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# TRANSMITTAL

**To:** Harwich Waterways Committee  
c/o John Rendon, Harbormaster  
715 Main Street  
Harwich, MA

**Date:** 3/31/21      **Project No.** C16572.03  
**Via:**  1st Class Mail  Pick up  Delivery  Fed Ex  
**Phone:**  
**Fax:**

**Subject:** **Notice of Intent Application Review**  
Proposed Maintenance Dredging &  
Additional Fender Piles  
Paul & Diane Manning  
16 Harbor Road  
Harwich Port, MA  
Map 8 Parcel S2

**No. of pages to follow:**

Plans     Copy of Letter     Specifications     Other

**We are sending the following items:**

| Copies | Date         | No. | Description  |
|--------|--------------|-----|--|
| 6      | Rev. 3/31/21 |     | Project Description  |
| 6      | Rev. 3/31/21 |     | Coastal Engineering Co., Inc., "Plan Showing Proposed Dredge Area" |

**These are transmitted as checked below:**

for approval     for your use     as requested     for review & comment   

**Remarks:** Enclosed please find copies of the revised plans for the referenced project.

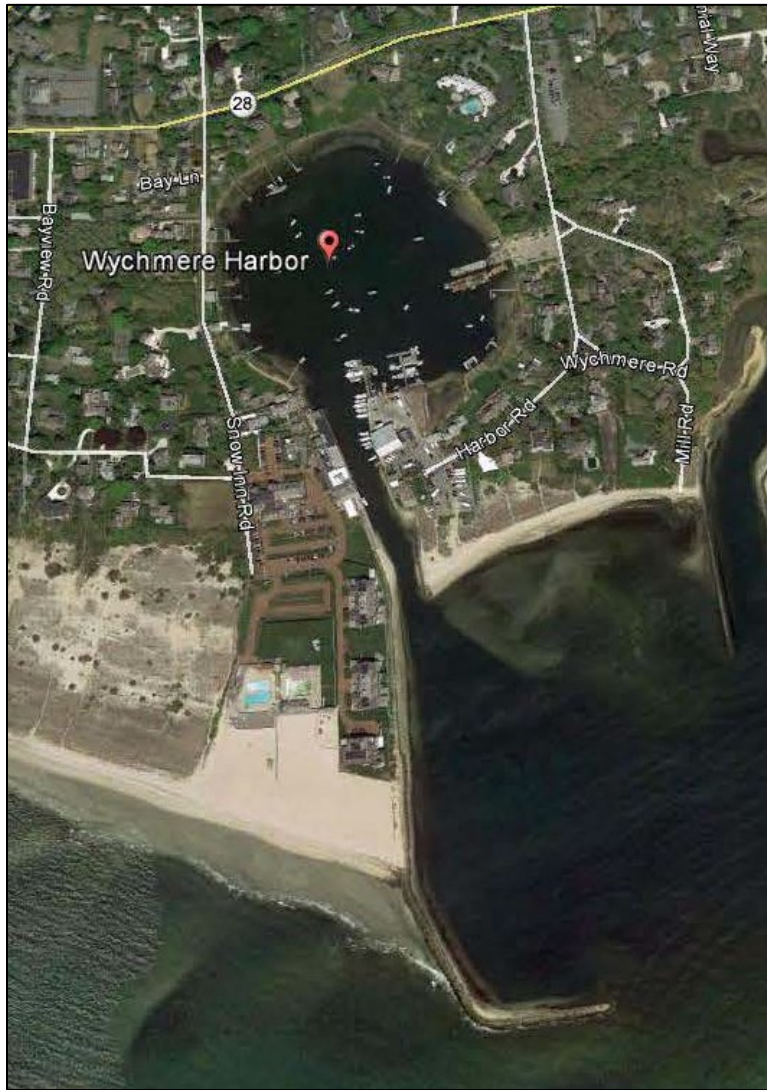
If you have any questions, please contact our office.

