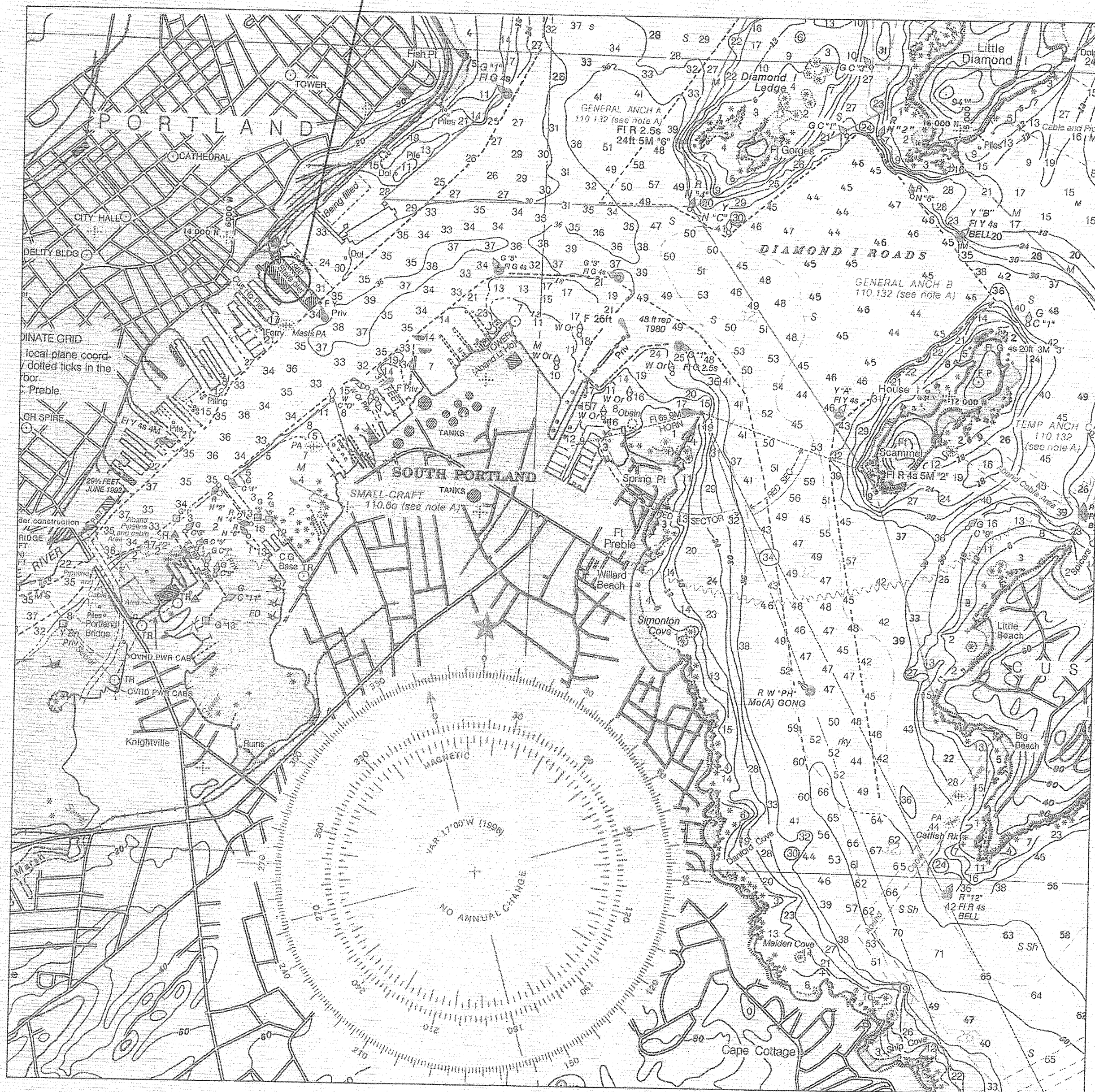


CASCO BAY ISLAND TRANSIT DISTRICT PORTLAND, MAINE

CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS WIN NO. 18363.00

LOCATION

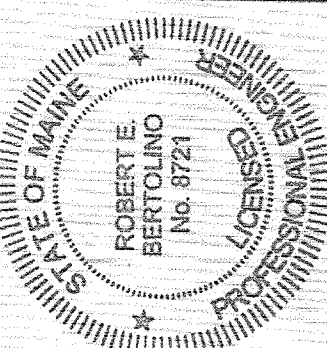


LOCATION MAP

FROM NOAA CHART
(NOT TO BE USED FOR
NAVIGATION, NOT TO SCALE)

DISCIPLINE NO.	SHEET NO.	DRAWING TITLE
G1	1	TITLE SHEET - LOCATION MAP AND INDEX
G2	2	GENERAL SITE PLAN
D1	3	DOLPHIN DEMOLITION PLAN AND DETAILS
S1	4	FENDER SYSTEM PLAN AND DETAILS
S2	5	DOLPHIN DETAILS - PART 1
S3	6	DOLPHIN DETAILS - PART 2
S4	7	DOLPHIN DETAILS - PART 3
S5	8	TRANSFER BRIDGE DETAILS - PART 1
S6	9	TRANSFER BRIDGE DETAILS - PART 2
R1	10	REFERENCE DRAWING
R2	11	REFERENCE DRAWING
R3	12	REFERENCE DRAWING

CASCO BAY ISLAND
TRANSIT DISTRICT



Robert E. Bertolino
SIGNATURE
8721
P.E. NUMBER
10/30/2012
DATE

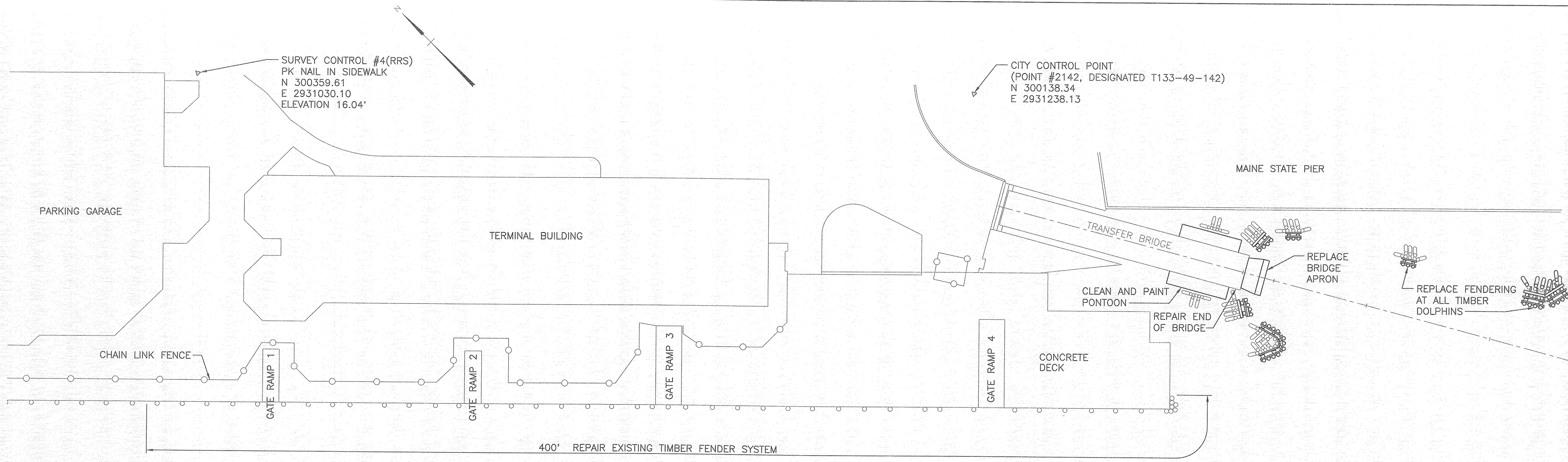
PROJECT INFORMATION	
PROGRAM MANAGER	DWH/MIN
DESIGNER	FAY, SPOFFORD & THORNDIKE
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

CASCO BAY FERRY TERMINAL
MARINE STRUCTURES IMPROVEMENTS
PORTLAND, MAINE

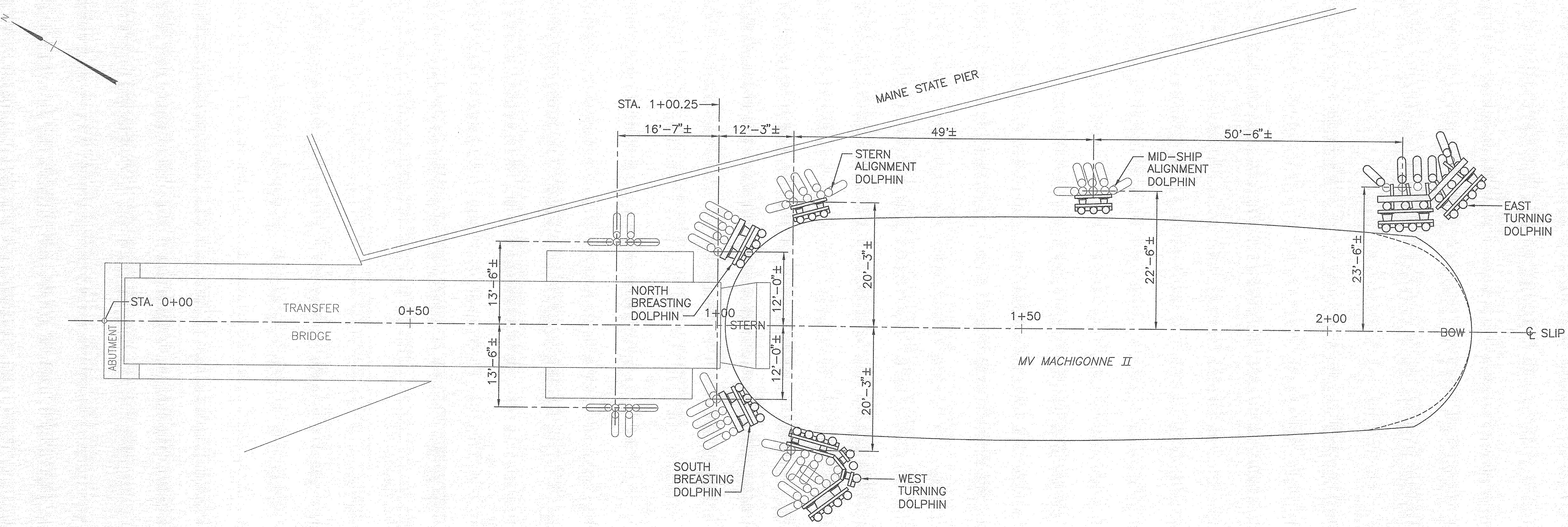
TITLE SHEET - LOCATION MAP AND INDEX

SHEET NUMBER

G1



PLAN
SCALE: 1"=20'



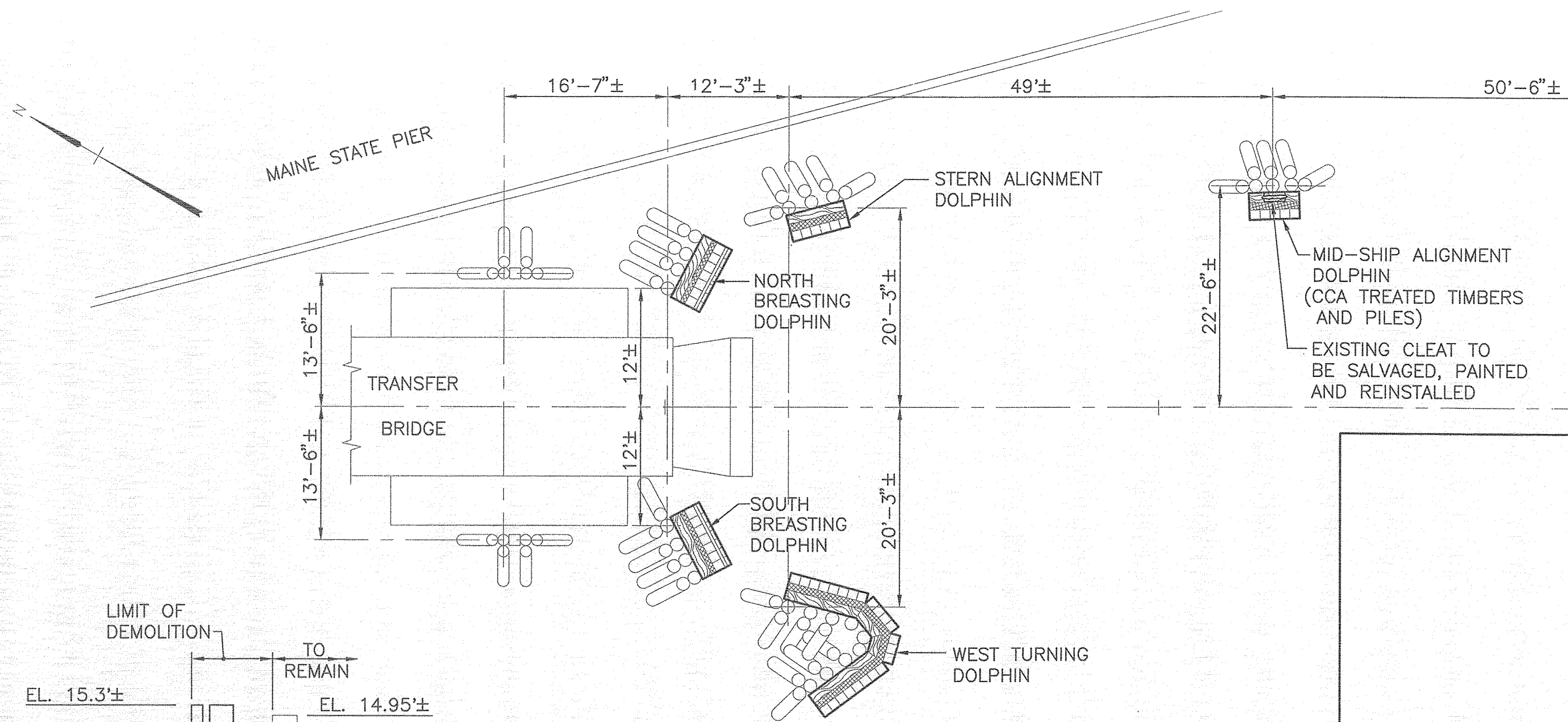
DOLPHIN ARRANGEMENT
SCALE: 1"=10'

NOTE:
DOLPHIN LAYOUT FROM DRAWING No. W-10
"TRANSFER GUIDE DOLPHINS" FROM PLAN SET TITLED
"CASCO BAY FERRY TERMINAL, PORTLAND, ME CONTRACT No. 1"
BY STEVENS ASSOCIATES, DATED 11-5-85

