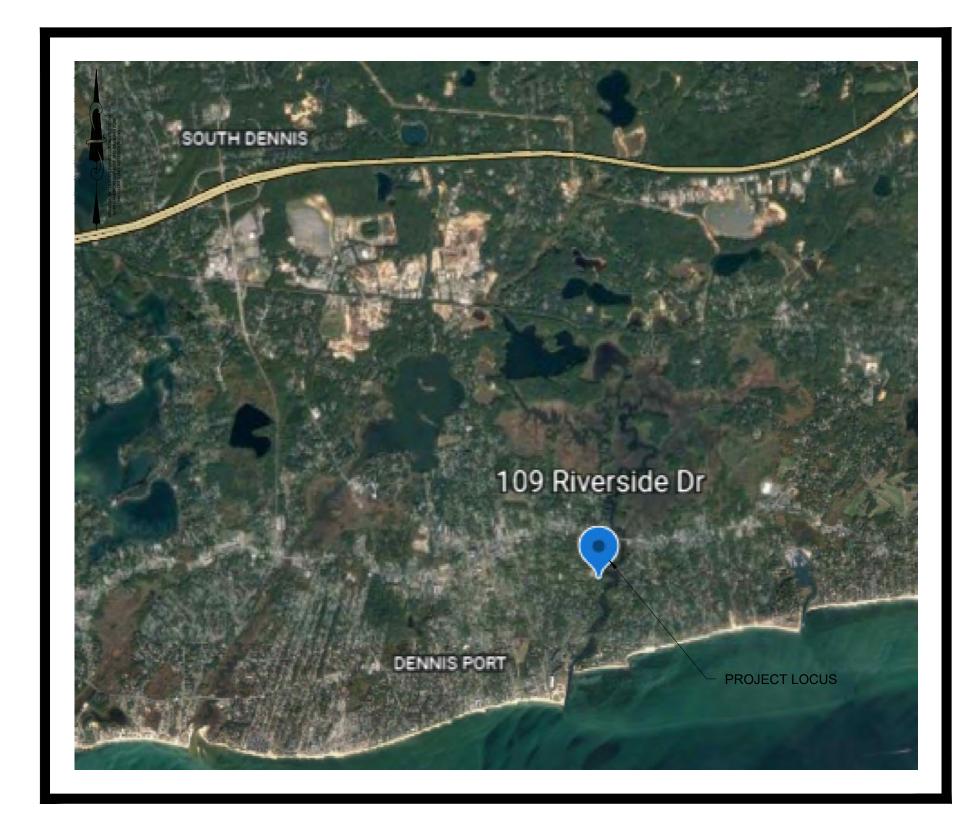
PROPOSED DOCK REPLACEMENT

109 RIVERSIDE DRIVE



SITE VICINITY MAP SCALE: N.T.S.



SITE LOCATION MAP SCALE: N.T.S.

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	FOR DREDGING OPTIONS	

PREPARED FOR: JAY ARGUS

PREPARED BY: COASTAL ENGINEERING COMPANY

JAY ARGUS
PROPOSED DOCK REPLACEMENT

C19740-01-C-DOCK_PERMIT_OPT1.dwg

G-001

 $\frac{1}{}$ OF $\frac{4}{}$ SHEETS

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.

GENERAL NOTES:

- 1. THE PROPERTY IS LOCATED IN THE TOWN OF HARWICH, MA ALONG THE HERRING RIVER AND IS REFERENCED BY:
- ASSESSORS MAP 03 & 04, PARCEL 109
- 2. FLOOD ZONE: THE PROPERTY AND PROPOSED WORK IS LOCATED IN FLOOD ZONES AS INDICATED ON THE DRAWINGS. ALL FLOOD ELEVATIONS ARE REFERENCED TO NAVD88. FLOOD ZONE AE (EL. 11 & EL. 13) IN THESE DRAWINGS IS A DIRECT REPRESENTATION OF THE GRAPHIC FLOOD ZONE BOUNDARIES SHOWN ON FEMA FIRM PANEL:
- FIRM PANEL #25001C0611J, EFFECTIVE JULY 16,2014
- PLEASE NOTE THAT SITE SPECIFIC FLOODPLAIN BOUNDARIES MAY VARY DUE TO DIFFERENT INTERPRETATIONS OF THESE BOUNDARIES. USERS ARE ADVISED TO VERIFY LOCATION OF THESE BOUNDARIES WITH THE DESIGNATED COMMUNITY FLOODPLAIN MANAGERS AND/OR FEMA PRIOR TO SITING ANY PROPOSED STRUCTURES.
- 3. THE HYDROGRAPHIC SURVEY DATA AS ON THIS PLAN WAS COLLECTED ON JUNE 16, AND JUNE 21, 2022, BY COASTAL ENGINEERING COMPANY AND ONLY REPRESENTS THE SEA FLOOR DEPTH AS IT EXISTED DURING THE TIME OF THE SURVEY.
- 4. THE HYDROGRAPHIC SURVEY PREPARED BY COASTAL ENGINEERING COMPANY REPRESENTED HEREIN IS REFERENCED TO MLW AS CALCULATED USING THE CONVERSION FACTOR TO NAVD88 AS INDICATED ON THE DRAWINGS.
- 5. ACCESS FOR THE PROPOSED WORK FOR MATERIALS AND EQUIPMENT SHALL BE FROM A WORK BARGE AND FROM THE UPLAND PORTION OF THE SUBJECT PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMISSIONS REQUIRED FOR USE OF ANY AN ALL ACCESS.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR CONDUCTING THE WORK IN A SAFE AND RESPONSIBLE MANNER AND SHALL MINIMIZE THE DISTURBANCE TO ANY ADJACENT RESOURCE AREAS. THE CONTRACTORS WORK BARGE SHALL NOT REST ON THE SEAFLOOR AND SHALL NOT BE LOCATED OVER MARSH DURING ANY TIME OF THE CONSTRUCTION.
- 7. THE CONTRACTOR SHALL SUPPLY ALL MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS AS DESCRIBED AND SHOWN ON THE PLAN AND DETAILS.
- 8. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND THE ORDER OF CONDITIONS ISSUED BY THE HARWICH CONSERVATION COMMISSION.
- 9. SPECIAL PROVISIONS FOR COASTAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS FOUND IN THE "COASTAL CONSTRUCTION MANUAL" AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA-550).
- 10. ALL SEASONAL RAMPS AND FLOATS ARE TO BE STORED OFF-SITE OR IN UPLAND AREA OUTSIDE OF THE RESOURCE AREA DURING WINTER SEASON.
- 11. ALL DISTURBED AREAS ARE TO BE REVEGETATED TO MATCH PRE-CONSTRUCTION CONDITIONS.
- 12. THE MASS DEP PERMIT NUMBER SHALL BE PERMANENTLY AND CONSPICUOUSLY PLACED ON THE TIMBER PIER SO AS TO BE VISIBLE FROM THE SEAWARD DIRECTION.

