



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

PUBLIC NOTICE

Comment Period Begins: February 20, 2018
Comment Period Ends: March 22, 2018
File Number: NAE-2016-02762
In Reply Refer To: Sarah Wilkinson
Phone: (978) 318-8513
E-mail: sarah.a.wilkinson@usace.army.mil

The U.S. Army Corps of Engineers has received a permit application to conduct work in waters of the United States from White's Bass River Marine LLC dba Bass River Marina. The project site is located on the Bass River (Horsefoot Cove) at 140 Main Street, West Dennis, Massachusetts. Site center coordinates are: 41.666517, -70.177289. Dredge area coordinates are shown on sheet 11 of the attached drawings.

Proposed work and structures consist of:

1. *Marina*: construction and maintenance of several marina floating dock additions totalling 6,989 square feet (section dimensions shown on project drawings sheet 5) and accommodating up to 39 vessels. A total of forty-two 12-inch diameter timber piles will be driven as part of installation of the additional floats.
2. *Between the town boat ramp and the marina*: construction and maintenance of an 8-foot by 334-foot boardwalk (210 linear feet over the mean high water line, MHWL). A total of fifty-six 12-inch diameter timber piles (20 piles in upland) will be driven to construct the boardwalk.
3. *Adjacent to the town boat ramp*: construction and maintenance of an 8-foot by 51-foot pier, 8-foot by 16-foot terminal platform, 4-foot by 80-foot ramp, 12-foot by 24-foot landing float, and 8-foot by 176-foot long float system. A total of thirty-two 12-inch diameter timber piles (6 piles in upland) will be driven for the pier, ramp, and floats.
4. *Outer Channel (Dredge area A)*: Dredge 2,065 cubic yards for a 60-foot by ~900-foot long channel (53,766 square feet at toe of slope) with a side slope of 3H:1V and a depth of -6 mean low water (MLW).
5. *Marina Basin (Dredge area B)*: Dredge 11,985 cubic yards, for a 204,090 square feet (at toe of slope) marina basin with a side slope of 3H:1V and to a depth of -6 MLW.
6. *Boat Ramp Channel (Dredge area C)*: Dredge 4,825 cubic yards for a 60-foot by ~450-foot long channel (25,699 square feet at toe of slope) with a side slope of 3H:1V and a depth of -6 MLW.

The work is shown on the attached plans entitled "BASS RIVER MARINA IMPROVEMENTS" on 15 sheets dated "9/18/17", "REV. 1/31/18" for sheets 12 to 14.

Applicant proposes that project impacts have been minimized to extent possible, impacting the minimum area of tidal waters in order to ensure safe navigation, public access, and marina expansion. The dredge footprint avoids salt marsh. Structures over marsh have 1H:1W ratio. Turbidity curtains will be used during all dredging activities. Project work vessels would be from local ports. All work will occur during the MA DMF TOY Work Window from November 16 to February 15. All dredged material will be disposed of at an off-site, upland location.

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 Corps of Engineers is soliciting comments from the public, federal, state, and local agencies, Native American tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers 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.

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 (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). This project may impact 325,932 square feet of Essential Fish Habitat (EFH) for the following federally managed species: all life stages of smooth dogfish, winter skate, little skate, Northern shortfin squid, Atlantic surfclam, summer flounder, scup, and juvenile/adult life stages of black sea bass.

Habitat at the site is sand with minor areas of silt. There is no reported submerged aquatic vegetation in the project area. 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 with the National Marine Fisheries Service (NMFS) regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

NATIONAL HISTORIC PRESERVATION ACT

Based on initial review, the Corps has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the

National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

ENDANGERED SPECIES CONSULTATION

The Corps has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which may be present in the action area. There is no designated critical habitat in the action area. The Corps has made the preliminary determination that the proposed project may effect, but is not likely to adversely affect the following federally listed species: Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, and loggerhead sea turtle. The Corps has initiated consultation under with NMFS for potential impacts to listed species.

COASTAL ZONE MANAGEMENT

The State of Massachusetts has an approved Coastal Zone Management Program. 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, the applicant will apply for a federal consistency determination from the Massachusetts Office of Coastal Zone Management (CZM) for the proposed project.

The following authorizations have been applied for 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.

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 (page 1). If you have any questions, please contact Sarah Wilkinson at sarah.a.wilkinson@usace.army.mil or (978) 318-8513.

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.

CENAE-R

FILE NO. NAE-2016-02762

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. 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: _____
EMAIL: _____



