to impact the proposed Project area. Interested parties may view a map showing the location of BWSC disposal sites using the MassGIS data viewer (Oliver) at: http://maps.massgis.state.ma.us/map_ol/oliver.php Under "Available Data Layers" select "Regulated Areas", and then "DEP Tier Classified 21E Sites". MCP reports and the compliance status of specific disposal sites may be viewed using the BWSC Waste Sites/Reportable Release Lookup at: https://eeaonline.eea.state.ma.us/portal#!/search/wastesite

The Project Proponent is advised that if oil and/or hazardous material are identified during the implementation of this Project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) must be made to MassDEP, if necessary. A Licensed Site Professional (LSP) should be retained to determine if notification is required and, if need be, to render appropriate opinions. The LSP may evaluate whether risk reduction measures are necessary if contamination is present. The BWSC may be contacted for guidance if questions arise regarding cleanup.

Bureau of Air and Waste Comments:

Air Quality. Construction and operation activities shall not cause or contribute to a condition of air pollution due to dust, odor or noise. To determine the appropriate requirements please refer to:

- 310 CMR 7.09 Dust, Odor, Construction, and Demolition
- 310 CMR 7.10 Noise

Construction-Related Measures. MassDEP requests that all non-road diesel equipment rated 50 horsepower or greater meet EPA's Tier 4 emission limits, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then the Proponent should use construction equipment that has been retrofitted with appropriate emissions reduction equipment. Emission reduction equipment includes EPA-verified, CARB-verified, or MassDEP-approved diesel oxidation catalysts (DOCs) or Diesel Particulate Filters (DPFs). The Proponent should maintain a list of the engines, their emission tiers, and, if applicable, the best available control technology installed on each piece of equipment on file for Departmental review.

Massachusetts Idling Regulation. MassDEP reminds the Proponent that unnecessary idling (i.e., in excess of five minutes), with limited exception, is not permitted during the construction and operations phase of the Project (310 CMR 7.11). With regard to construction period activity, typical methods of reducing idling include driver training, periodic inspections by site supervisors, and posting signage. In addition, to ensure compliance with this regulation once the Project is occupied, MassDEP requests that the Proponent install permanent signs limiting idling to five minutes or less on-site.

Spills Prevention. A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential on-site activity releases.

Proposed s.61 Findings

The "Certificate of the Secretary of Energy and Environmental Affairs on the Environmental Notification Form" may indicate that this Project requires further MEPA review and the preparation of an Environmental Impact Report. Pursuant to MEPA Regulations 301 CMR 11.12(5)(d), the Proponent will prepare Proposed Section 61 Findings to be included in the EIR in a separate chapter updating and summarizing proposed mitigation measures. In accordance with 301 CMR 11.07(6)(k), this chapter should also include separate updated draft Section 61 Findings for each State agency that will issue permits for the Project. The draft Section 61 Findings should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

Other Comments/Guidance

The MassDEP Southeast Regional Office appreciates the opportunity to comment on this proposed Project. If you have any questions regarding these comments, please contact George Zoto at (508) 946-2820.

Very truly yours,

Jonathan E. Hobill,
Regional Engineer,
Bureau of Water Resources

JH/GZ

Cc: DEP/SERO

ATTN: Millie Garcia-Serrano, Regional Director
David Johnston, Deputy Regional Director, BWR
Gerard Martin, Deputy Regional Director, BWSC
Seth Pickering, Deputy Regional Director, BAW
Jennifer Viveiros, Deputy Regional Director, ADMIN
Jim Mahala, Chief, Wetlands and Waterways, BWR
Carlos Fragata, Wetlands and Waterways, BWR
Nate Corcoran, Wetlands and Waterways, BWR
Mark Dakers, Chief, Solid Waste, BAW
Douglas Coppi, Solid Waste, BAW
Allen Hemberger, Site Management, BWSC

DEPARTMENT OF ENVIRONMENTAL STEWARDSHIP/

NEW BEDFORD CONSERVATION COMMISSION

CITY OF NEW BEDFORD
JONATHAN F. MITCHELL, MAYOR

April 29th, 2019

Secretary Mathew A. Beaton
Executive Office of Energy and Environmental Affairs
Attn Page Czepiga – MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: EOEA #16008 - EENF
West Beach Nourishment Project, West Rodney French Blvd., New Bedford

Dear Secretary Beaton,

The New Bedford Conservation Commission (NBCC) has reviewed the Expanded Environmental Notification Form (EENF) for the West Beach Nourishment Project and offers the following comments.

The construction related impacts need to be carefully considered including:

- Ensuring terrestrial sand gradations are comparable to the existing grain analysis (with care taken to minimize silt, which can cause turbidity and impact eel grass beds).
- Ensuring that the platform sand tongues to construct the T heads do not wash sand over to the eel grass beds. Silt curtains have not been proposed for this activity but should be considered.
- Developing a construction monitoring protocol for the eel grass beds.
- Providing construction access to the beaches which avoids impact to any dune grass colonies.

Protection of Marine Fisheries and Shellfish is critical. The NBCC is pleased that the applicant has proposed to protect these resources by incorporating the following mitigating measures:

- Adhering to the Time of Year restrictions imposed by the Division of Marine Fisheries.
- Harvesting of shellfish from the impact area prior to beginning the project.
- Re-seeding of shellfish into the impact area after completion of the project to mitigate for shellfish impacts.

The NBCC will likely require the following post construction:

- Incorporating the Preliminary Maintenance and Monitoring Plan for the beach nourishment program (refer to page 73,74 of the EENF) into the Order of Conditions.
- Eel grass monitoring to continue for at least a 3-year period.

- replanting of eel grass should substantial losses occur. Eel grass is a valuable marine habitat which has recolonized Clark's Cove in the past several decades. It is imperative that it be protected.

Sincerely,

Craig Dixon,
Chairman, Conservation Commission

cc: Conservation Commissioners, S. Syde, A. Hart

Commonwealth of Massachusetts

Division of Marine Fisheries

251 Causeway Street, Suite 400
Boston, Massachusetts 02114
(617) 626-1520
fax (617) 626-1509

David E. Pierce, Ph.D.
Director

Charles D. Baker
Governor
Karyn E. Polito
Lieutenant Governor
Matthew A. Beaton
Secretary
Ronald Amidon
Commissioner
Mary-Lee King
Deputy Commissioner

May 7, 2019

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Page Czepiga, EEA No. 16008
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Beaton:

The Division of Marine Fisheries (MA DMF) has reviewed the Expanded Environmental Notification Form (EENF) for the New Bedford Department of Public Infrastructure's West Beach Berm Nourishment project on Clark's Cove in the City of New Bedford. MA DMF attended a pre-application meeting on November 22, 2017 and a MEPA site visit on April 23, 2019 for this project. The overall project area includes a 3,830 foot section of shoreline along West Rodney French Boulevard extending from the boat ramp north to the hurricane barrier. Proposed work consists of the installation of nine stone T-headed groins that would each contain a wooden trunk running perpendicular to the shoreline. In addition to the nine proposed new T-headed groins, the project also proposes modifications to three existing groins to create L-shaped groins. Proposed new T-headed groins would occupy 24,271 square feet of seafloor. To offset the addition of new hard structures, the project also proposes to remove the northernmost existing groin in the project area and the seaward ends of two additional groins totaling 25,577 square feet. Following T-headed groin installation, 31,150 cubic yards of beach nourishment material is proposed to be deposited on a 1:6 (v:h) slope. The proposed project design life is estimated to be 9-12 years with regular maintenance required to maintain shoreline protection objectives. Existing marine fisheries resources and habitat and potential project impacts to these resources are outlined in the following paragraphs.

As documented in the EENF, eelgrass (*Zostera marina*) beds are present immediately seaward of the proposed nourishment and groin installation sites. The Massachusetts Department of Environmental Protection (MA DEP) has mapped eelgrass along much of the project shoreline, and diver surveys performed by Stantec in May 2017 documented an even greater eelgrass footprint than the area previously mapped by MA DEP. MA DMF surveyed this area in June 2018 and also observed extensive eelgrass along several sections of the project area. Eelgrass beds provide one of the most productive habitats for numerous marine species (Jackson et al. 2001; Heck et al. 2008) and are designated "special aquatic sites" under the Federal Clean Water Act 404(b) (1) guidelines.

The project footprint also contains mapped habitat for several shellfish species. Specifically, the overall project footprint is mapped habitat for both bay scallop (*Argopecten irradians*) and quahog (*Mercenaria mercenaria*). The northern section of the project also contains mapped habitat for American oyster (*Crassostrea virginica*), razor clam (*Ensis directus*), and soft shell clam (*Mya arenaria*). Mapped razor clam and oyster habitat is also present in the southern section of the project. A shellfish survey performed by Stantec in May, 2017 identified bay scallops and

quahogs within the project area. The project area is particularly important as a recreational quahog harvest site.

Clark's Cove has also been identified by MA DMF as winter flounder (*Pseudopleuronectes americanus*) spawning habitat (Evans et al. 2011). Winter flounder spawn from January through May, laying clumps of eggs directly on the substrate. These demersal eggs hatch approximately fifteen to twenty days later. The Atlantic States Marine Fisheries Commission has designated winter flounder spawning habitat as "Habitat Areas of Particular Concern" (HAPC).

MA DMF offers the following comments for your consideration:

- This project should develop additional alternatives that reduce the footprint of proposed new T-headed groins to the maximum extent possible. The EENF presents alternative design types, but alternative versions are not presented for the proposed T-headed groin with nourishment preferred alternative. Alternative layouts could include a) the use of smaller footprints, b) the use of T-headed groins only in areas with high sediment transport rates (sediment transport modeling depicted in Figure 4.8 of the EENF shows low net sediment transport along the southern extent of the project footprint between the boat ramp and the Aquidneck Street groin that would seem to suggest additional structures in this sub-section may not be necessary to maintain sediment in the nourishment footprint), and c) a phased approach as a way of field-testing modeled sediment transport and retention and anticipated avoidance of impacts to adjacent eelgrass resources (since the more northerly beaches were nourished and retained their sand via existing groin structures, it is unclear why the T-headed groins are really necessary).
- MA DMF does not object to removing the portions of the existing hard structures that serve no shoreline protection function (northernmost groin and seaward sections of several groins within the proposed T-headed groin footprint).
- Land side construction is anticipated for T-headed groin construction, but seaward approach via floating barge is also considered in the EENF supplemental filing. As eelgrass has been mapped in the nearshore environment seaward of the proposed T-headed groin locations, best management practices need to be further detailed to ensure avoidance of eelgrass impacts if a barge is used. Given that the mapped eelgrass is as close as 30 feet to the proposed T-headed groins in some locations, the proponent should clarify how they will mark the shoreward extent of the eelgrass as mapped in the pre-construction survey so construction activities do not accidently impinge on the eelgrass. No anchoring, sediment movement, or fill placement should occur within 25 feet of the eelgrass.
- The EENF project plan includes annual diver surveys in late May to map eelgrass habitat for the first two years post-construction. Survey data should also be collected in late May prior to the construction period to provide the most up-to-date delineation of eelgrass habitat prior to nourishment. The survey plan for assessing construction impact should be reviewed and approved by MA DMF.
- Given existing shellfish resources and an active recreational quahog fishery within the project footprint, the applicant should consult with the shellfish constable to minimize disturbance to shellfish resources and fisheries. MA DMF expects this project to result in unavoidable impacts to quahog habitat, which will likely require mitigation in the permitting process.
- The design of the T-headed groins should incorporate materials and methods to maximize the biological value of the hardened structure such as creating tide pools and creating a wide variety of pore spaces.
- Since winter flounder utilize Clark's Cove as spawning habitat, the project should be designed to minimize work within the time of year (TOY) restriction period of **January 15 to November 15** (Evans et al. 2011). This TOY period is designed to protect sensitive life history phases of all of the marine resources outlined previously (winter flounder, shellfish, and diadromous fishes).

Questions regarding this review may be directed to John Logan in our New Bedford office at (508) 742-9722.

Sincerely,

David E. Pierce, Ph.D.
Director

cc: New Bedford Conservation Commission
John Ramsey, Applied Coastal Research and Engineering, Inc.
Thomas Ringuette, New Bedford Shellfish Constable
Alison Verkade, NMFS
David Wong, DEP
Robert Boeri, CZM
Ed Reiner, EPA
Richard Lehan, DFG
Kathryn Ford, Neil Churchill, Tom Shields, Ryan Nuttall, DMF

References

Evans NT, Ford KH, Chase BC, Sheppard J (2011) Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Fisheries Resources in Massachusetts. Massachusetts Division of Marine Fisheries Technical Report, TR-47

Heck KL Jr, Carruthers TJB, Duarte CM, et al (2008) Trophic transfers from seagrass meadows subsidize diverse marine and terrestrial consumers. Ecosystems 11:1198–1210

Jackson EL, Rowden AA, Attrill MJ, et al (2001) The importance of seagrass beds as a habitat for fishery species. Oceanogr Mar Biol Annu Rev 39:269–303

DP/JL/sd

The following summarize the comments received through the MEPA process. Where appropriate, responses to the various comments, including details regarding potential monitoring and mitigation strategies have been provided.

Actionable comments from DMF:

1) **This project should develop additional alternatives that reduce the footprint of proposed new T-headed groins to the maximum extent possible.**

   The proposed plan is already optimized as a result of lengthy and iterative design process. The length, number and cumulative footprint of structures proposed is controlled by the space available between eelgrass resources and the seawall (which in turn controls the maximum beach berm width), water depth, and length of protected shoreline. Characteristics of the design could be altered, but the design process indicates that changes would reduce the efficacy of the project. For example, to reduce the number of structures, the breakwater sections would need to be placed farther offshore in order to maintain the same minimum berm width. Because water depths increase with distance offshore, these structures would have a substantially increased footprint area per length of structure, which would not result in any advantage. Alternately, the footprint could be reduced by moving the breakwaters closer to the seawall. However, this would narrow the beach berm and reduce the effectiveness of the beach necessary for shore protection. The project as designed represents the minimum T-head footprint required to provide adequate shore protection. In addition, the optimized design represents the minimum impact to adjacent resource areas, specifically, eelgrass habitat.

2) **As eelgrass has been mapped in the nearshore environment seaward of the proposed T-headed groin locations, best management practices need to be further detailed to ensure avoidance of eelgrass impacts if a barge is used. Given that the mapped eelgrass is as close as 30 feet to the proposed T-headed groins in some locations, the proponent should clarify how they will mark the shoreward extent of the eelgrass as mapped in the pre-construction survey so construction activities do not accidently impinge on the eelgrass. No anchoring, sediment movement, or fill placement should occur within 25 feet of the eelgrass.**

   Due to the shallow water depth of the proposed T-head structures, it is unlikely that eelgrass resources will become established within the project 'footprint'. The shoreward extent of eelgrass will be mapped immediately prior to construction to ensure construction activities will not impinge upon existing eelgrass resources. This survey will utilize similar techniques to those described in Attachment 4.

3) **The EENF project plan includes annual diver surveys in late May to map eelgrass habitat for the first two years post-construction. Survey data should also be collected in late May prior to the construction period to provide the most up-to-date delineation of eelgrass habitat prior to nourishment. The survey plan for assessing construction impact should be reviewed and approved by MA DMF.**

   An updated eelgrass monitoring plan is provided in Attachment 4.

4) **Given existing shellfish resources and an active recreational quahog fishery within the project footprint, the applicant should consult with the shellfish constable to minimize disturbance to shellfish resources and fisheries. MA DMF expects this project to result in unavoidable impacts to quahog habitat, which will likely require mitigation in the permitting process.**

   The applicant will consult with the New Bedford shellfish warden to minimize the disturbance to shellfish resources within the footprint of the project.

5) **The design of the T-headed groins should incorporate materials and methods to maximize the biological value of the hardened structure such as creating tide pools and creating a wide variety of pore spaces.**

   The breakwater sections will be constructed using angular quarry stone, placed in a manner to create a rough slope to dissipate wave energy. The random placement of stones will result in void spaces and surfaces that pool water.

6) **Since winter flounder utilize Clark's Cove as spawning habitat, the project should be designed to minimize work within the time of year (TOY) restriction period of January 15 to November 15 (Evans et al. 2011). This TOY period is designed to protect sensitive life history phases of all of the marine resources outlined previously (winter flounder, shellfish, and diadromous fishes).**

   Evans NT, Ford KH, Chase BC, Sheppard J (2011) Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Fisheries Resources in Massachusetts. Massachusetts Division of Marine Fisheries Technical Report, TR-47

   TOY per Evans et al 2011 for winter flounder in the Southern Massachusetts region is January 15 to May 31. Appendix B of Evans et al 2011 lists TOY for all species as Jan 15 through November 15. However, based on communications with John Lagan from DMF subsequent to the MEPA comments, it is understood that these were merely general comments and not meant to be specific to the project construction 'window'. As described in the email, it is anticipated that project sequencing can be developed for the approximate 6-month construction period needed to complete the project. This project sequencing would be developed in consultation with DMF through the permitting process. The email is provided as Attachment 10, with the pertinent text presented below.

   Further information from communications with John Logan, DMF, via e-mail May 20,2019: *"Our overall recommended TOY restriction period would not allow for a 6-month work window. As this most recent letter was to MEPA + as such was more in the information-gathering phase of the permitting process, we wanted to include our full TOY as a starting point, but realize that complete avoidance of this period may not be feasible. We can certainly work with you through the permitting*

process to develop a sequencing plan that minimizes impacts during sensitive life history periods to the maximum extent possible.

We do have a mapped horseshoe crab nesting beach on the western shore of Clark's Cove and while HS crabs may also make use of beaches on the eastern shore (ie, the project footprint), the area of proposed nourishment is sufficiently starved of sand that it is not considered optimal nesting habitat currently. Regarding winter flounder concerns, avoidance of subtidal work during the winter flounder TOY would be ideal as the subtidal zone is considered spawning habitat for this species. Please feel free to send along draft sequencing plans as you develop your next phase of permit applications and we can work with you on a suitable plan."

Actionable comments from MCZM:

1) **A detailed maintenance and monitoring plan that includes extension of the beach profiles to -4 MLW to detect migration of the nourishment seaward of the breakwaters;**

   A detailed monitoring plan has been developed to monitor the post-construction condition of the fill and is provided in Attachment 4 of the NOI.

2) **Representative cross-sections showing the existing and proposed configurations of the groins to be removed.**

   This information will be provided to MCZM as part of the U.S. Army Corps permit application.

Actionable comments from NHESP:

1) **Based on the information contained within the ENF and in advance of a formal filing pursuant to the MESA, the Division anticipates this project may require conditions to avoid a prohibited take of state- listed species. Protections may include measures to prevent disturbance of foraging terns and alterations to foraging habitat while state-listed terns are present in Massachusetts (approximately May 15 -September 30) and monitoring for state-listed beach nesting birds that may be attracted to areas of beach nourishment (April 1- August 31).**

   The proposed project schedule will run from September to February of the following year (a 6-month construction window). Removal of the groins that now exist within the foraging habitat for terns will be performed after September 30th.

   As there are no state-listed beach nesting birds along the sandy beach areas north of the project; therefore, it is unlikely the project will attract nesting shorebirds. Regardless, the City of New Bedford is committed to monitoring the project site for the first three years following project completion.

Actionable comments from MDEP:

1) **This Project will require the submittal of a 401Water Quality Certification (WQC) Application. The Proponent may choose to file a MassDEP BRP WW26 Combined Application for Chapter 91 and WQC.**

   The WQC application requirement was expected, and a combined Chapter 91 and WQC application will be made.

2) **The applicant will require the submittal of a Notice of Intent (NOI) to DEP and the New Bedford Conservation Commission for the Project. DEP notes that if the minimum submittal requirements have been met a File Number will be issued. It is anticipated that the New Bedford Conservation Commission will conduct a Public Hearing and issue an Order of Conditions. A final Order of Conditions must be obtained before any work within Areas Subject to Jurisdiction commences.**

   This submission is being made as part of the NOI submittal. Work will not commence until a final Order of Conditions has been obtained.

3) **The Coastal Beach performance standards at 310 10.27(4)(a-c) require that any groin be the minimum length and height demonstrated to be necessary to maintain beach form and volume. Further, immediately after construction any groin shall be filled to entrapment capacity in height and length with sediment of grain size compatible with that of the adjacent beach. In order to avoid impacts to downdrift or adjacent beaches, periodic re-nourishment will be required to maintain the groins at or near entrapment capacity.**

   The Expanded ENF provided a synopsis of the design process that has been documented in the design analysis reports. The T-head structures are the minimum height and length required to maintain a beach with a minimum width that will adequately protect the seawall and sewer line, while providing a project that has a reasonable design life, and also causing the minimum impact to natural resources.

   This project will produce no negative impacts to downdrift beaches. The design analysis includes a determination of sediment movement along the West Beach shoreline. The existing shoreline within the project area is depleted of sand to the point where the foundation of the seawall is becoming exposed, and therefore does not act as a supply of sand to any downdrift shoreline. The height and length of the existing groins along West Beach also limits the amount of material that can move alongshore. In their present condition, they effectively hold sand within each groin compartment and prevent downdrift movement of sand. This is demonstrated by the low erosion rates (< 1 foot/year) determined for the sandy portion of West Beach.

   Periodic re-nourishment of the project shoreline will occur as needed, as determined by regular monitoring of the beach.

