City of Quincy, Massachusetts
Purchasing Department
1305 Hancock Street
Quincy, MA 02169

Phone: 376-1060
Fax: 376-1074

ADDENDUM NUMBER 3

RE: BIDS-DUE : APRIL 25, 2013 @ 11:00 a.m.

BID TITLE: EDGEWATER DRIVE SEAWALL REPAIR PROJECT

PLEASE NOTE :

Addendum Number 2 includes the following documents:

- Section 01520 Construction Facilities, revised 04/22/13;
- Section 00410 Bid Form, revised 04/22/13;
- Section 01270 Measurement and Payment, revised 04/22/13;
- Draft Right of Entry Form from Quincy City Solicitor;
- MassDEP Ch91 Waterways License Approval Letter, dated 03/28/2013;
- MassDEP Ch91 Waterways Registry Notification Form, dated 04/10/2013;
- ACOE Section 404 Category II Authorization, dated 04/15/2013;
- Cover Sheet, revised 04/22/2013;
- Notes, Abbreviations, and Legend Sheet, revised 04/22/2013;
- CZM Federal Consistency Certification, dated 04/03/2013.

In addition to the above attached documents and changes, the following questions, italicized in bold, were asked by a potential bidders. Below are answers to the questions:

Q1: ***In reference to the resetting of the existing precast seawall units as shown on sheet 9 and on sheet 15 details E & F, please identify under what item is the work of removing and resetting these units along with the new concrete footing and associated reinforcing steel and dowels, to be paid.***

A1: *Item 10.*

Q2: ***Please indicate under which item, is the work of installing the project plaque shown on sheet 10 to be paid.***

A2: *Contractors are referred to Addendum 2.*

Q3: ***Please provide details for the gate anchors to be replaced at Sta 25+89 and Sta 26+03. Under which item will these replacements be paid?***

A3: *The gate anchor bolts shall be replaced in-kind (size and length) with hot dip galvanized mechanical anchor bolts, nuts and washers. The angled gate supports shall be removed, hot dip galvanized and reset to match the existing installation. The gate anchor repair shall be bid under item 9.*

Q4: ***In the Specifications for the project under Section 5.06 Property insurance, it calls for the contractor to provide Builders Risk Insurance. On page 00621-1 the sample insurance certificate under Builders Risk, the limits for this policy are "as called for in the contract". We cannot locate those limits in the contract. Please identify the limits that are to be required for the Builder's risk policy and define what material or work is to be covered under this policy .***

A4: *Section 5.06 of the General Conditions shall be deleted in its entirety. Builder's Risk Insurance is not required for this project.*

Q5: ***The contract drawings call for Removing and Resetting precast concrete seawall blocks in certain areas. Please consider adding a unit price bid item to the bid form for this work. If not, in which bid item should the costs for this work be included?***

A5: *Contractors are referred to Addendum 2.*

Q6: ***Item 10 Granite Seawall Repair is a lump sum item that includes 3 distinctly different activities that have variable quantities. We are in receipt of Addendum #1, yet we respectfully request that you consider adding separate unit price activities for this work. At a minimum, a unit price for the grout fill noted on the Typical Cross Section Details. The quantity for this activity is impossible to determine based on the information provided in the contract documents or by visual observation in the field.***

A6: *Contractors are referred to Addendum 2 for items to be included under Item 10. Estimated quantities for the voids to be grouted are included on sheet 15 of 23 in the Drawings.*

Q7: ***Please provide a specification for the material and procedures (ie. Gravity grouting, pressure grouting, etc.) for the grout fill shown under the existing granite cap, on the Typical Cross Section Details.***

A7: *Contractors are referred to Section 03300-5, paragraph 2.2 (G) of the Project Manual for the grout specifications and guidance on application.*

Q8. ***Could you please define the items of work to be performed under item #10 Granite Sea wall Repair. Is it limited to the pointing and grouting of the granite wall? Or does it include the concrete toe repair installation.***

A8: *Contractors are referred to Addendum 2 for items of work to be included under Item 10. In addition, the concrete toe repair and associated reinforcement shall be included under Item 10.*

Q9. ***Where are the repairs to the existing concrete wall face, from sta 20+60 to sta 26+00 to be paid?***

A9: *All spall and surface repairs for concrete surfaces called out by station shall be bid under Item 9. All additional spalls, cracks and surface repairs, as determined by the Engineer in the field shall be paid for under Item 37 (Crack Repair) and Item 38 (Spall/Surface Repair).*

Q10. ***On sheet 2 of 23 Item # 41, calls for all joints of the granite sea wall to be pointed to a depth of 2".***

a. On areas of the existing wall where the mortar joints are intact, will they have to be raked out and new mortar joint installed?

b. Will the joints on the back side of the granite wall need (to) be jointed?

A10: a. No.

b. Depending on the means and methods used by the contractor, some form of grout containment on the back face of the seawall may be necessary. Grout containment is not required to be pointing.

Q11. Under the specifications for concrete the only specification identified is for a 5000 psi HP concrete. Is all of the concrete on the project to be 5000 HP? On the plans some of the items call for different concrete 3000 & 4000 psi. Please specify what type of concrete is to be used for each of the repairs and provide an associated specification.

A11: Contractors are referred to Section 03300-3, paragraph 2.1(A)1 shall be revised to read:

"Provide a Mass Highway standard HP concrete mix item M4.06.1 with a maximum water/cement ratio of 0.40 and 5 to 8% air content, and 28-day design strength to produce concrete of minimum design strength (f'c) of 5000 psi. This concrete shall be used for all project concrete, including cast in place and precast, unless otherwise noted.

Sidewalk concrete shall be 4000 psi. All other concrete properties stated in Section 03300, including maximum water/cement ratio, still apply.

Q12. For the work involved in the grouting of the Sea Wall, what type of grout is to be used? The specification section calls out for a non-shrink high early grout, is this grout to be used in these voids?

A12: Contractors are referred to Section 03300-5, paragraph 2.2 (G) of the Project Manual for the grout specifications and guidance on application.

Q13. On the installation of the 18" DI pipe , where is the payment to be made, for the installation of the armor stone surrounding the proposed pipe?

A13: Stone around the 18 inch outfall shall be bid under items 13, 14, and 35 as appropriate.

Q14. For the installation of both the 48" & 18" DI pipe, please confirm that the type of pipe to be used is class 52 Push -On type pipe, as these installations are both buried installations?

A14: Both outfall pipes are considered above ground installations and therefore contractors are referred to Section 02514-3, paragraph 2.2 (C). Pipe sections shall be secured together with hot dip galvanized fasteners installed accordingly to the manufacturers recommendations.

Q15. Please provide a specification for the plywood to be used against the sea wall and the filter fabric and rip rap in front of the wall shown on sheet 15 of 23 typical sections A thru F.

A15: The function of the plywood is as protection of the geotextile during revetment stone placement, to prevent forming of cuts/holes in the geotextile when stone is placed. This

protection board is expected to be a wood material without treatment, chemicals, paint or other environmentally unfriendly components. The thickness of the board is up to the contractor to suit means and methods of stone installation and ensure no holes are made in the geotextile. The plywood shall have a minimum nominal thickness of ½ inch. If geotextile holes are found, the contractor will be required to remove and reset stones as necessary to patch the geotextile.

Q16. Supplemental Conditions, SC-5.06 states,

> ***"Contractor shall purchase and maintain property insurance upon the Work at the Site, in the amount of the full replacement cost thereof. Contractor shall be responsible for any deductible or self-insured retention."***

Our insurer requests a clarification of "the Work at the Site" and "the full replacement cost thereof". Is the property insurance intended to cover the materials contained in the bid or the entire wall being repaired?

A16: Contractor is referred to answer A4 above.

Q17. What type of grout is to be used to repair the existing granite wall?

A17: Contractors are referred to Section 03300-5, paragraph 2.2 (G) of the Project Manual for the grout specifications and guidance on application.

Q18. Is there a specific grout specification for the grouting used to fill the inner space of the granite wall?

A18: Contractors are referred to Section 03300-5, paragraph 2.2 (G) of the Project Manual for the grout specifications and guidance on application.

Q19. Is there a grout pressure not to exceed during the grouting process for the granite wall?

A19: Grout pressure and consistency are left up to the contractor's means and methods, including sequence of repairs. Grout pressure and consistency shall be controlled so as not to not push out stone blocks or damage the wall.

Q20. Type of plywood required for the lining of the granite wall? (specific size, type, pressure treated)

A20: The Contractor is referred to Answer A15 above.

Q21. In sections e, and f what type of concrete is specified for the concrete fill behind the wall?

A21: Contractors are referred to Answer A11 above.

Q22. Is the plywood fastened to the wall?

A22: The function of the plywood is as protection of the geotextile during revetment stone placement, to prevent forming of cuts/holes in the geotextile when stone is placed. The contractor shall make the determination if securing the plywood to the granite wall is necessary to achieve this objective.

Q23. What product is specified for the re-pointing of the joints on the granite wall?

A23: Contractors are referred to Section 03300-5, paragraph 2.2 (G) of the Project Manual for the grout specifications and guidance on application.

Q24. What product is specified for the precast barrier crack repairs show at the various locations?

A24: Sikatop 123 shall be applied per Section 03300 and manufacturers recommendations.

Q25. What product is specified for the spall repairs for the barrier, is it the same sika 123 specified for the stairs?

A25: Yes. For deep spalls over 1.5" deep use multiple lifts, or use non-shrink grout over Sikatop 123 scrub coat. Apply per Section 03300 and manufacturers recommendations.

Q26. Where on the plans and specifications is the under layer stone called out for use?

A26: Under layer size stone is to be used as needed to fill voids in the armor layer, to overlay existing stones, and to fill gaps/voids adjacent to seawalls and stairs. Some under layer size stone may be incorporated into the anti-erosion stone mass buried behind the seawall if space allows. Between stations 16+00 and 23+50, some of this buried stone may utilize smaller stone stockpiled under Item 12.

Q27. Bedding stone is shown on the front side and the back side of the wall in different areas, how accurate is the 275 cy quantity in the bid?

A27: The quantity of bedding stone is estimated to be 550 cubic yards. It is anticipated that 50 percent of the bedding stone required for the project will be from the stone stockpiled for reuse under Item 12. The 275 cubic yards represents an estimate of new bedding stone only. Revetment armor stone chinking was not included in the bedding stone quantity estimate.

Q28. Where a barrier is specified for repair by a station, does that repair apply to a single barrier unit at that station? If not what are the limits of the repairs?

