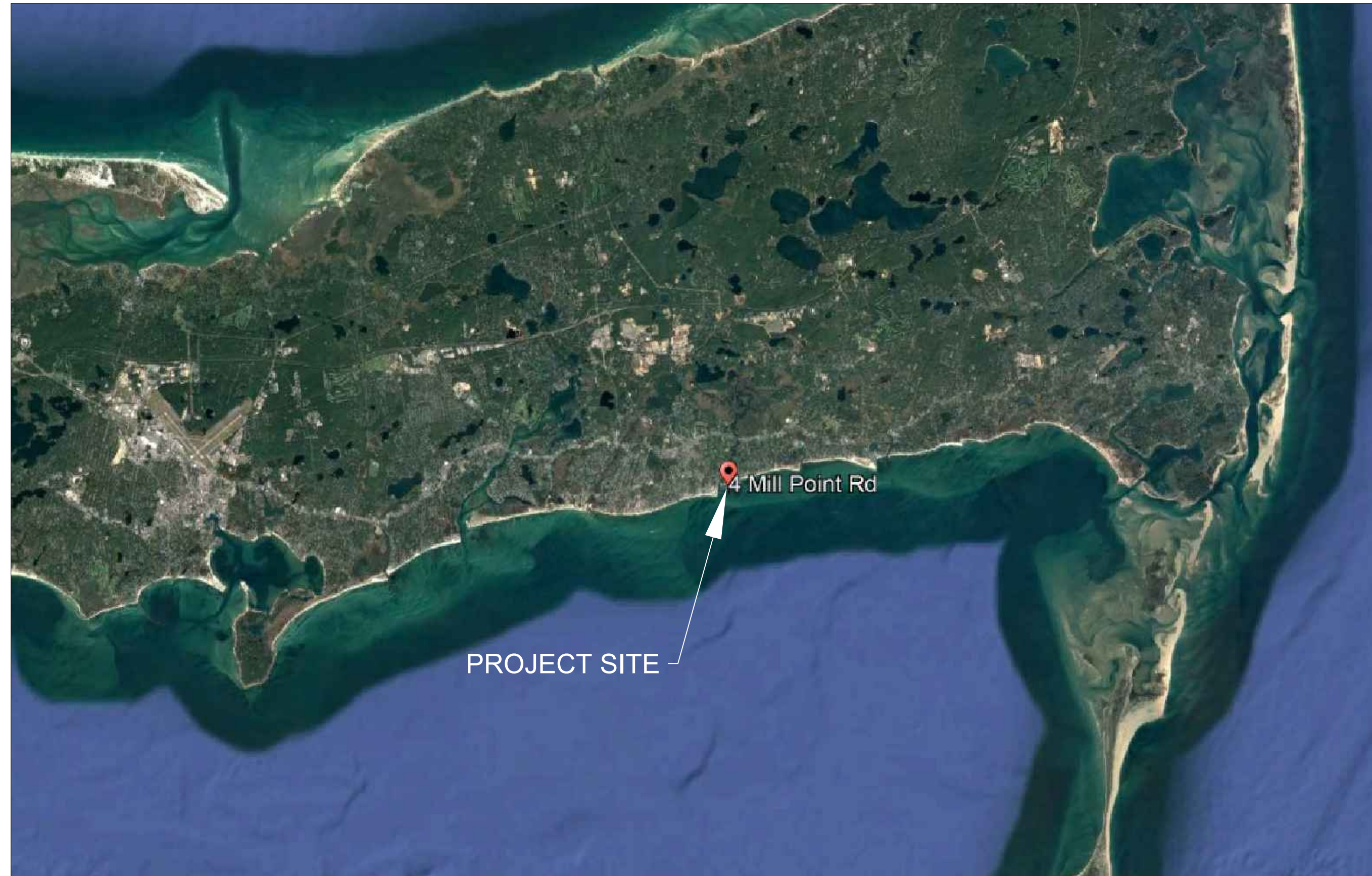


# PROPOSED DOCK AND CONCRETE SEAWALL IMPROVEMENTS

4 MILL POINT ROAD, HARWICH MA

BY	
REVISION	
DATE	
NO.	



SITE VICINITY MAP  
SCALE: N.T.S.



SITE LOCATION MAP  
SCALE: NTS

**DRAFT**

PROJECT  
PROPOSED DOCK AND SEAWALL IMPROVEMENTS  
4 MILL POINT ROAD  
HARWICH, MA  
SHEET TITLE  
YAKAVONIS  
COVER, SHEET INDEX,  
LOCATION AND VICINITY MAPS

## SHEET INDEX

SHEET	DESCRIPTION	DATE
G-001	COVER, SHEET INDEX, LOCATION & VICINITY MAPS	03-07-2023
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C-101	OVERALL SITE PLAN	03-07-2023
C-102	PROPOSED DOCK PLAN VIEW, CROSS SECTION AND DETAILS	03-07-2023
C-103	PLAN SHOWING CONCRETE SEAWALL IMPROVEMENTS	03-07-2023

PREPARED FOR: VINCENT YAKAVONIS  
PREPARED BY: COASTAL ENGINEERING COMPANY, INC.

