STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

October 18, 2024
Subject: Ferry Terminal Rehabilitation
Location: Casco Bay
State WIN: 024685.01
Amendment No. 2

Dear Sir/Ms.:

In the bid book.

Remove pages 68-71 SPECIAL PROVISION SECTION 528 Heavy Timber and **Replace** with the attached SPECIAL PROVISION SECTION 528 Heavy Timber

Included are the Final Plan Set for 024685.01 FERRY TERMINALS

The following questions have been answered:

Question: When quantifying the amount of 4x8's and 4x10's required to replace all pier decking for the Great Diamond Island Terminal, it was noticed that the board-feet amount calculated was significantly different from the board-feet unit quantity shown on line # 0230 on the MEDOT schedule of values provided. On Sheet number S6, there is a note stating that all pier decking is to be replaced, minus the decking under the shelter and decking for the ramp. Is the Unit quantity on Line # 0230 incorrect? Or does the pier decking scope differ from what is stated on this drawing?

Response: See Partial Plan Detail on Sheet S6 and S10 for clarification of deck replacement around existing shelters. Pier Decking shall be paid for under Item 528.10 Heavy Timber Construction – Great Diamond Island as a Lump Sum. See Special Provision 528 – Structural Timber that has been replaced in its entirety.

Question: On Sheet S6 (Great Diamond Island), there is a note to replace the low water wale and the 12x12 timber blocking. However, it is unclear as to what the existing dimensions/length of timber members are. Please advise or provide what these dimensions are.

Response: Low water wale shown in Detail 7 on Sheet S13, the length of the low water wale is 12'-0" ±.

Question: On Sheet S5, note 3 states that the contractor is to "Allow for replacement of up to 12 additional (6x14) stringers as directed by the resident. Work shall be paid under item 528.49 Structural

Timber-Great Diamond Island". However, Section 528.01 on the provided Special Provision Specification defines structural framing of wood members with thicknesses of 5" (nominal) or more to be classified as "Heavy Timber Construction". Are the additional (12) stringers for the resident to be priced/billed separately from the 6x14 stringers required for construction? Or will all of these stringers be priced/billed either under item 528.10 or item 528.49?

Response: Per note 3 on S5, the additional stringers as directed by the Resident shall be paid for under Item 528.49 Structural Timber – Great Diamond Island per the board foot. The stringers to be replaced as indicated on Sheet S5 shall be paid for under Item 528.10 Heavy Timber Construction – Great Diamond Island as a Lump Sum. See Special Provision 528 – Structural Timber that has been replaced in its entirety.

Question: Special Provisions Section 528 defines "Heavy Timber" as "structural framing of wood members with thicknesses of 5" nominal or more", and the proposed schedule of items numbers 210 Heavy Timber Construction (Great Diamond) is shown as a lump sum item. According to the drawings, the only members that would fall under this category are the 6"x14" stringers and possibly the low water wale (which is shown as a stringer on sheet S5). Note 3 on sheet S5 indicates that up to 12 additional stringers are to be paid for under item 528.49, structural timber. Conversely, according to the definition in special provisions section 528, all of the decking and cross bracing would be paid under 230 at GDI. If that is the intention, then the approximate quantity is off by an order of magnitude. I believe the same situation exists with items number 190 and 220 at Cliff Island. Please clarify (I believe the approximate quantities need to be swapped)

Response: See Note 7 on Sheet S4, "Allow for replacement of up to 6 additional braces as directed by the resident. Work shall be paid under Item 528.49 – Structural Timber – Chebeague Island." See Note 8 on Sheet S8, "For bidding purposes, allow for replacement of up to 6 additional braces as directed by the resident and shall be paid under Item 528.49 – Structural Timber – Great Diamond Island." Pier Decking shall be paid for under Item 528.10 Heavy Timber Construction – Great Diamond Island as a Lump Sum. See Special Provision 528 – Structural Timber that has been replaced in its entirety.

Question: Schedule item number 100 is for 3 ea pile splices at great diamond island. There are no pile splices indicated on the plans at GDI or any of the islands.

Response: See Note 8 on S4, "The depth of overburden varies, provide 3 pile splices as directed by the resident and shall be paid for under Item 510.913 Pile Splice Timber."

Question: Note on sheet S6 calls for replacement of the low water wale. The entire low water wale? Just a section?

Response: Low water wale dimensions shown in Detail 7 on Sheet S13. The length of the low water wale is 12'-0" ±.

Question: Note 7 on Sheet S8 calls for replacing 72 fasteners that will be paid under item "528.XX Pile Bracing Fastener" Believe the note should read 501.2511

Response: See Note 7 on Sheet S8, "Pile bracing fasteners at low water from bents 14 to 19 are heavily corroded. Provide 72 fasteners (1" Ø HDG bolts with nuts and washers) at low water connections as directed by the resident. Work shall be paid under Item 501.2511 Pile Bracing Fastener.

Consider these changes and information prior to submitting your bid on **October 23, 2024**.

Sincerely,

George M. A. Macdougall P.E.
Contracts & Specifications Engineer

SPECIAL PROVISION
SECTION 528
STRUCTURAL TIMBER
(Heavy Timber Construction)
(Structural Timber)

528.01 Description. The work shall consist of the furnishing and installing all heavy timber for decking, wales, stringers, pile bracing, curbs, blocking, and cribbing. This work shall also include adjustments such as tie plate rotation, installation of blocking/shims between piles and piles caps and installation of ice and water shield that are associated with the heavy timber construction.

Structural Timber shall include furnishing and installing timber for stringers and cross-bracing as directed by the Resident.

528.02 Materials. Except as noted all work shall conform to the latest editions of the following codes, specifications and standards:

(a) Southern Pine Inspection Bureau (SPIB)
(b) West Coast Lumber Inspection Bureau (WCLIB)
(c) Western Wood Products Association (WWPA)
(d) National Forest Products Association (NFPA)
(e) American Society for Testing and Materials (ASTM)
(f) Building Officials and Code Administrators (BOCA)
(g) American Institute of Timber Construction (AITC)
(h) Northeast Lumber Manufacturers Association (NELMA)

528.03 Submittals. For each type of treatment required, provide treater's certification stating chemicals and process used, quantities of chemicals retained, conformance with applicable standards and certification that moisture content after treatment was reduced to maximum specified.

Submit shop drawings showing large scale details of various parts of the work, methods of joinery, profiles, and provisions for assembly, wood finish and installation. Show methods of enforcement, anchorage and support.

528.04 Materials.

A. Timber

1. All timber shall be Southern Yellow Pine of the Quality listed below. Grades of Southern Yellow Pine refer to the latest Standard Grading Rules of the Southern Pine Inspection Bureau. Dressing of timber shall be as indicated below.

ITEM	DRESSING	SPECIES
Wales	S4S	Southern Yellow Pine No. 1 Dense
Chocks	S2S	Southern Yellow Pine No. 1 Dense
Mounting Timbers	S4S	Southern Yellow Pine No. 1 Dense

Blocking	S2S	Southern Yellow Pine No. 1 Dense
Bracing	S2S	Southern Yellow Pine No. 1 Dense
Decking	S4S	Southern Yellow Pine No. 1 Dense
Stringers	S2E	Southern Yellow Pine No. 1 Dense
Handrail Posts	S4S	Southern Yellow Pine No. 1
Ramp Block	S4S	Southern Yellow Pine No. 1
Cribbing	S2E	Southern Yellow Pine No. 1

Blocking shall be planed not to exceed the nominal thickness indicated.

2. Unless noted otherwise, all timber shall be pressure treated with chromated copper arsenate (CCA) conforming to AWPA Standard P5, unless noted otherwise. The treatment shall be by the full cell process in accordance with AWPA Standards U1-10 and T1-10. All timber shall be treated to 2.5 pounds per cubic foot retention.

   Timber for decking, curb and rail shall be pressure treated with alkaline copper quaternary (ACQ) conforming to AWPA Standard P5. The treatment shall be by the full cell process in accordance with AWPA Standards U1-10 and T1-10. All timber shall be treated to 0.6 pounds per cubic foot retention.

B. Galvanized Hardware

All hardware including bolts, nuts, washers, spikes and drift pins shall be hot-dip galvanized steel conforming to the respective ASTM Standards and other requirements specified below:

1. Bolts and Nuts: A307. Bolts shall have hexagonal heads, except where button heads are shown on the Plans. Nuts shall be hexagonal.

2. Washers, angles, plates, and miscellaneous items shall be A36 steel. Washers shall be square, except that round washers shall be used under button heads and where countersunk.

3. Galvanizing shall be in accordance with ASTM A123 and A153, as applicable.

528.05 Construction Requirements. Store and handle in strict compliance with manufacturer's instructions and recommendations. Store timber under cover and protect from moisture and damage. Stack materials to promote air circulation and to prevent twisting. Sequence deliveries to avoid delays, while minimizing on-site storage. Do not store kiln-dried lumber in wet or damp areas.

534.06 Installation.

1. Treated timber shall be carefully handled without sudden dropping, breaking of outer fibers, bruising, or penetrating the surface with tools. It shall be handled with rope slings. Cant hooks, peaveys, pikes or hooks shall not be used.

2. Timber shall be closely fitted, accurately set to required lines and levels, and rigidly secured in place, as shown on the Plans. The following requirements shall be met: Joints are to be square, tight and well-fastened with all members assembled in accordance with the Contract Plans.

3. Holes for bolts shall be in accordance with the latest edition of the National Design Specifications (NDS) for Wood Construction. Holes shall be swabbed with two (2) coats of copper naphthenate 2% in accordance with the manufacturer's recommendations, before installing the bolt.

4. Holes for drift pins and spikes shall be in accordance with the latest edition of the National Design Specification (NDS) for Wood Construction. Care shall be taken in driving not to split the timbers.

5. All timber shall be placed with the sap wood on the top side of the piece, if possible.

6. Washers shall be placed under both bolt heads and nuts. Bolts shall be tightened to provide a solid connection. No more than one (1) washer shall be installed under the bolt head or nut. Bolt threads shall project no more than two (2) inches beyond the nut.

7. The care and handling of treated timber shall conform to the requirements of AWPA Standard M4. All timber shall be handled in a manner to avoid damage to the treated surfaces.

8. Where damaged or cut for fittings, or during handling, treated timber shall be brush coated with copper naphthenate 2% in accordance with the manufacturer's recommendations, provide 2 coats minimum.

9. All timber chocks shall be cut and fit in such a manner as to have full bearing over the entire contact surface.

10. Ice and water shield shall be installed on top of stringers prior to installing decking.

11. Tie-down plates noted in the plans shall be rotated to be perpendicular to split pile caps and the nuts tightened.

12. Blocking and shims between piles and pile caps shall provide full bearing between the two and secured in place as shown on the Plans.

528.07 Method of Measurement: Heavy Timber Construction will be measured by the lump sum and shall include all labor, materials, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications including moving the gangway as needed to maintain pedestrian access and the movement of freight as describe in Special Provision 104.

Structural Timber will be measured by the board foot and shall include all labor, materials, and equipment necessary for the satisfactory completion of the work as directed by the Resident.

528.08 Basis of Payment: Heavy Timber Construction will be paid for at the Contract Lump Sum price for the respective Contract items including decking, wales, stringers, pile bracing, curbs, blocking, and cribbing which shall be full compensation for all labor, materials, incidentals and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications.

Structural Timber will be paid for by the board foot which shall be full compensation for stringers and cross-bracing as directed by the Resident and all labor, materials, incidentals, and equipment necessary to satisfactorily install the timber as directed by the Resident. Payment shall include pressure treatment and inspection.

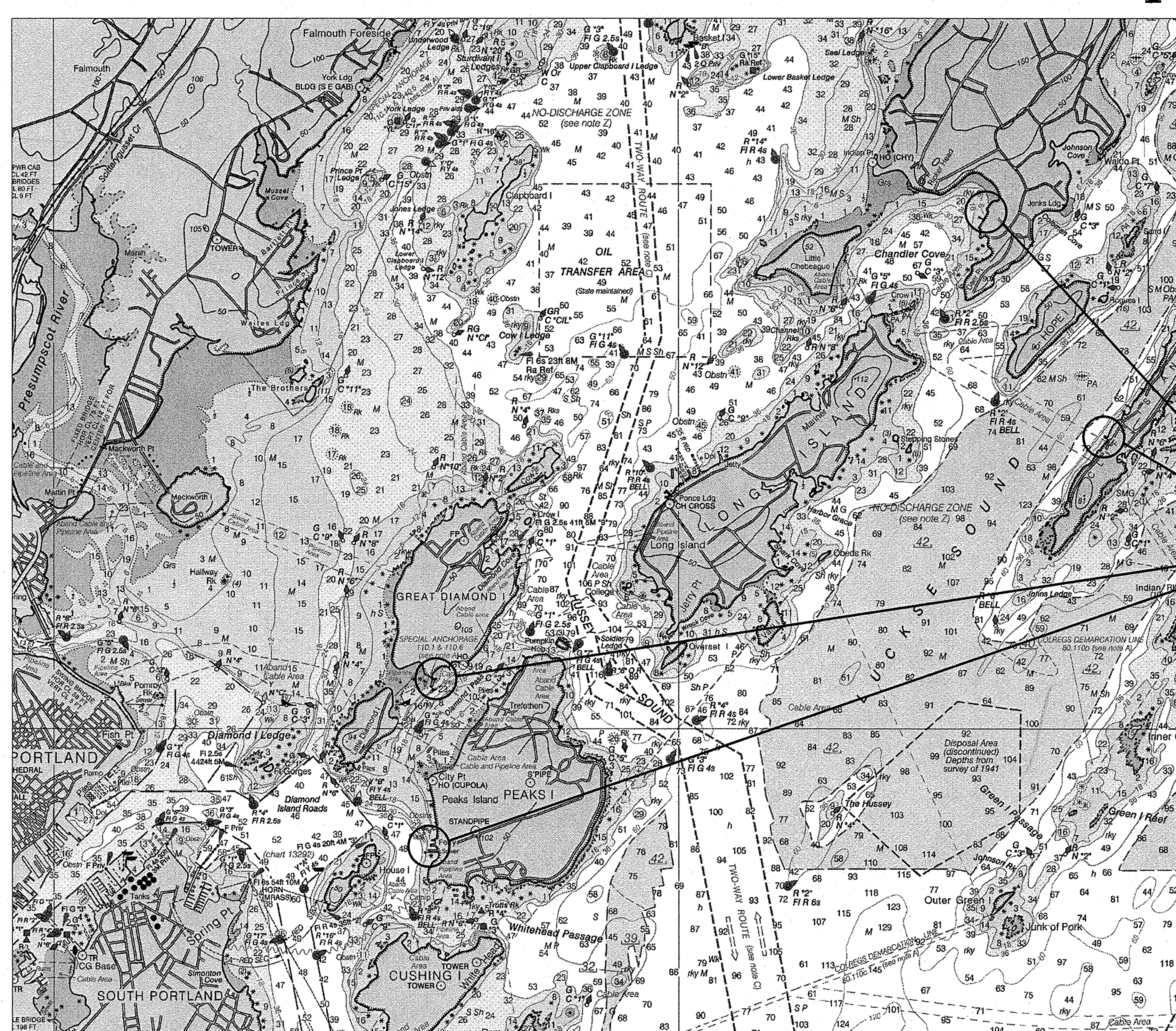
Payment will be made under:

Pay Item	Pay Unit
528.10 Heavy Timber Construction – Cliff Island	Lump Sum
528.10 Heavy Timber Construction – Chebeague Island	Lump Sum
528.10 Heavy Timber Construction – Great Diamond Island	Lump Sum
528.49 Structural Timber – Chebeague Island	Board Foot
528.49 Structural Timber – Great Diamond Island	Board Foot

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS

CUMBERLAND COUNTY
CASCO BAY
STATE WIN: 024685.01
PROJECT LENGTH 0.000 mi.
FEDERAL WIN # 02468501



PROJECT LOCATIONS

DRAWING INDEX

PROJECT LOCATION	FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS IN CASCO BAY
PROGRAM AREA	MULTIMODAL
OUTLINE OF WORK	VARIOUS STRUCTURAL REPAIRS TO FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED

		DATE
COMMISSIONER:	[signature]	9-12-24
CHIEF ENGINEER:	[signature]	9-11-2024

STATE OF MAINE
MARC NICOLAZZO
No. PE18349
LICENSED PROFESSIONAL ENGINEER

SIGNATURE	[signature]
P.E. NUMBER	18349
DATE	8/23/2024

PROJECT	INFORMATION
PROGRAM	MULTI-MODAL
PROJECT MANAGER	BRIAN KEEZER, P.E.
DESIGNER	MARC NICOLAZZO, P.E.
CONSULTANT	STANTEC
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 024685.01

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

TITLE SHEET - LOCATION MAP AND INDEX

SHEET NUMBER
T1

GENERAL NOTES:

1. ALL DIMENSIONS, DETAILS AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. VERIFY THE LOCATION ELEVATION, SIZE AND MATERIAL OF ALL UTILITIES. PROTECT ALL UTILITY LINES AND STRUCTURES THROUGHOUT ALL PHASES OF WORK. NO UTILITY SERVICES SHALL BE INTERRUPTED WITHOUT PRIOR APPROVAL FROM THE TOWN.
2. CALL DIGSAFE AT 1-888-DIGSAFE PRIOR TO ANY WORK.
3. UNLESS OTHERWISE NOTED, VERIFY, LOCATE AND PROTECT ALL EXISTING FEATURES TO REMAIN, INCLUDING, BUT NOT LIMITED TO, SIGNS, SIGN POSTS, CURBS AND BUILDINGS.
4. PREVENT ANY DISTURBANCE OR DAMAGE TO ADJACENT PROPERTIES.
5. WHERE THE WORK COINCIDES WITH EXISTING TRAVELED WAYS, THE CONTRACTOR SHALL PERFORM THE WORK IN A MANNER ACCEPTABLE TO THE OWNER SO THAT INTERFERENCE WITH AND INCONVENIENCE TO OPERATIONS, ON ACCOUNT OF THE WORK, IS KEPT TO A MINIMUM. MAINTAIN SAFE AND REASONABLE INGRESS TO AND EGRESS FROM ABUTTING BUILDINGS AND TRAVELED WAYS. MAINTAIN SAFE AND UNENCUMBERED ACCESS THROUGHOUT THE WORK AREA AT ALL TIMES FOR EMERGENCY AND PUBLIC SAFETY SERVICES.
6. PROJECT DATUM AT EACH SITE IS MLW = 0.0'
7. SURVEY INFORMATION FURNISHED OR REFERRED TO IN THIS PLAN SET IS FOR THE USE OF THE BIDDERS AND THE CONTRACTOR. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF ACTUAL SUBSURFACE CONDITIONS AT THE CONSTRUCTION SITE. MAINEDOT WILL NOT BE RESPONSIBLE FOR THE BIDDERS' OR CONTRACTOR'S INTERPRETATIONS OF, OR CONCLUSIONS DRAWN FROM, THE INFORMATION. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN THE ELEVATIONS PROVIDED.
8. QUANTITIES INCLUDED FOR PAY ITEMS MEASURED AND PAID FOR BY LUMP SUM ARE ESTIMATED QUANTITIES AND ARE PROVIDED BY MAINEDOT FOR INFORMATIONAL PURPOSES ONLY. LUMP SUM PAY ITEMS WILL BE PAID FOR AT THE CONTRACT BID AMOUNT, WITH NO ADDITION OR REDUCTION IN PAYMENT TO THE CONTRACTOR IF THE ACTUAL FINAL QUANTITIES ARE DIFFERENT FROM THE MAINEDOT PROVIDED ESTIMATED QUANTITIES, EXCEPT AS FOLLOWS:
   a. IF A LUMP SUM PAY ITEM IS ELIMINATED, THE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 109.2, ELIMINATION OF ITEMS, WILL TAKE PRECEDENCE.
   b. IF OTHER CONTRACT DOCUMENTS SPECIFICALLY ALLOW A CHANGE IN PAYMENT FOR A LUMP SUM PAY ITEM, THOSE REQUIREMENTS WILL BE FOLLOWED.
   c. IF A DESIGN CHANGE RESULTS IN CHANGES TO ESTIMATED QUANTITIES FOR LUMP SUM PAY ITEMS, PRICE ADJUSTMENTS WILL BE MADE IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 109.7 EQUITABLE ADJUSTMENTS TO COMPENSATION.

DEMOLITION NOTES:

1. FOR DETAILS OF EXISTING STRUCTURES, SEE REFERENCE DRAWINGS.
2. DEMOLISH SHALL MEAN TO INCLUDE THE TRANSPORT AND LAWFUL DISPOSAL OF ALL DEMOLISHED OR DISASSEMBLED FEATURES.
3. REPLACE SHALL MEAN TO REMOVE EXISTING COMPONENT, PROVIDE NEW COMPONENT AND TO INCLUDE THE TRANSPORTATION AND LAWFUL DISPOSAL OF THE COMPONENT.
4. A CONTAINMENT BOOM SHALL BE IN PLACE PRIOR TO AND DURING ALL DEMOLITION AND CONSTRUCTION ACTIVITIES AND SHALL BE INSPECTED EVERY OTHER DAY OR AS DIRECTED AND REPAIRS SHALL BE MADE IMMEDIATELY.
5. NO MATERIAL SHALL BE ALLOWED TO DROP INTO THE WATER.
6. PILE DEMOLITION SHALL CONSIST OF PULLING THE PILES IN THEIR ENTIRETY.
7. EXISTING TIMBER FOUNDATION PILES AND PILE BRACING SHALL BE ASSUMED TO BE CREOSOTE OR CCA TREATED.
8. EXISTING PILE CAPS AND STRINGERS SHALL BE ASSUMED TO BE CREOSOTE OR CCA TREATED.
9. EXISTING WALES, CHOCKS, AND BLOCKING AT FENDER SYSTEM SHALL BE ASSUMED TO BE CCA TREATED.
10. EXISTING TIMBER DECKING, FRAMING AND HANDRAIL SHALL BE ASSUMED TO BE ACQ OR CCA TREATED.
11. FENDER PILES ARE NOT TREATED.

SPECIFICATIONS AND CODES:

1. PROJECT SPECIFICATIONS.
2. STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, MARCH 2020, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
3. AMERICAN WOOD COUNCIL, NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, 2024, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

STRUCTURAL NOTES:

1. TIMBER PILES:
   a. TIMBER PILES FOR PIER FOUNDATIONS SHALL BE SOUTHERN YELLOW PINE, CLEAN-PEELED AND TREATED WITH CCA IN ACCORDANCE WITH AWPA U1—23 AND T1-23. CCA SHALL CONFORM TO AWPA P23. THE RETENTION OF PRESERVATIVE SHALL NOT BE LESS THAN 2.5 PCF.
   b. TIMBER PILES FOR FENDER SHALL BE GREENHEART (NECTANDRA RODIOEI), CLEAN-PEELED CONFORMING TO THE GUYANA GRADING RULES.
   c. TIMBER PILES SHALL BE IN ACCORDANCE WITH ASTM D25.
2. TIMBER:
   a. ALL TIMBER SHALL BE TREATED SOUTHERN YELLOW PINE AS LISTED BELOW:

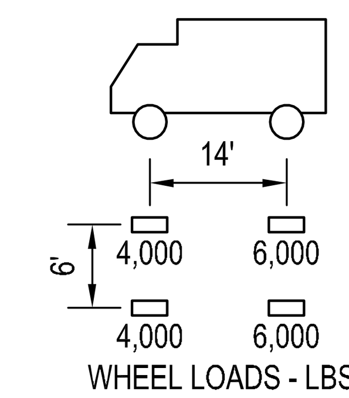
ITEM	TREATMENT ACQ	TREATMENT CCA	DRESSING	GRADE
DECK PLANKING	0.6 PCF	-	S4S	S.Y.P. NO. 1 DENSE
CURB & RAIL	0.6 PCF	-	S4S	S.Y.P. NO. 1
CAPS, INTERIOR STRINGERS, CRIB PLANKS	-	2.5 PCF	S2E	S.Y.P. NO. 1 DENSE
EXTERIOR STRINGERS	-	2.5 PCF	S4S	S.Y.P. NO. 1 DENSE
BRACING	-	2.5 PCF	S2S	S.Y.P. NO. 1 DENSE

   b. PRESSURE TREATMENT SHALL BE IN ACCORDANCE WITH AWPA STANDARD P5. TREATMENT SHALL BE BY THE FULL CELL PROCESS IN ACCORDANCE WITH AWPA STANDARDS U1-10 AND T1-10.
   c. TIMBER SHALL BE INSPECTED BY AN INDEPENDENT COMMERCIAL LABORATORY PRIOR TO DELIVERY TO THE SITE.
3. HARDWARE:
   a. ALL HARDWARE AND FASTENERS SHALL BE HOT DIP GALVANIZED, UNLESS NOTED OTHERWISE.
   b. ALL CONNECTION PLATES AND ANGLES SHALL CONFORM TO ASTM A36 AND BE HOT DIP GALVANIZED.
   c. ALL GALVANIZED BOLTS AND RELATED HARDWARE SHALL CONFORM TO ASTM A307. UNLESS OTHERWISE NOTED, STANDARD HOLES SHALL BE USED.

