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# PUBLIC NOTICE



**US Army Corps  
of Engineers**®  
New England District  
**696 Virginia Road  
Concord, MA 01742-2751**

**Comment Period Begins:** July 30, 2019  
**Comment Period Ends:** August 30, 2019  
**File Number:** NAE-2018-02614  
**In Reply Refer To:** Katelyn Rainville  
**Phone:** (978) 318-8677  
**E-mail:** [katelyn.m.rainville@usace.army.mil](mailto:katelyn.m.rainville@usace.army.mil)

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The District Engineer has received a permit application to conduct work in waters of the United States from the **Town of Duxbury, Department of Public Works**. This work is proposed on Duxbury Beach in Duxbury, Massachusetts. The site coordinates are from Latitude 42.062656 Longitude -70.647786 to Latitude 42.0652 Longitude -70.6484.

## **Seawall Construction**

The work involves the replacement of a 950 linear foot section of seawall that failed during the March 2018 winter storms. The replacement seawall will have an elevation of 24.5 feet above mean low water (MLW), which is 4.8 feet greater than the current average seawall elevation. The work is proposed to begin in Fall 2019 and conclude in Spring 2020.

The replacement seawall will be constructed with a deeper and wider footing than the existing seawall in order to accommodate for the additional height. The proposed footing will include a 2-foot deep by 12-foot wide concrete base supported by a 1 foot deep by 12.5-foot wide crushed stone area and 950 linear feet of 12-inch steel sheet piles. These sheet piles will be driven to a depth of 10 feet, and remain beneath the seawall, in order to reinforce the seawall and prevent undermining. Increasing the size of the seawall will have 1,381 square feet of permanent impacts and a seaward encroachment of 17.15 inches beyond the existing footprint, below the high tide line. This encroachment will occur below grade only, and the replacement wall slope will match the existing wall slope.

The work will also include the construction of drain pipes through the wall. The drainage system will involve a continuous crushed stone trench along the top of the footing with 4-inch PVC pipes through the wall at ten feet on center along the trench and at existing grade level behind the wall. This will alleviate hydrostatic pressure on the back side of the wall, as well as allow for water return during storm overtopping. Work will also include the replacement of the damaged staircase with a new staircase at Latitude 42.062656 Longitude -70.647786 in order to maintain safe beach access. The replacement staircase will have concrete stairs on the landward side of the seawall and removable steel stairs on the seaward side.

## **Site Access**

Site access to complete this work will involve the placement of excavated material onto the seaward and landward sides of the project site. The excavated material will be placed in 150-foot increments until all work is completed on the 950 linear feet of seawall. On the seaward side, this excavated material will be placed along 1,000 linear feet of shoreline and extend 30 feet beyond the high tide line. On the landward side, the placement of excavated fill will vary based on the space available on the private properties. This material will allow excavators to access the project site along both sides of the wall.

Upland site access will involve an equipment staging area and two access routes. The equipment staging area will be located in the beach parking lot at Latitude 42.060492 Longitude -70.647821. The access routes will be located at Latitude 42.061044 Longitude -70.647497 and Latitude 42.063955 Longitude -70.648171. Construction access and sediment controls (specified in the Avoidance, Minimization and Mitigation section of this document) will have 30,000 square feet of temporary impacts below the high tide line.

The work is shown on the enclosed plans entitled "PROPOSED REPAIRS DUXBURY BEACH SEAWALLS PHASE I", on 6 sheets, and dated "7/11/19". The access routes are shown on the enclosed plans entitled "DUXBURY SEAWALLS ACCESS LOCATION PLAN", on 1 sheet, dated "9/19/18", and revised on "7/12/19".

### **Project Alternatives**

The Town of Duxbury considered several project alternatives. Alternatives considered as part of this application include 1) the no-build alternative, 2) repair/replacement of the existing concrete seawall to its current elevation, 3) replacement of the concrete seawall with a stone revetment, 4) replacement of the existing concrete seawall with a higher and deeper seawall set back further from the ocean, 5) replacement of the existing seawall to an elevation of 26.5 MLW, and 6) the Town's preferred alternative. The Town's preferred alternative will replace the existing concrete seawall with a higher and deeper seawall with steel sheeting below the footing. Additional information on these alternatives can be obtained by contacting Katelyn Rainville.

### **Avoidance, Minimization and Mitigation**

The Town of Duxbury has minimized permanent impacts seaward of the existing seawall by limiting the amount of encroachment the replacement seawall will have. However, due to the limited space the maintenance easement provides behind the wall, the Town of Duxbury cannot build the wall further back than what is already proposed. In addition, the Town has also minimized and avoided permanent impacts from the staircase, which will have a smaller footprint than the existing concrete stairs (about 23 square feet for the proposed landing vs. 110 square feet for the existing concrete stairs). The Town will also remove the large unauthorized stones placed to reinforce the failing seawall during the storm.

The Town will minimize sediment erosion into the Atlantic Ocean by using a Type 3 heavy-duty turbidity curtain. This turbidity curtain will be installed on the seaward side of the excavated material/active work zone, 30 feet beyond the high tide line. Information on the turbidity curtain is included as an attachment to this announcement. In addition to using sediment controls, the Town will also minimize impacts to the marine environment by completing all work in the dry.

### **Future Work**

There is an additional 2,850 linear feet of seawall that will need to be repaired in the future. These repairs will require additional permitting from the Corps.

**AUTHORITY**

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers, New England District (Corps), is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. The Corps will consider all comments received to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

**ESSENTIAL FISH HABITAT**

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Essential Fish Habitat describes waters and substrate necessary for fish for spawning, breeding, feeding or growth to maturity.

This project will impact 0.69 acres of EFH. This habitat consists of sand and cobble that periodically changes in composition due to the strong wave action observed at the project site. Loss of this habitat may adversely affect species that use these waters and substrate. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation

**CENAE-R**  
**FILE NO. NAE-2018-02614**

with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

**NATIONAL HISTORIC PRESERVATION ACT**

Based on his initial review, the District Engineer has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

**ENDANGERED SPECIES CONSULTATION**

The Corps has reviewed the application for the potential impact on Federally-listed threatened or endangered species and their designated critical habitat pursuant to section 7 of the Endangered Species Act as amended. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. We are coordinating with the National Marine Fisheries Service and U.S. Fish and Wildlife Service on listed species under their jurisdiction and the ESA consultation will be concluded prior to the final decision.

**OTHER GOVERNMENT AUTHORIZATIONS**

The states of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable, the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:

- ( X ) Permit, license or assent from State.
- ( X ) Permit from local wetland agency or conservation commission.
- ( X ) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

**COMMENTS**

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Katelyn Rainville at (978) 318-8677, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

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FILE NO. NAE-2018-02614

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

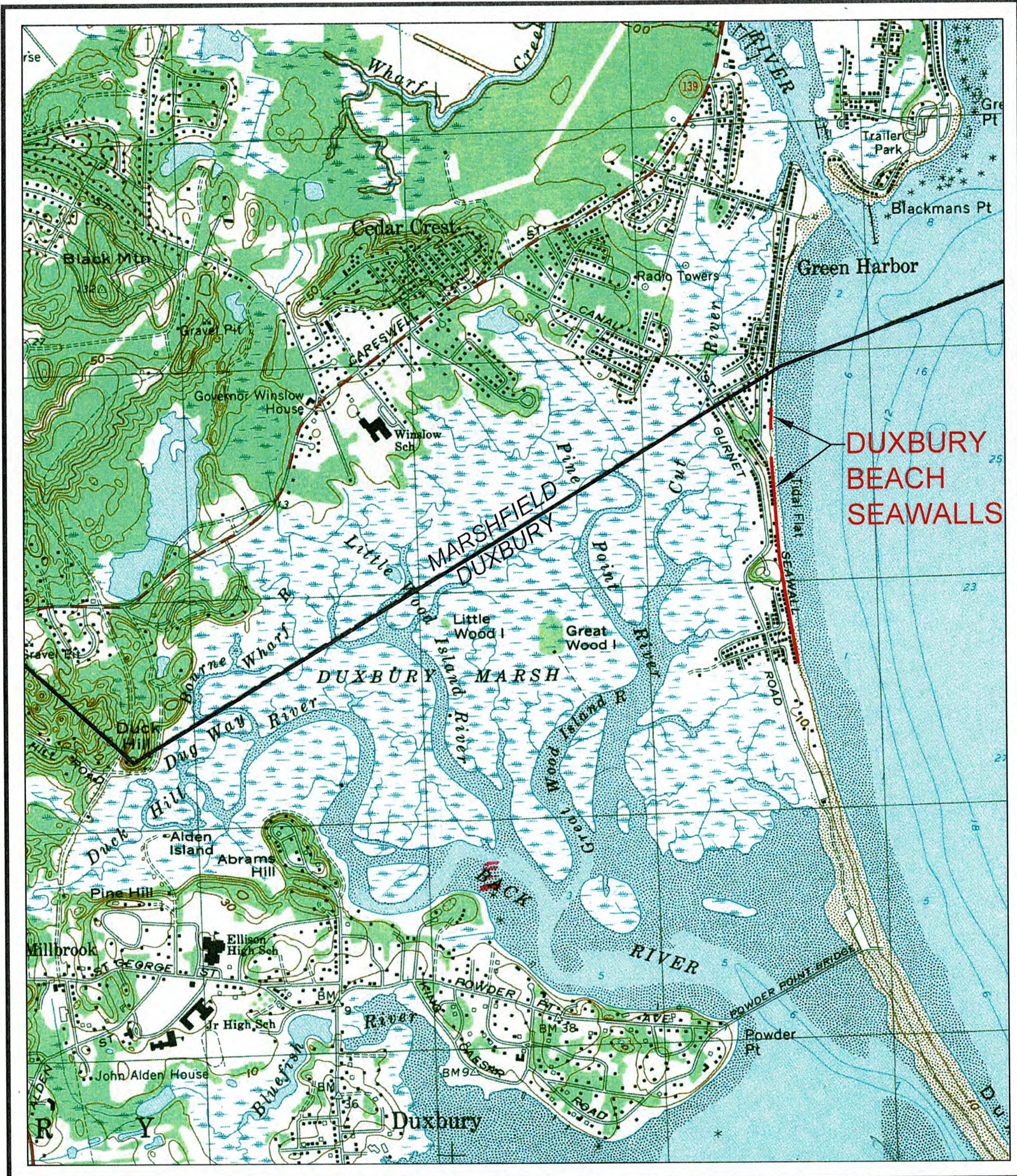
**THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.**