LEGEND

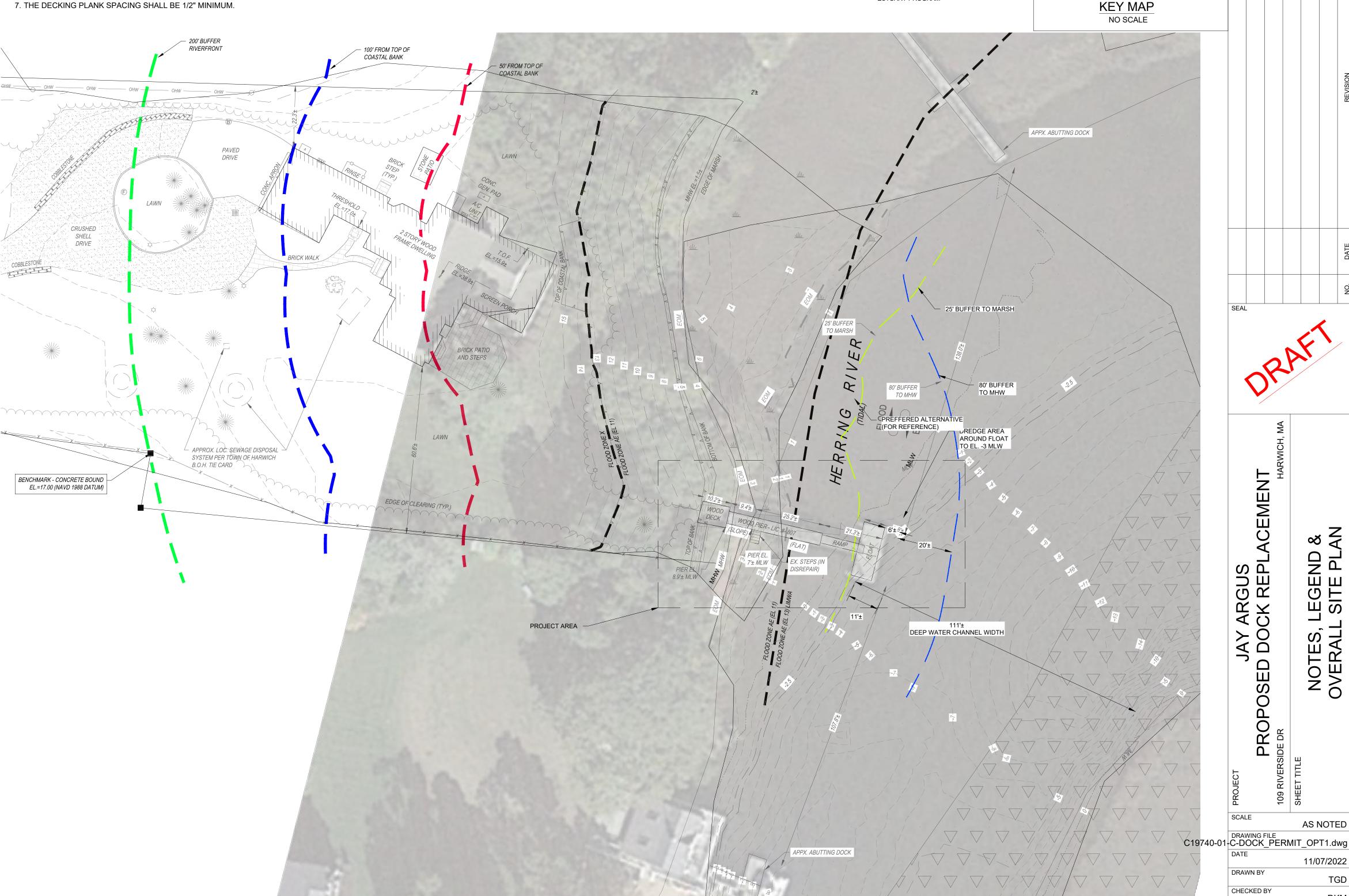
	BOUND		MISC. SIGN	
0	IRON PIPE	P	POST	
S	SEPTIC MANHOLE		WOOD/STONE POST	
V	SEPTIC VENT		MAILBOX	
co	CLEAN-OUT	E	ACCESSIBLE PARKING	
	CATCH BASIN	xx	CHAIN LINK FENCE	
(D)	DRAIN MANHOLE		SPLIT RAIL FENCE	
M	MISC. MANHOLE	-00	STOCKADE FENCE	
\$	HYDRANT	——— G ———	UNDERGROUND GAS SERVICE	
wv 	WATER GATE	—— Е ——	UNDERGROUND ELECTRIC SERVICE	
4 ² S°	IRRIGATION VALVE	— т —	UNDERGROUND TELEPHONE SERVICE	
(WM)	WATER METER	——— E/T/C ———	UNDERGROUND CABLE UTILITIES	
	WELL	W	WATER SERVICE	
Ø	UTILITY POLE	——— OHW ———	OVERHEAD WIRES	
\longrightarrow	GUY WIRE	s	GRAVITY SEWER	
-•	GUY POLE	SFM	SEWER FORCE MAIN	
EM	ELECTRIC METER	20	CONTOUR	
PB	PULL BOX	x23.5	SPOT ELEV.	
ф	LIGHT POLE	LA	LANDSCAPED AREA	
•	FLOOD LIGHT	TOCB	TOP OF COASTAL BANK	
E	ELECTRIC MANHOLE		BOULDER	
[GM]	GAS METER	DOH	TEST PIT	
\bigcirc	TELEPHONE MANHOLE		MISC. SHRUB	
TEL	TELEPHONE BOX		W CONTER TREE	
TV	CABLE BOX	OKENA.	CONIFER TREE	
$\frac{}{}$	WATER SURFACE		DECIDUOUS TREE	
	APPROVED SHELLFISH		SHELLFISH SUITABILITY AREA	