A28: Yes. The repair is for the entire single concrete seawall unit. Stationing is provided for Contractor reference only. Contractor shall notify engineer of any conflict between plan stationing and repair area.

Q29. Will tide work be allowed outside of the stated 7 am to 5 pm work restrictions?

A29: Any work beyond the stated work restrictions (7 am to 5 pm) must be coordinated and approved by the Quincy Department of Public Works.

Q30. The repair to the existing stairs requires the concrete to be cleaned and skim coated. Please advise what type of skim coating is required.

A30: Contractors are referred to Section 03300-7, paragraph 2.4 (A) of the Project Manual for the grout specifications and guidance on application.

Q31. The product proposed for use on the project is a "bag product" which will require mixing some 12,000 bags by hand. Is that really the product you are looking for? None of the

redi-mix companies within the project vicinity make this product. Can you review the spec and advise?

A31: Use of plant or field batched grout is acceptable if it meets the project specification and there is an approved QA/QC process in place. If a plant or field batched non-shrink grout mix is proposed, the Contractor must provide the Engineer with the grout mix design, test data, QA/QC procedures and work plan prior to construction for approval. Plant or field batched non-shrink grout shall reach 5000 psi compressive strength, use Type II cement (or equal) and comply with ASTM C94, C109, C1090, C1107. A slower strength gain grout is also acceptable if the contractor provides a work plan that prevents wall loads, vibration, and cracking of the freshly grouted wall area until the grout obtains proper design strength.

Thank you.

Kathryn R. Hobin
Purchasing Agent

Item Number	Item Name and Unit Bid Prices Written in Words and Figures	Estimated Quantity	Total Amount of Item (in figures)
1	Mobilization and Demobilization, per lump sum, the price of: _____ ($)	lump sum* =	$_____
	*Not to exceed 5 percent of the total Bid price		
2	Traffic Control, per lump sum, the price of: _____ ($)	lump sum =	$_____
3	Uniformed Traffic Police, per hour, the price of: Forty dollars per hour ($ 40 / hour)	x 640 hours =	$ 25,600
4	Existing seawall unit removal, each, the price of: _____ ($)	x 60 each =	$_____
5	Concrete seawall unit including the leveling pad, each, the price of: _____ ($)	x 60 each =	$_____
6	Sidewalk Base Excavation, per cubic yard, the price of: _____ ($)	x 310 c.y. =	$_____
7	Concrete Sidewalk per square yard, the price of: _____ ($)	x 925 s.y. =	$_____
8	Timber stairways, per lump sum, the price of: _____ ($)	lump sum =	$_____
9	Concrete stairways repair including spall repair, stair resurfacing and railing repair, per lump sum, the price of: _____ ($)	lump sum =	$_____

10	Granite seawall repair including block replacement, repointing, core grouting, and removal and resetting of existing seawall units, per lump sum, the price of: _____ ($)	lump sum =	$_____
11	Processed Gravel Borrow, per cubic yard, the price of: _____ ($)	x 210 c.y. =	$_____
12	Remove and Reuse Coastal Revetment Stone, per lump sum, the price of: _____ ($)	lump sum =	$_____
13	Armor Stone, per ton, the price of: _____ ($)	x 6750 tons =	$_____
14	Underlayer Stone, per ton, the price of: _____ ($)	x 1200 tons =	$_____
15	Calcium Chloride for Dust Control, per ton, the price of: _____ ($)	x 5 tons =	$_____
16	Silt Sock, per linear foot, the price of: _____ ($)	x 2,150 l.f. =	$_____
17	Catch Basin Sedimentation Control, each, the price of: _____ ($)	x 5 each =	$_____
18	96-inch Precast Concrete Manholes, each, the price of: _____ ($)	x 1 each =	$_____

19	96-inch Precast Concrete Manholes - Additional Vertical Feet in excess of 5 feet, per vertical foot, the price of: _____ ($)	x 5 v.f. =	$_____
20	Manhole Frame & Cover, each, the price of: _____ ($)	x 1 each =	$_____
21	Concrete Encasement, per cubic yard, the price of: _____ ($)	x 3 c.y. =	$_____
22	18-inch Ductile Iron Pipe & Fittings, per linear foot, the price of: _____ ($)	x 48 l.f. =	$_____
23	48-inch Ductile Iron Pipe & Fittings, per linear foot, the price of: _____ ($)	x 130 l.f. =	$_____
24	Outfall pipe support including helical anchors, pipe straps, pipe bands, steel channel, and fasteners: _____ ($)	lump sum =	$_____
25	Abandonment of Existing Drainage Outfall, lump sum, the price of: _____ ($)	lump sum =	$_____
26	Fine Grading & Compaction, per square yard, the price of: _____ ($)	x 925 s.y. =	$_____
27	Permanent Bituminous Concrete Repair, per square yard, the price of: _____ ($)	x 35 s.y. =	$_____

28	Non-Woven Geotextile fabric (Geotex 1601), per square yard, the price of: _____ ($)	x 1,950 s.y. =	$_____
29	Non-Woven Geotextile fabric (Geotex 801), per square yard, the price of: _____ ($)	x 1,350 s.y. =	$_____
30	Curb Removal & Resetting, per linear foot, the price of: _____ ($)	x 1,200 l.f. =	$_____
31	Park Bench, each, the price of: _____ ($)	x 7 each =	$_____
32	Bike Bollards, each, the price of: _____ ($)	x 8 each =	$_____
33	Landscaping (Shrub Plantings), each, the price of: _____ ($)	x 47 each =	$_____
34	Loam & Seed, per square yard, the price of: _____ ($)	x 5,200 s.y. =	$_____
35	Bedding Stone, per cubic yard, the price of: _____ ($)	x 275 c.y. =	$_____
36	Project Plaque, each, the price of: _____ ($)	x 1 each =	$_____
37	Crack Repair, per linear foot, the price of: _____ ($)	x 1 lf =	$_____

38 Spall/Surface Repair, per square foot, the price of: x _1_ sf = $_____

_____

($)

TOTAL AMOUNT OF BID – Items 1 through 38

_____ dollars
(words)

($_____)
(figures)

5.2 This Bid includes Addenda numbered _____.

ARTICLE 6 - TIME OF COMPLETION

6.1 Bidder agrees that the Work will be substantially completed and completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.2 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Agreement.

ARTICLE 7 - ATTACHMENTS TO THIS BID

7.1 The following documents are attached to and made a condition of this Bid:

A. The following documents are attached to and made a condition of this Bid:

B. Bid Bond

C. Relevant Previous Experience

D. Statement of Bidder's Qualifications

E. Certificate of Acknowledgment of Contractor For Bid

F. Signature Authorization

G. Certificate of Non-Collusion

H. Tax Compliance Certificate

I. Certification of Bidder Regarding Equal Employment Opportunity

J. Right-To-Know Law

K. Non-Collusion Affidavit

L. Certification Non-Segregated Facilities

M. Affidavit Regarding Prior Labor Disputes

N. Certification Internal Accounting

O. Certification of Bidders/Sub-Bidders on Public Construction Projects

ARTICLE 8 - BID SUBMITTAL

8.1 The Bid is submitted by:

Date _____ _____

(Print Name of Firm Submitting a General Bid)

_____

(Signature of Authorized Representative)

_____

(Print Name of Person Signing Bid and Title)

Social Security Number or _____

Federal Identification Number: (Business Address)

_____ _____

(City, State and Zip Code)

Phone #: _____

Fax #: _____

1.35 LOAM AND SEED (ITEM 34)

A. Measurement

1. Measurement for loam and seed will be on a square yard basis as measured in the field by the Engineer. The length of the repair will be the actual length of the trench loamed and seeded. The width will be limited to that shown on the Drawings or the actual width of repair, whichever is less.

2. Measurement for payment under this item will be for loam and seed Work as required for lawn restoration and/or for "lawn quality" restoration of disturbed areas, based on the limits shown on the Drawings.

3. Placement of vegetative cover is incidental to the Contractor's excavation and other Work on this project. No separate measurement or payment for this Work will be made under this contract.

B. Payment

1. Payment of the Bid price for loam and seed will be full compensation for all labor, equipment, materials and grading required for or incidental to the Work. Loaming and seeding outside of the limits shown on the Drawings may be required, but will not be paid for under this item.

1.36 BEDDING STONE (ITEM 35)

A. Measurement

1. Measurement for bedding stone will be by the cubic yard.

B. Payment

1. Payment of the Bid price for bedding stone will be full compensation for furnishing, hauling, placing, spreading, and compacting, and include all labor, equipment and materials required for or incidental to the Work.

1.37 PROJECT PLAQUE (ITEM 36)

A. Measurement

1. Measurement for the project plaque will be on a per unit basis as measured in the field by the Engineer.

B. Payment

1. Payment of the Bid price for the project plaque will be full compensation for furnishing the project plaque, and all labor, equipment and materials required for or incidental to the Work.

1.38 CRACK REPAIR (ITEM 37)

A. Measurement

1. Measurement for the crack repair will be on a linear foot basis, for repairs beyond work included under Item 9, and measured in the field by the Engineer.

B. Payment

1. Payment of the Bid price for the crack repair will be full compensation for furnishing all labor, equipment and materials required for or incidental to the Work.

1.39 SPALL/SURFACE REPAIR (ITEM 38)

A. Measurement

1. Measurement for the spall/surface repair will be on a square foot basis, for repairs beyond work included under Item 9, as measured in the field by the Engineer.

B. Payment

1. Payment of the Bid price for the spall/surface repair will be full compensation for furnishing all labor, equipment and materials required for or incidental to the Work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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SECTION 01520

CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Field office

2. Temporary sanitary and first-aid facilities

1.2 QUALITY ASSURANCE

A. Maintain temporary construction facilities in proper and safe condition throughout the progress of the Work.

1.3 FIELD OFFICE

A. Provide and maintain for the duration of the Work at a location approved by the Owner and the Engineer, a separate field office trailer or equivalent, for the exclusive use of the Resident Project Representatives. The plans and construction of the office shall be approved by the Engineer and shall be not less than 450 square feet.

B. Trailer shall be equipped with two exterior doors with screens, and at least 3 screened and lockable windows. The trailer shall be weather tight and insulated in the walls, floor and ceiling. Electrical service shall be provided to the trailer. Doors shall be equipped with cylinder locks and two keys shall be supplied for the Engineer's use.