SCALE	AS NOTED
DRAWING FILE	C19564-MAR.dwg
DATE	03-07-2023
DRAWN BY	MJT
CHECKED BY	TDT

**G-001**

**GENERAL NOTES:**

- THE PROJECT IS LOCATED IN THE TOWN OF HARWICH, MA ALONG HERRING RIVER AND IS REFERENCED BY:  
ASSESSORS MAP 1 PARCEL J1-96
- THE VERTICAL DATUM IS IN U.S. SURVEY FEET REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED UPON THE HEXAGON SMARTNET RTK NETWORK.
- THE EXISTING CONDITION PLAN IS THE RESULT OF AN INSTRUMENT SURVEY PERFORMED BY COASTAL ENGINEERING COMPANY ON APRIL 1, 2021 AND HYDROGRAPHIC SURVEY PERFORMED ON MARCH 14, 2022.
- 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.
- THE SUBJECT PREMISES AS SHOWN LIES WITHIN FLOOD ZONE VE(EL. 13), ZONE AE(EL. 13) AND ZONE X, AS INDICATED ON FLOOD INSURANCE RATE MAP NUMBER 25001C0611J FOR BARNSTABLE COUNTY MASSACHUSETTS WITH AN EFFECTIVE DATE OF JULY 16, 2014.
- 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.
- THIS SURVEY HAS BEEN PERFORMED WITHOUT THE BENEFIT OF A TITLE SEARCH AND MAY NOT REVEAL ANY FACTS THAT WOULD BE DISCLOSED BY ONE.
- 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.
- CONTRACTOR SHALL SUPPLY ALL MATERIAL, EQUIPMENT AND LABOR FOR CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS AS DESCRIBED AND SHOWN ON THE PLAN AND DETAILS.
- ACCESS FOR MATERIAL AND EQUIPMENT TO BE THROUGH A WORK BARGE AND THE UPLAND OF THE PROPERTY 4 MILL POINT ROAD. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMISSION REQUIRED FOR USE OF ANY AND ALL ACCESS.
- 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 4 MILL POINT ROAD. WHEN MACHINERY AND EQUIPMENT ARE NOT IN USE, THEY SHALL BE KEPT IN THE STAGING AREA.
- 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.
- ANY FUTURE MAINTENANCE REQUIRED SHALL NOT COMMENCE UNTIL THE HARWICH CONSERVATION AGENT HAS FIRST BEEN NOTIFIED AS TO THE SCOPE OF THE REPAIRS.
- 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.
- ALL FILL MATERIAL BROUGHT TO THE SITE SHALL BE COARSE, CLEAN MATERIAL OF SIMILAR GRAIN SIZE COMPATIBILITY.
- ABUTTERS NAMES SHOWN HEREON REFERENCE THE CURRENT TOWN OF BOURNE ASSESSORS RECORDS AT THE TIME OF THIS PLAN.
- 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.

**EROSION & SEDIMENT CONTROL NOTES:**

- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL UNTIL COMPLETION OF SITework AND ESTABLISHMENT OF VEGETATIVE GROUND COVER.
- 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.
- 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.
- IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.
- LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- 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.
- 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.
- 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.
- SWEEP, COLLECT, REMOVE AND DISPOSE OF ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.
- ALL HYDRAULIC EQUIPMENT SHALL UTILIZE BIODEGRADABLE, VEGETABLE BASED, NON-TOXIC AND NON-POLLUTING HYDRAULIC FLUID.
- STORE FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS IN A SECONDARY CONTAINER AND REMOVE TO A SECURE LOCKED AND COVERED AREA DURING NON-WORK HOURS.
- PROVIDE A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIALS SUCH AS BOOMS, BLANKETS, AND OIL ABSORBENT MATERIALS AT THE CONSTRUCTION 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.

**TIMBER NOTES:**

- FRAMING LUMBER SHALL CONFORM TO THE LATEST EDITION OF THE AFPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AND SUPPLEMENT "DESIGN VALUES FOR WOOD CONSTRUCTION", LATEST EDITION. MAXIMUM MOISTURE CONTENT SHALL BE 19%.
- THE FRAMING LUMBER SHALL BE OF THE FOLLOWING MINIMUM GRADE AND SPECIES FOR THE SPECIFIED USE. ALL LUMBER SHALL BE GRADE STAMPED BY A RECOGNIZED GRADING AGENCY AND SHALL BE SURFACE DRY:

**TIMBER PRESERVATIVE TREATMENT AND GRADE SPECIFICATIONS**

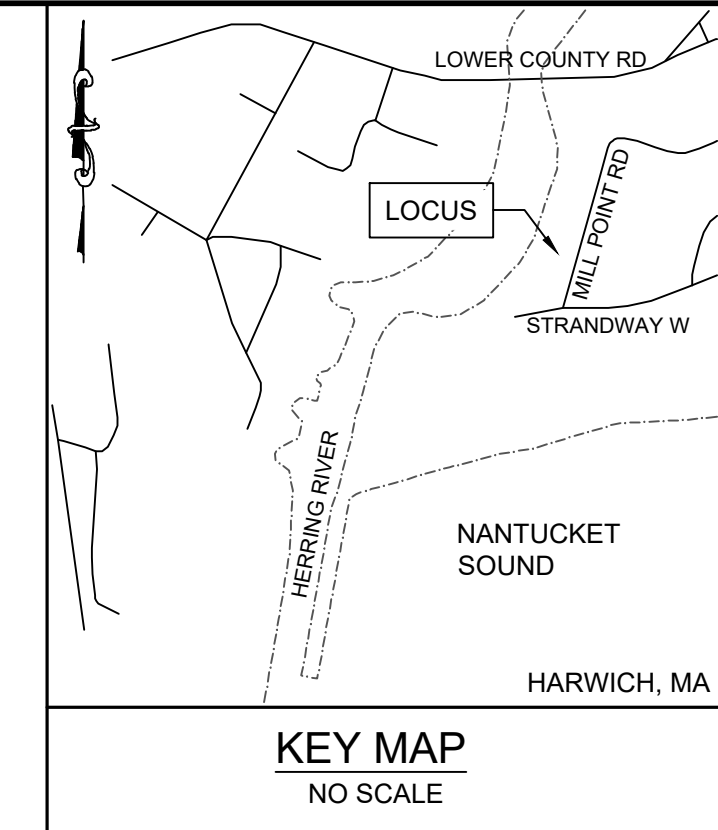
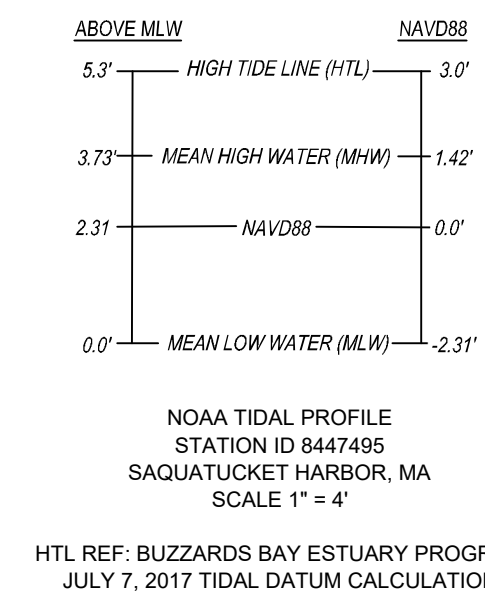
MEMEBER / LOCATION	LUMBER GRADE	SERVICE CONDITIONS	PRESERVATIVE RETENTION LEVEL AND TREATMENT	SURFACE TEXTURE
STRUCTURAL FRAMING MEMBERS	NO. 2 SYP	SALTWATER SPLASH / NOT IN GROUND CONTACT	0.60 PCF ACQ 0.23 PCF MCA	S4S OR ROUGH SAWN
MEMBERS WITH GROUND CONTACT	NO. 2 SYP	SALTWATER SPLASH/GROUND CONTACT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

- CONNECTORS, CONNECTIONS, FASTENERS, ETC. USED TO SECURE PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED, UNLESS NOTED OTHERWISE
- LUMBER WHICH IS SPLIT, CRACKED, NOTCHED OR OTHERWISE ALTERED OR DAMAGED SHALL BE IMMEDIATELY REJECTED AND NOT ALLOWED FOR USE, UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.
- CONTRACTOR SHALL SUBMIT PROPOSED WOOD SPECIES, GRADES, GRADING AGENCY, TYPE OF PRESSURE TREATMENT, MANUFACTURE DATA, AND CERTIFICATIONS TO THE ENGINEER FOR WRITTEN APPROVAL PRIOR TO ORDERING ANY MATERIALS.
- USE FULLY NAILED METAL CONNECTORS (USP, SIMPSON, TECO, OR EQUAL), JOIST, OR BEAM HANGERS WHEN JOISTS OR BEAMS FRAME INTO OTHER JOISTS OR BEAMS.
- WOOD FRAMING BELOW THE BASE FLOOD ELEVATION SHALL BE FLOOD-DAMAGE RESISTANT MATERIALS IN ACCORDANCE WITH THE "COASTAL CONSTRUCTION MANUAL"
- 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.
- 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.
- FLOAT(S) SHALL BE FABRICATED BY EZ-DOCK OR AS INDICATED ON THE DRAWINGS AND APPROVED BY THE ENGINEER. FLOATS SHALL HAVE A MAXIMUM DRAFT OF 12 INCHES.
- THE DECKING PLANK SPACING SHALL BE  $\frac{3}{8}$ " MINIMUM.

**LEGEND**

EXISTING		PROPOSED
— 5 —	MAJOR CONTOUR	— 5 —
— 4 —	MINOR CONTOUR	— 4 —
× 4.38	SPOT ELEVATION	+5.94
MHW EL. = 1.5	MEAN HIGH WATER	
	SALT MARSH	
	FLOOD ZONE	
	LIMIT OF WORK	
	CONCRETE	
	STONE	
	TIMBER	
	BOUND	
	PROPERTY LINE	
	PICKET FENCE	
	VEGETATED AREA	
	EDGE OF LAWN	
	MOORING	
	DECIDUOUS TREE	
	WATER SURFACE	
	TOP OF COASTAL BANK	

**DATUM PROFILE**



NO.	DATE	REVISION	BY

SEAL

**DRAFT**

PROJECT: PROPOSED DOCK AND SEAWALL IMPROVEMENTS  
HARWICH, MA

4 MILL POINT ROAD  
SHEET TITLE: YAKAVONIS

GENERAL NOTES,  
LEGEND AND DATUM

SCALE	AS NOTED
DRAWING FILE	C19564-MAR.dwg
DATE	03-07-2023
DRAWN BY	MJT
CHECKED BY	TDT

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.