CASCO BAY ISLAND TRANSIT DISTRICT	
PROJECT INFORMATION	PROGRAM: _____ PROJECT MANAGER: _____ DESIGNER: _____ CONSULTANT: _____ CONTRACTOR: _____ PROJECT COMPLETION DATE: _____
DRAWN/AM	FAY, SPOFFORD & THORNDIKE
SIGNATURE	ROBERT E. SPOFFORD
P.E. NUMBER	8721
DATE	10/30/2012
CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS PORTLAND, MAINE	
GENERAL SITE PLAN	
SHEET NUMBER	
G2	
2 OF 12	

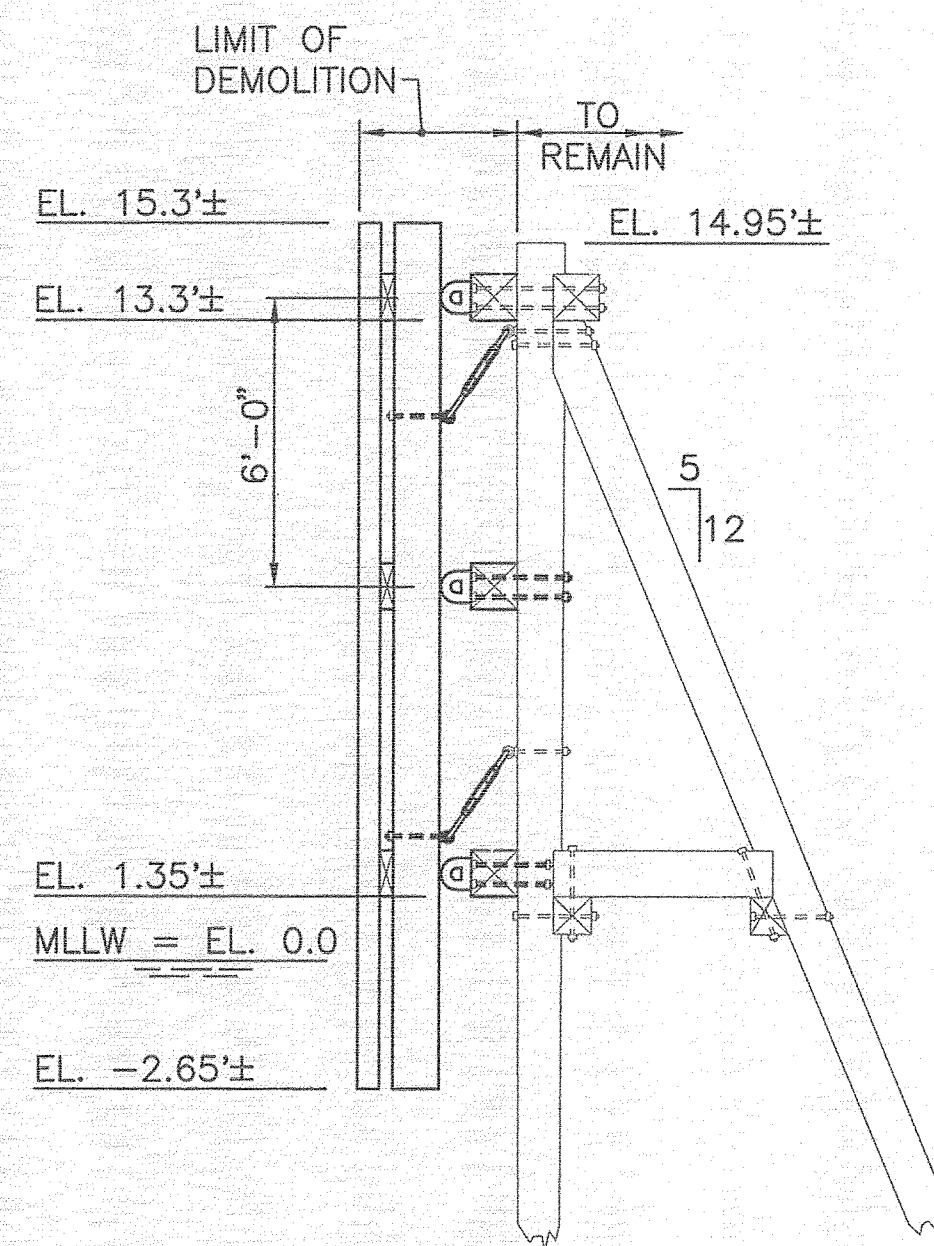
R:\TM-092\cadd\general plan.dwg 10/30/12 14:30 [22:12] By Tripp_R

R:\TM-092\cadd\DEMO\DOLPHINS.dwg 10/30/12 14:25 [22.87] By Tripp_R

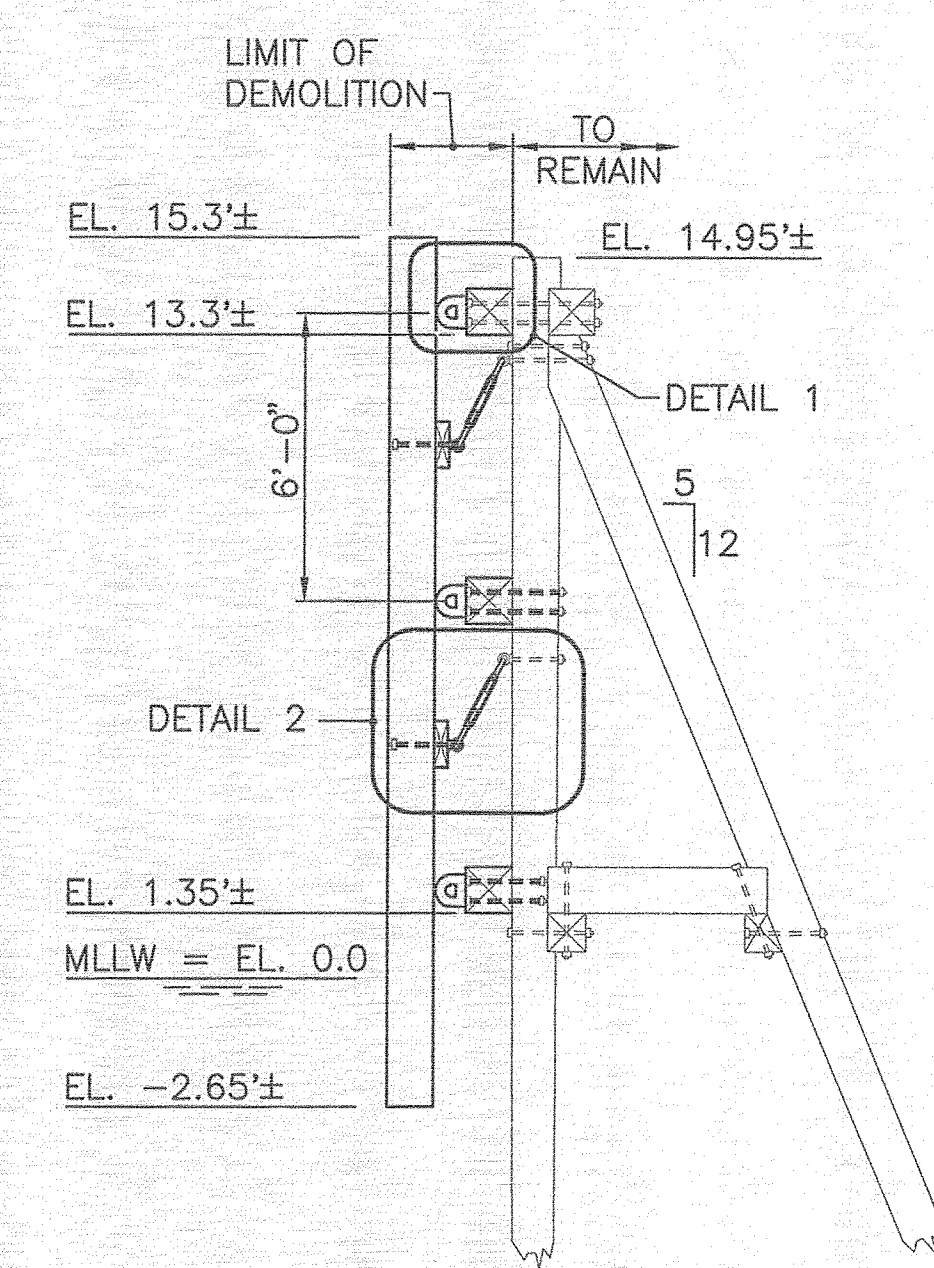


DOLPHIN DEMOLITION PLAN
SCALE: 1"=10'

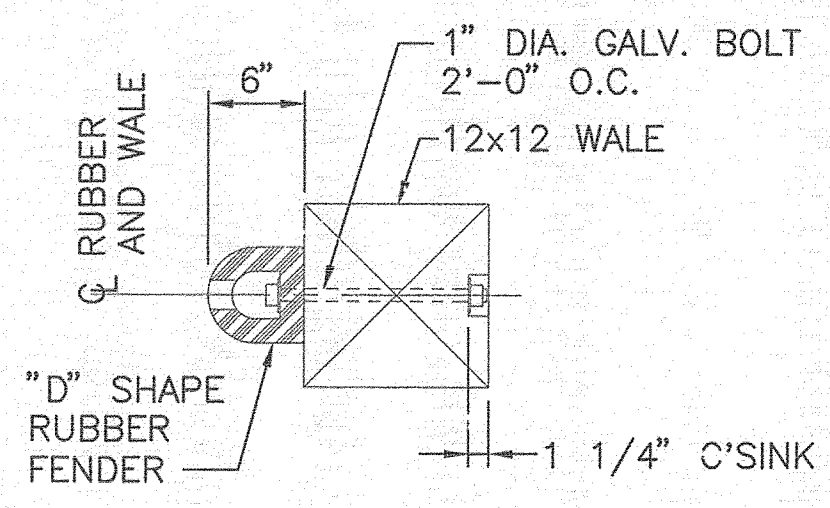
- LEGEND:**
- TIMBER FACING
 - RUBBER FENDER
 - TIMBER WALE
 - TIMBER PILE TO BE REMOVED (CREOSOTE TREATED)
 - TIMBER PILE TO REMAIN



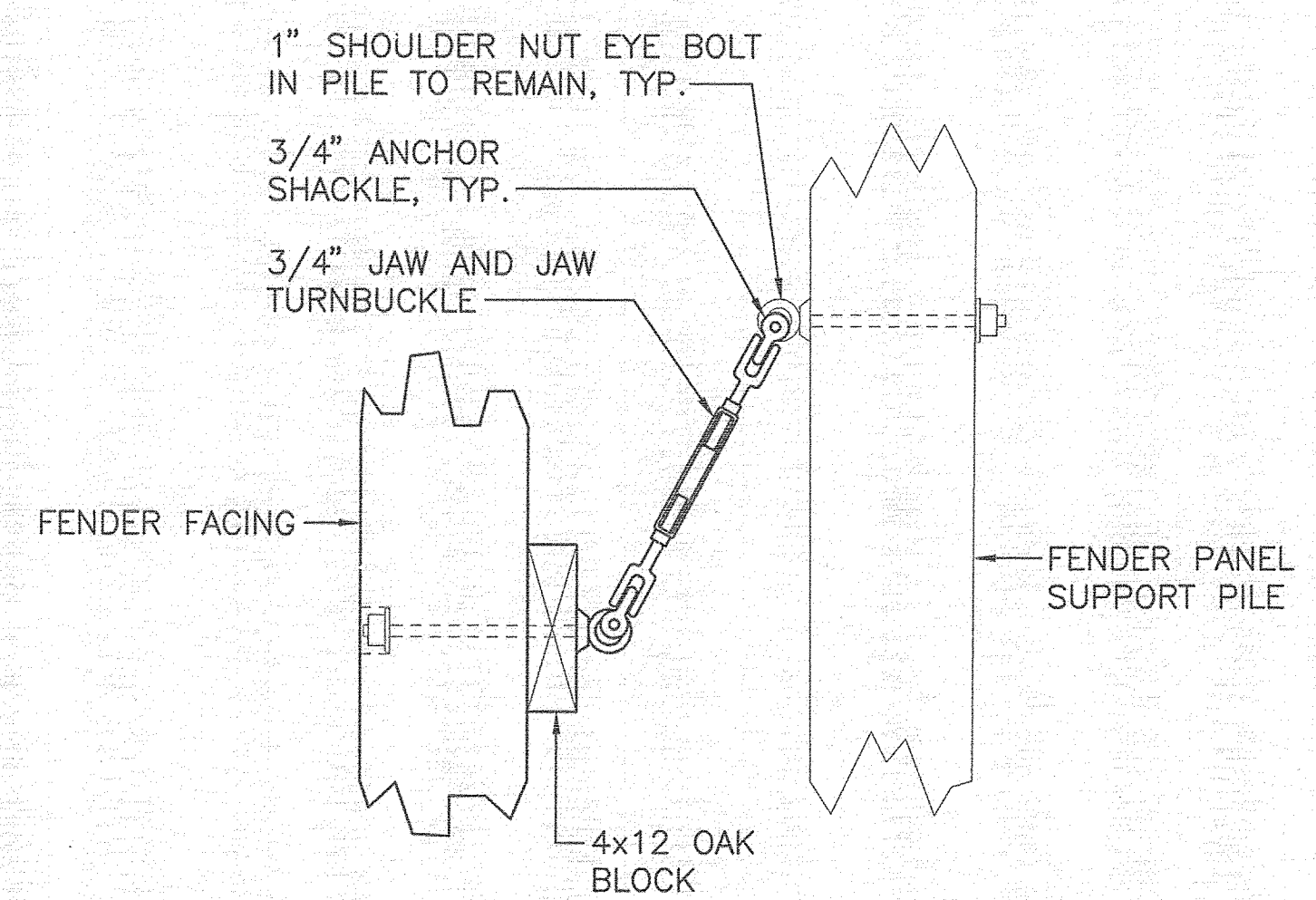
SIDE ELEVATION BREASTING DOLPHIN
SCALE: 1/4"=1'-0"