C. Each office shall be equipped with the following:

1. 2, flat top, 30″ x 60″ desks with a minimum of 3 drawers each

2. 3, standard desk arm chairs on rollers

3. 2, desk lamps

4. 1, drafting table at least 48″ x 60″ with a vinyl lined work surface

5. 1, swivel top drawing stool with padded seat and back

6. 1, drafting table lamp

7. 1, table at least 3 feet wide x 6 feet long with sufficient chairs to seat 6

8. 3, metal four drawer, standard size vertical filing cabinets with lock and keys (all keyed the same)

9. 2, 3′ wide bookcases or equivalent built in shelf space

10. 1, locker for survey equipment

11. 3, drawing racks

12. 1, 4' x 6' chalkboard and chalk

13. 1, pencil sharpener - wall mounted

14. 2, interior door mats.

15. Overhead lighting (75 foot candles minimum)

16. CO_2 fire extinguisher

17. 3, large waste baskets, 1 broom, and dust pan

18. A supply of drinking water with one automatic cooler

19. Bathroom with toilet and sink

20. Telecommunications and Computer Equipment - The Contractor shall provide the following equipment in the field office for the sole use of the Engineer for the duration of the Work.

21. Private telephone line, telephone and automatic message recorder. The Contractor shall pay all telephone charges. Telephone shall have the features of speed dial and two-way speaker/microphone.

22. A multifunction printer/scan/copy/fax machine with 11"x17" capabilities, with supplies and a maintenance plan for the duration of the Work, HP 700 A or equal.

D. Thermostatically controlled heating units or central system of adequate capacity to maintain 70°F under all cold weather conditions. Thermostatically controlled refrigerant type air conditioners of adequate capacity to maintain a maximum temperature of not more than 68°F under all hot weather conditions.

E. Provide daily janitor service.

F. Provide paper cups, paper towels, soap, toilet paper and suitable dispensers and holders for each of these items.

G. Maintain the office during construction of the Work. The cost for operation of the field office shall be the responsibility of the Contractor.

H. Remove all field offices and temporary facilities from the site after the completion of the Work. The premises shall be restored to a condition equivalent to that which existed prior to installation of the facilities, as determined by the Engineer.

1.4 TEMPORARY SANITARY AND FIRST AID FACILITIES

A. Provide suitably enclosed chemical or self-contained toilets for the use of the labor force employed on the Work. Toilets shall be located near the Work sites and secluded from observation insofar as possible. Toilets shall be serviced weekly, kept clean and supplied throughout the course of the Work.

B. Contractor shall enforce proper use of sanitary facilities.

C. Use of the Owner's sanitary facilities by the Contractor is prohibited.

D. Provide a first aid station at the site.

E. Remove all temporary facilities from the site after the completion of the Work. The premises shall be restored to a condition equivalent to that which existed prior to installation of the facilities, as determined by the Engineer.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

April 15, 2013

Regulatory Division
CENAE-R-PEA
File Number: NAE-2012-172

Shawn Hardy
City of Quincy
Department of Public Works
55 Sea Street
Quincy, Massachusetts 02169

Dear Mr. Hardy:

We have reviewed your application to perform work and discharge dredged or fill material below the high tide line (HTL) of waters of the United States in order to repair an existing 2900 linear foot concrete seawall along Edgewater Drive; re-setting the revetment, the addition of stone revetment, the replacement of stair railings, the repair of concrete stairs, and the reconstruction of two outfall pipes. Dredging will occur primarily to re-set the existing revetment stone and to facilitate the construction of a new outfall pipe and headwall. Approximately 3997 cubic feet of dredged material (including 3000 cubic feet of existing revetment stone) will be repositioned and/or replaced within 3700 square feet of area below the HTL. Dredging will occur below the HTL at low tide. This project is located in the Atlantic Ocean along Edgewater Drive, Quincy, Massachusetts. The work is shown on the attached plans entitled, "Edgewater Drive Seawall Repair Project, Quincy, MA," on 40 sheets, and dated, November 2, 2012.

Based on the information you have provided, we have determined that the proposed activity, which includes a discharge of dredged or fill material into waters or wetlands, will have only minimal individual or cumulative environmental impacts on waters of the United States, including wetlands. Therefore, this work is authorized as a Category 2 activity under the attached Federal permit known as the Massachusetts General Permit (GP). This work must be performed in accordance with the terms and conditions of the GP.

The National Marine Fisheries Service has not provided conservation recommendations regarding the effects of your project on Essential Fish Habitat (EFH) as designated under the Magnuson-Stevens Fishery Conservation and Management Act.

You are responsible for complying with all of the GP's requirements. Please review the attached GP carefully, in particular the GP conditions beginning on Page 5, to familiarize yourself with its contents. You should ensure that whoever does the work fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is underway.

Your project is located within, or may affect resources within the coastal zone. The Massachusetts Office of Coastal Zone Management (CZM) has already determined that no further Federal Consistency Review is required.

This GP expires on January 21, 2015. Activities authorized under this GP that have commenced (i.e., are under construction) or are under contact to commence before this GP expires will have until January 21, 2016 to complete the activity under the terms and general conditions of the current GP. For work within Corps jurisdiction that is not completed by January 21, 2016, you will need to reference any reissued GP to see if your project is still authorized under Category 1 (no application required), or Category 2 (application required). If it is no longer authorized you must submit an application and receive written authorization before you can continue work within our jurisdiction. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction. This office must approve any changes before you undertake them.

This authorization requires you to complete and return the attached Work Start Notification Form to this office at least two weeks before the anticipated starting date. You must also complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

This authorization presumes that the work as described above and as shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, submit a request for an approved jurisdictional determination in writing to this office.

This permit does not obviate the need to obtain other federal, state, or local authorizations required by law, as listed on Page 2 of the GP. Performing work not specifically authorized by this determination or failing to comply with all the terms and conditions of the GP may subject you to the enforcement provisions of our regulations.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://per2.nwp.usace.army.mil/survey.html

Please contact Kevin Kotelly, of my staff at 978-318-8703 if you have any questions.

Sincerely,

Karen K. Adams
Chief, Permits & Enforcement Branch
Regulatory Division

Attachments

Copies Furnished:

Ed Reiner, U.S. EPA, Region 1, Boston, Massachusetts, reiner.ed@epa.gov
Rachel Freed, DEP NERO, Wetland and Waterways, Wilmington, Massachusetts, rachel.freed@state.ma.us
Robert Boeri, Coastal Zone Management, Boston, Massachusetts, Robert.Boeri@state.ma.us
John T. Brennion, Conservation Commission, Quincy City Hall, 1305 Hancock St., Quincy, Massachusetts 02169
Briony Angus, Tighe & Bond, Inc., 53 Southampton Road, Westfield, Massachusetts 01085 5308

US Army Corps
of Engineers ®
New England District

GENERAL PERMIT
WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Corps of Engineers Permit No. NAE-2012-172 was issued to the City of Quincy, MA, in April, 2013. This work is located in the Atlantic Ocean along Edgewater Drive, Quincy, MA. The permit authorized the permittee to perform work and discharge dredged or fill material below the HTL of waters of the US in order to repair an existing 2900 LF concrete seawall along Edgewater Drive; re-setting the revetment, the addition of stone revetment, the replacement of stair railings, the repair of concrete stairs, and the reconstruction of two outfall pipes.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

_____

_____

_____

Telephone Numbers: (___) _____ (___) _____

Proposed Work Dates: **Start:** _____ **Finish:** _____

Permittee/Agent Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

Date Permit Issued: _____ **Date Permit Expires:** _____

****

FOR USE BY THE CORPS OF ENGINEERS

PM: Kevin Kotelly **Submittals Required:** No

Inspection Recommendation: _____

_____

_____

US Army Corps
of Engineers ®
New England District

(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

Permit Number: NAE-2012-172

Project Manager Kevin Kotelly

Name of Permittee: City of Quincy, MA

Permit Issuance Date: April, 2012

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch A *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee Date

_____ _____
Printed Name Date of Work Completion

(____) _____ (____) _____
Telephone Number Telephone Number

Michael Girvan
Waterways Regulation Program
Department of Environmental Protection
1 Winter Street, 5th Floor
Boston, Massachusetts 02108

RE: NOTIFICATION OF RECORDING THE WATERWAYS LICENSE
Waterways License No. 13437
Weymouth Fore River, Quincy, Norfolk County

Dear Mr. Girvan:

This is to notify you that the above referenced Waterways license was recorded with the appropriate Registry of Deeds/ Land Court for this project location and to provide your office with the following recordation information.

Date of Recordation: April 10, 2013
County Registry of Deeds/ Land Court: Land Court Ctf#: 120669; Registry of Deeds:
Book number 31223, **and page number(s)** 13. Inst#: 43196

We will apply for a Certificate of Compliance with your office when the authorized work or change in use is completed.

Sincerely,

_____, Chapter 91 Waterways Licensee
on behalf of City of Quincy

License is void if not recorded within sixty (60) days of issuance.

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

City of Quincy
c/o Tighe & Bond
53 Southampton Road
Westfield, MA 01085-5308
Attn: Briony Angus, AICP

RE: ISSUANCE OF CHAPTER 91 WATERWAYS LICENSE
Waterways License Application No. W12-3564, License No. 13437
Weymouth Fore River, Quincy, Norfolk County

MAR 28 2013

Dear Licensee,

The Department of Environmental Protection hereby issues the above-referenced Waterways license, enclosed, authorizing you to perform certain activities pursuant to M.G.L. c. 91, the Public Waterfront Act and its regulations 310 CMR 9.00. Any change in use or alteration of any structure or fill not authorized by this license shall render this license void.

This License is not final until all administrative appeal periods from this License have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed. The appeal period is for twenty-one (21) days. No work shall be undertaken until the License has become final and has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property

RECORDING OF THE LICENSE

This License must be recorded at the County Registry of Deeds or, if registered land, with the Land Registration Office within sixty (60) days from the date of license issuance. In the case of recorded land, the License shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the project is located. In the case of the registered land, the License shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the project is located. **Failure to record this license within sixty (60) days of the date of issuance will render this license void pursuant to 310 CMR 9.18.**

A Waterways License Recordation Notice Form has been enclosed for your use in notifying the Department of the recording information for this License. **Failure to notify the Department of the recording of this license is a violation of 310 CMR 9.00 and is subject to enforcement action by the Department.**

REQUEST CERTIFICATE OF COMPLIANCE

Pursuant to 310 CMR 9.19, once the proposed project is completed you must file a Request for a Certificate of Compliance form, BRP WW05, within sixty (60) days of completion but in no event

later than five (5) years from the License's issuance date. The license for any project for which such a request is not filed and certificate issued may be revoked pursuant to 310 CMR 9.26.