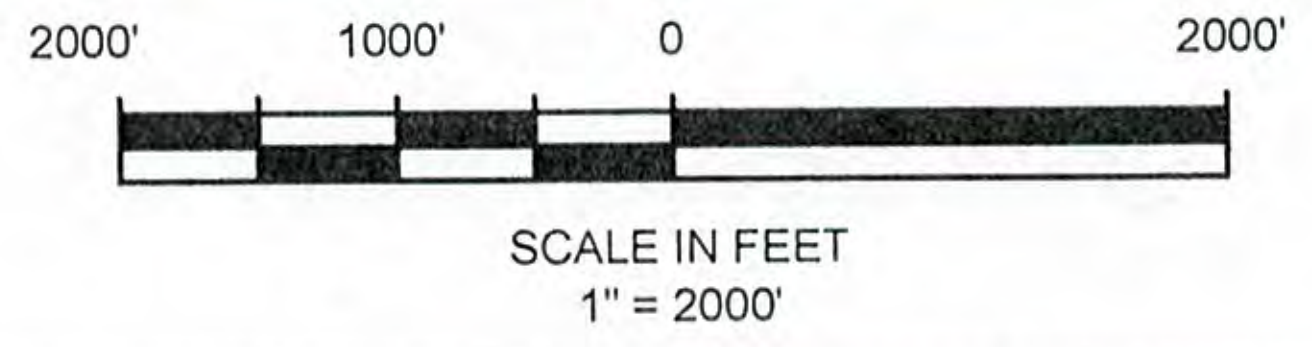
**Barbara Newman  
Chief, Permits and Enforcement Branch  
Regulatory Division**

If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at [bettina.m.chaisson@usace.army.mil](mailto:bettina.m.chaisson@usace.army.mil). You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
PHONE: \_\_\_\_\_



**DUXBURY  
BEACH  
SEAWALLS**



NOTE: BASE MAP TAKEN FROM MASS GIS SCANNED USGS QUADS 5-CD SET - JULY 1996 - CD 5

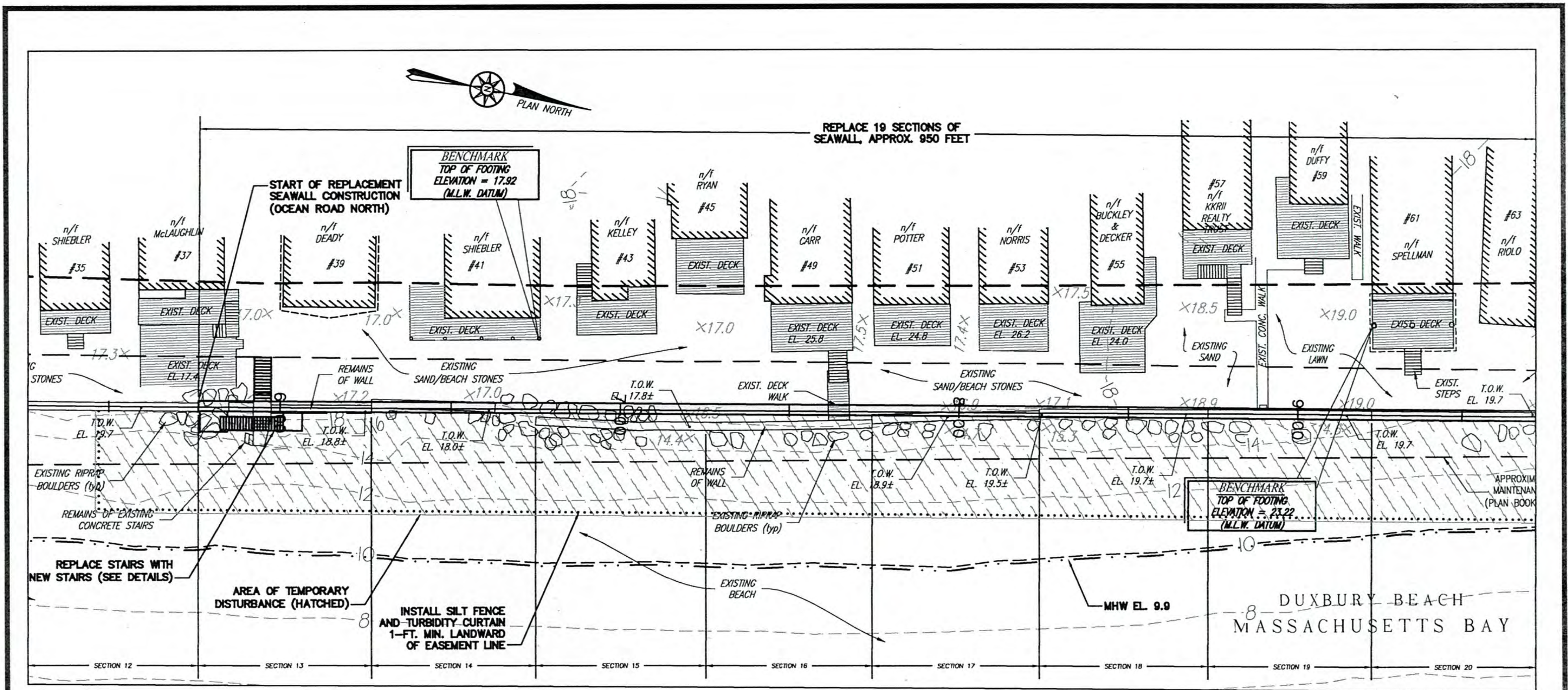
C:\Users\pbrennan\appdata\local\temp\AcPublih\_9412\USGS & Orthos Feet R2011.dwg

DEPARTMENT OF PUBLIC WORKS  
DUXBURY, MASSACHUSETTS  
PROPOSED REPAIRS TO DUXBURY  
BEACH SEAWALLS - PHASE I

AUGUST 2018

LOCATION PLAN

AMORY ENGINEERS, P.C.  
DUXBURY, MASSACHUSETTS



**SUMMARY OF WORK:**

**REPLACEMENT SEAWALL:**

- SEAWALL SECTIONS 13 THROUGH 31
- STA. ±5+76 TO STA. ±15+19
- REMOVE RIPRAP STONE ALONG REPLACEMENT SEAWALL.

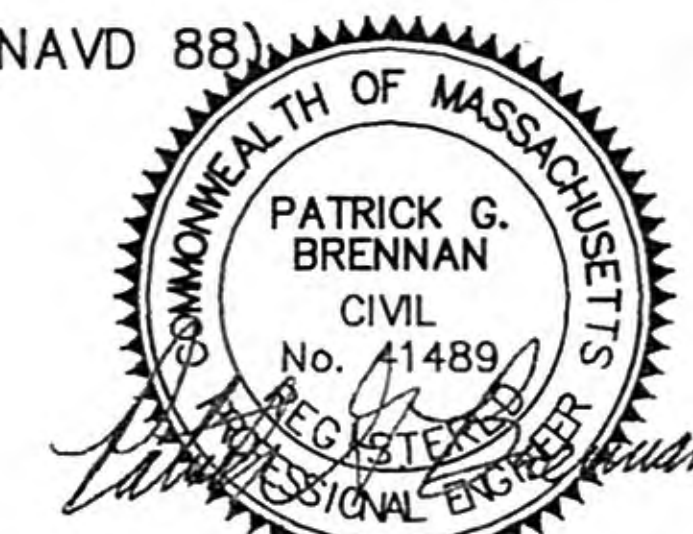
**SEDIMENTATION CONTROL NOTES:**

1. TURBIDITY CURTAIN SHALL BE TRITON TYPE III HD, OR EQUAL.
2. SILT FENCE SHALL BE INSTALLED ADJACENT TO THE LANDWARD SIDE OF THE TURBIDITY CURTAIN.
3. SEDIMENT CONTROLS SHALL BE INSPECTED AFTER EACH HIGH TIDE BEFORE STARTING WORK, AND REPAIRED AS REQUIRED.

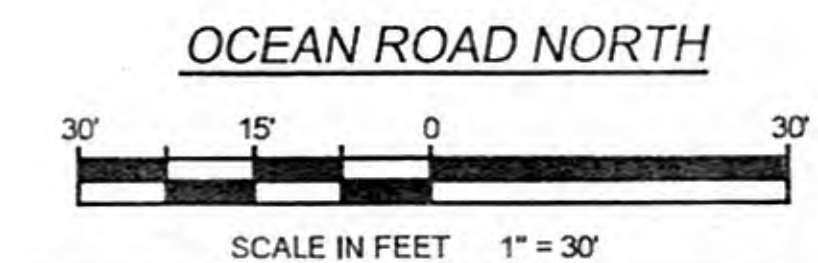
**DATUM RELATIONSHIPS FOR STATION 8446166 DUXBURY, MA:**

|       |   |
|-------|---|
| 12.53 | HIGH TIDE LINE (HTL)                            |
| 9.9   | MEAN HIGH WATER (MHW)                           |
| 5.59  | NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) |
| 5.15  | MEAN SEA LEVEL (MSL)                            |
| 4.95  | MEAN TIDE LEVEL (MTL)                           |
| 0.00  | MEAN LOW WATER (MLW)                            |
| -0.34 | MEAN LOWER-LOW WATER (MLLW)                     |

VERTICAL DATUM IS MEAN LOW WATER (MLW)



LATEST REVISION: 7/18/19

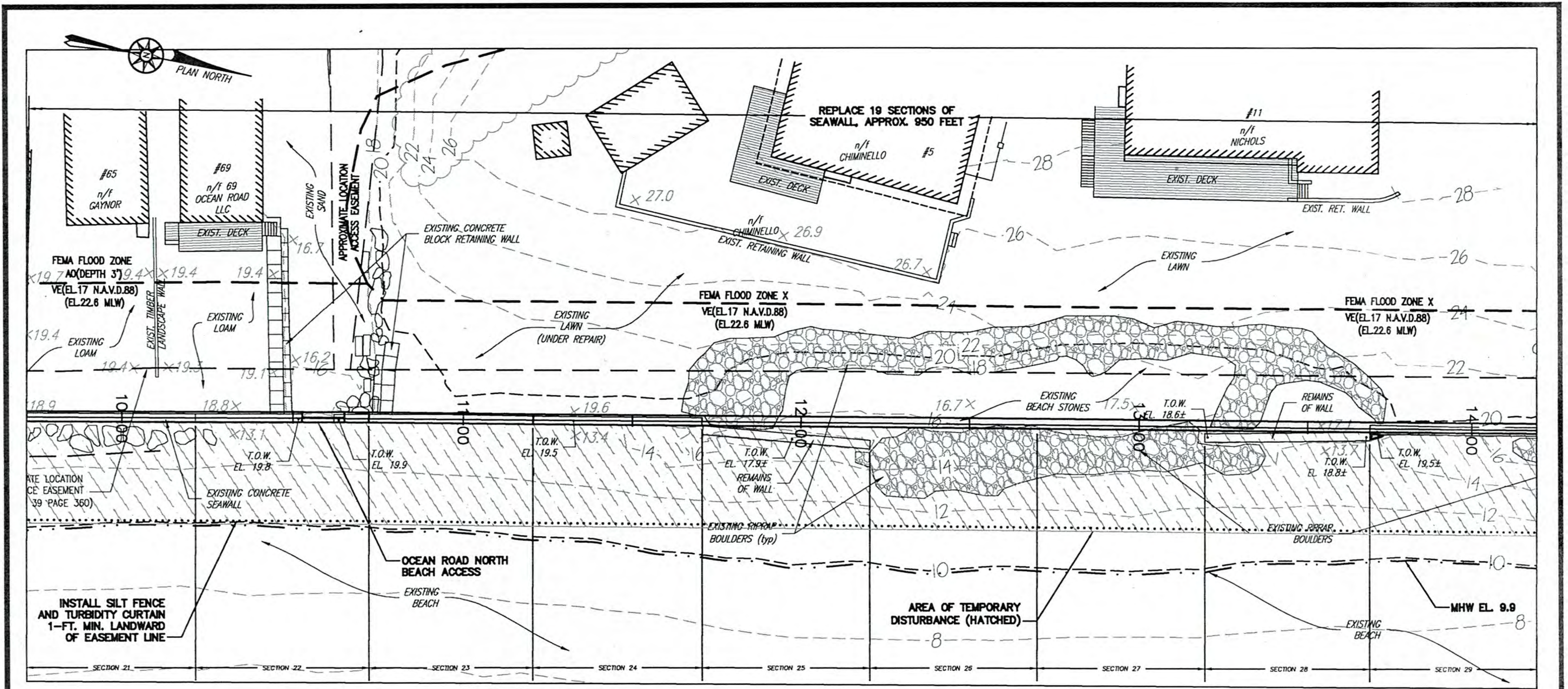


TOWN OF DUXBURY, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS

**PROPOSED REPAIRS  
DUXBURY BEACH SEAWALLS  
PHASE I**

DATE: 7/11/19 SHEET: 1 OF 6

AMORY ENGINEERS, P.C.  
DUXBURY, MASSACHUSETTS



**SUMMARY OF WORK:**

**REPLACEMENT SEAWALL:**

- SEAWALL SECTIONS 13 THROUGH 31
- STA. ±5+76 TO STA. ±15+19
- REMOVE RIPRAP STONE ALONG REPLACEMENT SEAWALL.