4) **The Coastal Beach performance standard at 310 10.27(5) requires that beach nourishment have clean sediment of a grain size compatible with that on the existing beach.**

   The source of material used to fill the construction template will be clean and have a compatible grains size. The design for the beach fill template was

developed using a characteristic grain size determined from an analysis of sediment samples taken from the existing sandy beach areas of West Beach.

5) **The Project site is mapped as estimated habitat for rare and endangered species (eel grass) and therefore the Proponent must file a copy of the NOI with the Natural Heritage and Endangered Species Program.**

   A copy of the NOI will be filed with the Natural Heritage and Endangered Species Program.

6) **Multiple obsolete outfall pipes were identified in the CLE Engineering structures assessment. Has the city considered removing these structures as part of the Project?**

   The existing CSO outfall pipes within the project shoreline reach will not be removed. Instead, the cast iron pipe outfalls will be replaced and re-routed along the north side of the proposed groins and discharge through the proposed T-Head breakwaters.

From Mass DEP Waterways:

1) **It appears the existing groins, and the seawall have been authorized by the Department of Public Works Contract No. 2905. As indicated within the ENF, submittal of a new Chapter 91 Waterways License application for the groin structures and any associated dredging to install said structures will be required.**

   An application for a Chapter 91 license for the modified groins and the associated dredging will be made.

2) **The Proponent shall clearly show Mean High and Low Water Marks on the Application plans and detail the proposed wooden connector groins (perpendicular to the shoreline), as well as provide a beach nourishment schedule to ensure public passage along the shoreline is not impeded in the event that these wooden groins become exposed above grade (at any tide).**

   The plan showing the proposed structure layout includes the equilibrated MHW and MLW lines for the nourishment.

From Mass DEP Bureau of Waste Site Cleanup:

1) **The Project Proponent is advised that if oil and/or hazardous material are identified during the implementation of this Project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) must be made to MassDEP, if necessary. A Licensed Site Professional (LSP) should be retained to determine if notification is required and, if need be, to render appropriate opinions. The LSP may evaluate whether risk reduction measures are necessary if contamination is present. The BWSC may be contacted for guidance if questions arise regarding cleanup.**

From Mass DEP Bureau of Air and Waste:

1) **Construction and operation activities shall not cause or contribute to a condition of air pollution due to dust, odor or noise. To determine the appropriate requirements please refer to:**
    - **310 CMR 7.09 Dust, Odor, Construction, and Demolition**
    - **310 CMR 7.10 Noise**
2) ***Construction-Related Measures*. MassDEP requests that all non-road diesel equipment rated 50 horsepower or greater meet EPA ' s Tier 4 emission limits, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then the Proponent should use construction equipment that has been retrofitted with appropriate emissions reduction equipment. Emission reduction equipment includes EPA-verified, CARE-verified, or MassDEP-approved diesel oxidation catalysts (DOCs) or Diesel Particulate Filters (DPFs). The Proponent should maintain a list of the engines, their emission tiers, and, if applicable, the best available control technology installed on each piece of equipment on file for Departmental review.**

    This will be included in construction specifications.

3) ***Massachusetts Idling Regulation*. MassDEP reminds the Proponent that unnecessary idling (i.e., in excess of five minutes), with limited exception, is not permitted during the construction and operations phase of the Project (310 CMR 7.11). With regard to construction period activity, typical methods of reducing idling include driver training, periodic inspections by site supervisors, and posting signage. In addition, to ensure compliance with this regulation once the Project is occupied, MassDEP requests that the Proponent install permanent signs limiting idling to five minutes or less on-site.**

    This will be included in construction specifications.

4) ***Spills Prevention*. A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential on-site activity releases.**

    This will be included in construction specifications.

5) ***Proposed s.61 Findings*. The "Certificate of the Secretary of Energy and Environmental Affairs on the Environmental Notification Form" may indicate that this Project requires further MEPA review and the preparation of an Environmental Impact Report. Pursuant to MEPA Regulations 301 CMR 11.12(5)(d), the Proponent will prepare Proposed Section 61 Findings to be included in the EIR in a separate chapter updating and summarizing proposed mitigation measures.**

The Secretary's certificate does not require an EIR.

Actionable comments from New Bedford Conservation Commission (NBCC):

1) **The construction related impacts need to be carefully considered including:**

Ensuring terrestrial sand gradations are comparable to the existing grain analysis (with care taken to minimize silt, which can cause turbidity and impact eel grass beds).
The sand for the project will adhere to MA DEP guidelines for compatibility with the existing beach. It is anticipated that the material will contain less than 5% fines.

Ensuring that the platform sand tongues to construct the T- heads do not wash sand over to the eel grass beds. Silt curtains have not been proposed for this activity but should be considered.
The proposed beach nourishment will be placed as a contiguous consistent width berm. Due to the placement of the T-head groins, the waves will reshape the beach in each "cell" to cause a salient to accrete in the lee of each breakwater section. Each breakwater section is at an elevation that prevents sediment from migrating offshore to the eelgrass beds. Since the beach material will be beach compatible, there is no need for silt curtains.

Developing a construction monitoring protocol for the eel grass beds.
A pre-construction eelgrass survey will be performed to determine the landward edge of the eelgrass beds prior to construction to ensure activities to not impinge on this resource (see above). This survey will utilize similar techniques to those described in Attachment 4. The construction will occur over the late fall and winter months when the eelgrass is dormant; therefore, there is no need to monitor eelgrass during construction.

Providing construction access to the beaches which avoids impact to any dune grass colonies.

Any disturbed vegetation will be re-established; however, the construction of the beach nourishment project will utilize access locations at the boat ramp and concrete ramp in the vicinity of Oaklawn Street, well away from any existing Coastal Dune resource areas.

2) Protection of Marine Fisheries and Shellfish is critical. The NBCC is pleased that the applicant has proposed to protect these resources by incorporating the following mitigating measures:

Adhering to the Time of Year restrictions imposed by the Di vision of Marine Fisheries.
As indicated above, MA DMF has indicated that they understand that their initial preferred TOY restriction would effectively prevent project construction (see Attachment 9). The applicant plans to work with MA DMF through the permitting process to develop a project sequencing plan that will minimize any potential impacts to marine fisheries resources.

Harvesting of shellfish from the impact area prior to beginning the project.
The applicant will consult with the Shellfish Constable prior to construction to ensure that shellfish resources within the project "footprint" are harvested to the extent practicable.

Re-seeding of shellfish into the impact area after completion of the project to mitigate for shellfish impacts.
The applicant will consult with the Shellfish Constable to re-seed shellfish in the project area.

3) The NBCC will likely require the following post construction:

Incorporating the Preliminary Maintenance and Monitoring Plan for the beach nourishment program (refer to page 73,74 of the EENF) into the Order of Conditions.
See Attachment 4

Eel grass monitoring to continue for at least a 3- year period.
See Attachment 4

Replanting of eel grass should substantial losses occur. Eel grass is a valuable marine habitat which has recolonized Clark' s Cove in the past several decades. It is imperative that it be protected.

ATTACHMENT 4: MONITORING PLANS

Revised monitoring plans for beach nourishment and eelgrass are provided below, incorporating comments from the EENF.

4.1 Monitoring Plan and Re-nourishment Triggers

After the completion of the groin construction and beach nourishment, it will be essential that the shoreline be monitored annually and after significant storms to document the performance of the nourishment and adjacent shorelines. The use of nourishment inherently has a limited life span as the project will naturally erode over time. The estimated design life of the proposed nourishment component of the project is between 9 and 12 years, after which re-nourishment would be necessary. The design life is based on the time it will take the berm line of the beach to erode back to the seawall. The volume required to maintain the beach would be much less than the original volume of the construction template. Because the new groins are specifically intended to restrict the alongshore and offshore movement of sand, the placed material is expected to remain within the groin compartments, with minor net movement of sand to the north. Regular monitoring of the nourishment will aid the City by determining:

- Accretion or erosion along the existing beach shoreline to the north;
- Provide a gage to future nourishment needs required to maintain the template sediment supply to ensure the fill remains viable and offers protection for the city's sewer line along West Rodney French Boulevard.

4.1.1 Beach Nourishment Monitoring Plan

A monitoring plan will be initiated to measure and document the changes of the shoreline and beach fill. This will be accomplished by initially surveying the beach annually, and then less frequently when the survey post construction record is adequate for the determination of the long-term performance characteristics of the nourishment/T-head groin system.

Initially, Pre-construction and post-construction measurements will be taken as part of the work by the contractor installing the beach nourishment fill. The contractor will submit cross sections of the post-construction fill.

Regular monitoring of the beach will commence six months following the post construction survey. There will be two components to the surveys performed for the monitoring effort: 1) a berm line GPS survey of the project shoreline, from the boat ramp to the hurricane barrier; and 2) ten cross-shore transects that will measure the beach profile in the central area of both the T-head groin compartments and the three existing groin compartments north of the Hazelwood Park groin. The existing beach north of the Hazelwood groin is included in the shoreline survey to provide a control shoreline by which erosion rates determined for the fill template can be compared.

Surveys will be performed every six months for the first two years following completion of the post-constriction survey, and annually subsequent to that. The same 15 transects (Figure 4-1) will be followed for each survey in order to provide the most useful comparison between surveys. The position of these transects corresponds to the approximate center of the indicated groin compartments, where the beach width will be narrowest. Surveys will be conducted utilizing a survey baseline that will run along the

seawall, with station 0+00 located at the boat ramp. as the landward edge of the profile and then extending seaward to the elevation of 2 feet below MLLW (-4.0 feet NAVD).

Figure 4-1. Aerial photograph of West Beach showing the location of the 15 beach monitoring transects, with stationing in feet from the West Rodney French Blvd boat ramp.

4.1.2 Re-nourishment Triggers

If re-nourishment cycles are not undertaken when necessary and the beach is allowed to retreat, the effectiveness of the engineered fill will be compromised. The nourishment needs to be maintained to serve the primary project goal of protecting West Rodney French Boulevard. Inadequate volumes of sediment will limit the ability of the beach face to dissipate and disrupt the incoming wave energy by adjusting its morphology in response to the storm conditions. This will increase the frequency and volume of wave overtopping and lead to erosion of the upland area behind the wall, leading to increased risks to the road surface and the embedded sewer.

The monitoring data will provide a comprehensive assessment of the nourishment performance and allow for the use of objective parameters to gauge beach conditions and trigger future nourishment cycles. The data can be used to quantify on-going performance and predict when the triggers are likely to be meet to allow for the planning and coordination required in preparation for the next re-nourishment cycle.

For this project, the minimum berm width is the most important characteristic for the ability of the beach to dissipate wave energy and reduce wall overtopping volumes during storms. The minimum berm width (as determined using the monitoring survey cross-shore transect and berm-line data) before re-nourishment is required is 10 feet from the seawall. At the time when the beach width of a groin compartment is determined to be less than 10 feet, additional fill (of the same quality and characteristics specified for the original fill template) will be added to that groin compartment to extend the beach width to the original design equilibrated minimum beach width of 30 feet.

In this manner, the project beach can be managed based on the performance of each individual groin compartment, which should limit volumes needed for periodic maintenance (compared to the full construction template volume) and limit the extent of disturbance of the beach for maintenance, while also making it easier to maintain adequate beach with along the entire project shoreline.

4.1.3 Eelgrass Monitoring Plan

A pre-construction survey will be performed during the growing season in order to provide an up-to-date delineation of offshore eelgrass habitat.

The methodology employed for the eelgrass survey will use divers to identify and delineate eelgrass using buoys set at the edges of eelgrass patches/extents throughout the surveyed area. A small boat and driver will then collect differential GPS positions of the buoys set by the divers. Following this procedure, a map of eelgrass extent will be created with polygons developed from the collected coordinates that encompass the areas delineated by the diver-set buoys.

The eelgrass habitat survey methodology was specifically designed for the project to provide an accurate eelgrass assessment over large areas. The Commonwealth of Massachusetts specifies that habitat surveys be performed to protect marine natural resources. Due to the size of the project area, diver delineated eelgrass will utilize a search methodology that includes setting buoys at the edges and patches of eelgrass throughout the surveyed area. A small boat and driver will collect waypoints using a Trimble GPS (or equivalent) by following the divers and collecting georeferenced locations at each buoy point. The fourth specialist will pick up the buoys and then pass them back to the divers to obtain the next surveyed locations. This process will be performed at hundreds of sample locations to develop the eelgrass map that incorporates a consistent methodology with the pre-project survey shown in Figure 4-2.

The survey will be performed during the eelgrass growing season between May and September, and will be performed annually for the first three (3) years following completion of the project. Comparisons of the nearshore eelgrass 'footprint' will be compared to previous surveys using appropriate GIS software. An annual report summarizing the findings of the monitoring program will be provided to the New Bedford Conservation Commission, Massachusetts DEP, and the MA Division of Marine Fisheries.

Figure 4-2. Stantec Eelgrass Assessment Results May 25, 2017 with CLE Eelgrass Assessment Results (March 2017).

ATTACHMENT 5: SITE PHOTOGRAPHS

Figure 5-1: Typical groin condition at West Beach.

Figure 5-2: Typical Good condition of the seawall along the south side (B rated structure).

Figure 5-3. Typical cap spalling at STA 5+00.

Figure 5-4. Ramp heavy spalling STA 4+75.

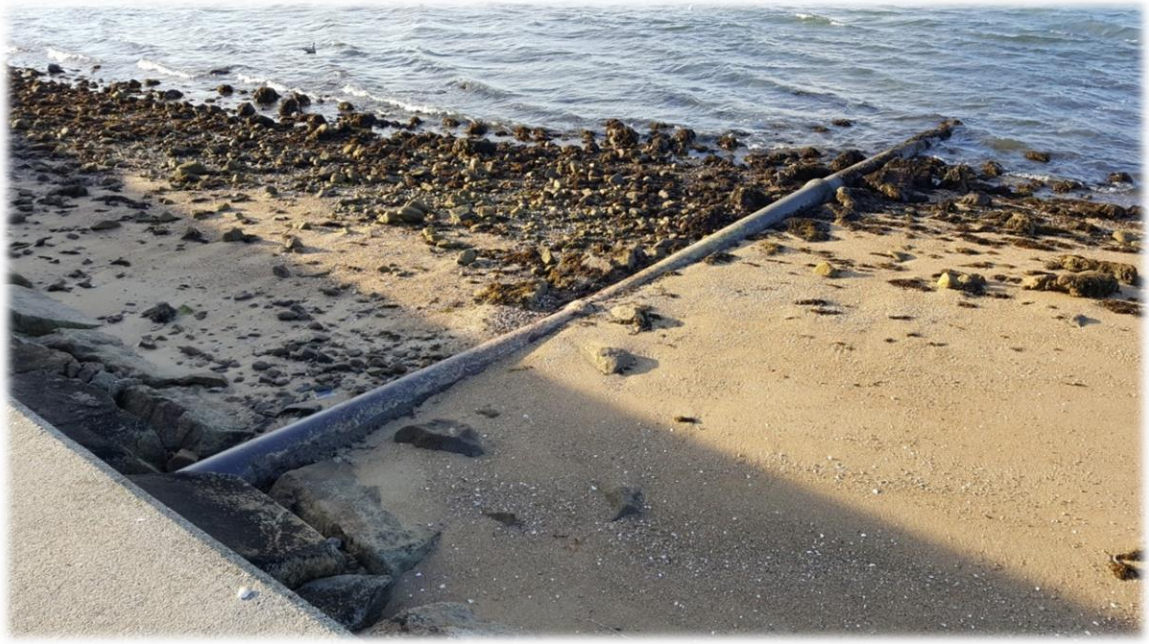


Figure 5-5. Existing cast iron outfall pipe.

ATTACHMENT 6: PROPERTY OWNER INFORMATION

Property Owner Town Assessor Parcel Information and County Registry of Deeds Information

Town Assessor Parcel Info	Registry of Deeds Book/Page	County	Property Address	Property Owner	Owner Address
9-287	221/117	Bristol	0 West Rodney French Boulevard	City of New Bedford	113 William St. New Bedford MA 02740
9-286	329/471	Bristol	0 West Rodney French Boulevard	City of New Bedford	113 William St. New Bedford MA 02740
7-1	329/471	Bristol	0 West Rodney French Boulevard	City of New Bedford	113 William St. New Bedford MA 02740
7-5	31/224	Bristol	0 West Rodney French Boulevard	City of New Bedford	113 William St. New Bedford MA 02740
7-112	n/a	Bristol	0 West Rodney French Boulevard	City of New Bedford	113 William St. New Bedford MA 02740
11-30	601/14	Bristol	0 West Rodney French Boulevard	City of New Bedford	113 William St. New Bedford MA 02740

ATTACHMENT 7: AFFIDAVIT OF SERVICE AND NOTIFICATION TO ABUTTERS

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

Chapter 131, Section 40

I, **John S. Ramsey**, hereby certify under the pains and penalties of perjury that on **October 23, 2019**, I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by **the City of New Bedford Department of Public Infrastructure** with the New Bedford Conservation Commission on **October 23, 2019** for property located between **160 and 519 W Rodney French Boulevard, New Bedford, MA.02066.**

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

Name

10/22/2019

Date

Certified Abutters List

City of New Bedford

REQUEST *for a* CERTIFIED ABUTTERS LIST

This information is needed so that an official abutters list as required by MA General Law may be created and used in notifying abutters. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor's office (city hall, room #109).

SUBJECT PROPERTY			
MAP #	7, 9, 11	LOT(S)#	7-1, 7-5, 7-112, 9-286, 9-287 ✓ ✓ ✓ ✓ ✓
ADDRESS: Lots cont'd: 11-30 ✓			

SEP 09 2019

OWNER INFORMATION
NAME: City of New Bedford
MAILING ADDRESS: 131 William St. New Bedford, MA 02740

APPLICANT/CONTACT PERSON INFORMATION	
NAME (IF DIFFERENT): New Bedford Department of Public Infrastructure	
MAILING ADDRESS (IF DIFFERENT): 1105 Shawmut Ave. New Bedford, MA 02746	
TELEPHONE #	508-979-1550
EMAIL ADDRESS:	

REASON FOR THIS REQUEST: *Check appropriate*	
	ZONING BOARD OF APPEALS APPLICATION
	PLANNING BOARD APPLICATION
✓	CONSERVATION COMMISSION APPLICATION
	LICENSING BOARD APPLICATION
	OTHER (*Please explain*):

Once obtained, the Certified List of Abutters must be attached to this Certification Letter.

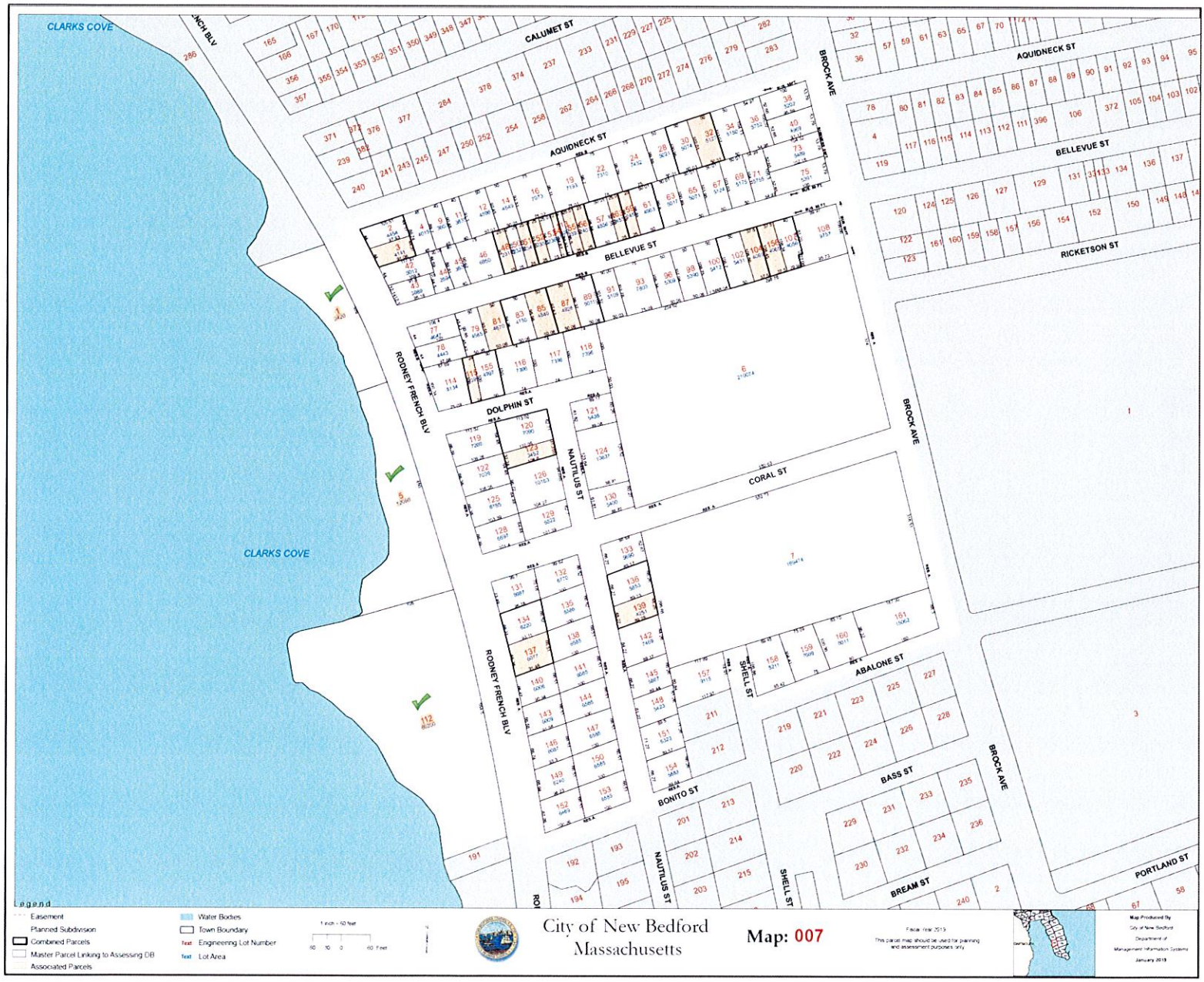
Submit this form to the Planning Division Room 303 in City Hall, 133 William Street. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor's office (city hall, room #109).