APPEAL RIGHTS AND TIME LIMITS

The following persons shall have the right to an adjudicatory hearing concerning this decision by the Department to grant or deny a license or permit, in accordance with 310 CMR 9.17(1): (a) an applicant who has demonstrated property rights in the lands in question, or which is a public agency; (b) any person aggrieved by the decision of the Department to grant a license or permit who has submitted written comments within the public comment period; (c) ten (10) residents of the Commonwealth who, pursuant to M.G.L. c. 30A, § 10A, have submitted comments within the public comment period with at least 5 of the 10 residents residing in the municipality(s) in which the license or permitted activity is located. The appeal shall clearly and specifically state the facts and grounds for the appeal and the relief sought, and each appealing resident shall file an affidavit stating the intent to be part of the group and to be represented by its authorized representative; (d) the municipal official in the affected municipality who has submitted written comments within the public comment period; and (e) CZM, for any project identified in 310 CMR 9.13(2) (a) for CZM participation or, in an Ocean Sanctuary, if it has filed a notice of participation within the public comment period.

A person requesting an adjudicatory hearing must submit a "Notice of Claim" to the Department, with a copy of the MassDEP Transmittal Form and including the detail specified below, within twenty-one (21) days of the date of issuance of this decision. The MassDEP Fee Transmittal Form is available at the following website: http://www.mass.gov/dep/service/adr/adjherfm.doc. The Notice of Claim must be made in writing and sent by certified mail or hand delivery to:

Case Administrator
MassDEP
One Winter Street, 2nd Floor
Boston, MA 02108

A copy of the complete Notice of Claim must be sent at the same time by certified mail or hand delivery to: (1) the applicant, (2) the municipal official of the city or town where the project is located, and (3) the issuing office of the MassDEP, which in this case is located at:

MassDEP Waterways Regulation Program
One Winter Street, 5th Floor
Boston, MA 02108

The MassDEP Fee Transmittal Form and a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100) must be mailed to:

Mass. Department of Environmental Protection
Commonwealth Master Lockbox
P.O. Box 4062
Boston, Massachusetts 02211

CONTENTS OF APPEAL REQUEST

Pursuant to 310 CMR 9.17(3), any Notice of Claim requesting an adjudicatory hearing must include the following information:

(a) the MassDEP Waterways Application File Number;
(b) the complete name, address, fax number and telephone number of the applicant;
(c) the address of the project;
(d) the complete name, address, fax number, and telephone number of the party filing the request and, if represented by counsel, the name, address, fax number, and phone number of the attorney;

(e) if claiming to be a person aggrieved, the specific facts that demonstrate that the party satisfies the definition of "aggrieved person" found in 310 CMR 9.02;

(f) a clear statement that a formal adjudicatory hearing is being requested;

(g) a clear statement of the facts which are the grounds for the proceedings, the specific objections to the MassDEP's written decision, and the relief sought through the adjudicatory hearing, including specifically the changes desired in the final written decision; and

(h) a statement that a copy of the request has been sent to: the applicant and the municipal official of the city or town where the project is located.

DISMISSAL OF REQUEST

The request for appeal will be dismissed if the filing fee is not paid, unless the appellant is exempt or is granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

Please feel free to contact David B. Slagle of the Waterways Regulation Program, (617) 654-6520, if you have any questions pertaining to the recording of your Waterways license or Certificate of Compliance.

Sincerely,

Ben Lynch
Program Chief
Waterways Regulation Program

cc: Quincy, Mayor and City Council
Quincy, Conservation Commission
Quincy, Planning Board
Quincy, Harbormaster

Ecc: DEP/NE Wetlands File #
EOEEA, MEPA Unit File #

Enclosure(s) Waterways License # **13437**
Notification of Waterways License Recordation form

Michael Girvan
Waterways Regulation Program
Department of Environmental Protection
1 Winter Street, 5th Floor
Boston, Massachusetts 02108

RE: NOTIFICATION OF RECORDING THE WATERWAYS LICENSE
Waterways License No. 13437
Weymouth Fore River, Quincy, Norfolk County

Dear Mr. Girvan:

This is to notify you that the above referenced Waterways license was recorded with the appropriate Registry of Deeds/ Land Court for this project location and to provide your office with the following recordation information.

Date of Recordation: _____
County Registry of Deeds/ Land Court: _____
Book number_____, and page number(s) _____.

We will apply for a Certificate of Compliance with your office when the authorized work or change in use is completed.

Sincerely,

_____, Chapter 91 Waterways Licensee

License is void if not recorded within sixty (60) days of issuance.

The Commonwealth of Massachusetts

No. 13437

Whereas, City of Quincy

of -- Quincy --, in the County of -- Norfolk -- and Commonwealth aforesaid, has applied to the Department of Environmental Protection for license to -- repair and maintain approximately 2,900 feet of concrete seawall and stone revetment along Edgewater Drive from approximately Thomas Street to Macy Street. The work will include resetting the existing stone revetment, placement of additional stone revetment, replacement of stair railings, repair of concrete stairs, replacement of an existing 18-inch outlet and construction of a new 48-inch outfall pipe with stone apron. To accommodate the installation of the structures, dredging of approximately 3,265 cubic yards of material will be excavated and repositioned in the former footprint -----

and has submitted plans of the same; and whereas due notice of said application has been given, as required by law, to the -- Mayor and City Council -- of the -- City of Quincy; ---------

NOW, said Department, having heard all parties desiring to be heard, and having fully considered said application, hereby, subject to the approval of the Governor, authorizes and licenses the said

-- City of Quincy --, subject to the provisions of the ninety-first chapter of the General Laws, and of all laws which are or may be in force applicable thereto, to -- Repair and maintain approximately 2,900 feet of concrete seawall and stone revetment along Edgewater Drive from approximately Thomas Street to Macy Street. The work will include resetting the existing stone revetment, placement of additional stone revetment, replacement of stair railings, repair of concrete stairs, replacement of an existing 18-inch outlet and construction of a new 48-inch outfall pipe with stone apron. To accommodate the installation of the structures, dredging of approximately 3,265 cubic yards of material will be excavated and repositioned in the former footprint ------

in and over the waters of -- Weymouth Fore River -- at Edgewater Drive -- in the -- City -- of -- Quincy -- and in accordance with the locations shown and details indicated on the accompanying DEP License Plan No. 13437, (49 sheets).

The structures hereby authorized shall be limited to the following uses: to provide shoreline stabilization for the protection of existing structures.

SPECIAL CONDITIONS

This license shall have an unlimited term.

The dredging portion of the license will expire five (5) years from the date of issuance.

This Waterways License is issued upon the express condition that dredging and transportation and disposal of dredge material shall be in strict conformance with all applicable requirements and authorizations of the Department, 401Water Quality Certificate issued February 20, 2013.

All work authorized herein shall be completed within five (5) years of the date of license issuance. Said construction period may be extended by the Department for one or more one year periods without public notice, provided that the Applicant submits to the Department thirty (30) days prior to the end of the construction period, a written request to extend the period and provides adequate justification for said extension.

Within 60 days of completion of the licensed project, the Licensee shall request in writing that the Department issue a Certificate of Completion in accordance with 310 CMR 9.19. The request shall be accompanied by a certification by a registered professional engineer licensed in the Commonwealth that the project was completed in accordance with the License.

Please see page 3 for additional conditions to this license.

Duplicate of said plan, number 13437 on file in the office of said Department, and original of said plan accompanies this License, and is to be referred to as a part hereof.

STANDARD WATERWAYS LICENSE CONDITIONS

1. Acceptance of this Waterways License shall constitute an agreement by the Licensee to conform to all terms and conditions stated herein.

2. This License is granted upon the express condition that any and all other applicable authorizations necessitated due to the provisions hereof shall be secured by the Licensee prior to the commencement of any activity or use authorized pursuant to this License.

3. Any change in use or any substantial structural alteration of any structure or fill authorized herein shall require the issuance by the Department of a new Waterways License in accordance with the provisions and procedures established in Chapter 91 of the Massachusetts General Laws. Any unauthorized substantial change in use or unauthorized substantial structural alteration of any structure or fill authorized herein shall render this Waterways License void.

4. This Waterways License shall be revocable by the Department for noncompliance with the terms and conditions set forth herein. This license may be revoked after the Department has given written notice of the alleged noncompliance to the Licensee and those persons who have filed a written request for such notice with the Department and afforded them a reasonable opportunity to correct said noncompliance. Failure to correct said noncompliance after the issuance of a written notice by the Department shall render this Waterways License void and the Commonwealth may proceed to remove or cause removal of any structure or fill authorized herein at the expense of the Licensee, its successors and assigns as an unauthorized and unlawful structure and/or fill.

5. The structures and/or fill authorized herein shall be maintained in good repair and in accordance with the terms and conditions stated herein and the details indicated on the accompanying license plans.

6. Nothing in this Waterways License shall be construed as authorizing encroachment in, on or over property not owned or controlled by the Licensee, except with the written consent of the owner or owners thereof.

9. This Waterways License is granted subject to all applicable Federal, State, County, and Municipal laws, ordinances and regulations including but not limited to a valid final Order of Conditions issued pursuant to the Wetlands Protection Act, G.L. Chapter 131, s.40.

8. This Waterways License is granted upon the express condition that the use of the structures and/or fill authorized hereby shall be in strict conformance with all applicable requirements and authorizations of the DEP.

9. This License authorizes structure(s) and/or fill on:

__Private Tidelands. In accordance with the public easement that exists by law on private tidelands, the licensee shall allow the public to use and to pass freely upon the area of the subject property lying between the high and low water marks, for the purposes of fishing, fowling, navigation, and the natural derivatives thereof.

X Commonwealth Tidelands. The Licensee shall not restrict the public's right to use and to pass freely, for any lawful purpose, upon lands lying seaward of the low water mark. Said lands are held in trust by the Commonwealth for the benefit of the public.

___a Great Pond of the Commonwealth. The Licensee shall not restrict the public's right to use and to pass freely upon lands lying seaward of the high water mark for any lawful purpose.

__ Navigable River or Stream. The Licensee shall not restrict the public's right to use and to pass freely, for any lawful purpose, in the waterway.

No restriction on the exercise of these public rights shall be imposed unless otherwise expressly provided in this license.

10. Unless otherwise expressly provided by this license, the licensee shall not limit the hours of availability of any areas of the subject property designated for public passage, nor place any gates, fences, or other structures on such areas in a manner that would impede or discourage the free flow of pedestrian movement thereon.