DESIGN LIVE LOADS:

PIER - GREAT DIAMOND ISLAND:

1. VERTICAL LOADS (PER 2024 LOAD RATING):
   A. UNIFORM LOAD - 200 PSF
   OR
   B. VEHICLE LOAD - H10 TRUCK (AT RAMP AND TRESTLEWAY ONLY)

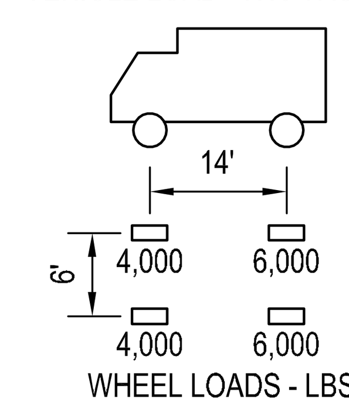


2. RAILINGS:
   A. 300 LBS CONCENTRATED LOAD ANY DIRECTION
   B. 100 LBS PER LINEAR FOOT UNIFORM LOAD ANY DIRECTION

RAILING LOADS ARE NONCONCURRENT AND ARE APPLIED TO TOP RAIL.

PIER - CHEBEAGUE ISLAND:

1. VERTICAL LOADS (PER 2024 LOAD RATING):
   A. UNIFORM LOAD - 210 PSF
   OR
   B. VEHICLE LOAD - H10 TRUCK



2. RAILINGS:
   A. 300 LBS CONCENTRATED LOAD ANY DIRECTION
   B. 100 LBS PER LINEAR FOOT UNIFORM LOAD ANY DIRECTION

RAILING LOADS ARE NONCONCURRENT AND ARE APPLIED TO TOP RAIL.

TEMPORARY WALKWAYS (FOR FERRY ACCESS DURING CONSTRUCTION):

1. VERTICAL LOADS: - 100 PSF
2. RAILINGS - SAME AS PIER RAILING:
   A. 300 LBS CONCENTRATED LOAD ANY DIRECTION
   B. 100 LBS PER LINEAR FOOT UNIFORM LOAD ANY DIRECTION

FENDER DESIGN LOADS

VESSELS	MV MAQUOIT II	MV AUCOCISCO III
LENGTH	98'	110'
BEAM	32'	32'
MAX DISPLACEMENT	285 LONG TONS	278 LONG TONS

BERTHING LOADS

BERTHING VELOCITY: SHIP VELOCITY (Vs)	BERTHING VELOCITY: ⊥ TO FENDER	ENERGY TO FENDER	MINIMUM FENDER DESIGN ENERGY	MAX REACTION
2.0 KNOTS	0.54 KNOTS	8,000 FT. LBS.	12,000 FT. LBS.	25,000 LBS.

ABBREVIATIONS:

ACQ	ALKALINE COPPER QUAT
ADA	AMERICAN WITH DISABILITIES ACT
ADD'L	ADDITIONAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWPA	AMERICAN WOOD PROTECTION ASSOCIATION
B'HEAD	BUTTONHEAD
CCA	CHROMATED COPPER ARSENATE
CONT	CONTINUOUS
C'SINK	COUNTERSINK
DIA OR Ø	DIAMETER
DO	DITTO
EL	ELEVATION
HDG	HOT DIP GALVANIZED
LBS	POUNDS
LG	LONG
MACH	MACHINE
MAX	MAXIMUM
MIN	MINIMUM
MHW	MEAN HIGH WATER
MLLW	MEAN LOWER LOW WATER
MLW	MEAN LOW WATER
OC	ON CENTER
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PTL	PRESSURE TREATED LUMBER
SPCS	SPACES
SST	STAINLESS STEEL
SYP	SOUTHERN YELLOW PINE
SQ	SQUARE
TYP	TYPICAL
UHMW	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE

LEGEND:

- CONDUITS RUNNING ON TOP OF DECK OR CURB
- CONDUITS RUNNING UNDER TIMBER PIER
- (1) BENT NUMBER
- (A) PILE ROW DESIGNATION
- EXISTING PLUMB PILE
- EXISTING BATTER PILE
- REPLACEMENT PILE
- PROPOSED PILE JACKET
- EL -6±x APPROXIMATE GROUND ELEVATION
- UTILITY POLE/PILE
- 101 REPAIR LOCATION
- UNDERSIDE REPAIR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE · MARC NICOLAZZO · No. PE18349 · LICENSED · PROFESSIONAL ENGINEER

SIGNATURE
18349
P.E. NUMBER
8/23/2024
DATE

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES
BY | DATE

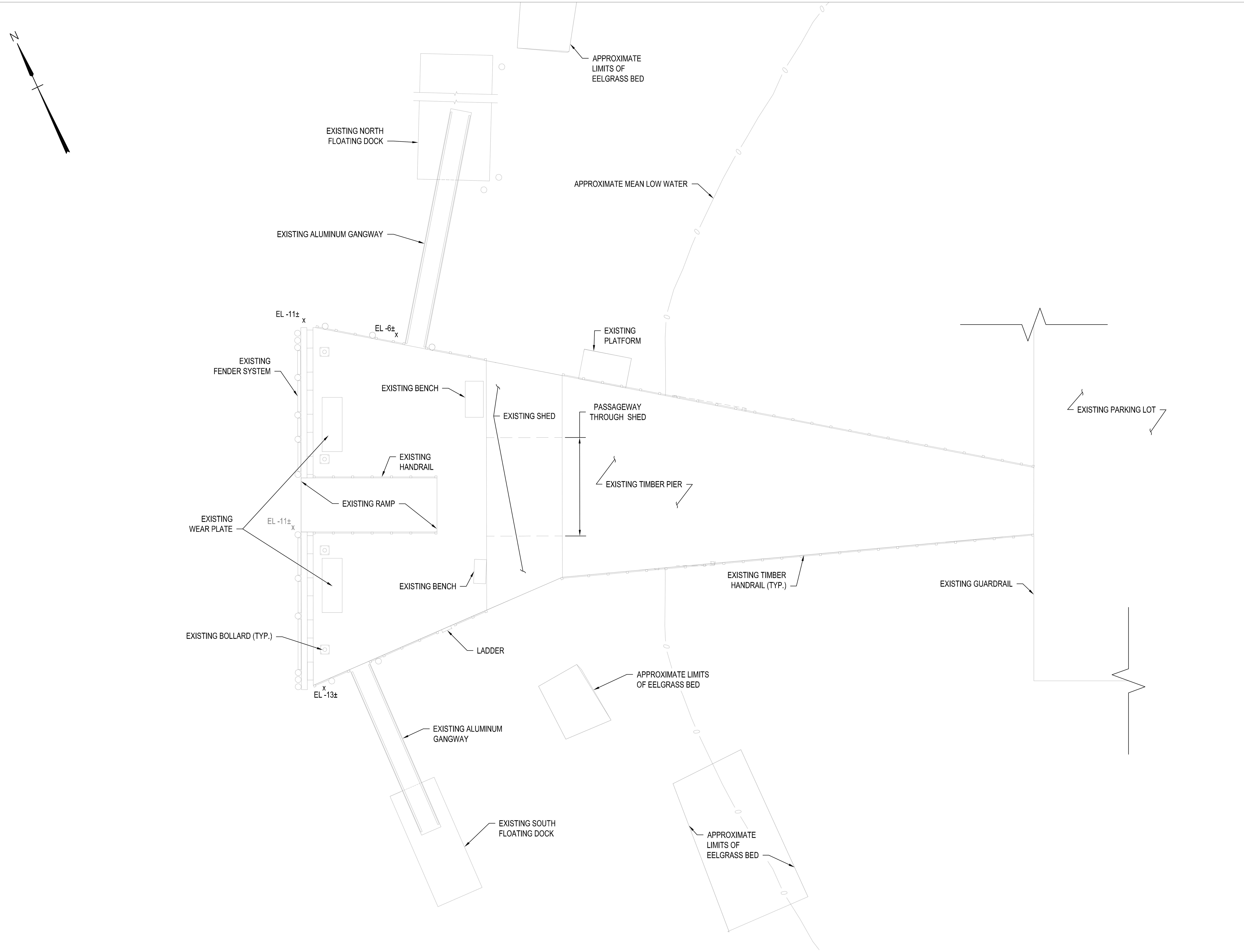
WIN 024685.01

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

GENERAL NOTES

SHEET NUMBER
G1
2 OF 19

Date: $date$
Username: $user$
Division: $wkgroup$
Filename: $file$



CLIFF ISLAND FERRY TERMINAL - EXISTING CONDITIONS

SCALE: 1/8" = 1'-0"

1/8" = 1'-0" 4' 0 4' 8' 12' 16'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE MARC NICOLAZZO No. PE18349 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

18349
P.E. NUMBER

8/23/2024
DATE

BY | DATE

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

WIN 024685.01

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CLIFF ISLAND FERRY TERMINAL – EXISTING CONDITIONS

SHEET NUMBER
G2
3 OF 19

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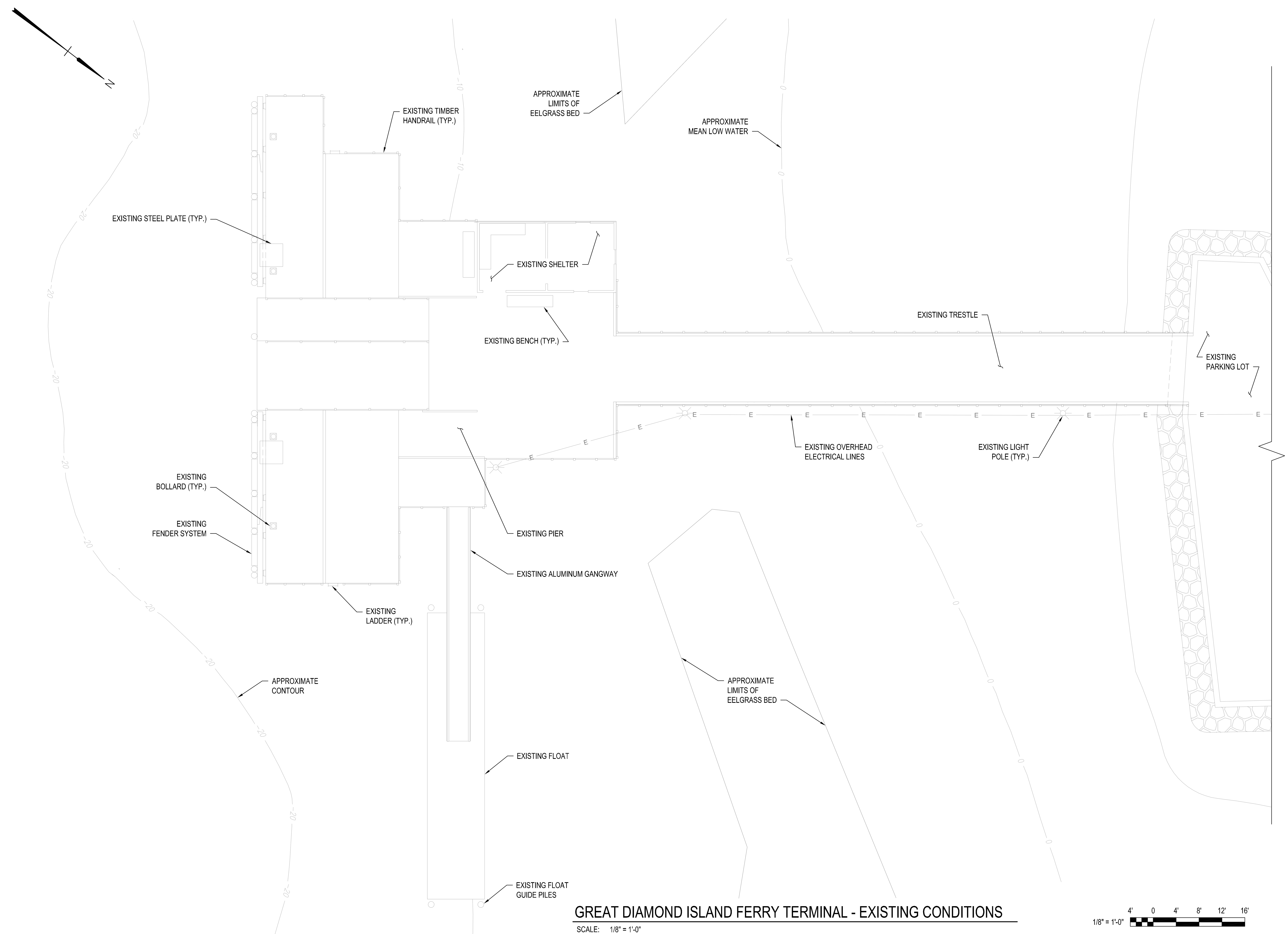


GREAT DIAMOND ISLAND FERRY TERMINAL - EXISTING CONDITIONS

SCALE: 1/8" = 1'-0"

Filename: $file$ Division: $wkgroup$ Username: $user$ Date: $date$

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
MARC NICOLAZZO
No. PE18349
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE
18349
P.E. NUMBER
8/23/2024
DATE

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY | DATE

WIN 024685.01

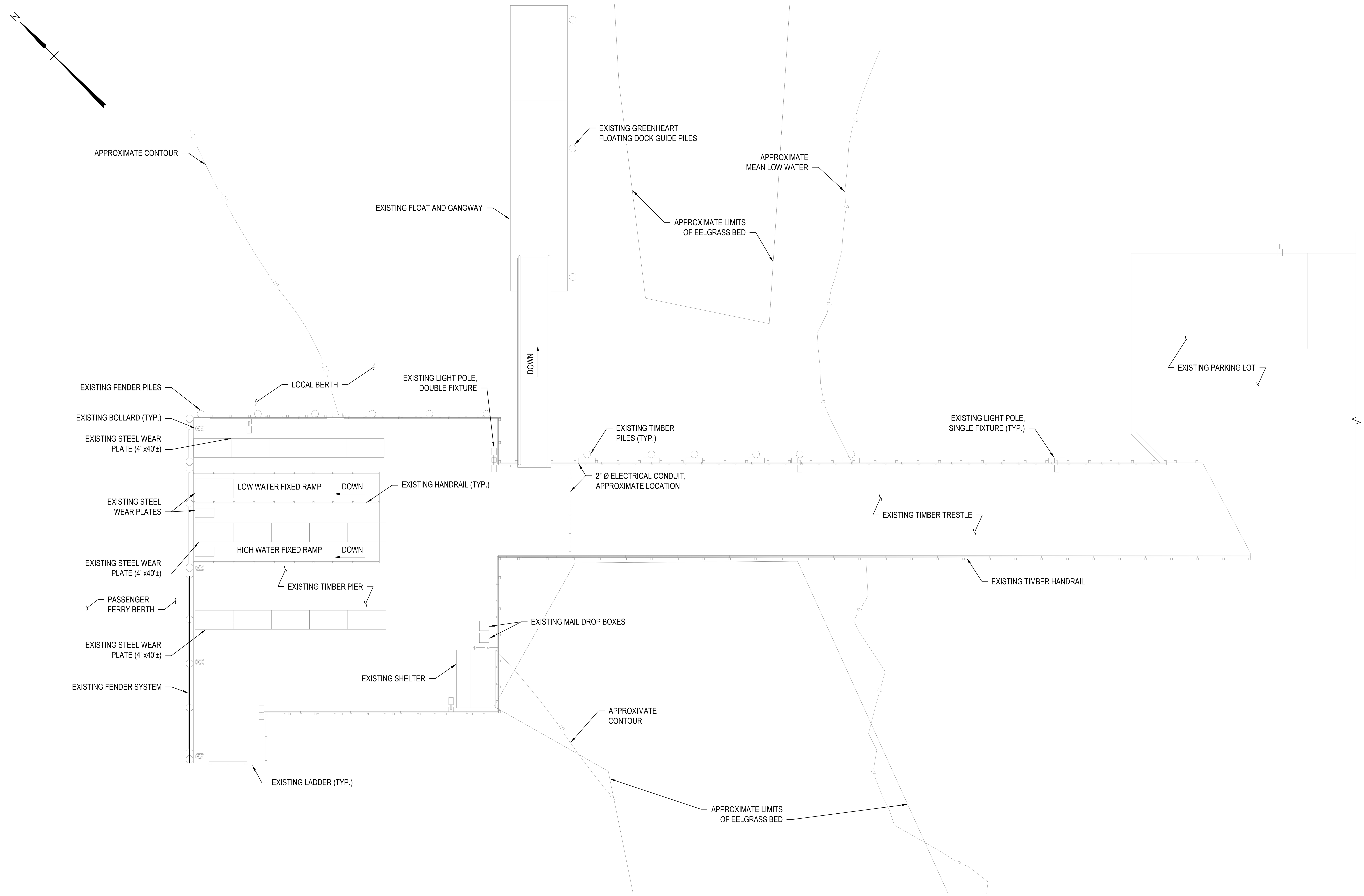
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

GREAT DIAMOND ISLAND FERRY TERMINAL – EXISTING CONDITIONS

SHEET NUMBER

G3

4 OF 19



CHEBEAGUE ISLAND FERRY TERMINAL - EXISTING CONDITIONS

SCALE: 1" = 10'

10' 0 10' 20'
1" = 10'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
MARC NICOLAZZO
No. PE18349
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE
18349
P.E. NUMBER
8/23/2024
DATE

	BY	DATE
PROJ. MANAGER		
DESIGN–DETAILED		
CHECKED–REVIEWED		
DESIGN2–DETAILED2		
DESIGN3–DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CHEBEAGUE ISLAND FERRY TERMINAL – EXISTING CONDITIONS

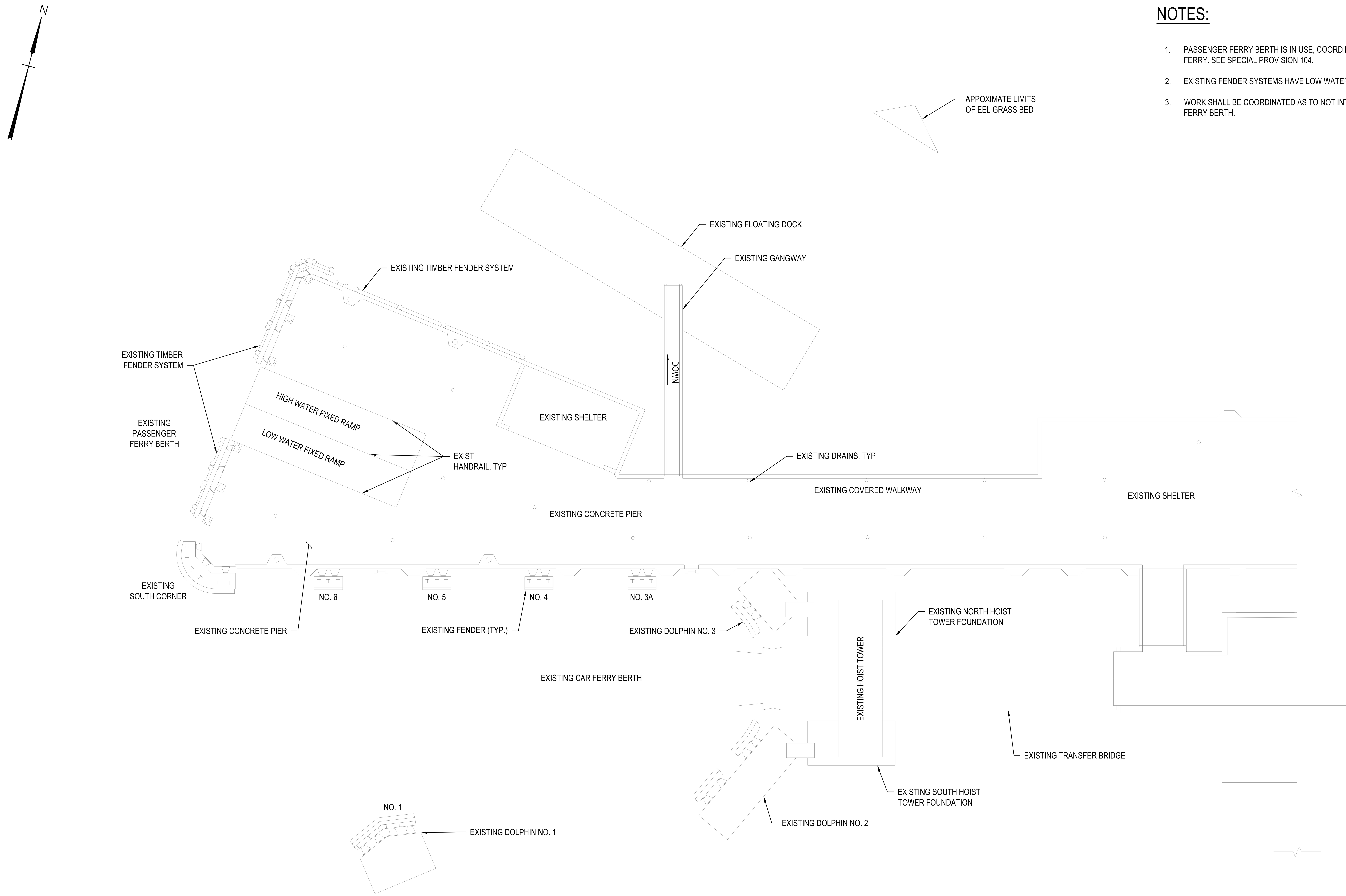
SHEET NUMBER

G4

Filename:$file$ Division: $wkgroup$ Username: $user$ Date:$date$

NOTES:

1. PASSENGER FERRY BERTH IS IN USE, COORDINATE WORK WITH FERRY. SEE SPECIAL PROVISION 104.
2. EXISTING FENDER SYSTEMS HAVE LOW WATER WALES.
3. WORK SHALL BE COORDINATED AS TO NOT INTERFERE WITH CAR FERRY BERTH.



PEAKS ISLAND FERRY TERMINAL - EXISTING CONDITIONS

SCALE: 3/32" = 1'-0"

3/32" = 1'-0" 4' 0 4' 8' 12' 16' 32'

WIN 024685.01

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE
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CHIEF ENGINEER:

STATE OF MAINE
MARC NICOLAZZO
No. PE18349
LICENSED PROFESSIONAL ENGINEER

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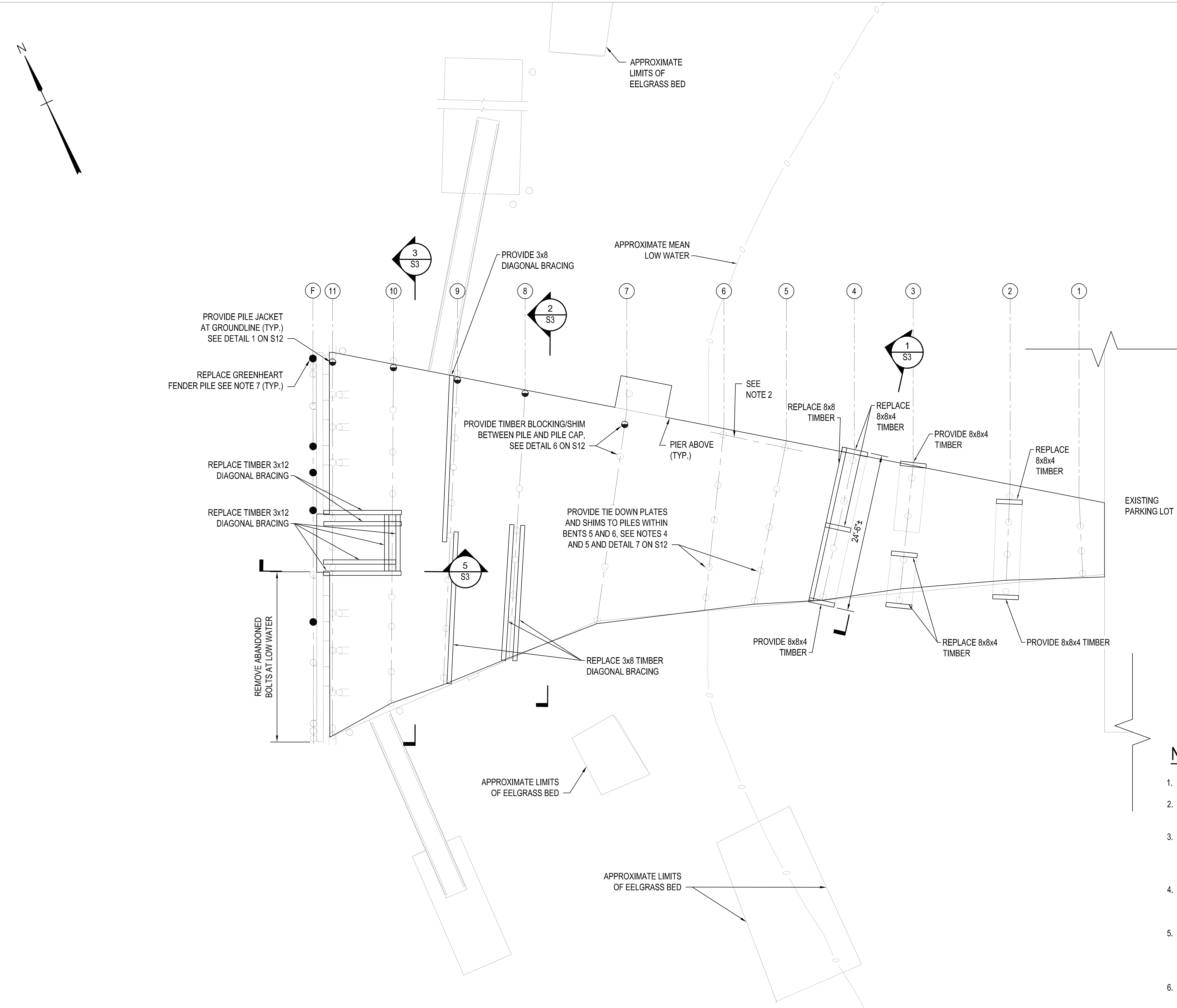
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

PEAKS ISLAND FERRY TERMINAL – EXISTING CONDITIONS

SHEET NUMBER
G5
6 OF 19

Filename:$file$ Division: $wkgroup$ Username: $user$ Date:$date$



CLIFF ISLAND FERRY TERMINAL - PILE PLAN

SCALE: 1/8" = 1'-0"

NOTES:

1. EXISTING BRACING NOT SHOWN FOR CLARITY.
2. PILE ROW DESIGNATION LINES NOT SHOWN FOR CLARITY. PILE A IS THE NORTHERN MOST PILE IN EACH BENT.
3. AT BENTS 7 TO 11 (5 LOCATIONS), PROVIDE JACKETS AT GROUNDLINE ON NORTHERN PILE, SEE DETAIL 1 ON S12. ALLOW FOR ONE (1) ADDITIONAL PILE JACKET AS DIRECTED BY THE RESIDENT AND PAID FOR UNDER ITEM 501.27.
4. PROVIDE SHIMS AT PILES 5A, 5B, 5C, 5D, 5E, 6B, 6C, 6D AND 6E (9 LOCATIONS) TO RESTORE PILE TO FULL BEARING. WORK TO BE PAID FOR UNDER ITEM 528.10 HEAVY TIMBER CONSTRUCTION - CLIFF ISLAND.
5. PROVIDE TIE DOWN PLATES AT PILES 5A, 5B, 5C, 5D, 5E, 6B, AND 6E (7 LOCATIONS) TO RESTORE LATERAL RESISTANCE, SEE DETAIL 7 ON S12. WORK TO BE PAID FOR UNDER ITEM 528.10 HEAVY TIMBER CONSTRUCTION - CLIFF ISLAND.
6. AT BENTS 2 TO 4, REPLACE MISSING TIMBERS FROM CRIBBING, SEE DETAIL 1 ON S3.
7. REPLACE FENDER PILES AS SHOWN (5 LOCATIONS). TO BE PAID FOR UNDER ITEM 501.203.