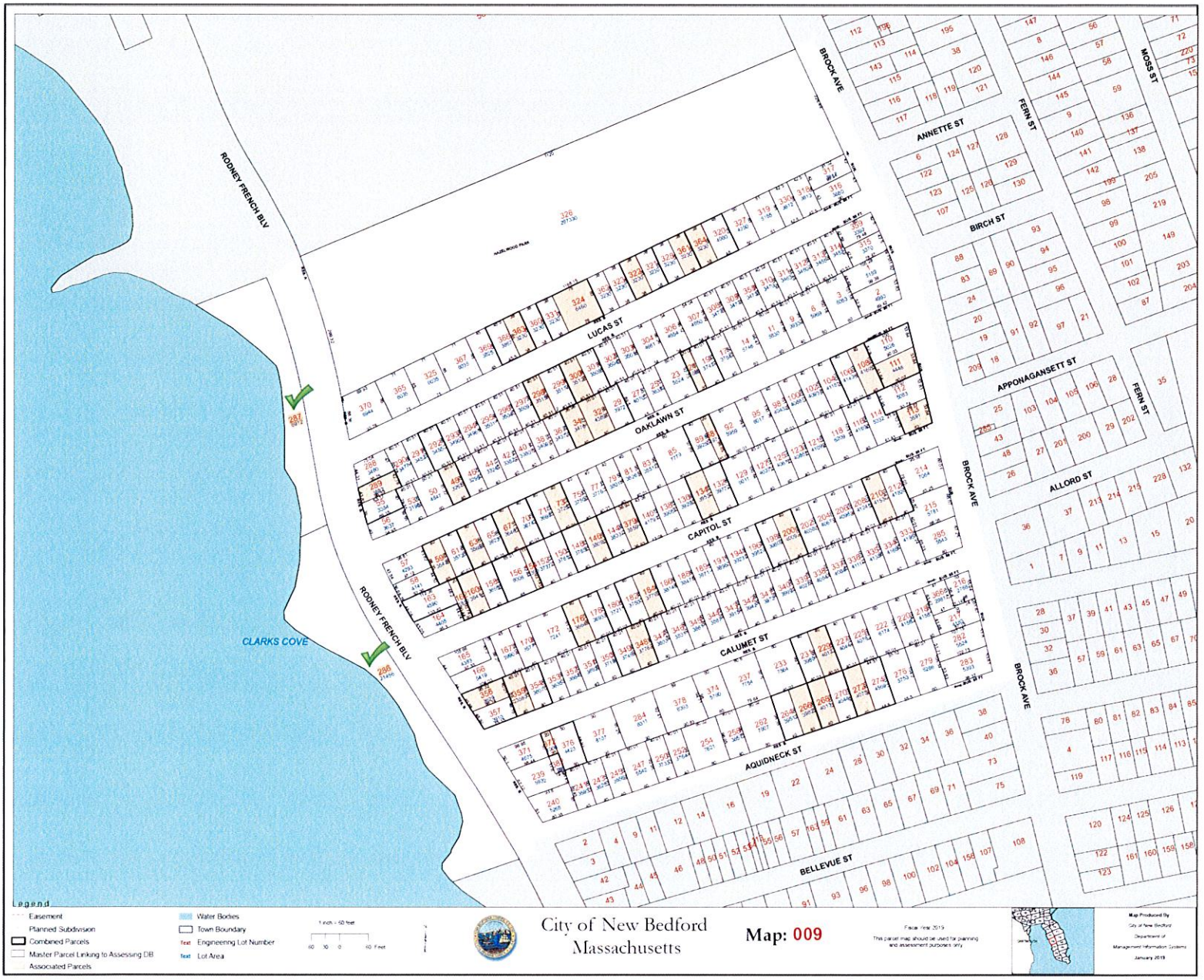
Official Use Only:

As Administrative Assistant to the City of New Bedford's Board of Assessors, I do hereby certify that the names and addresses as identified on the attached "abutters list" are duly recorded and appear on the most recent tax.

~~Carlos Amado~~ Michael J. Motta — 9-9-2019

Printed Name — Signature — Date


CLARKS COVE
CLARKS COVE
CALUMET ST
AQUIDNECK ST
BELLEVUE ST
RICKETSON ST
BROCK AVE
RODNEY FRENCH BLV
DOLPHIN ST
NAUTILUS ST
CORAL ST
SHELL ST
ABALONE ST
BONITO ST
BASS ST
BREAM ST
PORTLAND ST
Legend
Easement
Planned Subdivison
Combined Parcels
Master Parcel Linking to Assessing DB
Associated Parcels
Water Bodies
Town Boundary
Engineering Lot Number
Lot Area
1 inch = 50 feet
60 30 0 60 Feet
City of New Bedford
Massachusetts
Map: 007
Fiscal Year 2019
This parcel map should be used for planning and assessment purposes only
Map Produced By
City of New Bedford
Department of
Management Information Systems
January 2019


ROBERT BOOK PARK
RODNEY FRENCH BLV
CLARKS COVE
BROCK AVE
MOSS ST
FERN ST
ANNETTE ST
BIRCH ST
APPONAGANSETT ST
ALLORD ST
LUCAS ST
OAKLAWN ST
CAPITOL ST
CALUMET ST
AQUIDNECK ST
BELLEVUE ST
Legend
Easement
Planned Subdivision
Combined Parcels
Master Parcel Linking to Assessing DB
Associated Parcels
Water Bodies
Town Boundary
Engineering Lot Number
Lot Area
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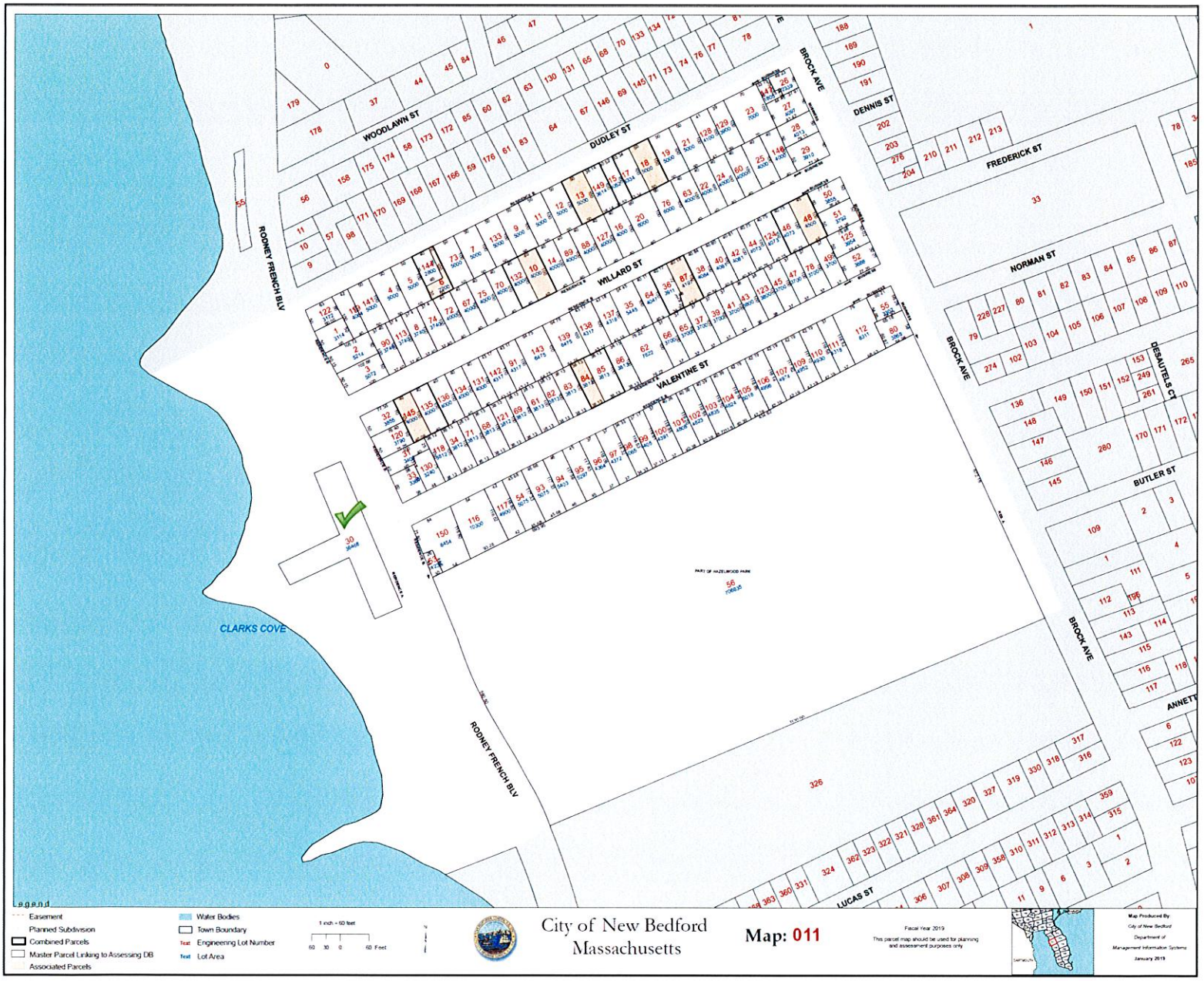
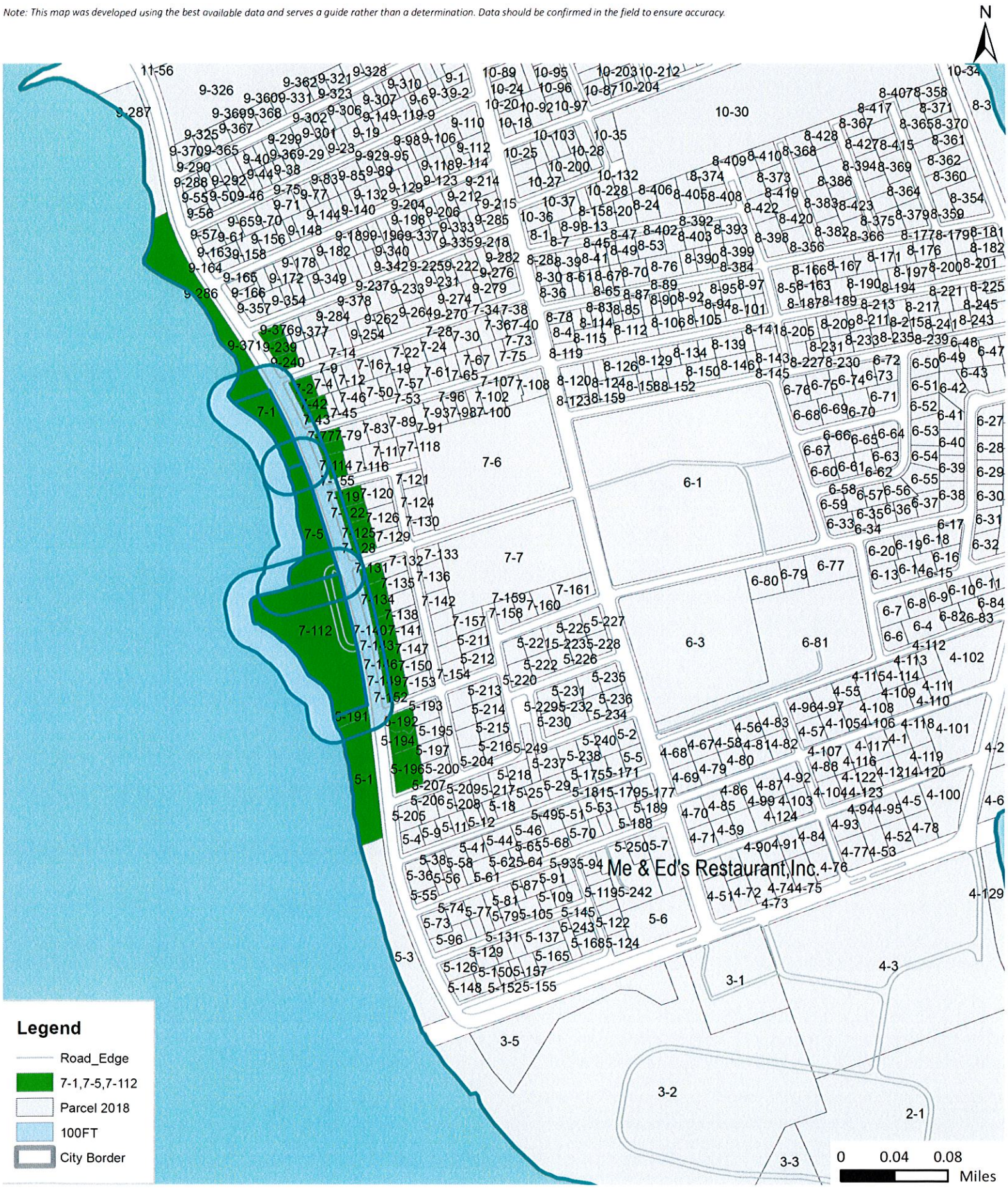
City of New Bedford
Massachusetts
Map: 009
Map Produced By
City of New Bedford
Department of
Management Information Systems
January 2019


WOODLAWN ST
DUDLEY ST
WILLARD ST
VALENTINE ST
RODNEY FRENCH BLV
BROCK AVE
DENNIS ST
FREDERICK ST
NORMAN ST
DESAUTELS CT
BUTLER ST
LUCAS ST
ANNETT
CLARKS COVE
PART OF HAZELWOOD PARK
Legend
Easement
Planned Subdivison
Combined Parcels
Master Parcel Linking to Assessing DB
Associated Parcels
Water Bodies
Town Boundary
Engineering Lot Number
Lot Area
1 inch = 60 feet
60 30 0 60 Feet
City of New Bedford
Massachusetts
Map: 011
Fiscal Year 2019
This parcel map should be used for planning and assessment purposes only
Map Produced By:
City of New Bedford
Department of
Management Information Systems
January 2019

Note: This map was developed using the best available data and serves a guide rather than a determination. Data should be confirmed in the field to ensure accuracy.



City of New Bedford, Massachusetts
Department of City Planning

Parcel within 100FT

September 2019

September 9, 2019
Dear Applicant,

Please find below the List of Abutters within 100 feet of the property known as W Rodney French Blvd. (Map: 7, Lot: 1,5,112). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
7-43	438 W RODNEY FRENCH BLVD	TOMASIA NOMINEE TRUST (THE), 438 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-152	552 W RODNEY FRENCH BLVD	FREITAS JOSE A "TRUSTEE", THE WEST RODNEY FRENCH BLVD 552 REALTY TRUST 71 TANIA DRIVE E TAUNTON, MA 02718
5-194 ES	W RODNEY FRENCH BLVD	FERNANDES HELENA P, 378 BONITO STREET NEW BEDFORD, MA 02744
5-1 WF	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, BOARD OF PUBLIC WELFARE 131 WILLIAM ST NEW BEDFORD, MA 02740
7-77	446 W RODNEY FRENCH BLVD	FREITAS CHAD E, 446 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-149	542 W RODNEY FRENCH BLVD	PSICHOPAIDAS EUGENIA, 542 W RODNEY FRENCH BOULEVARD NEW BEDFORD, MA 02744
7-125	488 W RODNEY FRENCH BLVD	ALAGO MARGARITA E, 488 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-240	414 W RODNEY FRENCH BLVD	STEVENS DIANE M, 414 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-143	532 W RODNEY FRENCH BLVD	LOPES MARIA C, 532 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-140	526 W RODNEY FRENCH BLVD	TAVARES JOSEPH M, TAVARES LENORE M 526 WEST RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-122	476 W RODNEY FRENCH BLVD	MEDEIROS JOHN D, MEDEIROS CYNTHIA A 476 W RODNEY FRENCH BLVD. NEW BEDFORD, MA 02744
9-239	406 W RODNEY FRENCH BLVD	WHITNEY LYNN, 406 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
5-192	378 BONITO ST	FERNANDES HELENA P, 378 BONITO STREET NEW BEDFORD, MA 02744

September 9, 2019
Dear Applicant,

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Parcel	Location	Owner and Mailing Address
5-191 WS	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, INTERCEPTING SEWER 131 WILLIAM ST NEW BEDFORD, MA 02740
7-114	458 W RODNEY FRENCH BLVD	FLOREK GAIL, 458 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-78	450 W RODNEY FRENCH BLVD	HARRINGTON RYAN E, HARRINGTON LARA L 450 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744-1407
7-112 WS	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, INTERCEPTING SEWER 131 WILLIAM ST NEW BEDFORD, MA 02740
7-119	470 W RODNEY FRENCH BLVD	SYLVIA RITA O, 470 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-5 WS	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, BOARD OF PUBLIC WELFARE 131 WILLIAM ST NEW BEDFORD, MA 02740
7-42	434 W RODNEY FRENCH BLVD	TEIXEIRA MANUEL A, TEIXEIRA MARIA R 434 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-1 WS	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, PARK DEPT 131 WILLIAM ST NEW BEDFORD, MA 02740
9-371	400 W RODNEY FRENCH BLVD	ELLIS RYAN M, 400 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-286	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, HAZELWOOD PARK 131 WILLIAM ST NEW BEDFORD, MA 02740

September 9, 2019
Dear Applicant,

Please find below the List of Abutters within 100 feet of the property known as W Rodney French Blvd. (Map: 7, Lot: 1,5,112). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

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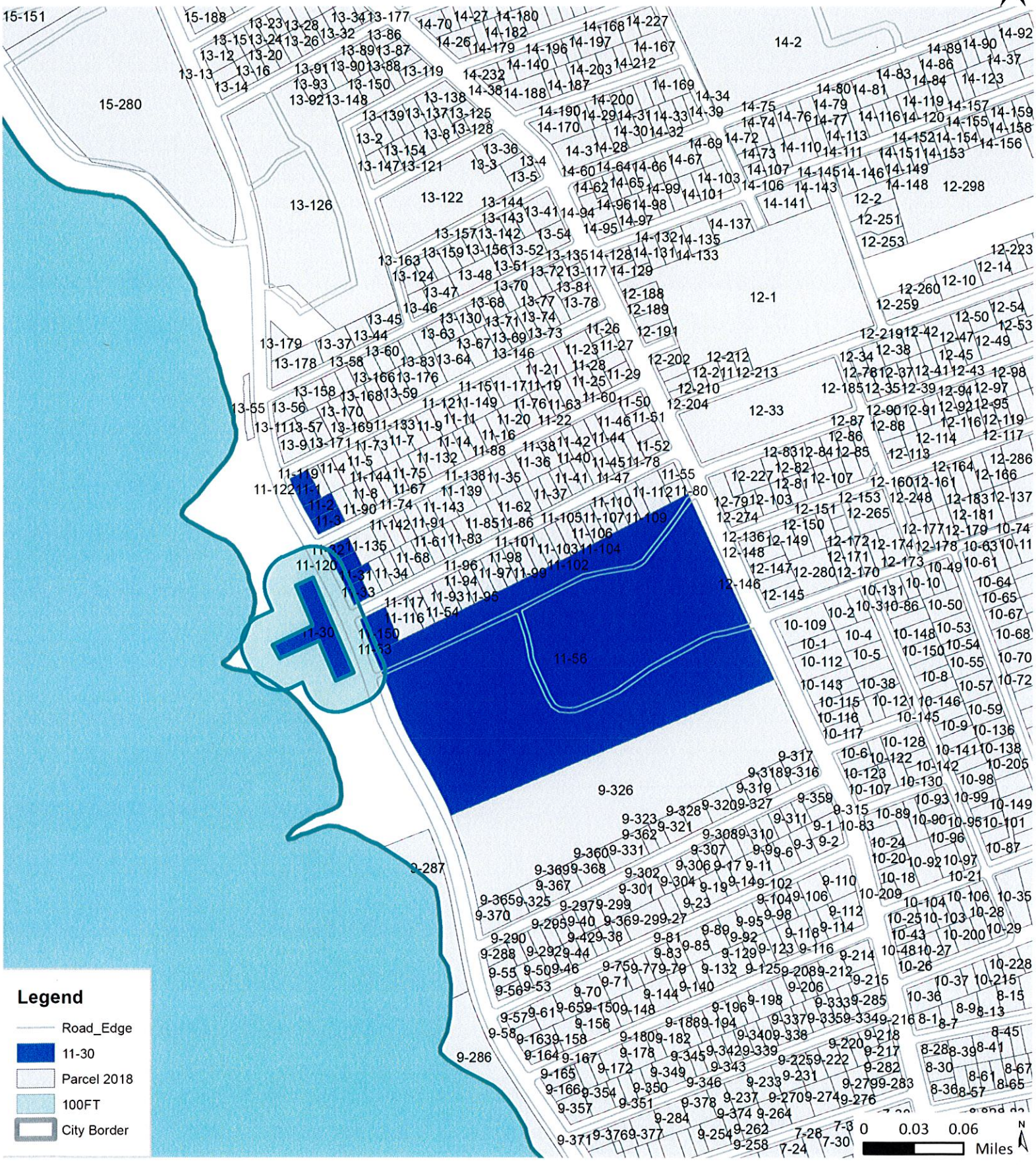
Parcel	Location	Owner and Mailing Address
5-196	584 W RODNEY FRENCH BLVD	PERKINS ALAN, PERKINS JOAN 584 WEST RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-2	424 W RODNEY FRENCH BLVD	MORIARTY SEAN C, CONNELLY CHRISTINA 424 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744

Note: This map was developed using the best available data and serves a guide rather than a determination. Data should be confirmed in the field to ensure accuracy.