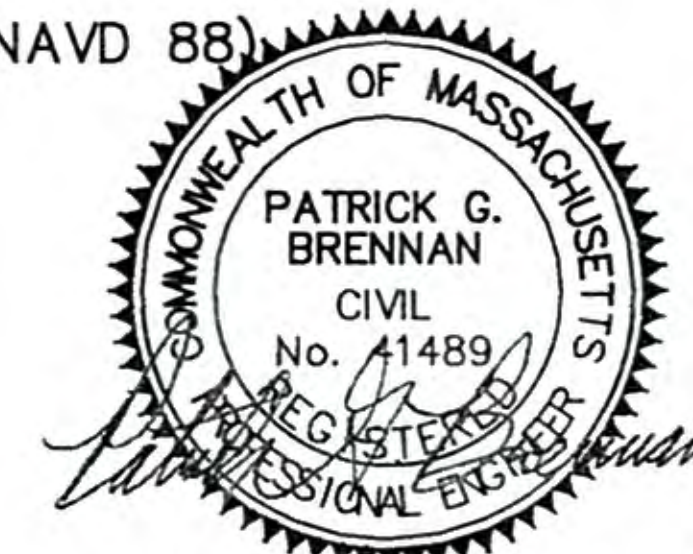
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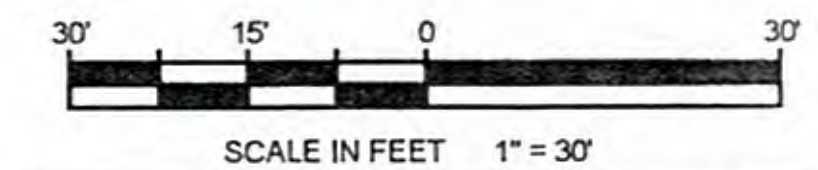
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| 9.9   | MEAN HIGH WATER (MHW)                           |
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| 4.95  | MEAN TIDE LEVEL (MTL)                           |
| 0.00  | MEAN LOW WATER (MLW)                            |
| -0.34 | MEAN LOWER-LOW WATER (MLLW)                     |

VERTICAL DATUM IS MEAN LOW WATER (MLW)



LATEST REVISION: 7/18/19

**OCEAN ROAD NORTH - CABLE HILL WAY**

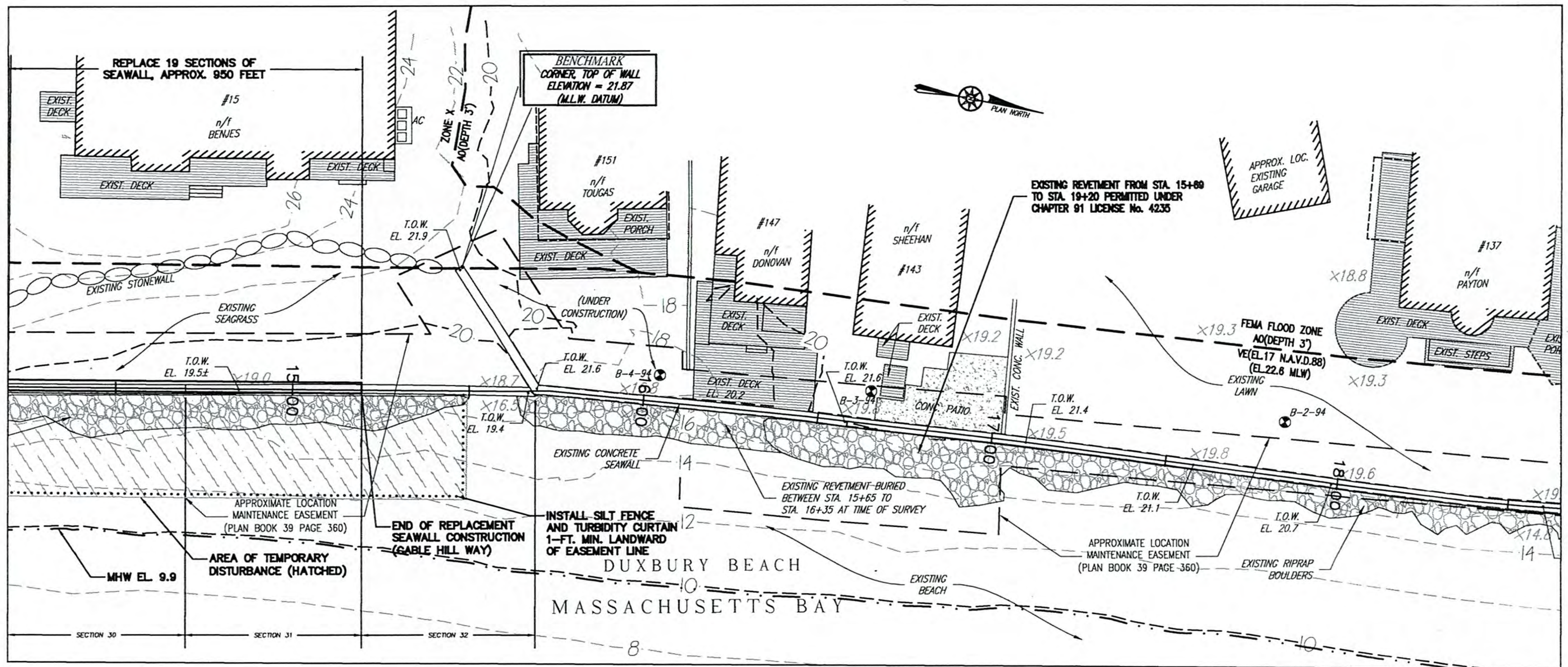


TOWN OF DUXBURY, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS  
**PROPOSED REPAIRS  
DUXBURY BEACH SEAWALLS  
PHASE I**

DATE: 7/11/19 SHEET: 2 OF 6

AMORY ENGINEERS, P.C.  
DUXBURY, MASSACHUSETTS





**SUMMARY OF WORK:**

**REPLACEMENT SEAWALL:**

- SEAWALL SECTIONS 13 THROUGH 31
- STA. ±5+76 TO STA. ±15+19
- REMOVE RIPRAP STONE ALONG REPLACEMENT SEAWALL.

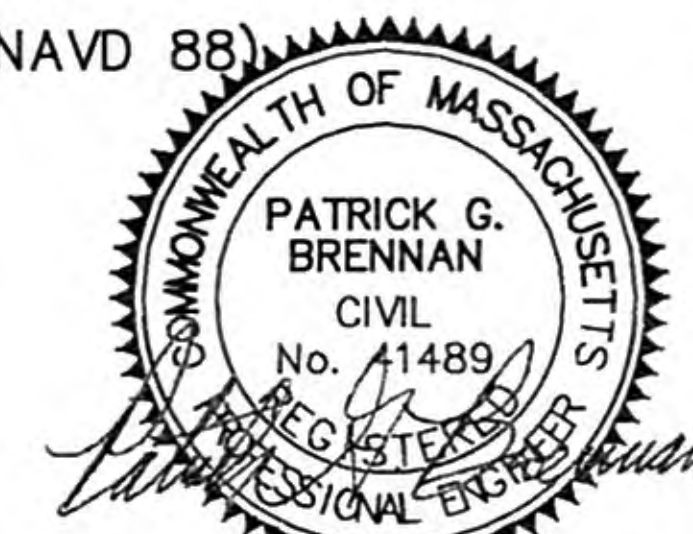
**SEDIMENTATION CONTROL NOTES:**

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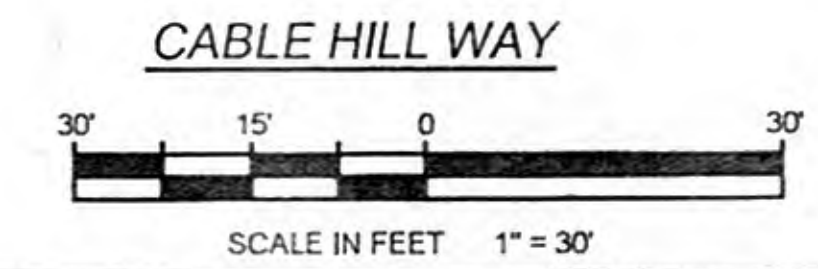
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| -0.34 | MEAN LOWER-LOW WATER (MLLW)                     |

VERTICAL DATUM IS MEAN LOW WATER (MLW)