The amount of tidewater displaced by the work hereby authorized has been ascertained by said Department, and compensation thereof has been made by the said -- City of Quincy -- by paying into the treasury of the Commonwealth -- zero dollars and zero cents ($0.00)-- for each cubic yard so displaced, being the amount hereby assessed by said Department. (0.0 cu. yds. = $0.00)

Nothing in this License shall be so construed as to impair the legal rights of any person. This License shall be void unless the same and the accompanying plan are recorded within 60 days from the date hereof, in the Registry of Deeds for the County of -- Norfolk ------

IN WITNESS WHEREAS, said Department of Environmental Protection have hereunto set their hands this day of in the year two thousand and thirteen

Commissioner _____ Department of Environmental Protection

Program Chief _____

THE COMMONWEALTH OF MASSACHUSETTS

This license is approved in consideration of the payment into the treasury of the Commonwealth by the said -- City of Quincy

-- the further sum of -- zero dollars and zero cents ($0.00) --

the amount determined by the Governor as a just and equitable charge for rights and privileges hereby granted in the land of the Commonwealth.

Approved by the Governor.

BOSTON,

Governor

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

April 3, 2013

City of Quincy
Department of Public Works
C/O Briony Angus
Tighe & Bond, Inc.
53 Southampton Road
Westfield, MA 01085-5308

Re: CZM Federal Consistency Review of the Edgewater Drive Seawall/Outfall Repair Project – Quincy.

Dear Ms. Angus:

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced proposal. The project entails the seawall and outfall repair along Edgewater Drive in the Town of Quincy.

Based upon our review of applicable information, we concur with your certification and find that the activity as proposed is consistent with CZM enforceable program policies.

If the above-referenced project is modified in any manner, including any changes resulting from permit, license or certification revisions, including those ensuing from an appeal, or the project is noted to be having effects on coastal resources or uses that are different than originally proposed, it is incumbent upon the proponent to notify CZM, submit an explanation of the nature of the change pursuant to 15 CFR 930, and submit any modified state permits, licenses, or certifications. CZM will use this information to determine if further federal consistency review is required.

Thank you for your cooperation with CZM.

Sincerely,

Bruce K. Carlisle
Director

BKC/rlb/pb
CZM#11258

cc; Karen Kirk Adams, Chief,
Regulatory Branch, NED, US Army Corps of Engineers
Richard Kristoff, Project Manager,
Regulatory Branch, NED, US Army Corps of Engineers
Ben Lynch, Program Chief,
Waterways Regulation, Massachusetts DEP
Rachel Freed, Acting Deputy Director,
Wetlands and Waterways Program, Massachusetts DEP
James Sprague, Environmental Analyst,
Wetlands and Waterways Program, Massachusetts DEP
Valerie Gingrich,
CZM Boston Harbor Regional Coordinator
Bradford Washburn, Assistant Director for Community Services
Massachusetts Office of Coastal Zone Management

CITY OF QUINCY, MASSACHUSETTS
Department of Public Works

Thomas P. Koch
Mayor

Daniel G. Raymondi
Commissioner

City of Quincy DPW

Phone: (617) 376-1959
TTY: (617) 376-1375

Fax: (617) 376-1969

The CITY OF QUINCY
DEPARTMENT OF PUBLIC WORKS

RIGHT OF ENTRY
(WITHOUT PREJUDICE)

Project: Edgewater Drive Seawall Repair Project

Name of Property Owner: _____

Address of Property Owner: _____

Permission is hereby given to the City of Quincy, or its duly authorized agents, to enter upon my property in the City of Quincy in connection with the construction of the above project for the purpose of making changes and carrying out the work on my property as outlined below:

The right of men, equipment, machinery and material to enter upon and occupy my land located at _____, Quincy, Massachusetts in order to make the necessary seawall and ancillary repairs on my property for the above project and other work deemed necessary for the completion of the work. All disturbed areas will be repaired to match the existing undisturbed condition, by repairing the wall, stairways, sidewalks, loaming and seeding, as applicable, or other repairs, as needed.

This entry to be made without prejudice to my rights in settlement of any claims for damage that may hereafter appear.

GRANTED BY:

_____
Signature of Owner

Date: _____

RECOMMENDED BY:

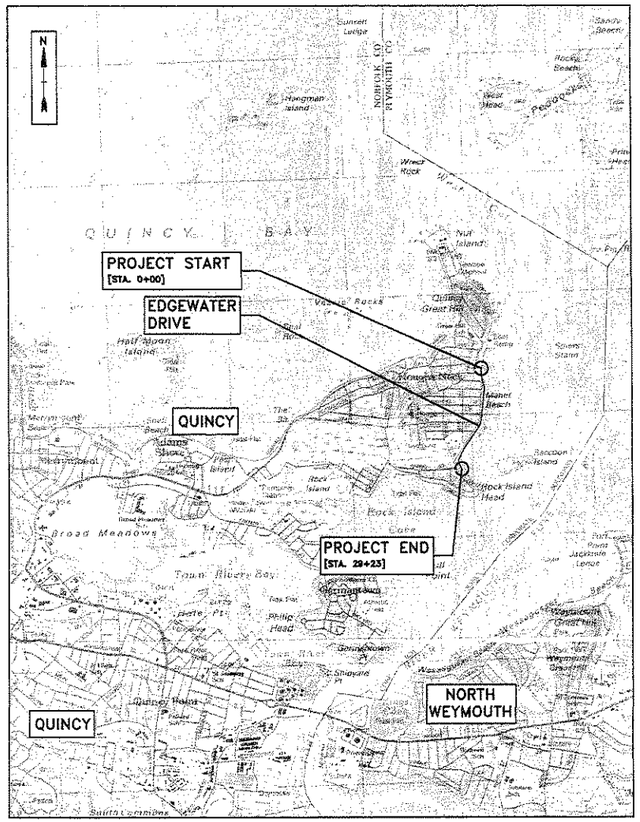
_____
Daniel Raymondi, Commissioner

Date: _____

EDGEWATER DRIVE
SEAWALL REPAIR PROJECT
QUINCY, MA

MARCH 26, 2013
LAST REVISED: APRIL 22, 2013

SHEET NO.	TITLE	LAST REVISED
1	COVER SHEET	04/22/2013
2	NOTES, ABBREVIATIONS, AND LEGEND SHEET	04/22/2013
3	EXISTING CONDITIONS PLAN	03/26/2013
4	EXISTING CONDITIONS PLAN	03/26/2013
5	EXISTING CONDITIONS PLAN	03/26/2013
6	EXISTING CONDITIONS PLAN	03/26/2013
7	EDGEWATER DRIVE IMPROVEMENTS PLAN	03/26/2013
8	EDGEWATER DRIVE IMPROVEMENTS PLAN	03/26/2013
9	EDGEWATER DRIVE IMPROVEMENTS PLAN	03/26/2013
10	EDGEWATER DRIVE IMPROVEMENTS PLAN	03/26/2013
11	EDGEWATER DRIVE IMPROVEMENTS PLAN	03/26/2013
12	EDGEWATER DRIVE IMPROVEMENTS PLAN	03/26/2013
13	EDGEWATER DRIVE CROSS SECTIONS	03/26/2013
14	EDGEWATER DRIVE CROSS SECTIONS	03/26/2013
15	TYPICAL CROSS SECTION DETAILS	03/26/2013
16	GENERAL DETAILS	03/26/2013
17	GENERAL DETAILS	03/26/2013
18	STAIRWAY DETAILS	03/26/2013
19	EDGEWATER BEACH OUTLET REPLACEMENT PLAN	03/26/2013
20	REVETMENT AREA PLAN	03/26/2013
21	REVETMENT AREA PLAN	03/26/2013
22	REVETMENT AREA PLAN	03/26/2013
23	REVETMENT AREA PLAN	03/26/2013



SCALE: 1:24000
LOCATION PLAN

MAYOR
THOMAS P. KOCH

DEPARTMENT OF PUBLIC WORKS

DANIEL RAYMONDI, COMMISSIONER

SHAWN HARDY, CITY ENGINEER

City of Quincy DPW

Tighe&Bond
Consulting Engineers
100 YEARS STRONG
1911-2011

COMMONWEALTH OF MASSACHUSETTS
DAVID A. MURPHY
CIVIL
No. 35492
REGISTERED PROFESSIONAL ENGINEER
4/22/13

COMMONWEALTH OF MASSACHUSETTS
GREGG M. MINDLAITIES
No. 33531
REGISTERED PROFESSIONAL ENGINEER
4-22-13

COMPLETE SET 23 SHEETS

PROJECT NAME AND LOCATION
EDGEWATER DRIVE SEAWALL REPAIR PROJECT
EDGEWATER DRIVE 42°-15'-58"N
QUINCY, MA 02169 70°-57'-03"W

DESCRIPTION
THE PROJECT CONSISTS OF THE RECONSTRUCTION OF THE REVETMENT ALONG THE EXISTING SEAWALL, PORTIONS OF THE EXISTING SEAWALL, AND PUBLIC PARK AMENITIES AT EDGEWATER DRIVE IN QUINCY, MA. AS PART OF THE PROJECT, TWO DRAINAGE OUTFALLS WILL BE REPAIRED. THE WORK IS ANTICIPATED TO START IN SPRING OF 2013, AND BE COMPLETED BY SUMMER OF 2013.

DISTURBED AREA
THE TOTAL LIMIT OF WORK IS APPROXIMATELY 3.0 ACRES.