City of New Bedford, Massachusetts
Department of City Planning

Parcel within 100FT

September 2019

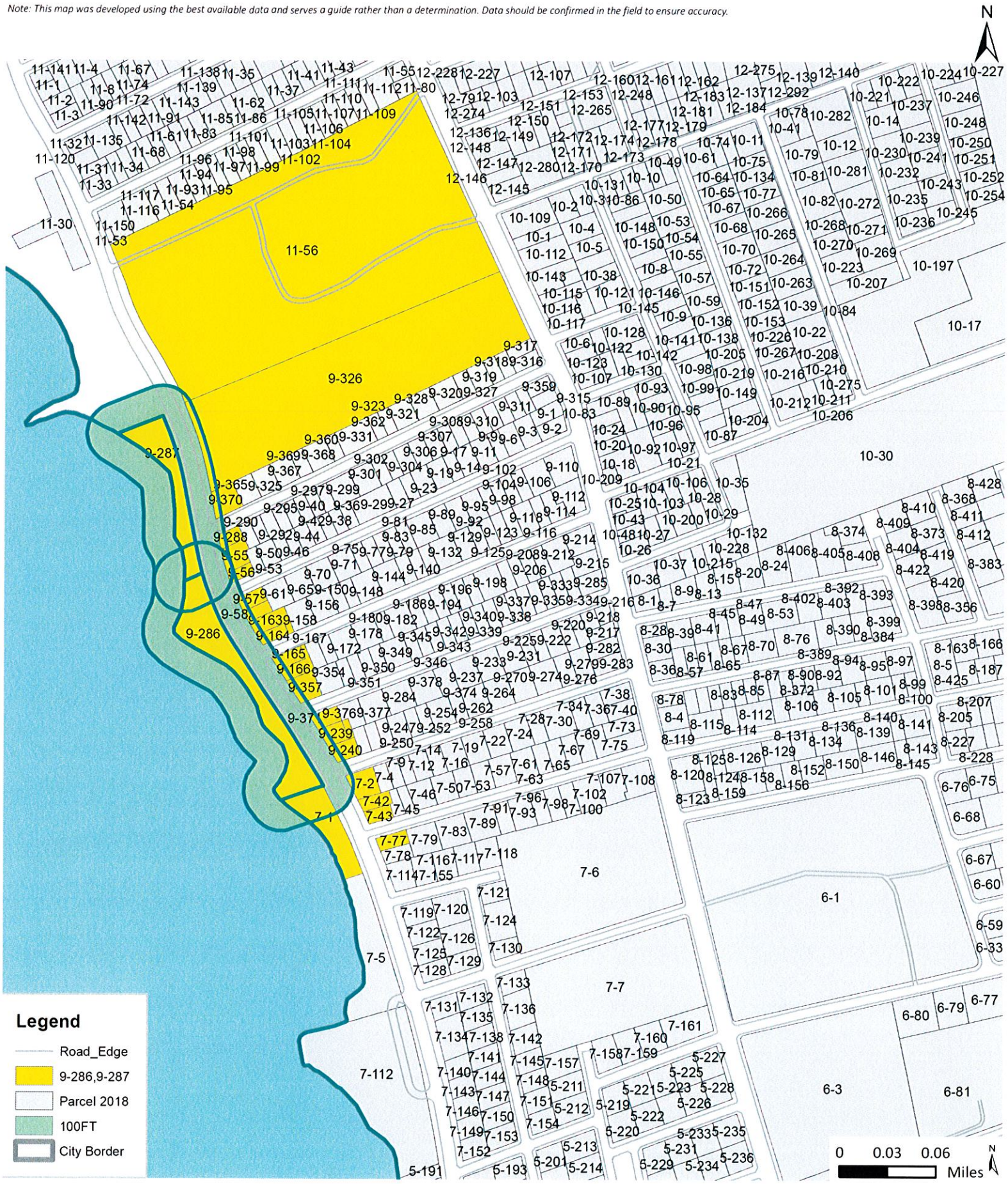
September 9, 2019
Dear Applicant,

Please find below the List of Abutters within 100 feet of the property known as 215 W Rodney French Blvd (Map: 11, Lot: 30). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
11-31	210 W RODNEY FRENCH BLVD	SMITH JOANNE LEMAY, 31 FORT STREET FAIRHAVEN, MA 02719
11-120	208 W RODNEY FRENCH BLVD	TAVARES DAVID M, TAVARES FRANCINE G 208 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
11-53	308 W RODNEY FRENCH BLVD	KYRIAKIDIS JOHN, 64 RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
11-150	90 VALENTINE ST	KYRIAKIDIS JOHN, 64 RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
11-33	91 VALENTINE ST	KOPACZEWSKI JOHN P "TRUSTEE", KOPACZEWSKI CYNTHIA A "TRUSTEE" 29 WEST SMITH NECK ROAD SO DARTMOUTH, MA 02748
11-30	215 W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, PUBLIC BATH HOUSE 131 WILLIAM ST NEW BEDFORD, MA 02740
11-3	W RODNEY FRENCH BLVD	MATOS JOSE M, MATOS DULCE P O BOX 50991 NEW BEDFORD, MA 02745
11-56	603 BROCK AVE	CITY OF NEW BEDFORD, HAZELWOOD PARK 131 WILLIAM ST NEW BEDFORD, MA 02740
11-2	W RODNEY FRENCH BLVD	MATOS JOSE M, MATOS DULCE P O BOX 50991 NEW BEDFORD, MA 02745
11-1	192 W RODNEY FRENCH BLVD	ROCHA OLDEMIRO F, ROCHA MICHELE C 192 W RODNEY FRENCH BOULEVARD NEW BEDFORD, MA 02744
11-122	190 W RODNEY FRENCH BLVD	DAVENPORT ELIZABETH ANN HUNSINGER-, 190 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
11-32	206 W RODNEY FRENCH BLVD	PARKER LINDA L "TRS" LINDA L PARKER TRUST (THE) 206 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744

Note: This map was developed using the best available data and serves a guide rather than a determination. Data should be confirmed in the field to ensure accuracy.



City of New Bedford, Massachusetts
Department of City Planning

Parcel within 100FT

September 2019

September 9, 2019
Dear Applicant,

Please find below the List of Abutters within 100 feet of the property known as W Rodney French Blvd (Map: 9, Lot: 286,287). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
9-286 WS	W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, HAZELWOOD PARK 131 WILLIAM ST NEW BEDFORD, MA 02740
9-56	350 W RODNEY FRENCH BLVD	CREGAN TRACI, 350 WEST RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-288	98 LUCAS ST	MATOS ENCARNACAO S, 98 LUCAS ST NEW BEDFORD, MA 02744
9-326	597 BROCK AVE	CITY OF NEW BEDFORD, HAZELWOOD PARK 131 WILLIAM ST NEW BEDFORD, MA 02740
11-56	603 BROCK AVE	CITY OF NEW BEDFORD, HAZELWOOD PARK 131 WILLIAM ST NEW BEDFORD, MA 02740
9 166	384 W RODNEY FRENCH BLVD	KLAWITTER BILLIE L C/O WELLS FARGO BANK, NA 3476 STATEVIEW BLVD FORT MILL, SC 29715
9 58	362 W RODNEY FRENCH BLVD	JOAQUIM OSCAR PAIVA MARIA J 362 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-2	424 W RODNEY FRENCH BLVD	MORIARTY SEAN C, CONNELLY CHRISTINA 424 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-163	366 W RODNEY FRENCH BLVD	HALL BARBARA J, 366 WEST RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-55	348 W RODNEY FRENCH BLVD	CREGAN MARY T, 348 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744

September 9, 2019
Dear Applicant,

Please find below the List of Abutters within 100 feet of the property known as W Rodney French Blvd (Map: 9, Lot: 286,287). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
7-43	438 W RODNEY FRENCH BLVD	TOMASIA NOMINEE TRUST (THE), 438 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-77	446 W RODNEY FRENCH BLVD	FREITAS CHAD E, 446 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-240	414 W RODNEY FRENCH BLVD	STEVENS DIANE M, 414 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-239	406 W RODNEY FRENCH BLVD	WHITNEY LYNN, 406 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-382	RSS CALUMET ST	WHITNEY LYNN, 406 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-42	434 W RODNEY FRENCH BLVD	TEIXEIRA MANUEL A, TEIXEIRA MARIA R 434 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
7-1	WS W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, PARK DEPT 131 WILLIAM ST NEW BEDFORD, MA 02740
9-287	WS W RODNEY FRENCH BLVD	CITY OF NEW BEDFORD, HAZELWOOD PARK 131 WILLIAM ST NEW BEDFORD, MA 02740
9-370	322 W RODNEY FRENCH BLVD	FAGUNDES JOSE V, FAGUNDES MARIA L 322 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-57	356 W RODNEY FRENCH BLVD	MORRIS JUDITH K, 356 WEST RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-371	400 W RODNEY FRENCH BLVD	ELLIS RYAN M, 400 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-165	380 W RODNEY FRENCH BLVD	ROSS ERNEST L, ROSS LINDA L 380 W RODNEY FRENCH BLVD NEW BEDFORD, MA 02744
9-164	111 CAPITOL ST	CORREIA ALBERT, CORREIA JOAN MARY 111 CAPITOL ST NEW BEDFORD, MA 02744

ATTACHMENT 8: PROJECT PLANS

LOCUS
LOCUS SCALE

GENERAL NOTES:

1. THE VERTICAL REFERENCE PLANE FOR THIS PROJECT IS NAVD88.
2. EXISTING SHORELINE TOPOGRAPHY BASED UPON SURVEY CONDUCTED BY THE CITY OF NEW BEDFORD ON 12/22/16 AND 01/13/2017. NEARSHORE BATHYMETRY WAS PERFORMED BY CLE ENGINEERING, INC., ON 01/04/2017.
3. ORTHO-IMAGERY IS FROM MassGIS.
4. SHELLFISH SUITABILITY IS FROM MassGIS.
5. LIMITS OF EELGRASS, AS SHOWN, ARE BASED UPON THE FIELD SURVEY PERFORMED BY STANTEC CONSULTING, INC. ON 05/26/2017.

DATUM OFFSETS

MLW	NAVD88	
5.27	3.42	AHTL
3.55	1.70	MHW
1.85	0	NAVD88
0	-1.85	MLW
-0.13	-1.98	MLLW

OFFSETS TAKEN FROM VDATUM V3.4
41-35-59 N
70-54-53 W

LEGEND

- ANNUAL HIGH TIDE LINE (AHTL)
- MEAN HIGH WATER (MHW)
- MEAN LOW WATER (MLW)
- BATHYMETRY 2-FT CONTOURS
- SHELLFISH SUITABILITY DELINEATION
- EELGRASS
- STONE RIPRAP
- COASTAL DUNE

GRAPHIC SCALE
0 75 150 300
(IN FEET)
1 INCH = 150 FEET

PROJECT: WEST RODNEY FRENCH BLVD BEACH NOURISHMENT PROJECT

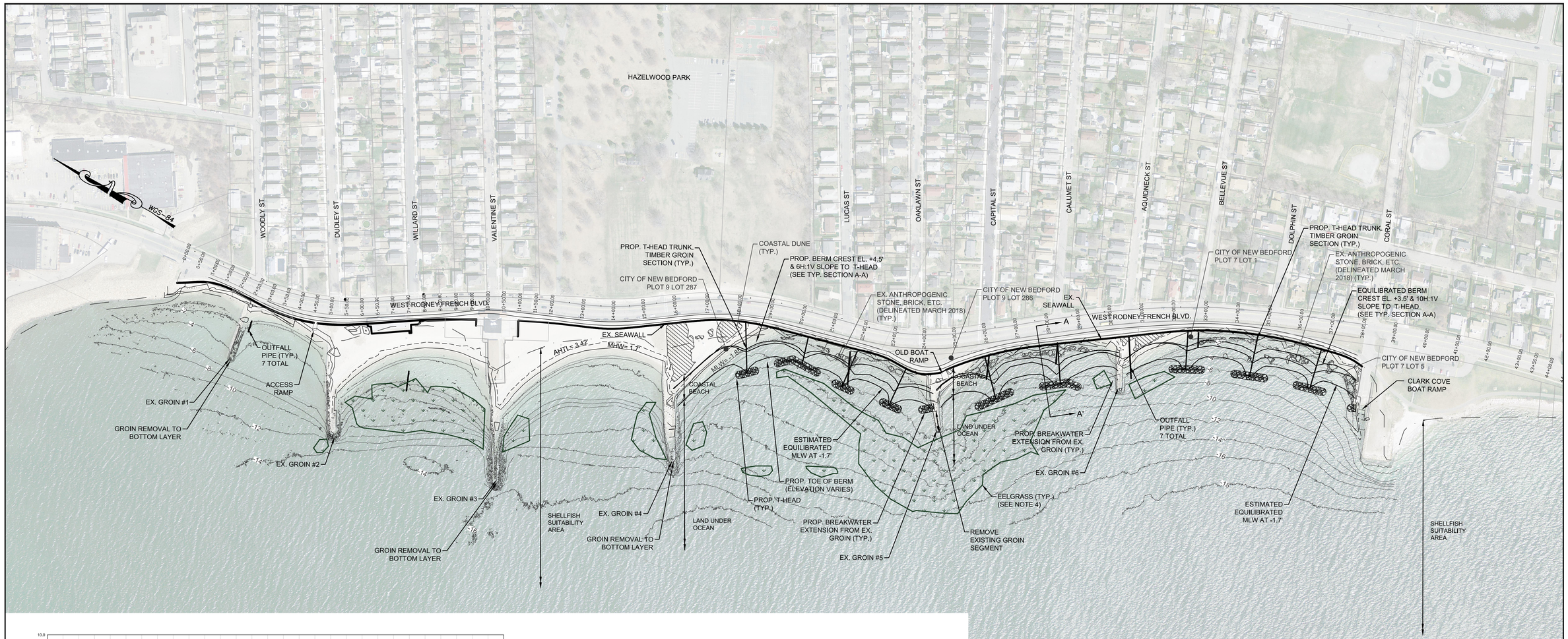
CLIENT: DEPARTMENT OF INFRASTRUCTURE NEW BEDFORD, MA 02740

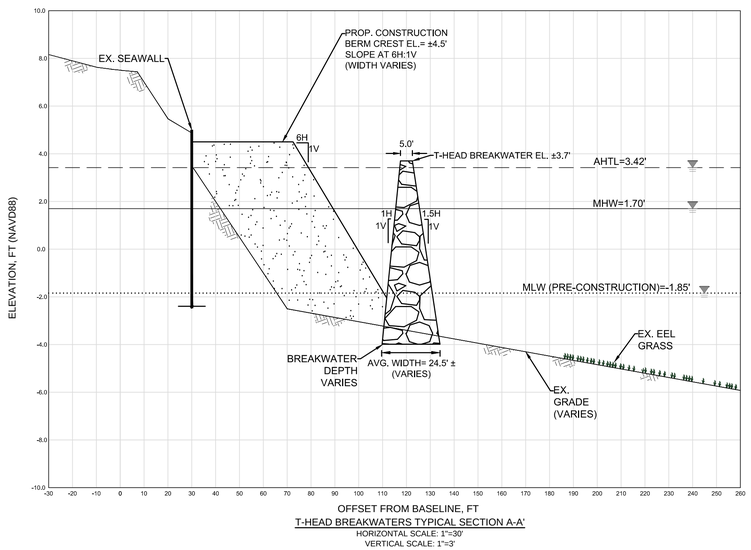
Foth cleengineering
15 Creek Road
Marion, Massachusetts 02738
t: 508.748.0937
www.cleengineering.com

EXISTING CONDITIONS
SITE PLAN
SHEET 1 OF 2

SCALE: AS NOTED	CHECKED	DATE: 4/12/2018	JOB No. 16279.100
DRAWN BY: KGK	BY:		

REVISION No.	DATE	COMMENT





T-HEAD BREAKWATERS TYPICAL SECTION A-A'

HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'

LEGEND

- ANNUAL HIGH TIDE LINE (AHTL)
- MEAN HIGH WATER (MHW)
- MEAN LOW WATER (MLW) (PRE-CONSTRUCTION)
- BATHYMETRY 2-FT CONTOURS
- SHELLFISH SUITABILTY DELINEATION
- ESTIMATED EQUILIBRATED MLW (POST-CONSTRUCTION)
- EELGRASS
- STONE RIPRAP
- COASTAL DUNE

GRAPHIC SCALE

0 75 150 300

(IN FEET)

1 INCH = 150 FEET

PROJECT: WEST RODNEY FRENCH BLVD BEACH NOURISHMENT PROJECT

CLIENT: DEPARTMENT OF INFRASTRUCTURE NEW BEDFORD, MA 02740

Foth cleengineering
15 Creek Road
Marion, Massachusetts 02738
t: 508.748.0937
www.cleengineering.com

PROPOSED CONDITIONS

SITE PLAN

SHEET 2 OF 2

SCALE: AS NOTED	CHECKED	DATE: 4/30/2018	JOB No. 16279.100
DRAWN BY: KGK	BY:		

REVISION No.	DATE	COMMENT
1	7/30/19	GROIN REDESIGN

ATTACHMENT 9: SHELLFISH HABITAT ASSESSMENT BY STANTEC

City of New Bedford, West Rodney French Boulevard Beach Renourishment Project Hazelwood Park to Boat Ramp Shellfish and Eelgrass Assessment Summary Report

Clarks Cove, New Bedford, Massachusetts

Prepared for:
Applied Coastal Research and Engineering, Inc.
766 Falmouth Road, Suite A-1
Mashpee, MA 02649

of behalf of,
City of New Bedford
Harbor Development Commission

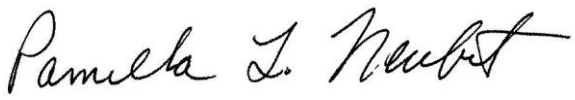
Prepared by:
Stantec Consulting Services Inc.
89 Water Street
Woods Hole, MA 02543

June 10, 2017

Revision	Description	Author		Quality Check		Independent Review	
1	Report	PN	6/9/2017	AS	6/10/2017	MPL	6/10/2017
2	Report	PN	6/10/2017	SK	6/10/2017	AS	6/10/2017

Sign-off Sheet

This document entitled City of New Bedford, West Rodney French Boulevard Beach Renourishment Project Hazelwood Park to Boat RampShellfish and Eelgrass Assessment Summary Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Applied Coastal Research and Engineering, Inc. and City of New Bedford, MA (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.



Prepared by _____
(signature)

Pamela Neubert, Ph.D., Senior Associate, Senior Marine Biologist

Reviewed by _____
(signature)

Matthew Lajoie, Environmental Scientist, Certified Taxonomist

Contents

LIST OF FIGURES

1.0 INTRODUCTION

Stantec was contracted to provide a shellfish habitat assessment and eelgrass survey within Clarks Cove along West Rodney French Boulevard, located in New Bedford, Massachusetts, as support for permitting requirements associated with the proposed beach renourishment project from Hazelwood Park to the Town Pier (Figure 1). The survey was performed on a super-tide, full moon extending over two field days. The high tide facilitated diving conditions in the nearshore. Wind was 5-10 miles per hour (mph), cloudy skies with light rain.

1.1 BACKGROUND AND UNDERSTANDING

The proposed dredging project will extend approximately 0.8 miles southward from Hazelwood Park to the Town's existing boat pier. As required, Stantec's shellfish habitat assessment was completed to provide information to the City of New Bedford as part of the regulatory review and permitting process being led by Applied Coastal Research and Engineering, Inc. (ACRE) and working collaboratively with CLE Engineering, Inc. (CLE).

The City of New Bedford proposes to renourish this section of beach to protect and provide long-term coastal resiliency to the existing seawall and adjacent community from storm surge and flooding. The proposed project is located adjacent to developed properties that include homes, a boat pier, recreational and parking areas, and the shoreline consists of public beach frontage and has been renourished previously in 1958 and 1977 (Figure 1).