LATEST REVISION: 7/18/19



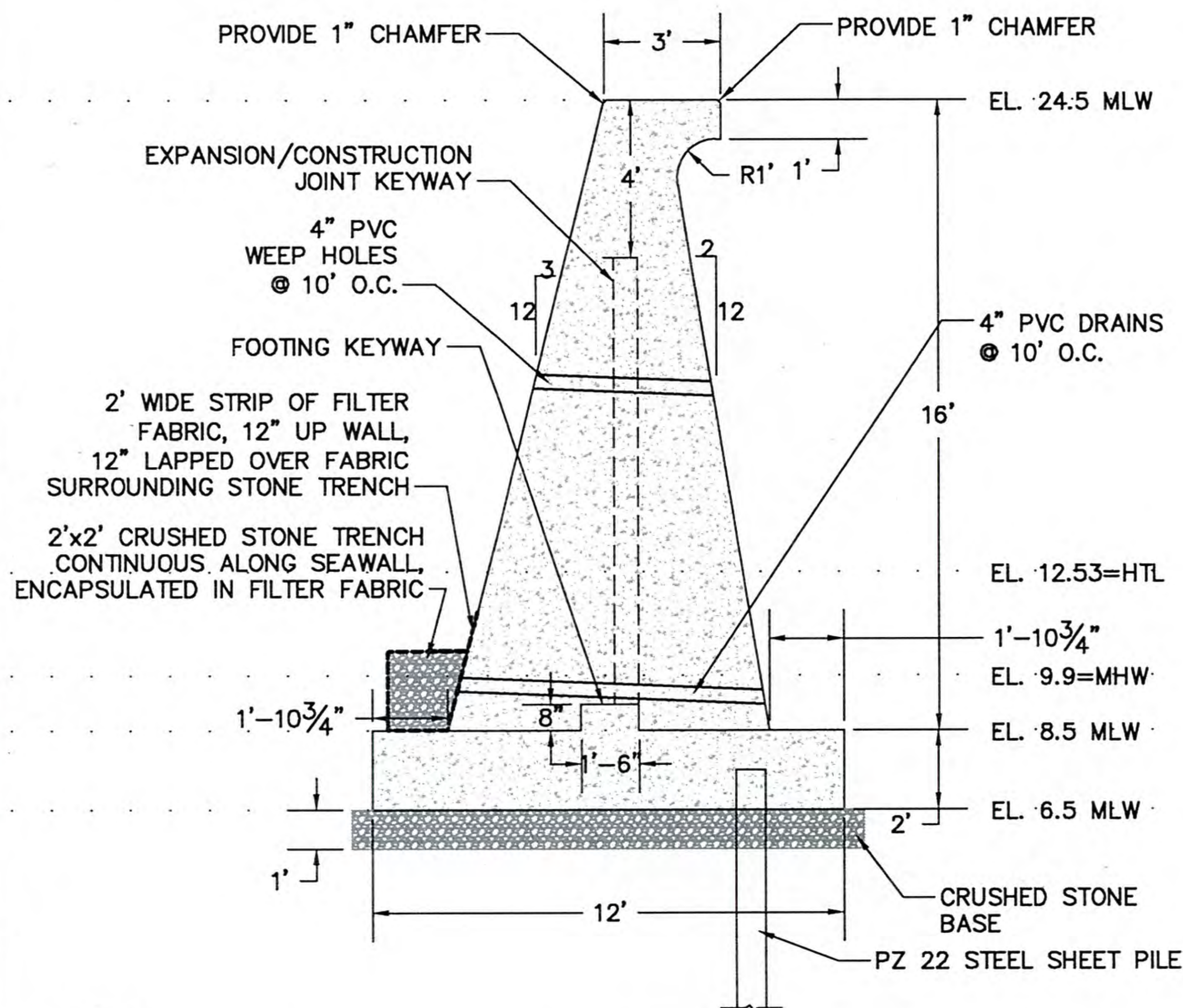
CABLE HILL WAY

TOWN OF DUXBURY, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS

**PROPOSED REPAIRS  
DUXBURY BEACH SEAWALLS  
PHASE I**

|               |               |
|---------------|---------------|
| DATE: 7/11/19 | SHEET: 3 OF 6 |
|---------------|---------------|

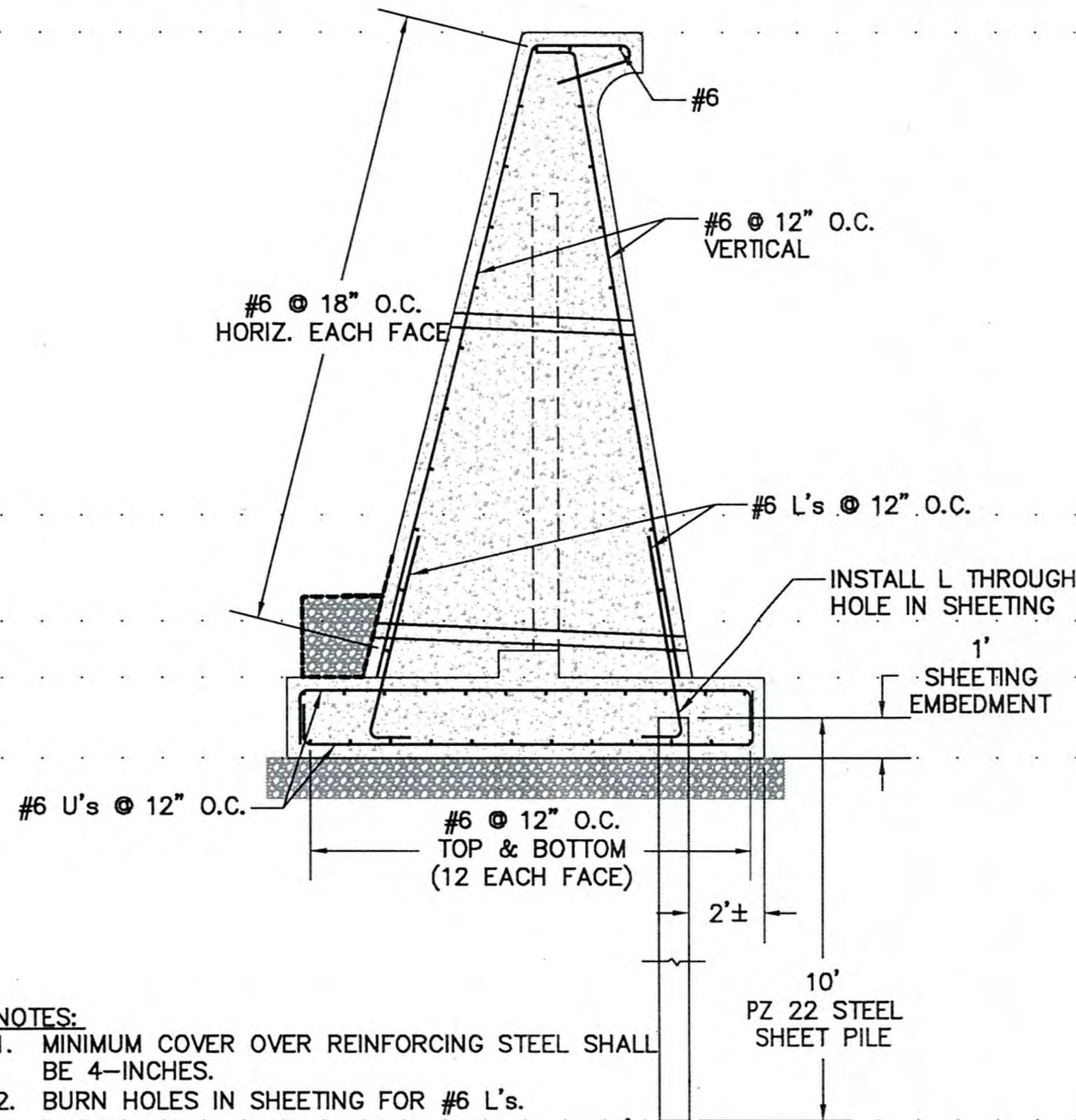
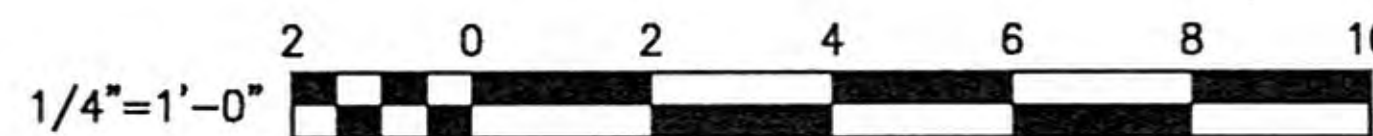
AMORY ENGINEERS, P.C.  
DUXBURY, MASSACHUSETTS



**NOTES:**

1. PVC PIPE FOR DRAINS AND WEEP HOLES SHALL BE SCHEDULE 40 AT A SLOPE OF 1/2" PER FOOT.
2. WEEP HOLES SHALL BE INSTALLED AT APPROXIMATE EXISTING GRADE ON LANDWARD SIDE OF SEAWALL.
3. FILTER FABRIC AROUND DRAIN STONE SHALL BE MIRAFI 1100N OR EQUAL.
4. CONCRETE SHALL BE 5,000 PSI MIN. AT 28 DAYS.
5. FOOTING CONCRETE: 25 C.F. PER LINEAR FOOT.
6. WALL CONCRETE: 78.7 C.F. PER LINEAR FOOT.

SEAWALL SECTION



**NOTES:**

1. MINIMUM COVER OVER REINFORCING STEEL SHALL BE 4-INCHES.
2. BURN HOLES IN SHEETING FOR #6 L's.
3. CUT SHEETING AS REQUIRED TO INSTALL #6 U's.
4. INSTALL #6 LONGITUDINAL BARS AROUND SHEETING AS NECESSARY.
5. ALL REINFORCING STEEL SHALL BE EPOXY COATED.