**EXHIBIT A
SITE LOCATION MAP**

LOCATION
WEST DENNIS, MASSACHUSETTS

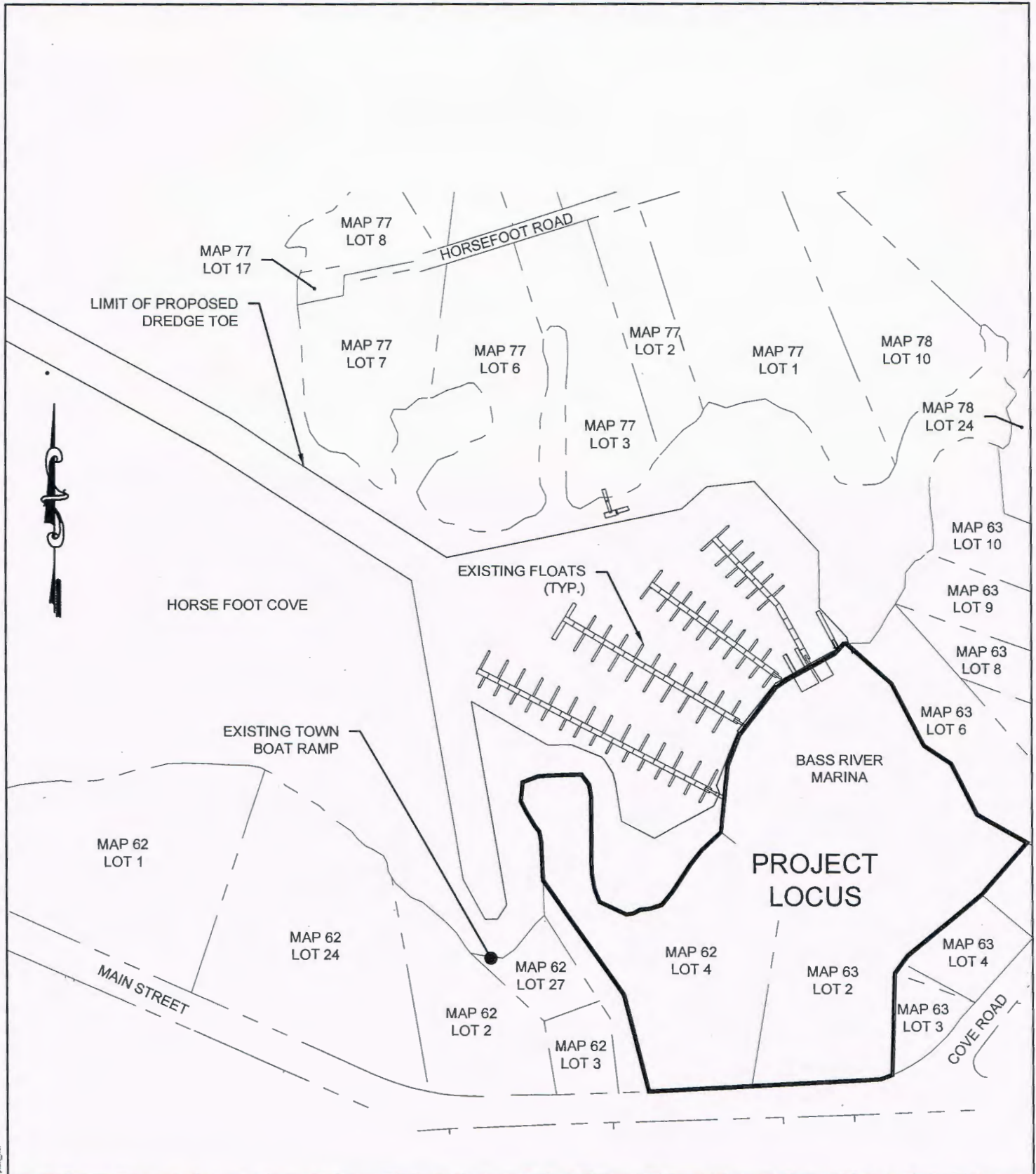
CLIENT
BASS RIVER MARINA

U.S.G.S. QUADRANGLE:
DENNIS, MA
APPROX SCALE: N.T.S



cleengineering

15 Creek Road | Marlon, Massachusetts 02738
t: 508.748.0937 | www.cleengineering.com

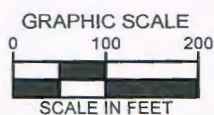


PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

OVERVIEW MAP

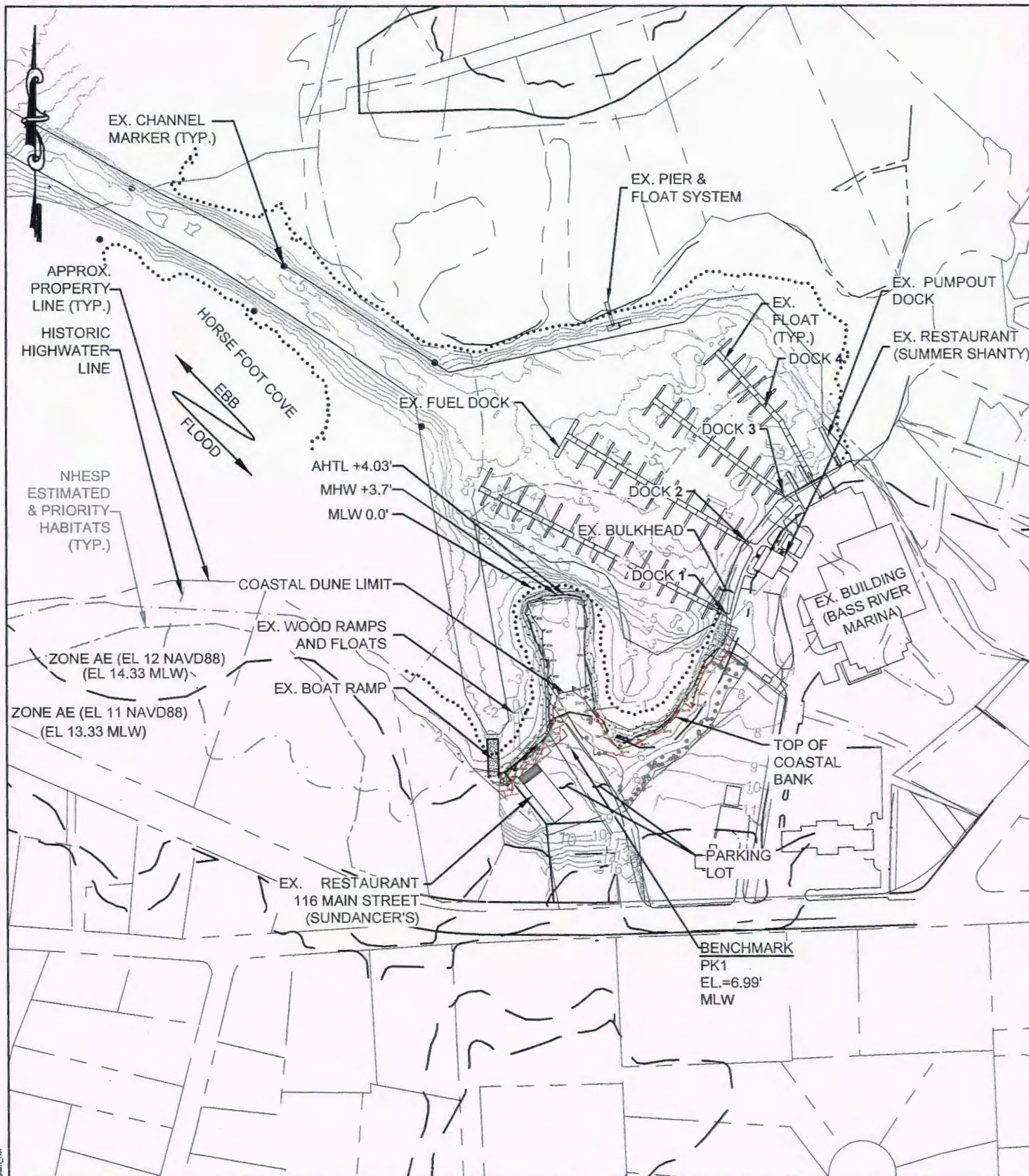


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 1 OF 15

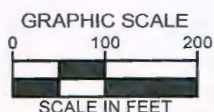


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AHTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

EXISTING CONDITIONS

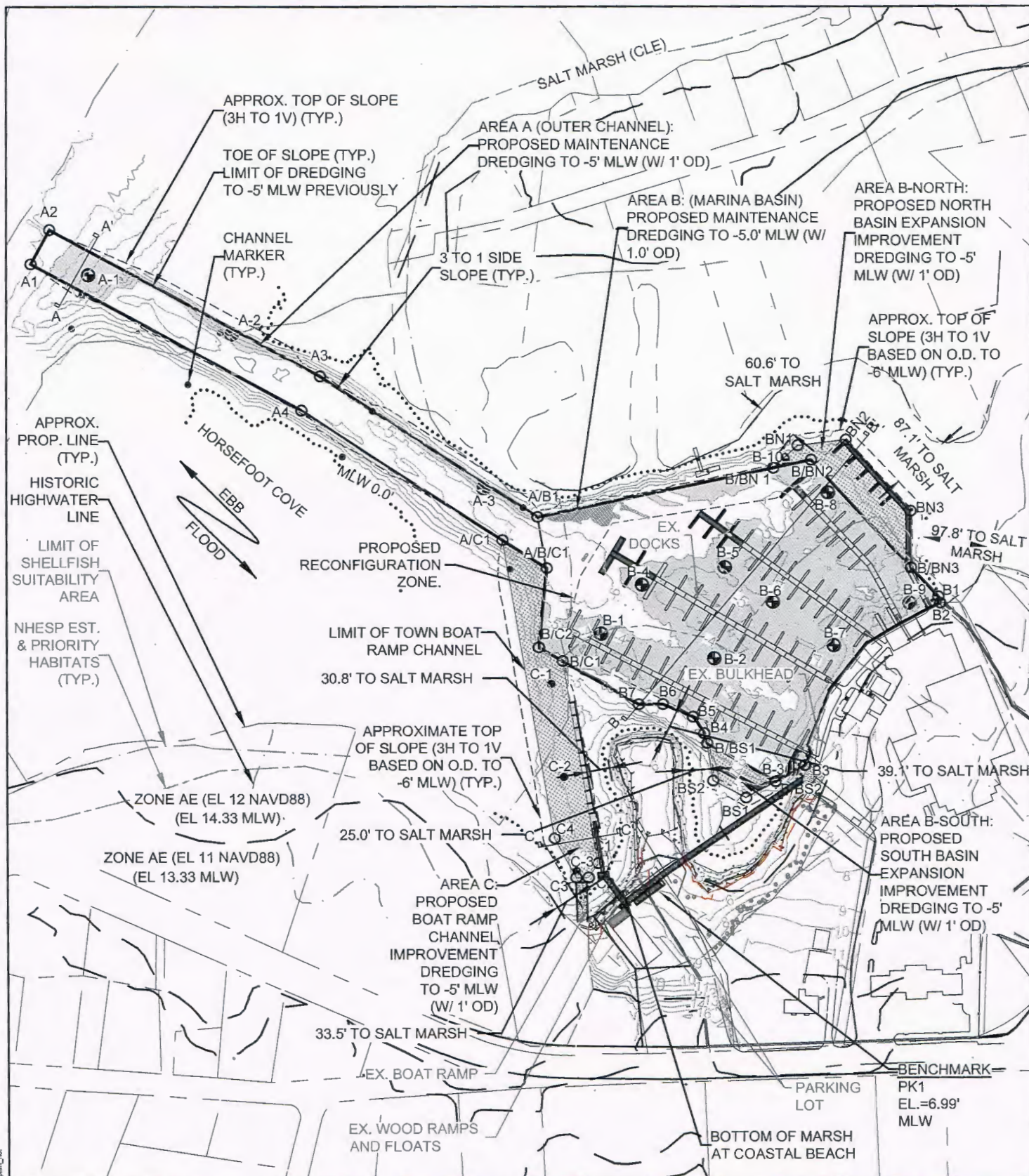


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 2 of 15



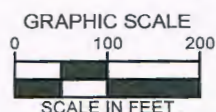
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HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