1/8" = 1'-0"

STATE OF MAINE
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STATE OF MAINE MARC NICOLAZZO No. PE18349 LICENSED PROFESSIONAL ENGINEER

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FIELD CHANGES

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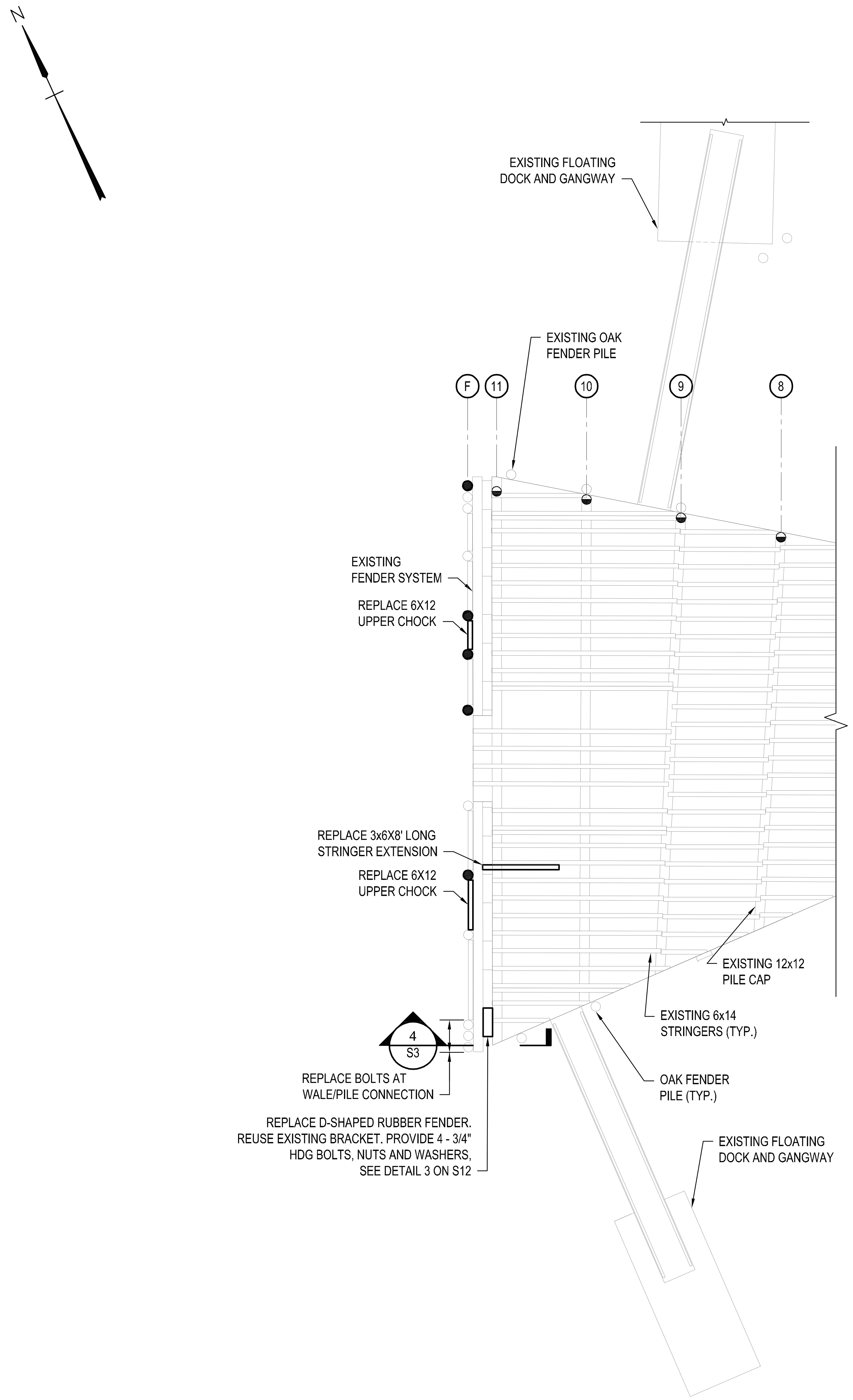
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CLIFF ISLAND FERRY TERMINAL – PILE PLAN

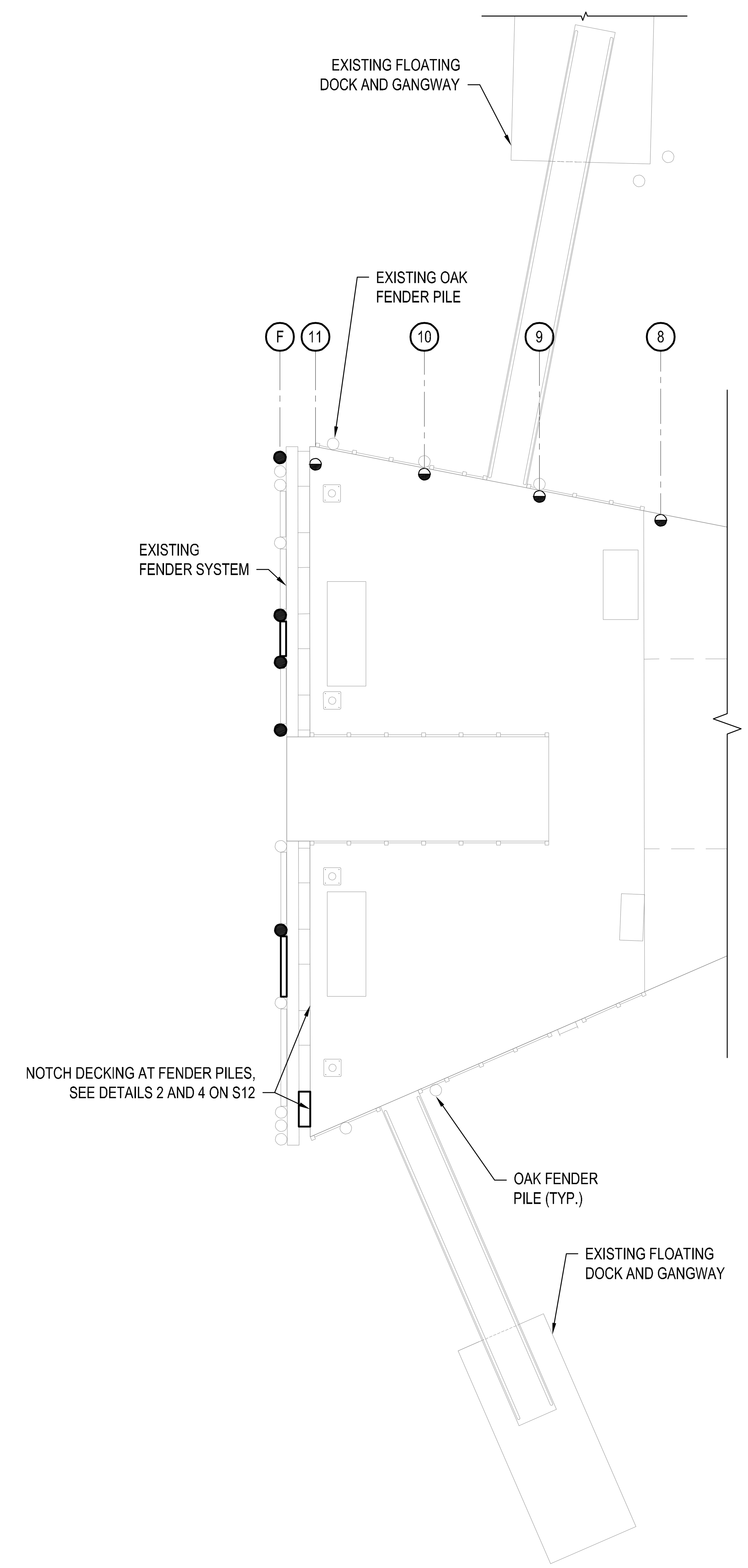
SHEET NUMBER

S1



CLIFF ISLAND FERRY TERMINAL - FRAMING PLAN

SCALE: 1/8" = 1'-0"



CLIFF ISLAND FERRY TERMINAL - DECK PLAN

SCALE: 1/8" = 1'-0"

NOTES:

1. SEE G1 FOR LEGEND.

1/8" = 1'-0" 4' 0 4' 8' 12' 16'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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STATE OF MAINE
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No. PE18349
LICENSED PROFESSIONAL ENGINEER

SIGNATURE
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DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

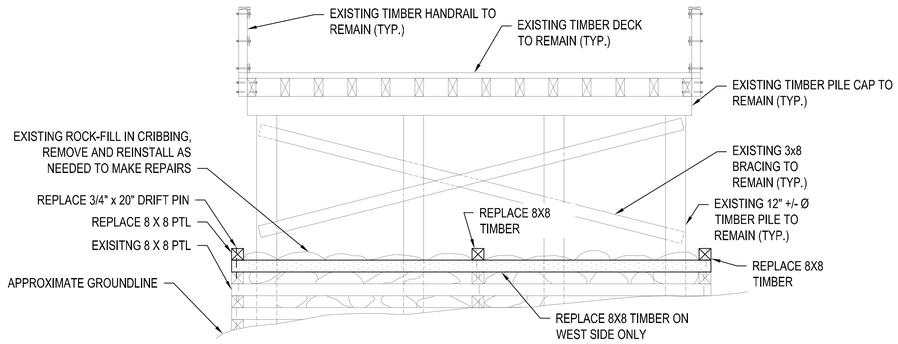
WIN 024685.01

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CLIFF ISLAND FERRY TERMINAL – FRAMING AND DECK PLAN

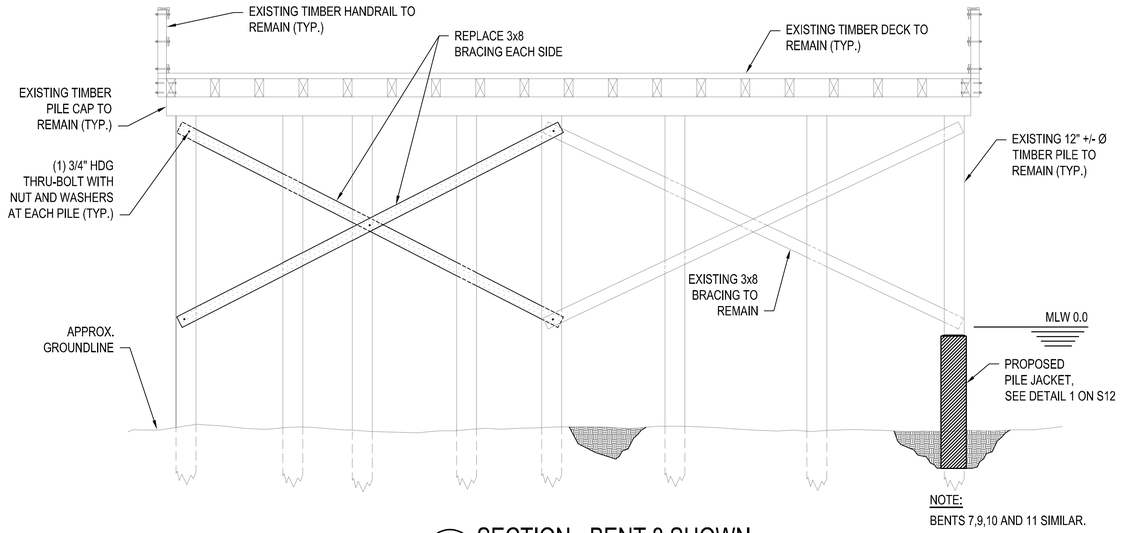
SHEET NUMBER

S2



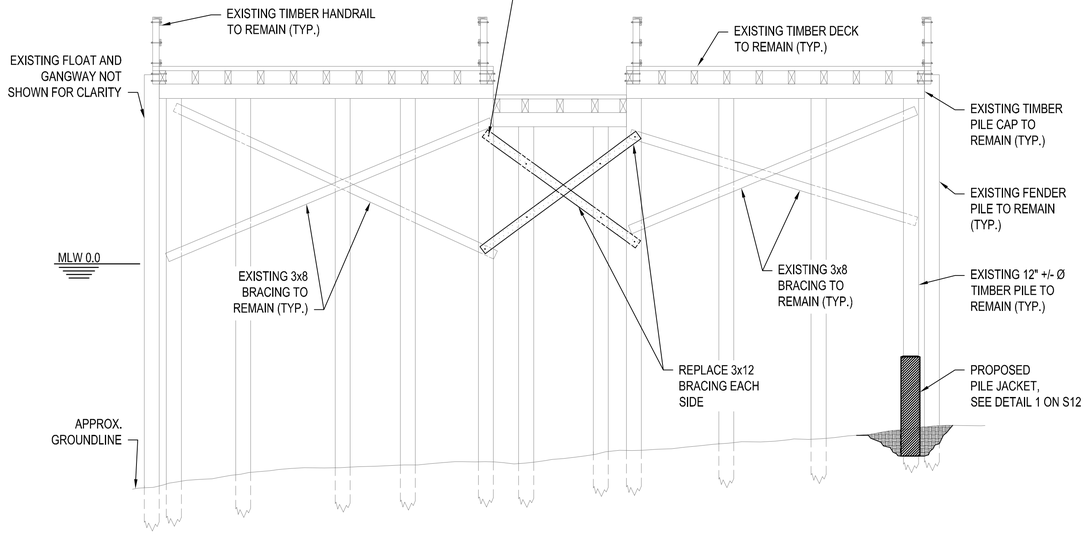
1 SECTION - BENT 4 SHOWN
SCALE: 1/4" = 1'-0" S1

NOTE:
MLW IS BELOW APPROXIMATE GROUNDLINE.

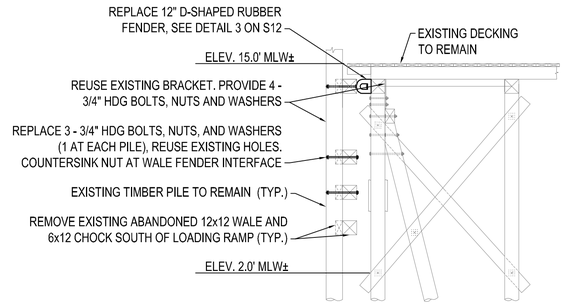


NOTE:
BENTS 7,9,10 AND 11 SIMILAR.

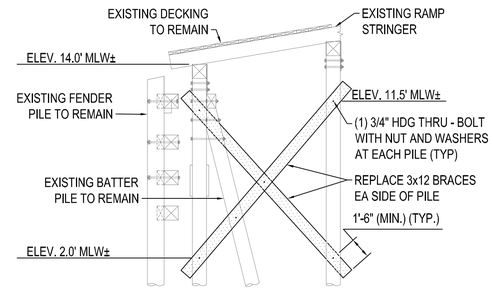
2 SECTION - BENT 8 SHOWN
SCALE: 1/4" = 1'-0" S1



3 SECTION - BENT 10
SCALE: 3/16" = 1'-0" S1



4 SECTION
SCALE: 3/16" = 1'-0" S2



5 SECTION
SCALE: 3/16" = 1'-0" S1

1/4" = 1'-0" 4' 0 4' 8'

3/16" = 1'-0" 4' 0 4' 8' 12' 16'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
MARC NICOLAZZO
No. PE16349
LICENSED PROFESSIONAL ENGINEER

Marc Nicolazzo
SIGNATURE
16349
P.E. NUMBER
8/23/2024
DATE

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DESIGNED3-DETAILED3
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REVISIONS 4
FIELD CHANGES

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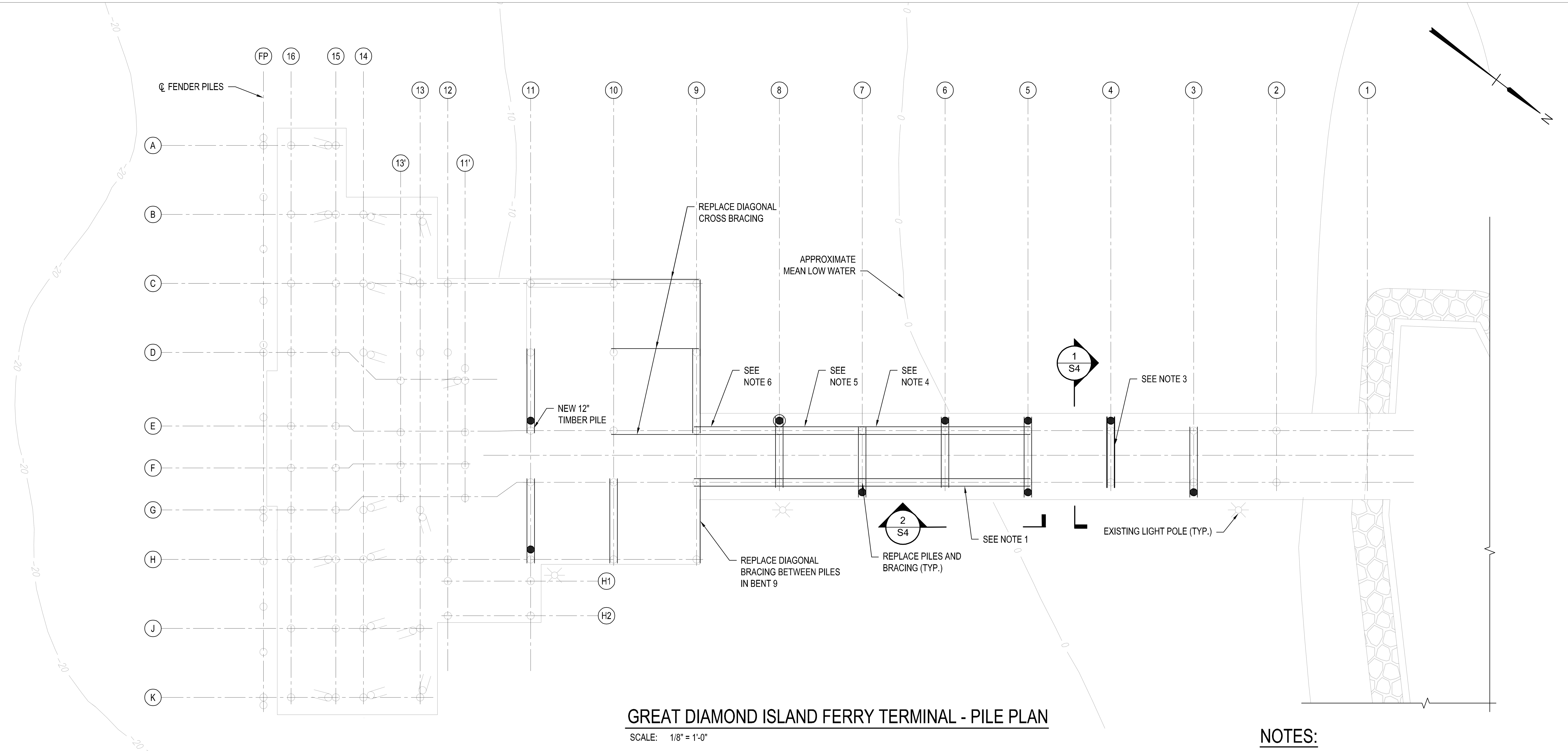
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

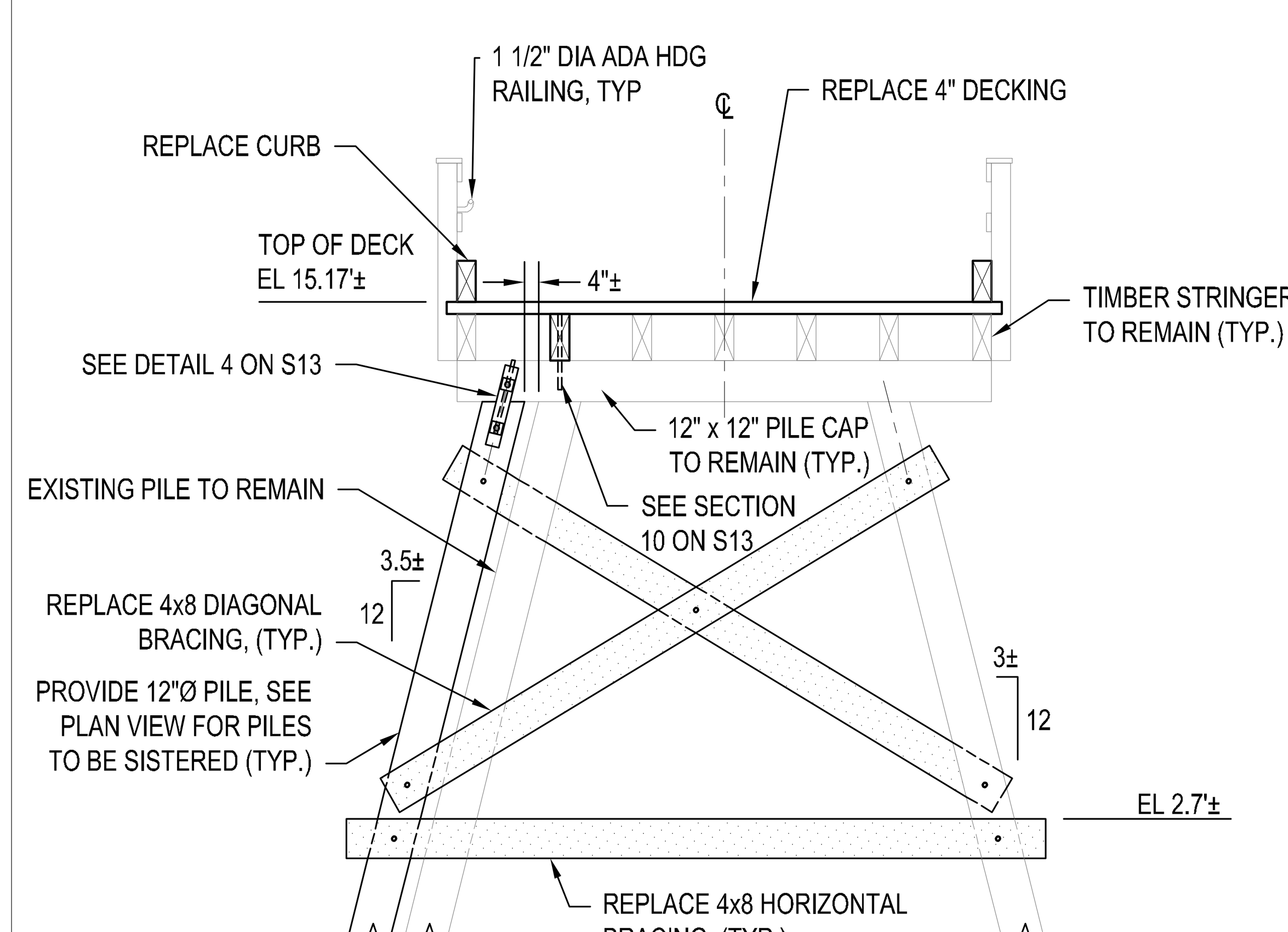
CLIFF ISLAND FERRY TERMINAL – SECTIONS

SHEET NUMBER
S3
9 OF 19



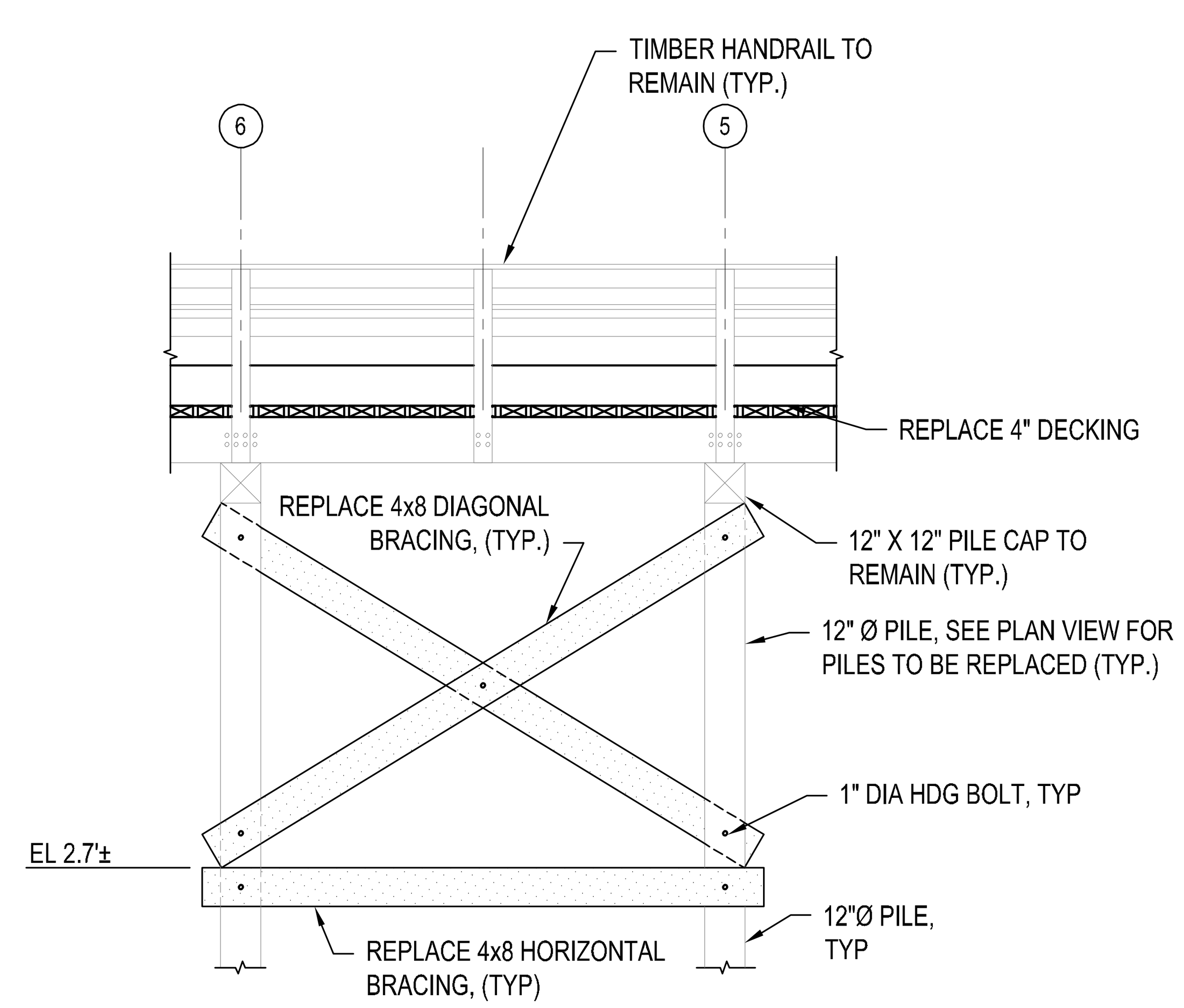
GREAT DIAMOND ISLAND FERRY TERMINAL - PILE PLAN

SCALE: 1/8" = 1'-0"