The resource areas within 100 feet of the project site include land containing shellfish, land under the ocean, coastal beach, barrier beach, and coastal dune. The study area is conditionally approved for shellfish growing by Massachusetts Division of Marine Fisheries (MADMF) (Figure 2) due to water quality and contaminant concerns and has been designated as suitable habitat for quahogs (*Mercenaria mercenaria*), bay scallops (*Argopecten irradiens*), razor clams (*Ensis directus*), and American oysters (*Crassostrea virginica*) (Figure 3). The City of New Bedford permits open harvest of shellfish within Clarks Cove. Massachusetts Department of Environmental Protection has mapped a portion of the proposed project area for eelgrass (*Zostera maina*) habitat.

Information regarding shellfish suitability, shellfish growing areas, and eelgrass was obtained from the MADMF and MADEP to help guide the sampling effort; however, this information was not the sole basis for Stantec's shellfish sampling approach. Stantec consulted with ACRE and CLE. CLE provided results of a video-based eelgrass survey performed for this project in March 2017 to help guide Stantec's study approach.

1.2 SHELLFISH SUITABILITY AND GROWING AREAS

Figure 2 depicts shellfish suitability, as reported by the MADMF. This information was acquired as geospatial data via the MassGIS OLIVER Online Mapping Tool.

The majority of the study area within Clarks Cove is shown to be suitable for quahogs. Additionally, there are small areas designated as suitable for bay scallops, razor clams and American oysters between Hazelwood Park and the boat ramp.

Figure 3 depicts MADMF shellfish growing areas. This information was also acquired as geospatial data via the MassGIS OLIVER Online Mapping Tool. Clarks Cove is mapped as conditionally approved for shellfish growing and the City of New Bedford seeds the area with quahogs. This area can be open to City of New Bedford shellfishing subject to water and sediment quality.

1.3 EELGRASS HABITAT

Figure 4 depicts the extents of eelgrass present in the project area at the time of the 2001 and 2013 MADEP eelgrass surveys. These extents are approximate and were the most recent data available through the MassGIS OLIVER mapping tool. Eelgrass beds are shown within the project's sections 2 and 3 (Figure 1) and south of the boat ramp. During CLE's March 2017 survey, additional eelgrass habitat was identified and Stantec's survey ground-truthed these results with a diver assisted study.

June 10, 2017

Figure 1. Proposed Project Area, West Rodney French Boulevard, New Bedford, MA (provided by ACRE)

Figure 2. Shellfish suitability in Clarks Cove, New Bedford, MA (MADMF, data retrieved June 2017).

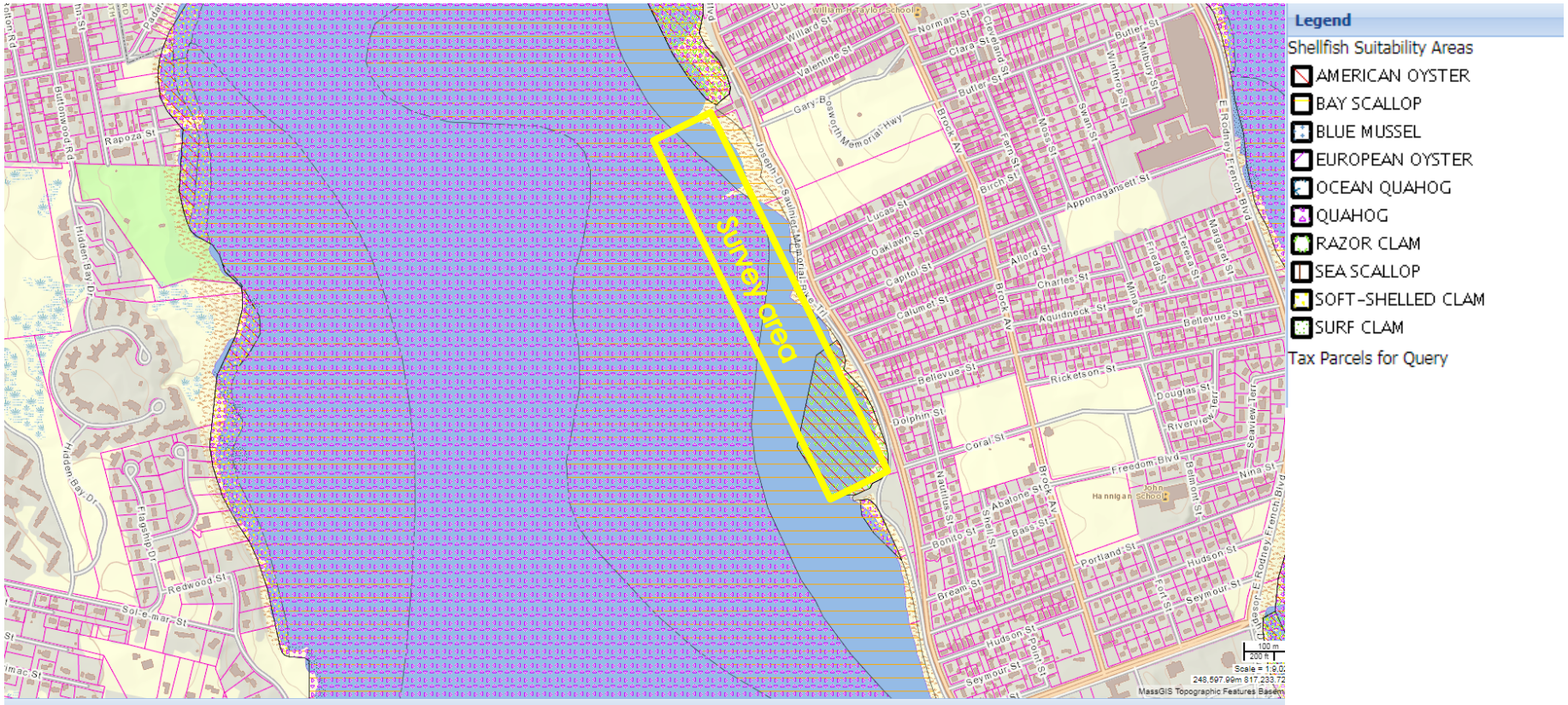


Figure 3. Shellfish growing areas in Clarks Cove, New Bedford, MA (MADMF, data retrieved June 2017). Yellow box represents surveyed area.

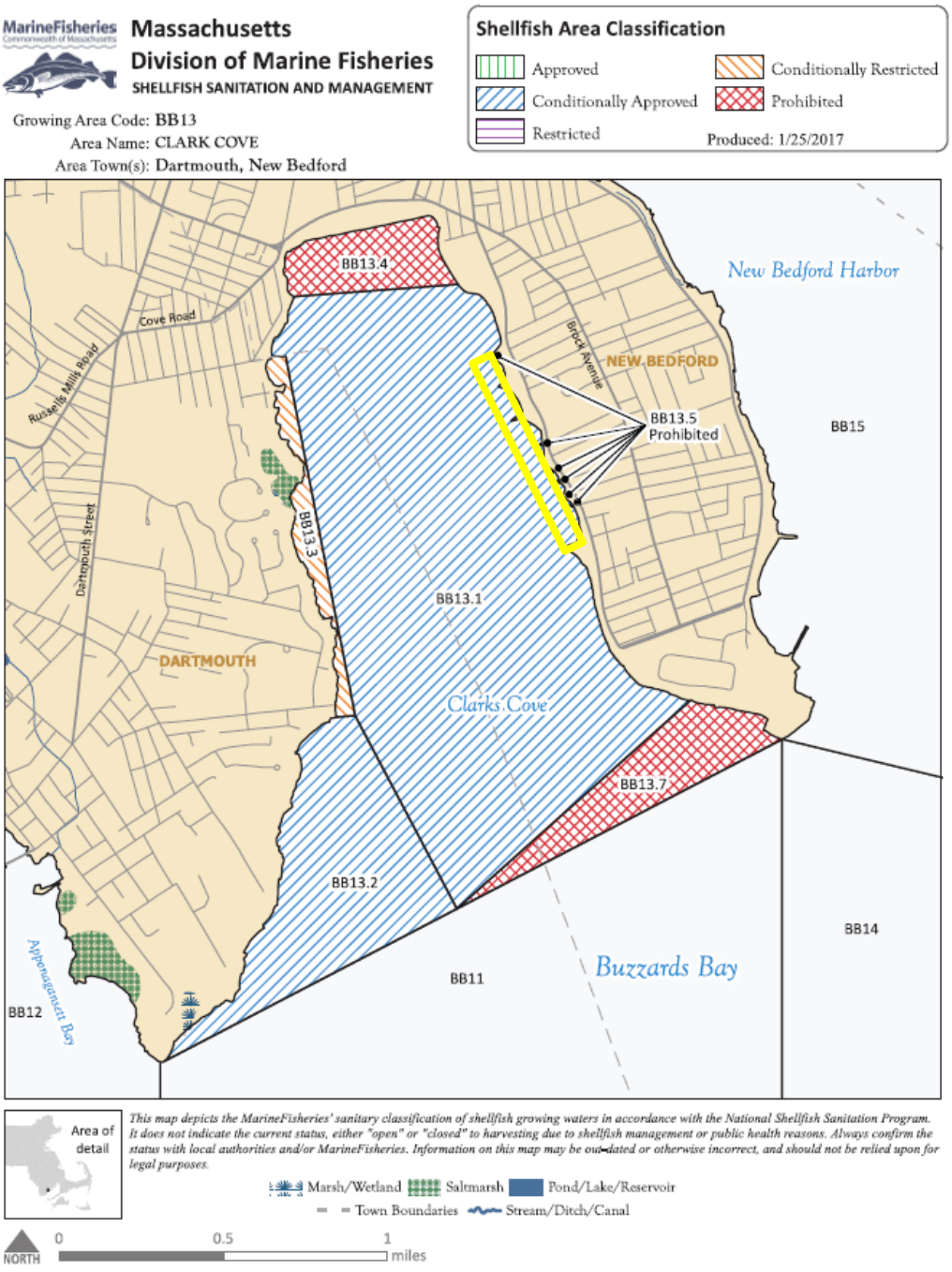


Figure 4. MADEP Eelgrass Areas (retrieved data June 2017). Yellow box indicates Stantec surveyed area.

2.0 SURVEY METHODOLOGY

Stantec's habitat assessment methodologies were specifically designed for the project to provide an accurate eelgrass and shellfish assessment over large areas. The shellfish survey was performed on May 25 and the eelgrass assessment on May 26, 2017. The Commonwealth of Massachusetts specifies that habitat surveys be performed to protect marine natural resources. Due to the extensive size of the project area, shellfish sampling stations were located at 50-foot intervals along four transects set 50-feet apart (Figure 5). Shellfish stations at the proposed project sites were arranged in a grid pattern (Figure 5). The study area included sampling along transects, which extended from the mean low water line. Shellfish stations were evaluated for the presence, abundance, and type of shellfish within sampled substrate. Shellfish targeted for abundance calculations included quahogs, soft-shell clams, bay scallops, razor clams, and American oysters. Sediment characteristics were visually observed at each location. A total of one-hundred thirty-two (132) stations were surveyed for the presence and abundance of shellfish and sediment type by two Stantec divers. Sediment consistency results are provided in Figure 6 for each of the shellfish locations.

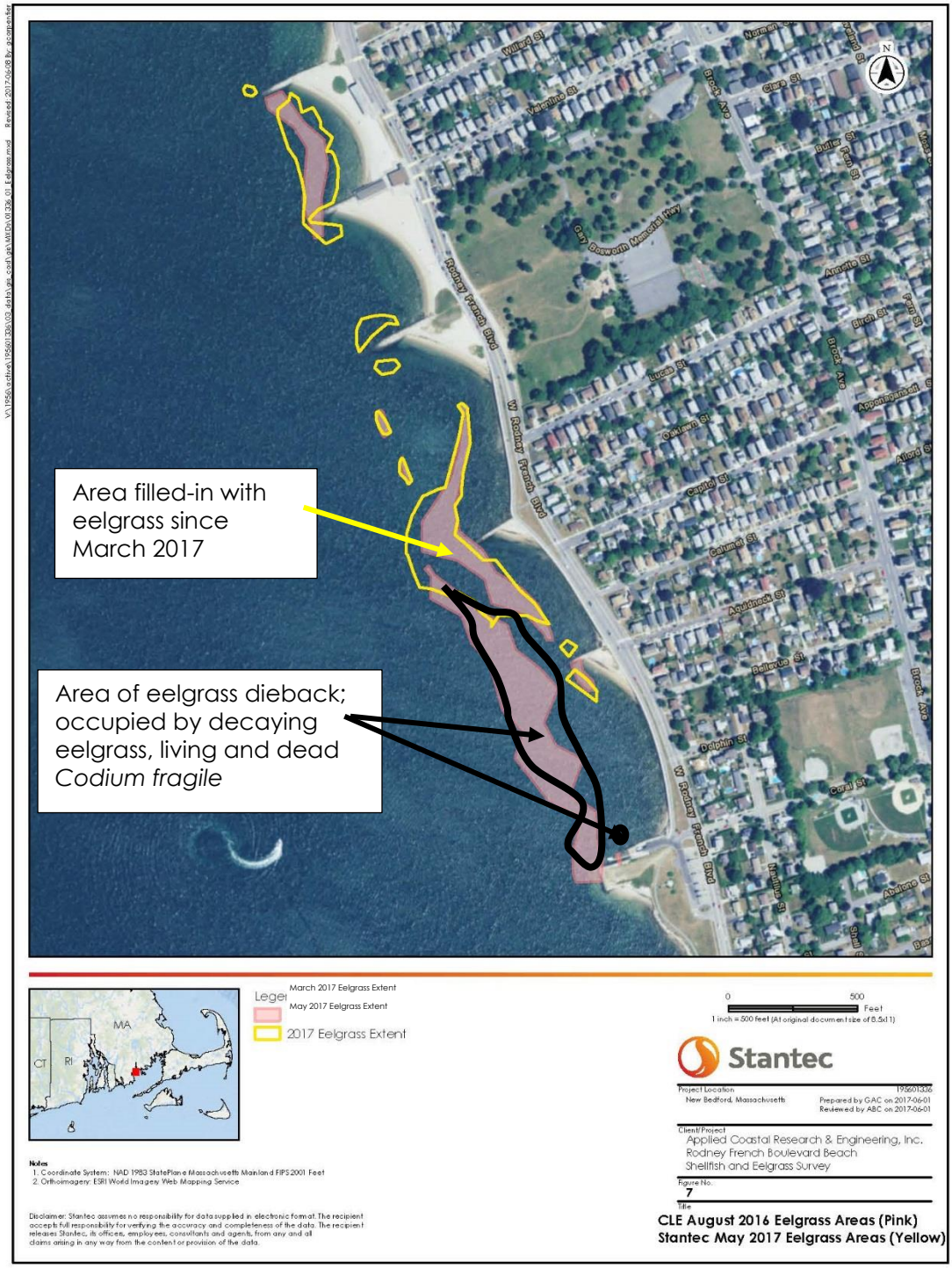
A hand-held spade was used to dig into the substrate by divers to capture adult and juvenile stages of shellfish as well as other non-commercially important species. An approximate volume of substrate of one (1) cubic foot was processed at each of the sampling location. Survey lead, Dr. Pamela Neubert, observed the divers and sampling process to provide safety oversight and note taking while a fourth field staff member navigated the area with a small boat. Information in addition to shellfish and eelgrass results deemed appropriate was recorded in an ArcMap GIS Collector application on a smartphone and station locations. Divers delineated eelgrass using a search methodology that included setting buoys at the edges and patches of eelgrass throughout the surveyed area. A small boat and driver collected waypoints in a Trimble GPS by following the divers and collecting georeferenced locations at each buoy point. The fourth person would pick up the buoys and then pass them back to the divers to obtain the next surveyed locations. This process was performed at hundreds of sample locations to develop the eelgrass map as shown in Figure 7.

June 10, 2017

Figure 5. Stantec Shellfish Locations and Results, May 26, 2017.

Figure 6. Stantec Visual Sediment Results, May 26, 2017.

Figure 7. Stantec Eelgrass Assessment Results May 25, 2017 with CLE Eelgrass Assessment Results (March 2017)



3.0 SURVEY RESULTS

3.1 EELGRASS

Stantec was asked to ground-truth the presence of eelgrass observed in video as collected by CLE in March 2017. During the survey, historical MADEP eelgrass maps were reviewed (MassGIS OLIVER Mapping Tool), including maps available from 2001 and 2013. Field observations established that existing eelgrass was present beyond the area mapped by MADMF in 2013 as well as areas mapped by CLE (Figure 7); however, a large section of eelgrass delineated by CLE in March 2017 was observed to be dead and occupied by dead man's finger alage (*Codium fragile*). Regardless, the eelgrass area mapped by MADEP in 2013 has increased in size.

3.2 SHELLFISH HABITAT

One-hundred thirty-two (132) stations were sampled for shellfish abundance within Clarks Cove adjacent and within the proposed project area. As shown in Figure 5, most shellfish within Clarks Cove were quahogs distributed in low abundances throughout the sampled locations. Thirty-six (36) stations had 1 quahog, nine (9) stations contained two quahogs, five (5) stations contained 3 quahogs, four (4) stations contained four (4) quahogs, and one (1) station contained six (6) quahogs for a total of ninety-two (92) quahogs. In addition, five (5) bay scallops and one (1) sea urchin (*Strongylocentrotus droebachiensis*) were identified during the shellfish survey. No oysters, razor clams, or soft-shell clams were collected within the study area.

Substrate types were observed visually. The shallow study area to the north was largely comprised of sand (medium to very fine) in the nearshore and offshore the sediment changed to anoxic silt mixed with sandy silt. Sediment consistency in the southern portion of the project area was more diverse and included sand/gravel mix with shell hash, sand, sandy silt, sitly and silty sand.

4.0 CONCLUSIONS

- Stantec's shellfish survey was performed using a methodology that accurately maps abundances and distribution of shellfish. This method was utilized within the proposed dredging project area, as well as surrounding areas in the vicinity.

- Ninety-two (92) quahogs, five (5) bay scallops, one (1) sea urchin were collected within the project study area. The area is conditionally approved for shellfish growing by MADMF and is considered suitable for quahogs, bay scallops, oysters, and razor clams within Clarks Cove. Eelgrass was found in March 2017 and May 2017 to have greater percent coverage than 2013, however, there is an area of die-back observed in Stantec's 2017 study when compared to CLE's results.

- The proposed beach renourishment will be performed to provide shoreline protection from coastal storms and flooding to the neighboring community. This beach has been permitted to receive renourisment sand in the past.

- Water circulation would not be adversely changed by the placement of a beach nourishment. Tidal currents in the area are small and would not be altered by the placement of nourishment material.

- Sediment consistency (i.e., grain size) will not be altered as renourisment will be over areas that are currently comprised of coarse to very fine sand and include a mix of gravel. Drainage will be improved and this project will not have adverse impacts to the levels of salinity, dissolved oxygen, nutrients, or temperature. A temporary effect of renourisment may cause localized burial of shellfish that can either be harvested prior to the project or replaced in seed stock. This project will not add additional pollutants.

- According to 310 CMR 10.34(5) Notwithstanding the provisions of 310 CMR 10.34(4), "*projects which temporarily have an adverse effect on shellfish productivity but which do not permanently destroy the habitat may be permitted if the land containing shellfish can and will be returned substantially to its former productivity in less than one year from the commencement of work, unless an extension of the Order of Conditions is granted, in which case such restoration shall be completed within one year of such extension*".

- This project will meet the performance standards in the Commonwealth of Massachusetts Wetlands Protection Act (WPA) and will not significantly, adversely impact shellfish habitat within Clarks Cove. Renourishment may temporarily affect shellfish individuals; however, productivity is expected to recover within one year.

ATTACHMENT 10: EMAIL COMMUNICATION WITH DMF

msimms@appliedcoastal.com

From: Sean Kelley <skelley@appliedcoastal.com>
Sent: Thursday, August 15, 2019 10:49 AM
To: msimms@appliedcoastal.com
Cc: jramsey@appliedcoastal.com
Subject: FW: West Beach, New Bedford TOY restrictions

From: Logan, John (FWE) <john.logan@state.ma.us>
Sent: Monday, May 20, 2019 8:13 AM
To: Sean Kelley <skelley@appliedcoastal.com>
Subject: RE: West Beach, New Bedford TOY restrictions

Hi Sean,

Thank you for checking in. Yes, our overall recommended TOY restriction period would not allow for a 6-month work window. As this most recent letter was to MEPA + as such was more in the information-gathering phase of the permitting process, we wanted to include our full TOY as a starting point, but realize that complete avoidance of this period may not be feasible. We can certainly work with you through the permitting process to develop a sequencing plan that minimizes impacts during sensitive life history periods to the maximum extent possible.

We do have a mapped horseshoe crab nesting beach on the western shore of Clark's Cove and while HS crabs may also make use of beaches on the eastern shore (ie, the project footprint), the area of proposed nourishment is sufficiently starved of sand that it is not considered optimal nesting habitat currently. Regarding winter flounder concerns, avoidance of subtidal work during the winter flounder TOY would be ideal as the subtidal zone is considered spawning habitat for this species. Please feel free to send along draft sequencing plans as you develop your next phase of permit applications and we can work with you on a suitable plan.

John

From: Sean Kelley <skelley@appliedcoastal.com>
Sent: Friday, May 17, 2019 4:57 PM
To: Logan, John (FWE) <john.logan@mass.gov>
Subject: West Beach, New Bedford TOY restrictions

Hello John – I would like to ask for clarification regarding the recommended TOY restrictions for West Beach indicated in the DMF ENF comment letter dated May 9, 2019. The TOY restriction provided in the letter for consideration is January 15 through November 15, which would only allow for a two-month time window for construction. We would require at a minimum a six-month window for construction.