PROPOSED DREDGING

OVERVIEW PLAN

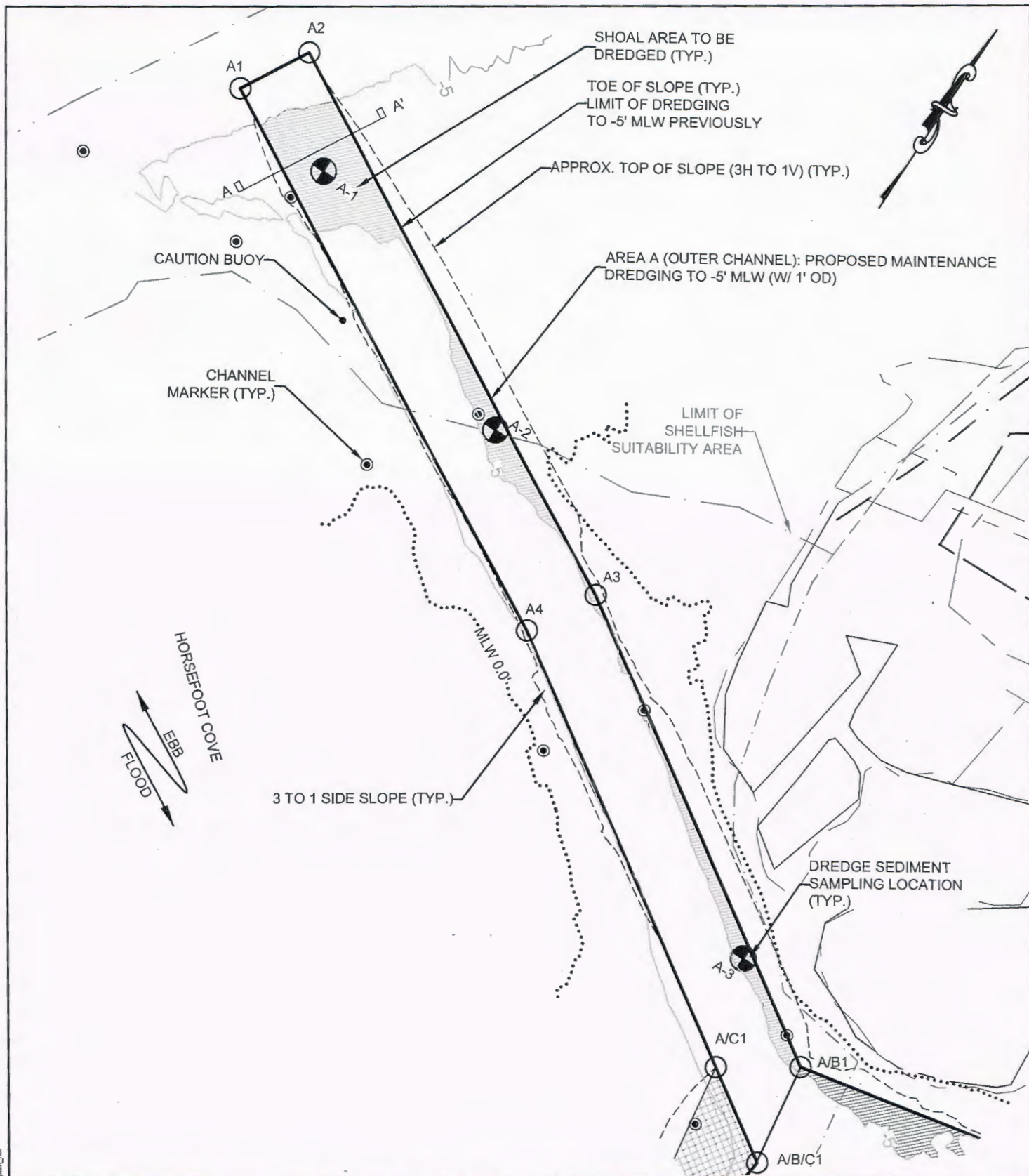


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 3 OF 15

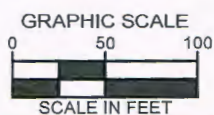


PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

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MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