**cc:** Harwich Conservation Commission  
Paul Manning, owner  
Charlie A. Agro, Coastal Engineering Company, Inc.

**By:** Sarah Cole

D:\DOC\C16500\16572.03\Permitting\Waterways 2021\Revised Plan Submission, 3-31-21\Transmittal Template.doc

NOTE: If enclosures are not as noted, please contact us at (508) 255-6511

**PROJECT DESCRIPTION – REVISED 03-31-2021****Wychmere Harbor Harwich, MA****Site Description**

The proposed project site is located at 16 Harbor Road in Harwich MA which is situated along the Wychmere Harbor Shoreline. Wychmere Harbor is a tidal waterbody hydraulically connected to Nantucket Sound. Wychmere Harbor serves as a berthing site for many recreational vessels and commercial fishing vessels. Most vessels within the harbor are seasonal aside from a few year-round vessels which are typically commercial fishing vessels. Numerous vessels are docked along the shoreline at marinas and private docks as well as moored within the middle of the harbor basin.

The proposed project site is a private property along the shoreline which has an existing bulkhead, revetments, piers, ramps, and floating docks. The existing structures below the mean-high water (MHW) line were permitted under OOC SE 1987 and are licensed under MA DEP Chapter 91 License No. 3912 and

permitted under ACOE Permint No. NAE-1993-1253. The docking system provides safe storage vessel owned by the property owner. Seaward of the existing docking system there is an improvement dredge area that has been previously dredged to -6' MLW (with a 1 foot allowable over-dredge). The improvement dredging was permitted under OOC SE 32-2143, MA DEP C.91 Dredge Permit No. 13726 (still active), and ACOE NAE-2013-01727 (still active).

### **Project Description**

The proposed project is to conduct maintenance dredging of the area at the end of the applicant's licensed pier and a portion of the harbor to the west of their pier between them and the Stone Horse Yacht Club floats, which is a relatively shallow area. The proposed maintenance dredge area has been permitted as improvement dredging and has been dredge in the past. The proposal is to apply for a new Orders of Conditions (OOC) to allow maintenance dredging of the same footprint that was previously dredged and to the depth. The MA DEP C.91 Dredge Permit and ACOE Dredge Permit will be updated to include maintenance dredging. Ongoing maintenance dredging would improve the underwater habitat and establish a more serviceable depth of water during low tides in the interest of navigational safety. In this particular area turbidity is periodically caused by normal boating activity during high and low tides. As a result of natural tidal flow in Wychmere Harbor the silt/muck has been depositing in this area over time and is in need of removal through dredging.

The proposed project also includes the installation of batter pile attached to the existing dolphin pile to provide more support for the owner's vessel while docked. The locations of battered pile is shown on the plan. During the Harbor and Waterways Committee hearing on 03-17-2021, the committee members suggested the removal of the proposed dolphin pile and associated battered pile. The plans were revised and the new dolphin pile and associated battered pile was removed. The committee members also asked if it would be more effective to remove the existing dolphin pile and replace it with a newer larger pile rather than augment it with an additional battered pile. After an inspection of the pile and a review of the construction history of the pile, it was determined that the existing fender pile should remain in place and augmented with a battered pile. The existing dolphin pile was installed during the winter of 2017/ 2018 and upon an inspection (above the waterline at low tide) appears to be in good condition. It is also similar in diameter and in material to the other existing piles on the referenced property as well as the piles at the adjacent marina, Stone Horse Yacht Club. Therefore, it is our recommendation that the existing dolphin pile remains in place and is augmented with a new battered pile as shown on the plans. The proposed battered pile would be installed by a barge and would cause minimal disturbance of the seafloor during the installation. Prior to installation, a silt boom should be installed around the work area to reduce the spread of turbidity into the adjacent waters. We anticipate that the new battered pile will be permissible under a minor modification application to the existing Chapter 91 License for the existing docks.

The resource areas within 100 feet of the project site include Land Under the Ocean, Land Containing Shellfish, and Salt Marsh.