During the pre-application and on-site meetings for the project, you had indicated that the main concern for this project would be winter flounder, which has a TOY of January 15 through May 31. Based on other information contained in Evans et al. (2011), it appears that the horseshoe crab window may potentially be important, as well. However this would still allow construction between the end of June and January 15.

Is it possible that the recommended TOY restriction could be reduced to the dates listed above, taking into account that best management practices would be followed during construction of any beach nourishment fill placement? If necessary, we could limit the dredging (i.e. structure removal) to the two month window.

Thank you,

Sean

Sean W. Kelley, PE
Senior Coastal Engineer
Applied Coastal | Mashpee, MA | 508-539-3737

ATTACHMENT 11: STORMWATER REPORT

City of New Bedford:
West Rodney French Boulevard Nourishment

Storm Water Report
October 2019

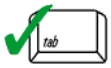
TABLE OF CONTENTS

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

Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

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

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

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

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

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

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

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

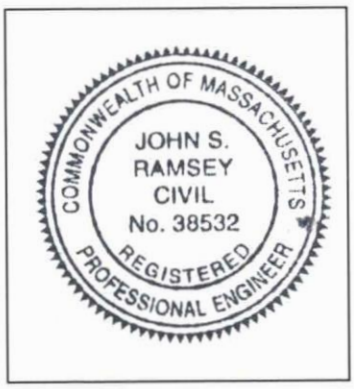
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



10/22/19

Signature and Date

Checklist

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

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 1: No New Untreated Discharges

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

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☒ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☒ Soil Analysis provided.

☐ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

☐ Site is comprised solely of C and D soils and/or bedrock at the land surface

☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000

☐ Solid Waste Landfill pursuant to 310 CMR 19.000

☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

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

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

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

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

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

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

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

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☒ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

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

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

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

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

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☒ Party responsible for operation and maintenance;
- ☒ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

11.1 PROJECT DESCRIPTION

The City of New Bedford (City) Department of Public Infrastructure (DPI) is proposing a beach nourishment project seaward of the seawall along West Rodney French Boulevard along a 3,830-foot section of West Rodney French Boulevard that extends from West Rodney French Boulevard boat ramp (at the south end) to the hurricane barrier at the Kilburn Mills (at the north end), as indicated in Figure 1. The beach fill will be contained with a series of T-head groins, consisting of shore perpendicular trunks, and heads that parallel the orientation of the shoreline. The T-head groin field will provide environmental protection to nearshore eelgrass beds by preventing nourishment sediment from migrating offshore. Use of T-head structures in this manner represents an innovative approach that provides enhanced storm resiliency while also protecting the sensitive eelgrass habitat that exists in close proximity to the project shoreline.

Nourishment will be trucked onsite and graded according to the engineering plans provided in Attachment 8 of the NOI. Existing conditions are provided in Attachment 8 in the NOI, showing mean high water line, contours, and mean low water levels.

11.2 EXISTING CONDITIONS

There is a vertical concrete seawall that extends along the length of West Rodney French Boulevard and serves to protect the upland infrastructure including the City sewer main that leads to the sewage treatment plant near the southern tip of Clarks Point. In many sections, the base of the seawall is fronted by a low profile armor stone revetment. In the vicinity of Hazelwood Park, Valentine Street, and Dudley Street, a sandy beach area exists that provides additional protection to the existing seawall and upland infrastructure.

A series of six (6) shore-perpendicular groins exists north of the West Rodney French Boulevard Boat Ramp. In general, these groins trap sand on their updrift (south) side, where beach widths tend to be widest adjacent to the south side of each groin. South of Hazelwood Park, little high tide beach exists along the shoreline, and evidence of long-term lowering of the area fronting the seawall demonstrates that portions of the coastal engineering structure may be nearing the end of their effective design life.

A total of seven (7) cast iron outfalls pipes are located along the length of the seawall (see Attachment 5 for photos of existing outfall pipes). These pipes extend out to/below Mean Low Water (MLW). Based upon available documentation, it is unclear as to the nature of the flow or associated volumes that presently discharge from these pipes. Further review of these structures should be conducted with the City to determine their current and future need and functionality.

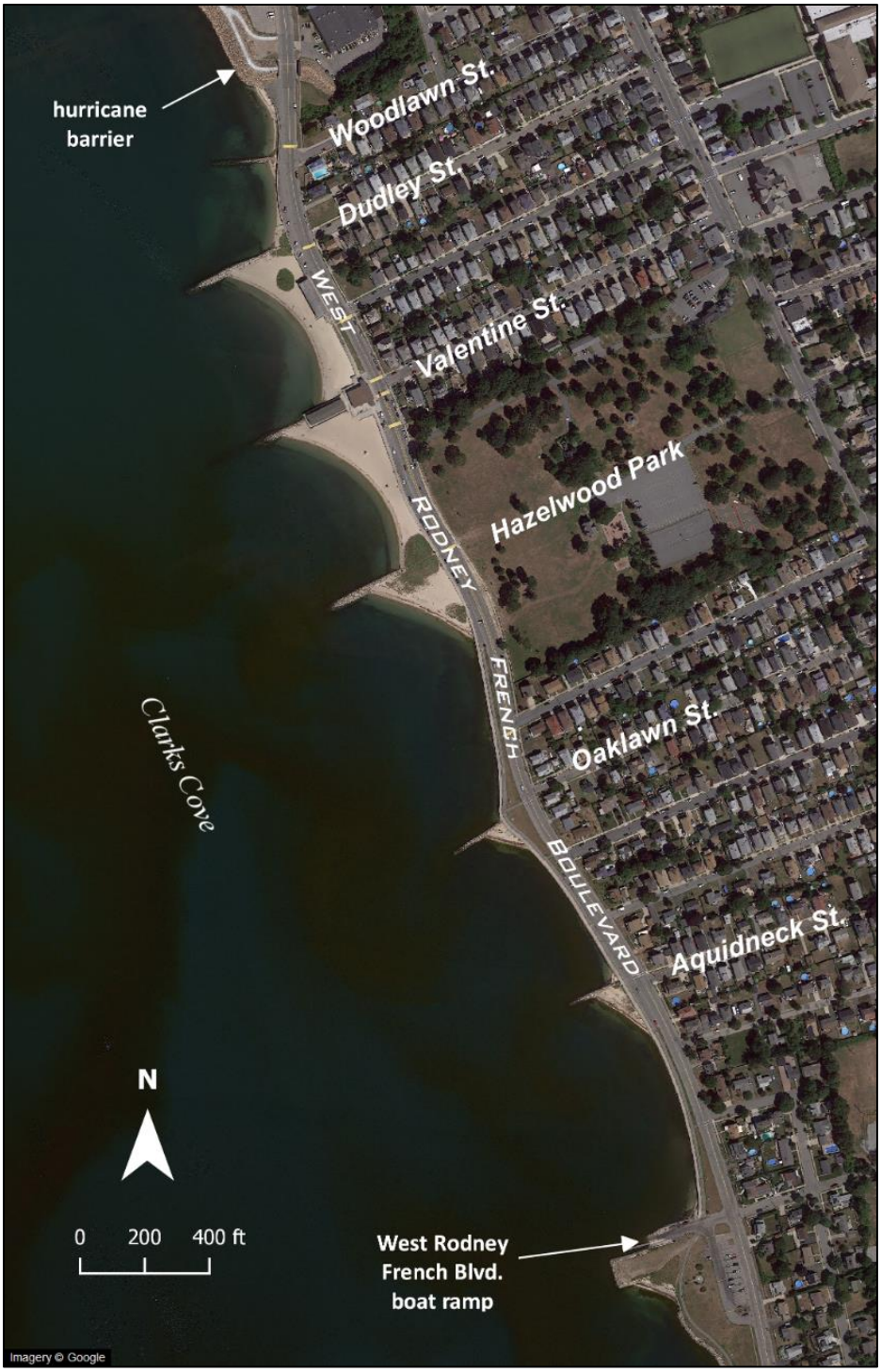


Figure 1. August 2016 aerial of the study shoreline between the West Rodney French Blvd. boat ramp and the hurricane barrier at the Kilburn Mills.

11.3 STORMWATER CHECKLIST

Standard 1 – No New Untreated Discharges

Standard 1 will be fully met. Due to the nature of the project there will be no new untreated discharges.

Standard 2 – Peak Rate Attenuation

Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge to a wetland subject to coastal flooding. The FEMA flood insurance rate map in Figure 2 shows that the entire beach would be inundated by a 1% annual chance flood event.

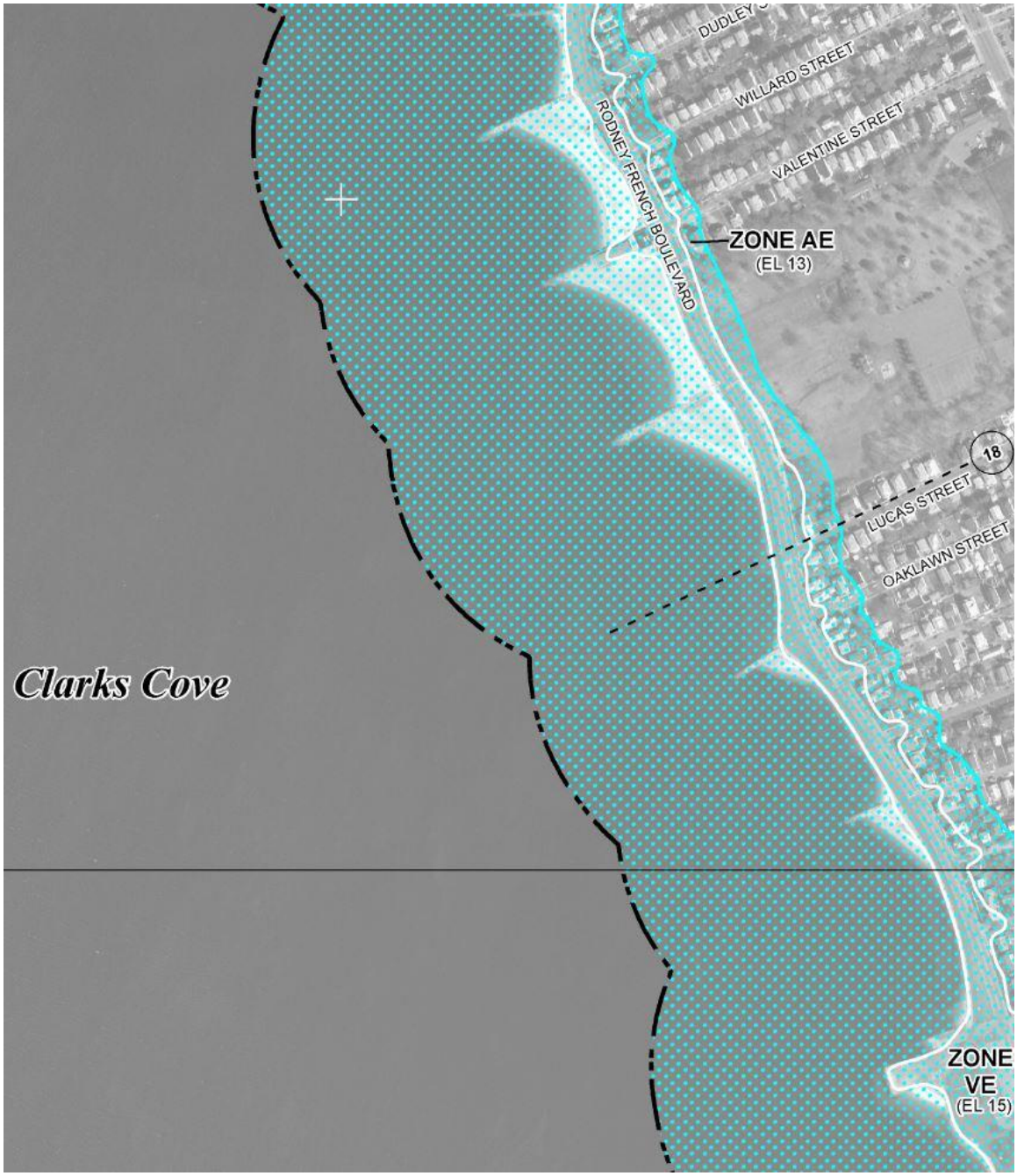


Figure 2. FEMA flood insurance rate map. Regions in turquoise are subject to inundation by the 1% annual chancel flood, as determined by FEMA (https://msc.fema.gov/portal/).

Standard 3 – Recharge

Recharge is not impacted by this project since this is a coastal beach that fronts a vertical concrete seawall. Sediment used to construct the beach fill will have similar characteristics (grain size) to the native beach material, which will ensure that recharge through the beach will not change. Individual sample grain size distributions are provided in Attachment 11.1 to this report.

Standard 4 – Water Quality

Standard 4 is not applicable. The Long-Term Pollution Prevention Plan will be met for this project as part of the City's Municipal Separate Storm Sewer System (MS4) permit, and existing SOPs for maintenance of City owned assets. The CSOs and beach characteristics will be unaltered from the existing site. A copy of the City's MS4 permit is available upon request. This permit generally includes all of the provisions that are listed under the Long Term Pollution Prevention Plan which the City is required to comply with and report on annually to the EPA.

Standard 5 – Land With Higher Pollutant Loads (LUHPPLs)

Standard 5 is not applicable to the West Rodney French Boulevard Nourishment Project because the site/use does not include higher potential pollutant loads.

Standard 6 – Critical Areas

Standard 6 is not applicable to the West Rodney French Boulevard Nourishment Project because the site does not contain any critical areas.

Standard 7 – Redevelopment and Other Projects Subject to the Standards Only to the Maximum Extent Practicable

The project is subject to the Stormwater Management Standards only to the maximum extent practicable as a: Redevelopment Project.

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

A construction period pollution prevention and erosion and sedimentation control plan containing the information set forth above has been included in the storm water report below.

Narrative: The city will seek bids for a supplier of sand that matches the native material on West Rodney French Boulevard beach. The median grain size on the beach ranges from medium to coarse sand. The sand will be hauled on site and then be graded in a way to match the proposed drawing supplied with this submittal.

Names of Persons or Entity Responsible for plan compliance:

City of New Bedford, Department of Public Infrastructure

1105 Shawmut Ave, New Bedford MA, 02746

(508)-979-1550.

Construction Period Pollution Prevention Measures: Fencing will be installed along the perimeter of the project area for visibility and public safety. All equipment and truck tires will be inspected for fine-grained material and/or contamination and cleaned as needed prior to driving onto the beach to reduce tracking nonnative material onto the project site. Trucks will use a single route to access and exit the beach and this route will be cleaned as necessary to reduce nonnative material from being tracked onto the beach. The contractor will be required to provide a spill prevention and management plan prior to beginning construction and spill kits will be kept onsite at all times.

Erosion and Sedimentation Control Plan Drawings: Not Applicable

Detail Drawings for erosion control BMPs, including sizing calculations: Not Applicable.

Vegetation Plan: No vegetation will be added or removed from the site.

Site Development Plan: Not Applicable - No site development needed.

Construction Sequencing plan: The first step will be to dismantle the northern groins and stockpile material that can be reused for the remainder for the project. The contractor will then bring beach nourishment material onsite to construct a temporary accessway platforms to construct the offshore t-heads, using stockpiled material where possible. This accessway will be removed following the construction of the t-head breakwaters and the material will be graded according to the plan supplied. The final step will be to place piles to support the wooden sections of the groins that are perpendicular to the offshore t-heads.

Sequencing of erosion and sedimentation controls: Fencing will be installed around the perimeter of the project area first and the access point will be identified with signs.

Operation and Maintenance of Erosion and Sedimentation controls: During the delivery and grading of the site the hay wattle line will be checked daily to ensure the condition and to ensure they are operating properly. Sedimentation controls will be inspected daily from the start of the project until the hay wattles are removed from the site at the end of the project.

Inspection Schedule: The site will be inspected prior, during, and after the placement of each load of material. As well as during the grading of the site. A survey will be conducted after the material is brought on site and graded to ensure the correct gradient in accordance with the design plan.

Maintenance Schedule: Daily inspections of all site activities.

Inspection and Maintenance Log Form: The inspection and maintenance form will be attached as a plan in the same form as the plans attached in this submittal as all the maintenance requirements for this project are beach profile surveys. Engineers will conduct daily inspections of the material delivered to the site and site grading and conduct ongoing surveys to ensure the correct gradient of the beach.

Standard 9 – Operations and Maintenance Plan

The post-construction operations and maintenance plan is provided as Attachment 4 in the NOI.

Standard 10 – Prohibition of Illicit Discharges

An illicit discharge compliance statement follows. The project will not promote the installation of illicit discharges.

Illicit Discharge Compliance Statement

Project: West Rodney French Boulevard Nourishment

Location: Monkey's Island, New Bedford MA

Owner/Responsible Party: City of New Bedford

Illicit Discharge Statement:

The only purpose of the project is to supply material to the West Rodney French Boulevard beach that matches quality and grain size to increase coastal resiliency and reduce storm damage. Additionally, t-head groins will be constructed to

ensure the material does not migrate into adjacent eelgrass beds. No illicit discharges will be created from the construction or any portion of this project.

Contact Information:

City of New Bedford DPI

1105 Shawmut Ave, New Bedford MA 02746

Phone: (508)-979-1550

ATTACHMENT 11.1: GRAIN SIZE ANALYSIS RESULTS

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Clarks Cove, New Bedford**
Briggs #: 23618

Tested: 3/6/17
Received: 3/3/17

1 Sample No. M-28212 | Description: Existing Material | Source of Material: Clarks Cove, NB1

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
75 mm	3"	100	
63 mm	2-1/2"	100	
50 mm	2"	100	
37.5 mm	1-1/2"	100	
25 mm	1"	100	
19 mm	3/4"	99	
12.5 mm	1/2"	98	
9.5 mm	3/8"	98	
4.75 mm	#4	98	
2.36 mm	#8	97	
2.00 mm	#10	96	
1.18 mm	#16	94	
0.600 mm	#30	69	
0.422 mm	#40	45	
0.300 mm	#50	21	
0.211 mm	#70	12	
0.150 mm	#100	1	
0.075 mm	#200	0.1	

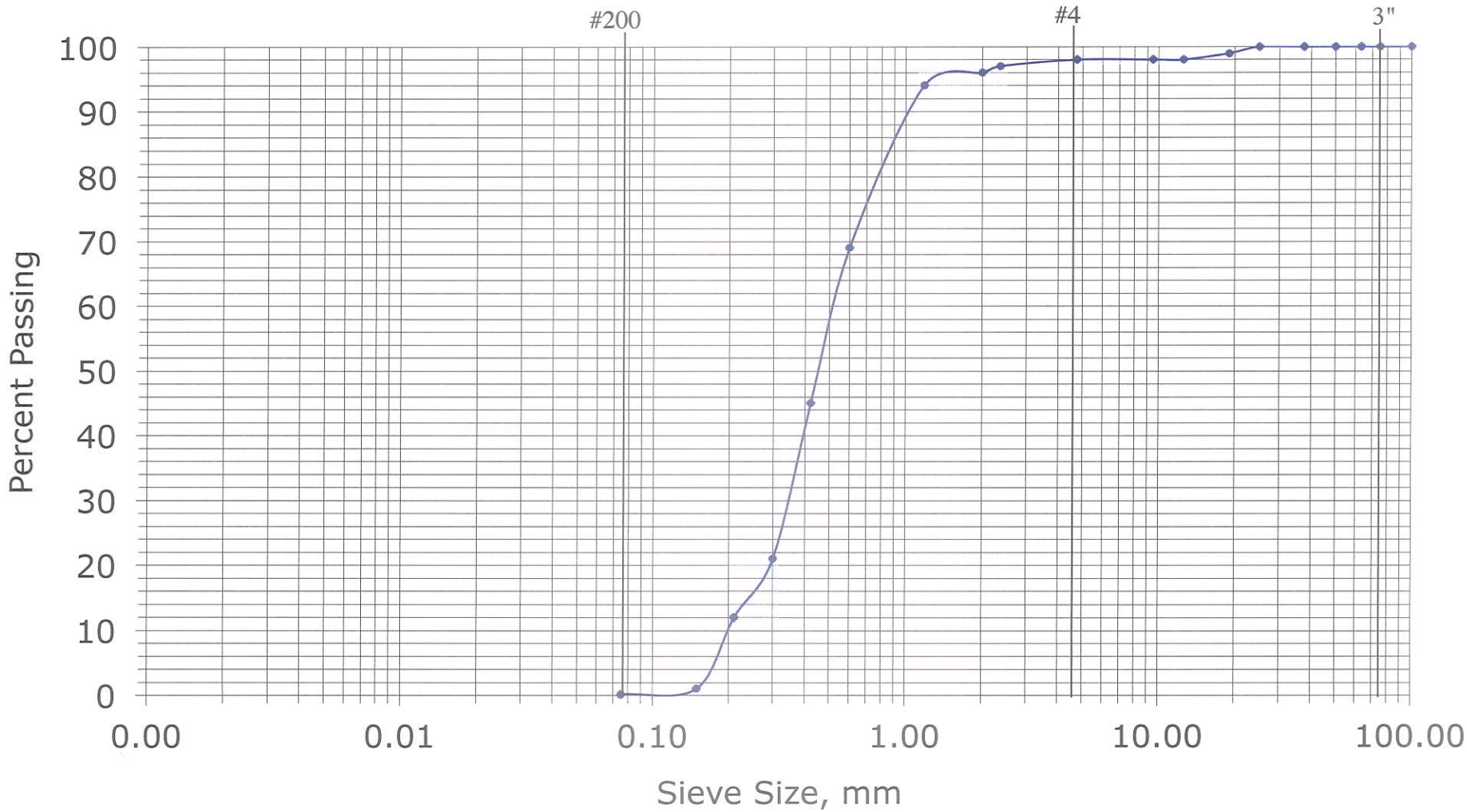
BRIGGS ENGINEERING & TESTING
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Clarks Cove, New Bedford
Date Tested:	3/6/17
Lab Ref. No.:	M-28212