PROPOSED OUTER CHANNEL (AREA A) DREDGING PLAN

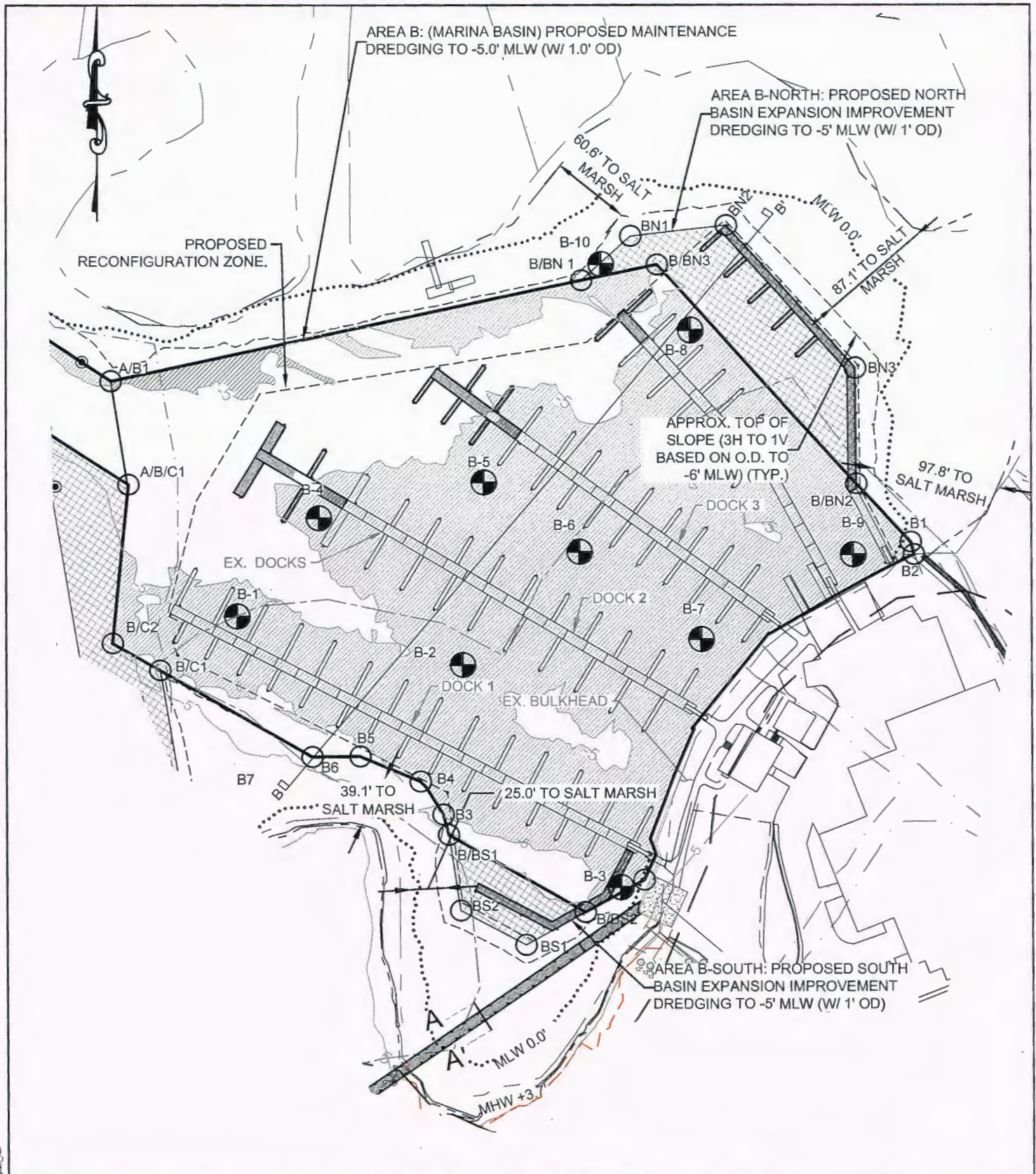


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 4 OF 15

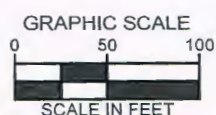


PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

PROPOSED MARINA BASIN (AREA B) DREDGING PLAN

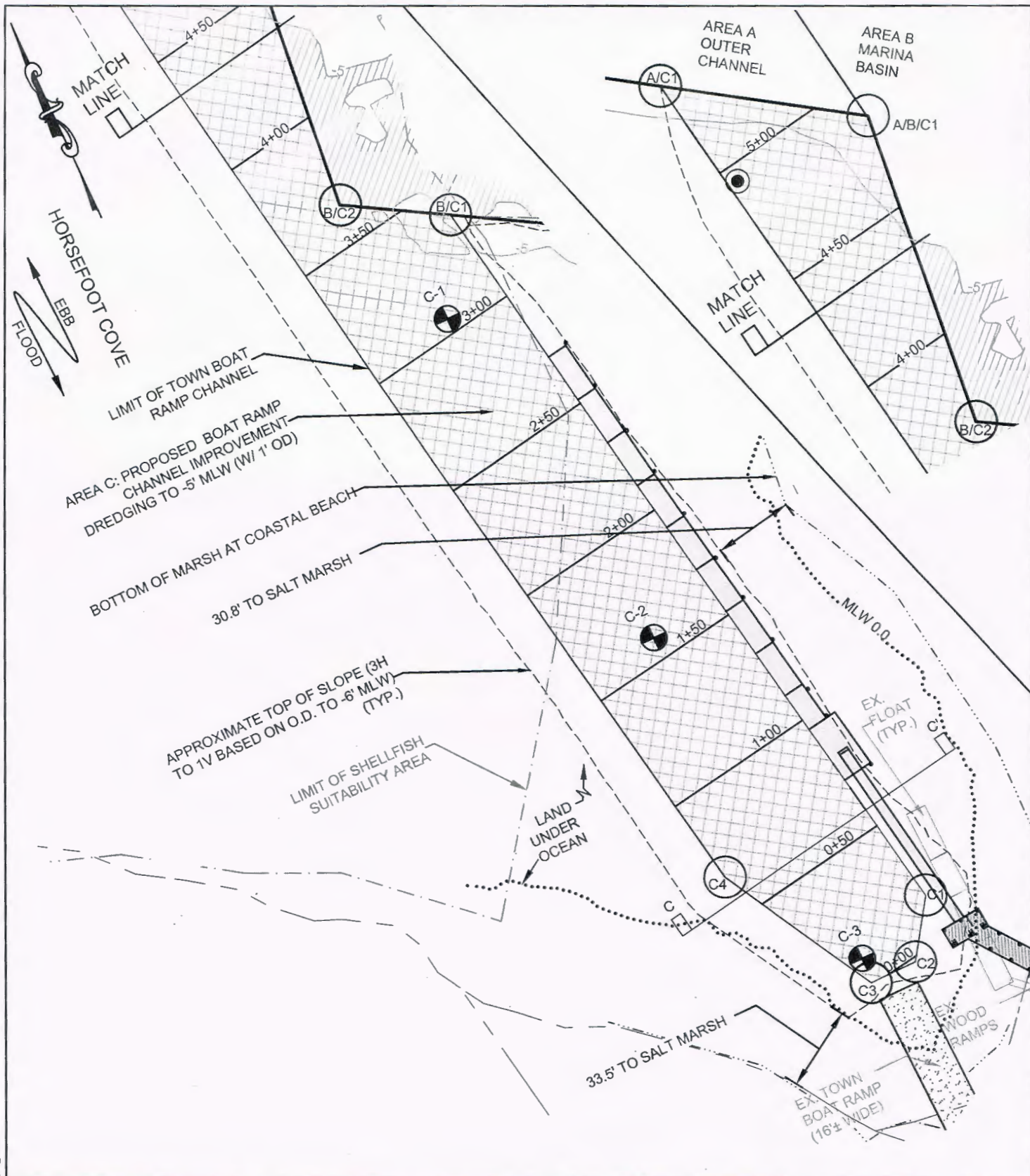


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 5 OF 15

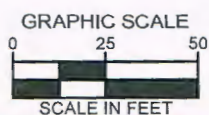


PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
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HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

PROPOSED DREDGING BOAT RAMP (AREA C)