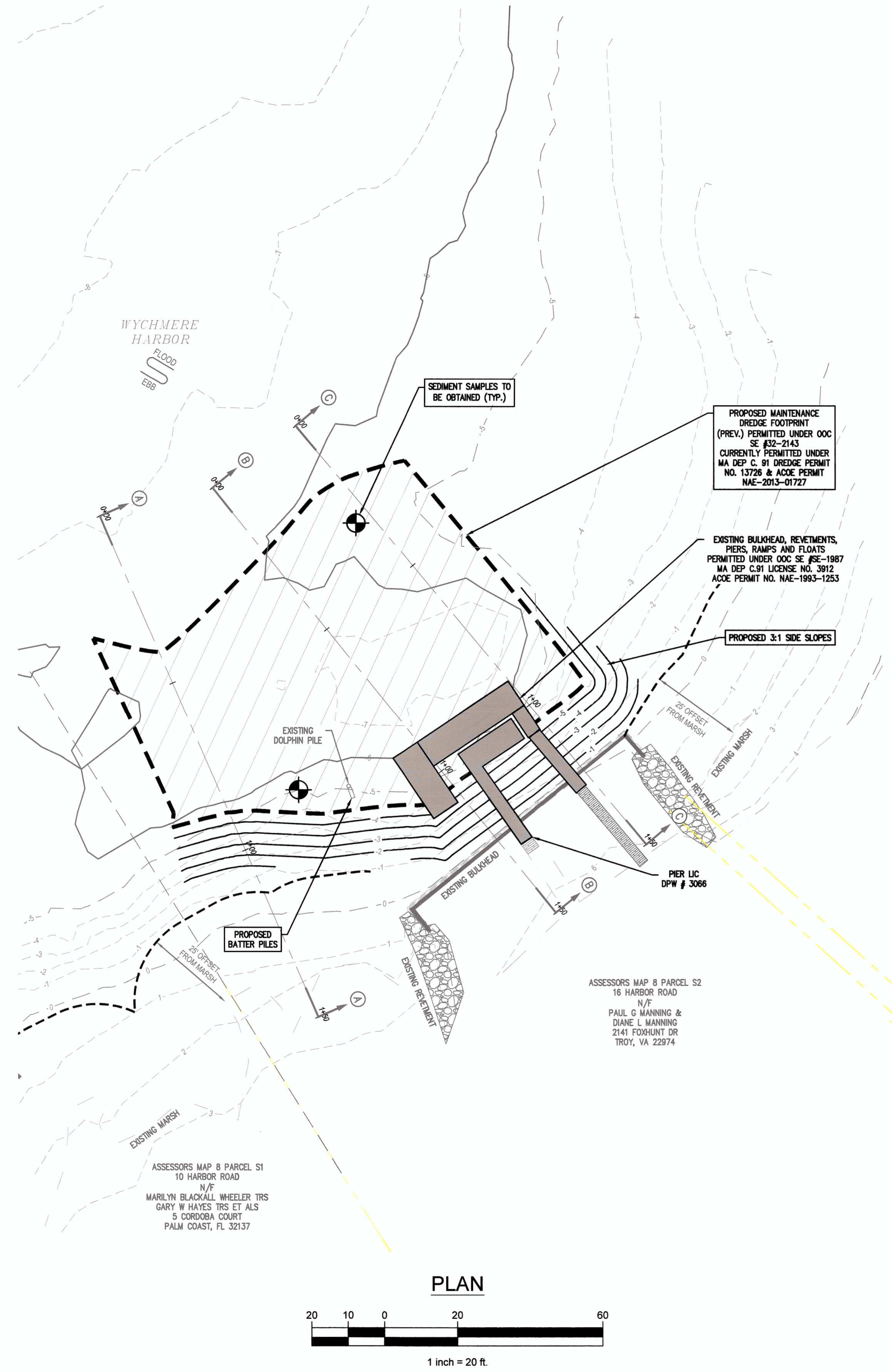
### **Summary**

In conclusion, the project has a low impact on the environment in the harbor. There will be a slight increase in turbidity in the immediate area of the dredging and battered pile installation. Engineering controls will be used to minimize potential impacts from resuspension of finer sediment particles by using turbidity curtains and monitoring during the dredging process. This will help control and localize the suspended materials to the immediate dredge footprint. The applicant is submitting a Notice of Intent application to request the ability to perform maintenance dredging in an area of Wychmere Harbor to the previously permitted dredge