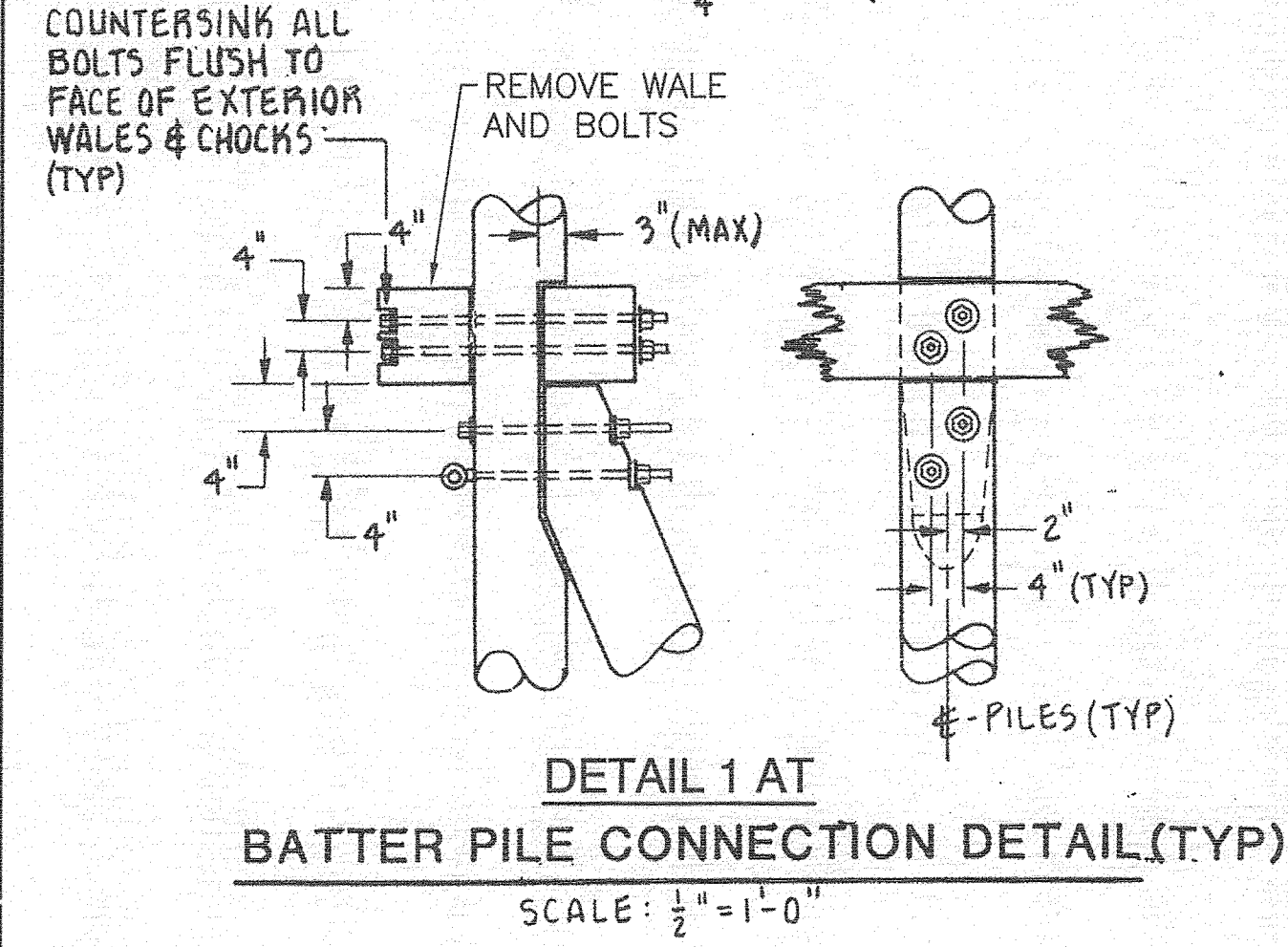
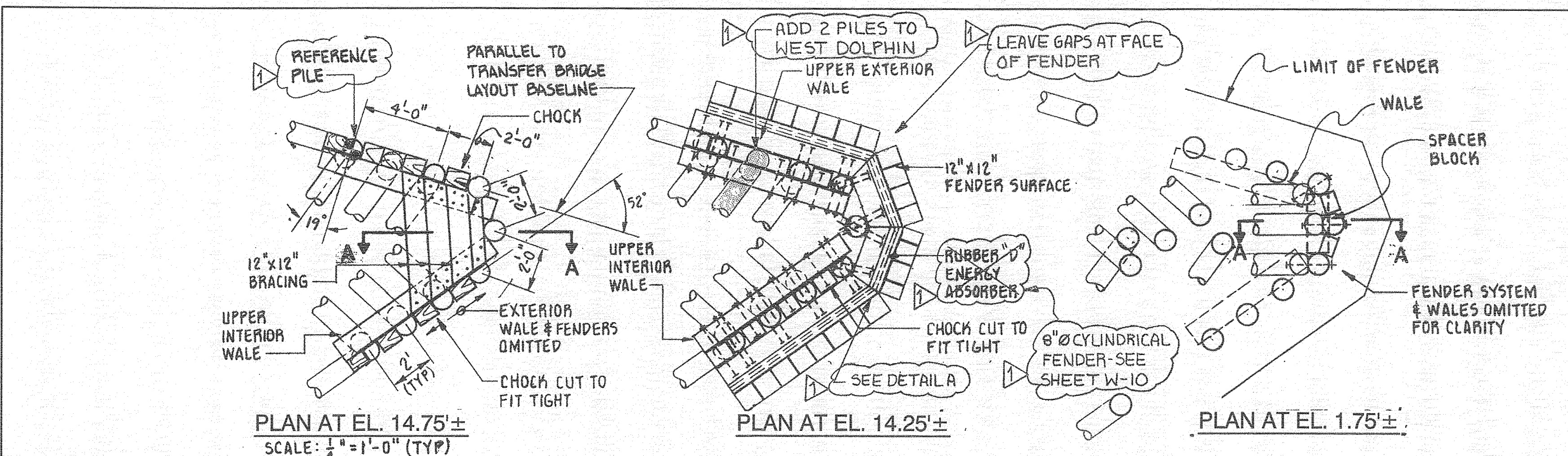
SIDE ELEVATION ALIGNMENT DOLPHIN
SCALE: 1/4"=1'-0"



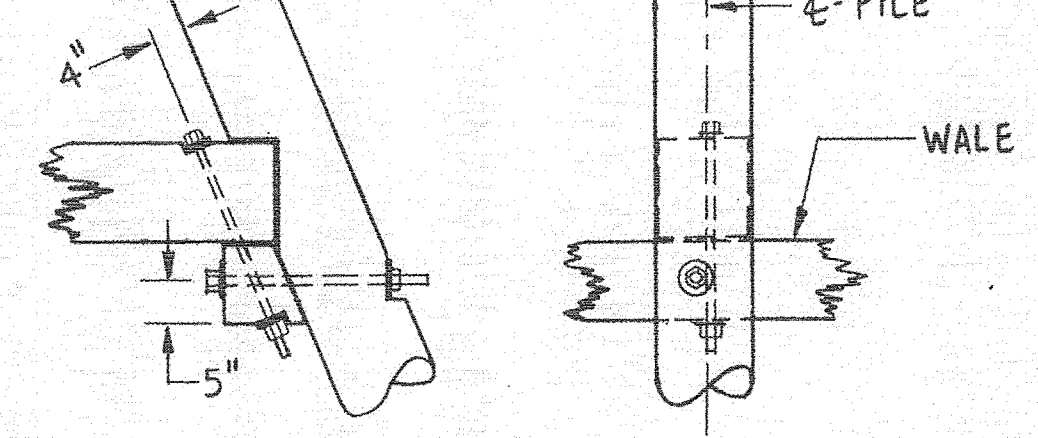
DETAIL 1
SCALE: 1"=1'-0"



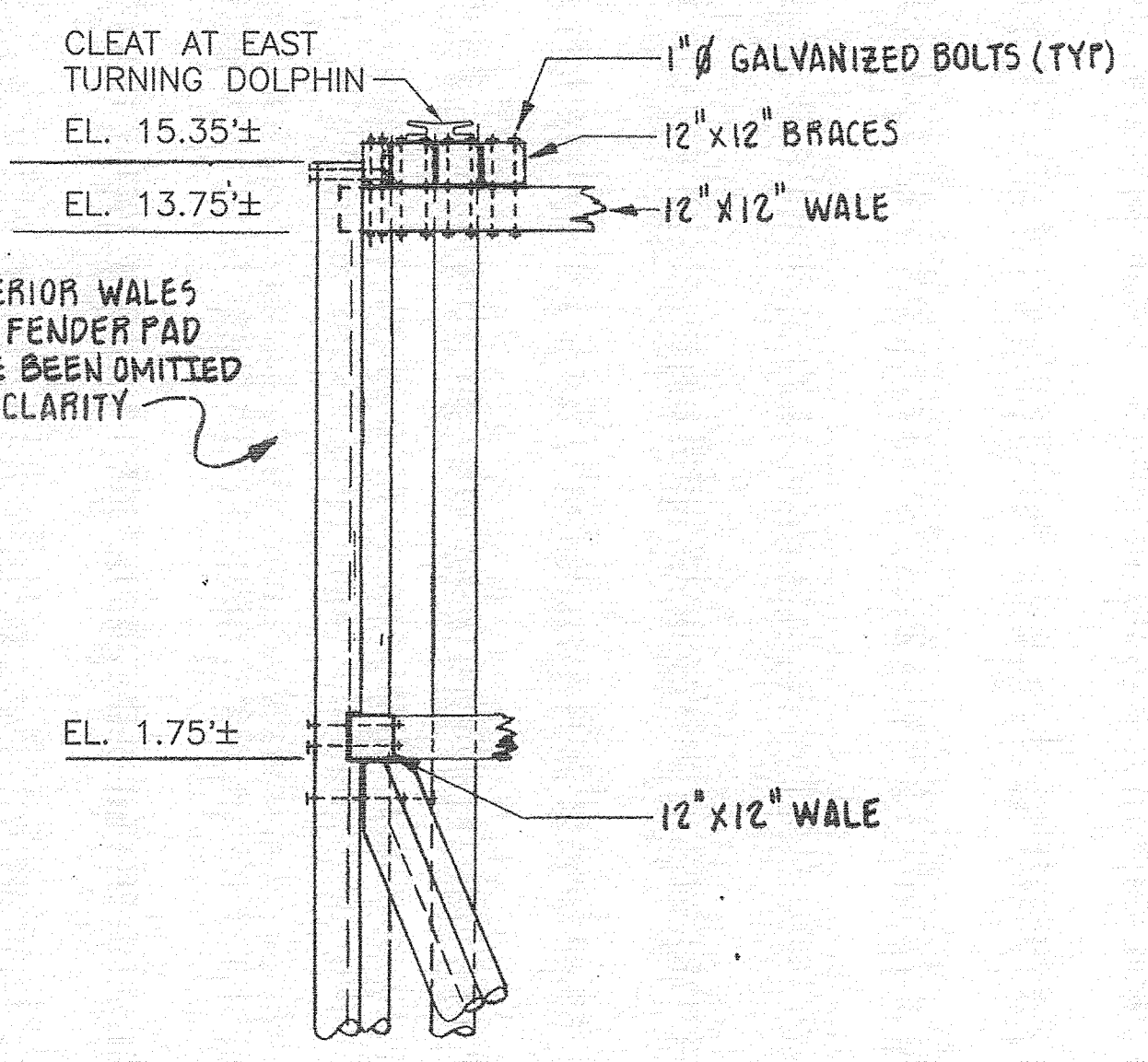
DETAIL 2
SCALE: 1"=1'-0"



DETAIL 1 AT BATTER PILE CONNECTION DETAIL (TYP)
SCALE: 1/2"=1'-0"



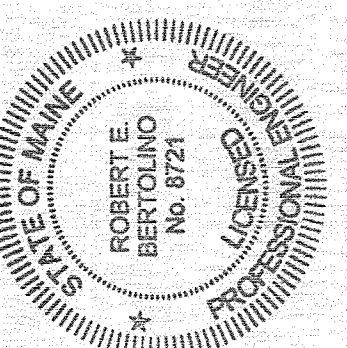
LOWER HORIZONTAL BLOCK CONNECTION DETAIL (TYP)
SCALE: 1/2"=1'-0"



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

- NOTES:**
- DOLPHIN LAYOUT FROM DRAWING No. W-10 "TRANSFER GUIDE DOLPHINS" FROM PLAN SET TITLED "CASCO BAY FERRY TERMINAL, PORTLAND, ME CONTRACT No. 1" BY STEVENS ASSOCIATES, DATED 11-5-85.
 - ASSUME ALL TIMBER, INCLUDING PILES, IS CREOSOTE TREATED, UNLESS NOTED OTHERWISE.
 - FOR BIDDING PURPOSES, ASSUME ALL PILES TO BE REMOVED ARE 70 FEET LONG.
 - DEMOLISH SHALL MEAN TO INCLUDE THE TRANSPORT AND LAWFUL DISPOSAL OF ALL DEMOLISHED OR DISASSEMBLED FEATURES.
 - 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.
 - NO MATERIALS SHALL BE ALLOWED TO DROP INTO THE WATER. MATERIAL THAT DOES FALL INTO THE WATER SHALL BE REMOVED IMMEDIATELY.
 - PILE DEMOLITION SHALL CONSIST OF PULLING THE PILES IN THEIR ENTIRETY.
 - REMOVE AND SALVAGE EXISTING CLEAT AT EAST TURNING DOLPHIN. CLEAT SHALL BE CLEANED, PAINTED AND REINSTALLED.

CASCO BAY ISLAND
TRANSIT DISTRICT



Signature: Robert E. Bertolino
Date: 10/30/2012

PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
	DWH/AM	FAY, SPOFFORD & THORNDIKE				

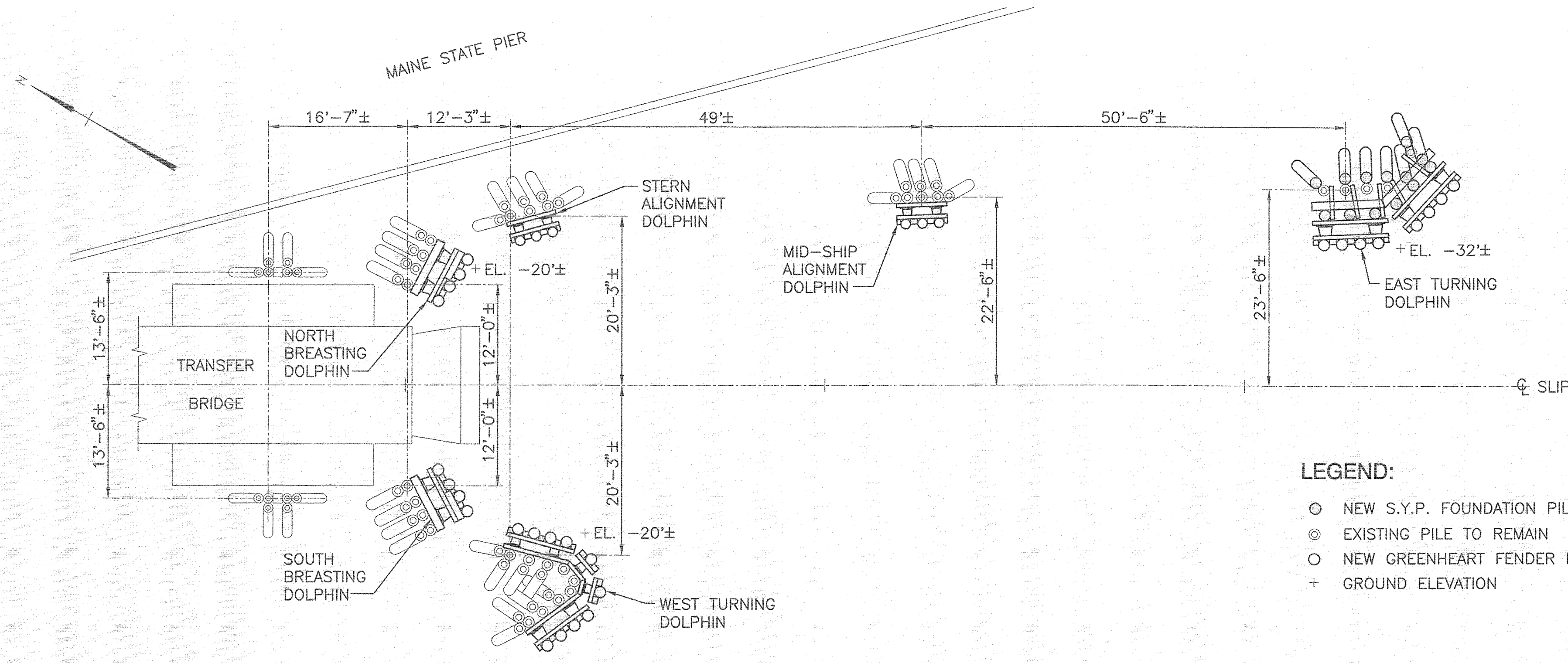
CASCO BAY FERRY TERMINAL
MARINE STRUCTURES IMPROVEMENTS
PORTLAND, MAINE

DOLPHIN DEMOLITION PLAN AND DETAILS

SHEET NUMBER

D1

R:\TM-092\cadd\dolphin DETAILS.dwg 10/30/12 14:28 [33.97] By: Tripp_LR



PLAN - DOLPHIN ARRANGEMENT
SCALE: 1"=10'