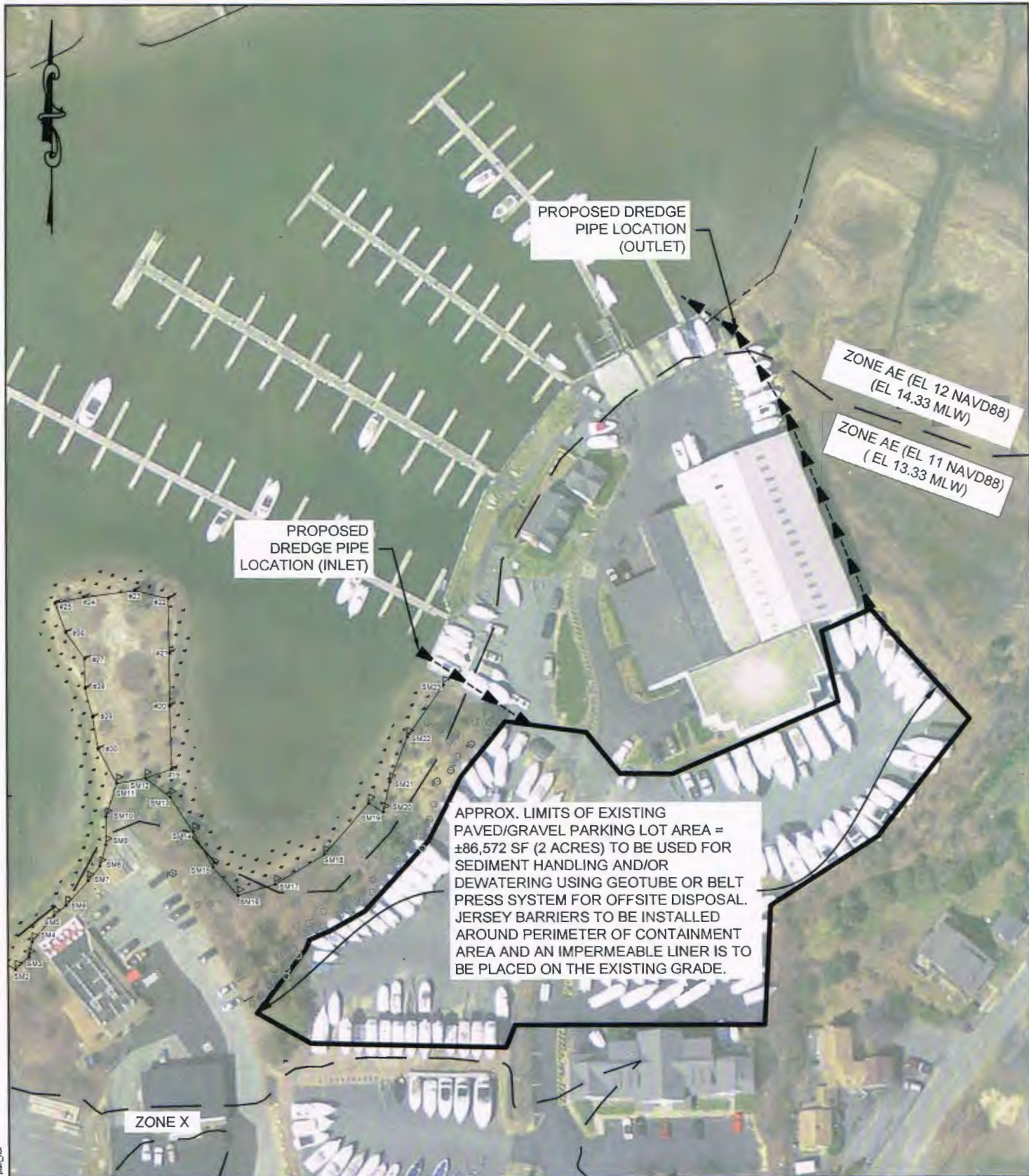


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

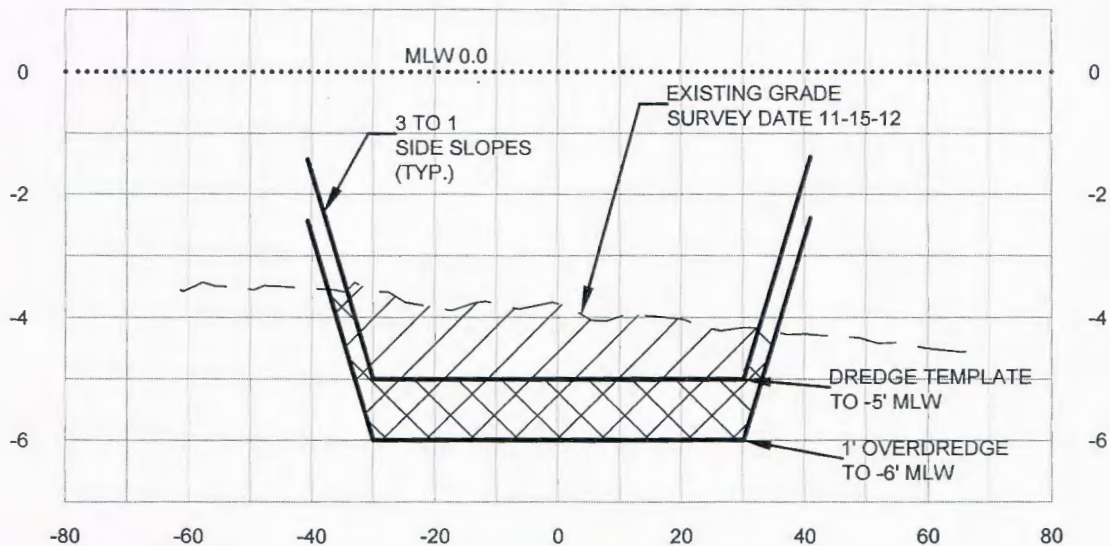
DATE: SEPTEMBER 18, 2017

SHEET 6 OF 15



<p>PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS</p> <p>DATUM: NAVD88 MLW = 0.0' MHW = +3.7' HTL = +4.03'</p> <p>CLE ENGINEERING, INC. 15 CREEK ROAD, MARION MA, 02738</p>	<p>PROPOSED DEWATERING PLAN TRANSMITTAL #X275105</p> <p>GRAPHIC SCALE 0 50 100 SCALE IN FEET</p>	<p>BASS RIVER MARINA IMPROVEMENTS WEST DENNIS, MA</p> <p>AT: WEST DENNIS COUNTY OF: BARNSTABLE APPLICATION BY: BASS RIVER MARINA</p> <p>DATE: SEPTEMBER 18, 2017</p> <p>SHEET 7 OF 15</p>
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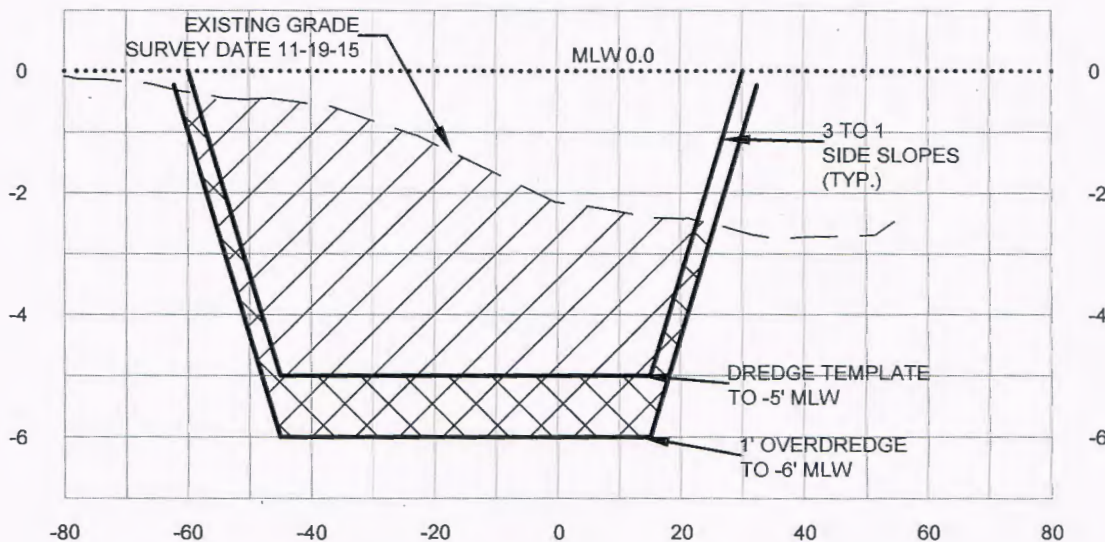


AREA A (OUTER CHANNEL):

SECTION A-A'

HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'



AREA C (TOWN BOAT RAMP CHANNEL):

SECTION C-C'

HORIZONTAL SCALE: 1"=30'

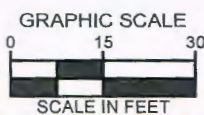
VERTICAL SCALE: 1"=3'

PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

TYPICAL PROPOSED SECTIONS: A-A' & C-C'

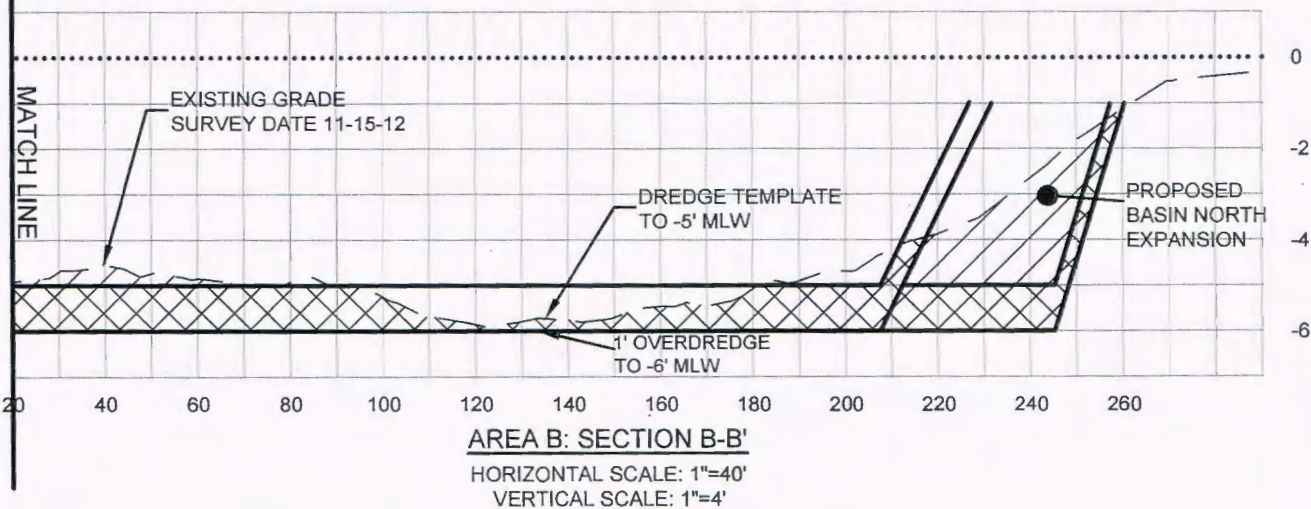
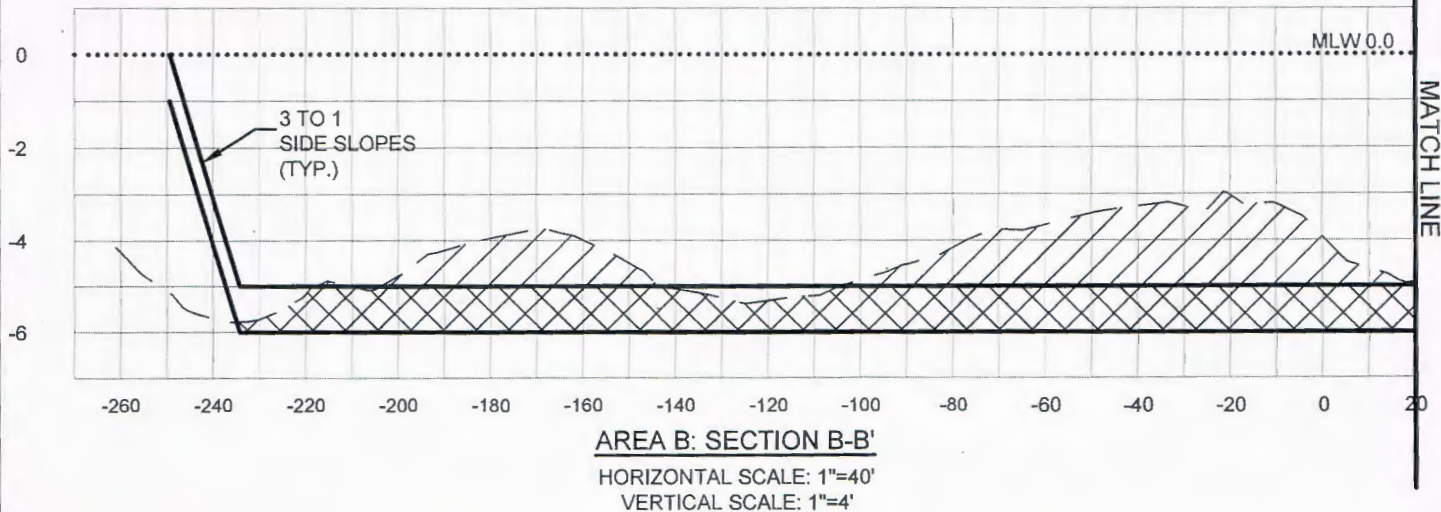


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 8 OF 15

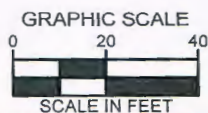


PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

TYPICAL MARINA BASIN DREDGE SECTIONS B-B'



BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 9 OF 15

NOTES:







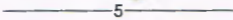
















1. RESULTS OF TOPOGRAPHIC SURVEY BY CLE ENGINEERING, INC. (CLE) ON 11-9-15.
2. SALTmarsh DELINEATION BY CLE ON 10-4-16 AND 11-9-15 AND BY BSC GROUP ON 11-5-98.
3. RESULTS OF HYDROGRAPHIC SURVEY BY CLE ENGINEERING, INC. (CLE) ON 11-19-15 AND 5-4-17.
4. EEL GRASS INSPECTION CONFIRMED THERE IS NO EEL GRASS IN THE SCOPE OF WORK ON 11-19-15.
5. ELEVATIONS AND SOUNDINGS ARE IN FEET AND TENTHS, AND REFER TO THE MLW DATUM. MLW=0'; MHW=+3.7'; AHTL=+4.03'.
6. DATUM CONVERSIONS PERFORMED USING VDATUM 3.4 SOFTWARE.
7. COORDINATES ARE BASED ON NAD83 MASSACHUSETTS MAINLAND STATE PLANE GRID SYSTEM.
8. SOUNDINGS ARE BASED ON THE 5' MINIMUM VALUE DATA SET FOR MAPPING.
9. SITE BENCHMARK IS A PK NAIL LABELED "BENCHMARK" ON PLAN. BENCHMARK ELEVATION IS +6.99' MLW.
10. PROPERTY LINES SHOWN ARE FROM BSC GROUP PLAN DATED 1998. PARCELS LINES SHOWN ARE FROM MA GIS.
11. FEMA FLOOD ZONES AND NHESP ESTIMATED & PRIORITY HABITATS ARE APPROXIMATE AND ARE BASED ON MOST RECENT DATA AVAILABLE FROM THE MA GIS DATABASE.
8. BULKHEAD AND FLOAT ORIENTATION TAKEN FROM CONSTRUCTION AS-BUILT PLANS DATED 2005 AND ORIENTED BASED ON TARGETS TAKEN AT TIME OF SURVEY ON 11-15-12.
9. PROJECT SITE IS IN FEMA ZONE AE (EL. +12 NAVD88) IN ACCORDANCE TO FEMA FIRM #25001C0591J, EFFECTIVE DATE JULY 16, 2014.
10. POSSESSION AND USE OF THE MATERIAL CONTAINED ON THESE DRAWINGS IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF CLE ENGINEERING INC.