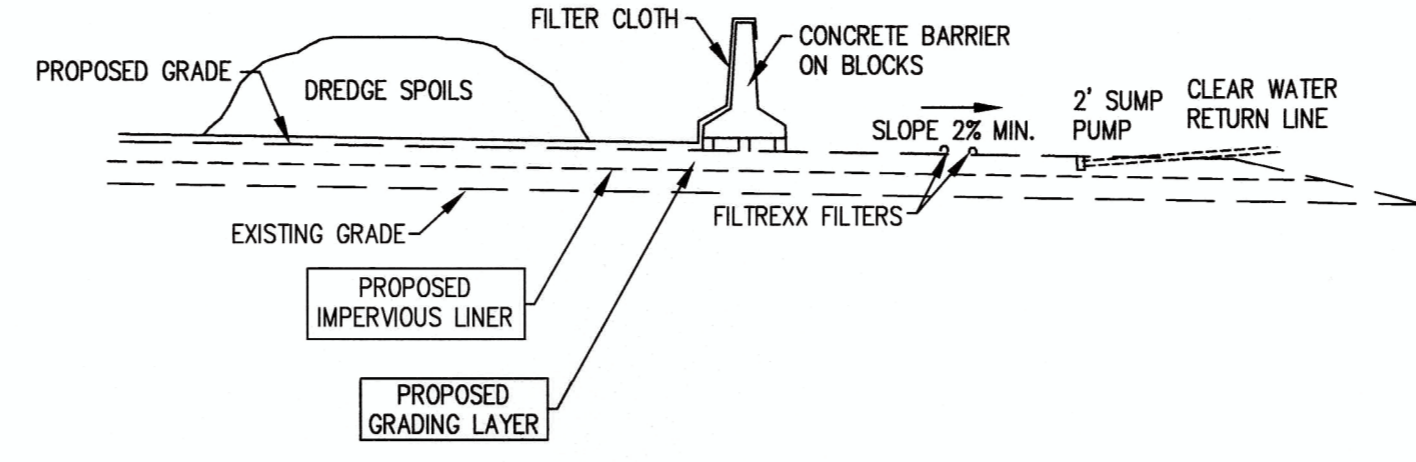
depth of -6 MLW. The purpose of this project is to conduct maintenance dredging as needed to maintain the navigable water depth in the area to provide safe access to the property site by vessel. The project will increase the safety to navigation as well as increase the health of the environment for the aquatic life in the harbor, and increase the water quality and circulation to the harbor.

F:\SDB\FPROJ\C16572\C16572-03\C16572-03-C.dwg 3/8/2021 5:08 PM

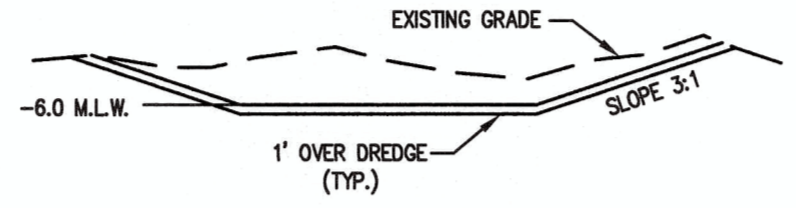
MASS. COORD. SYSTEM NAD 1983 MAINLAND ZONE