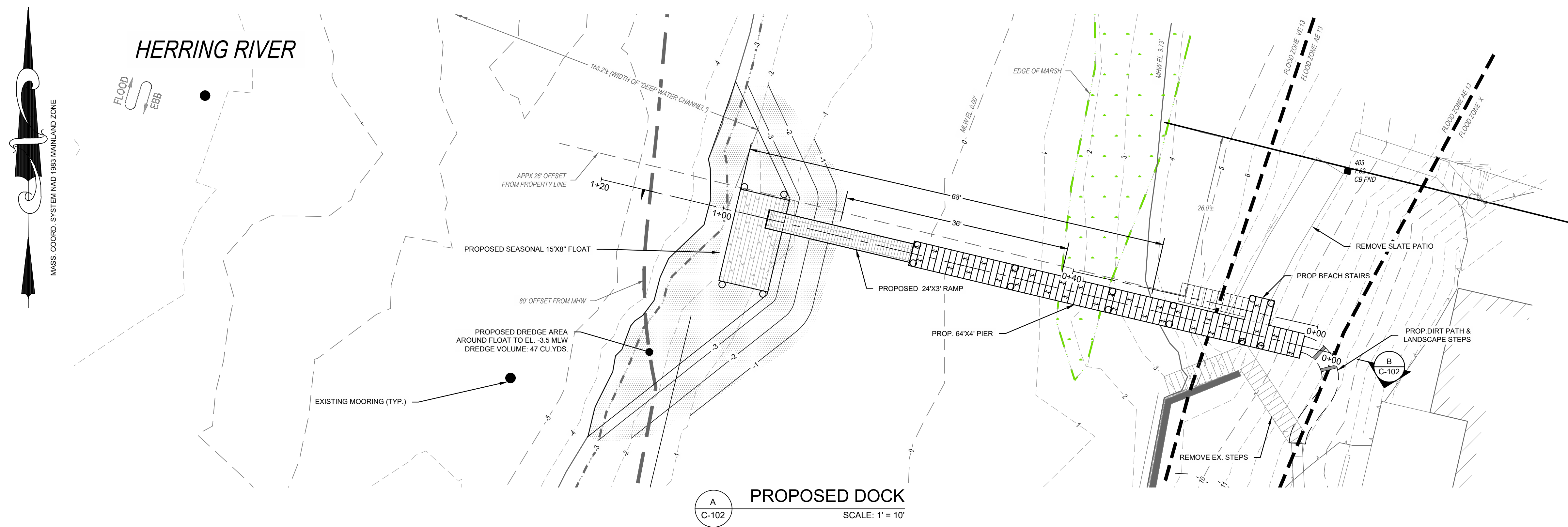
**G-002**

2 OF 5 SHEETS

PROJECT NO. C19564.00