1 SECTION

SCALE: 1/4" = 1'-0"



2 SECTION

SCALE: 1/4" = 1'-0"

SCHEDULE OF PILE TIP ELEVATIONS

BENT NO.	ROW NO.	ESTIMATED TIP ELEVATION
3-8	E AND G	-50.0
11	E AND H	-50.0

DESIGN PILE LOAD = 10 TONS COMPRESSION

THE ESTIMATED TIP ELEVATIONS FOR THE TIMBER PILES ARE SHOWN. THE PILES SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS TO THE REQUIRED CAPACITY. DUE TO THE VARYING SOIL CONDITIONS, ACTUAL TIP ELEVATIONS MAY DEVIATE FROM THE ESTIMATED ELEVATION.

NOTES:

1. REPLACE ALL TRANSVERSE AND LONGITUDINAL BRACING IN BENTS 5 AND 6, SEE PHOTO 1 ON S7.
2. THE FOLLOWING PILES WILL BE REPLACED: 3G, 4E, 5E, 5G, 6E, 7G, 8E, 11E AND 11H (9 LOCATIONS). SEE DETAIL 4 ON S13 FOR PILE TO PILE CAP CONNECTION.
3. REPLACE DIAGONAL BRACING AT BENT 4. REMOVE AND RESET HORIZONTAL BRACE.
4. REPLACE LONGITUDINAL DIAGONAL BRACING BETWEEN BENTS 6 AND 7.
5. BENTS 7 AND 8, REPLACE LONGITUDINAL & TRANSVERSE DIAGONAL BRACING AND TRANSVERSE HORIZONTAL BRACING. PROVIDE LONGITUDINAL HORIZONTAL BRACING. SEE PHOTO 2 ON S7.
6. BENT 8 TO 9, REPLACE LONGITUDINAL HORIZONTAL AND DIAGONAL BRACING.
7. FOR BIDDING PURPOSES, ALLOW FOR REPLACEMENT OF UP TO 12 ADDITIONAL BRACES AS DIRECTED BY THE RESIDENT AND SHALL BE PAID FOR UNDER ITEM 528.49 STRUCTURAL TIMBER - GREAT DIAMOND ISLAND.
8. THE DEPTH OF OVERBURDEN VARIES, PROVIDE 3 PILE SPLICES AS DIRECTED BY THE RESIDENT AND SHALL BE PAID FOR UNDER ITEM 510.913 PILE SPLICE TIMBER.
9. SEE G1 FOR LEGEND.

1/4" = 1'-0" (scale bar: 4' 0 4' 8')

1/8" = 1'-0" (scale bar: 4' 0 4' 8' 12' 16')

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE

COMMISSIONER:

CHIEF ENGINEER:

MARC NICOLAZZO No. PE18349 LICENSED PROFESSIONAL ENGINEER, STATE OF MAINE

SIGNATURE

P.E. NUMBER 18349

DATE 8/23/2024

PROJ. MANAGER
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REVISIONS 4
FIELD CHANGES

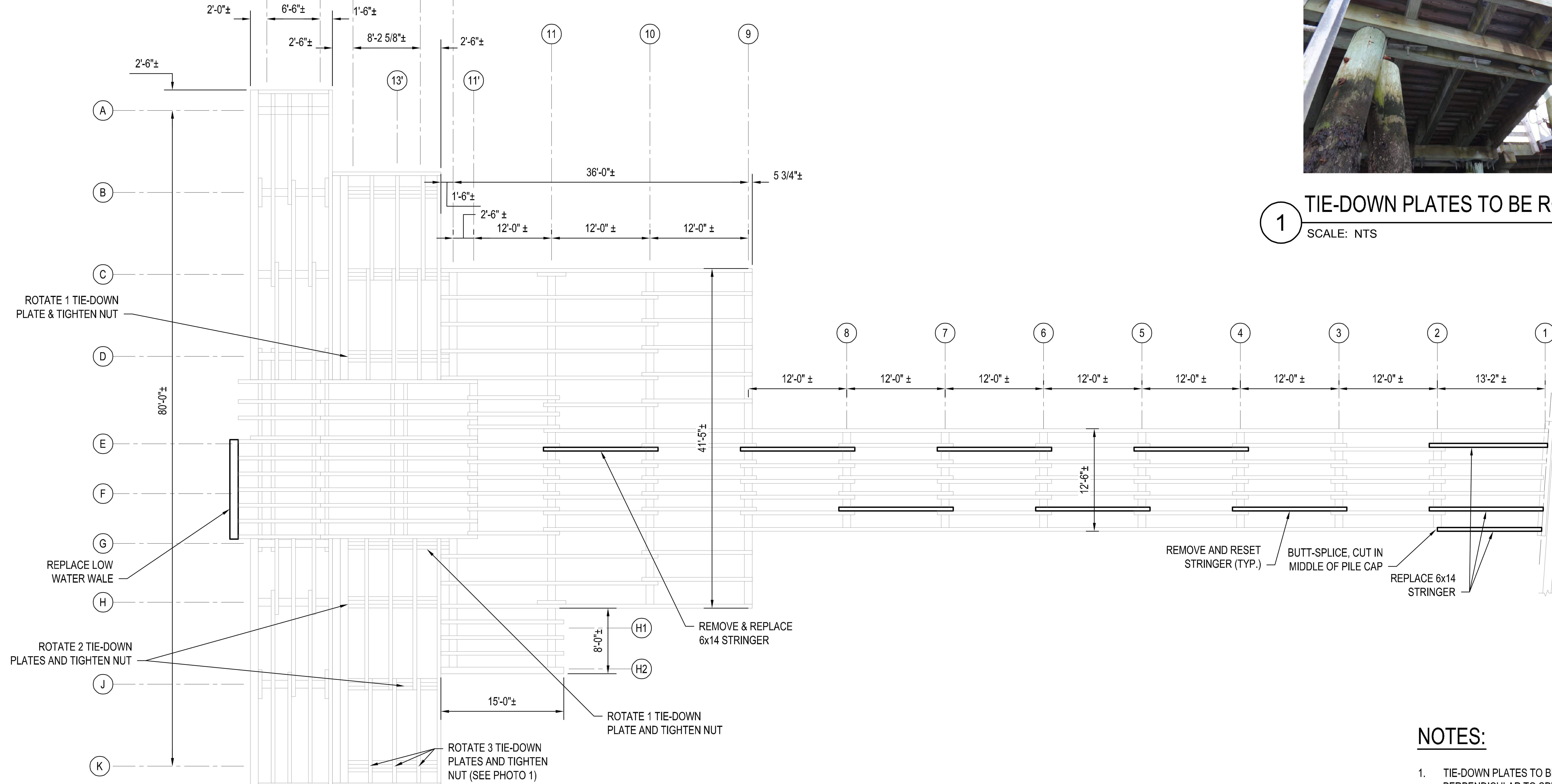
WIN 024685.01

FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

GREAT DIAMOND ISLAND FERRY TERMINAL - PILE PLAN

SHEET NUMBER

S4



1 TIE-DOWN PLATES TO BE ROTATED (TYP)

SCALE: NTS

NOTES:

1. TIE-DOWN PLATES TO BE ROTATED SO THEY ARE PERPENDICULAR TO SPLIT CAPS.
2. PRIOR TO INSTALLING DECKING, COVER TOP OF STRINGERS WITH ICE AND WATER SHIELD, SEE DETAIL 11 ON S13
3. ALLOW FOR REPLACEMENT OF 12 STRINGERS AS DIRECTED BY THE RESIDENT. WORK SHALL BE PAID UNDER ITEM 528.49 STRUCTURAL TIMBER - GREAT DIAMOND ISLAND.

GREAT DIAMOND ISLAND FERRY TERMINAL - FRAMING PLAN

SCALE: 1/8" = 1'-0"

1/8" = 1'-0" 4' 0 4' 8' 12' 16'

STATE OF MAINE
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STATE OF MAINE MARC NICOLAZZO No. PE18349 LICENSED PROFESSIONAL ENGINEER

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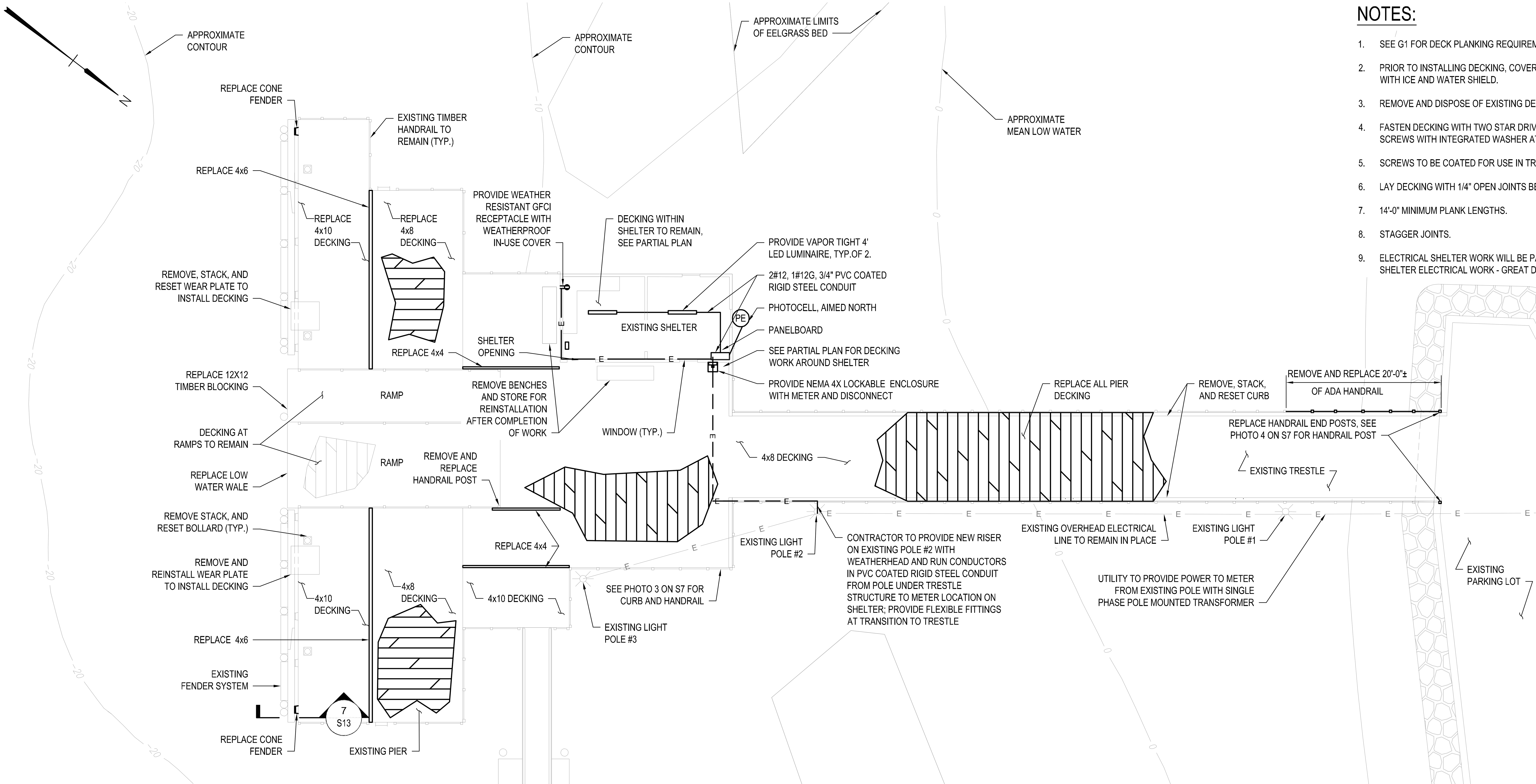
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

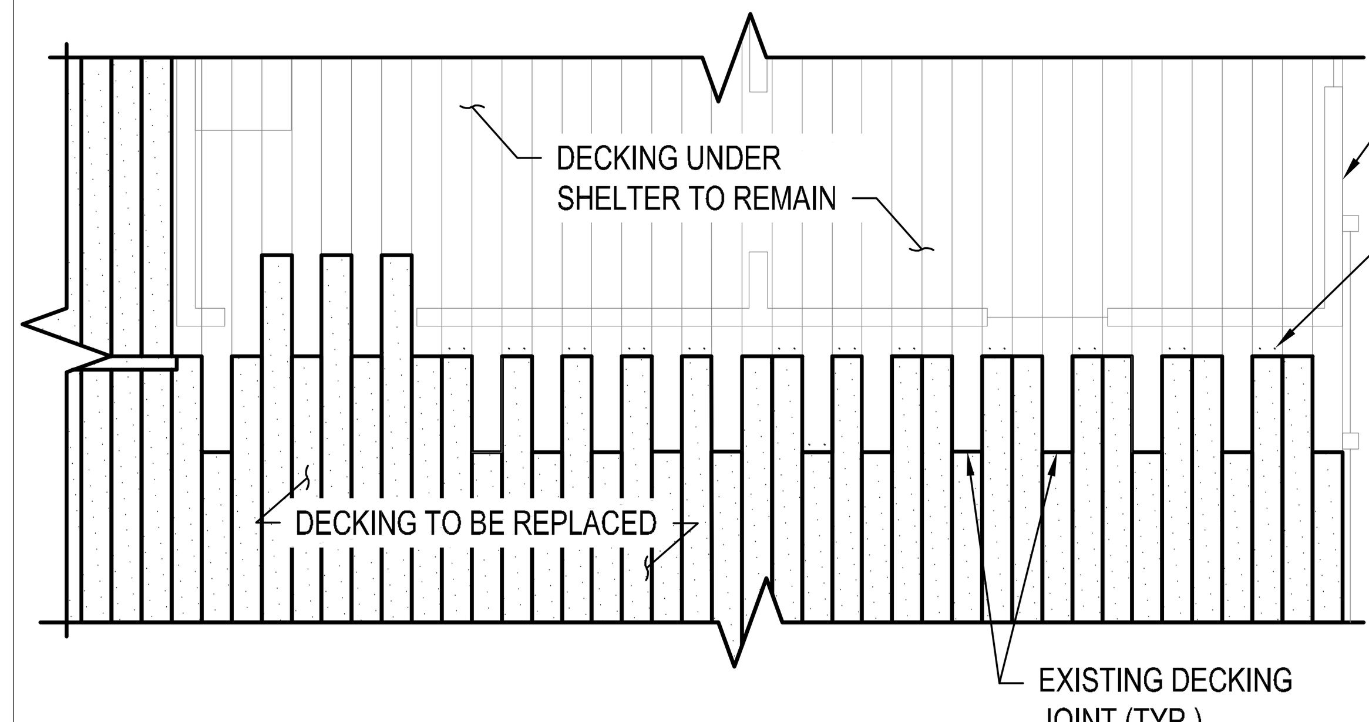
GREAT DIAMOND ISLAND FERRY TERMINAL - FRAMING PLAN

SHEET NUMBER
S5



NOTES:

1. SEE G1 FOR DECK PLANKING REQUIREMENTS.
2. PRIOR TO INSTALLING DECKING, COVER HORIZONTAL SURFACES WITH ICE AND WATER SHIELD.
3. REMOVE AND DISPOSE OF EXISTING DECKING.
4. FASTEN DECKING WITH TWO STAR DRIVE 8.0x200 STRUCTURAL SCREWS WITH INTEGRATED WASHER AT EACH STRINGER CROSSING.
5. SCREWS TO BE COATED FOR USE IN TREATED LUMBER.
6. LAY DECKING WITH 1/4" OPEN JOINTS BETWEEN DECK BOARDS.
7. 14'-0" MINIMUM PLANK LENGTHS.
8. STAGGER JOINTS.
9. ELECTRICAL SHELTER WORK WILL BE PAID FOR UNDER ITEM 910.301 SHELTER ELECTRICAL WORK - GREAT DIAMOND ISLAND

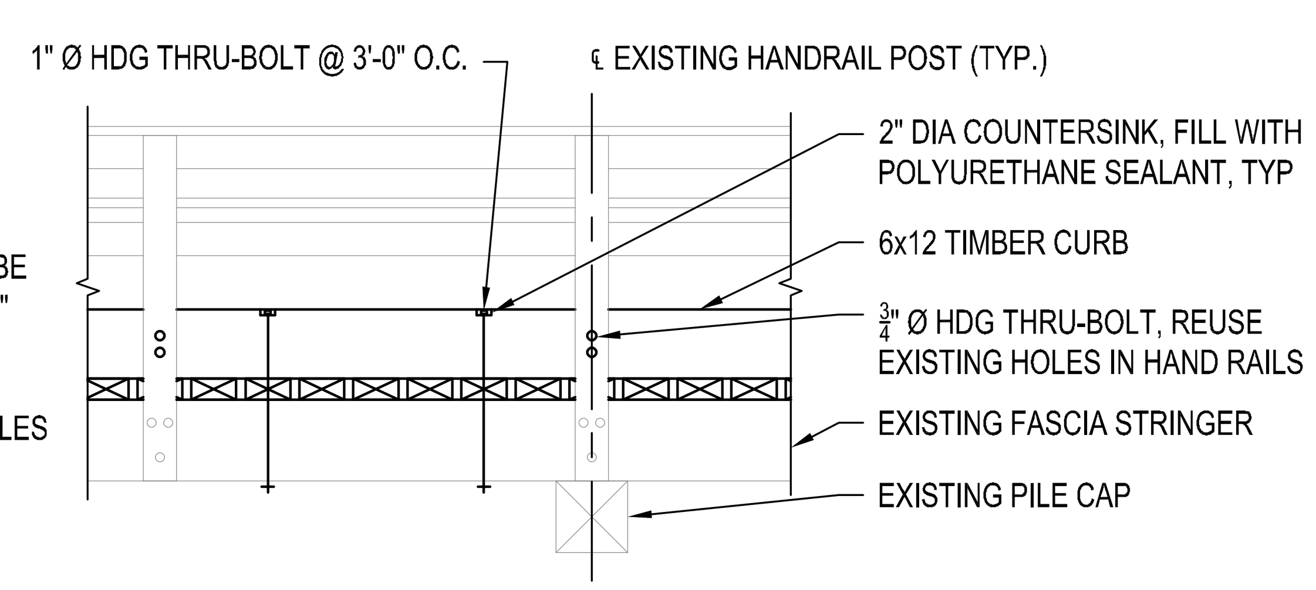


NOTES:

1. EXISTING FASTENERS NOT SHOWN FOR CLARITY.

PARTIAL PLAN

SCALE: 1/4" = 1'-0"



NOTES:

1. JOINTS IN CURB TO BE BUTT JOINTS AND 12" O.C. MINIMUM.
2. REUSE EXISTING HOLES WHERE POSSIBLE.

CURB ATTACHMENT DETAIL

SCALE: 3/8" = 1'-0"

GREAT DIAMOND ISLAND FERRY TERMINAL - DECK PLAN

SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16'
1/8" = 1'-0"

STATE OF MAINE
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FIELD CHANGES		

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FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

GREAT DIAMOND ISLAND FERRY TERMINAL - DECK PLAN

SHEET NUMBER

S6

Filename:$file$ Division: $wkgroup$ Username: $user$ Date:$date$

1 BENT 5 - 6
SCALE: NTS S8

2 BENT 7-8
SCALE: NTS S4, S8

3 CURB - HANDRAIL DETAIL
SCALE: NTS S6

4 HANDRAIL POST
SCALE: NTS S6

5 UNDERDECK OF BOLLARDS AT GREAT DIAMOND ISLAND
SCALE: NTS

STATE OF MAINE
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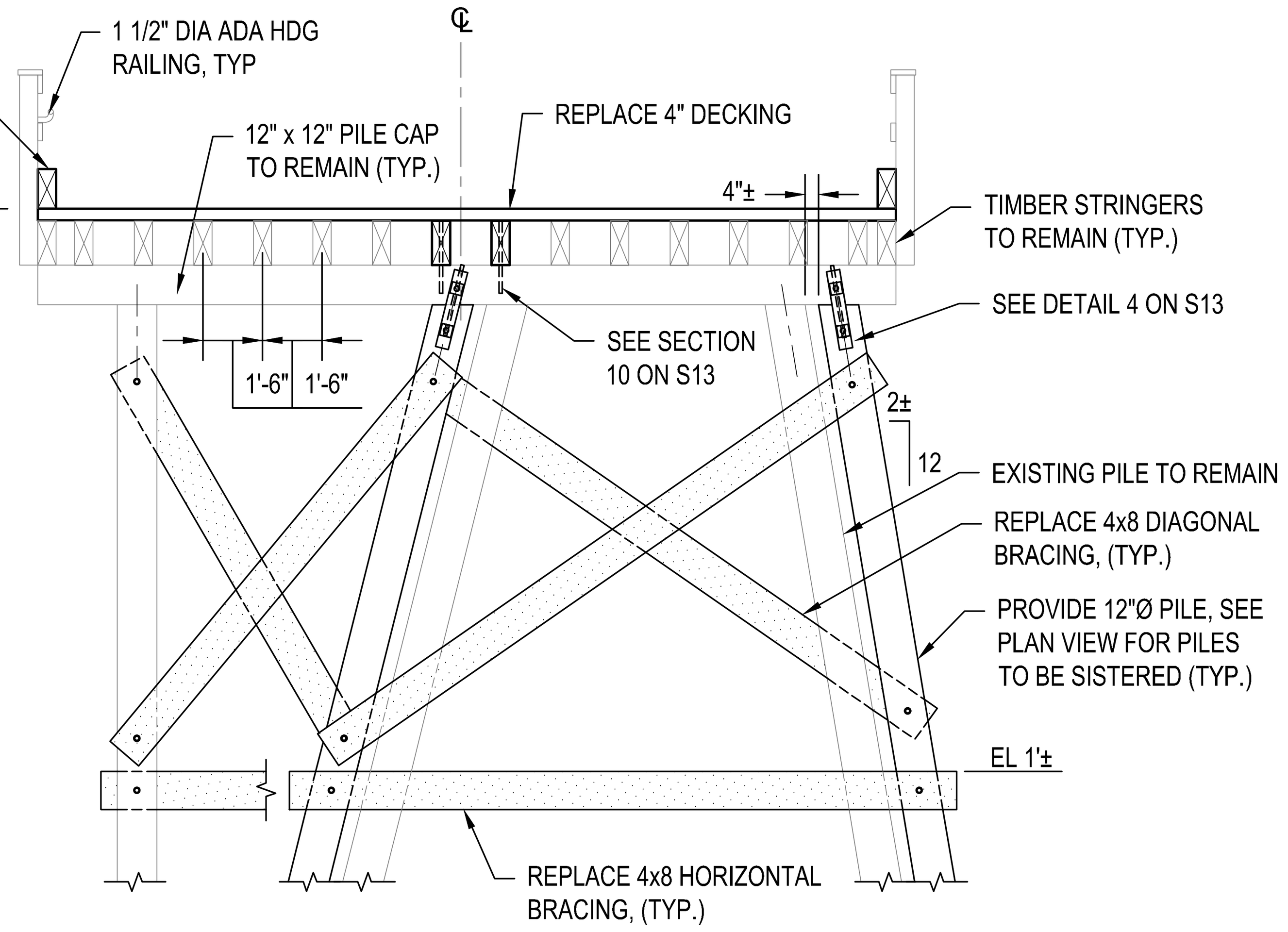
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