GENERAL NOTES:
1. EXISTING CONDITIONS DETAIL AND TOPOGRAPHY SHOWN HEREON ARE DERIVED FROM FIELD SURVEY PERFORMED BY DASILVA SURVEY SERVICES, BETWEEN AUGUST AND SEPTEMBER, 2011.
2. THE LIMITS OF THE SEAWALL PROJECT ARE SHOWN ON THE CITY OF QUINCY ASSESSOR'S MAPS 1010, 1011, 1032, 1033, 1034, 1035, 1036, 1043, 1045, 1046, AND 1047 THEREON.
3. PROPERTY LINE CONFIGURATION AS SHOWN HEREON WAS COMPILED FROM RECORD PLANS AND ASSESSORS INFORMATION AND SUPPLEMENTED BY ON-THE-GROUND FIELD SURVEY BY DASILVA SURVEY SERVICES. BEING THAT A PROPERTY LINE RETRACEMENT OR VERIFICATION SURVEY HAS NOT BEEN PERFORMED BY DASILVA SURVEY SERVICES, TIGHE AND BOND NOR DASILVA SURVEY SERVICES BEARS RESPONSIBILITY FOR THE DEPICTION THEREOF.
4. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS ILLUSTRATED, AND ESTABLISH SURVEY CONTROL ADEQUATE TO RE-ESTABLISH EXISTING STRUCTURE/FEATURE POSITIONS/ELEVATIONS AND AS NECESSARY FOR NEW WORK LOCATION CONTROL.
5. LOCATION AND DEPTH OF UNDERGROUND UTILITIES IS APPROXIMATE ONLY AND IS NOT WARRANTED TO BE CORRECT. UNDERGROUND UTILITIES ARE SHOWN BASED ON A VISUAL INSPECTION OF SURFACE OBSERVABLE FEATURES ONLY AND HAVE BEEN FIELD INSPECTED FOR CONNECTIONS WHERE POSSIBLE. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT INDICATED ON THESE PLANS. ALL EXISTING UTILITIES SHALL BE VERIFIED FOR SERVICE, SIZE, INVERT ELEVATION, LOCATIONS, ETC. PRIOR TO NEW CONNECTIONS TO OR RELOCATION OF SAME. CONTRACTOR MUST NOTIFY DIG-SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION. NOTIFY DASILVA SURVEY AND THE ENGINEER IN WRITING OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING ANY WORK.
6. THE PROJECT LIMITS ARE LOCATED IN A FLOOD ZONE AE (ELEV 11 & 12) AS WELL AS FLOOD ZONE VE (ELEV 12 & 14) NAVD 1988, AS INDICATED ON COMMUNITY PANEL NUMBER 25521C0039D HAVING AN EFFECTIVE DATE OF MAY 16, 2006. THE FLOOD LINES AS DELINEATED HEREON ARE SHOWN BASED ON A SCALED GRAPHICAL REPRESENTATION OF THE HEREIN MENTIONED FLOOD MAP.
7. THE ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), MHHW, MHW, MLW, AND MLLW ARE BASED ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION TIDAL DATUM INFORMATION FOR NUT ISLAND, QUINCY BAY, MASSACHUSETTS STATION ID 8444525.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SHORELINE WAVE PROTECTION FOR THE DURATION OF THE PROJECT.
9. BEACH TEST PIT EXCAVATIONS WERE NOT PERFORMED TO DETERMINE THE EXTENT OF THE EXISTING STONE REVETMENT. THE SURVEYED REVETMENT MAY NOT REPRESENT THE FULL EXTENT OF THE ACTUAL TOE OF THE EXISTING REVETMENT.
10. THE CONTRACTOR SHALL NOT RELY ON SCALED DIMENSIONS AND SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF A REQUIRED DIMENSION IS NOT PROVIDED ON THE PLANS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND FOR SITE CONDITIONS THROUGHOUT CONSTRUCTION. NEITHER THE PLANS NOR THE SEAL OF THE ENGINEER AFFIXED HEREON EXTEND TO OR INCLUDE SYSTEMS REQUIRED FOR THE SAFETY OF THE CONTRACTOR, THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND IMPLEMENTING SAFETY PROCEDURES AND SYSTEMS AS REQUIRED BY THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND ANY STATE OR LOCAL SAFETY REGULATIONS.
12. TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES LEGAL OR OTHERWISE RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION OF TIGHE & BOND.
13. ALL WORK SHALL CONFORM TO THE CITY OF QUINCY DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
14. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
15. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
16. PROVIDE INLET PROTECTION AROUND ALL EXISTING CATCHBASIN INLETS WITHIN THE WORK LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
17. INSTALL STABILIZED CONSTRUCTION ENTRANCES AS NECESSARY.
18. INSPECT INLET PROTECTION AND SILT FENCES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
19. ALL DISTURBED AREAS ON THE LAND SIDE OF THE SEAWALL NOT TO BE PAVED OR OTHERWISE TREATED, INCLUDING BUT NOT LIMITED TO THE TEMPORARY CONSTRUCTION LAYDOWN/STAGING AREAS, SHALL RECEIVE 6" LOAM, SEED, AND/OR MULCH.
20. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
21. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
22. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
23. ALL CATCH BASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN STABILIZED.
24. TEMPORARY SOIL STOCKPILE (INCLUDING BUT NOT LIMITED TO LOAM FROM STAGING AREA) SHALL BE SURROUNDED BY SILT FENCE OR SILT SOCK. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLAND.
25. TEMPORARY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT AND AS NECESSARY TO RESTRICT PUBLIC ACCESS TO ACTIVE LAYDOWN AND STAGING AREAS AND AREAS UNDER CONSTRUCTION.
26. CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) CHUTES ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASHOUT WILL BE ALLOWED.
27. ALL STORM DRAINAGE PIPES SHALL BE CEMENT LINED DUCTILE IRON (CLDI) UNLESS OTHERWISE SPECIFIED.
28. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS HIGHWAY DEPARTMENT (MHD), STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
29. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILE) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A LAND SURVEYOR OR PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF MASSACHUSETTS.
30. PUBLIC STREETS SHALL NOT BE USED FOR CONSTRUCTION LAYDOWN OR STAGING.
31. COASTAL BEACH IS DEFINED AS THE AREA BETWEEN THE LIMIT OF EXISTING REVETMENT AND THE MEAN LOW WATER (MLW) LINE.
32. PROPOSED COASTAL BEACH RESTORATION:
   - EXISTING EXPOSED REVETMENT, WITH LESS THAN ONE (1) FOOT EMBEDMENT, WITHIN THIS AREA SHALL BE REMOVED FROM THE COASTAL BEACH AND STOCKPILED FOR REUSE AS ARMOR, UNDERLAYER AND/OR BEDDING STONE.
   - EXISTING EXPOSED REVETMENT EMBEDDED MORE THAN ONE (1) FOOT INTO THE BEACH, SHALL NOT BE REMOVED FROM THE COASTAL BEACH.
33. REMOVE EROSION AND SEDIMENT CONTROLS OUT OF THE WAVE ENVIRONMENT ON A DAILY/NIGHTLY BASIS WHEN NOT IN USE.
34. THE CONTRACTOR SHALL NOT PERFORM WORK BEYOND THE LIMIT OF WORK AS SHOWN ON THE PLANS.
35. VEHICLES ARE PROHIBITED FROM WORKING BEYOND THE LIMIT OF WORK AS SHOWN ON THE PLANS.
36. STRUCTURAL WORK SHALL CONFORM TO MASSACHUSETTS STATE BUILDING CODE, LATEST EDITION, INCLUDING MOST RECENT ADDENDA, AND CONTRACT DOCUMENTS. IN CASE OF CONFLICT, MOST STRINGENT REQUIREMENT SHALL GOVERN.
37. CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS RELATED TO THIS PROJECT.
38. CONTRACTOR SHALL EXAMINE DRAWINGS FOR ALL TRADES FOR THE VERIFICATION OF LOCATION AND DIMENSIONS OF ALL CHASES, INSERTS, OPENINGS, SLEEVES, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
39. PROVIDE SEALANT AT ALL CONTROL JOINTS. PROVIDE COMPRESSIBLE FILLER AND SEALANT AT ALL EXPANSION AND ISOLATION JOINTS.
40. PROVIDE PRE-MOLDED JOINT FILLER WHERE SLABS ON GRADE ABUT WALLS AND FOOTINGS.
41. POINT ALL JOINTS IN EXISTING GRANITE SEAWALL TO A MINIMUM DEPTH OF 2 INCHES.
42. FERTILIZER SHALL NOT BE USED WITHIN THE LIMITS OF WORK.
43. PRECAST SEAWALL UNITS TO BE REMOVED AND RESET SHALL BE PLACED WITHIN A VERTICAL AND HORIZONTAL TOLERANCE OF 1/4" FROM THE EXISTING ELEVATION AND ORIENTATION.
44. IF SHIMS ARE USED TO MEET THE TOLERANCES SET FORTH IN GENERAL NOTE 43, THEN THE VOID BENEATH THE PRECAST SEAWALL UNIT SHALL BE FILLED WITH GROUT.
45. PRIVATELY OWNED EXISTING FEATURES LOCATED ON PRIVATE PROPERTY THAT ARE IMPACTED BY CONSTRUCTION SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF CONSTRUCTION.
46. PROVIDE GEOTEXTILE UNDER RESET REVETMENT (TYP) UNLESS NEW STONES BEAR DIRECTLY ON EXISTING STONE LAYER WITH STONES LARGER THAN 12".
47. REVETMENT BEING RESET SHALL BE RESET WITH A ROUGH AND ANGULAR SURFACE WITH THE POINTS/EDGES OF STONES PROTRUDING BETWEEN 6" AND 18" ABOVE THE THEORETICAL PLANE OF THE REVETMENT SURFACE.
48. REVETMENT STONES SHALL BE MACHINE PLACED (NOT DUMPED) IN A TIGHT INTERLOCKING MANNER WITH STONES FIRMLY SEATED AND BEARING ON OTHER STONES AT A MINIMUM OF THREE SEPARATE LOCATIONS.
49. BEDDING STONE BACKFILL SHALL BE A WELL GRADED DENSE MASS OF ANGULAR BROKEN ROCK, FULLY COMPACTED BEFORE COVERING.
50. THE ENGINEER, MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MADEP), AND MASSACHUSETTS DIVISION OF MARINE FISHERIES (DMF) SHALL BE NOTIFIED IMMEDIATELY IN THE EVENT A BREACH OF SEWAGE PIPES OR RELATED STRUCTURES OCCURS DURING CONSTRUCTION.
51. THE DMF SHALL BE NOTIFIED IF ANY BURIED SALT MARSH (E.G. PEAT AND VEGETATION SUCH AS SALT MARSH CORD GRASS) IS EXPOSED DURING EXCAVATION WORK ON THE SEAWARD SIDE OF THE SEAWALL.
52. WORK ON THE SEAWARD SIDE OF THE WALL, SHALL BE PERFORMED, WHEREVER POSSIBLE, WITH HAND TOOLS. CONTRACTOR SHALL USE, IF HAND TOOLS ARE NOT PRACTICAL, ONLY LIGHTWEIGHT MACHINERY ON THE SEAWARD SIDE OF THE SEAWALL.

REINFORCEMENT:
1. DETAILING, FABRICATION, AND ERECTION OF REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI "BUIDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)" AND ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315)", LATEST EDITION.
2. STEEL REINFORCEMENT, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM A615 GRADE 60 MINIMUM (YIELD STRENGTH – 60,000 PSI). ALL STEEL REINFORCEMENT SHALL BE EPOXY COATED PER ASTM A775. BARS SHALL BE HANDLED AND REPAIRED WHERE NECESSARY IN ACCORDANCE WITH ASTM D3963.
3. PROVIDE AND SCHEDULE ON SHOP DRAWINGS, ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION: MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS, 4'-0" ON CENTER, #5 SUPPORT BAR FOR HIGH CHAIRS, SLAB BOLSTERS, 3'-6" ON CENTER. ALL CHAIRS SHALL BE AZTEC CASTLE CHAIRS OR APPROVED EQUAL.
4. THE CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE SHOWN:

(A) CAST-IN-PLACE CONCRETE.