Sieve Analysis



Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Clarks Cove, New Bedford**
Briggs #: 23618

Tested: 3/6/17
Received: 3/3/17

1

Sample No.	Description	Source of Material
M-28213	Existing Material	Clarks Cove, NB2

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
75 mm	3"	100	
63 mm	2-1/2"	100	
50 mm	2"	100	
37.5 mm	1-1/2"	100	
25 mm	1"	86	
19 mm	3/4"	85	
12.5 mm	1/2"	71	
9.5 mm	3/8"	65	
4.75 mm	#4	52	
2.36 mm	#8	48	
2.00 mm	#10	46	
1.18 mm	#16	40	
0.600 mm	#30	18	
0.422 mm	#40	12	
0.300 mm	#50	7	
0.211 mm	#70	4	
0.150 mm	#100	1	
0.075 mm	#200	0.6	

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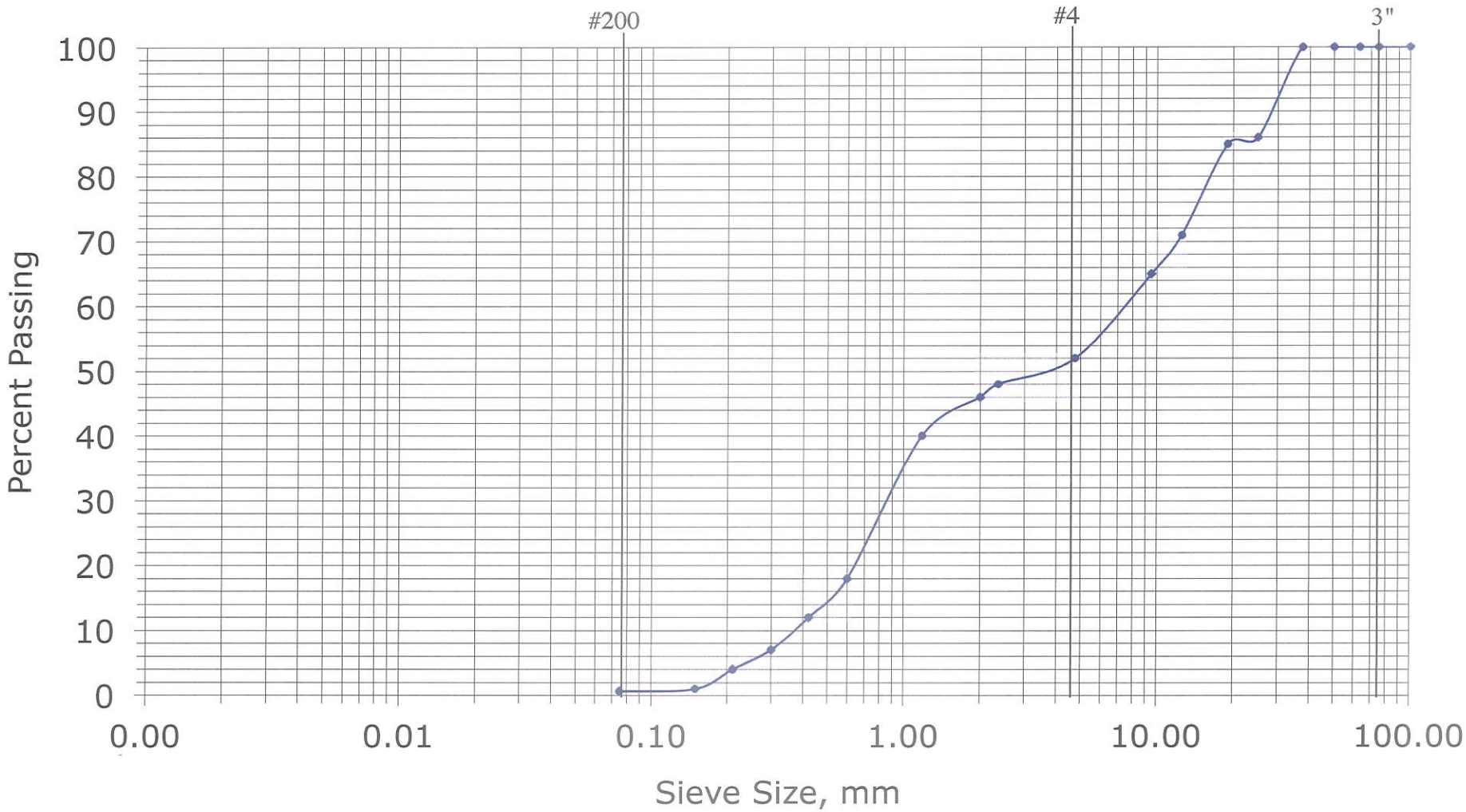
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Clarks Cove, New Bedford
Date Tested:	3/6/17
Lab Ref. No.:	M-28213

Sieve Analysis



Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Clarks Cove, New Bedford**
Briggs #: 23618

Tested: 3/6/17
Received: 3/3/17

1	Sample No.	Description	Source of Material
	M-28214	Existing Material	Clarks Cove, NB3

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
75 mm	3"	100	
63 mm	2-1/2"	100	
50 mm	2"	100	
37.5 mm	1-1/2"	100	
25 mm	1"	100	
19 mm	3/4"	100	
12.5 mm	1/2"	99	
9.5 mm	3/8"	99	
4.75 mm	#4	99	
2.36 mm	#8	98	
2.00 mm	#10	97	
1.18 mm	#16	94	
0.600 mm	#30	64	
0.422 mm	#40	44	
0.300 mm	#50	25	
0.211 mm	#70	14	
0.150 mm	#100	4	
0.075 mm	#200	1.4	

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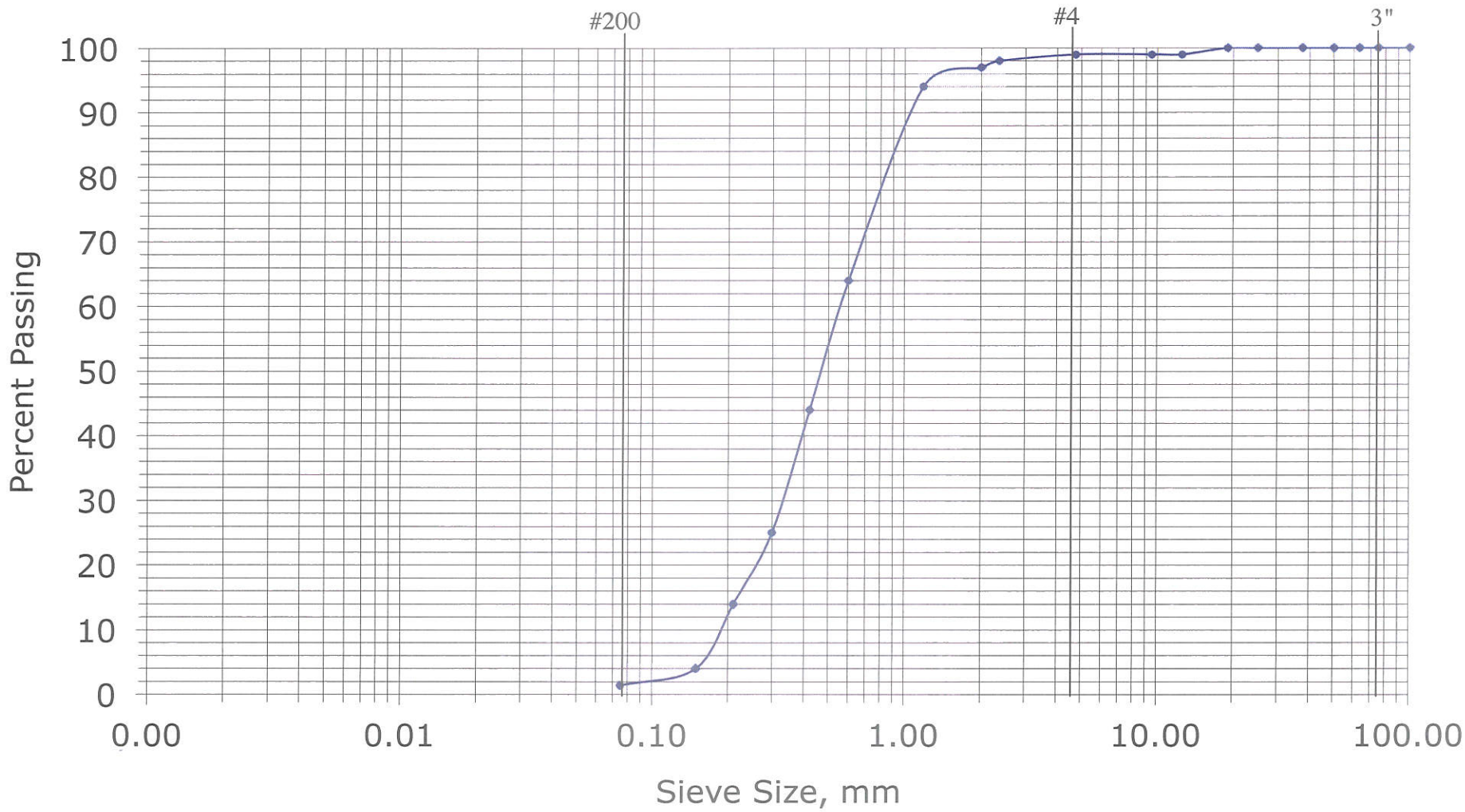
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Clarks Cove, New Bedford
Date Tested:	3/6/17
Lab Ref. No.:	M-28214

Sieve Analysis



Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Clarks Cove, New Bedford**
Briggs #: 23618

Tested: 3/6/17
Received: 3/3/17

1 Sample No. M-28215 | Description: Existing Material | Source of Material: Clarks Cove, NB4

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size Standard	Sieve Size Alternate	Results {% Passing by Wt.}	Specifications
100 mm	4"	100	
75 mm	3"	100	
63 mm	2-1/2"	100	
50 mm	2"	100	
37.5 mm	1-1/2"	100	
25 mm	1"	99	
19 mm	3/4"	97	
12.5 mm	1/2"	94	
9.5 mm	3/8"	92	
4.75 mm	#4	86	
2.36 mm	#8	76	
2.00 mm	#10	70	
1.18 mm	#16	51	
0.600 mm	#30	5	
0.422 mm	#40	5	
0.300 mm	#50	4	
0.211 mm	#70	2	
0.150 mm	#100	1	
0.075 mm	#200	0.8	

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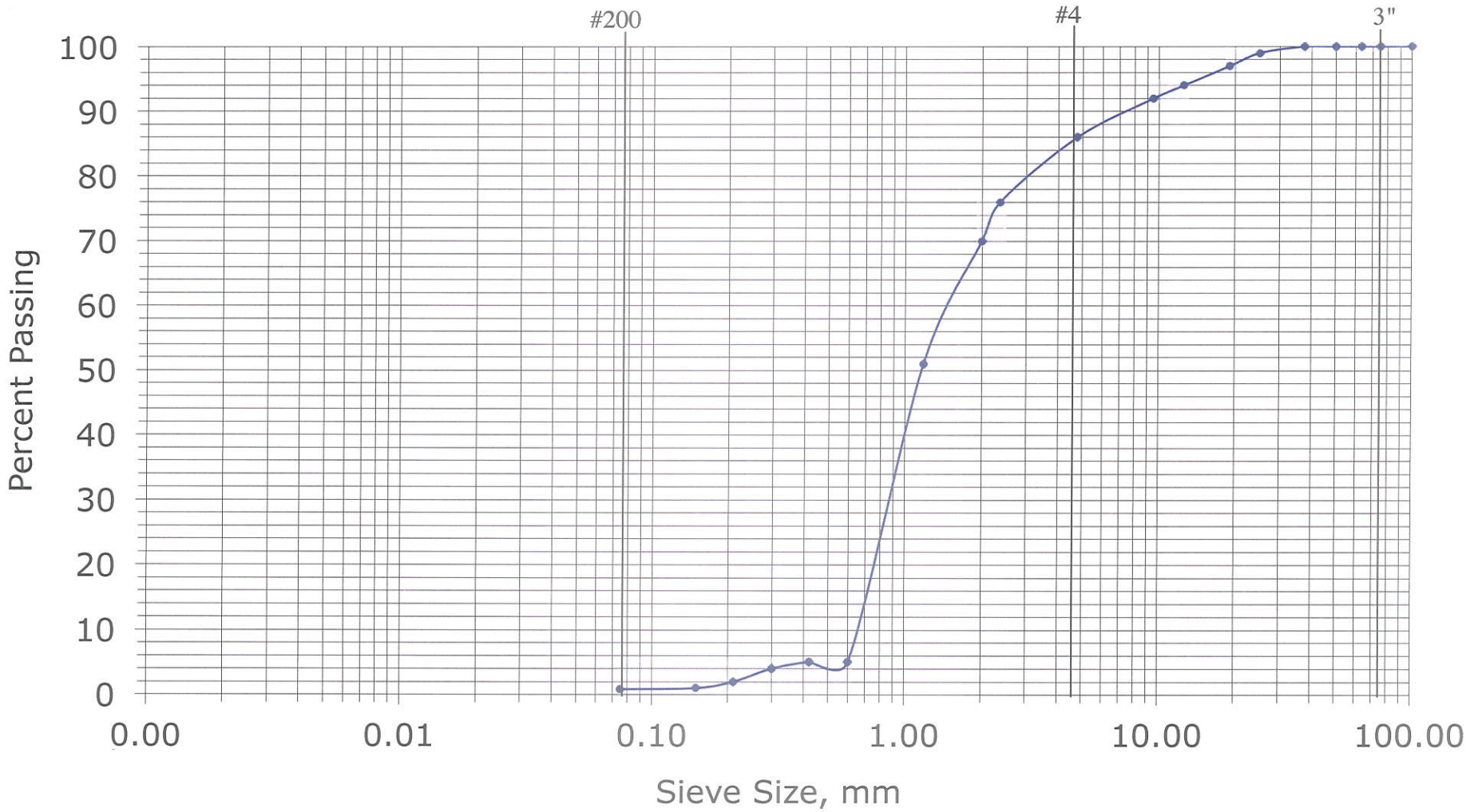
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Clarks Cove, New Bedford
Date Tested:	3/6/17
Lab Ref. No.:	M-28215

Sieve Analysis



Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Clarks Cove, New Bedford**
Briggs #: 23618

Tested: 3/6/17
Received: 3/3/17

1	Sample No.	Description	Source of Material
	M-28216	Existing Material	Clarks Cove, NB5

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
75 mm	3"	100	
63 mm	2-1/2"	100	
50 mm	2"	100	
37.5 mm	1-1/2"	100	
25 mm	1"	100	
19 mm	3/4"	100	
12.5 mm	1/2"	99	
9.5 mm	3/8"	98	
4.75 mm	#4	95	
2.36 mm	#8	86	
2.00 mm	#10	83	
1.18 mm	#16	74	
0.600 mm	#30	65	
0.422 mm	#40	46	
0.300 mm	#50	28	
0.211 mm	#70	15	
0.150 mm	#100	1	
0.075 mm	#200	0.8	

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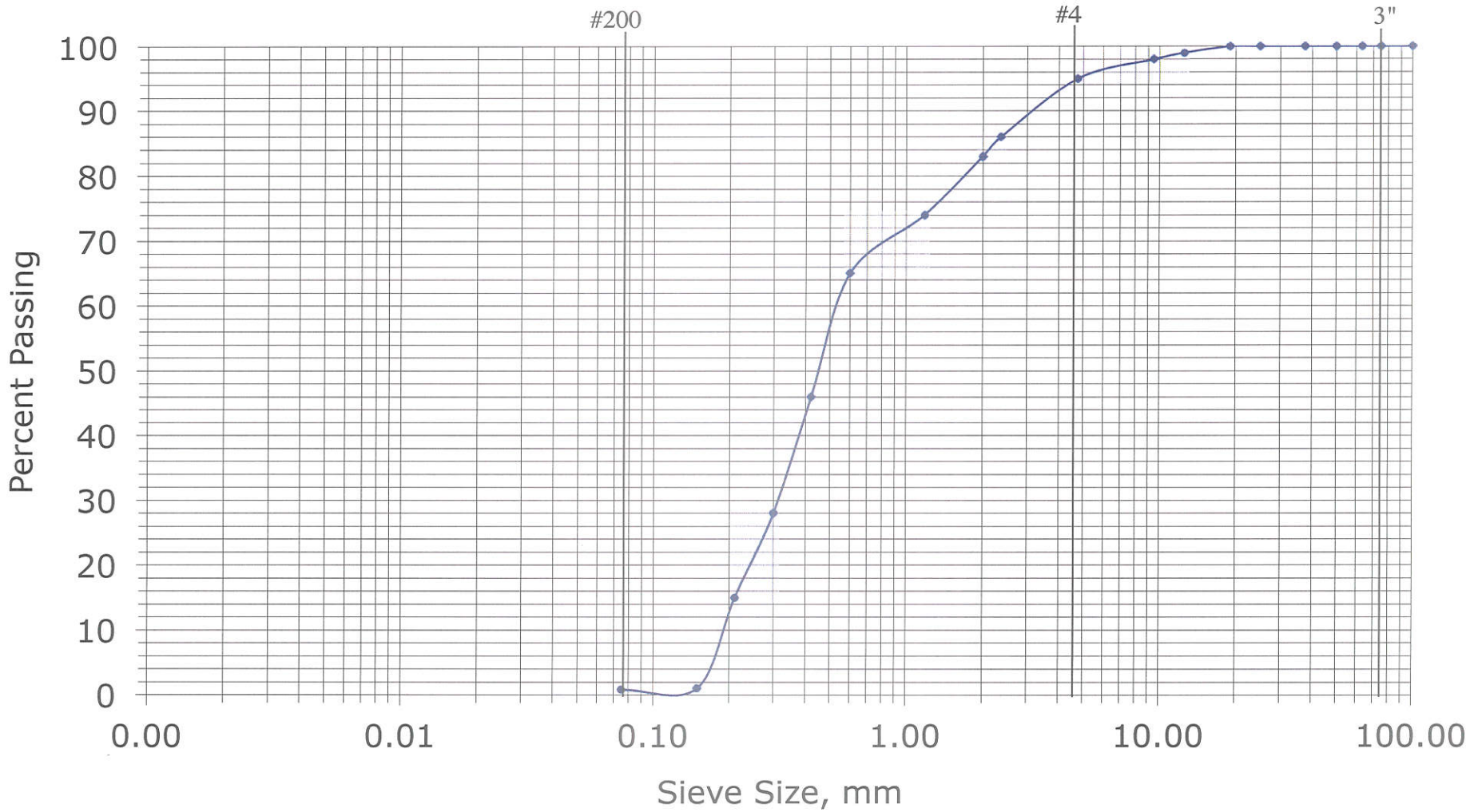
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Clarks Cove, New Bedford
Date Tested:	3/6/17
Lab Ref. No.:	M-28216

Sieve Analysis



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Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Clarks Cove, New Bedford**
Briggs #: 23618

Tested: 3/6/17
Received: 3/3/17

1

Sample No.	Description	Source of Material
M-28217	Existing Material	Clarks Cove, NB6

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
75 mm	3"	100	
63 mm	2-1/2"	100	
50 mm	2"	100	
37.5 mm	1-1/2"	100	
25 mm	1"	100	
19 mm	3/4"	100	
12.5 mm	1/2"	98	
9.5 mm	3/8"	98	
4.75 mm	#4	93	
2.36 mm	#8	61	
2.00 mm	#10	56	
1.18 mm	#16	41	
0.600 mm	#30	5	
0.422 mm	#40	4	
0.300 mm	#50	3	
0.211 mm	#70	2	
0.150 mm	#100	1	
0.075 mm	#200	1.0	