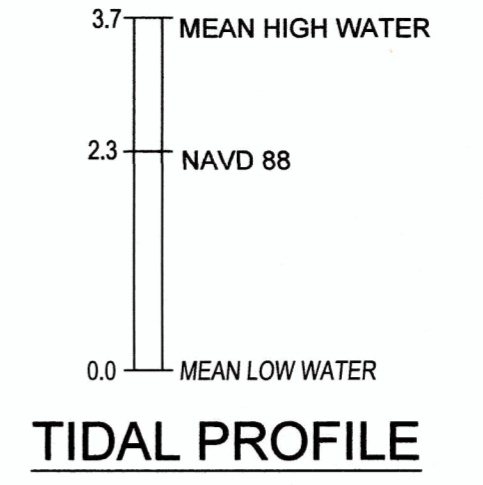
THIS DRAWING IS PREPARED FOR PERMITTING PURPOSES ONLY AND SHALL NOT BE USED FOR CONSTRUCTION. CONTRACTOR SHALL OBTAIN FINAL CONSTRUCTION DETAILS FROM THE ENGINEER PRIOR TO PREPARATION OF CONSTRUCTION BID AND BEFORE BEGINNING ANY WORK.



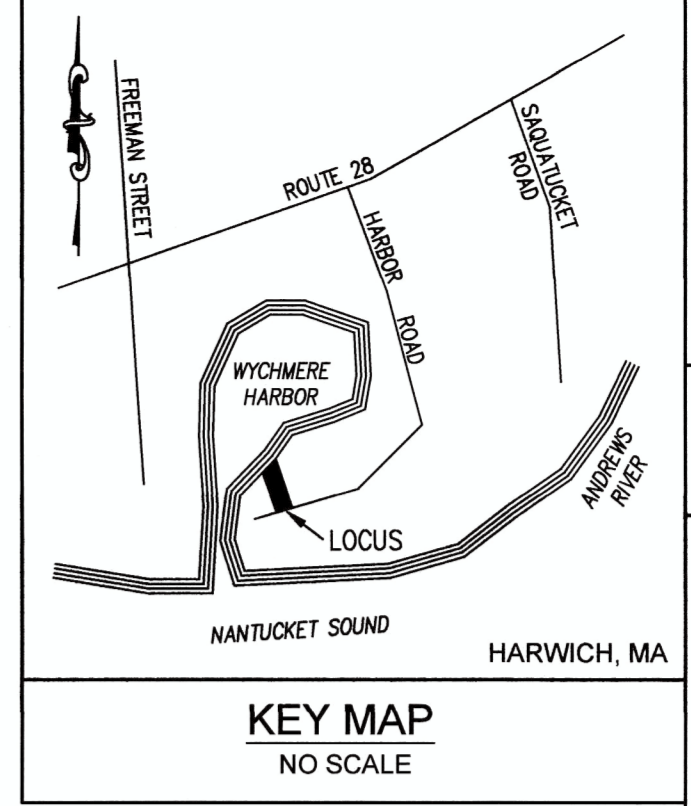
TYPICAL CONTAINMENT AREA  
NOT TO SCALE



TYPICAL DREDGE PROFILE  
SCALE: 1"=20'