	EXPOSED TO EARTH, WATER, OR WEATHER
(a) SLAB ON GRADE	3 INCHES
(b) COLUMN TIES	3 INCHES
(c) COLUMN MAIN REBARS	3 INCHES
(d) BEAM STIRRUPS	3 INCHES
(e) BEAM MAIN REBARS	3 INCHES
(f) SLAB/WALL #3 TO #5 INCL'S	3 INCHES
(g) SLAB/WALL #6 TO #11 INCL'S	3 INCHES
(h) WALL #11 BAR OR SMALLER	3 INCHES

(i) NOTE: MAXIMUM DEVIATION FROM THESE REQUIREMENTS SHALL BE ±1/4" FOR SECTIONS TEN (10) INCHES OR LESS, AND +1/2" FOR SECTIONS OVER TEN (10) INCHES THICK.

(B) PRECAST CONCRETE

	EXPOSED TO EARTH, WATER, OR WEATHER
(a) COLUMN TIES	3 INCHES
(b) BEAM STIRRUPS	3 INCHES
(c) BEAM MAIN REBARS	3 INCHES
(d) SLABS #11 BAR AND SMALLER	3 INCHES
(e) WALL #11 BAR AND SMALLER	3 INCHES

5. WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS, AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES, NOR LESS THAN THE FOLLOWING:
   (A) BEAM STIRRUPS–#3 @ 12" OC
   (B) BEAM STIRRUP SUPPORTS–1–#5 @ EACH STIRRUP BEND
   (C) FACE REINFORCEMENT IN BEAMS OR PORTIONS OF BEAMS–#4 @ 12" EF
   (D) STRUCTURAL SLABS–.0028 GROSS CONCRETE AREA IN EACH DIRECTION
   (E) STRUCTURAL WALLS–.0028 GROSS CONCRETE AREA IN EACH DIRECTION
6. WHERE REINFORCEMENT IS CALLED FOR IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.
7. REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
8. WELDED WIRE FABRIC SHALL LAP 12" OR TWO SPACES, WHICHEVER IS LARGER, AND SHALL BE WIRED TOGETHER.
9. REINFORCEMENT COUPLER SPLICES SHALL BE MECHANICAL DEVICES CAPABLE OF TRANSMITTING THE ULTIMATE TENSILE AND COMPRESSIVE STRENGTH OF THE BAR.
10. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO SCHEDULED COMPLETION OF PLACEMENT OR REINFORCEMENT.
11. REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE. SETTING ANY REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

BAR SIZE DESIGNATION		DEVELOPMENT LENGTH (IN.)	SPLICE LENGTH (IN.)	
ENGLISH	METRIC	Ld	CLASS B	CLASS B TOP BARS
#3	#10	15	19	25
#4	#13	19	25	33
#5	#16	24	31	40
#6	#19	29	37	48
#7	#22	42	54	70
#8	#25	48	62	81
#9	#29	54	70	91
#10	#32	61	79	103

REBAR SPLICE LENGTH SCHEDULE

REBAR SPLICE LENGTH SCHEDULE NOTES:
1. IF CLEAR SPACING BETWEEN THE REBARS IS LESS THAN THREE BAR DIAMETERS, OR IF COVER IS LESS THAN TWO BAR DIAMETERS, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 50%.
2. IF EPOXY COATED REBAR IS USED, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 50%.
3. IF LIGHTWEIGHT CONCRETE IS USED, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 30%.
4. THE MINIMUM REBAR SPLICE LENGTH SCHEDULE IS BASED ON F'c= 4,000 PSI AND Fy= 60,000 PSI. ADJUST FOR OTHER STRENGTHS USING ACI-318.
5. FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW, INCREASE THE DEVELOPMENT LENGTH BY AN ADDITIONAL 30%.
6. WHEN BARS OF DIFFERENT SIZE ARE LAP SPLICED, THE SPLICE LENGTH SHALL BE THE LARGER OF EITHER THE DEVELOPMENT LENGTH OF THE LARGER BAR OR THE SPLICE LENGTH OF THE SMALLER BAR.

CONCRETE:
1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318) AND SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING (ACI 301).
2. CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED, AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY OR THE ENGINEER.
3. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED, AND SHALL BE AIR ENTRAINED (SEE SPECS)
4. THE USE OF CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS IS MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMISSION OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER.
5. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, DRAWINGS SHOWING LOCATION OF CONSTRUCTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.
6. CONCRETE SLABS SHALL BE CAST SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
7. CONCRETE SLABS AND WALLS SHALL BE CAST ALTERNATELY OR IN A CHECKERBOARD FASHION SO THAT ADJACENT SECTIONS ARE PLACED NO SOONER THAN THREE DAYS APART. AT LEAST TWO DAYS MUST ELAPSE AFTER PLACING CONCRETE IN WALLS BEFORE PLACING FLOOR SYSTEM SUPPORTED THEREON.
8. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED.
9. EXPOSED EDGES OF CONCRETE ELEMENTS SHALL HAVE CHAMFERED CORNERS.
10. CONTRACTOR SHALL COORDINATE CONNECTION OF BUILDING GROUND SYSTEM TO SLAB ON GRADE REINFORCEMENT.

FOUNDATIONS:
1. NO CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN GROUND.
2. BOTTOM OF FOUNDATION ELEVATIONS GIVEN ON DRAWINGS ARE TO BE CONSIDERED MINIMUM DEPTHS. CONTRACTOR SHALL HAVE FURTHER EXCAVATION AS REQUIRED TO REACH GOOD BEARING.
3. ALL EXCAVATIONS FOR FOOTINGS SHALL BE FINISHED BY HAND FOR THE LAST 6".
4. ALL FINISHED EXCAVATIONS SHALL BE INSPECTED BY THE ENGINEER BEFORE ANY CONCRETE IS PLACED.
5. ALL BACKFILL UNDER OR ADJACENT TO ANY PORTION OF THE STRUCTURES SHALL BE COMPACTED IN 6" LIFTS. SEE SPECIFICATIONS.
6. REMOVE UNSUITABLE FILL AND/OR IMPROVE THE SUBGRADE PER SPECIFICATION REQUIREMENTS. BACKFILL WITH COMPACTED STRUCTURAL (GRANULAR) FILL UP TO THE UNDERSIDE OF THE BUILDING SLABS. SEE SPECIFICATIONS.

ROUGH CARPENTRY:
1. STRUCTURAL LUMBER SHALL CONFORM TO THE NFPA, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AND SUPPLEMENT "DESIGN VALUES FOR WOOD CONSTRUCTION" LATEST EDITION. MAXIMUM MOISTURE CONTENT SHALL BE 19%.
2. WOOD SHALL BE SOUTHERN PINE NO. 1 OR BETTER, INCLUDING STRINGERS, POSTS, BALUSTERS, TREADS, CLEATS, AND GUARDS.
3. FLUSH FRAMED CONNECTIONS SHALL HAVE BEAM OR JOIST HANGERS.
4. NOTCHING OF STRINGERS SHALL BE PERMITTED ONLY AS SHOWN ON THE DRAWINGS.
5. ALL CONNECTORS AND FASTENERS SHALL BE HOT-DIP GALVANIZED TO MINIMUM G90 COATING WEIGHT.

STRUCTURAL STEEL:
1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
2. UNLESS MODIFIED BELOW OR ON THE CONTRACT DRAWINGS, THE FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL SHALL BE ACCORDING TO THE A.I.S.C. CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, LATEST EDITION.
3. STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO ASTM A992 UNLESS NOTED OTHERWISE ON DRAWINGS. ALL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A384 AND A385.
4. IN THE DESIGN OF THE FRAMED BEAM CONNECTIONS (BOLTED), THE FOLLOWING SHALL GOVERN, UNLESS OTHERWISE SPECIFICALLY INDICATED:
   (A) FASTENER DIAMETER – 1/2" MINIMUM.
   (B) FASTENER DESIGNATION – F1554 GRADE 36 WITH a563a HEX NUTS, HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.
   (C) CONNECTION ANGLE THICKNESS – 1/4" MINIMUM UNLESS NOTED OTHERWISE ON DRAWINGS.
   (D) MINIMUM CONNECTION PLATE THICKNESS SHALL BE 1/4".
   (E) WELDED CONNECTIONS – SERIES E-70 ELECTRODES. THE MINIMUM WELD SIZE FOR ANY CONNECTION SHALL NOT BE LESS THAN 1/4".
   (F) USE HARDENED WASHERS UNDER BOLT HEAD AND NUT, CONFORMING TO ASTM F436. USE NO MORE THAN 2 WASHERS.
   (G) BOLT INSTALLATION IN ACCORDANCE WITH TURN-OF-NUT METHOD AS OUTLINED IN SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. ALL WELDING SHALL CONFORM TO A.W.S. D1.1, LATEST REVISION, "STRUCTURAL WELDING CODE"
6. HOLES, CUTS, AND OTHER MODIFICATIONS TO THE STRUCTURAL STEEL SHALL NOT BE MADE IN THE FIELD EXCEPT WITH THE SPECIFIC PERMISSION OF THE ENGINEER.
7. COUNCIL SPECIFICATIONS PREPARATION SHALL BE ACCORDING TO SSPC-SP3 FOR STEEL TO BE LEFT UNPAINTED AND SSPC-SP6 FOR STEEL TO BE FINISHED. REFER TO SPECIFICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD REPAIR OF ANY DAMAGE TO HOT-DIP GALVANIZED COATINGS IN ACCORDANCE WITH ASTM A780.
9. THE STRUCTURAL STEEL CONTRACTOR SHALL INSPECT ALL FOUNDATIONS INCLUDING ANCHOR BOLTS FOR ACCEPTABILITY AND PROVIDE A WRITTEN REPORT TO THE RESIDENT ENGINEER TO THIS EFFECT PRIOR TO INITIATING WORK.
10. ANCHOR BOLTS, LEVELING PLATES, OR BEARING PLATES SHALL BE LOCATED AND BUILT INTO CONNECTING WORK, PRESET BY TEMPLATES OR SIMILAR METHODS. PLATES SHALL BE SET IN FULL BEDS OF NON-SHRINK GROUT.
11. STRUCTURAL STEEL DETAILS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE SHOWN FOR MOST NEARLY SIMILAR SITUATIONS AS DETERMINED BY THE STRUCTURAL ENGINEER.
12. STRUCTURAL STEEL FRAMING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.
13. TEMPORARY ERECTION BRACING AND SUPPORTS SHALL BE PROVIDED TO HOLD STRUCTURAL STEEL FRAMING SECURELY IN POSITION. SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED AND FLOOR SLABS HAVE ATTAINED 75 PERCENT OF SPECIFIED CONCRETE STRENGTH.

