



SITE VICINITY MAP SCALE: N.T.S.

SHEET	DESCRIPTION
G-001	COVER, SHEE
G-002	GENERAL NO
C-101	EXISTING CO
C-102	PROPOSED D
C-301	CROSS SECT

PROPOSED DOCK 9 & 11 HERRING RUN, HARWICH MA



SHEET INDEX

ET INDEX, LOCATION & VICINITY MAPS DTES, LEGEND AND DATUM ONDITIONS DOCK AND DREDGING TION AND DETAILS

DATE	REV. DATE
02-08-2022	04-05-2023
02-08-2022	04-05-2023
02-08-2022	04-05-2023
02-08-2022	07-28-2023
02-08-2022	04-05-2023

PREPARED FOR: DAVID AND PAULA MOGAN AND DANIEL COREY PREPARED BY: COASTAL ENGINEERING COMPANY, INC.

SITE LOCATION MAP SCALE: NTS

	COAST engineering 260 Cranberry Hwy, Orleans, N 508,255,6511 P 508,255,670	CO.	
		MJT	BΥ
		VISUAL PLAN CHANGES AND ADDITION OF SHELLFISH BAGS	REVISION
		04-05-2023	DATE
	SEAL	-	N
	PROJECT DAVID & PAULA MOGAN 11 & 9 HERING RUN SHEET TILE COVIED CLEET INDEX		
	AS DRAWING FILE C19802_C19804_C-M DATE	NOTE ar_wip.)2-08-	dwg
723	DRAWN BY CHECKED BY	AA/M	JT DT
Coastal Engineering Co., Inc. © 20	G-00 <u>1 of 5 shee</u> PROJECT NO. C19802.00 & C1	TS 9804	00