REGULATORY REQUIREMENTS:

REGULATION REQUIREMENT FLOAT SIZE 200 S.F. MAX. WATER DEPTH 3' MIN. AT MLW SEAWARD EXTENTS 80' FROM MHW MAX. DEEP WATER CHANNEL EXTENTS MAX. 50' INTO DEEP WATER CHANNEL DEEP WATER CHANNEL WIDTH 50' MIN. OF USABLE CHANNEL WIDTH OFFSET TO ADJACENT STRUCTURE 65' MIN. 2003 DEP SMALL DOCKS & PIERS SEAWARD EXTENT 25% WIDTH OF WATERWAY MAX. ADJACENT PROPERTY LINE 25' MIN. PIER HEIGHT 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX. DEPTH (FOR SHELLFISH AREAS) 2.5' FROM BOT OF FLOAT @ MLW				
FLOAT SIZE 200 S.F. MAX. WATER DEPTH 3' MIN. AT MLW SEAWARD EXTENTS 80' FROM MHW MAX. DEEP WATER CHANNEL EXTENTS MAX. 50' INTO DEEP WATER CHANNEL DEEP WATER CHANNEL WIDTH 50' MIN. OF USABLE CHANNEL WIDTH OFFSET TO ADJACENT STRUCTURE 65' MIN. 2003 DEP SMALL DOCKS & PIERS SEAWARD EXTENT 25% WIDTH OF WATERWAY MAX. ADJACENT PROPERTY LINE 25' MIN. PIER HEIGHT 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	HARWICH WETLAND PROTECTION REGS			
WATER DEPTH 3' MIN. AT MLW SEAWARD EXTENTS 80' FROM MHW MAX. DEEP WATER CHANNEL EXTENTS MAX. 50' INTO DEEP WATER CHANNEL DEEP WATER CHANNEL WIDTH 50' MIN. OF USABLE CHANNEL WIDTH OFFSET TO ADJACENT STRUCTURE 65' MIN. 2003 DEP SMALL DOCKS & PIERS SEAWARD EXTENT 25% WIDTH OF WATERWAY MAX. ADJACENT PROPERTY LINE 25' MIN. PIER HEIGHT 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	REGULATION	REQUIREMENT		
SEAWARD EXTENTS DEEP WATER CHANNEL EXTENTS DEEP WATER CHANNEL WIDTH OFFSET TO ADJACENT STRUCTURE SEAWARD EXTENT SEAWARD EXTENT ADJACENT PROPERTY LINE DIER HEIGHT DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH) 80' FROM MHW MAX. MAX. 50' INTO DEEP WATER CHANNEL WIDTH 50' MIN. OF USABLE CHANNEL WIDTH 65' MIN. 25' MIN. 25' MIN. 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH) 4' MAX.	FLOAT SIZE	200 S.F. MAX.		
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DEEP WATER CHANNEL WIDTH OFFSET TO ADJACENT STRUCTURE 65' MIN. 2003 DEP SMALL DOCKS & PIERS SEAWARD EXTENT 25% WIDTH OF WATERWAY MAX. ADJACENT PROPERTY LINE 25' MIN. PIER HEIGHT 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	SEAWARD EXTENTS	80' FROM MHW MAX.		
OFFSET TO ADJACENT STRUCTURE 2003 DEP SMALL DOCKS & PIERS SEAWARD EXTENT 25% WIDTH OF WATERWAY MAX. ADJACENT PROPERTY LINE 25' MIN. PIER HEIGHT 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	DEEP WATER CHANNEL EXTENTS	MAX. 50' INTO DEEP WATER CHANNEL		
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ADJACENT PROPERTY LINE 25' MIN. 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	2003 DEP SMALL DOCKS & PIERS			
PIER HEIGHT 5' ABOVE MHW MIN. DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	SEAWARD EXTENT	25% WIDTH OF WATERWAY MAX.		
DEPTH 1.5' (BELOW FLOAT OR ALONG END OF PIER PIER WIDTH 4' MAX.	ADJACENT PROPERTY LINE	25' MIN.		
PIER WIDTH 4' MAX.	PIER HEIGHT	5' ABOVE MHW MIN.		
	DEPTH	1.5' (BELOW FLOAT OR ALONG END OF PIER)		
DEPTH (FOR SHELLFISH AREAS) 2.5' FROM BOT OF FLOAT @ MLW	PIER WIDTH	4' MAX.		
	DEPTH (FOR SHELLFISH AREAS)	2.5' FROM BOT OF FLOAT @ MLW		