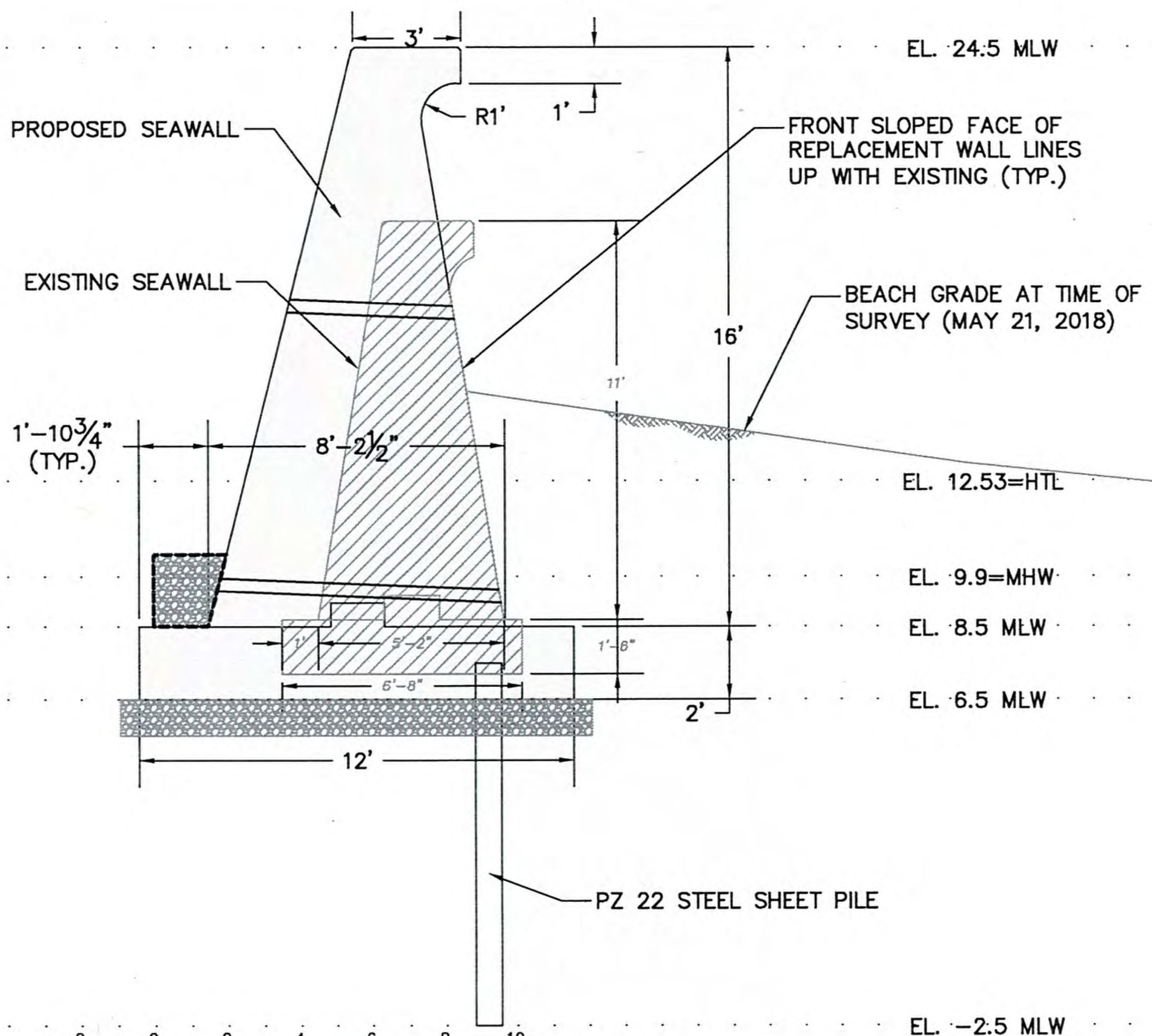
SEAWALL REINFORCING STEEL



TOWN OF DUXBURY, MASSACHUSETTS  
 DEPARTMENT OF PUBLIC WORKS  
**PROPOSED REPAIRS  
 DUXBURY BEACH SEAWALLS  
 PHASE I**

DATE: 7/11/19 SHEET: 4 OF 6

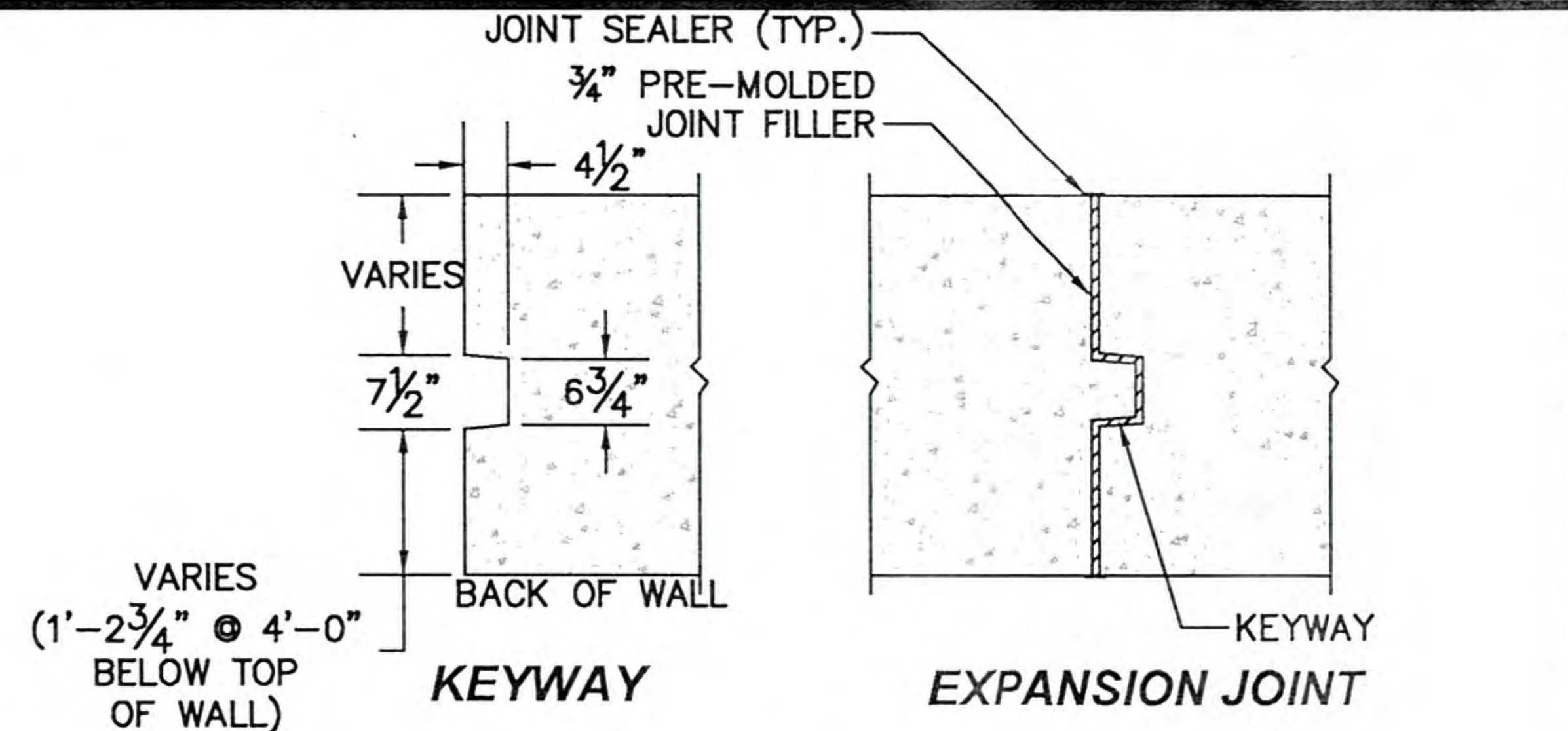
AMORY ENGINEERS, P.C.  
 DUXBURY, MASSACHUSETTS



**WALL COMPARISON SECTION  
EXISTING SEAWALL VS.  
PROPOSED SEAWALL**

**REGULATORY NOTES:**

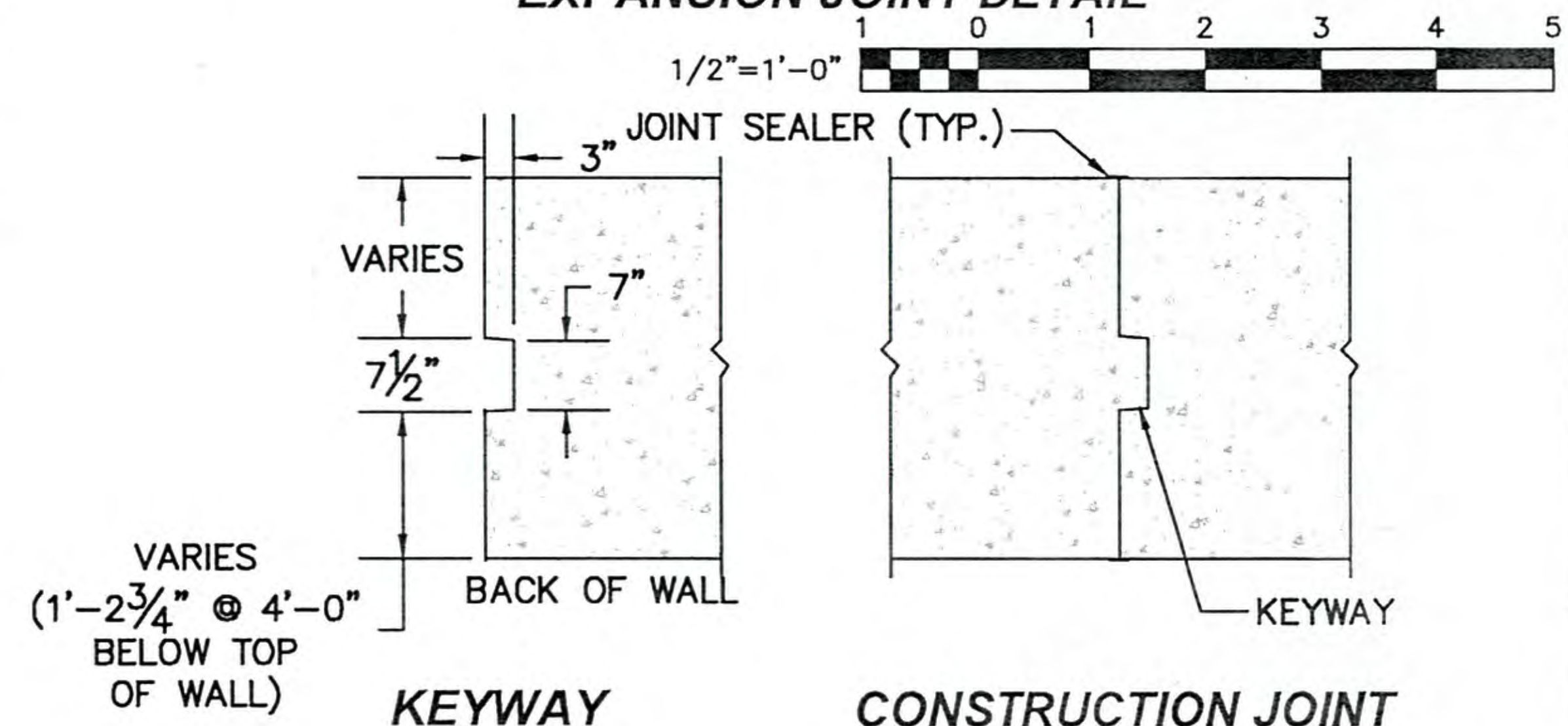
1. PROPOSED CONCRETE SEAWARD OF EXISTING SEAWALL = 104.3 C.Y. (100.6 C.Y. FOOTING + 3.7 C.Y. STAIR LANDING).
2. PROPOSED CRUSHED STONE SEAWARD OF EXISTING SEAWALL = 51.2 C.Y. (50.3 C.Y. FOOTING + 0.9 S.Y. STAIR LANDING).
3. FOOTPRINT OF PROPOSED WORK SEAWARD OF EXISTING SEAWALL = 1,380.9 S.F. (1,357.7 S.F. FOOTING + 23.2 S.F. STAIR LANDING).



**NOTES:**

1. MAXIMUM EXPANSION JOINT SPACING SHALL BE 100 FEET.
2. KEYWAY SHALL TERMINATE FOUR FEET BELOW TOP OF WALL.
3. JOINT FILLER SHALL EXTEND TO TOP OF WALL.
4. JOINT SEALER SHALL BE APPLIED AT ALL EXTERIOR JOINT SURFACES.

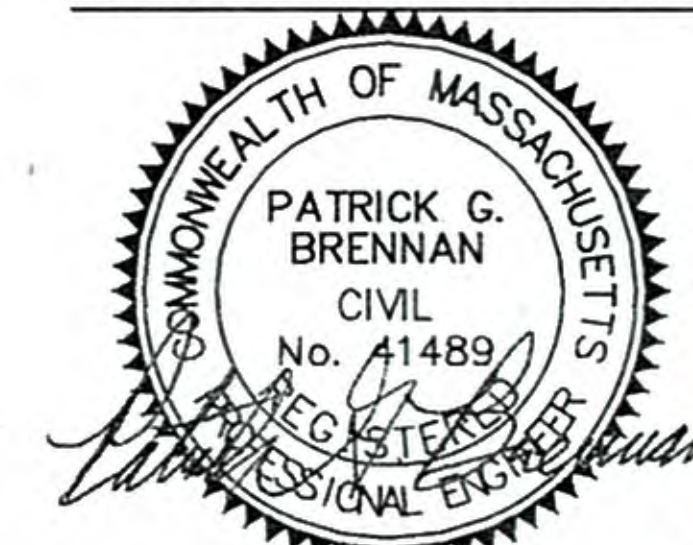
**EXPANSION JOINT DETAIL**



**NOTES:**

1. MAXIMUM CONSTRUCTION JOINT SPACING SHALL BE 25 FEET.
2. KEYWAY SHALL TERMINATE FOUR FEET BELOW TOP OF WALL.
3. JOINT SEALER SHALL BE APPLIED AT ALL EXTERIOR JOINT SURFACES.