PERMIT SUBMISSION NOT FOR CONSTRUCTION

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1.	THE PROJECT IS LOCATED IN THE TOWN OF HARWICH, MA ALONG HERRING RIVER AND IS REFERENCED BY:	Ţ	IMBER NO
	ASSESSORS MAP 3 PARCELS X3-2 AND X3-3	1.	
2.	THE HYDROGRAPHIC SURVEY DATA AS ON THIS PLAN WAS COLLECTED ON DECEMBER 03, 2021, BY COASTAL ENGINEERING COMPANY AND ONLY REPRESENTS THE SEA FLOOR DEPTH AS IT EXISTED DURING THE TIME OF THE SURVEY.	2.	THE FRAM
3.	THE TOPOGRAPHIC SURVEY AND HYDROGRAPHIC SURVEYS PREPARED BY COASTAL ENGINEERING COMPANY REPRESENTED ARE IN REFERENCED TO MLW AS CALCULATED USING THE CONVERSION FACTOR TO NAVD 1988 AS INDICATED ON THE DRAWINGS.		GRADE S
ŀ.	EXISTING UTILITIES, UNDERGROUND AND OVERHEAD, MAY EXIST IN ADDITION TO THE UTILITY INFORMATION SHOWN ON THESE PLANS. THIS PLAN MUST NOT BE USED TO LOCATE UNDERGROUND UTILITIES. CALL DIG SAFE AT 811 AND APPROPRIATE TOWN UTILITY OFFICES PRIOR TO STARTING ANY EXCAVATION.		TIN
5.	THE SUBJECT PREMISES AS SHOWN LIES WITHIN FLOOD ZONE VE (EL. 13), ZONE AE (EL. 13), ZONE AE (EL. 12), AND ZONE X AS INDICATED ON FLOOD INSURANCE RATE MAP NUMBER 25001C0611J FOR BARNSTABLE COUNTY MASSACHUSETTS WITH AN EFFECTIVE DATE OF JULY 16, 2014.		MEME
5.	THE PROPERTY LINES SHOWN ARE APPROXIMATE ONLY. THEY ARE A GRAPHICAL REPRESENTATION OF THE GENERAL LOT CONFIGURATION LIMITED TO THE AREA OF WORK AND HAVE NOT BEEN DETERMINED BY A REGISTERED PROFESSIONAL LAND SURVEYOR. THEREFORE THEY SHOULD NOT BE USED FOR ANY PURPOSE THAT WOULD REQUIRE AN ACTUAL BOUNDARY RETRACEMENT SURVEY.		MEMBE
7.	THIS SURVEY HAS BEEN PERFORMED WITHOUT THE BENEFIT OF A TITLE SEARCH AND MAY NOT REVEAL ANY FACTS THAT WOULD BE DISCLOSED BY ONE.		
8.	RIPARIAN BOUNDARIES ARE SUBJECT TO CHANGE DUE TO NATURAL CAUSES AND THAT THE BOUNDARY SHOWN HEREON MAY OR MAY NOT REPRESENT THE ACTUAL LOCATION OF THE LIMIT OF TITLE.	3.	CONNEC ⁻
Э.	CONTRACTOR SHALL SUPPLY ALL MATERIAL, EQUIPMENT AND LABOR FOR CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS AS DESCRIBED AND SHOWN ON THE PLAN AND DETAILS.	1	UNLESS
10	. ACCESS FOR MATERIAL AND EQUIPMENT TO BE THROUGH THE PROPERTY OF 9 HERRING RUN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMISSION REQUIRED FOR USE OF ANY AND ALL ACCESS.	4.	ALLOWE
11	. STAGING AREA FOR MATERIALS AND EQUIPMENT TO BE ABOVE THE MEAN HIGH WATER ELEVATION. IF THE WATER ELEVATION IS EXPECTED TO BE HIGHER THAN NORMAL, MACHINERY AND EQUIPMENT WILL BE BROUGHT TO THE UPLAND AREA OF 9 HERRING RUN. WHEN MACHINERY AND EQUIPMENT ARE NOT IN USE, THEY SHALL BE KEPT IN THE STAGING AREA.	5.	CONTRAC DATA, AN
12	. PERFORMANCE OF THE WORK SHALL BE IN COMPLIANCE WITH THE PLAN, DETAILS, AND ORDER OF CONDITIONS ISSUED BY THE HARWICH CONSERVATION COMMISSION FOR THE REFERENCED PROJECT AND AS DESCRIBED BELOW AND APPROVED THE WORK.	6.	INTO OTH
13	. ANY FUTURE MAINTENANCE REQUIRED SHALL NOT COMMENCE UNTIL THE HARWICH CONSERVATION AGENT HAS FIRST BEEN NOTIFIED AS TO THE SCOPE OF THE REPAIRS.	7.	WOOD FF "COASTA
14	. ALL DIMENSIONS, GRADES, ETC. SHOWN ON THIS PLAN SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND ANY DISCREPANCIES BROUGHT TO THE ATTENTION OF THE ENGINEER TO BE RESOLVED PRIOR TO CONSTRUCTION.	M	ITIGATIO
15	. ALL FILL MATERIAL BROUGHT TO THE SITE SHALL BE COARSE, CLEAN MATERIAL OF SIMILAR GRAIN SIZE COMPATIBILITY.	1.	THE PRO AS REQU
16	. ABUTTERS NAMES SHOWN HEREON REFERENCE THE CURRENT TOWN OF HARWICH ASSESSORS RECORDS AT THE TIME OF THIS PLAN.	0	
17	. 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-55) MA.	2.	2.1. CO 2.2. SAL
EF	ROSION & SEDIMENT CONTROL NOTES:		2.3. CO 2.2. LAN
1.	DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL UNTIL COMPLETION OF SITEWORK AND ESTABLISHMENT OF VEGETATIVE GROUND COVER.		2.3. TO ⁻ 2.4. REC
2.	THE CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING MEASURES DURING THE DAY TO DAY OPERATION AT THE SITE. THE SITE SHOULD BE POLICED DAILY TO REMOVE ANY LITTER OR DEBRIS.	3.	TOTAL PF
3.	TEMPORARY SOIL MATERIAL STOCKPILES SHALL BE SURROUNDED WITH SILTATION BARRIER ON THE DOWNGRADIENT SIDE TO PREVENT DISCHARGE OF SEDIMENT FROM SITE. MATERIAL STOCKPILES THAT ARE IN PLACE FOR AN EXTENDED PERIOD OF TIME SHALL BE STABILIZED WITH VEGETATION, MULCHING, EROSION CONTROL BLANKETS, AND OTHER MEASURES THAT ARE NECESSARY TO PREVENT THE DISCHARGE OF SEDIMENT FROM THE PROJECT SITE.		3.2. PR
4.	IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.		
5.	LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.		
6.	PROVIDE ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN, SPECIFIED, REQUIRED BY PERMIT, AND/OR REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED. INSPECT AFTER EACH RAINSTORM AND DURING MAJOR STORM EVENTS TO CONFIRM THAT ALL SEDIMENTATION AND EROSION CONTROL MEASURES REQUIRED ARE IN PLACE AND EFFECTIVE.		
7.	PRIOR TO STARTING WORK, CLEARLY MARK WORK LIMITS. DO NOT DISTURB THE AREA BEYOND THE PROPOSED LIMITS. COORDINATE WITH THE ENGINEER FOR LOCATIONS OF TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.		
8.	REMOVE AND PROPERLY DISPOSE OF SILT TRAPPED AT BARRIERS IN UPLAND AREAS OUTSIDE BUFFER ZONES. REMOVE MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASINS AT THE COMPLETION OF THE PROJECT. RESTORE ALL DISTURBED AREAS TO THEIR PRECONSTRUCTION CONDITION.		
9.	SWEEP, COLLECT, REMOVE AND DISPOSE OF ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.		
10	. ALL HYDRAULIC EQUIPMENT SHALL UTILIZE BIODEGRADABLE, VEGETABLE BASED, NON-TOXIC AND NON-POLLUTING HYDRAULIC FLUID.		