TABLE OF FENDER PILE ESTIMATED TIP ELEVATIONS*

LOCATION	ELEVATION
BREASTING, STERN ALIGNMENT & WEST TURNING DOLPHINS	-40
MIDSHIP ALIGNMENT DOLPHIN	-45
EAST TURNING DOLPHIN	-52

* GROUND ELEVATIONS SHOWN ARE ESTIMATES. THE CONTRACTOR SHALL DETERMINE GROUND ELEVATIONS ALONG THE FACE OF THE WHARF AND INSTALL FENDER PILES TO A MINIMUM EMBEDMENT OF 20 FEET.

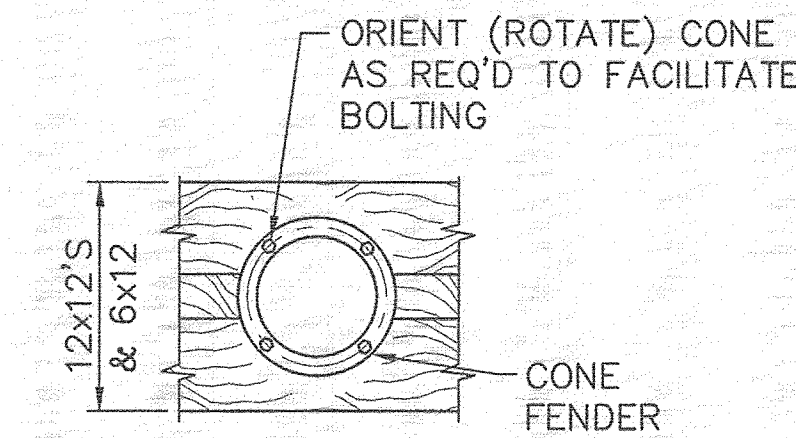
- LEGEND:**
- NEW S.Y.P. FOUNDATION PILE
 - ⊙ EXISTING PILE TO REMAIN
 - NEW GREENHEART FENDER PILE
 - + GROUND ELEVATION

FENDER DESIGN LOADS

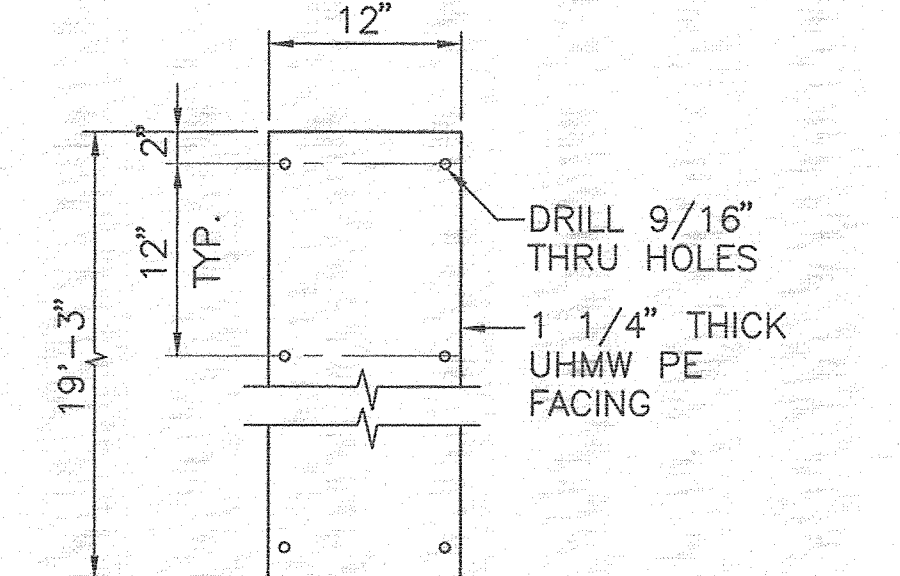
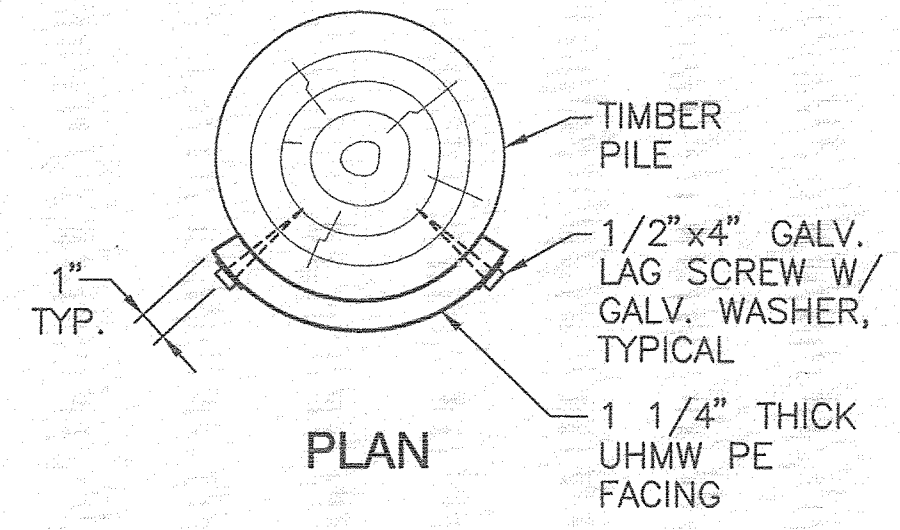
VESSEL: MACHIGONNE II
 LENGTH: 122'
 BEAM: 36'-3"
 DISPLACEMENT: 255 LONG TONS PLUS 25%

BERTHING LOADS

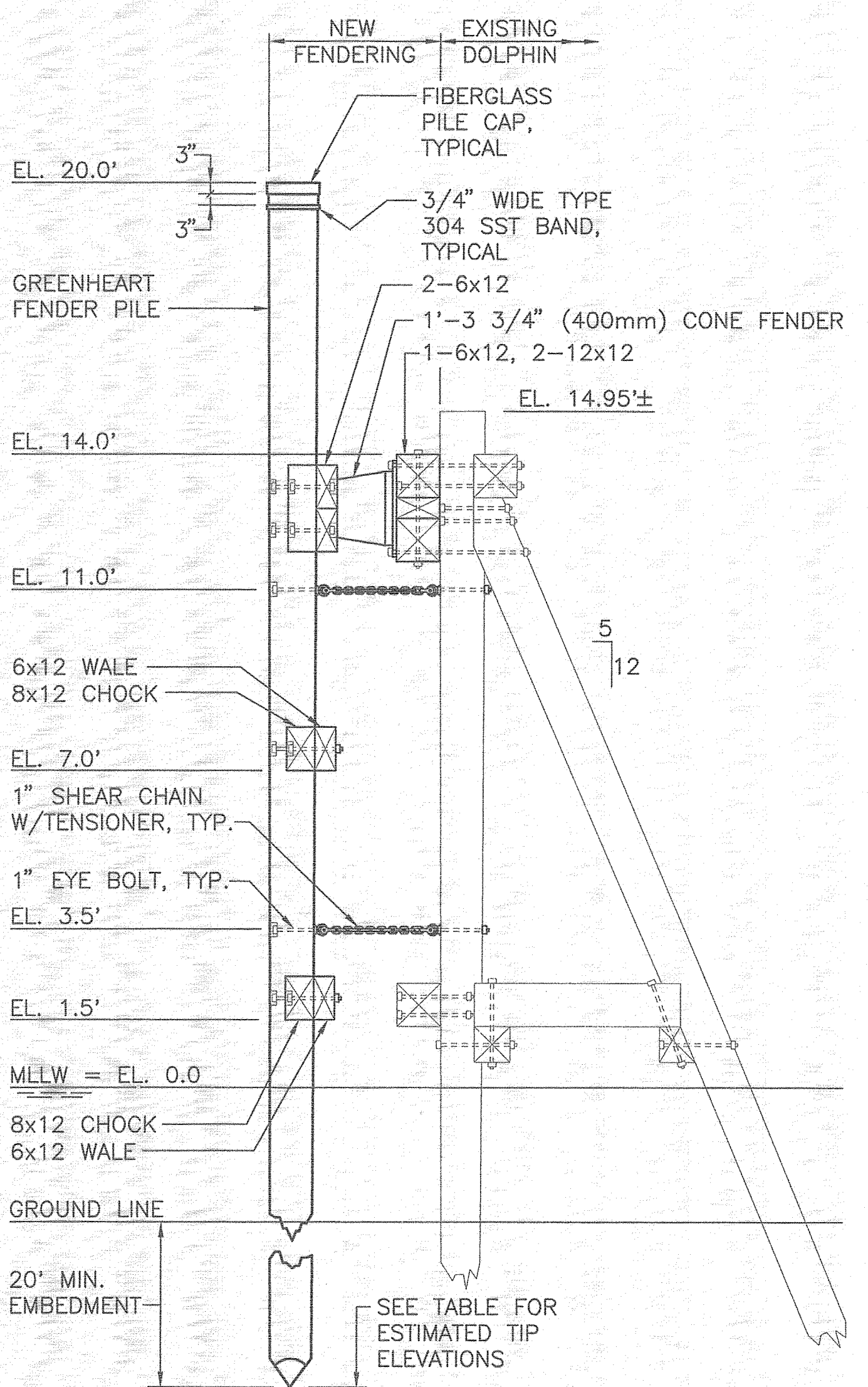
DOLPHIN	BERTHING VELOCITY		ENERGY TO FENDER (FT LBS)	MAXIMUM REACTION (LBS)
	SHIP VELOCITY	PARALLEL TO FENDER		
BREASTING	1 FPS	1 FPS	31,000	46,000
TURNING	1.5 FPS	0.4 FPS	5,100	14,600
ALIGNMENT	1.5 FPS	0.4 FPS	5,100	14,600



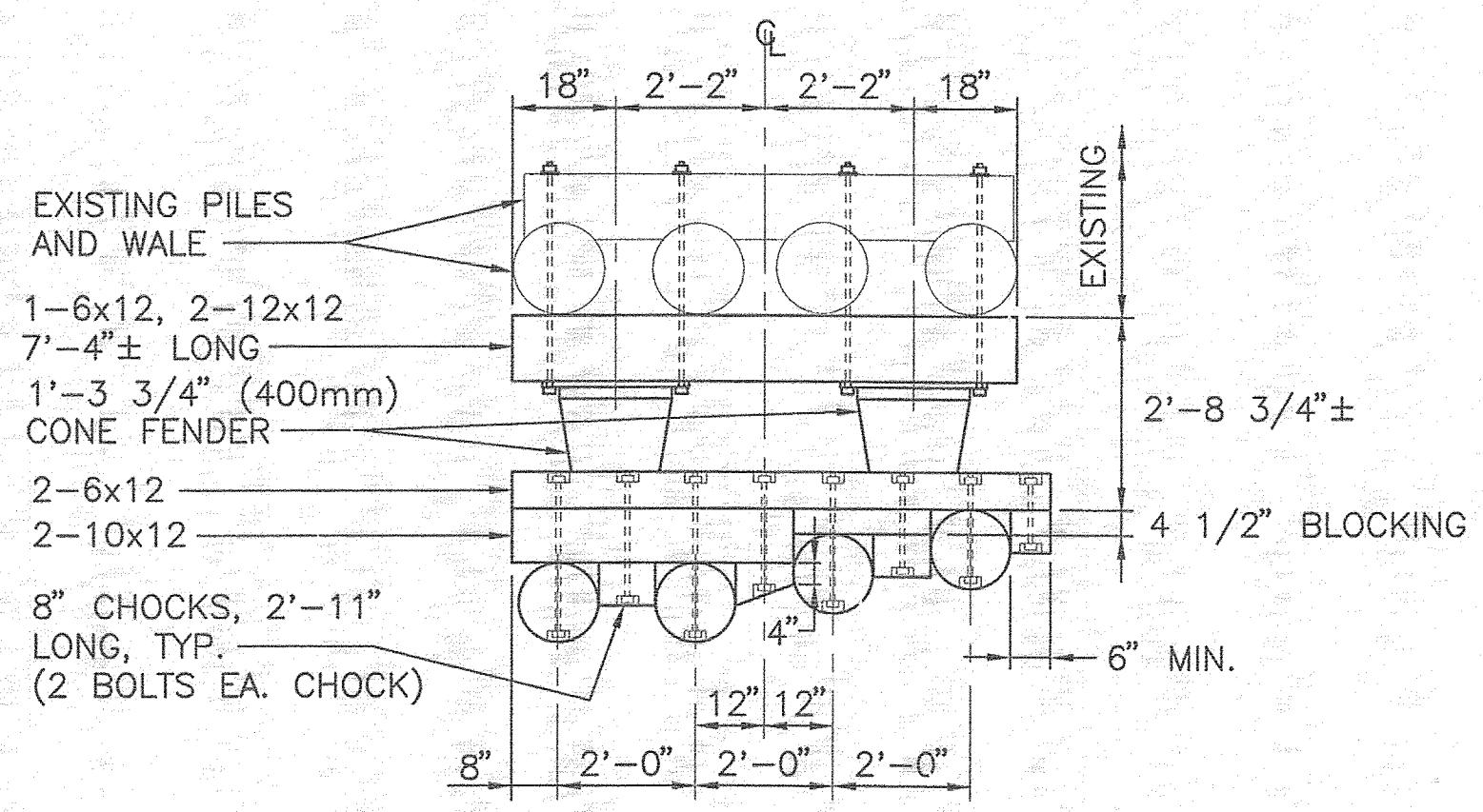
CONE FENDER BOLTING DETAIL
SCALE: 1/2"=1'-0"