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SURVEY NOTES:

- | | |
|---------------------|--|
| 1. PROJECT NAME: | HYDROGRAPHIC SURVEY |
| 2. PROJECT NUMBER: | 15265.100 |
| 3. PLOT SCALE: | AS NOTED |
| 4. SURVEY DATE: | NOVEMBER 23, 2015 |
| 5. SURVEYOR: | M.CAMP, F.LIMA |
| 6. VESSEL: | "LOWE" |
| 7. TRANS./FATH.: | 200KHZ, 4 DEGREE ODOM CVM |
| 8. WEATHER COND: | SUNNY, 50 DEGREES, WIND LIGHT, SEAS CALM |
| 9. PROJECT DATUM: | MLW |
| 10. COOR. SYSTEM: | NAD-83, MA-2001 MASS MAINLAND |
| 11. DATA REDUCTION: | BAT DATA 5' MIN VALUE SORT |
| 12. BENCHMARK: | PK NAIL SET IN PILING AT WEST END OF SOUTHERN FLOAT EL. +4.4' MLW. |

LEGEND

PROPOSED MAINTENANCE DREDGING TO -5.0' MLW (W/ 1.0' OD)		BOTTOM OF MARSH AT COASTAL BEACH	
PROPOSED IMPROVEMENT DREDGING TO -5.0' MLW (W/ 1.0' OD)		FEMA LINE (MA GIS)	
SEDIMENT SAMPLE LOCATION		APPROXIMATE PROPERTY LINE	
CONTOUR LINE		NHESP ESTIMATED & PRIORITY HABITATS (MA GIS)	
ANNUAL HIGH TIDE LINE AHTL EL. 4.03'		WATER BORING LOCATION	
MEAN HIGH WATER LINE MHW EL. 3.70'		CLE ENGINEERING SALTmarsh FLAG	
MEAN LOW WATER LINE MLW EL. 0'		HYDRANT	
SOUNDING (11/15/12)	5.2	SEWER MANHOLE	
STATIONING	0+00	ELECTRIC MANHOLE	
DREDGE TEMPLATE		UNKNOWN MANHOLE	
TOP OF COASTAL BANK			
BOTTOM OF MARSH AT COASTAL BEACH			
FEMA LINE (MA GIS)			
APPROXIMATE PROPERTY LINE			
NHESP ESTIMATED & PRIORITY HABITATS (MA GIS)			

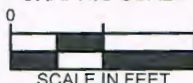
PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

PROJECT NOTES AND LEGEND

GRAPHIC SCALE



BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 10 OF 15

PROPOSED DREDGING SUMMARY TABLE

		AREA A: ENTRANCE CHANNEL		AREA B: MARINA BASIN		AREA C: BOAT RAMP CHANNEL		TOTAL
		MAINTENANCE	IMPROVEMENT	MAINTENANCE	IMPROVEMENT	MAINTENANCE	IMPROVEMENT	
DREDGING VOLUME SUMMARY	TO -5' (MLW)	960 CY	N/A	3,825 CY	1,566 CY	N/A	3,462 CY	9,813 CY
	1' OD TO -6'	1,105 CY	N/A	5,691 CY	903 CY	N/A	1,363 CY	9,062 CY
	TOTAL	2,065 CY	N/A	9,516 CY	2,469 CY	N/A	4,825 CY	18,875 CY
DREDGING AREA SUMMARY	TOE OF SLOPE	53,766 SF	N/A	187,088 SF	17,002 SF	N/A	25,699 SF	283,555 SF
	3:1 SIDE SLOPE	14,557 SF	N/A	6,585 SF	8,645 SF	N/A	12,590 SF	42,377 SF
	TOTAL	68,323 SF	N/A	193,673 SF	25,647 SF	N/A	38,289 SF	325,932 SF

DREDGE AREA COORDINATES TABLES

Dredge Area Limits		
Area A: Outer Channel (Maintenance)		
#	N	E
A1	2706779.91	1016704.49
A2	2706832.67	1016733.04
A3	2706607.0	1017149.70
A/B1	2706388.66	1017484.24
A/B/C1	2706308.36	1017497.68
AC1	2706352.47	1017430.17
A4	2706554.52	1017120.97

Dredge Area Limits		
Area C: Town Boat Ramp Channel (New)		
#	N	E
A/C1	2706352.47	1017430.17
A/B/C1	2706308.36	1017497.68
B/C1	2706162.54	1017522.09
B/C2	2706183.91	1017485.33
C1	2705846.10	1017575.04
C2	2705824.41	1017560.41
C3	2705824.17	1017541.68
C4	2705885.00	1017508.35

Dredge Area Limits					
Area B: Marina Basin (Maintenance)					
#	N	E	#	N	E
A/B1	2706388.66	1017484.24	B5	2706075.42	1017722.15
B/BN1	2706464.98	1017846.80	B6	2706095.00	1017675.91
B/BN2	2706477.27	1017905.19	B7	2706094.62	1017638.89
B/BN3	2706308.57	1018058.49	B/BS2	2705973.77	1017848.84
B1	2706262.65	1018100.22	B/BS1	2706033.9	1017743.70
B2	2706252.74	1018102.70	B/C2	2706183.91	1017485.33
B3	2705998.84	1017894.16	B/C1	2706162.54	1017522.1
B4	2706049.76	1017739.57	A/B/C1	2706308.36	1017497.68

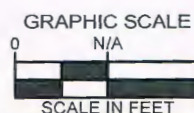
Dredge Area Limits		
Area B North: Marina Basin (New)		
#	N	E
B/BN1	2706464.98	1017846.80
BN1	2706499.60	1017884.90
BN2	2706508.00	1017958.52
BN3	2706397.77	1018057.86
B/BN3	2706308.57	1018058.49
B/BN2	2706477.27	1017905.19
Area B South: Marina Basin (New)		
#	N	E
B/BS1	2706033.90	1017743.70
B/BS2	2705973.77	1017848.84
BS1	2705948.39	1017802.98
BS2	2705975.09	1017752.64

PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

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DREDGE VOLUME & COORDINATE TABLES



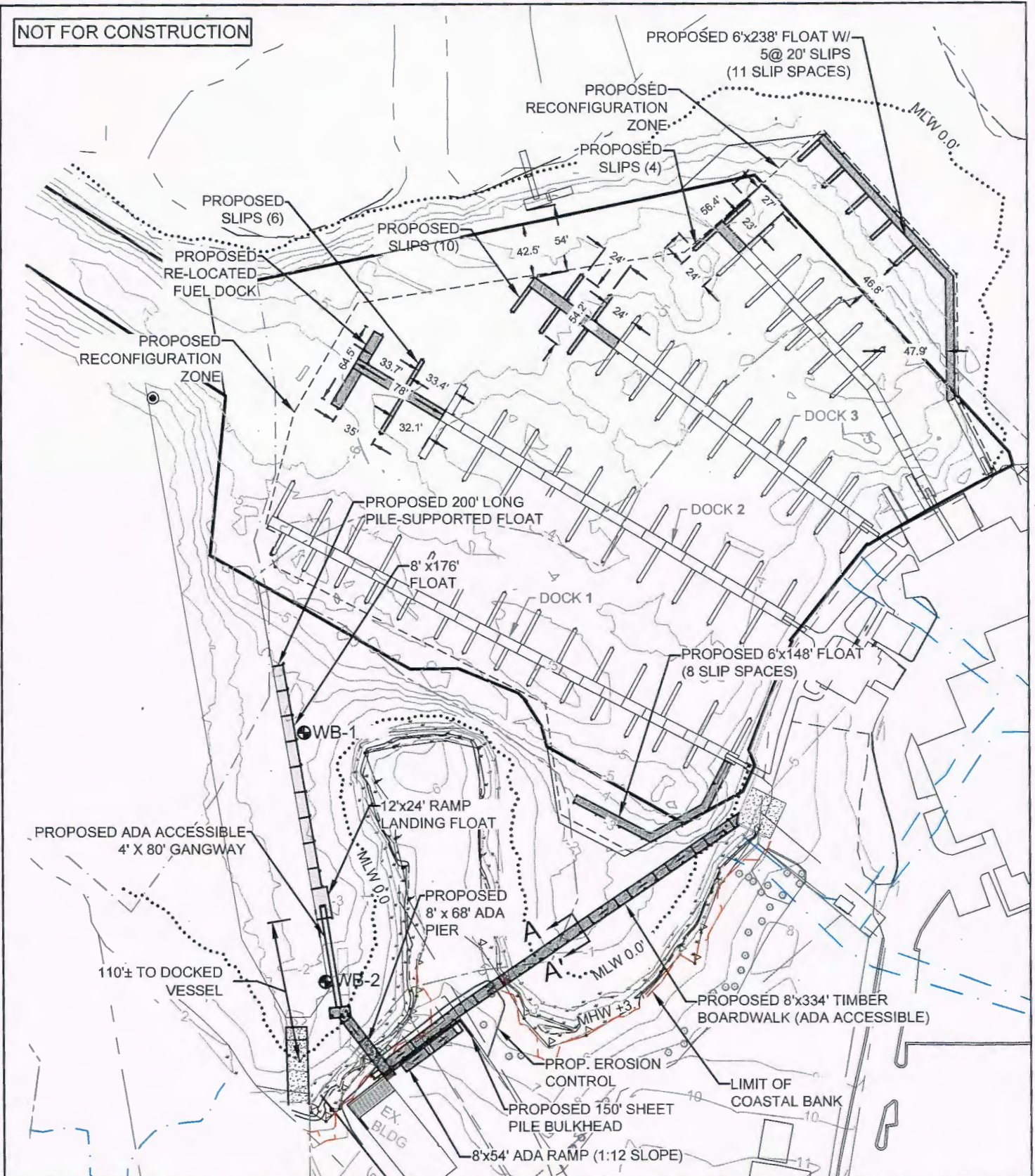
BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: SEPTEMBER 18, 2017