- COVERED AREA DURING NON-WORK HOURS. 12. PROVIDE A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIALS SUCH AS BOOMS, BLANKETS, AND OIL ABSORBENT MATERIALS AT THE
- CONSTRICTION SITE AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS. IMMEDIATELY REPORT SPILLS OF HAZARDOUS MATERIALS TO THE STATE ENVIRONMENTAL AGENCY AND THE MUNICIPALITY WHERE THE WORK IS OCCURRING.

IOTES:

LUMBER SHALL CONFORM TO THE LATEST EDITION OF THE AFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", PPLEMENT "DESIGN VALUES FOR WOOD CONSTRUCTION", LATEST EDITION. MAXIMUM MOISTURE CONTENT SHALL BE 19%.

MING LUMBER SHALL BE OF THE FOLLOWING MINIMUM GRADE AND SPECIES FOR THE SPECIFIED USE. ALL LUMBER SHALL BE STAMPED BY A RECOGNIZED GRADING AGENCY AND SHALL BE SURFACE DRY:

MBER PRESERVATIVE TREATMENT AND GRADE SPECIFICATIONS

MEMEBER / LOCATION	LUMBER GRADE	SERVICE CONDITIONS	PRESERVATIVE RETENTION LEVEL AND TREATMENT	SURFACE TEXTURE
TRUCTURAL FRAMING MEMBERS	NO. 2 SYP	SALTWATER SPLASH / NOT IN GROUND CONTACT	0.60 PCF ACQ 0.23 PCF MCA	S4S OR ROUGH SAWN
EMBERS WITH GROUND CONTACT	NO. 2 SYP	SALTWATER SPLASH/GROUND CONTACT	0.31 PCF MCA 0.60 PCF ACQ	S4S OR ROUGH SAWN

CTORS, CONNECTIONS, FASTENERS, ETC. USED TO SECURE PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED, NOTED OTHERWISE

WHICH IS SPLIT, CRACKED, NOTCHED OR OTHERWISE ALTERED OR DAMAGED SHALL BE IMMEDIATELY REJECTED AND NOT D FOR USE, UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.

CTOR SHALL SUBMIT PROPOSED WOOD SPECIES, GRADES, GRADING AGENCY, TYPE OF PRESSURE TREATMENT, MANUFACTURE ND CERTIFICATIONS TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO ORDERING ANY MATERIALS.

LY NAILED METAL CONNECTORS (USP, SIMPSON, TECO, OR EQUAL), JOIST, OR BEAM HANGERS WHEN JOISTS OR BEAMS FRAME HER JOISTS OR BEAMS.

RAMING BELOW THE BASE FLOOD ELEVATION SHALL BE FLOOD-DAMAGE RESISTANT MATERIALS IN ACCORDANCE WITH THE AL CONSTRUCTION MANUAL"

ON NOTES

DPOSED MITIGATION AS SHOWN WAS CALCULATED TO OFFSET THE TOTAL AREA OF WETLAND RESOURCE IMPACTS TO A 4:1 RATIO JIRED BY THE TOWN OF HARWICH BYLAWS TO THE WETLAND PROTECTION ACT.

- DPOSED AREA OF MITIGATION WAS DETERMINED AS FOLLOWS:
- DASTAL BANK = 69±S.F. (TOTAL AREA OF PIER/STAIRS WITHIN THE COASTAL BANK)
- LT MARSH = 300±S.F. (TOTAL AREA OF PIER WITHIN THE SALT MARSH)
- DASTAL BEACH (TIDAL FLATS) = 3.14 S.F. (FOUR (4) 12" DIA PILES WITHIN THE COASTAL BEACH) ND UNDER OCEAN = 3.93 S.F. (FIVE (5) 12" DIA PILES WITHIN THE LAND UNDER OCEAN)
- TAL AREA OF IMPACTED RESOURCE AREAS = 377± S.F.
- QUIRED (4:1) MITIGATION = 1,508 S.F.

PROPOSED MITIGATION = 1,662 S.F. > 1,508 S.F.