TIMBER PIER NOTES:

- 1. TIMBER PILES AND FRAMING LUMBER SHALL CONFORM TO THE LATEST EDITION OF THE AFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". AND UNLESS OTHERWISE INDICATED SHALL BE SOUTHERN YELLOW PINE GRADE #2.
- 2. CCA PRESSURE TREATED LUMBER SHALL NOT BE ALLOWED. ALL PRESSURE TREATED LUMBER TO BE ACQ TREATED OR AS APPROVED BY ENGINEER.
- 3. ALL HARDWARE AND FASTENERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATIONS.
- 4. BEFORE ANY TIMBER PILES ARE DRIVEN, A CERTIFICATION SHALL BE SUBMITTED, CERTIFYING THAT THE PILES WERE FREE FROM DECAY, WERE PROPERLY PEELED AND CONFORM TO THE REQUIREMENTS SPECIFIED HEREIN.
- 5. EACH PILE SHALL BE DRIVEN IN ONE PIECE WITHOUT SPLICING WITH A VIBRATORY HAMMER TO A MINIMUM EMBEDMENT DEPTH AS INDICATED ON THE DRAWINGS. PILES MAY BE REQUIRED BY THE ENGINEER TO BE PROOFED WITH AN IMPACT HAMMER IF MINIMUM EMBEDMENT IS NOT ACHIEVED.
- 6. UNIFORMLY TRIM THE TOP OF PILES TO THE ELEVATION INDICATED ON THE DRAWINGS AND CAP OFF TOP OF PILE WITH A SUITABLE FIBERGLASS OR PRE-FORMED PVC CAP.
- 7. THE DECKING PLANK SPACING SHALL BE 1/2" MINIMUM.



OVERALL SITE PLAN OF PROPERTY

SCALE: 1"=20'

DATUM:

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

HIGH TIDE LINE (HTL) + 5.3' - 3.0'

NAVD88 + 2.31 -

260 Cranberry Hwy. Orleans, MA 02653

11/07/2022

C19740.01

C-101

 $\frac{2}{}$ OF $\frac{4}{}$ SHEETS

PROJECT NO.

508.255.6511 P 508.255.6700 F

MEAN HIGH WATER (MHW) + 3.73'

MEAN LOW WATER (MLW) $\perp \perp$ 0.0'