GREAT DIAMOND ISLAND FERRY TERMINAL - GENERAL PHOTOS

SHEET NUMBER
S7
13 OF 19

Date:$date$ Username: $user$ Division: $wkgroup$ Filename:$file$



1 SECTION

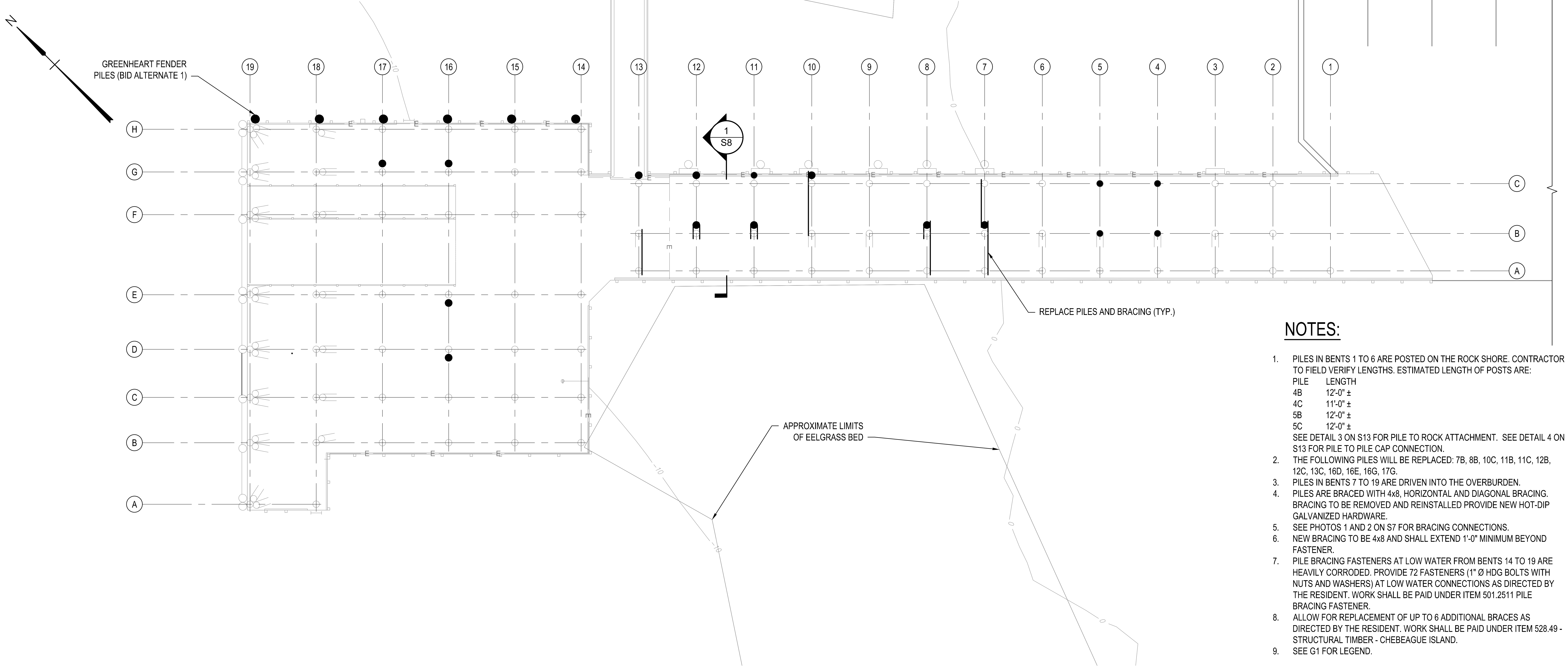
SCALE: 1/4" = 1'-0"

SCHEDULE OF PILE TIP ELEVATIONS

BENT No.	ROW No.	ESTIMATED TIP ELEVATION
1-6	SEE NOTE 1	SEE NOTE 1
7-17	SEE NOTE 2	-50.0

DESIGN PILE LOAD = 10 TONS COMPRESSION

THE ESTIMATED TIP ELEVATIONS FOR THE TIMBER PILES ARE SHOWN. THE PILES SHALL BE INSTALLED IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS TO THE REQUIRED CAPACITY. DUE TO THE VARYING SOIL CONDITIONS, ACTUAL TIP ELEVATIONS MAY DEVIATE FROM THE ESTIMATED ELEVATION.



CHEBEAGUE ISLAND FERRY TERMINAL - PILE PLAN

SCALE: 1" = 10'

NOTES:

1. PILES IN BENTS 1 TO 6 ARE POSTED ON THE ROCK SHORE. CONTRACTOR TO FIELD VERIFY LENGTHS. ESTIMATED LENGTH OF POSTS ARE:

PILE	LENGTH
4B	12'-0" ±
4C	11'-0" ±
5B	12'-0" ±
5C	12'-0" ±

   SEE DETAIL 3 ON S13 FOR PILE TO ROCK ATTACHMENT. SEE DETAIL 4 ON S13 FOR PILE TO PILE CAP CONNECTION.
2. THE FOLLOWING PILES WILL BE REPLACED: 7B, 8B, 10C, 11B, 11C, 12B, 12C, 13C, 16D, 16E, 16G, 17G.
3. PILES IN BENTS 7 TO 19 ARE DRIVEN INTO THE OVERBURDEN.
4. PILES ARE BRACED WITH 4x8, HORIZONTAL AND DIAGONAL BRACING. BRACING TO BE REMOVED AND REINSTALLED PROVIDE NEW HOT-DIP GALVANIZED HARDWARE.
5. SEE PHOTOS 1 AND 2 ON S7 FOR BRACING CONNECTIONS.
6. NEW BRACING TO BE 4x8 AND SHALL EXTEND 1'-0" MINIMUM BEYOND FASTENER.
7. PILE BRACING FASTENERS AT LOW WATER FROM BENTS 14 TO 19 ARE HEAVILY CORRODED. PROVIDE 72 FASTENERS (1" Ø HDG BOLTS WITH NUTS AND WASHERS) AT LOW WATER CONNECTIONS AS DIRECTED BY THE RESIDENT. WORK SHALL BE PAID UNDER ITEM 501.2511 PILE BRACING FASTENER.
8. ALLOW FOR REPLACEMENT OF UP TO 6 ADDITIONAL BRACES AS DIRECTED BY THE RESIDENT. WORK SHALL BE PAID UNDER ITEM 528.49 - STRUCTURAL TIMBER - CHEBEAGUE ISLAND.
9. SEE G1 FOR LEGEND.

10' 0 10' 20'

1" = 10'

WIN 024685.01

STATE OF MAINE
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COMMISSIONER:

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STATE OF MAINE — MARC NICOLAZZO — No. PE18349 — LICENSED PROFESSIONAL ENGINEER

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FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

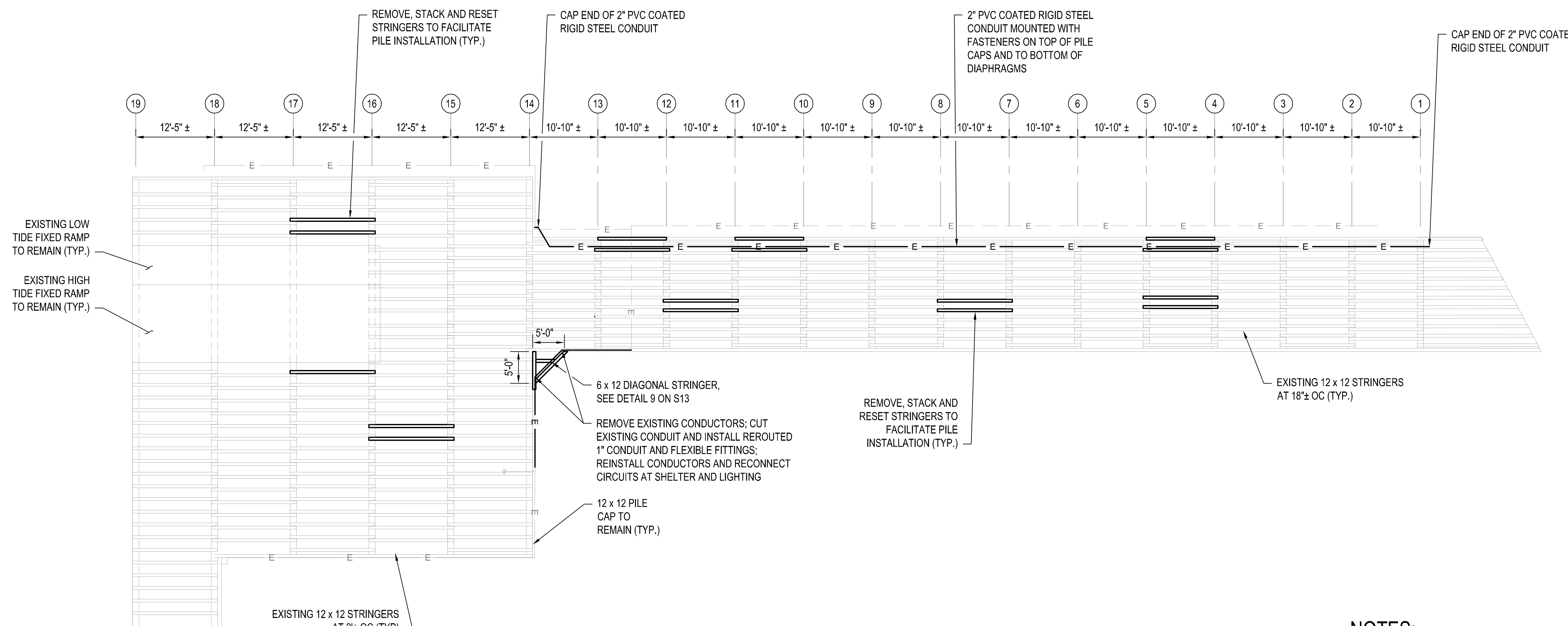
CHEBEAGUE ISLAND FERRY TERMINAL – PILE PLAN

SHEET NUMBER

S8

1 UNDERDECK OF BOLLARDS AT CHEBEAGUE ISLAND

SCALE: NTS



NOTES:

1. FRAMING AT RAMPS NOT SHOWN.
2. PRIOR TO INSTALLING NEW DECKING, COVER TOP OF STRINGERS WITH ICE AND WATER SHIELD. WORK SHALL BE PAID UNDER ITEM 528.10 HEAVY TIMBER CONSTRUCTION - CHEBEAGUE ISLAND
3. FOR BIDDING PURPOSES, ALLOW FOR REPLACEMENT OF UP TO 24 STRINGERS AS DIRECTED BY THE RESIDENT. WORK SHALL BE PAID UNDER ITEM 528.49 STRUCTURAL TIMBER CONSTRUCTION - CHEBEAGUE ISLAND

CHEBEAGUE ISLAND FERRY TERMINAL - FRAMING PLAN

SCALE: 1" = 10'

10' 0 10' 20'
1" = 10'

STATE OF MAINE
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APPROVED | DATE
COMMISSIONER:
CHIEF ENGINEER:

MARC NICOLAZZO No. PE18349 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

SIGNATURE
18349
P.E. NUMBER
8/23/2024
DATE

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES
BY | DATE

WIN 024685.01

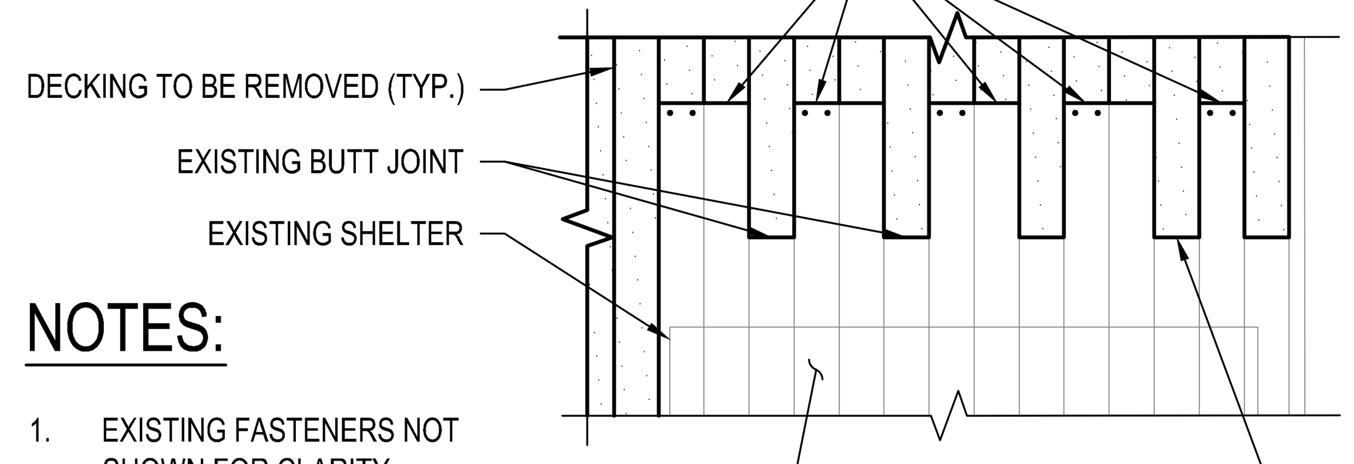
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CHEBEAGUE ISLAND FERRY TERMINAL - FRAMING PLAN

SHEET NUMBER
S9

15 OF 19

Filename: $file$ Division: $wkgroup$ Username: $user$ Date: $date$

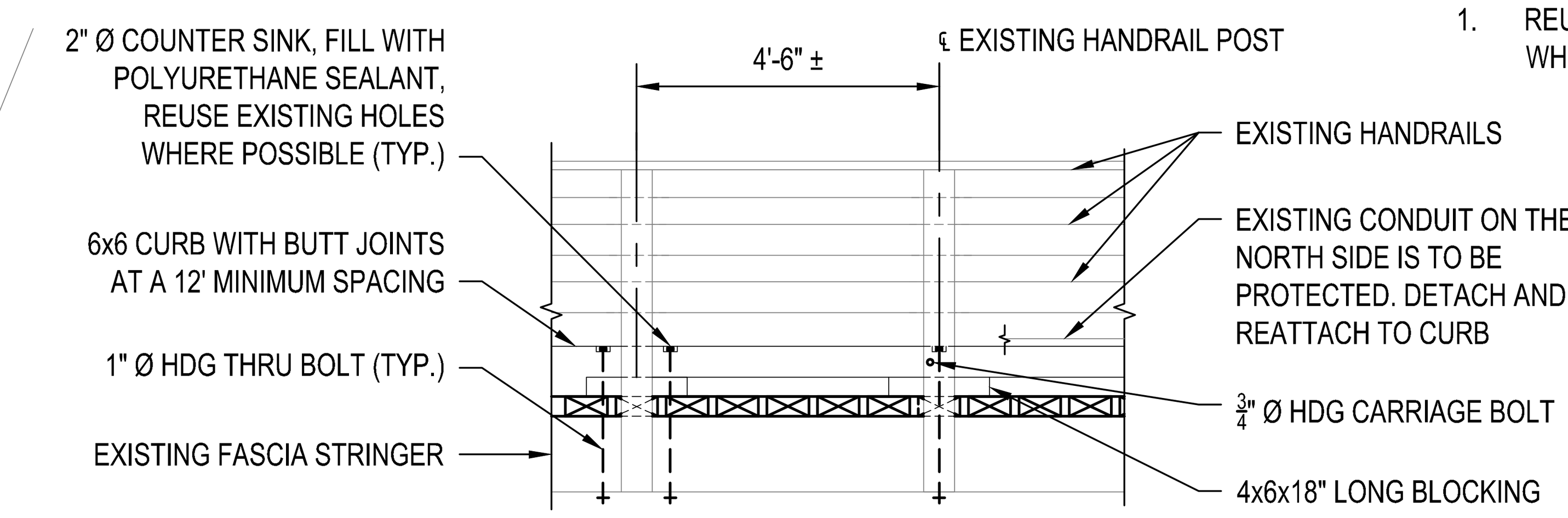


NOTES:

1. EXISTING FASTENERS NOT SHOWN FOR CLARITY.

PARTIAL PLAN

SCALE: 3/8" = 1'-0"

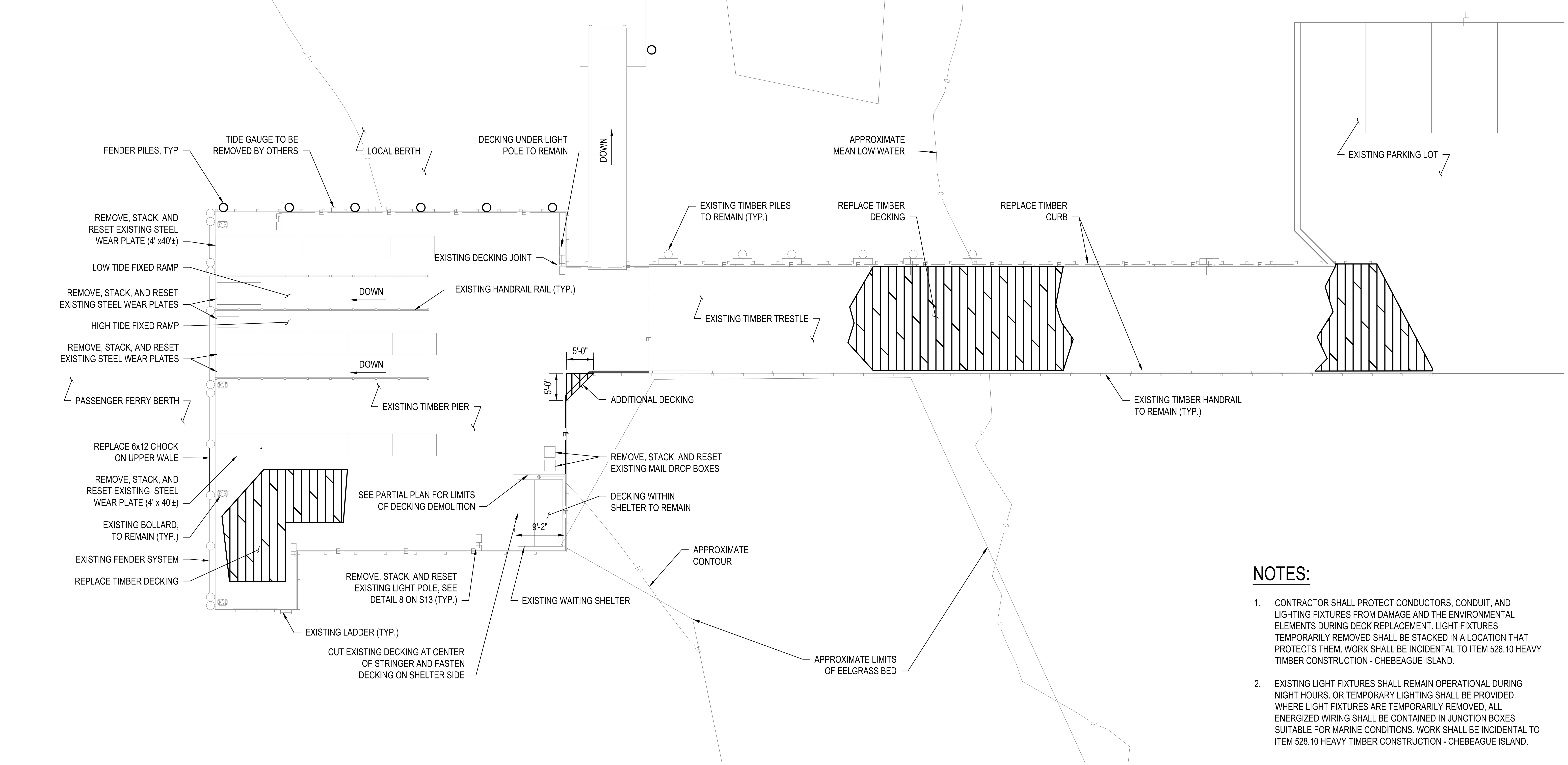


CURB ATTACHMENT DETAIL

SCALE: 3/8" = 1'-0"

NOTES:

1. REUSE EXISTING HOLES WHERE POSSIBLE.



NOTES:

1. CONTRACTOR SHALL PROTECT CONDUCTORS, CONDUIT, AND LIGHTING FIXTURES FROM DAMAGE AND THE ENVIRONMENTAL ELEMENTS DURING DECK REPLACEMENT. LIGHT FIXTURES TEMPORARILY REMOVED SHALL BE STACKED IN A LOCATION THAT PROTECTS THEM. WORK SHALL BE INCIDENTAL TO ITEM 528.10 HEAVY TIMBER CONSTRUCTION - CHEBEAGUE ISLAND.
2. EXISTING LIGHT FIXTURES SHALL REMAIN OPERATIONAL DURING NIGHT HOURS. OR TEMPORARY LIGHTING SHALL BE PROVIDED. WHERE LIGHT FIXTURES ARE TEMPORARILY REMOVED, ALL ENERGIZED WIRING SHALL BE CONTAINED IN JUNCTION BOXES SUITABLE FOR MARINE CONDITIONS. WORK SHALL BE INCIDENTAL TO ITEM 528.10 HEAVY TIMBER CONSTRUCTION - CHEBEAGUE ISLAND.

CHEBEAGUE ISLAND FERRY TERMINAL - DECK PLAN

SCALE: 1" = 10'

10' 0 10' 20'
1" = 10'

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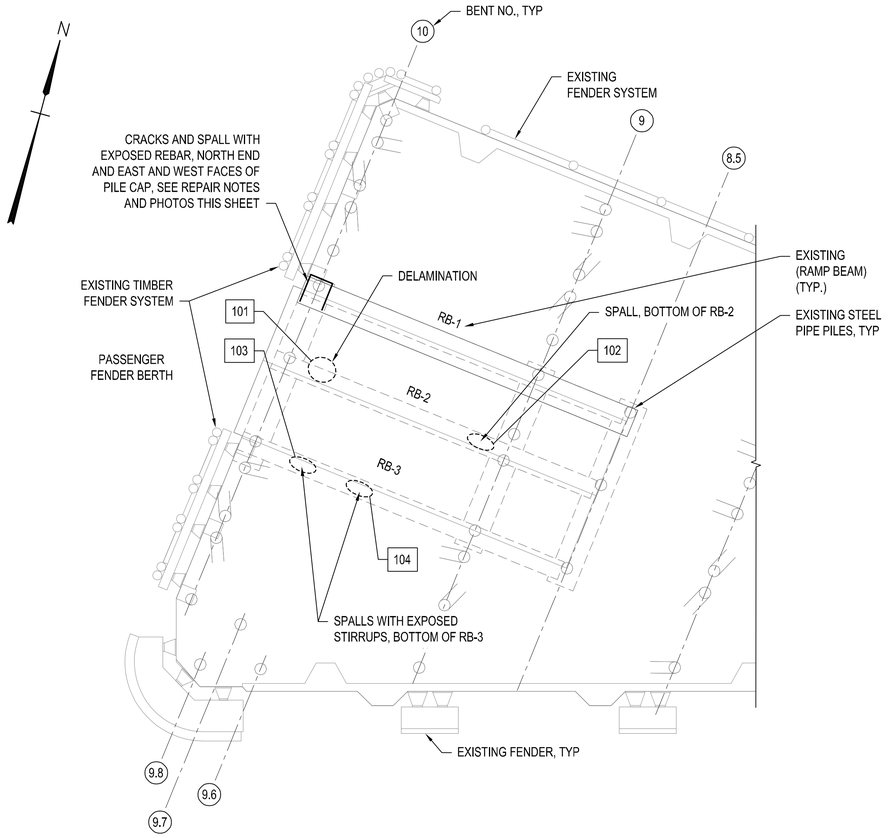
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CHEBEAGUE ISLAND FERRY TERMINAL - DECK PLAN

SHEET NUMBER

S10

Filename:$file$ Division: $wkgroup$ Username: $user$ Date:$date$



PEAKS ISLAND FERRY TERMINAL - PILE PLAN

SCALE: 1/8" = 1'-0"

1 PHOTO - PIER OFFSHORE FACE AND FENDER SYSTEM

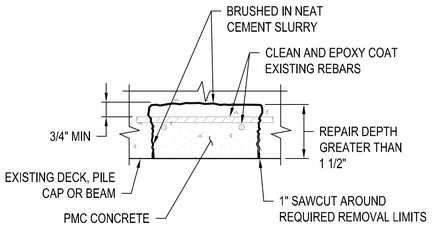
SCALE: NTS S11

2 PHOTO - PIER ONSHORE FACE

SCALE: NTS S11

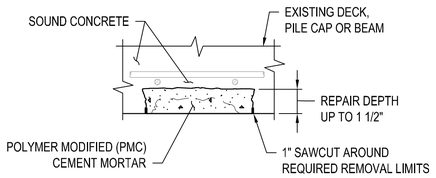
3 PHOTO - PIER NORTH END

SCALE: NTS S11



DEEP SPALL REPAIR

SCALE: 1" = 1'-0"



SHALLOW SPALL REPAIR

SCALE: 1" = 1'-0"

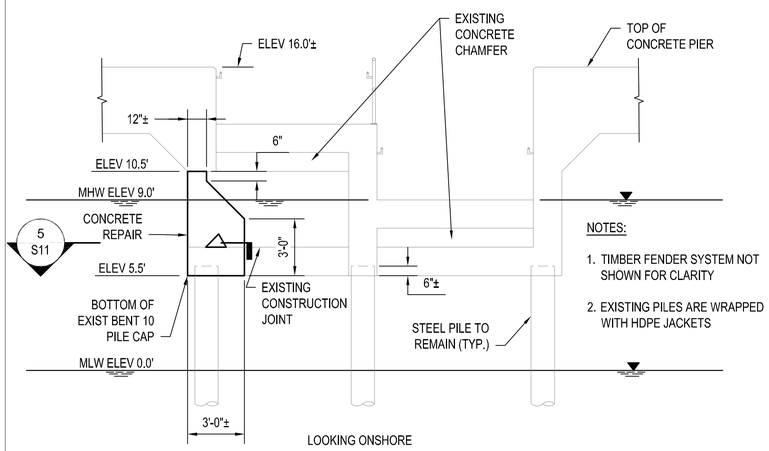
CONCRETE REPAIR SCHEDULE		
REPAIR No.	LOCATION	APPROX. SIZE
101	NORTH SIDE RB-1	1' x 1'
102	UNDERSIDE RB-2	1.5'x2.5'
103	UNDERSIDE RB-3	1'x2'
104	UNDERSIDE RB-3	1'x2'

REPAIR NOTES:

1. REMOVE MARINE GROWTH AS NEEDED TO PERFORM WORK.
2. SAWCUT 1" DEEP ALONG PERIMETER OF REPAIR.
3. SEE STANDARD SPECIFICATION AND SPECIAL PROVISION SECTION 518 FOR CONCRETE REPAIR PROCEDURE.
4. LOCATIONS OF REPAIRS 101 TO 104 APPROXIMATE. FINAL LOCATIONS TO BE COORDINATED WITH RESIDENT.