OPOSED SHELLFISH MITIGATION: 72 OYSTER BAGS @ 6 S.F PER BAG = 432 S.F. COPOSED UPLAND MITIGATION = 1,230 S.F.

> LEGEND EXISTING PROPOSED MAJOR CONTOUR _____ 5 _____ MINOR CONTOUR — — 4 — — _____ 4 _____ SPOT ELEVATION +5.94 ×4.38 MHW EL. = 1.5 MEAN HIGH WATER <u>1117 7114 7114</u> SALT MARSH FLOOD ZONE -----LIMIT OF WORK _____ L.O.W. ____ EBB/FLOOD DIRECTION 80' OFFSET FROM MHW 25' OFFSET FROM SALT MARSH ____ DREDGE FOOTPRINT BOUND PROPERTY LINE _____Λ_____ COASTAL BANK VEGETATED AREA FLOODPLAIN CONTOUR FPC MOORING \mathbb{M} DECIDUOUS TREE \bigtriangledown WATER LEVEL

MLW

5.3' +++

3.73'

DATUM PROFILE

NAVD88 HIGH TIDE LINE (HTL) MEAN HIGH WATER (MHW) +1.42'2.31 NAVD 88 MEAN LOW WATER (MLW) ⊥⊥_{-2.31′} لل '0.0

NOAA TIDAL PROFILE

STATION ID 8447495, SAQUATUCKET HARBOR, MA HTL REF: BUZZARDS BAY NATIONAL

ESTUARY PROGRAM JULY 7, 2017 TIDAL DATUM CALCULATION



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						04-05-2023	DATE
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		DAVID & PAULA MOGAN	& DANIEL COREY		GENERAL NOTES		
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I Engineering Co., Inc.		G	2 05	0	0	2	

PROJECT NO.

ට් C19802.00 & C19804.00

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PROJIC19000/C19802/C19802 C19804 C-MAR WIP.dwg 7/28/2023 (

TOWN OF HARWICH CC	NSERVATION COMMISSION	WETLAND PROTECTION
RI	EGULATIONS (REV. 08-20-202	1)
REGULATION	REQUIREMENT	PROPOSED
MAXIMUM EXTENT BEYOND MHW	80'	119' (VARIANCE REQUIRED)
MAXIMUM DISTANCE INTO THE DEEP WATER CHANNEL	50'	26.4'
MINIMUM DISTANCE TO ADJACENT STRUCTURES	65'	118'
MAXIMUM STRUCTURE WALKWAY WIDTH	4'	4'
MAXIMUM FLOAT SIZE	200 S.F.	200 S.F.
MINIMUM DECK SPACING	<u>3</u> n 4	<u>3</u> n 4
MINIMUM ELEVATION OF DECKING	= 1.5X WIDTH OF THE DECK ABOVE MHW	6'
MINIMUM DISTANCE FROM EELGRASS BED	50'	N/A
MINIMUM DISTANCE TO SHELLFISH AREA	50'	SHELLFISH SURVEY PERFORMED SE REPORT (VARIANCE REQUIRED)
WATER DEPTH OF STRUCTURE AT MLW	3'	3'
	2003 DEP Small Docks & Piers	
MAXIMUM DISTANCE ACROSS THE WATER BODY	25% WIDTH OF WATER BODY	14%
MINIMUM DISTANCE FROM PROPERTY LINE	25'	32' (SHARED DOCK)
MINIMUM PIER HEIGHT ABOVE MHW (IF NO PUBLIC ACCESS STEPS)	5'	6'
MINIMUM PILE SPACING	20X THE DIAMETER OF PILES, NO LESS THAN 10'	10'-15'
MINIMUM CROSS BRACING HEIGHT	ABOVE MHW	ABOVE MHW
MINIMUM PLANK SPACING FOR SOLID DECKING	<u>3</u> " 4	<u>3</u> " 4

IMPACT AF	REAS (S.F.)

4X IMPACTED AREA (SF)	PROPOSED MITIGATIO	N (SF)
1,200	SHELL BAGS	438
	REMOVAL OF LAWN AND PLANT NATIVE SPECIES	1,230
	TOTAL MITIGATION	1,668
	4X IMPACTED AREA (SF) 1,200	4X IMPACTED AREA (SF)PROPOSED MITIGATION1,200SHELL BAGSREMOVAL OF LAWN AND PLANT NATIVE SPECIESTOTAL MITIGATION



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DAVID & P/		AULA MOGAN							
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et title					3 07-28	2023	REVISED FLOAT LAYOUT AND MITIGATION TABLE	ASC	S eri
PROPO	PROPO	SED DOCK			2 07-20	2023	REVISED FLOAT LAYOUT	ASC	
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