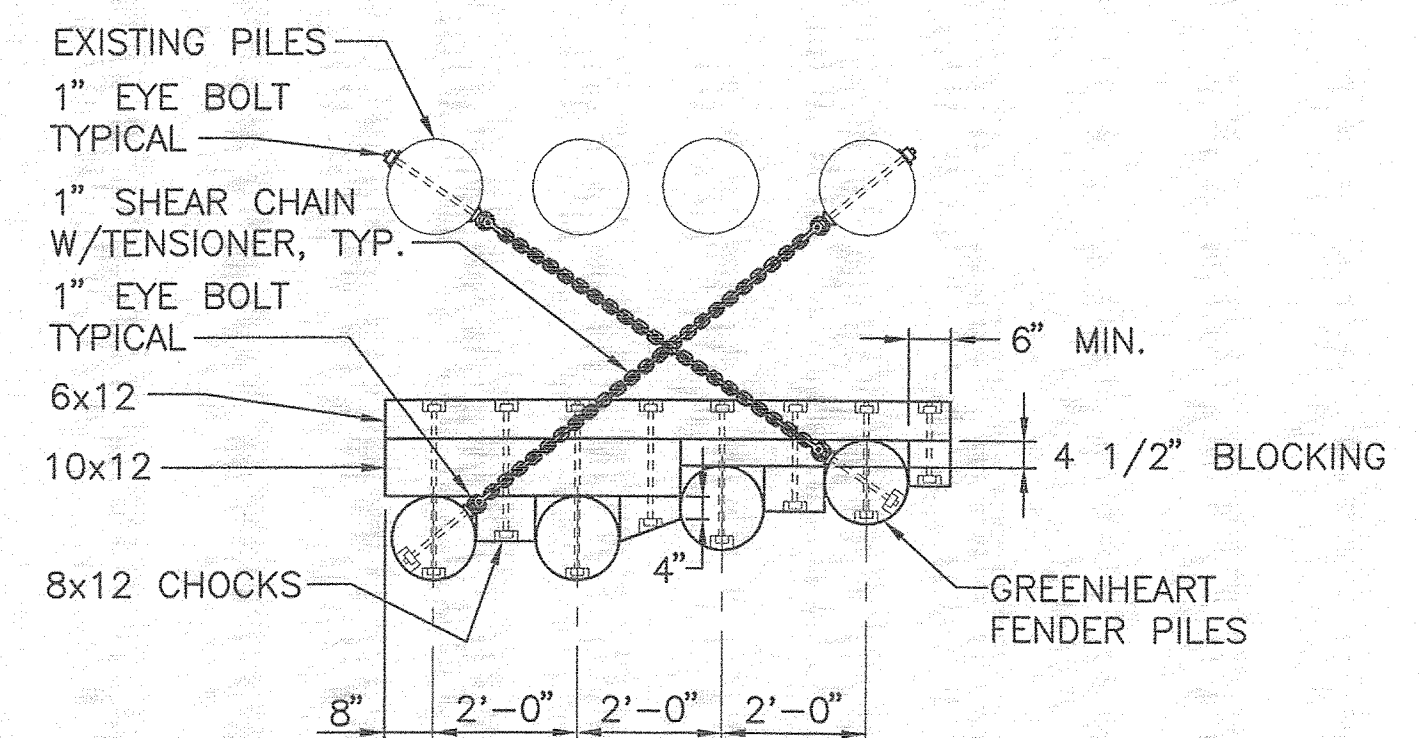
DEVELOPED ELEVATION UHMW PE FACING DETAILS
NOT TO SCALE



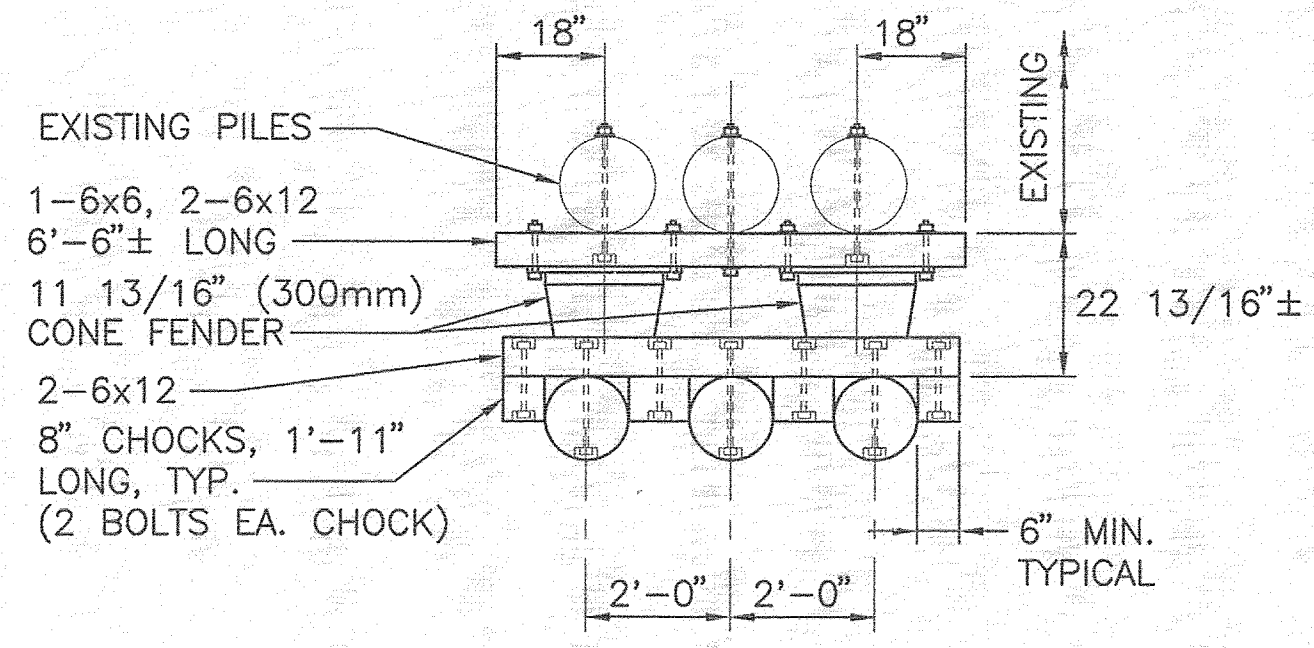
SIDE ELEVATION BREASTING DOLPHIN
SCALE: 3/8"=1'-0"



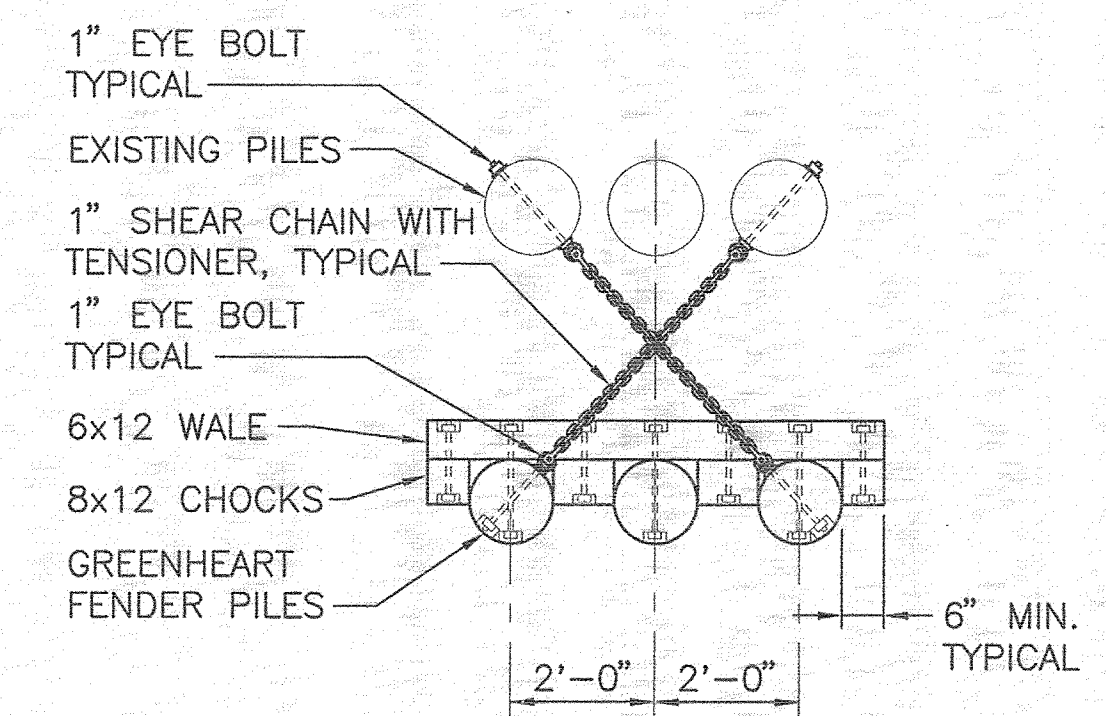
PLAN BREASTING DOLPHIN
SCALE: 3/8"=1'-0"



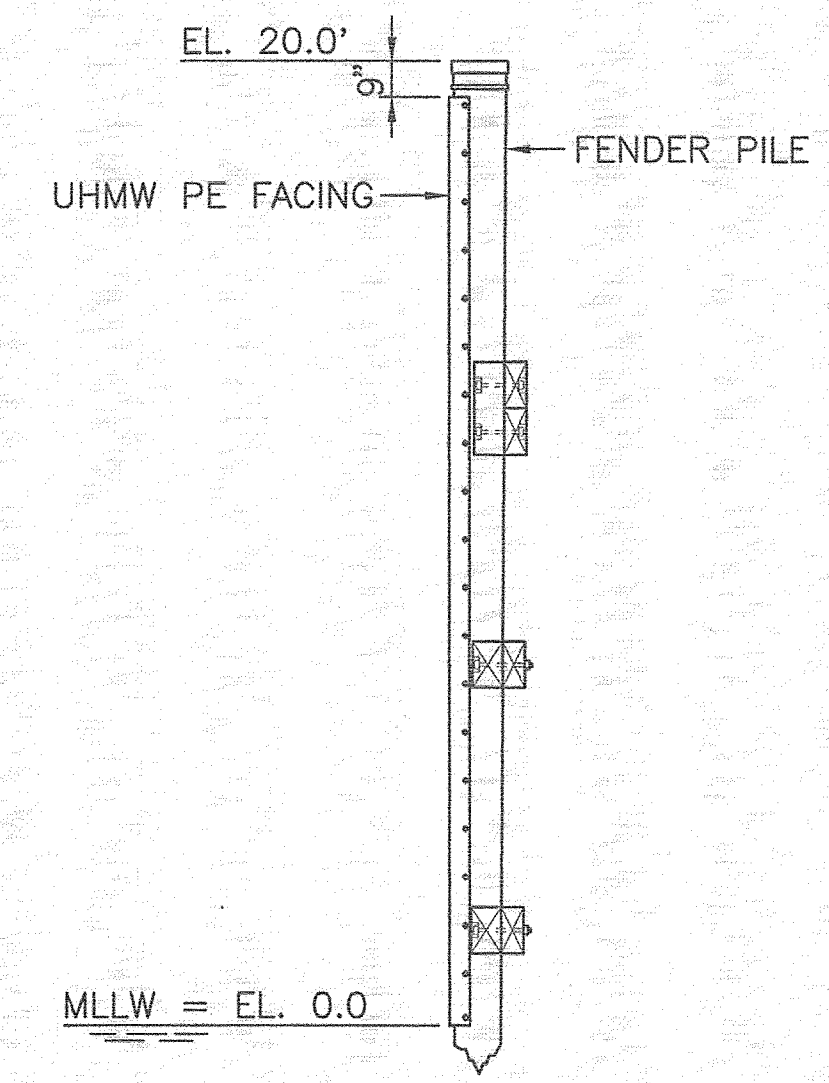
PLAN AT ELEVATION 3.5' BREASTING DOLPHIN
SCALE: 3/8"=1'-0"



PLAN ALIGNMENT DOLPHIN
SCALE: 3/8"=1'-0"



ELEVATION 11.0' SIMILAR PLAN AT ELEVATION 3.5' ALIGNMENT DOLPHIN
SCALE: 3/8"=1'-0"



SIDE ELEVATION ALTERNATE FENDER PILE
SCALE: 1/4"=1'-0"

NOTE:
SEE S1 FOR TIMBER, PILE AND HARDWARE NOTES.