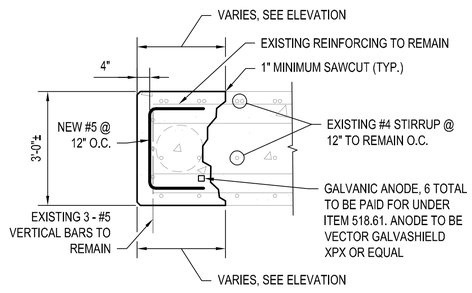
LEGEND:

- (1) BENT NUMBER
- PLUMB PILE
- BATTER PILE
- 101 REPAIR LOCATION
- UNDERSIDE REPAIR



4 ELEVATION - PIER OFFSHORE END

SCALE: 1/4" = 1'-0"



5 SECTION - PIER OFFSHORE END

SCALE: 1/2" = 1'-0" S11

1/8" = 1'-0" 4' 0 4' 8' 12' 16'

1/4" = 1'-0" 4' 0 4' 8'

1/2" = 1'-0" 4' 3' 2' 1' 0 4'

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STATE OF MAINE · MARC NICOLAZZO No. PE16349 · LICENSED PROFESSIONAL ENGINEER

Marc Nicolazzo
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16349
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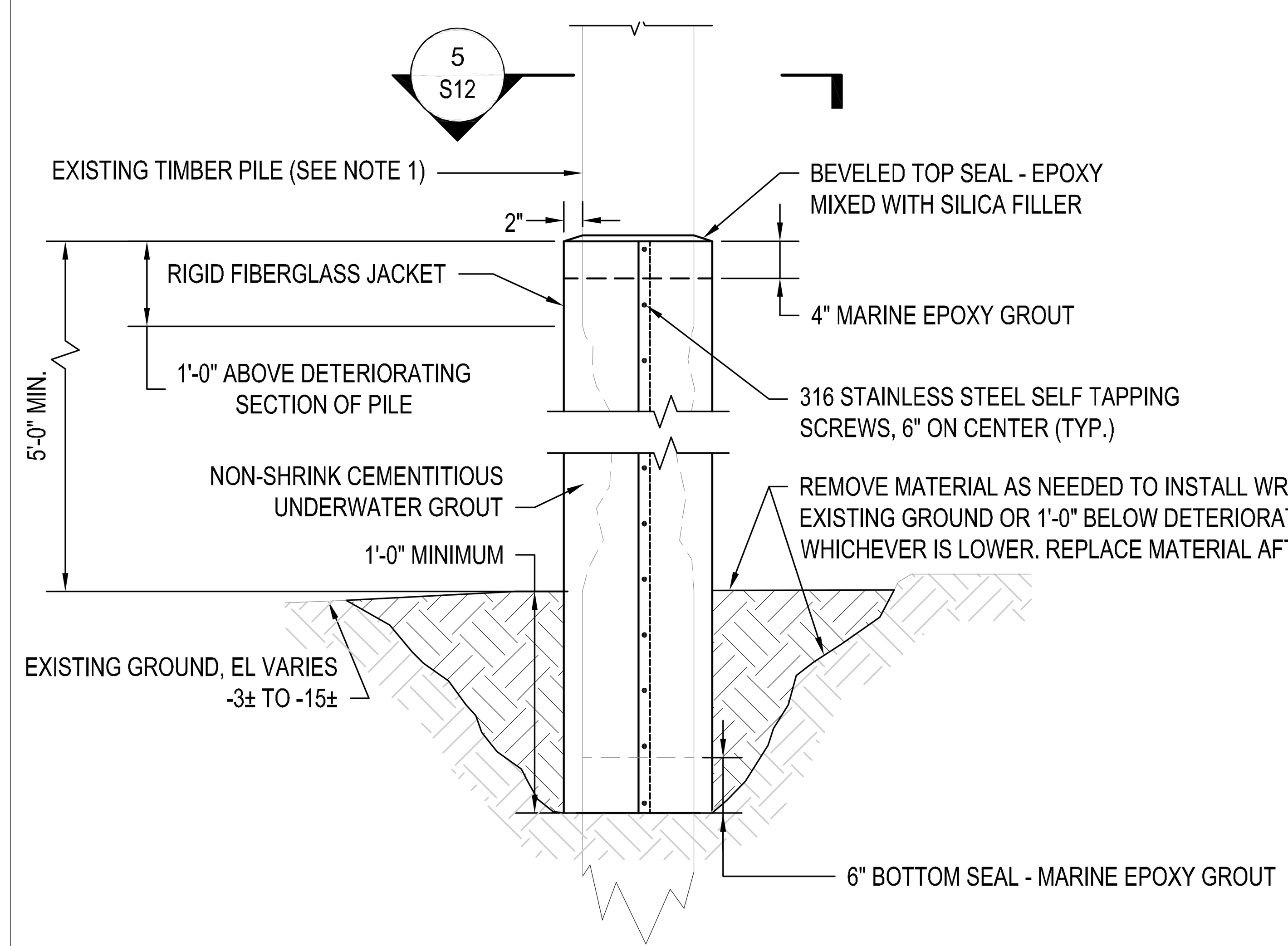
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

PEAKS ISLAND FERRY TERMINAL - PIER DECK REPAIR PLAN

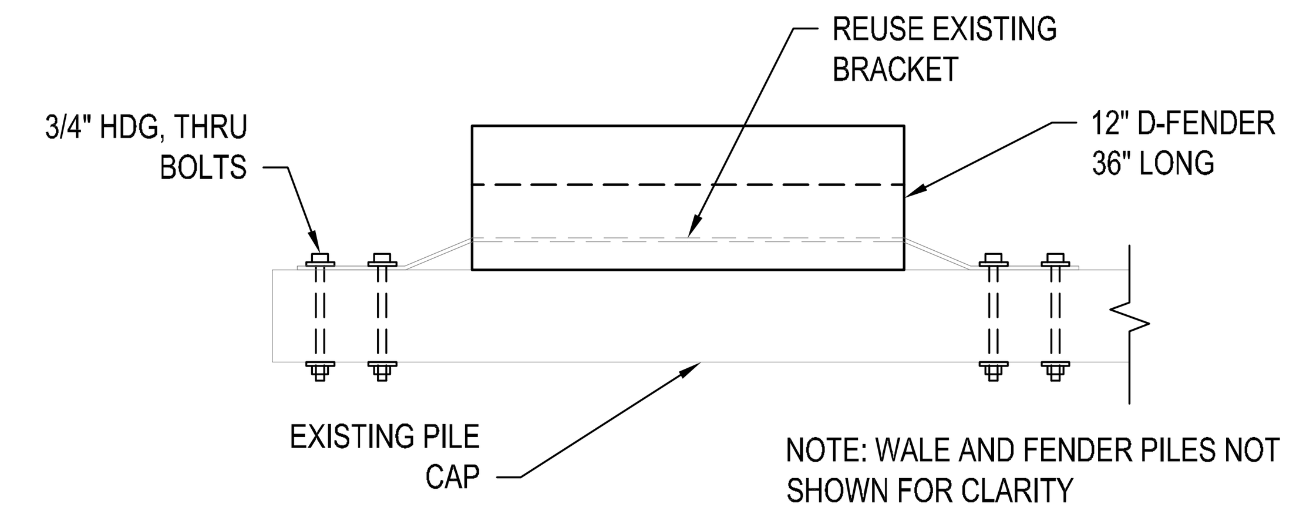
SHEET NUMBER
S11
17 OF 19

NOTES:

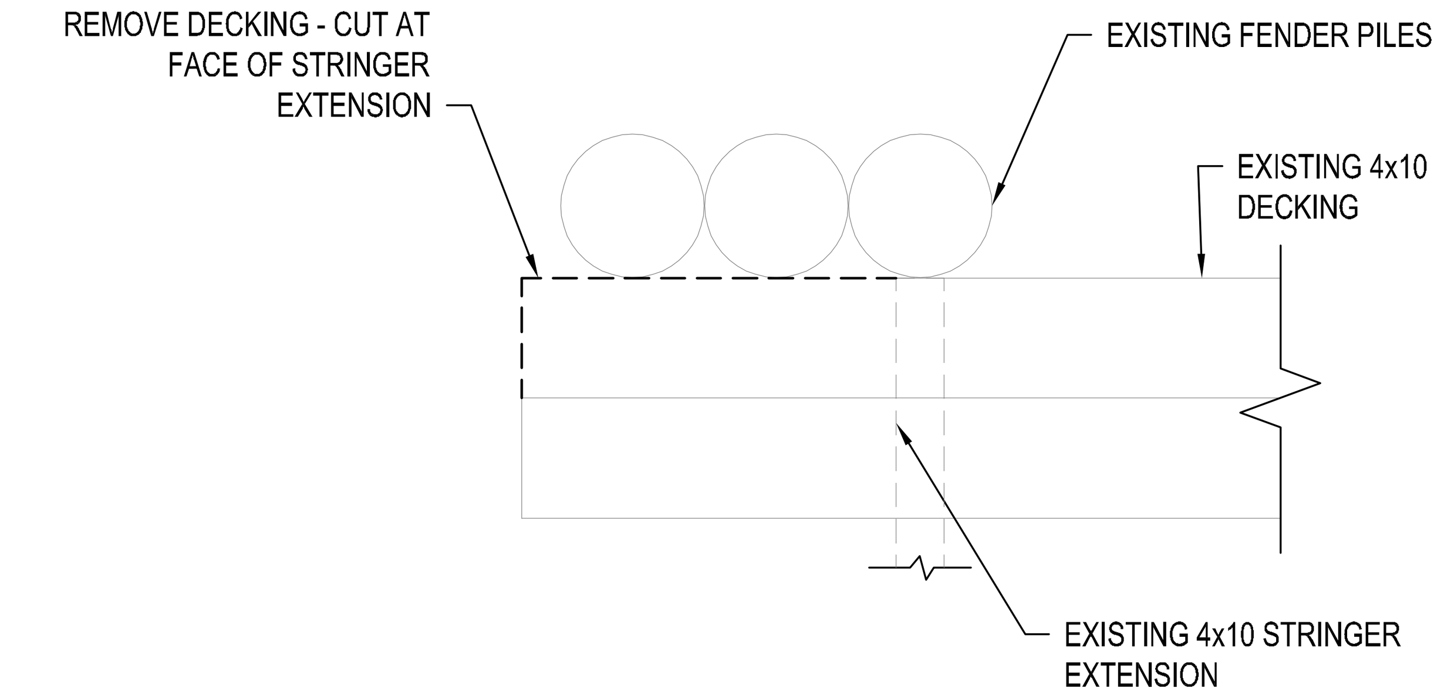
1. EXISTING PILE DIAMETER AND LENGTH VARY. CONTRACTOR TO FIELD DETERMINE REQUIRED FORM SIZES PRIOR TO ORDERING MATERIALS.
2. REMOVE MARINE GROWTH AND ROT PRIOR TO INSTALLING JACKET.
3. PROVIDE SPACERS AT TOP AND BOTTOM OF JACKET TO MAINTAIN ANNULUS.
4. PUMP PORTS MUST BE CAPPED AFTER EPOXY PLACEMENT. PUMP PORTS NOT SHOWN FOR CLARITY.



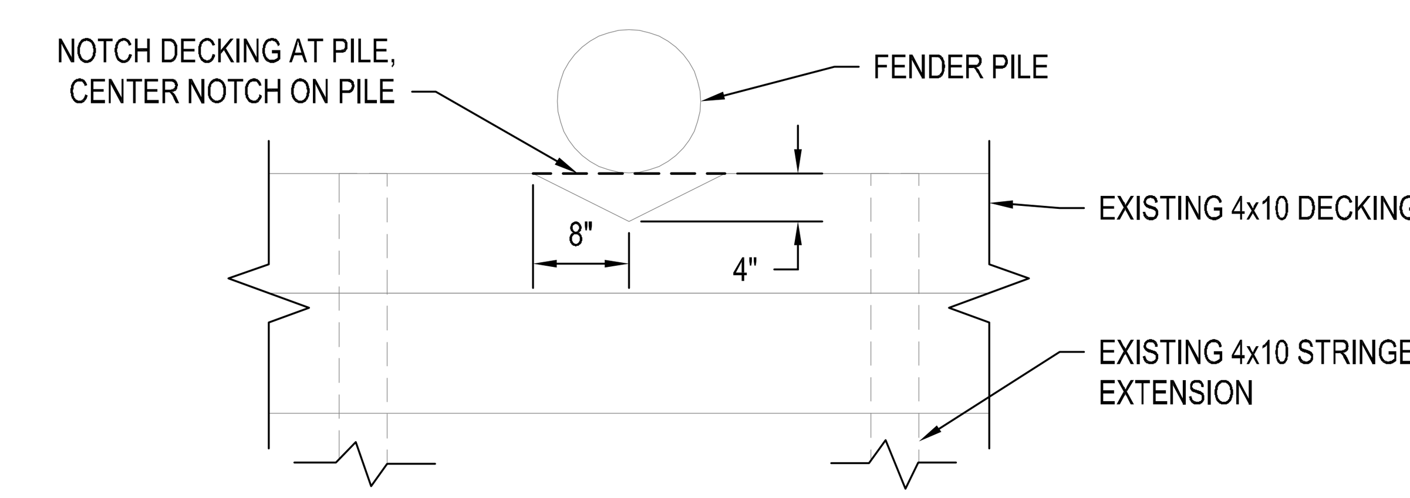
1 PILE JACKET DETAIL
SCALE: 3/4" = 1'-0" S1, S3, S12



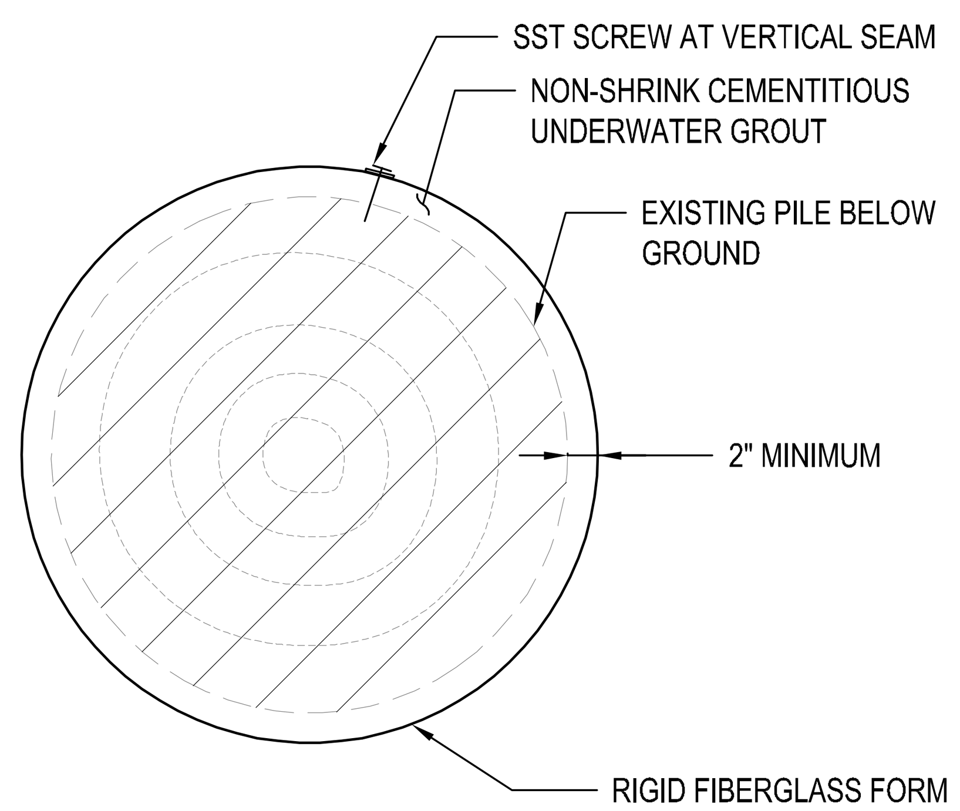
3 DETAIL - D-FENDER ATTACHMENT
SCALE: 3/4" = 1'-0" S2, S3



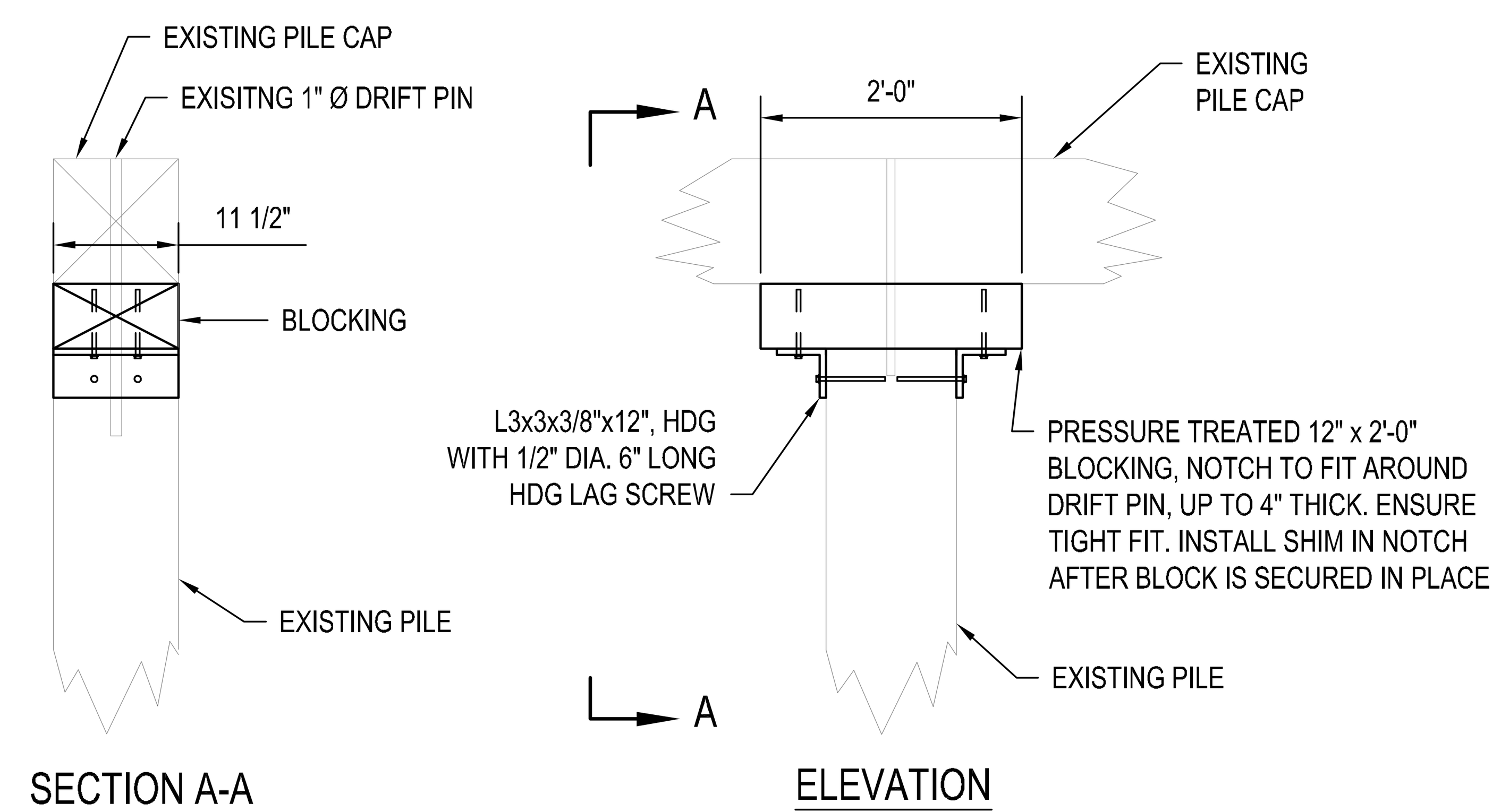
2 PARTIAL PLAN - DECK REMOVAL
SCALE: 3/4" = 1'-0"



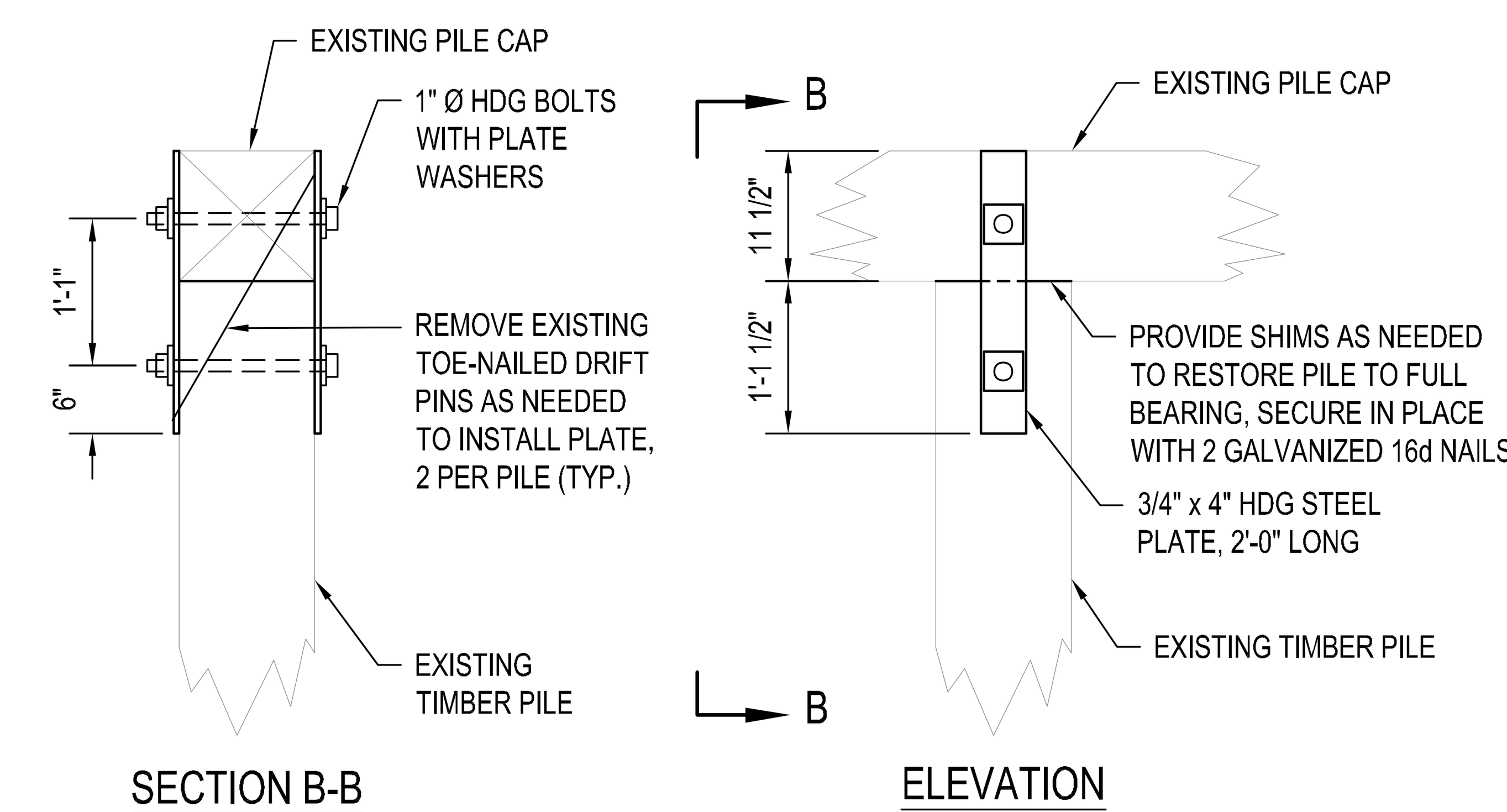
4 PARTIAL PLAN - DECK NOTCH
SCALE: 3/4" = 1'-0" S2