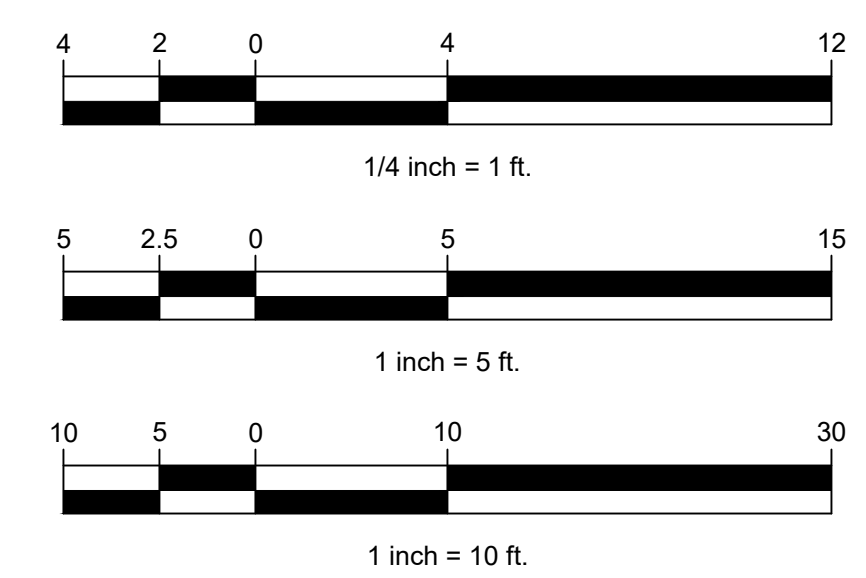
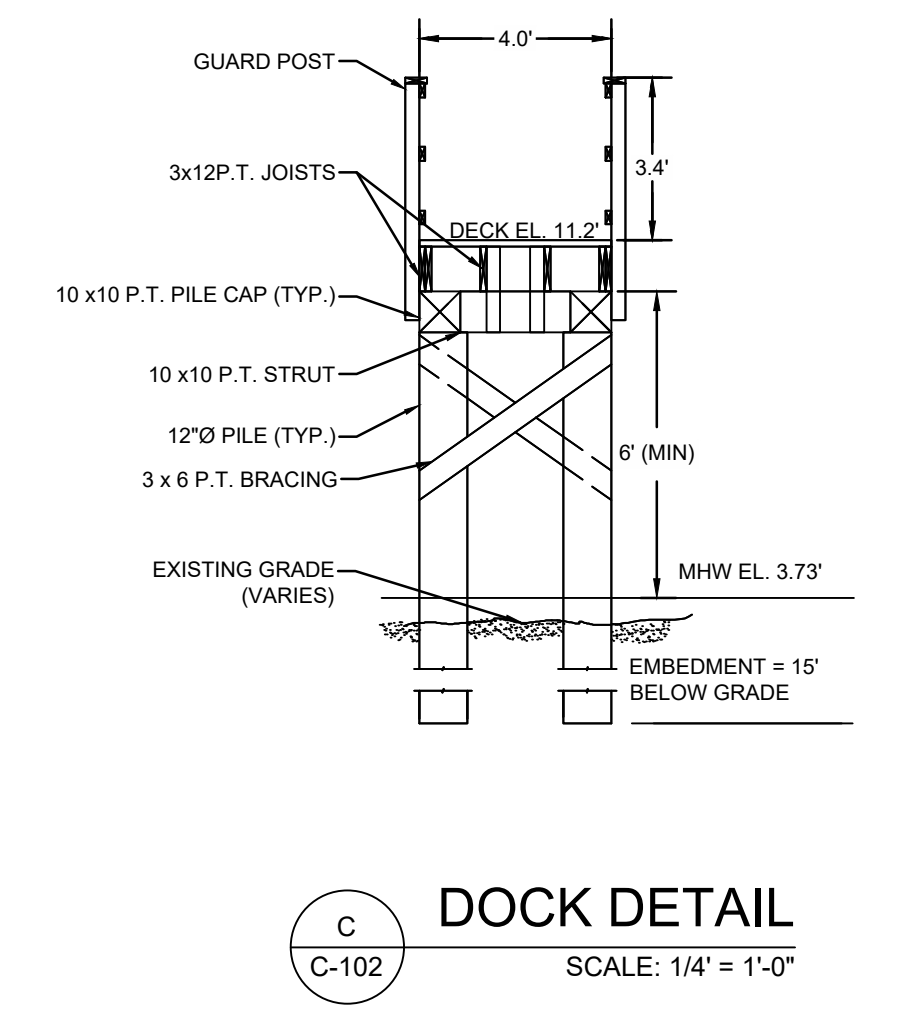
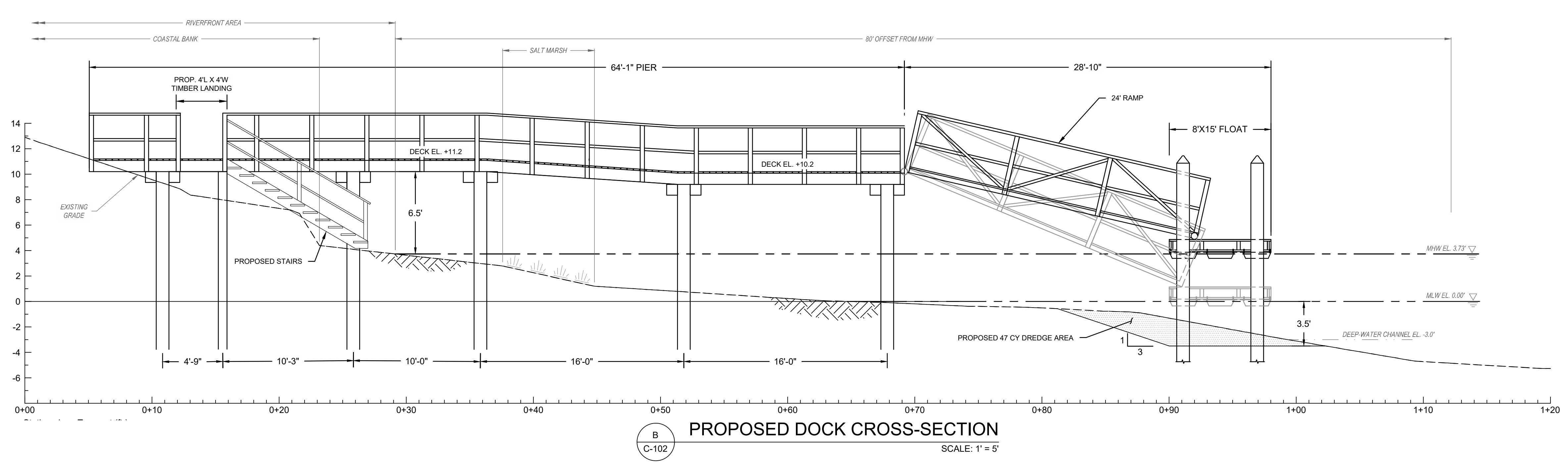