TIDAL PROFILE  
SCALE: 1"=2"  
NOAA BUZZARDS BAY NATIONAL ESTUARY PROGRAM



KEY MAP  
NO SCALE

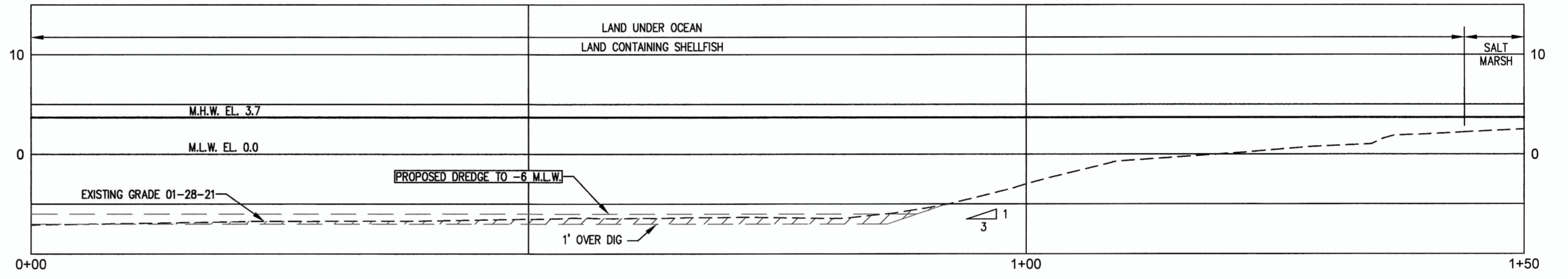
**PROPOSED MAINTENANCE DREDGE NOTES:**

1. PROPOSED MAINTENANCE DREDGE VOLUME = 153± C.Y. (TO GRADE) PLUS 101± C.Y. (TO THE 1FT ALLOWABLE OVERDIG DEPTH). NOTE, DREDGE VOLUMES WERE CALCULATED BASED ON THE HYDROGRAPHIC SURVEY COMPLETED ON 01-28-21. THE ACTUAL DREDGE VOLUME MAY CHANGE DUE TO SEDIMENT TRANSPORT BY THE START DATE OF DREDGING.
2. PROPOSED DREDGE DEPTH = -6FT MLW. (WITH 1FT OVERDIG)
3. PROPOSED DREDGE FOOTPRINT = 7,825 S.F.
4. PROPOSED DREDGE TEMPLATES DESIGNED ON A 3:1 SLOPE FROM THE INTERSECTION OF THE PROPOSED DREDGE FOOTPRINT AND EXISTING GRADE TO THE PROPOSED DREDGE DEPTH OF -6FT MLW.
5. DREDGING TO COMPLETED BY HYDRAULIC CUTTER SUCTION DREDGE OR BY MECHANICAL MEANS. IF A MECHANICAL DREDGE IS USED, A TEMPORARY DEWATERING AREA CAN BE IMPLEMENTED AT THE PARKING AREA ALONG HARBOR RD TO THE NORTH EAST OF THE SITE AS IT WAS PREVIOUSLY DONE. (REFER TO THE TYPICAL CONTAINMENT AREA DESIGN FOR MORE DETAILS). AFTER DREDGE SEDIMENT IS DE-WATERED, IT WILL BE TRUCKED TO THE BEACH FOR FINAL PLACEMENT.

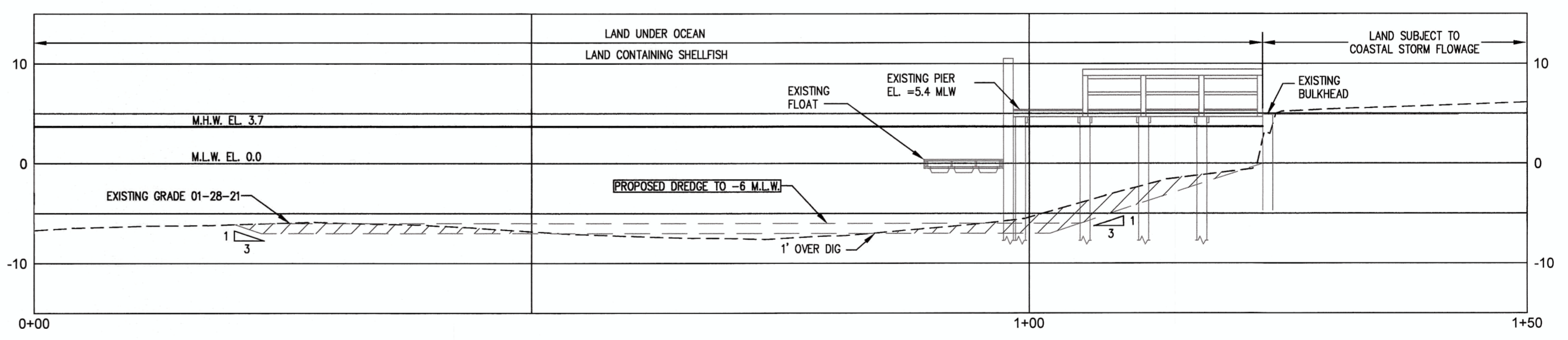
**REFERENCE:**  
ASSESSORS MAP 8, LOT S 31