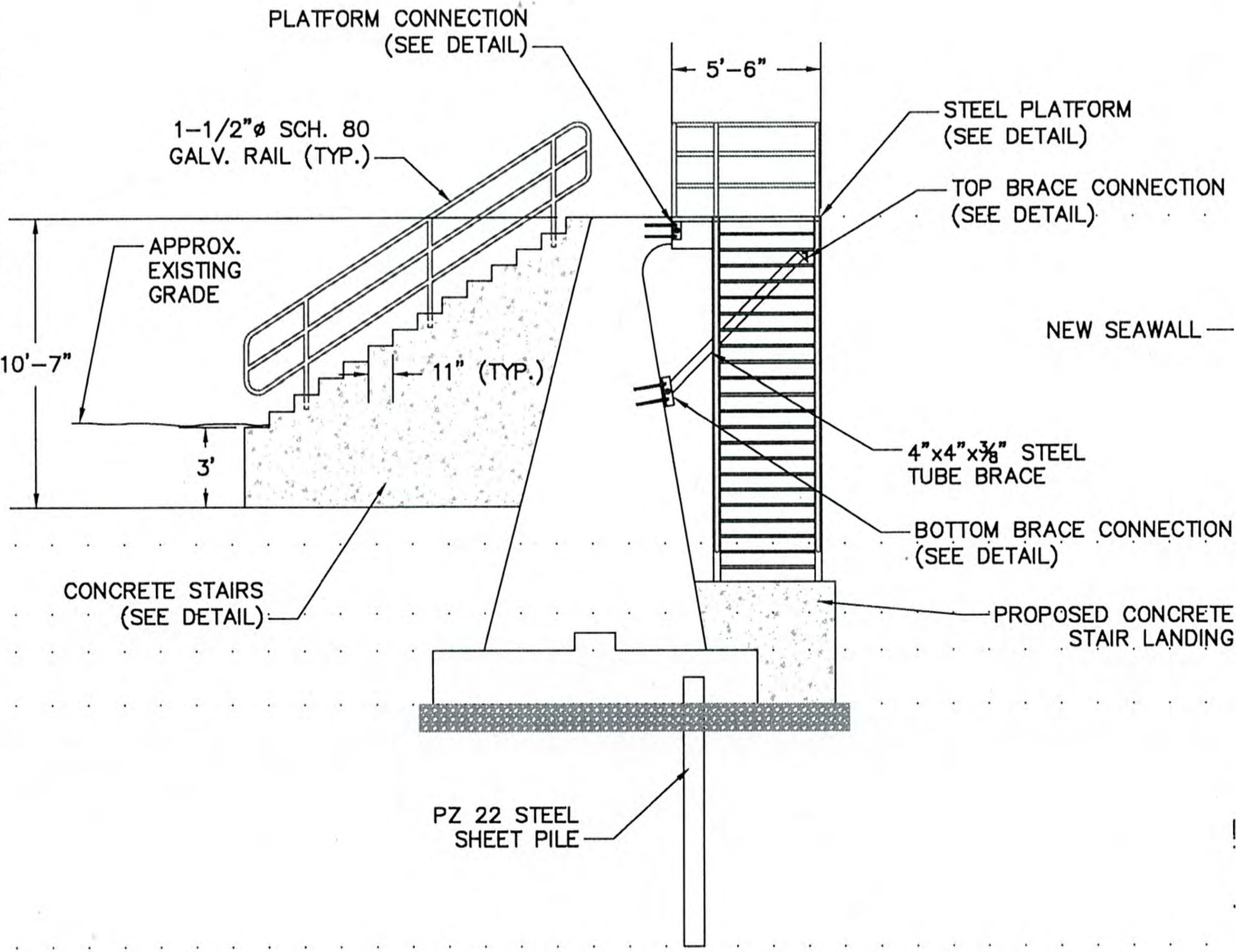
**CONSTRUCTION JOINT DETAIL**



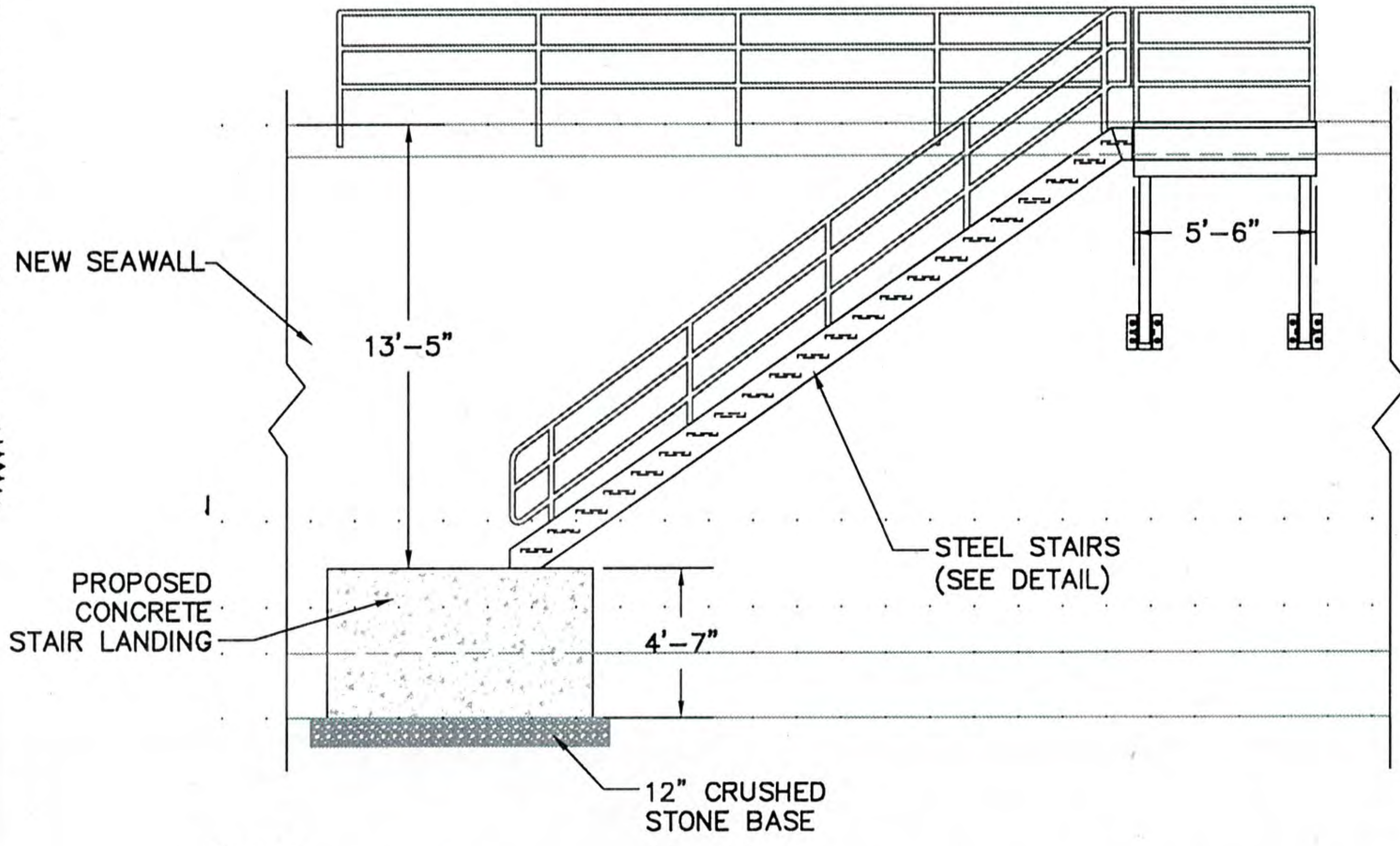
LATEST REVISION: 7/18/19

|  |               |
|--|---------------|
| TOWN OF DUXBURY, MASSACHUSETTS<br>DEPARTMENT OF PUBLIC WORKS   |               |
| <b>PROPOSED REPAIRS<br/>DUXBURY BEACH SEAWALLS<br/>PHASE I</b> |               |
| DATE: 7/11/19  | SHEET: 5 OF 6 |
| AMORY ENGINEERS, P.C.<br>DUXBURY, MASSACHUSETTS                |               |

ACCESS STAIRS SECTION



ACCESS STAIRS ELEVATION



- NOTES:**
1. ALL STEEL FOR STAIRS, PLATFORM AND BRACES, CONNECTIONS, RAILINGS AND HARDWARE SHALL BE HOT-DIPPED GALVANIZED.
  2. STEEL PLATFORM AND STAIRS SHALL BE REMOVED EACH FALL FOR WINTER SEASON.



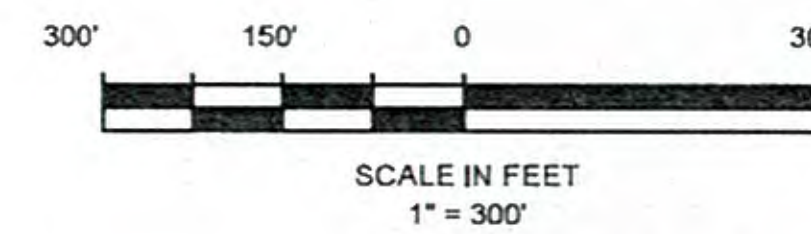
TOWN OF DUXBURY, MASSACHUSETTS  
 DEPARTMENT OF PUBLIC WORKS  
**PROPOSED REPAIRS  
 DUXBURY BEACH SEAWALLS  
 PHASE I**  
 DATE: 7/11/19 SHEET: 6 OF 6  
 AMORY ENGINEERS, P.C.  
 DUXBURY, MASSACHUSETTS

FIGURE 2



**NOTES:**

1. BASE MAP IS MASSGIS 2013 ORTHOPHOTOS.
2. OCEAN ROAD NORTH BEACH ACCESS RAMP: REMOVE A PORTION OF THE EXISTING SEAWALL TO PROVIDE FOR MACHINE ACCESS OR CONSTRUCT A SAND AND COBBLE RAMP OVER THE EXISTING WALL AS AN ALTERNATIVE .
3. LIMITED MACHINE ACCESS FROM OCEAN ROAD SOUTH WOULD BE RESTRICTED TO OCTOBER 1 THROUGH APRIL 15.



LATEST REVISION: 7/12/19

DEPARTMENT OF PUBLIC WORKS  
DUXBURY, MASSACHUSETTS

**DUXBURY SEAWALLS  
ACCESS LOCATION PLAN**

DATE: 9/19/18

SCALE: 1" = 300'

AMORY ENGINEERS, P.C.  
DUXBURY, MASSACHUSETTS



## Triton Type III HD Silt and Turbidity Barrier



Triton Type 3 HD Curtains are designed for silt and turbidity control in areas with fast water, waves or demanding conditions. These barriers surround projects and help to contain materials until they have enough time to settle.