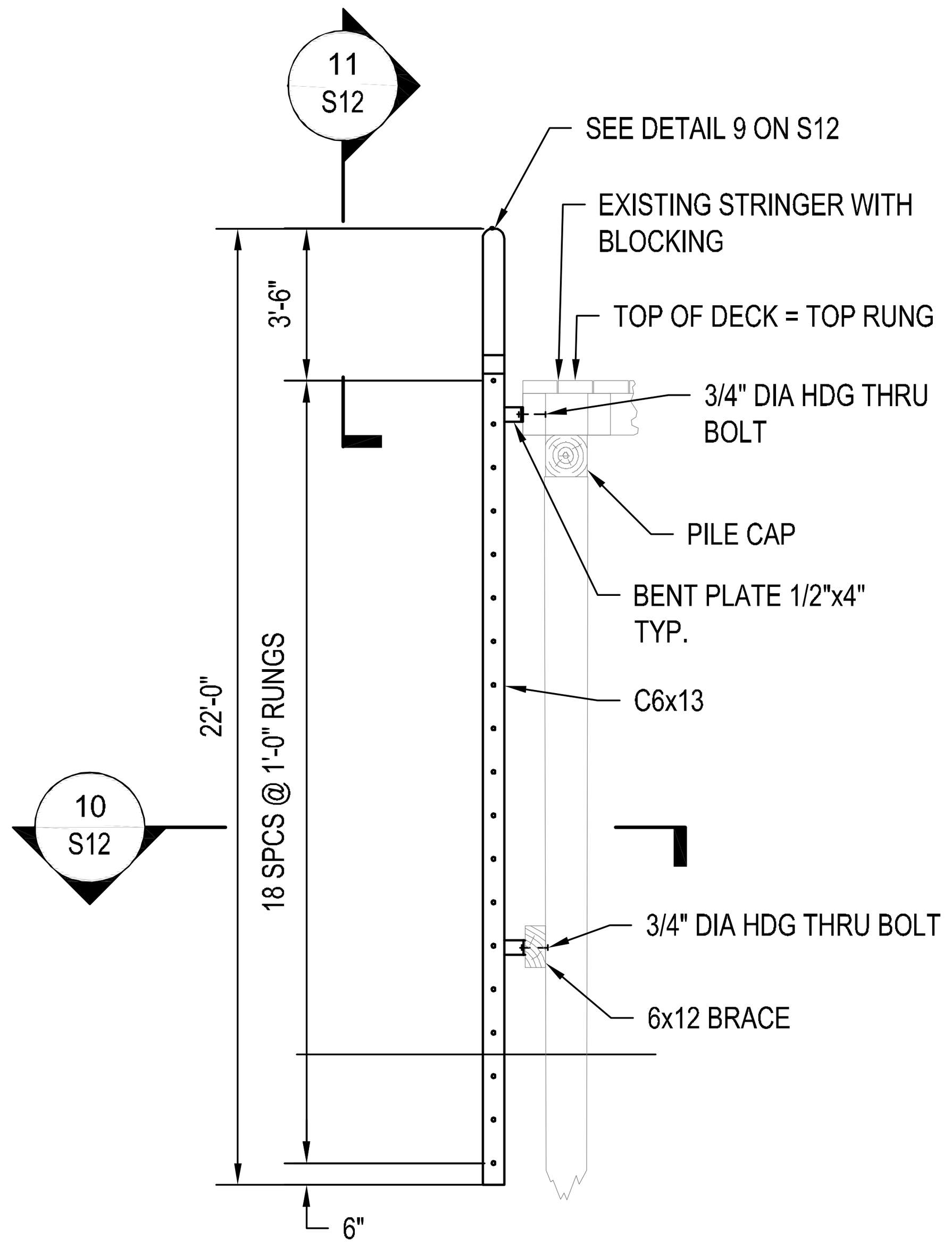
5 SECTION
SCALE: 3" = 1'-0" S12



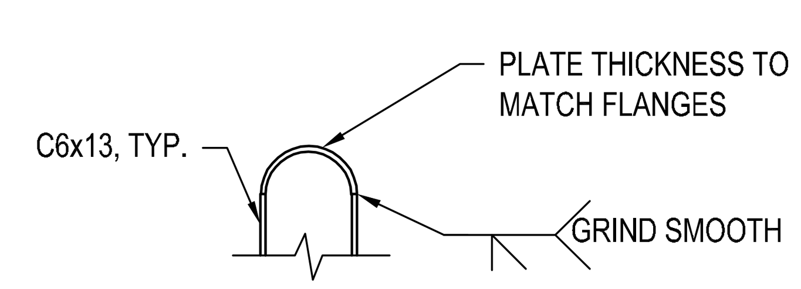
6 DETAIL - PILE & PILE CAP BLOCKING
SCALE: 3/4" = 1'-0"



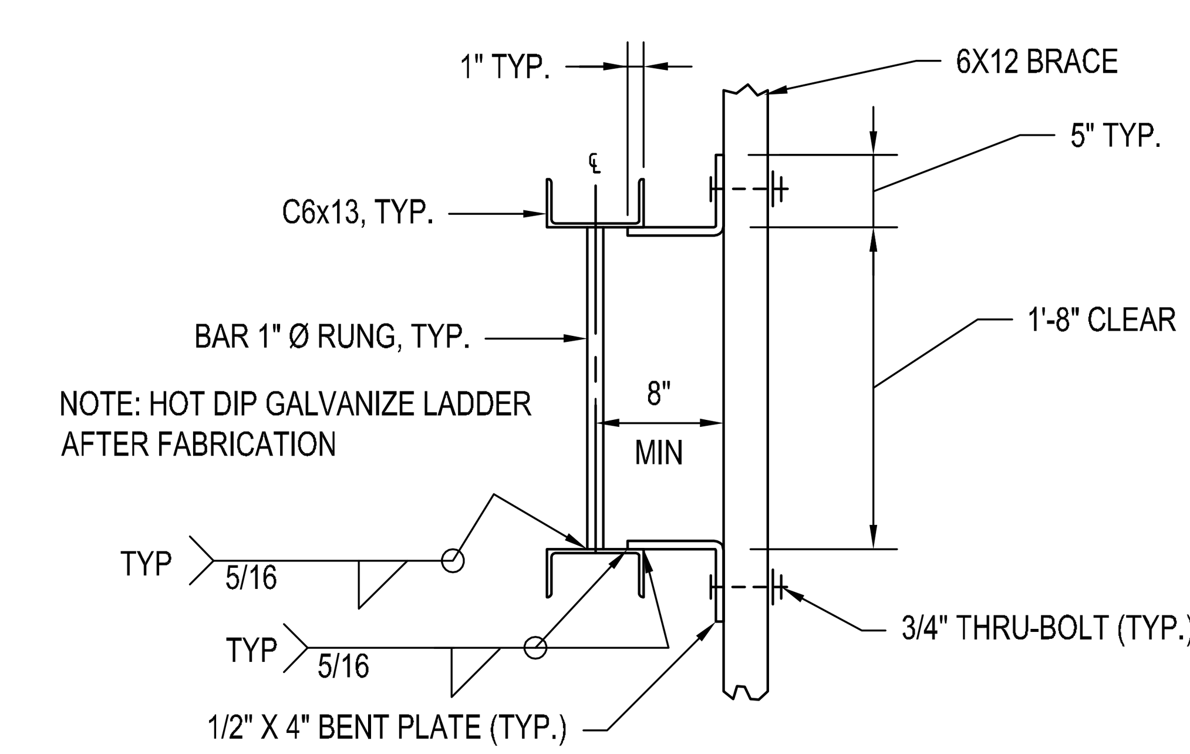
7 DETAIL - PILE & PILE CAP
SCALE: 3/4" = 1'-0"



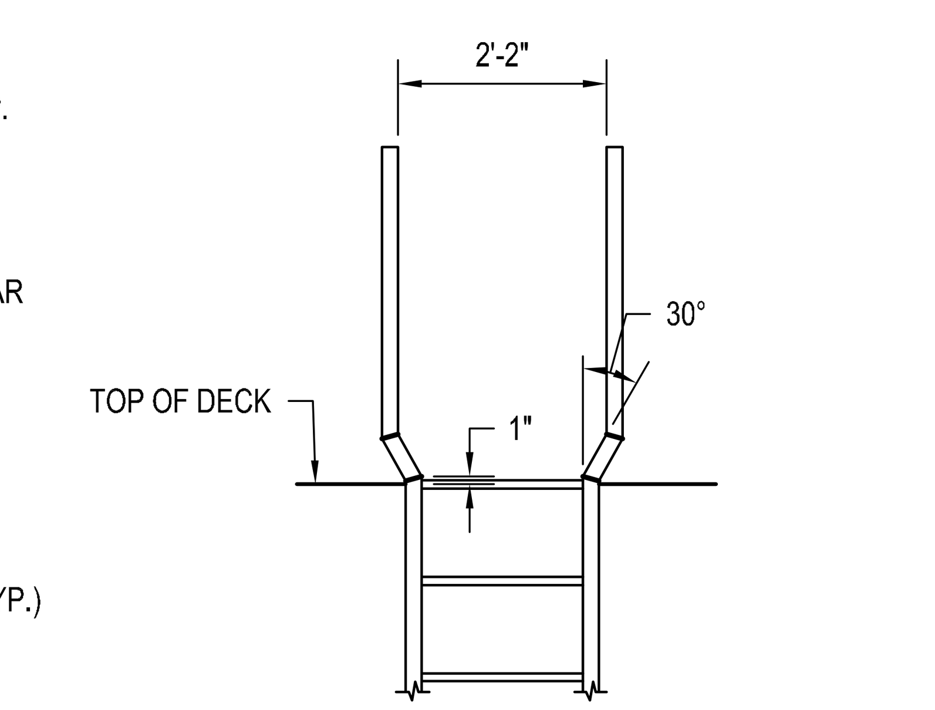
8 TYPICAL NEW LADDER SECTION
SCALE: 1/4" = 1'-0"



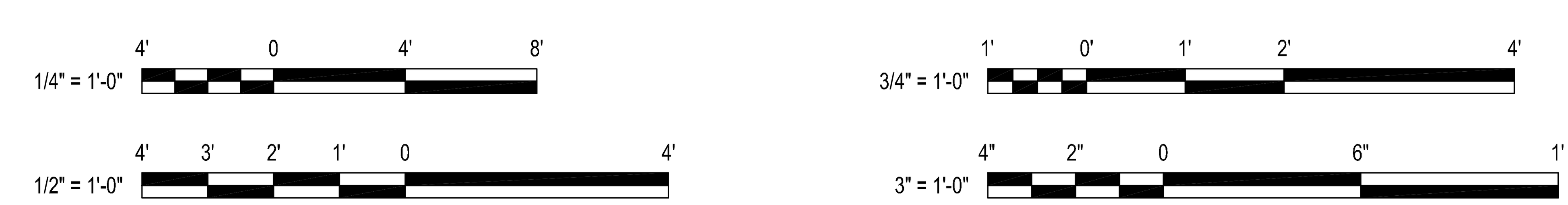
9 DETAIL
SCALE: 1/2" = 1'-0"



10 SECTION A-A
SCALE: 1/2" = 1'-0" S12



11 ELEVATION B-B
SCALE: 1/2" = 1'-0"



STATE OF MAINE
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STATE OF MAINE — MARC NICOLAZZO — No. PE18349 — LICENSED — PROFESSIONAL ENGINEER

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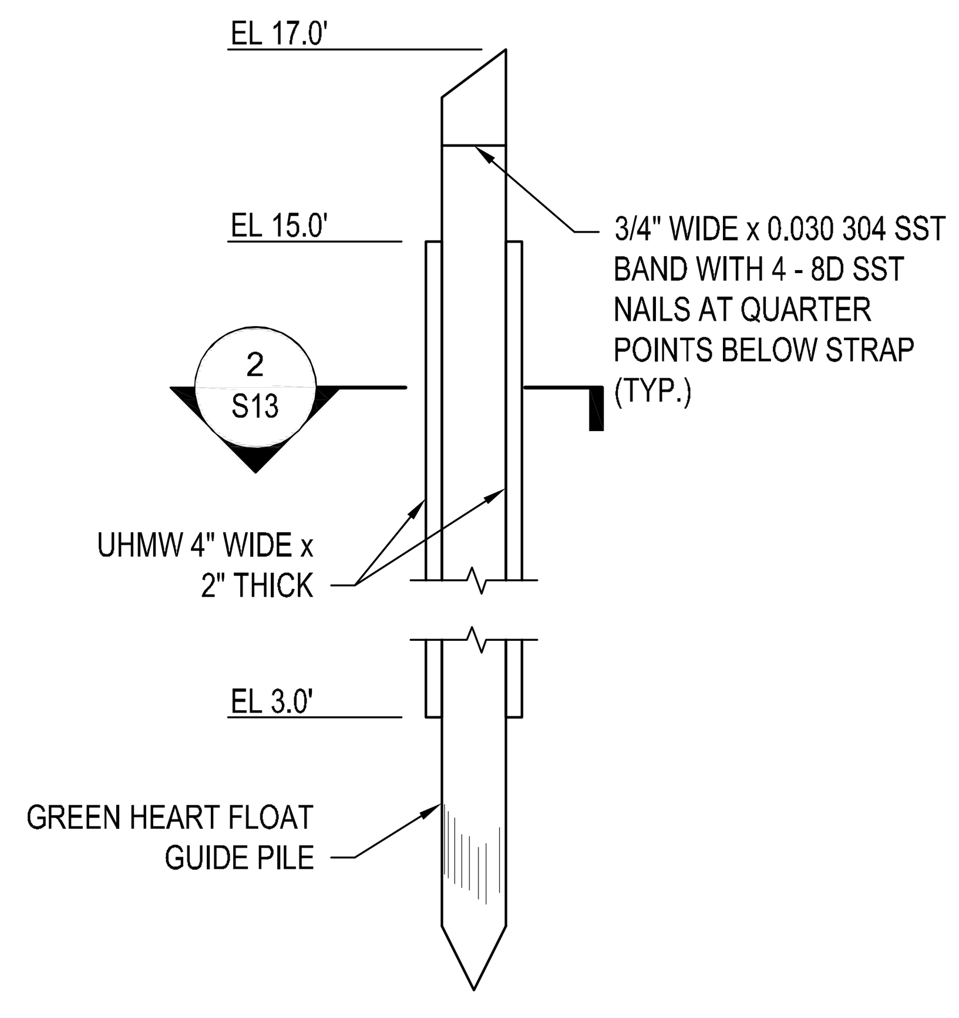
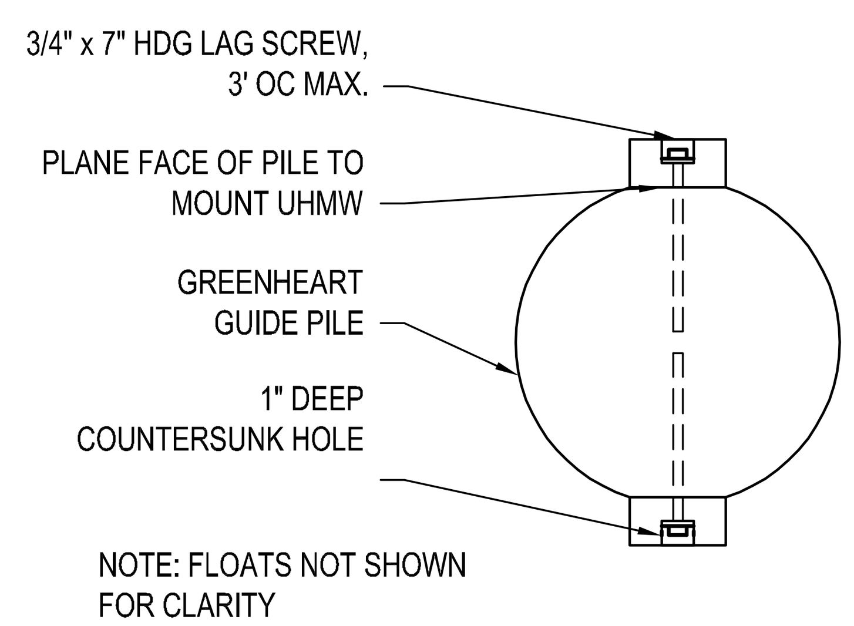
FERRY TERMINALS AT CHEBEAGUE, CLIFF, GREAT DIAMOND AND PEAKS ISLANDS STRUCTURAL REPAIRS

CLIFF ISLAND PILE REPAIR DETAILS

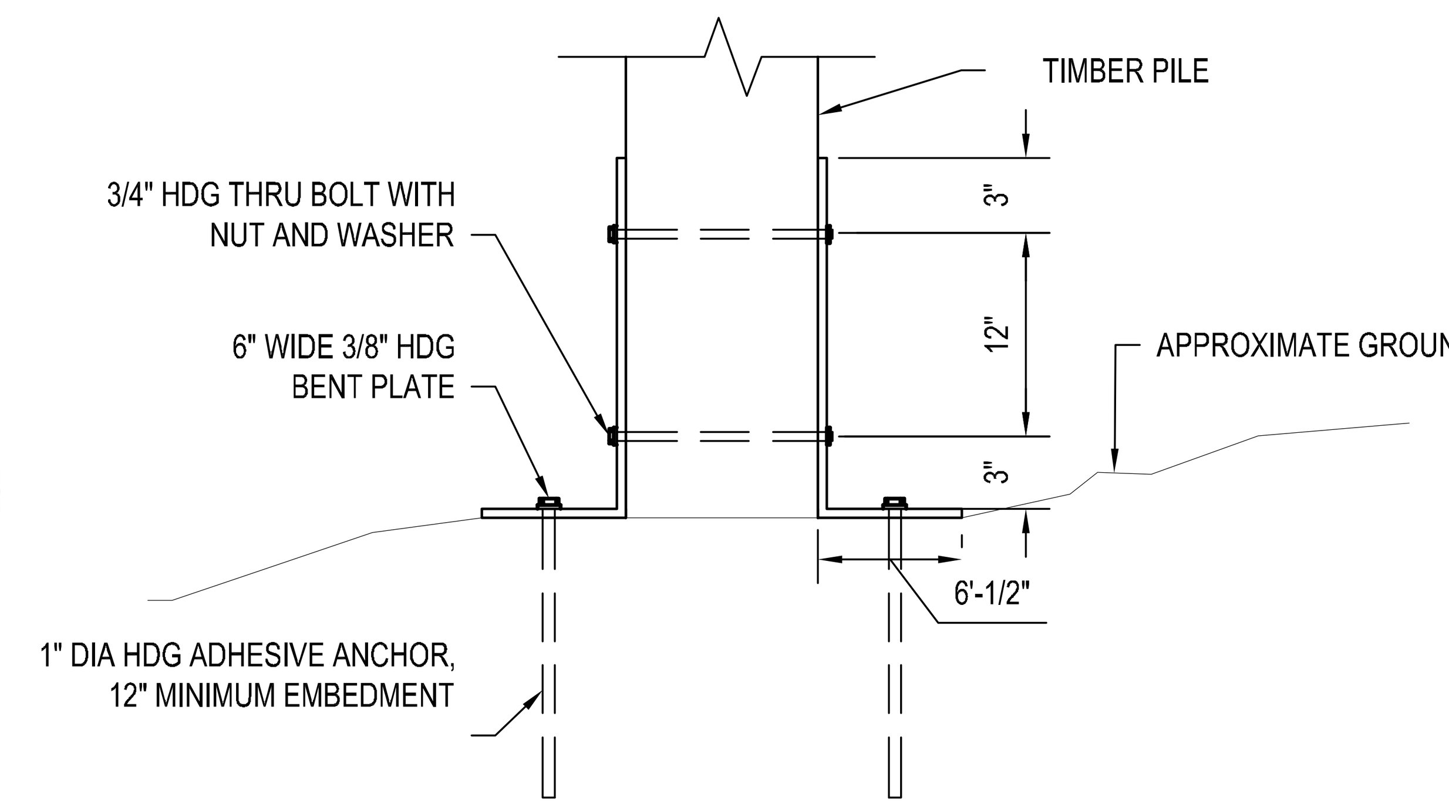
SHEET NUMBER
S12



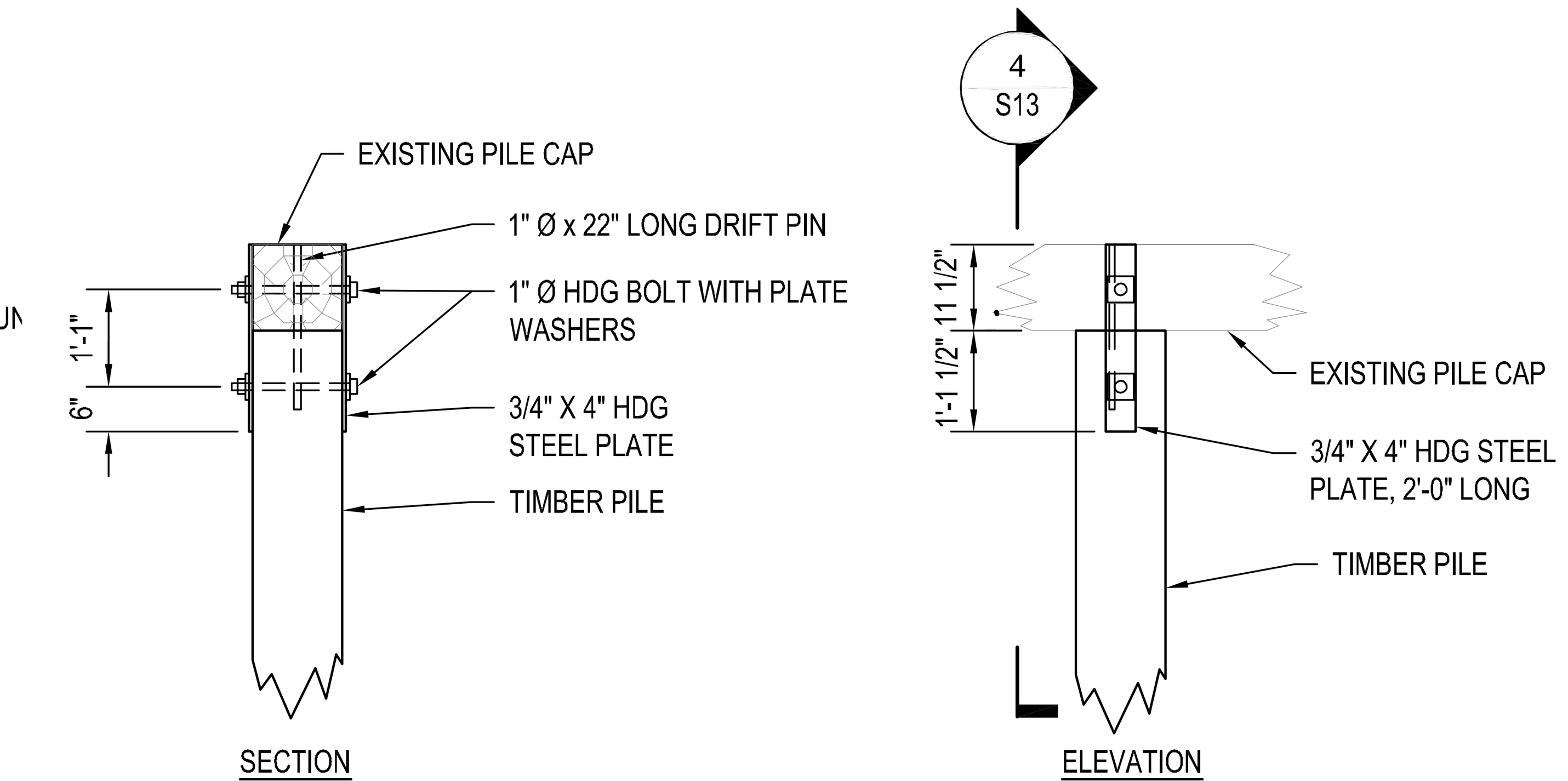
1 FLOAT PILE DETAIL
SCALE: 1/2" = 1'-0" S10