**HYDROGRAPHIC SURVEY:**  
THE HYDROGRAPHIC SURVEY DATA AS SHOWN ON THIS PLAN WAS COLLECTED ON JANUARY 28TH, 2021 BY COASTAL ENGINEERING COMPANY AND ONLY REPRESENTS THE RIVER BASIN DEPTH AS IT EXISTED DURING THE TIME OF THE SURVEY.

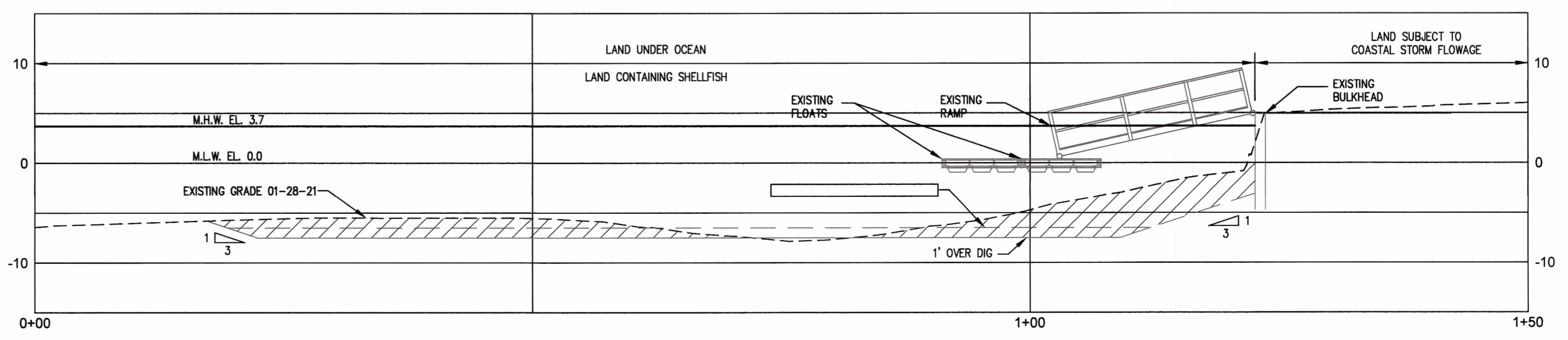
**DATUM:**  
ELEVATIONS SHOWN HEREON ARE BASED ON MEAN LOW WATER (MLW). CONVERSION TO NGVD = 1.4'



PROFILE A-A  
SCALE: 1"=10'



PROFILE B-B  
SCALE: 1"=10'



PROFILE C-C  
SCALE: 1"=10'

**COASTAL engineering co.**  
260 Cranberry Hwy, Orleans, MA 02653  
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|     |            |   |
|-----|------------|---|
| NO. | DATE       | REVISION  |
| 1   | 03/03/2021 | REMOVE PROPOSED DOLPHIN PILE WITH A BATTERED SUPPORT PILE |

SEAL  
  
 ROGER PAUL MICHALEWICZ  
 CIVIL ENGINEER  
 No. 30472  
 State of Massachusetts  
 3-8-21

PROJECT: HARWICH, MA  
 16 HARBOR ROAD  
 SHEET TITLE: PLAN SHOWING PROPOSED DREGE AREA  
 PROJECT NO.: C16572-03

SCALE: AS NOTED  
 DRAWING FILE: C16572-03-C.dwg  
 DATE: 03-03-2021  
 DRAWN BY: CMP  
 CHECKED BY: CAA/RPM

C3.1.1  
 1 of 1 SHEETS  
 PROJECT NO.: C16572.03