**GEI**  
WORKS

# Triton Type III HD Silt and Turbidity Barrier

Constructed using robust and reliable components, these barriers actively work to contain silt, turbidity and displaced particles around your site. Triton Type 3 HD Silt and Turbidity Curtains are the strongest available barrier for silt and turbidity control. Designed for fast water, waves or demanding conditions, these curtains add increased strength to any containment or control area. Type 3 HD models are typically recommended for use in areas with flows up to 1.5 knots.

## Applications

- Inter-Coastal Projects
- Dredging Sites
- Remediation Projects
- Long Term Projects
- Fast Moving Water
- Projects in Bays and Harbors Areas Severely Affected by Wind or Waves

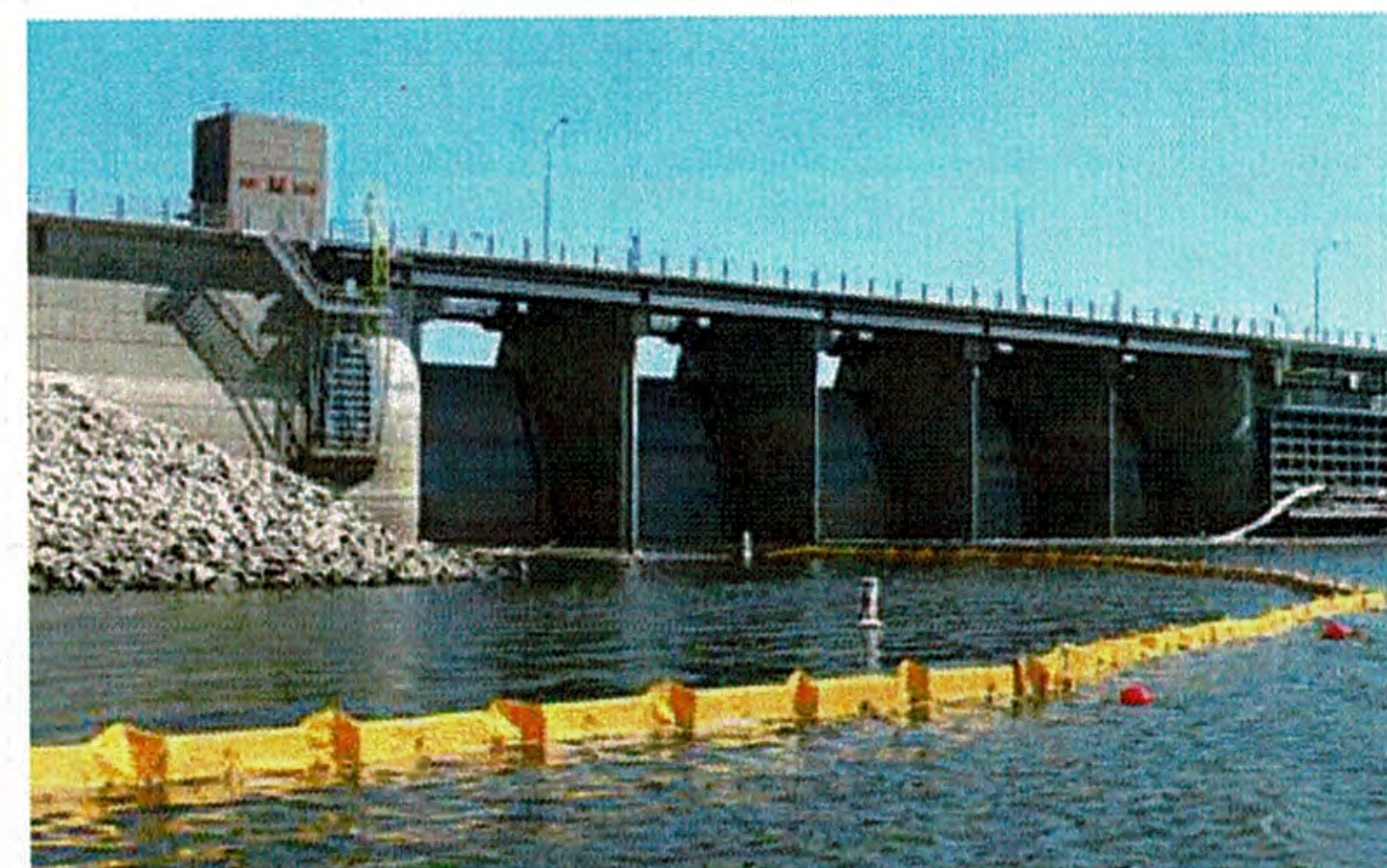
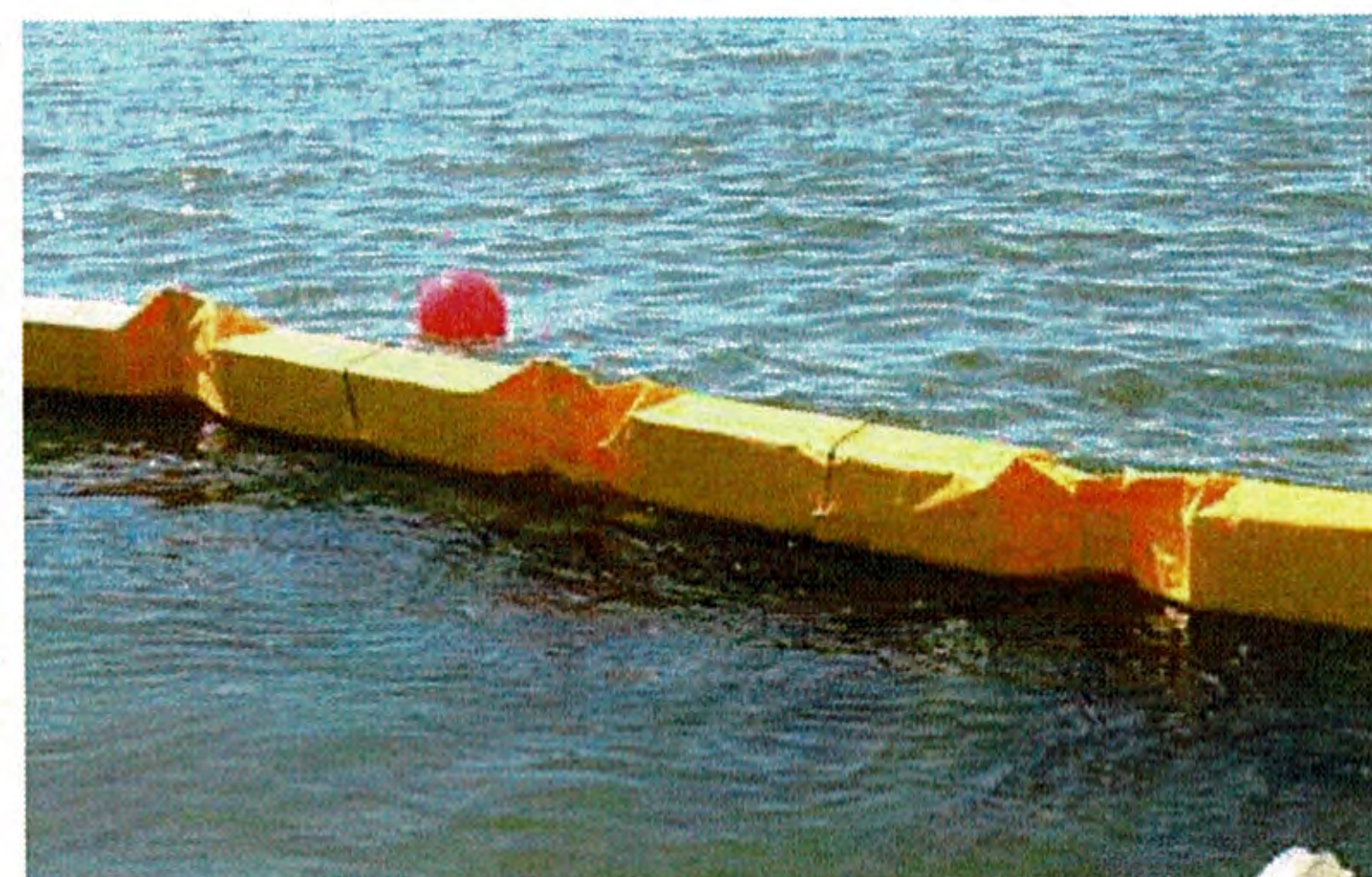
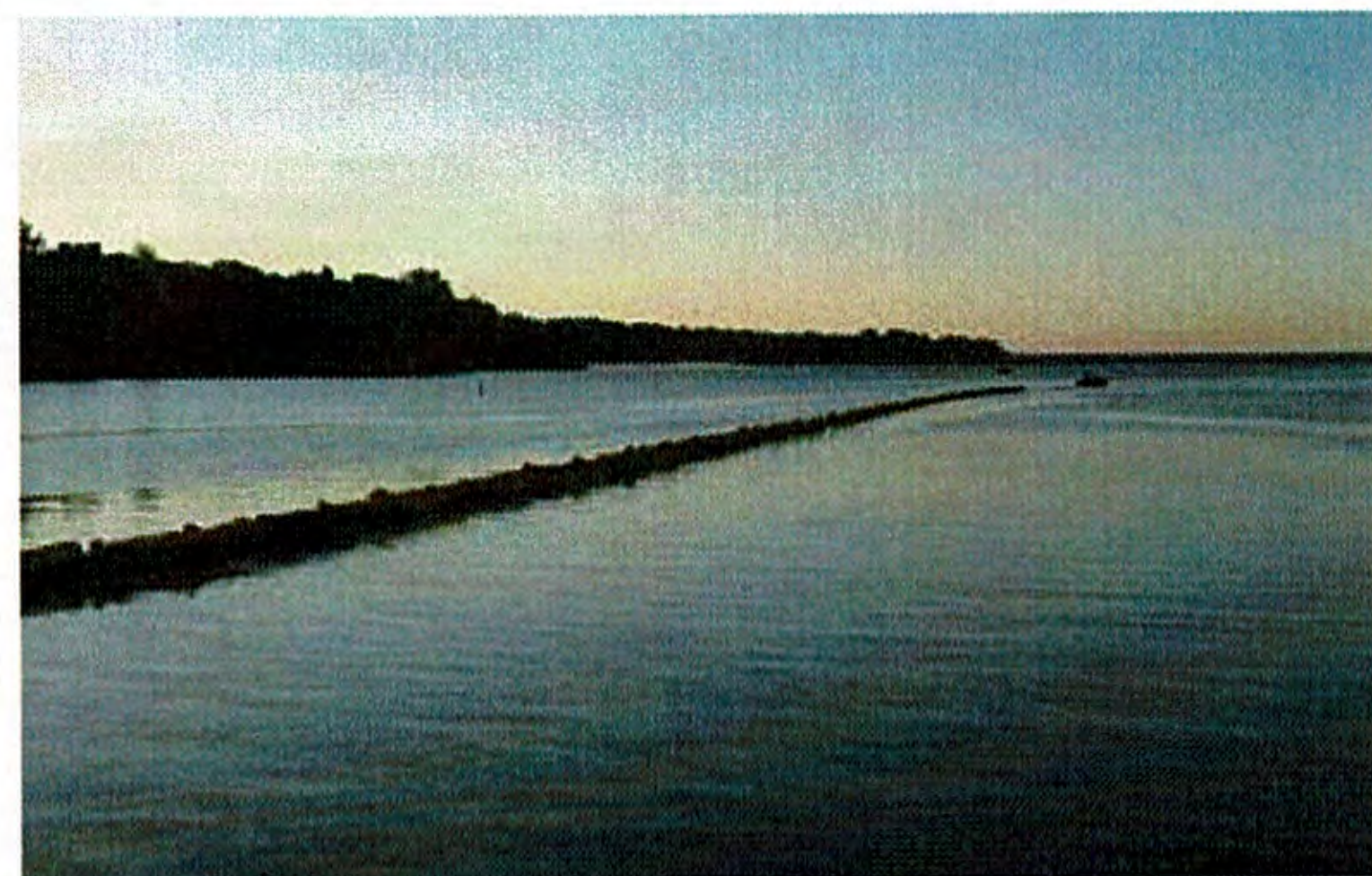
Accessories are an important component to the installation of any silt curtain or barrier in order to maximize effectiveness.