TIDAL ELEVATIONS:
1. THE ELEVATIONS NOTED BELOW ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) BASED ON TIDAL DATA REFERRED TO MEAN LOWER LOW WATER (MLLW) FOR NUT ISLAND, QUINCY BAY, MASSACHUSETTS STATION ID 8444525 AS PROVIDED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

MEAN HIGH WATER (MHW) = 4.4'
MEAN LOW WATER (MLW) = -5.1'
MEAN HIGHER HIGH WATER (MHHW) = 4.8'
MEAN LOWER LOW WATER (MLLW) = -5.4'

NAME OF RECEIVING WATERS
THE STORM WATER RUNOFF ACROSS THIS SITE IS COLLECTED IN A CLOSED DRAINAGE SYSTEM AND OUTLETS TO THE WEYMOUTH FORE RIVER THROUGH TWO (2) TIDE GATES.

SEQUENCE OF MAJOR ACTIVITIES
1. CONSTRUCT TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS
   - NEW CONSTRUCTION
   - DISPOSAL OF SEDIMENT SPOIL, STUMP, AND OTHER SOLID WASTE
   - FLOOD PLAIN EXCAVATION WORK
   - CONTROL OF DUST
   - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
   - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
2. CLEAR AND DISPOSE OF DEBRIS.
3. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES, ON THE LANDSIDE OF THE SEAWALL, SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
4. CONSTRUCT EDGEWATER BEACH OUTFALL.
5. ABANDON EXISTING EDGEWATER BEACH OUTFALL.
6. RESET EXISTING STONE REVETMENT AND RESTORE COASTAL BEACH.
7. CONSTRUCT NEW STONE REVETMENT, TURNER STREET OUTFALL, AND WALL STABILIZATION MEASURES.
8. CONSTRUCT NEW AMENITIES INCLUDING CONCRETE SIDEWALKS, PARK BENCHES, AND BIKE RACKS.
9. COMPLETE PERMANENT SEEDING AND LANDSCAPING ON LANDSIDE OF THE SEAWALL.
10. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

NOTE: THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES
A. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS, ON THE LANDSIDE OF THE SEAWALL, WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN TWENTY ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
   1. TEMPORARY SEEDING
   2. MULCHING
B. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING, OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.
C. AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
   1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
   2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
   3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED.
   4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
D. WINTER STABILIZATION PRACTICES:
   1. ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY NOVEMBER 15TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURE WITH ANCHOR NETTING, ELSEWHERE.
   2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITION.
   3. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

GENERAL INSPECTION AND MAINTENANCE PRACTICES FOR EROSION AND SEDIMENT CONTROLS
1. THE SMALLEST PRACTICAL PORTION OF THE SEAWALL WILL BE DENUDED AT ONE TIME. UNDER NO CIRCUMSTANCES SHALL MORE THAN 1.0 ACRE OF THE PROJECT SITE BE UNSTABILIZED AT ONE TIME.
2. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT OF 1/2 INCH OR GREATER.
3. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
4. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE OR HAYBALE BARRIERS WHEN IT HAS REACHED ONE THIRD (1/3) THE HEIGHT OF THE FENCE OR BALE.
5. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
6. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.
7. ALL DRAINAGE OUTFALLS SHALL BE INSPECTED FOR SIGNS OF EROSION AND BUILD UP OF SEDIMENT QUARTERLY, AT A MINIMUM.
8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
9. A REPRESENTATIVE OF THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
10. THE EROSION CONTROL PROCEDURES SHALL CONFORM TO THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" PREPARED BY THE FRANKLIN, HAMPDEN, HAMPSHIRE CONSERVATION DISTRICT.
   A. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES OR SPECIFICATIONS.
   B. THE USE OF SAND FOR THE PURPOSE OF PEDESTRIAN SAFETY AND SAFE DRIVING CONDITION SHALL BE MINIMIZED.
   C. THE OWNER SHALL CLEAN ALL CATCH BASINS, DRAIN MANHOLES, AND TIDE GATE STRUCTURES ON AN ANNUAL BASIS.
11. STREET SWEEPING:
   A. CONTRACTOR SHALL PERFORM WEEKLY SWEEPING OF PAVED AREAS UTILIZED FOR TEMPORARY CONSTRUCTION ACCESS OR WORK.
   B. CONTRACTOR SHALL DISPOSE OF STREET SWEEPING WASTE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES AND LAWS.

CONCRETE WASHOUT AREA:
1. THE CONCRETE CONTRACTOR SHOULD BE ENCOURAGED, WHERE POSSIBLE, TO USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY.
2. IF IT IS NECESSARY, SITE CONTRACTOR SHALL WASH OUT ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED.
3. ATTEMPTS SHOULD BE MADE TO LOCATE WASHOUT AREA AT LEAST 50 YARDS AWAY FROM STORM DRAINS AND WATERWAYS WHENEVER POSSIBLE.
4. NO OTHER WASHOUT WILL BE ALLOWED.

ALLOWABLE NON-STORMWATER DISCHARGES:
1. DISCHARGES FROM FIREFIGHTING ACTIVITIES
2. FIRE HYDRANT FLUSHINGS
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
4. WATER USED TO CONTROL DUST
5. POTABLE WATER
6. PAVEMENT WASH WATERS – NO SPILLS OR DETERGENTS
7. LANDSCAPE IRRIGATION
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATE
9. UNCONTAMINATED GROUND WATER OR SPRING WATER
10. FOUNDATION OR FOOTING DRAINS – NOT CONTAMINATED

WASTE DISPOSAL
A. WASTE MATERIALS
ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
B. HAZARDOUS WASTE
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
C. SANITARY WASTE
ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

TIMING OF CONTROLS/MEASURES
THE MAXIMUM AREA TO BE DISTURBED AT ONE TIME SHALL BE KEPT UNDER ONE (1) ACRE. A PHASING PLAN DESCRIBING THE AREAS TO BE DISTURBED SHALL BE SUBMITTED TO THE DESIGN ENGINEER. AN INDEPENDENT MONITORING COMPANY SHALL BE HIRED BY THE CONTRACTOR TO MONITOR ALL EROSION CONTROL DEVICES.

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE AND MOVED OUT OF THE WAVE ENVIRONMENT DURING HIGH TIDES. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS, ON THE LANDSIDE OF THE SEAWALL, WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF ANY WETLAND OR STREAM, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, MEASURES WILL BE ESTABLISHED AND EROSION CONTROL DEVICES WILL BE REMOVED.

LEGEND

SYMBOL	DESCRIPTION
—	SEWER MANHOLE
—	HYDRANT
—	DRAIN MANHOLE
—	CATCH BASIN
—	SIGN
—	UTILITY POLE
GG	GAS GATE
WG	WATER GATE
EM	ELECTRIC METER
X-0.7	SPOT ELEVATION
WHH	WATER LINE
FP	FLAG POLE
MHW	MEAN HIGH WATER
MLW	MEAN LOW WATER
CONC	CONCRETE
SGE	SLOPED GRANITE EDGING
EOP	EDGE OF PAVEMENT
BCC	BITUMINOUS CONCRETE CURB
VCC	VERTICAL CONCRETE CURB
VGC	VERTICAL GRANITE CURB
TSW	TOP OF SEA WALL
TGW	TOP OF GRANITE BLOCK SEA WALL
TW	TOP OF WALL
B-4	BORING LOCATION W/LABEL
A-1	SEDIMENT SAMPLE LOCATION W/LABEL
—	WETLAND FLAG
D	DRAIN LINE
S	SEWER LINE
G	GAS LINE
W	WATER HANDHOLE
OHW	OVERHEAD ELECTRIC LINE
—	PROPERTY LINE
2.0	1 FOOT CONTOUR LINE
5.0	5 FOOT CONTOUR LINE
—	EXISTING LANDSCAPING
—	PROPOSED SHRUBS
—	F.E.M.A. FLOOD ZONE BOUNDARY/ LAND SUBJECT TO COASTAL STORM FLOWAGE
—	PROPOSED STONE REVETMENT
—	TOP OF EXISTING OF SEAWALL
—	TOP OF EXISTING GRANITE WALL
—	BOTTOM OF EXISTING SEAWALL
—	TEMPORARY CONSTRUCTION LAYDOWN/STAGING AREA (SEE NOTE 19)
—	PROPOSED CONCRETE
—	PROPOSED COASTAL BEACH RESTORATION
—	APPROXIMATE LIMIT OF BACKFILL ON LANDWARD SIDE OF WALL
—	LIMIT OF 100-FOOT BUFFER ZONE
—	LIMIT OF 200-FOOT RIVERFRONT AREA
—	LIMIT OF WORK
—	WATER BOUNDARY, STREAM OR BROOK
PD	PROPOSED DRAINAGE
—	COASTAL BEACH
—	SILT SOCK
—	INLET PROTECTION BARRIER

A / 20 — SECTION REFERENCE LETTER / DRAWING WHERE SECTION IS SHOWN OR TAKEN

1 / 20 — DETAIL REFERENCE NUMBER / DRAWING WHERE DETAIL IS SHOWN OR TAKEN

PLANTING SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	QUANTITY
PR	ROSA RUGOSA	RUGOSA ROSE	#5	CONTAINER	47

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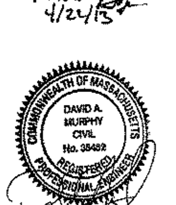

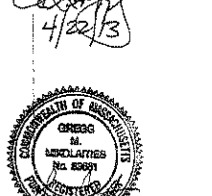

Quincy, Massachusetts

Edgewater Drive Seawall Repair Project

Quincy, Massachusetts

Mark	Date	Description
1.	04/22/2013	REVISED PER DMF COMMENTS
A.	03/26/2013	ISSUED FOR BIDDING

PROJECT NO:	Q0021
FILE:	Q0021_CNOTES.dwg
DRAWN BY:	KAM
CHECKED:	PMC/GMM
APPROVED BY:	DAM

NOTES, ABBREVIATIONS, AND LEGEND SHEET

SCALE: NO SCALE

SHEET 2 of 23