NO.	DATE	REVISION	BY



**REGULATORY REQUIREMENTS**

HARWICH WETLAND PROTECTION REGS		
REGULATION	REQUIREMENT	DESIGN
FLOAT SIZE	200 S.F. MAX	120 S.F.
WATER DEPTH	3' MIN. AT MLW	3.0'
SEAWARD EXTENTS	80' FROM MHW (MAX)	69'
SALT MARSH BUFFER	25' MIN	36'
CHANNEL	MAX 50' INTO DEEP WATER CHANNEL	10'
OFFSET TO ADJACENT STRUC.	65' MIN	96.2'
2003 DEP SMALL DOCKS & PIERS		
SEAWARD EXTENT	25% WIDTH OF WATERWAY	15%
PROPERTY LINE	25' MIN	26'
PIER HEIGHT	5' ABOVE MHW (MIN)	6.5'
DEPTH	1.5' (BELOW FLOAT OR ALONG END OF PIER)	3.5'
PIER WIDTH	4' MAX	4.0'
DEPTH (FOR SHELLFISH AREAS)	2.5' FROM BOT. OF FLOAT @ MLW	3.0'



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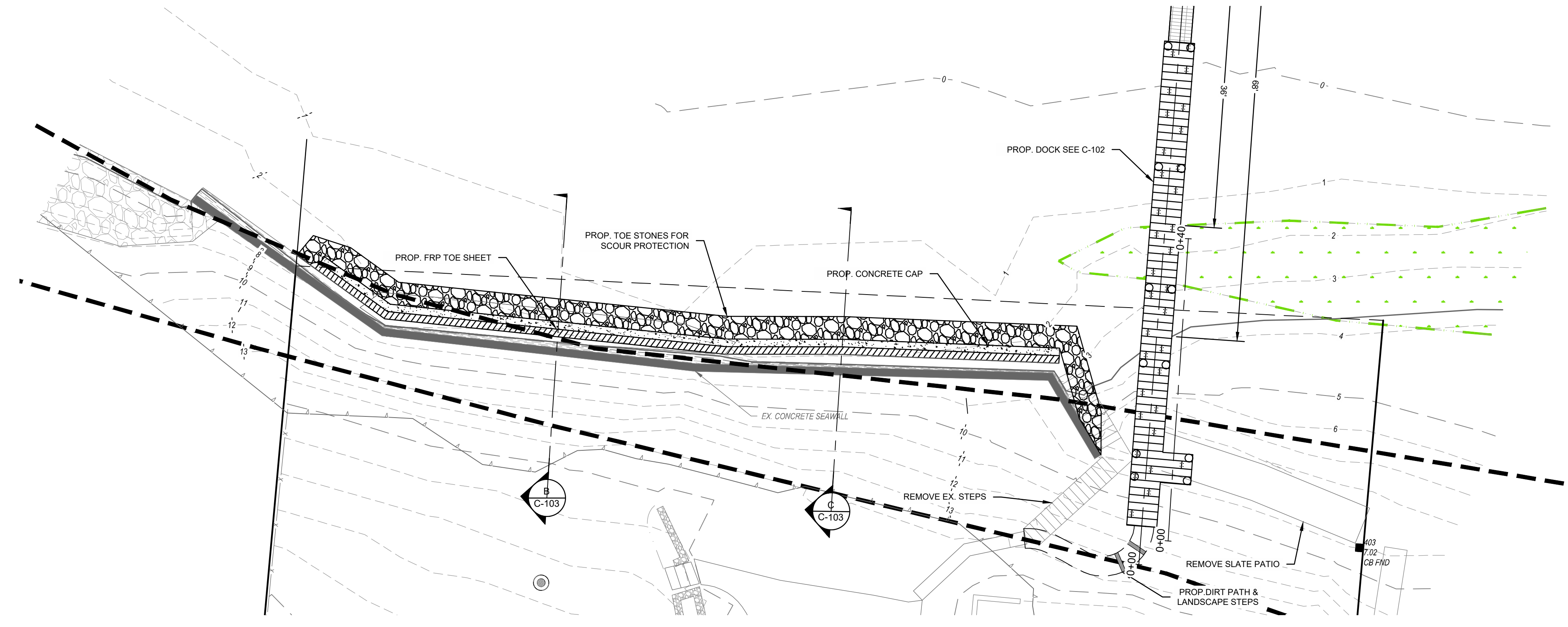
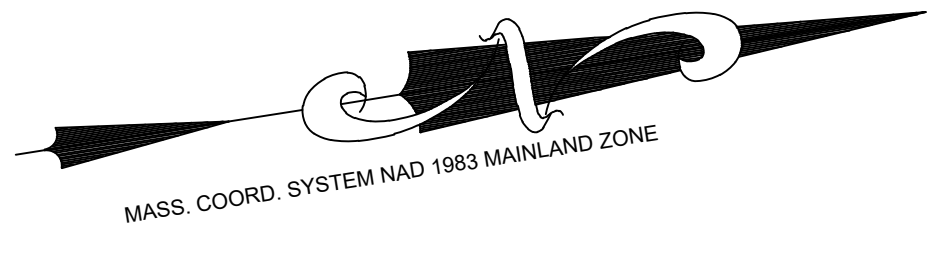
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SHEET TITLE: PROPOSED DOCK PLAN VIEW, CROSS SECTION AND DETAILS  
DRAWING FILE: C19564-MAR.dwg  
DATE: 03-07-2023  
DRAWN BY: MJT  
CHECKED BY: TDT