SHEET 11 OF 15

NOT FOR CONSTRUCTION

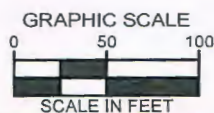


PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS IN HORSEFOOT COVE

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

CLE ENGINEERING, INC.
15 CREEK ROAD, MARION MA, 02738

PROPOSED STRUCTURES

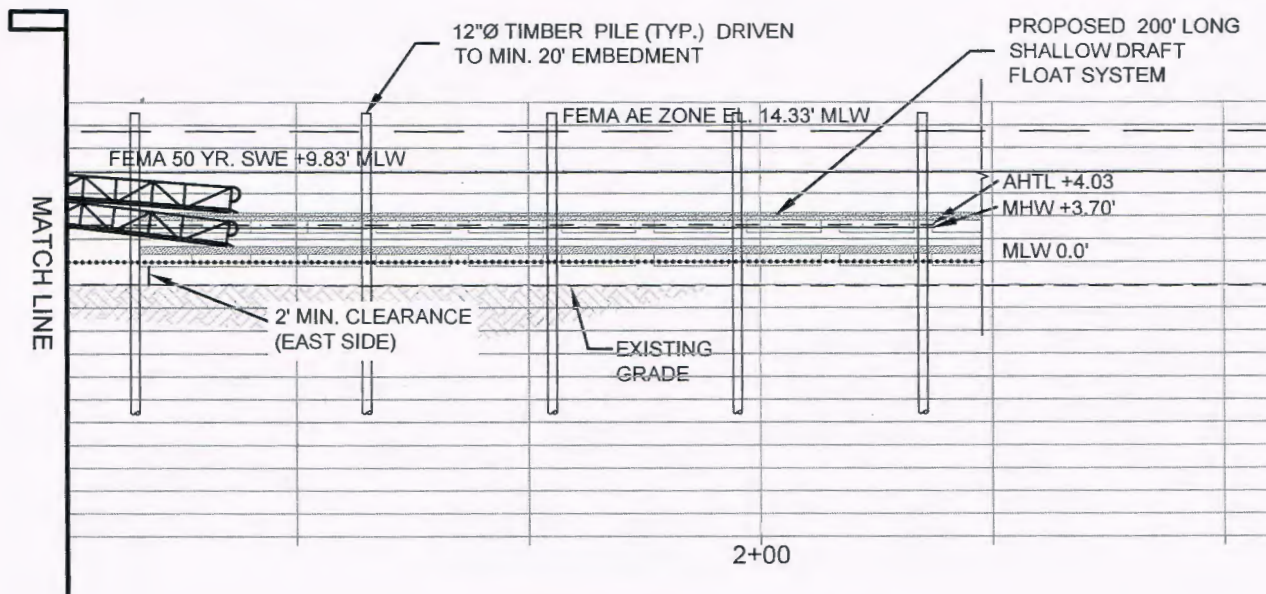
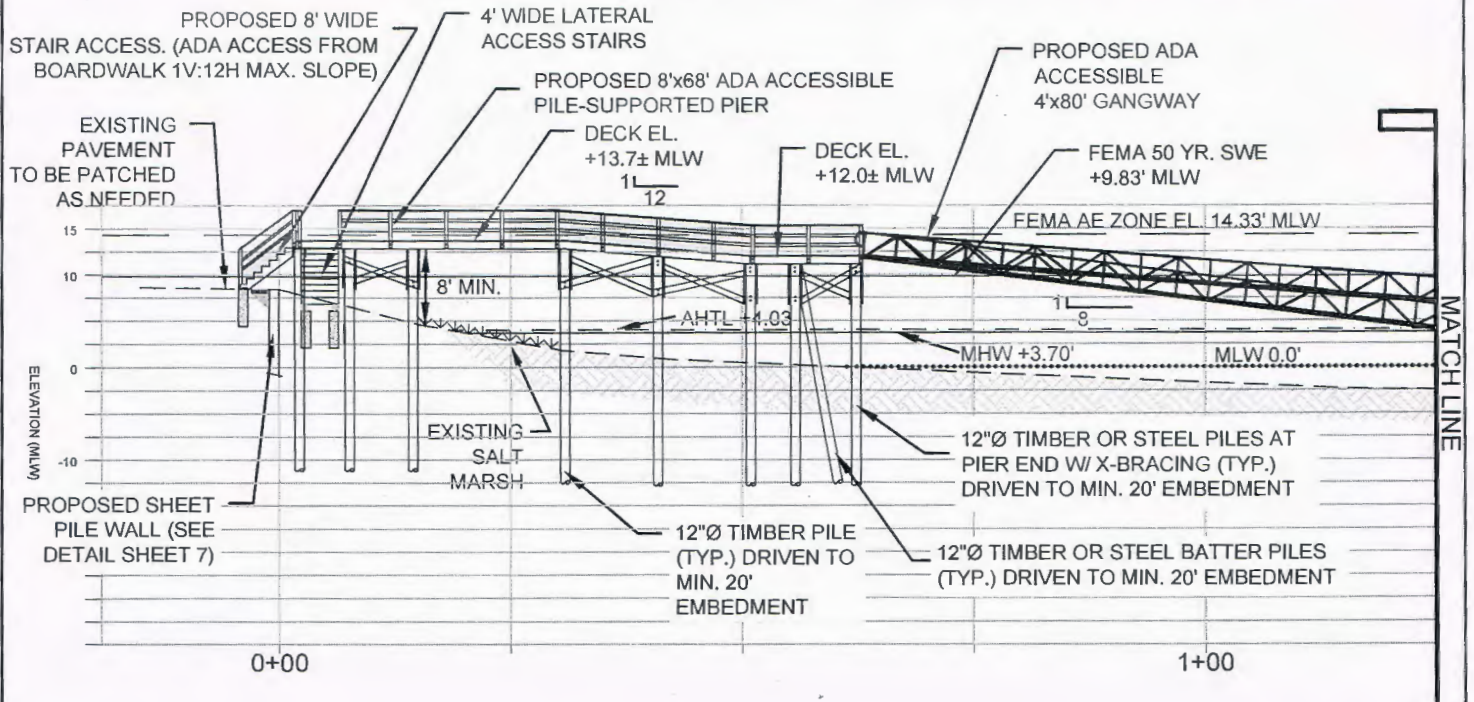


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: 9/18/17 REV. 1/31/18

SHEET 12 OF 15



PROPOSED PIER & FLOAT PROFILE
SCALE 1"= 20'

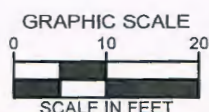
NOT FOR CONSTRUCTION

PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

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PROPOSED PIER AND FLOAT PROFILE