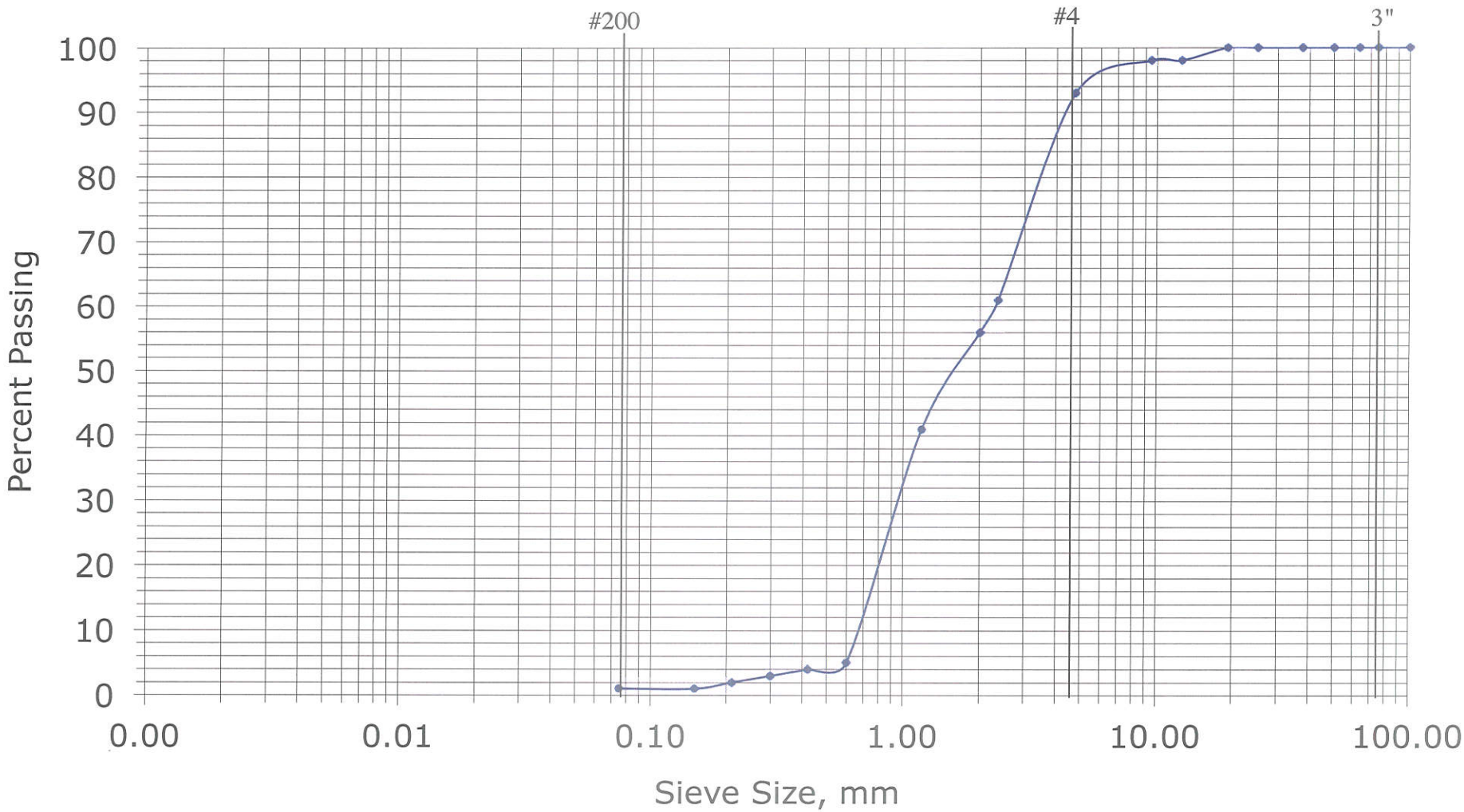
BRIGGS ENGINEERING & TESTING
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Clarks Cove, New Bedford
Date Tested:	3/6/17
Lab Ref. No.:	M-28217

Sieve Analysis



Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Humarock Beach, Scituate**
Briggs #: 23618

Tested: 3/7/17
Received: 3/3/17

	Sample No.	Description	Source of Material
1	M-28218	Existing Material	Humarock Beach North

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
90 mm	3-1/2"	94	
75 mm	3"	89	
63 mm	2-1/2"	89	
50 mm	2"	66	
37.5 mm	1-1/2"	51	
25 mm	1"	39	
19 mm	3/4"	33	
12.5 mm	1/2"	26	
9.5 mm	3/8"	24	
4.75 mm	#4	22	
2.36 mm	#8	21	
2.00 mm	#10	21	
1.18 mm	#16	16	
0.600 mm	#30	10	
0.422 mm	#40	7	
0.300 mm	#50	4	
0.211 mm	#70	1	
0.150 mm	#100	0	
0.075 mm	#200	0.0	

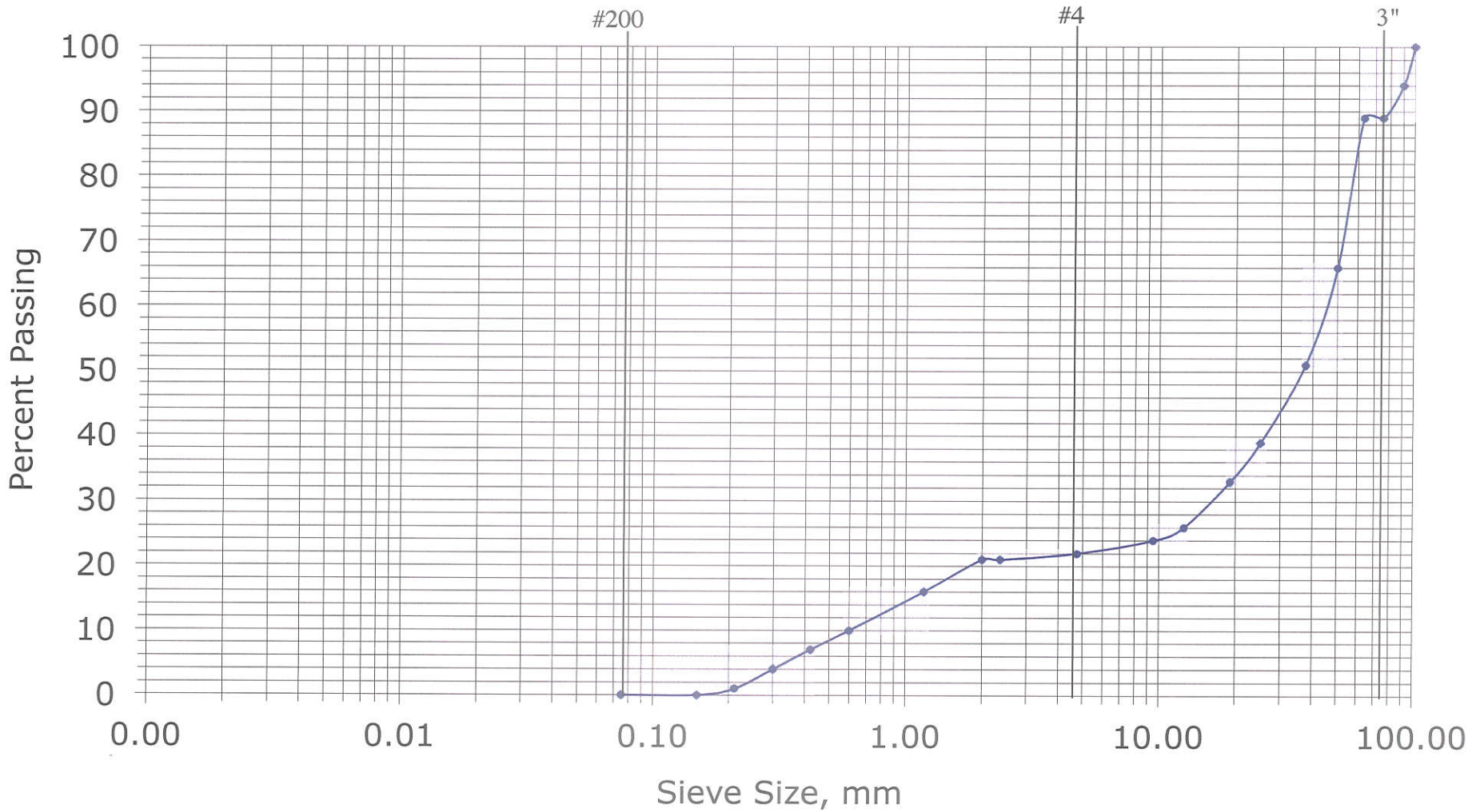
BRIGGS ENGINEERING & TESTING
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Humarock Beach, Scituate
Date Tested:	3/7/17
Lab Ref. No.:	M-28218

Sieve Analysis



Briggs Engineering & Testing
A Division of PK Associates, Inc.

Applied Coastal Research & Eng.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649
Attn: Mr. Trey Ruthven

Report Date: 3/8/17

Project: **Humarock Beach, Scituate**
Briggs #: 23618

Tested: 3/7/17
Received: 3/3/17

1

Sample No.	Description	Source of Material
M-28219	Existing Material	Humarock Beach South

2. Sieve Analysis {ASTM C 136, and ASTM C 117}

Sieve Size		Results	Specifications
Standard	Alternate	{% Passing by Wt.}	
100 mm	4"	100	
90 mm	3-1/2"	100	
75 mm	3"	100	
63 mm	2-1/2"	78	
50 mm	2"	67	
37.5 mm	1-1/2"	65	
25 mm	1"	49	
19 mm	3/4"	43	
12.5 mm	1/2"	28	
9.5 mm	3/8"	19	
4.75 mm	#4	2	
2.36 mm	#8	1	
2.00 mm	#10	1	
1.18 mm	#16	1	
0.600 mm	#30	1	
0.422 mm	#40	1	
0.300 mm	#50	1	
0.211 mm	#70	1	
0.150 mm	#100	0	
0.075 mm	#200	0.0	

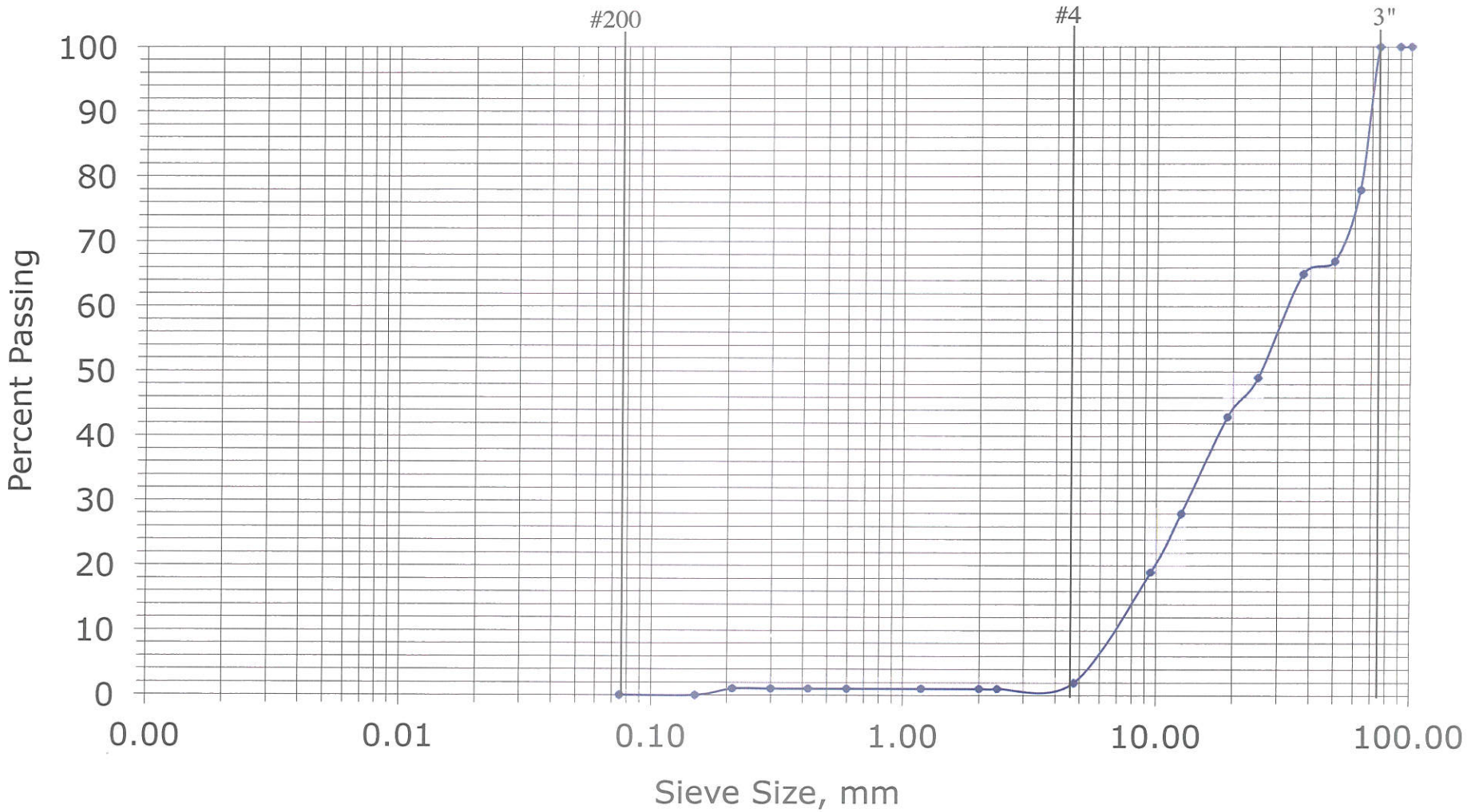
BRIGGS ENGINEERING & TESTING
A Division of PK Associates, Inc.

Sean Skorohod
Director of Testing Services
Construction Technology Division

Briggs Engineering & Testing
A Division of PK Associates, Inc.

Project:	Humarock Beach, Scituate
Date Tested:	3/7/17
Lab Ref. No.:	M-28219

Sieve Analysis



ATTACHMENT 12: PROOF OF SUBMITTAL TO NHESP, MA DMF, AND EPA

ORIGIN ID:HYAA (508) 539-3737
LIZ HUNT
APPLIED COASTAL
766 FALMOUTH ROAD
SUITE A-1
MASHPEE, MA 02649
UNITED STATES US

SHIP DATE: 23OCT19
ACTWGT: 1.00 LB
CAD: 3868270/INET4160

BILL SENDER

TO **NHESP**
DIVISION OF FISHERIES AND WILDLIFE
1 RABBIT HILL RD.
WESTBOROUGH MA 01581
(508) 389-6360
INV:
PO:
REF: 16-47
DEPT:

567J3/2A3C/05A2

FedEx Express

J192119091901uv

FRI - 25 OCT 4:30P
**** 2DAY ****

TRK# 0201 **7767 9137 6228**

01 BBFA

01581
BOS
MA-US

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Shipment Receipt

Address Information

Ship to:	Ship from:
NHESP	LIZ Hunt
Division of Fisheries and Wildlife	APPLIED COASTAL
1 Rabbit Hill Rd.	766 FALMOUTH ROAD SUITE A-1
WESTBOROUGH, MA 01581 US	MASHPEE, MA 02649 US
508-389-6360	5085393737

Shipment Information:
Tracking no.: 776791376228
Ship date: 10/23/2019
Estimated shipping charges: 17.63 USD

Package Information
Pricing option: FedEx Standard Rate
Service type: FedEx 2Day
Package type: FedEx Envelope
Number of packages: 1
Total weight: 1 LBS
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:
Bill transportation to: MyAccount-967
Your reference: 16-47
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

Jack Buckley, *Director*

MESA Project Review Checklist

Massachusetts Endangered Species Act M.G.L. c.131A and Regulations (321 CMR 10.00)

Contact Information

1) Project Location:

West Rodney French Boulevard	New Bedford	02744
Street Address/Location	City/Town	Zip Code
See Attached NOI	See Attached NOI	
Assessors Map/Plat Number	Parcel /Lot Number	

2) Applicant:

Adam	Hart	New Bedford Dept of Public Infrastructure
First Name	Last Name	Company
1105 Shawmut Ave		
Mailing Address		
New Bedford	MA	02746
City/Town	State	Zip Code
508-979-1550	508-961-3054	Adam.Hart@newbedford-ma.gov
Phone Number	Fax Number	Email address

3) Property owner (if different from applicant):

		City of New Bedford
First Name	Last Name	Company
133 William Street		
Mailing Address		
New Bedford	MA	02740
City/Town	State	Zip Code
508-979-1410	508-991-6189	
Phone Number	Fax Number	Email address

4) Representative (if any):

Applied Coastal Research and Engineering, Inc.		
Company		
John	Ramsey	
Contact Person First Name	Contact Person Last Name	
766 Falmouth Road, Suite A1		
Mailing Address		
Mashpee	MA	02649
City/Town	State	Zip Code
508-539-3737	508-539-3739	jramsey@appliedcoastal.com
Phone Number	Fax Number	Email address

Additional Information

1. Will this project require a filing with the Conservation Commission and/or DEP? ☐ No ☑ Yes
2. Has this project previously been issued a NHESP Tracking Number (either by previous NOI Submittal or MESA Information Request Form)? ☑ No ☐ Yes, if Yes -Tracking No._____

Project Description (attach separate sheet, as needed)

Please note, certain projects or activities are exempt from review, see 321 CMR 10.14. The MESA does not allow project segmentation. Your filing must reflect all anticipated work associated with the proposed project (CMR 321 10.16).

See attached NOI

Include the Following Information:

ALL Applicants must submit:

- USGS map (1:24,000 or 1:25,000) with property boundary clearly outlined
- Project plans for entire site (including wetland Resource Areas, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work)
- Assessor's map or right-of-way plan of site
- Statement/proof that applicant is the Record Owner or that applicant is a person authorized in writing by the record owner to submit this filing
- Photographs representative of the site

Projects altering 10 or more acres, must also submit:

- A vegetation cover type map of the site
- Project plans showing Priority Habitat boundaries

The NHESP may request additional information, such as, but not limited to, species and habitat surveys, wetland reports, soil map and reports, and stormwater management reports (321 CMR 10.16). The NHESP will notify the applicant within 30 days if the materials submitted do not satisfy requirements for a filing and request submission of any missing materials (321 CMR 10.18(1)).

Filing Fee, Payable to Comm. of MA - NHESP (see website for fee information)

a. Total MESA Fee Paid 300.00 b. Acreage of Disturbance 5.9 c. Total Site Acreage 5.9

Required Signatures

I hereby certify under the penalties of perjury that the foregoing MESA filing and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

Cathy Zuck 10/23/19

Signature of Property Owner/Record Owner of Property Date

Signature of Applicant (if different from Owner) Date

Applied Coastal Research and Engineering, Inc.
766 Falmouth Road
Suite A-1
Mashpee, MA 02649

October 23, 2019

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

Subject: West Rodney French Boulevard Nourishment, New Bedford, MA.

The New Bedford Department of Public Infrastructure has submitted an NOI to the New Bedford Conservation Commission for a beach nourishment project. The nourishment will be placed seaward of the seawall along West Rodney French Boulevard along a 2,222-foot section of West Rodney French Boulevard that extends from West Rodney French Boulevard boat ramp (at the south end) to Hazelwood Park (at the north end). The beach fill will be contained with a series of T-head groins, consisting of shore perpendicular trunks, and heads that parallel the orientation of the shoreline. The additional construction of the T-head field will provide environmental mitigation to contain nourishment sediment from migrating offshore into eelgrass habitat. This is an innovative approach that provides enhanced storm resiliency while also protecting the sensitive eelgrass habitat that exists in close proximity to the project shoreline.

While expansion of coastal engineering structures is generally discouraged by environmental regulatory agencies, recommendations to "trade" structures, where there is no overall increase in the cumulative "footprint" of coastal engineering structures, may have merit to maximize shore protection goals. This can be accomplished by dismantling portions of existing structures in the Project Area and "trading" them for optimized new structures.

Small portions of the structures to be dismantled are within a Natural Heritage & Endangered Species Program (NHESP) Priority and Estimated habitat for Rare Species and Wildlife (PH945, EH756) that were noted by the MA division of Fisheries and Wildlife to be habitat for terns feeding offshore. At the completion of removal, 0.1 acres of additional feeding habitat will be created by this project.

If you have questions or concerns regarding the NOI submission, please contact me at (508) 539-3737 or jramsey@appliedcoastal.com. Thank you for your consideration of this information.

Sincerely,

John Ramsey
Applied Coastal Research and Engineering, Inc.

Enclosures:
Notice of Intent and Supplemental Materials for the West Rodney French Boulevard Nourishment, New Bedford, Massachusetts.
Check #5576, made payable to Comm. of MA – NHESP for $300.00

From:	msimms@appliedcoastal.com
To:	"DMF.EnvReview-South@state.ma.us"
Cc:	"John Ramsey (jramsey@appliedcoastal.com)"
Subject:	West Rodney French Boulevard Beach Nourishment
Date:	Wednesday, October 23, 2019 10:53:00 AM
Attachments:	image003.png

Please use the link below to access the NOI for the West Rodney French Boulevard Beach Nourishment Project:
https://appliedcoastal.sharefile.com/d-s40e9c23a21048509

Please let me know if you need additional information or this document in hard copy.

Thank you,

--

Morgan Simms, P.G.
Coastal Geologist
(508) 539-3737 | https://appliedcoastal.com/

Applied Coastal Research and Engineering, Inc.
766 Falmouth Rd, Suite A-1
Mashpee, MA 02649

From: msimms@appliedcoastal.com
To: "newbedfordharbor@epa.gov"
Cc: "John Ramsey (jramsey@appliedcoastal.com)"
Subject: West Rodney French Boulevard Beach Nourishment
Date: Wednesday, October 23, 2019 10:55:00 AM
Attachments: image003.png

Please use the link below to access the NOI for the West Rodney French Boulevard Beach Nourishment Project:
https://appliedcoastal.sharefile.com/d-s40e9c23a21048509

Please let me know if you need additional information or this document in hard copy.

Thank you,

--

Morgan Simms, P.G.
Coastal Geologist
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Mashpee, MA 02649