DATUM PROFILE

REF: NOAA TIDAL DATUM STATION

8447495 SAQUATUCKET HARBOR, MA

REF: BUZZARDS BAY NATIONAL

ESTUARY PROGRAM

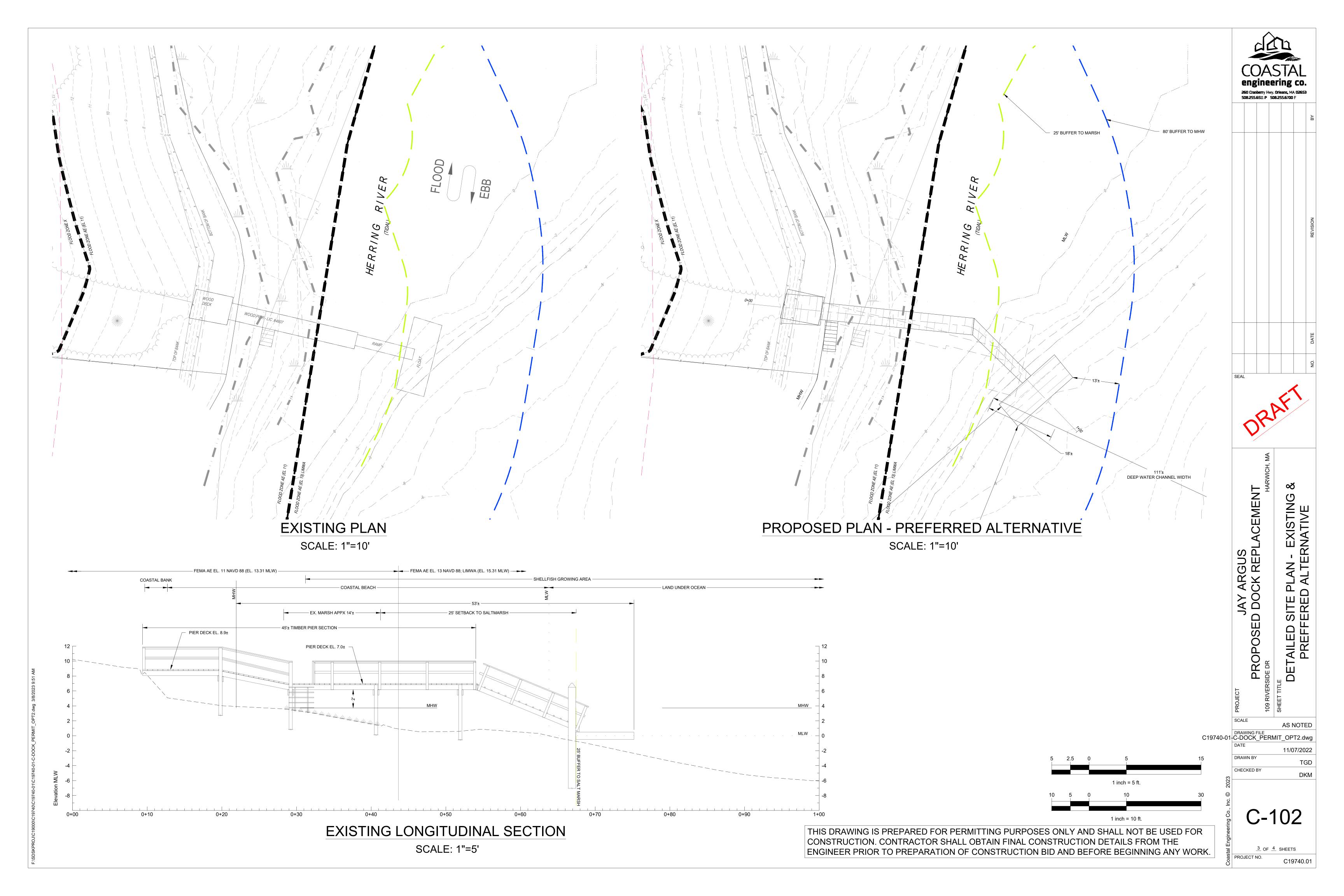
THIS DRAWING IS PREPARED FOR PERMITTING PURPOSES ONLY AND SHALL NOT BE USED FOR

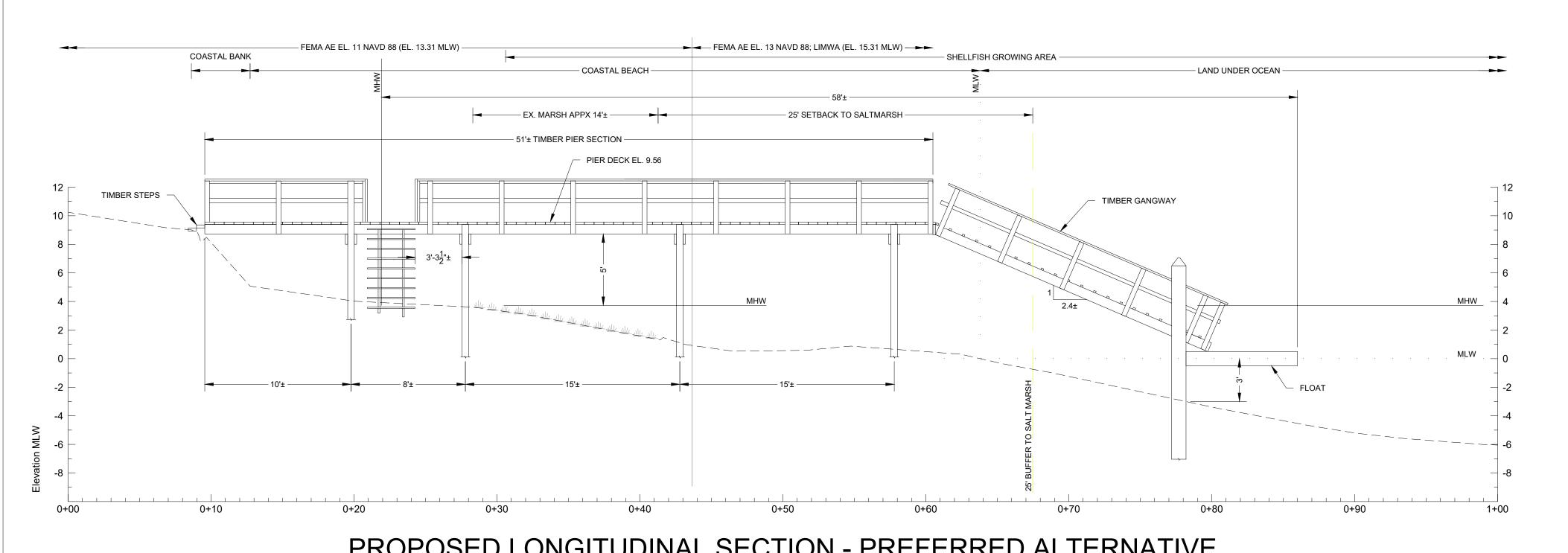
ENGINEER PRIOR TO PREPARATION OF CONSTRUCTION BID AND BEFORE BEGINNING ANY WORK.