CASCO BAY ISLAND TRANSIT DISTRICT

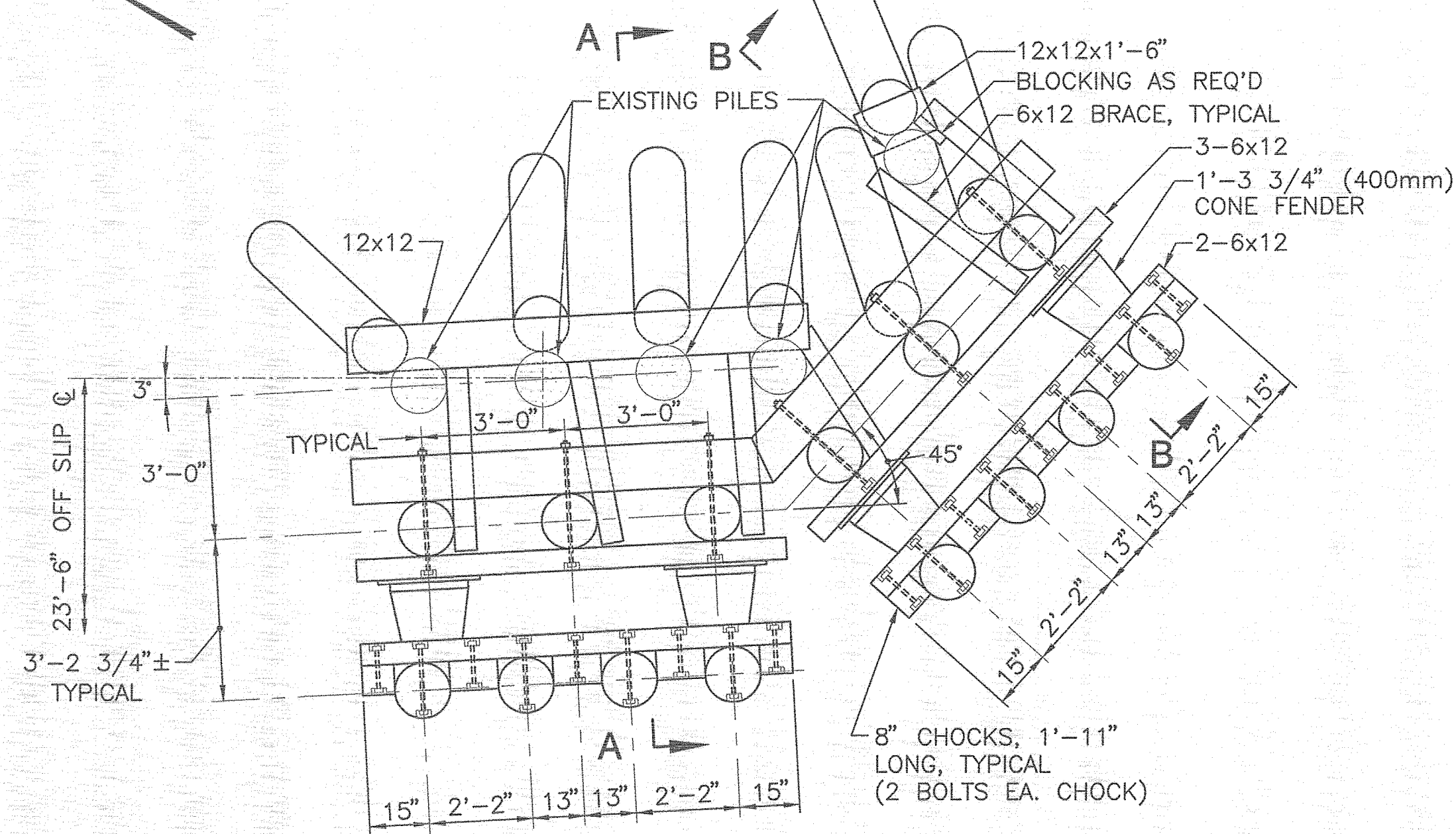
CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS PORTLAND, MAINE

DOLPHIN DETAILS - PART 1

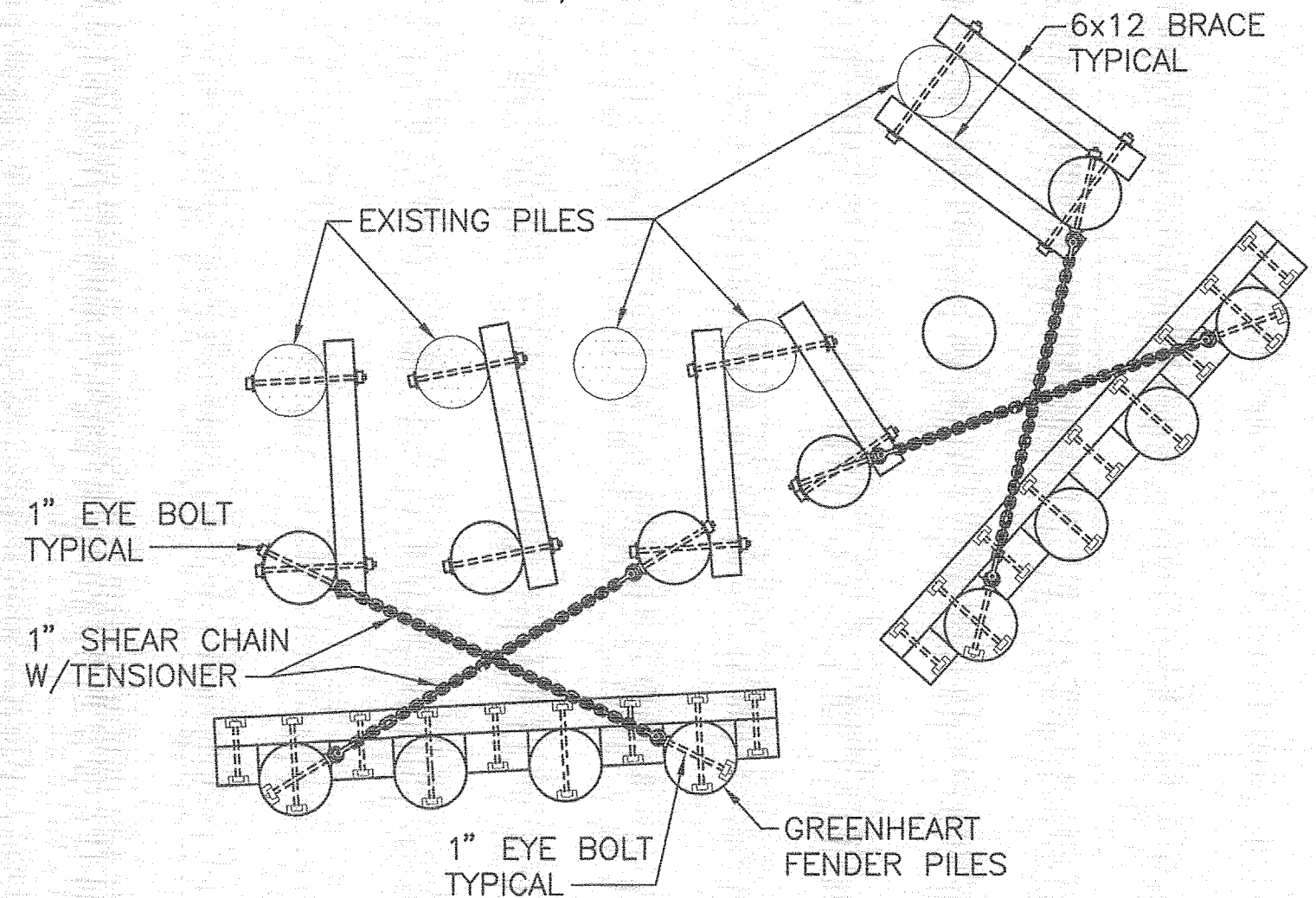
SHEET NUMBER

5 OF 12

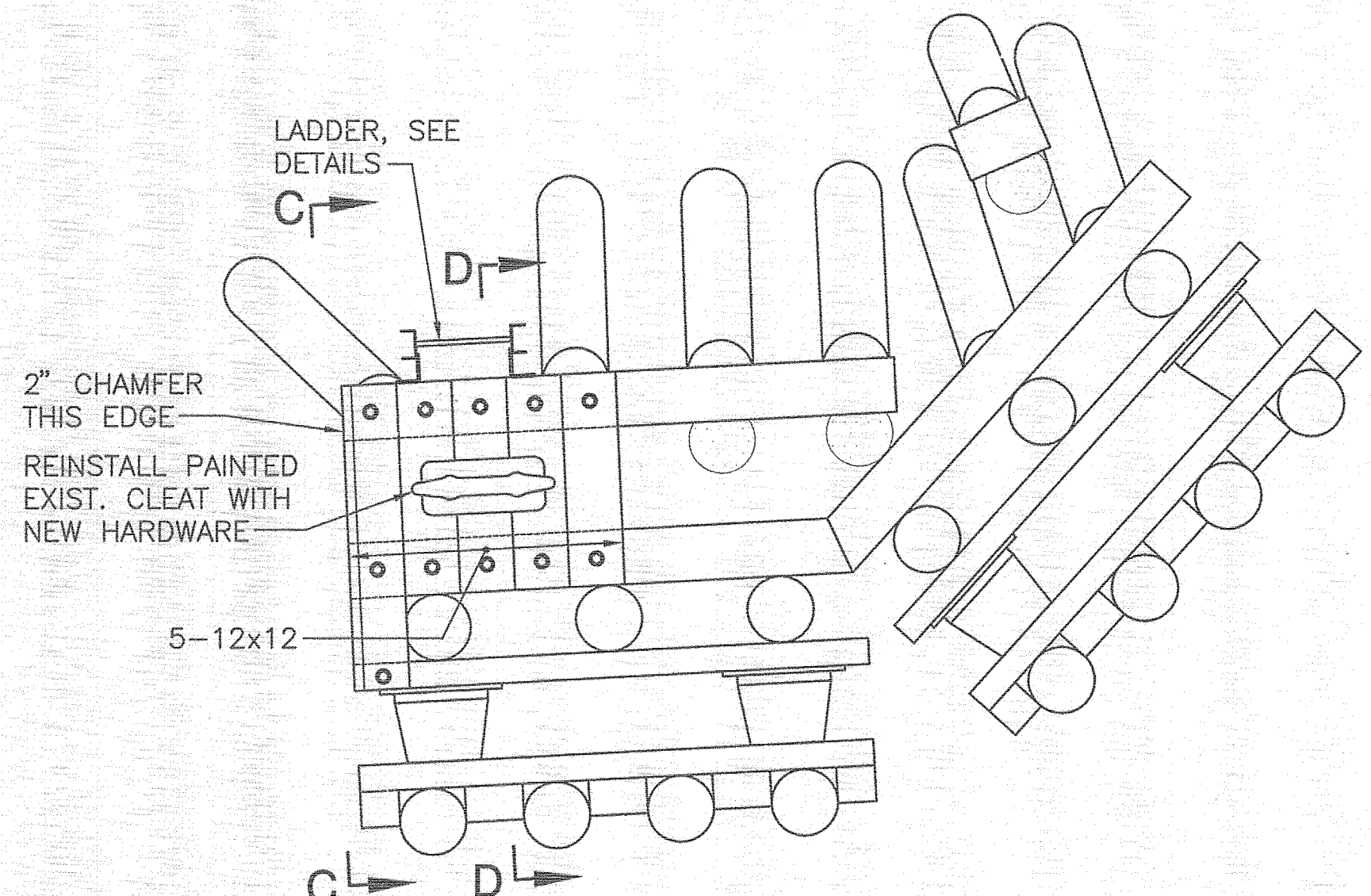
PROGRAM	PROJECT INFORMATION
PROJECT MANAGER	SIGNATURE
DESIGNER	DWM/AMN
CONSULTANT	FAY, SPOFFORD & THORNDIKE
PROJECT RESIDENT	P.E. NUMBER
CONTRACTOR	DATE
PROJECT COMPLETION DATE	



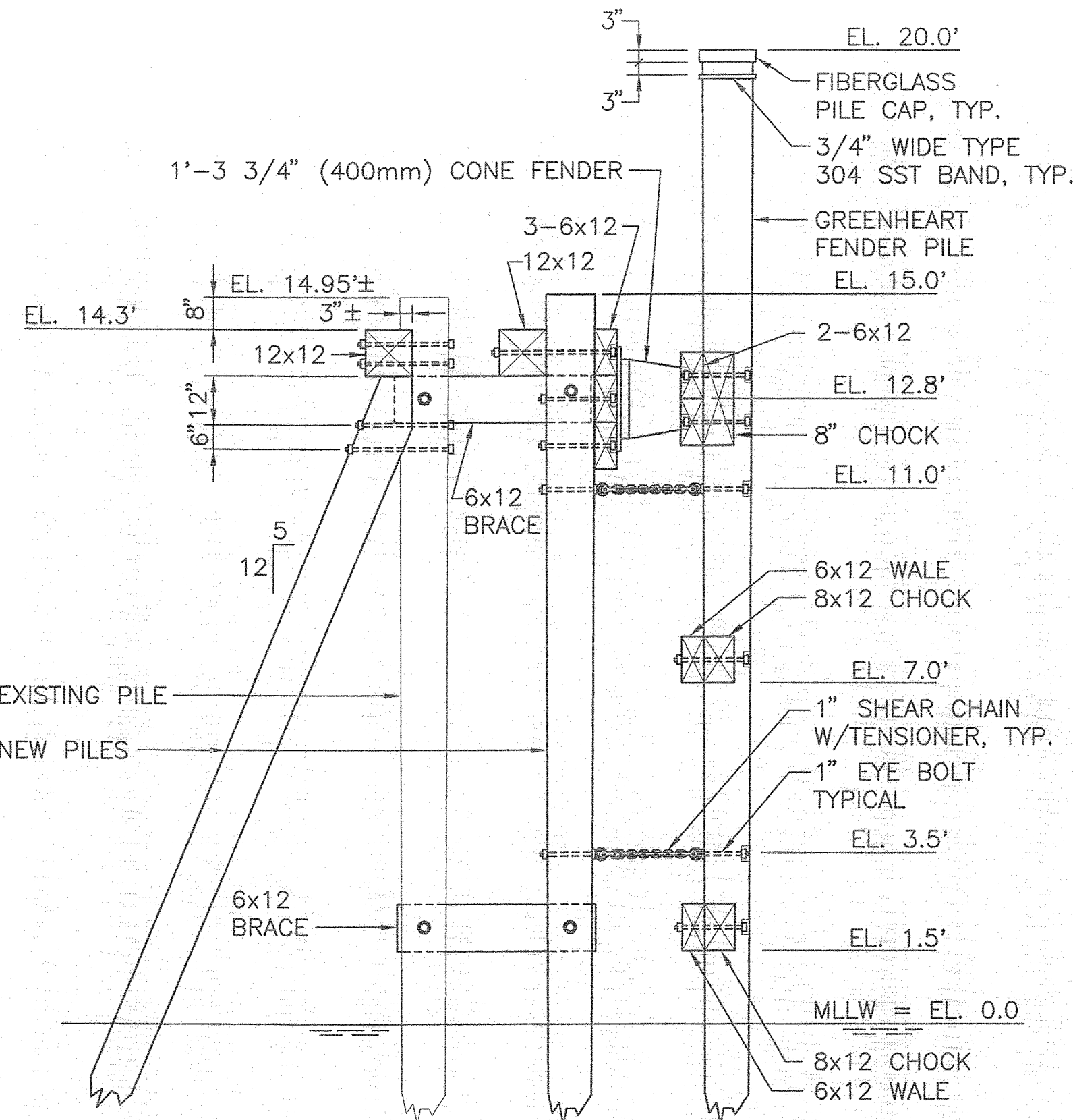
PLAN AT ELEVATION 14.3'
EAST TURNING DOLPHIN
SCALE: 3/8"=1'-0"