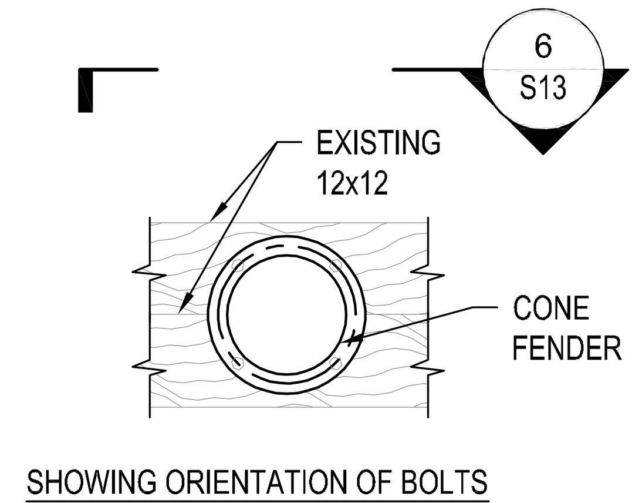
2 SECTION - UHMW MOUNTING
SCALE: 1 1/2" = 1'-0" S13



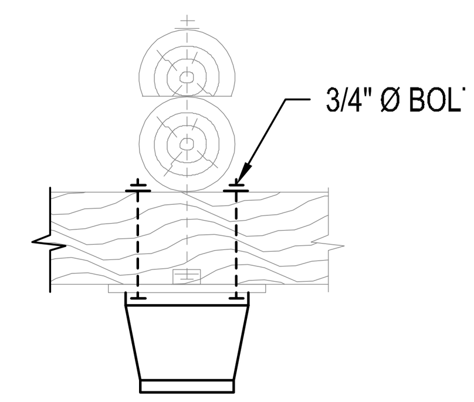
3 DETAIL - PILE FASTENING
SCALE: 1 1/2" = 1'-0" S8



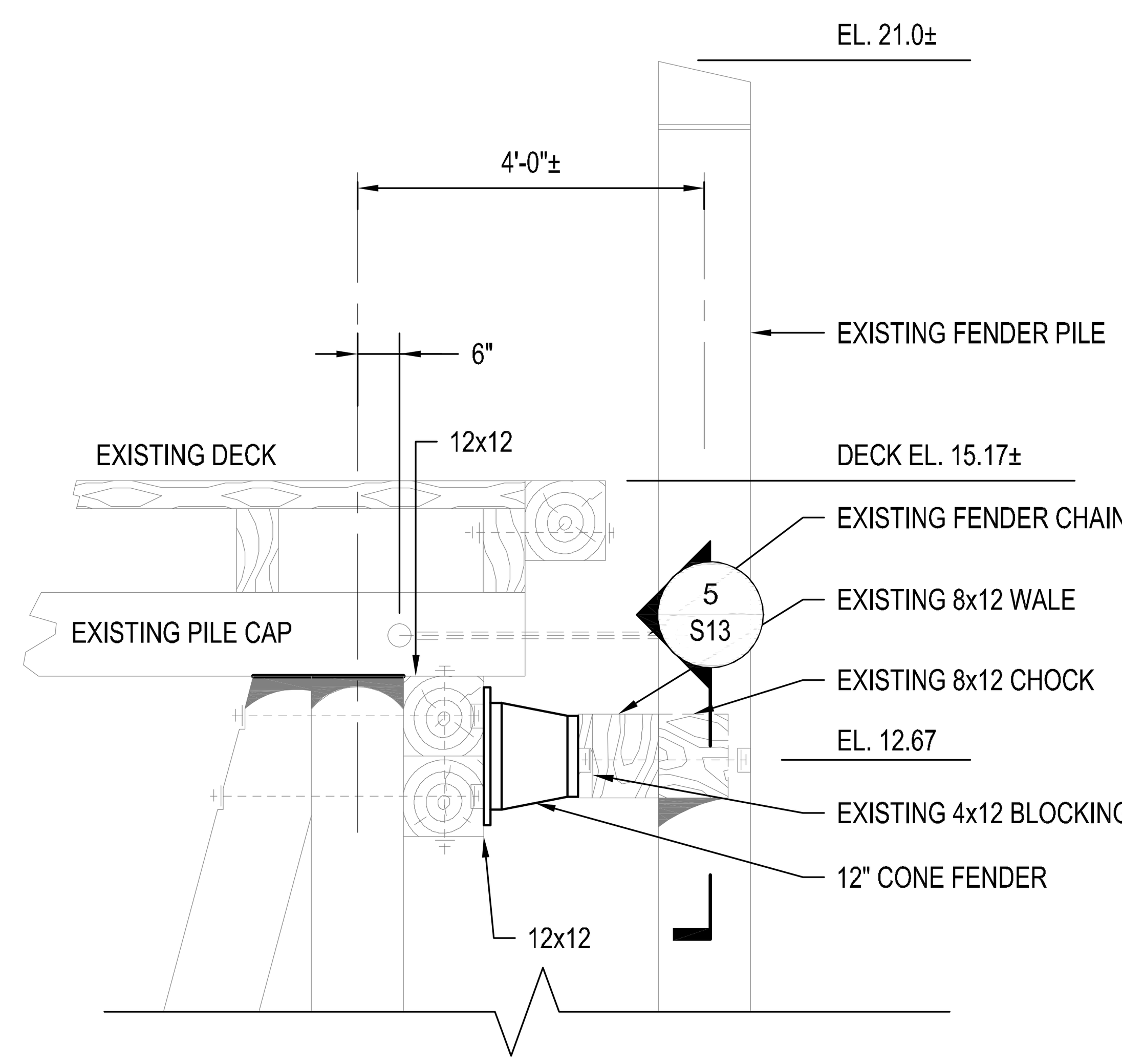
4 DETAIL - PILE CONNECTION
SCALE: 1/2" = 1'-0" S13



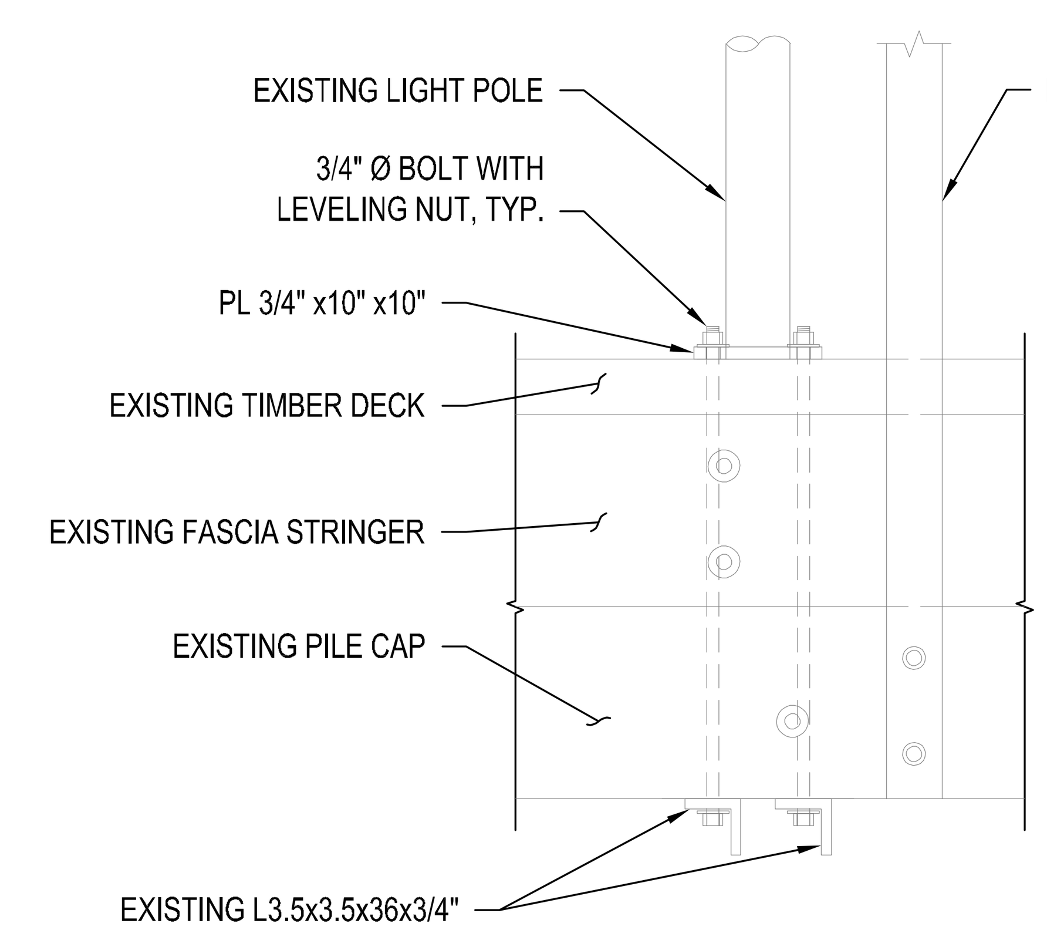
5 ELEVATION
SCALE: NTS



6 PLAN
SCALE: NTS



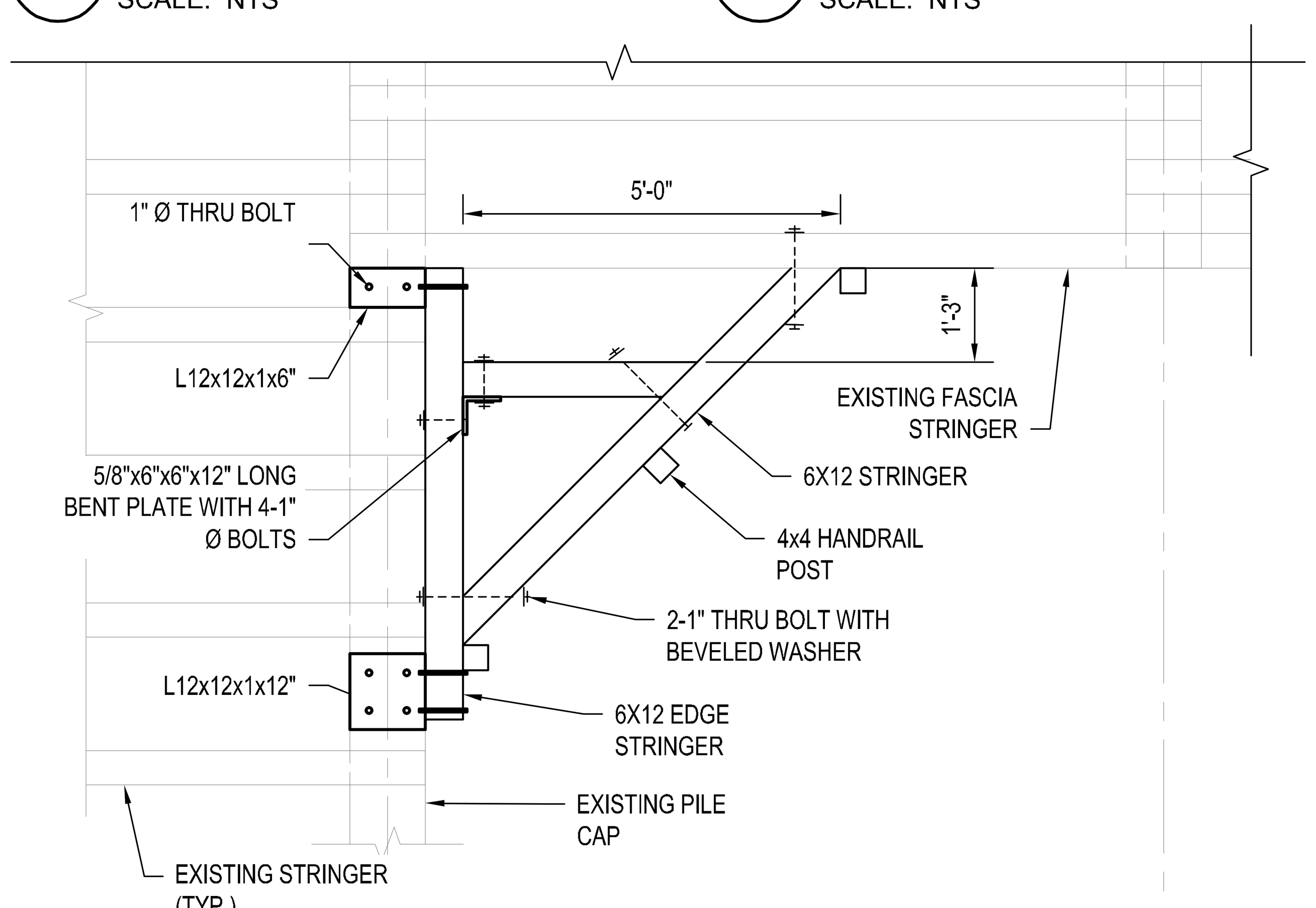
7 FENDER SYSTEM SECTION - GREAT DIAMOND ISLAND
SCALE: 1/2" = 1'-0" S6, S13



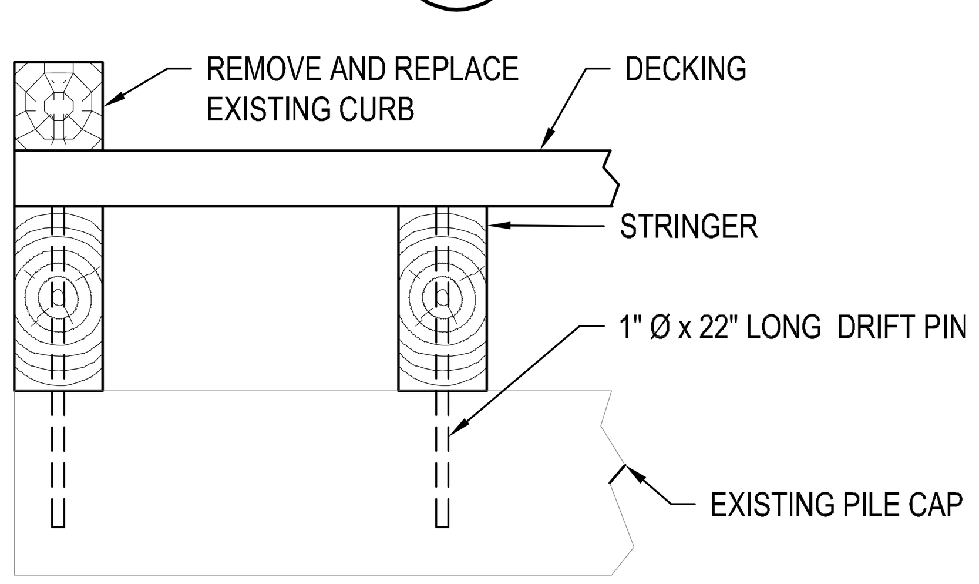
NOTES:

1. OTHER LIGHT POLE BASES SIMILAR
2. CONDUIT NOT SHOWN FOR CLARITY

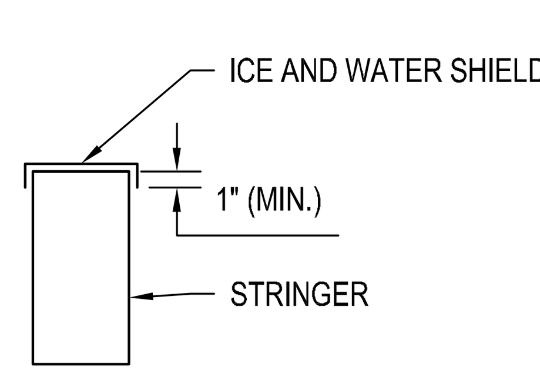
8 EXISTING LIGHT POLE BASE ELEVATION
SCALE: 1" = 1'-0"



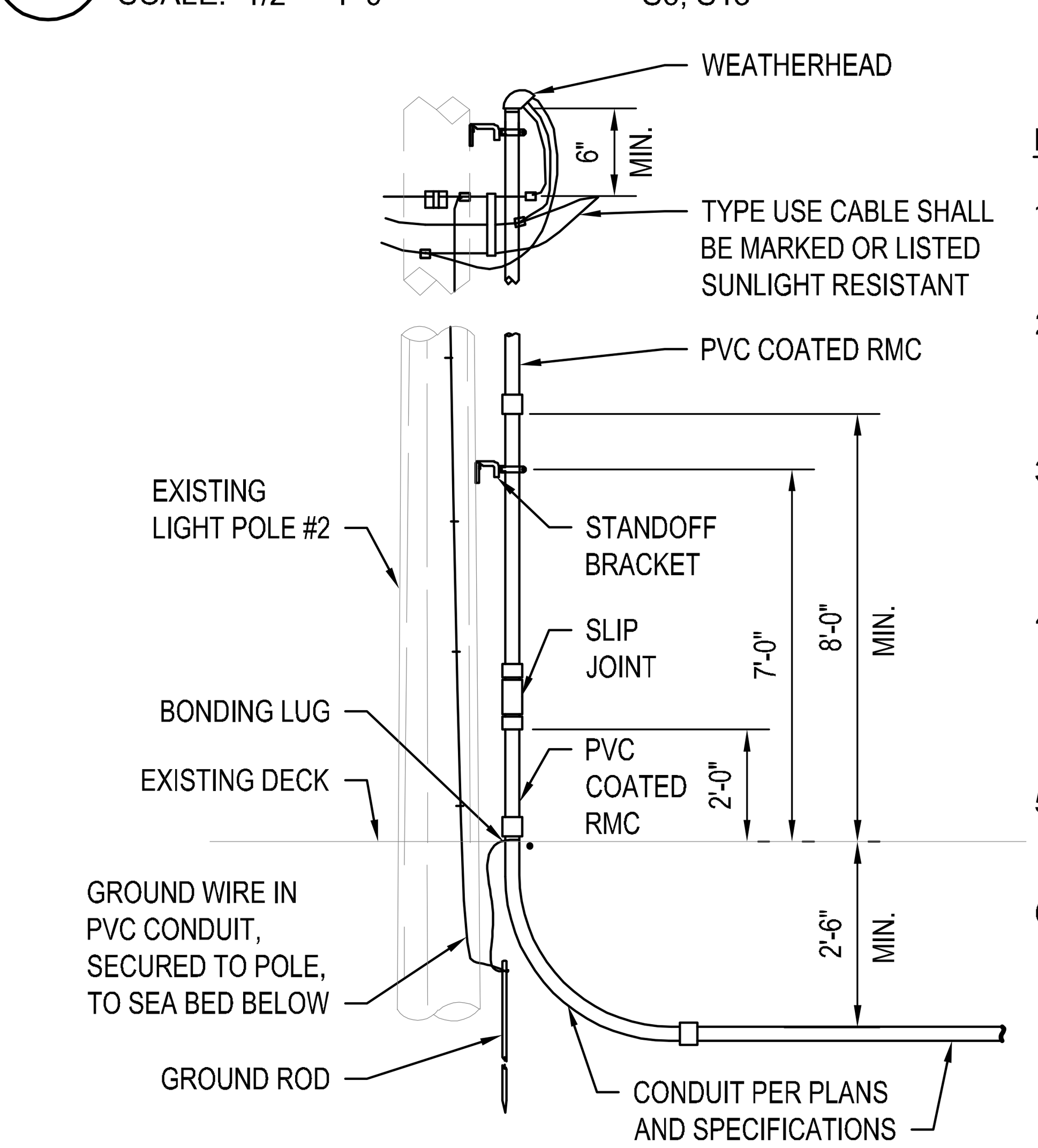
9 STRINGER CONNECTION DETAIL
SCALE: 1/2" = 1'-0"



10 STRINGER ATTACHMENT SECTION
SCALE: NTS



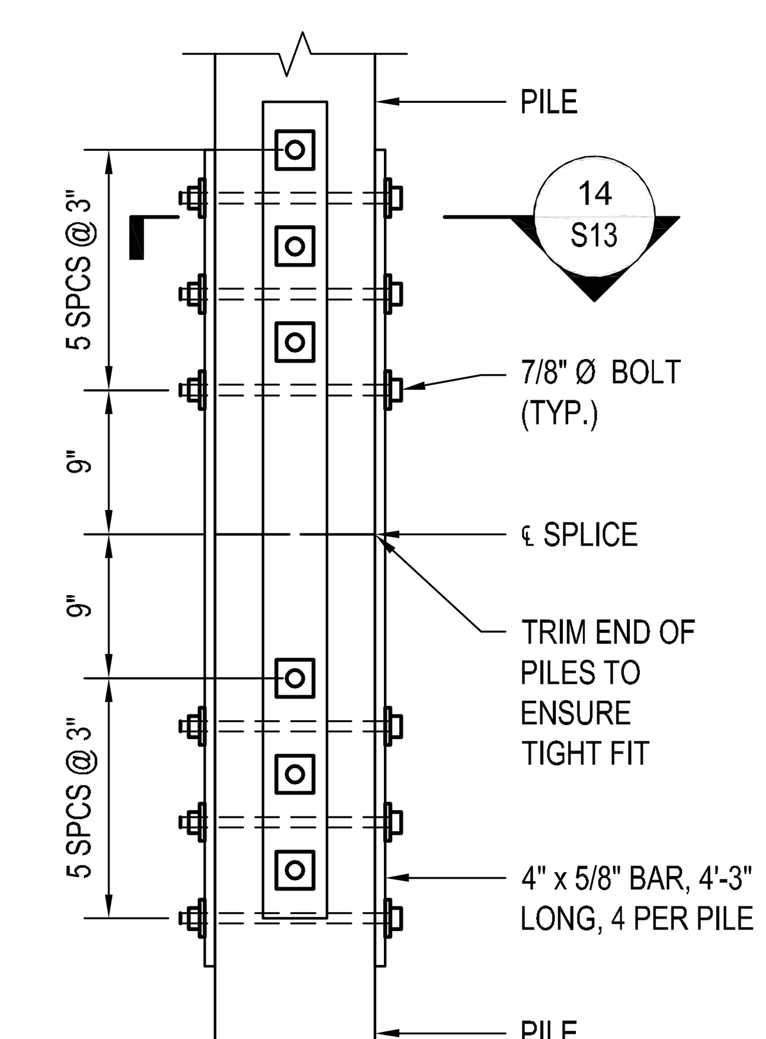
11 ICE & WATER SHIELD
SCALE: NTS S5, S9



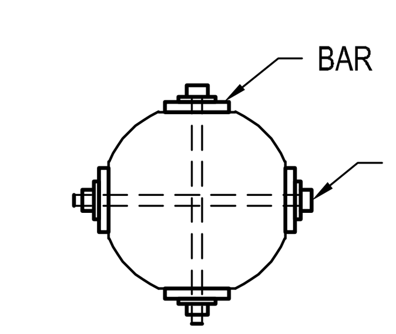
NOTES:

1. RISER SHALL BE INSTALLED PER UTILITY STANDARDS.
2. MINIMUM 2" NEMA APPROVED PVC COATED RMC 80 SHALL BE USED FOR FULL LENGTH OF CONDUIT.
3. ATTACH CONDUIT ON SIDE OF POLE AWAY FROM TRAFFIC WHEN POSSIBLE.
4. INSTALL LOWEST STANDOFF BRACKET AT 7 FEET ABOVE GRADE. SPACE REMAINING STANDOFF BRACKETS APPROX. 5 FEET APART.
5. INSTALL SLIP JOINT APPROXIMATELY 2/3 OPEN.
6. TERMINATE CONDUIT WEATHERHEAD FOR SECONDARY SERVICE.

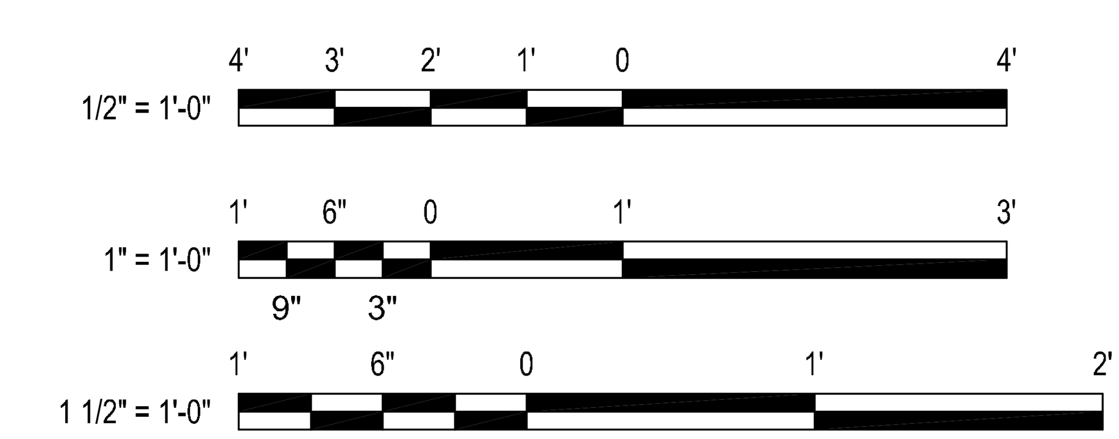
12 TYPICAL RISER CONDUIT INSTALLATION
SCALE: NTS S6



13 PILE SPLICE - GREAT DIAMOND ISLAND
SCALE: 1" = 1'-0"



14 PILE SPLICE SECTION
SCALE: 1" = 1'-0"



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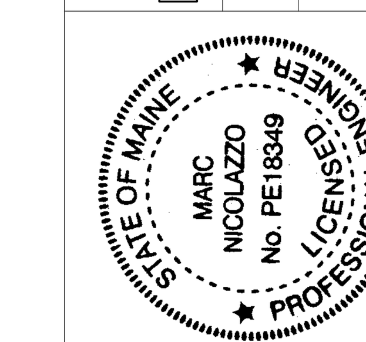

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PIER REPAIR DETAILS

SHEET NUMBER

S13

Division: $wkgroup$ Username: $user$ Date:$date$
Filename:$file$