CONSTRUCTION. CONTRACTOR SHALL OBTAIN FINAL CONSTRUCTION DETAILS FROM THE

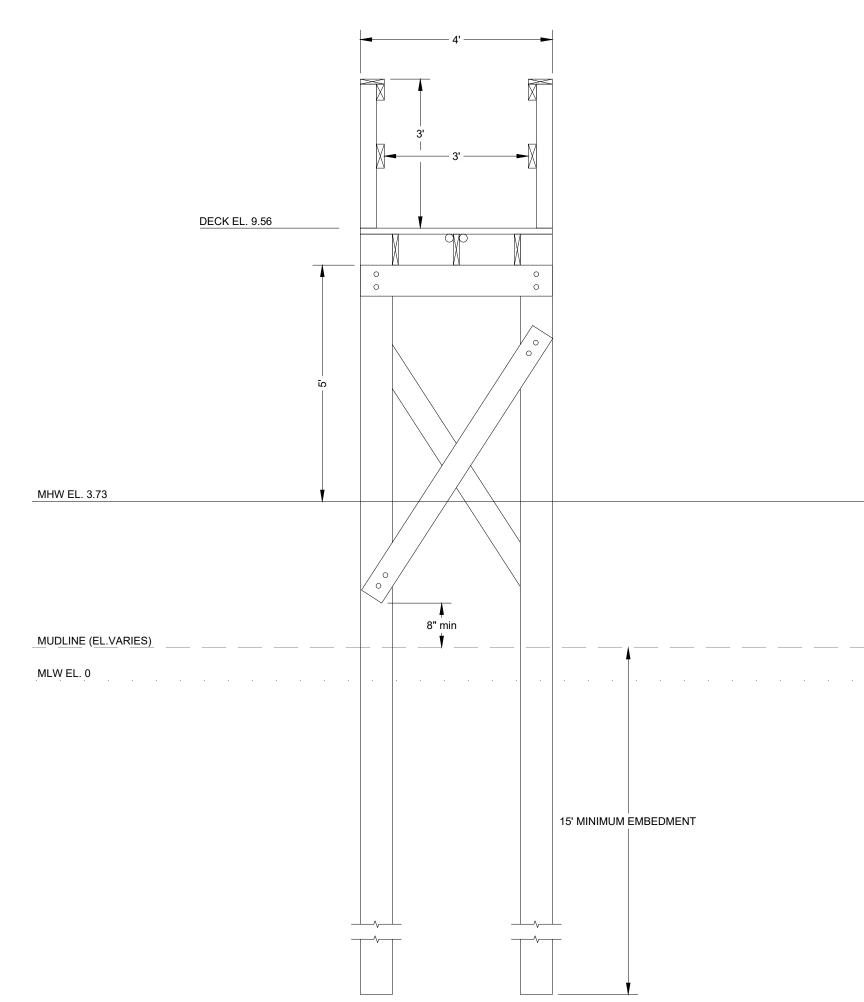
LOCUS -

HARWICH, MÀ





PROPOSED LONGITUDINAL SECTION - PREFERRED ALTERNATIVE SCALE: 1"=5'

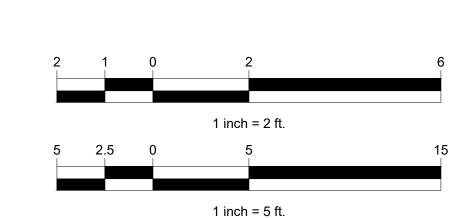


PROPOSED CROSS SECTION SCALE: 1"=2'



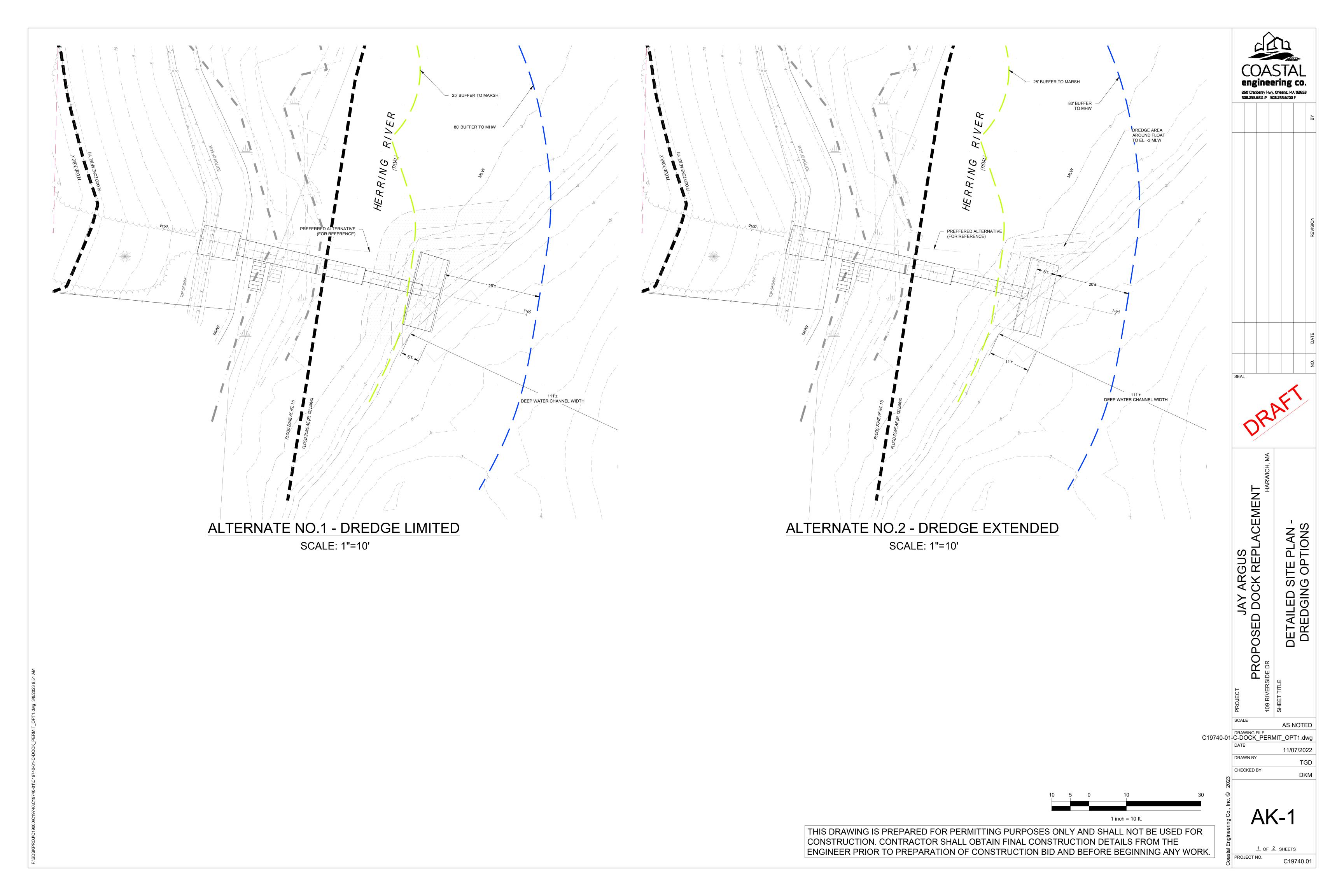
1 inch = 5 ft.