SCALE: AS NOTED

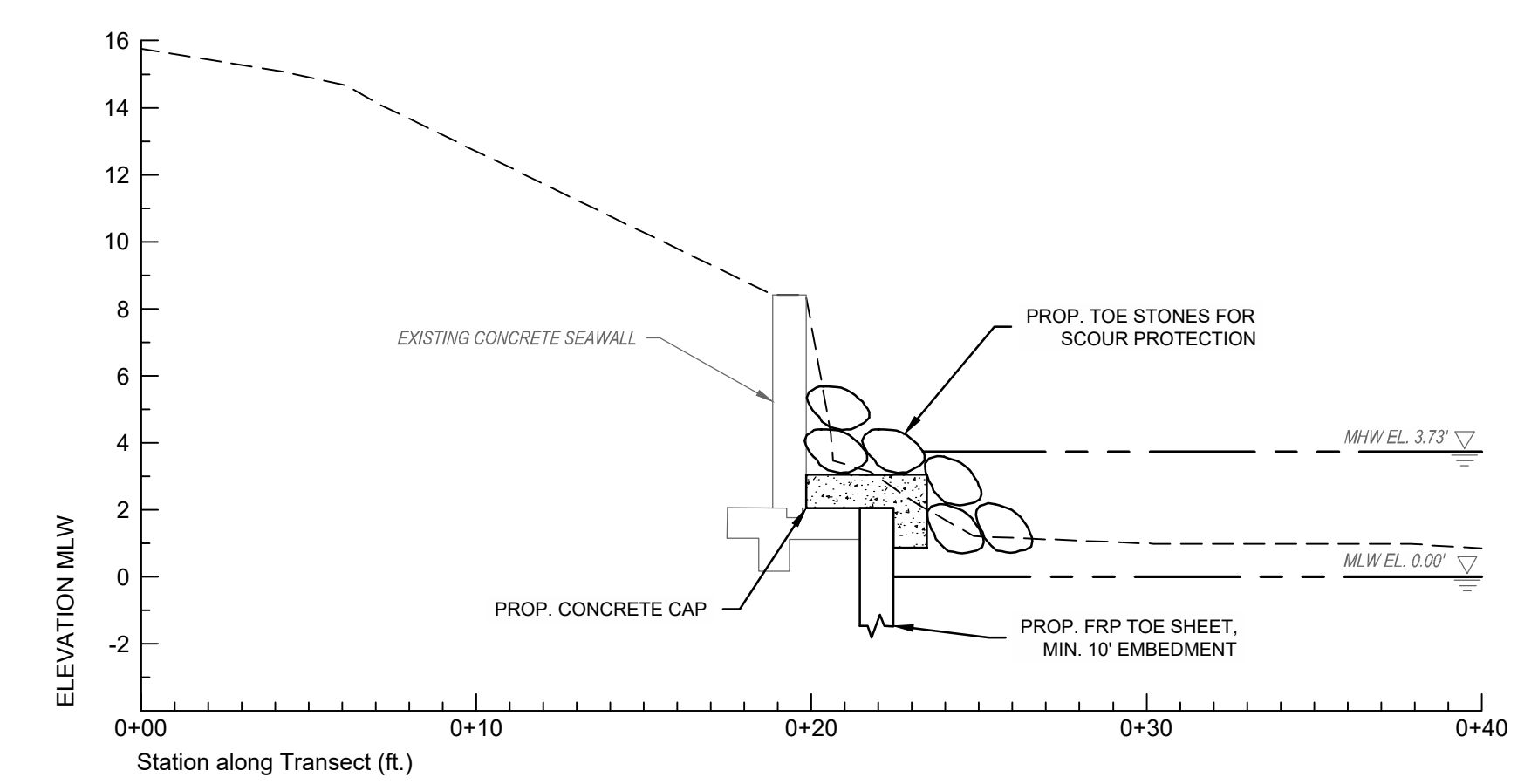
C-102

4 OF 5 SHEETS  
PROJECT NO. C19564.00

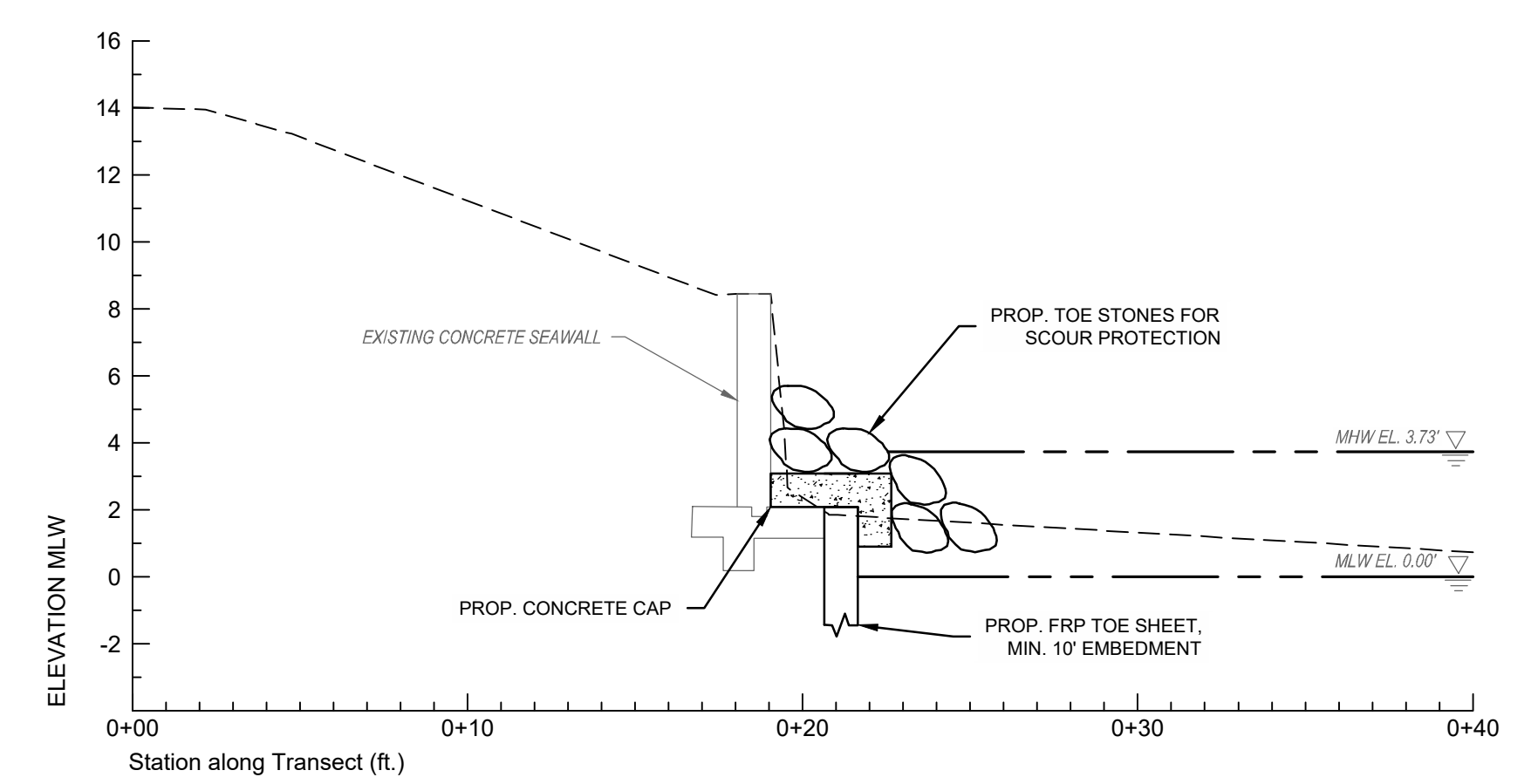
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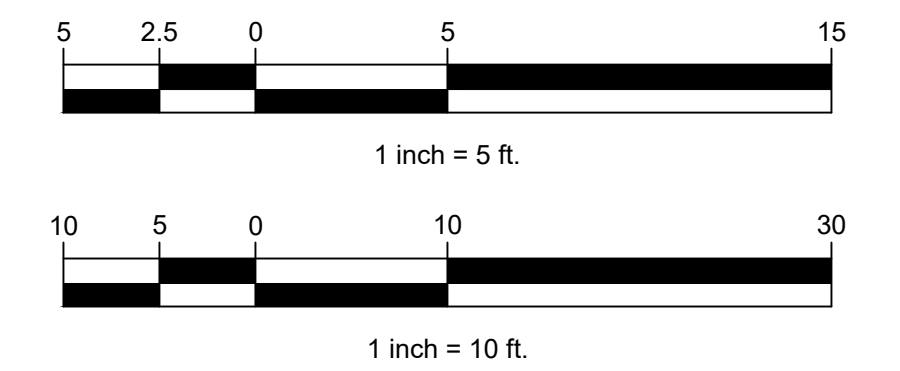
**A**  
C-103  
**PROPOSED CONCRETE SEAWALL IMPROVEMENTS**  
SCALE: 1" = 10'



**B**  
C-103  
**PROPOSED SEAWALL IMPROVEMENTS**  
SCALE: 1" = 5'



**C**  
C-103  
**PROPOSED SEAWALL IMPROVEMENTS**  
SCALE: 1" = 5'



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NO.	DATE	REVISION	BY

SEAL  
**DRAFT**

PROJECT: **PROPOSED DOCK AND SEAWALL IMPROVEMENTS**  
HARWICH, MA  
4 MILL POINT ROAD  
YAKAVONIS  
SHEET TITLE: **PLAN SHOWING CONCRETE SEAWALL IMPROVEMENTS**

SCALE: AS NOTED  
DRAWING FILE: C19564-MAR.dwg  
DATE: 03-07-2023  
DRAWN BY: MJT  
CHECKED BY: TDT

C-103  
5 OF 5 SHEETS  
PROJECT NO. C19564.00