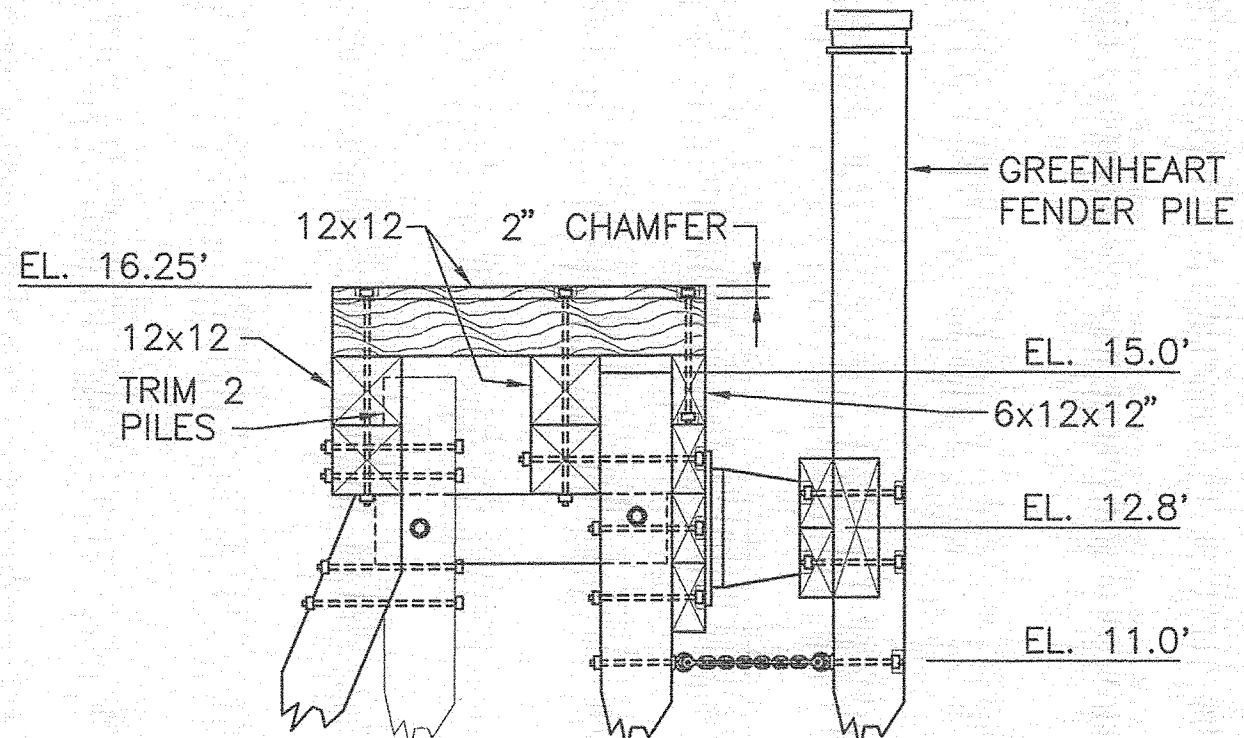
NOTE: SHEAR CHAINS AT ELEVATION 11.0' SIMILAR
PLAN AT ELEVATION 3.5'
SCALE: 3/8"=1'-0"



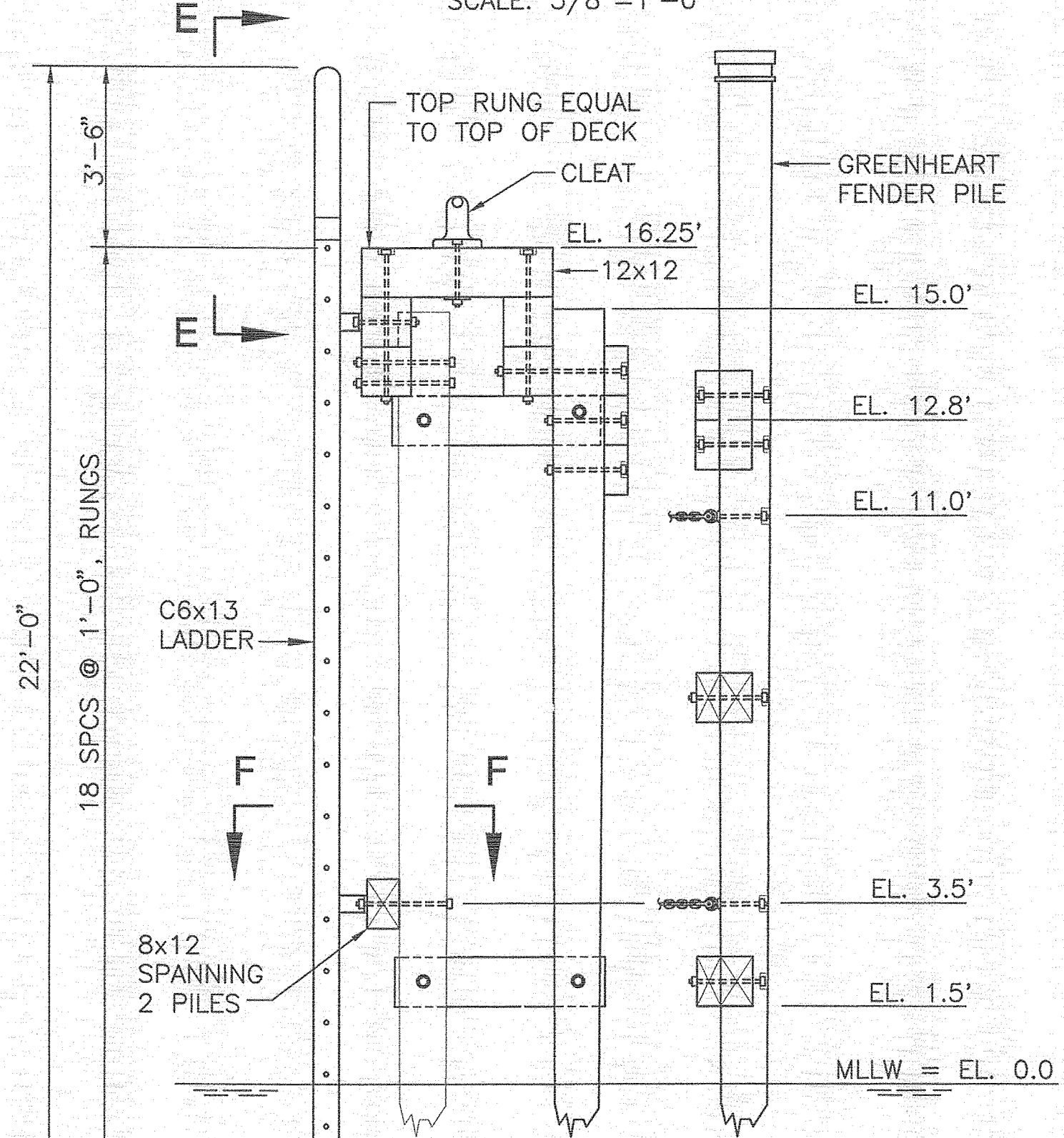
PLAN AT ELEVATION 16.25'
SCALE: 3/8"=1'-0"



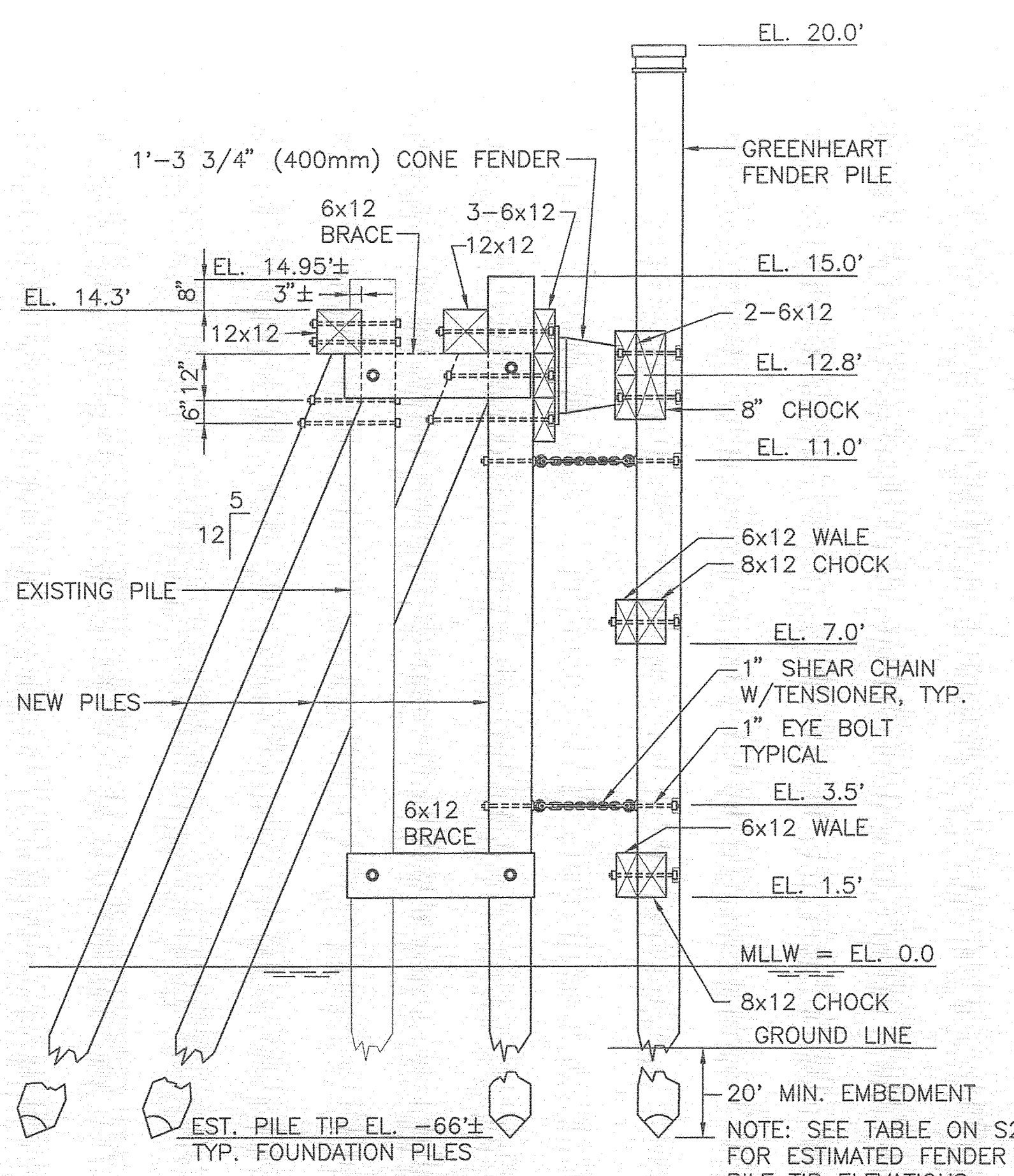
SECTION A-A
SCALE: 3/8"=1'-0"



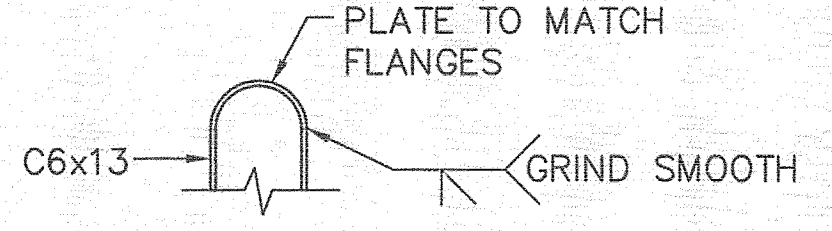
ELEVATION C-C
SCALE: 3/8"=1'-0"



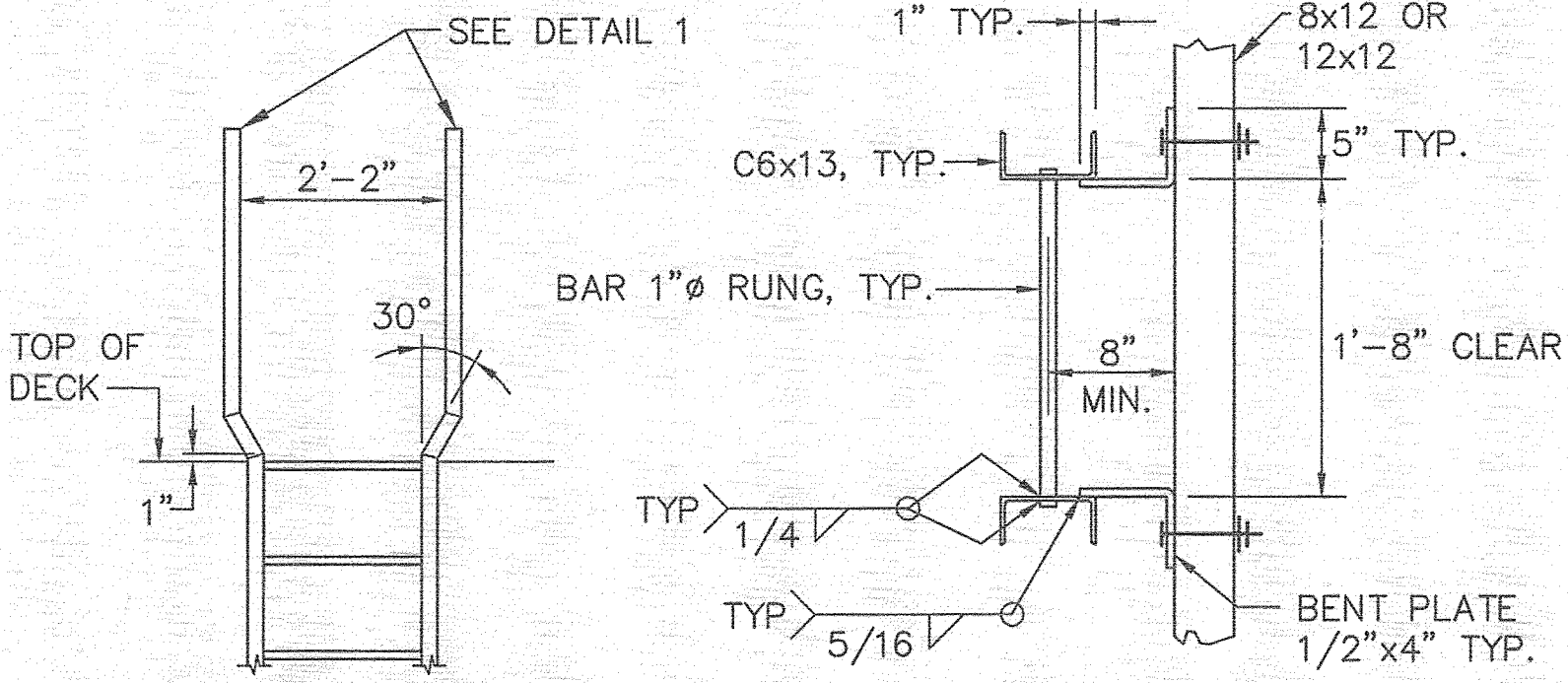
SECTION D-D
SCALE: 3/8"=1'-0"



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



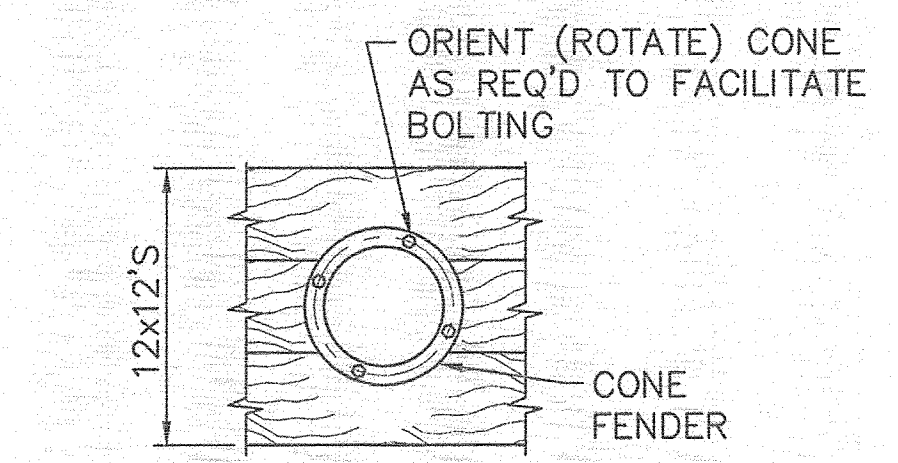
DETAIL 1
SCALE: 1"=1'-0"



ELEVATION E-E
SCALE: 1/2"=1'-0"

SECTION F-F
SCALE: 1"=1'-0"

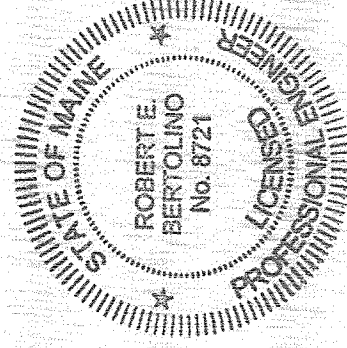
NOTE: HOT DIP GALVANIZE LADDER AFTER FABRICATION
LADDER DETAILS



CONE FENDER BOLTING DETAIL
SCALE: 1/2"=1'-0"

NOTE:
SEE S1 FOR TIMBER, PILE AND HARDWARE NOTES.