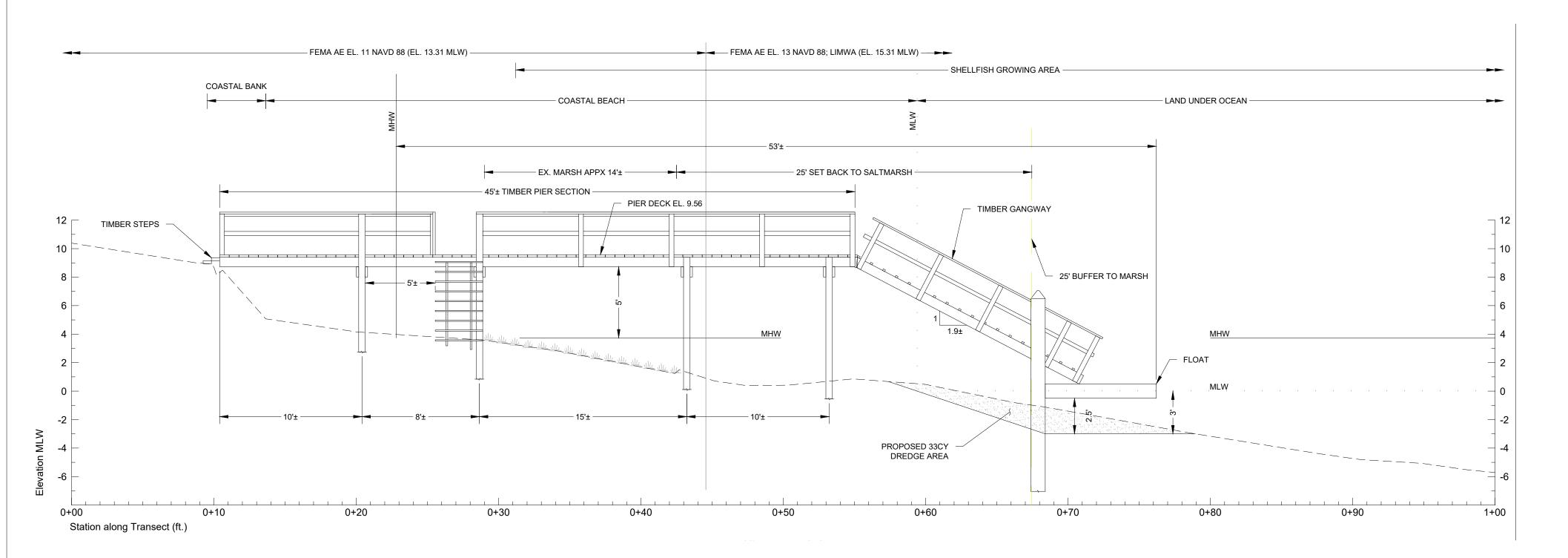
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C-301 $\frac{4}{}$ OF $\frac{4}{}$ SHEETS