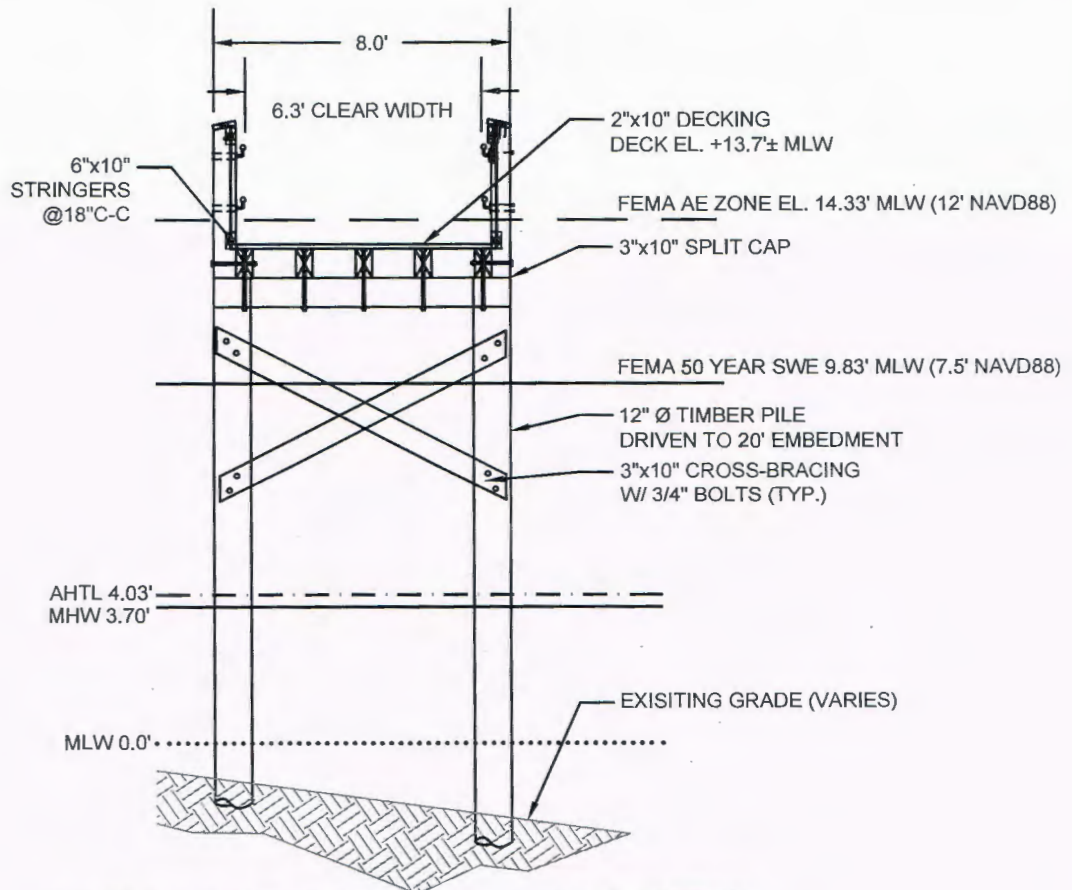


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: 9/18/17 REV. 1/31/18

SHEET 13 OF 15



SECTION A-A' TYPICAL BOARDWALK - CROSS-SECTION

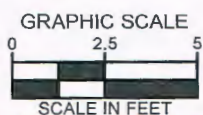
NOT FOR CONSTRUCTION

PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

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**PROPOSED
BOARDWALK & PIER
CROSS SECTIONS**

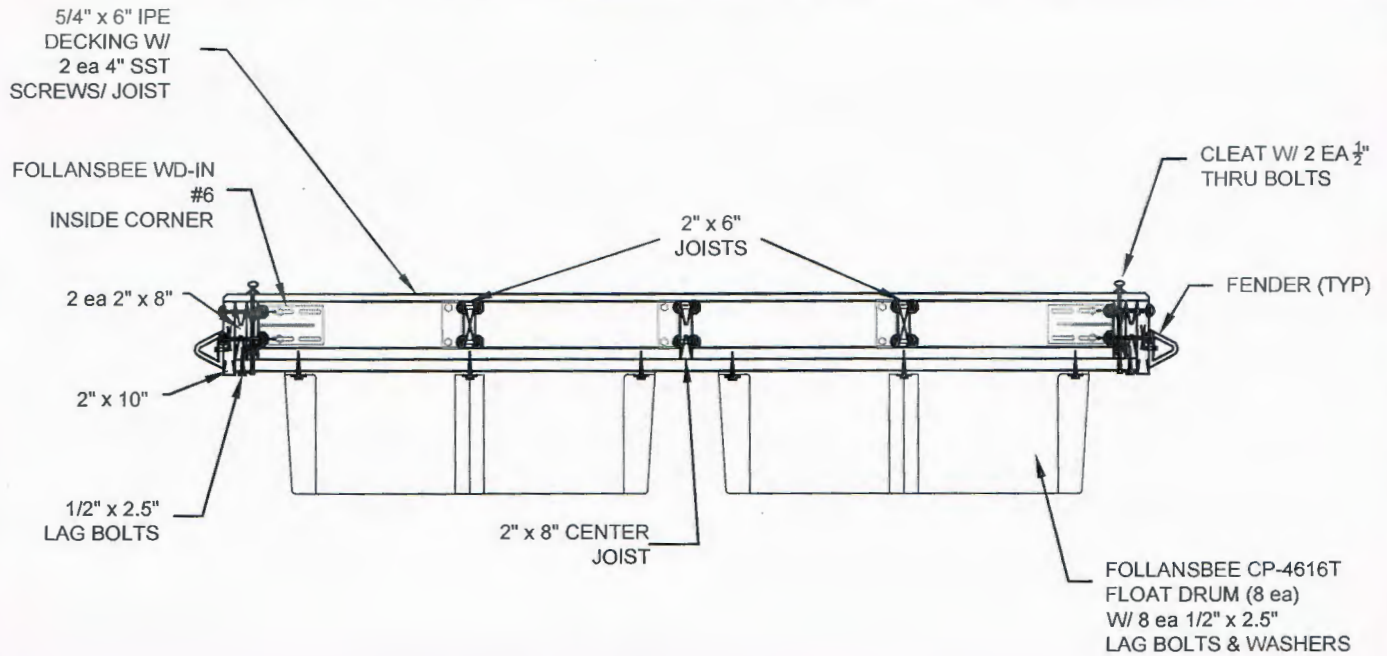


BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

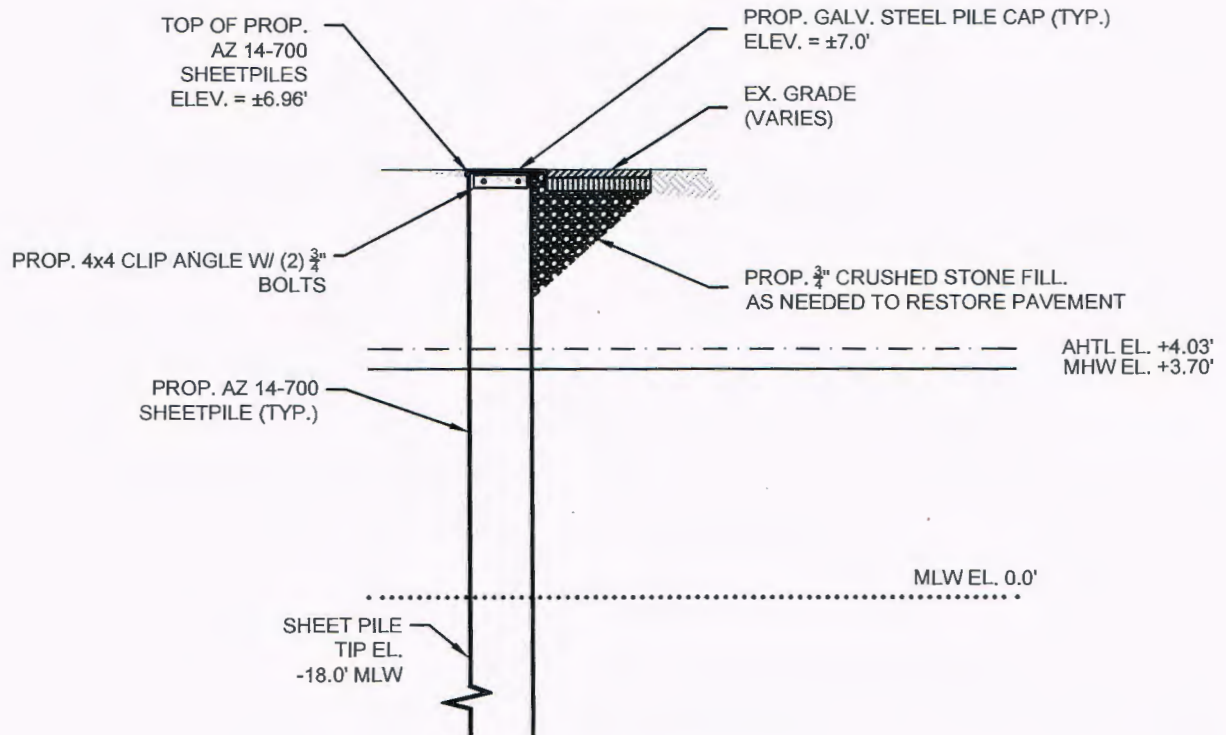
AT: WEST DENNIS
COUNTY OF: BARNSTABLE
APPLICATION BY: BASS RIVER MARINA

DATE: 9/18/17 REV. 1/31/18

SHEET 14 OF 15



TYPICAL FLOAT SECTION
NOT TO SCALE



TYPICAL BULKHEAD SECTION
SCALE 1"= 3'

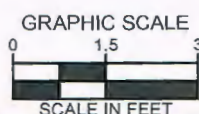
NOT FOR CONSTRUCTION

PURPOSE: TO LICENSE AND MAINTAIN PROPOSED MARINA IMPROVEMENTS

DATUM: NAVD88
MLW = 0.0'
MHW = +3.7'
HTL = +4.03'

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TYPICAL FLOAT AND BULKHEAD SECTIONS



BASS RIVER MARINA IMPROVEMENTS
WEST DENNIS, MA

AT: WEST DENNIS
COUNTY OF: BARNSTABLE
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DATE: SEPTEMBER 18, 2017

SHEET 15 OF 15