## Turbidity Curtain Accessories

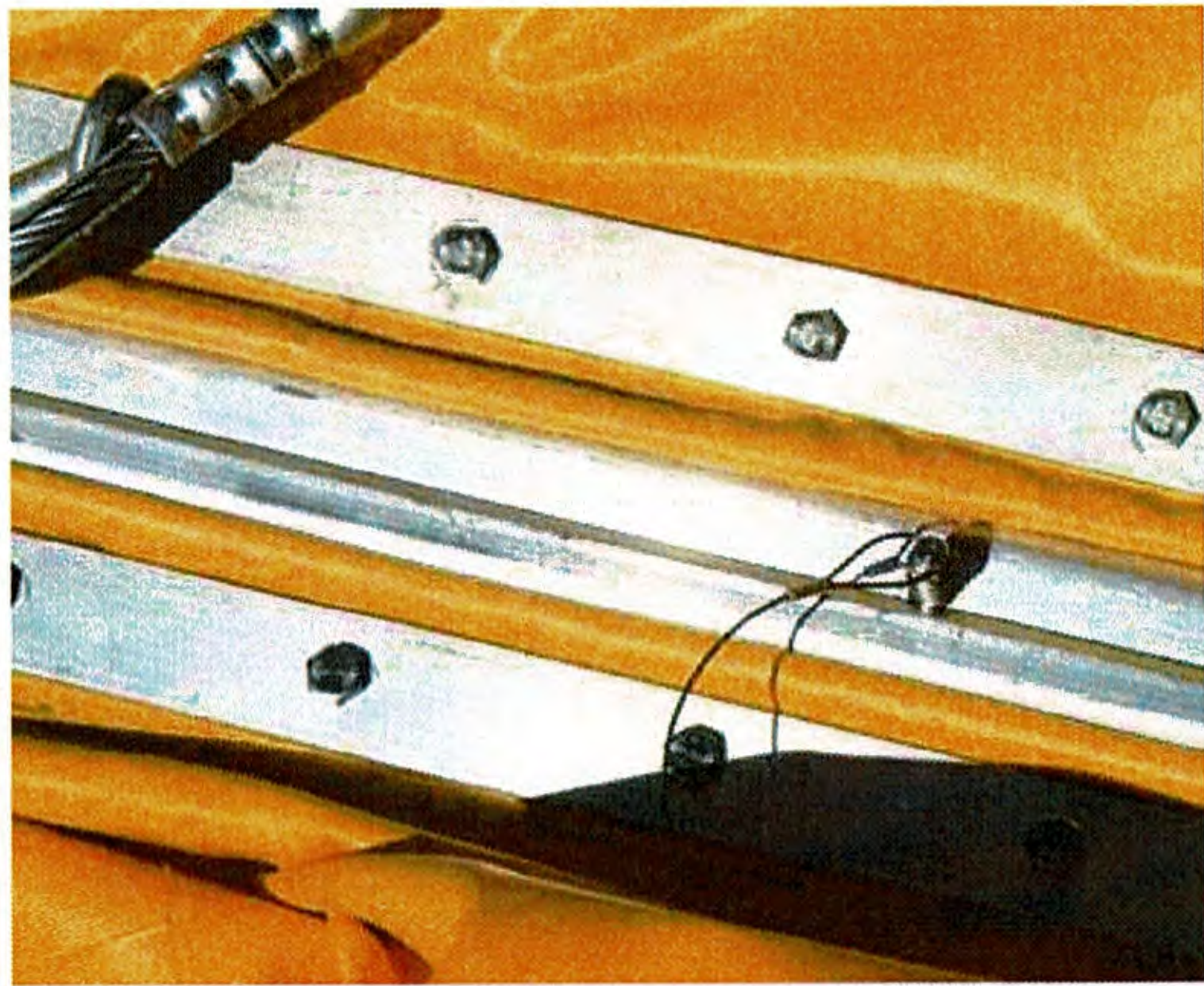
- Anchor Kits
- Buoys
- Marker Lights
- Tow Bridles

## Importance of Anchoring

Anchoring and anchor kits are one of the most important accessories for sites dealing with moving currents, waves, tides or other site factors. Having the right anchor pattern, installation design and anchors can significantly influence, reduce and redistribute loads placed on your barrier. Contact our technical team (+1 772.646.0597) for more information regarding anchor placement and use.



# Triton Type III HD Silt and Turbidity Barrier



## How a Turbidity Curtain Works

The main function of a silt screen or turbidity barrier is to control the dispersion of suspended silt and to improve settling times (Stokes Law). During a construction project, silt and other materials often become suspended in the water area. Curtains are placed within the water to create a confined zone of contained materials. Contained areas allow marine contractors to stay within Federal and State Clean Water Act and NPDES Phase II regulations. In turn, this helps sites to avoid fines and allows projects to be completed on time.

Please note, turbidity curtains are designed to act as a temporary area that increases the amount of time solids have to settle back down to the bottom of the area. They will not act as dams or walls.

## Product Considerations

Knowing these elements can help determine the right anchoring strategy, curtain model and deployment method.

### *Turbidity Curtains and Salt Water*

When using the Type III HD Silt Barrier in salt water areas, consideration should be given to the tension cables and connectors. The following component adjustments are recommended for any location with salt water; Stainless Steel Cable and Zinc Anode Connectors upgrade, Stainless Steel Chain upgrade, or a combined Cable/Chain upgrade.

For short term projects, galvanized components can be used for a period of up to 12 months.

### *Fabric Considerations*

Alternative fabrics are also available for extended deployment in areas with high pH levels, high temperatures, low temperatures or in areas where chemicals are present.

### *When should I use a Permeable Silt Curtain?*

Permeable Type III Silt Barriers are most commonly used when they are either specified in a site project or when the curtain will be dealing with a significant amount of water pressure. Use of the bottom filter panel can help reduce pressure on the curtain by allowing water to continue to the flow through the curtain.

### *Water Conditions, Factors and Considerations*

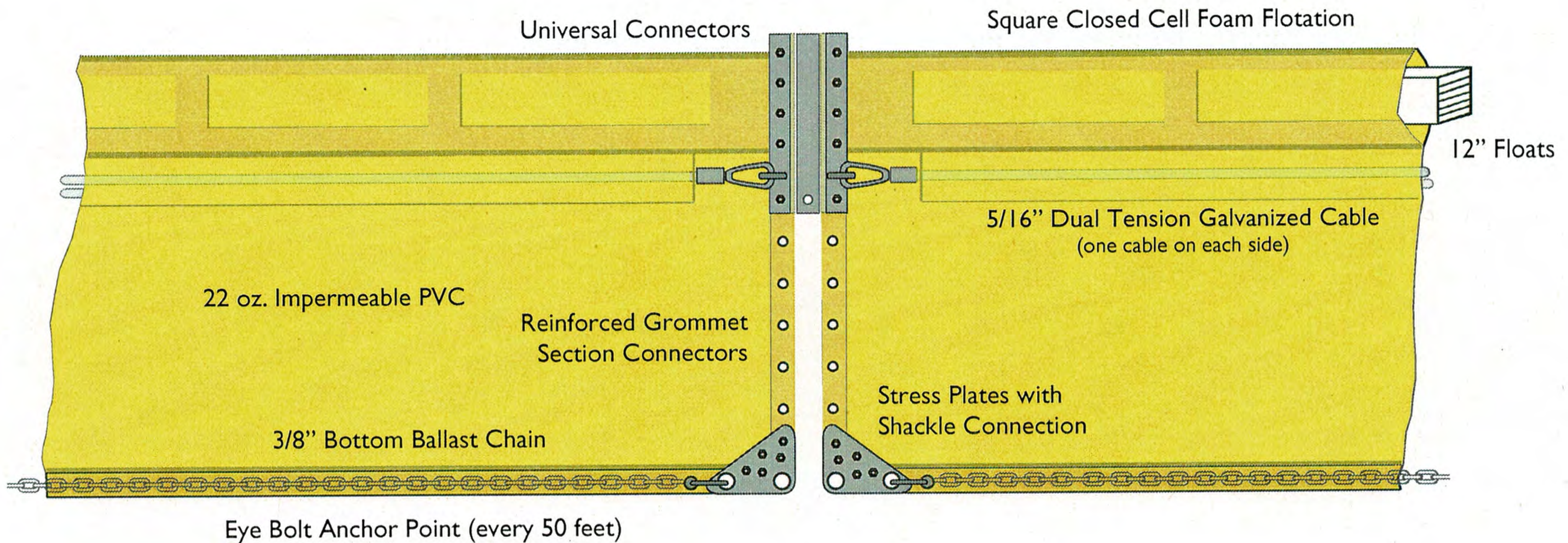
Consideration of site and water conditions is an important step for any location looking to control silt in a moving water body. Due to the current and waves in these areas, additional pressure is placed on the barrier during use. In order to accommodate and contain silt in these conditions, it is important to consider the following:

- Water Velocity
- Waves (height, frequency)
- Wind Speed and Direction
- Tides
- Soil Type (contaminated?)
- Project Duration



# Triton Type III HD

## Silt and Turbidity Barrier



### SPECIFICATIONS

|                             |   |
|-----------------------------|---|
| <b>Length</b>               | 50'   |
| <b>Depth</b>                | 3' to 100'  |
| <b>Fabric</b>               | 22 oz. PVC  |
| <b>Flotation</b>            | Square Foam Filled Flotation  |
| <b>Flotation Size</b>       | 12"   |
| <b>Tension Cable</b>        | 5/16" Galvanized Steel Cable Sheathed in Vinyl  |
| <b>Bottom Ballast Chain</b> | 3/8" Galvanized Steel Chain   |
| <b>Section Connectors</b>   | 36" Top Universal Bulk Connectors. Bottom Steel Stress Plates. Grommet Skirt Connectors |
| <b>Color</b>                | Yellow  |
| <b>Anchor Points</b>        | Every 50' to 100'   |

GEI Works is dedicated to developing innovative turbidity curtain solutions that provide superior performance and achieve the desired results for our customers. We work closely with our client team to design a deployment layout that takes into consideration all of your project requirements including water conditions, project progress, budget and water quality goals.

Our goal is to work with our clients to develop the best solution for their specific project and help them come in under budget and on time.

For more complete information on GEI Works products and solutions, visit us on the Web at [www.geiworks.com](http://www.geiworks.com).

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