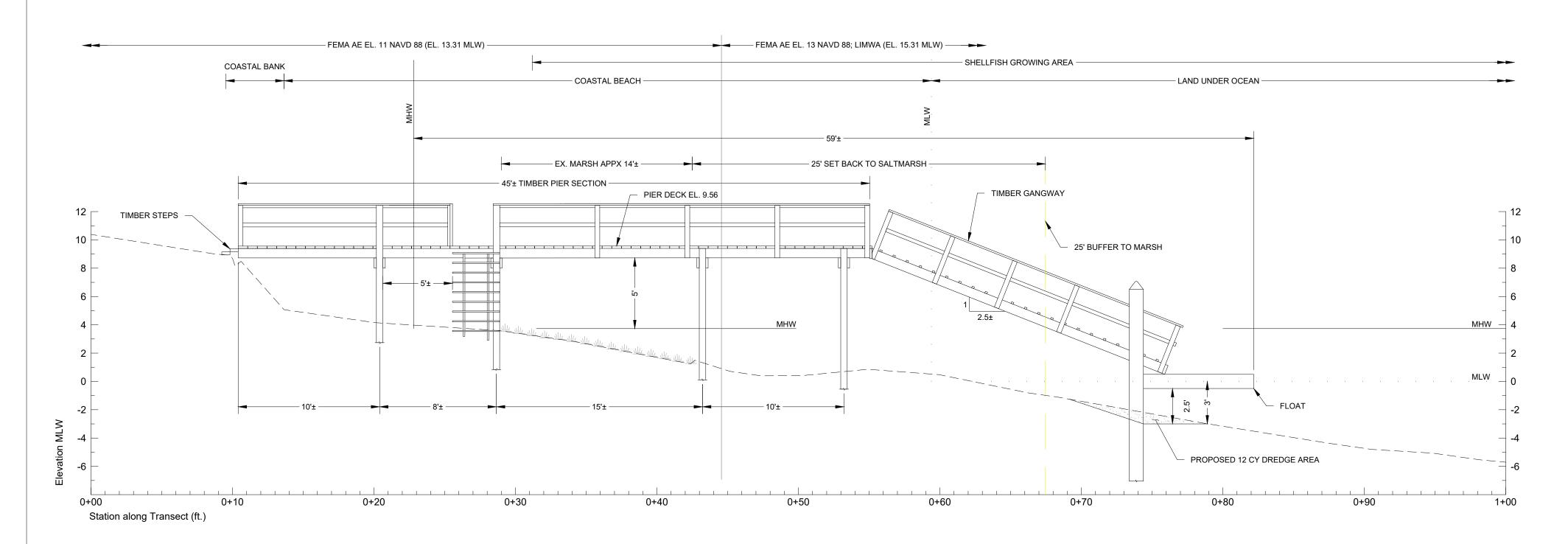
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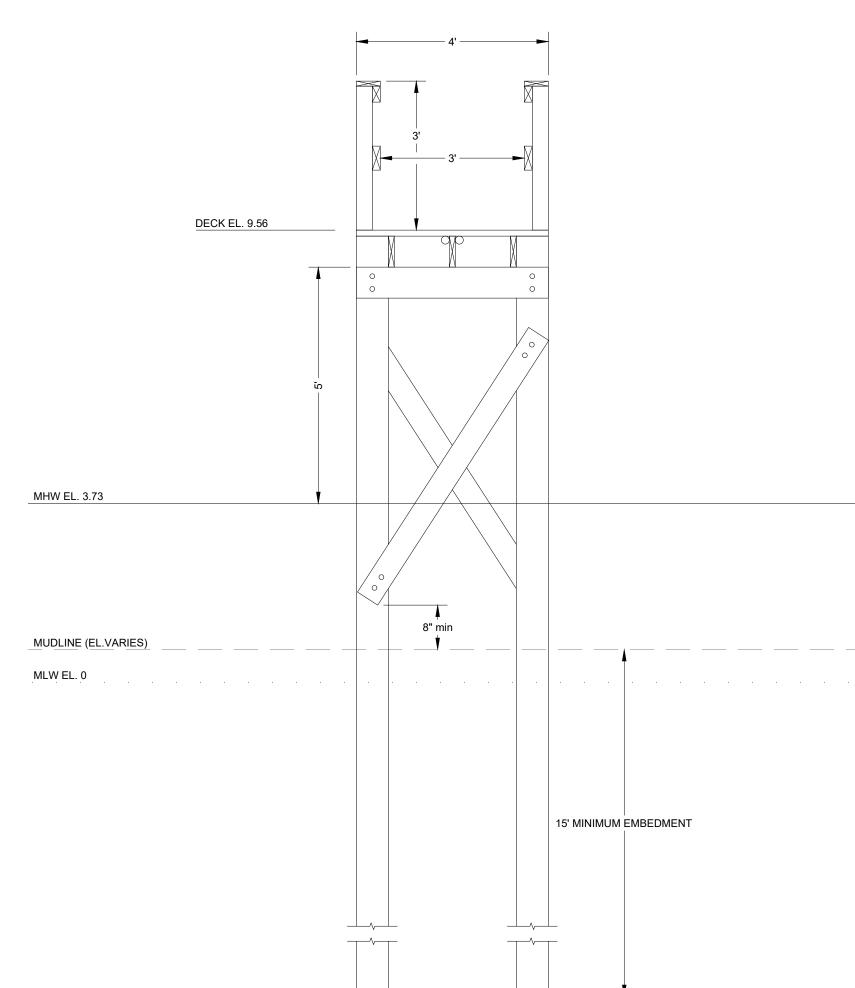


ALTERNATE NO.1 - DREDGE LIMITED LONGITUDINAL SECTION

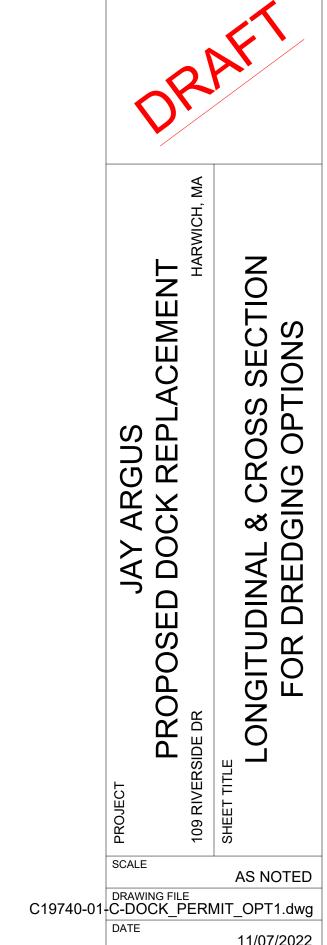
SCALE: 1"=5'



ALTERNATE NO.2 - DREDGE EXTENDED LONGITUDINAL SECTION SCALE: 1"=5"



PROPOSED CROSS SECTION
SCALE: 1"=2'



2 1 0 2 6

1 inch = 2 ft.

5 2.5 0 5 15

1 inch = 5 ft.

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.

DKM

AK-2

2 OF 2 SHEETS

C19740.01