CASCO BAY ISLAND
TRANSIT DISTRICT



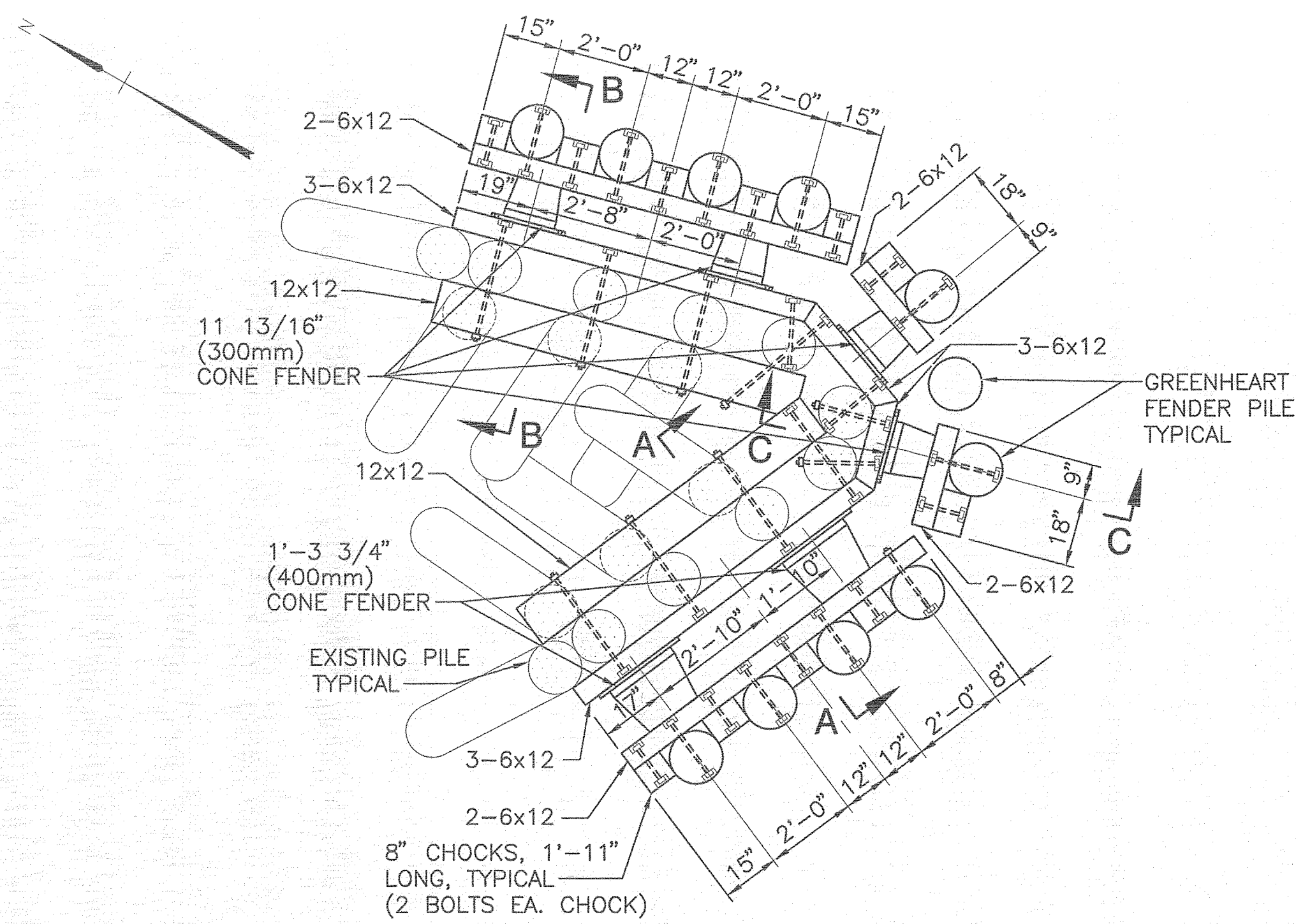
PROJECT INFORMATION
PROGRAM: CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS PORTLAND, MAINE
PROJECT MANAGER: DWY/AM
DESIGNER: FAT, SPOFFORD & THORNDIKE
CONSULTANT: P.E. NUMBER 10/30/2012
CONTRACTOR: DATE

CASCO BAY FERRY TERMINAL
MARINE STRUCTURES IMPROVEMENTS
PORTLAND, MAINE
DOLPHIN DETAILS - PART 2

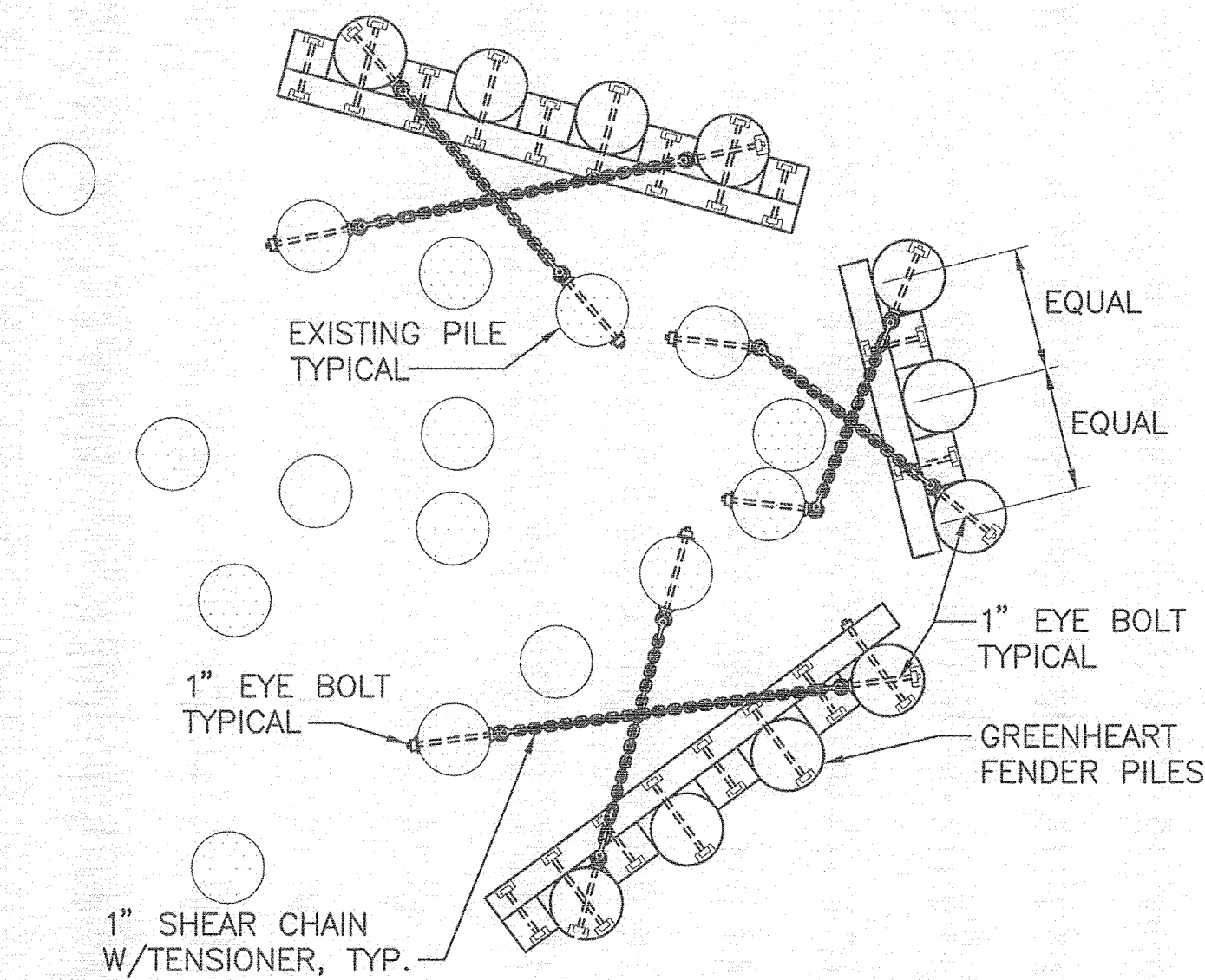
SHEET NUMBER

S3

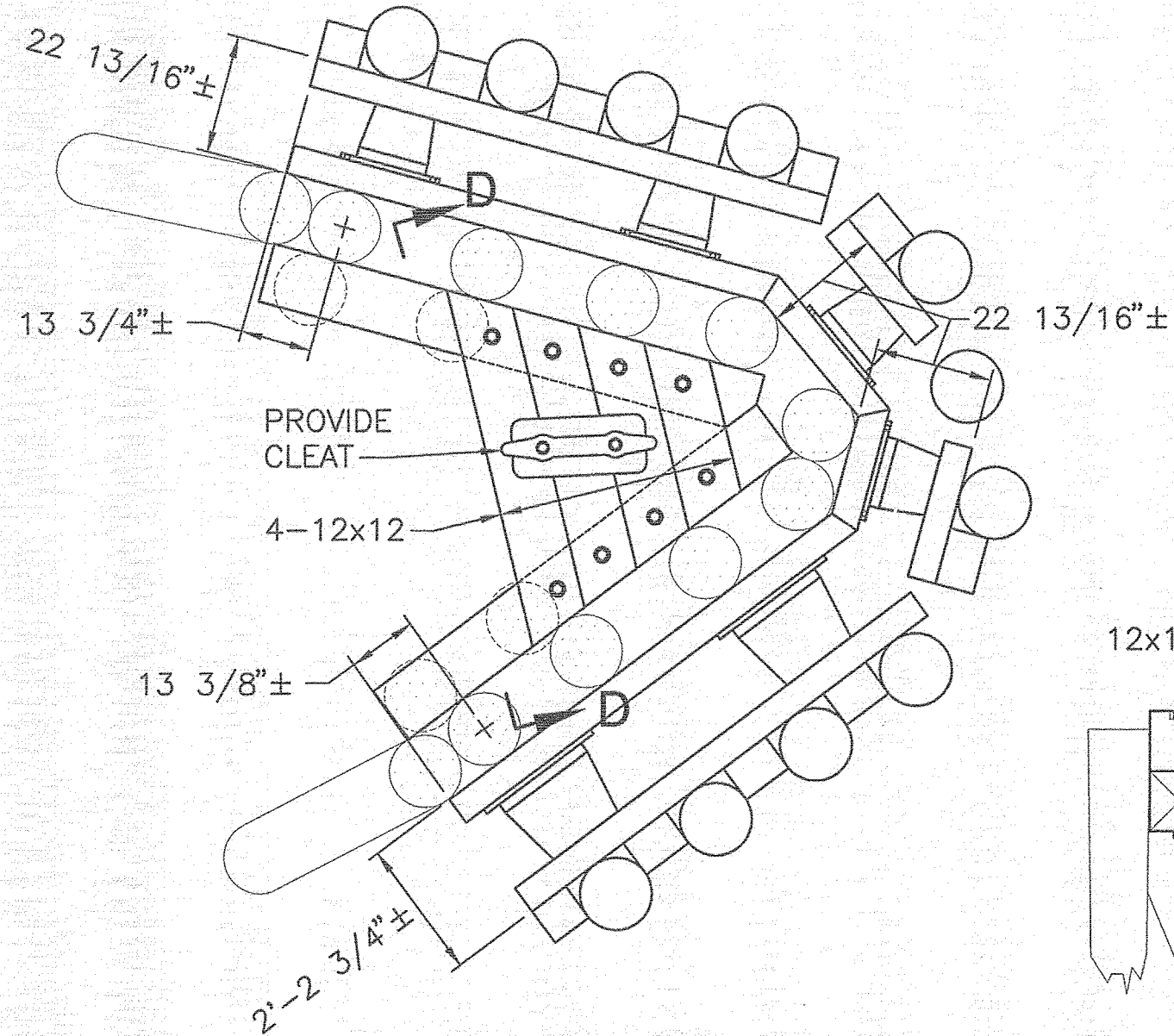
6 OF 12



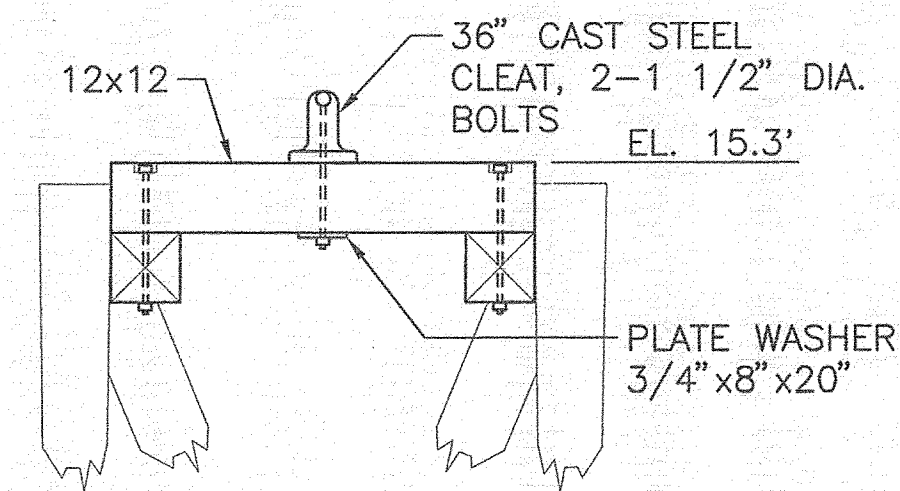
PLAN AT ELEVATION 14.3'
WEST TURNING DOLPHIN
 SCALE: 3/8"=1'-0"



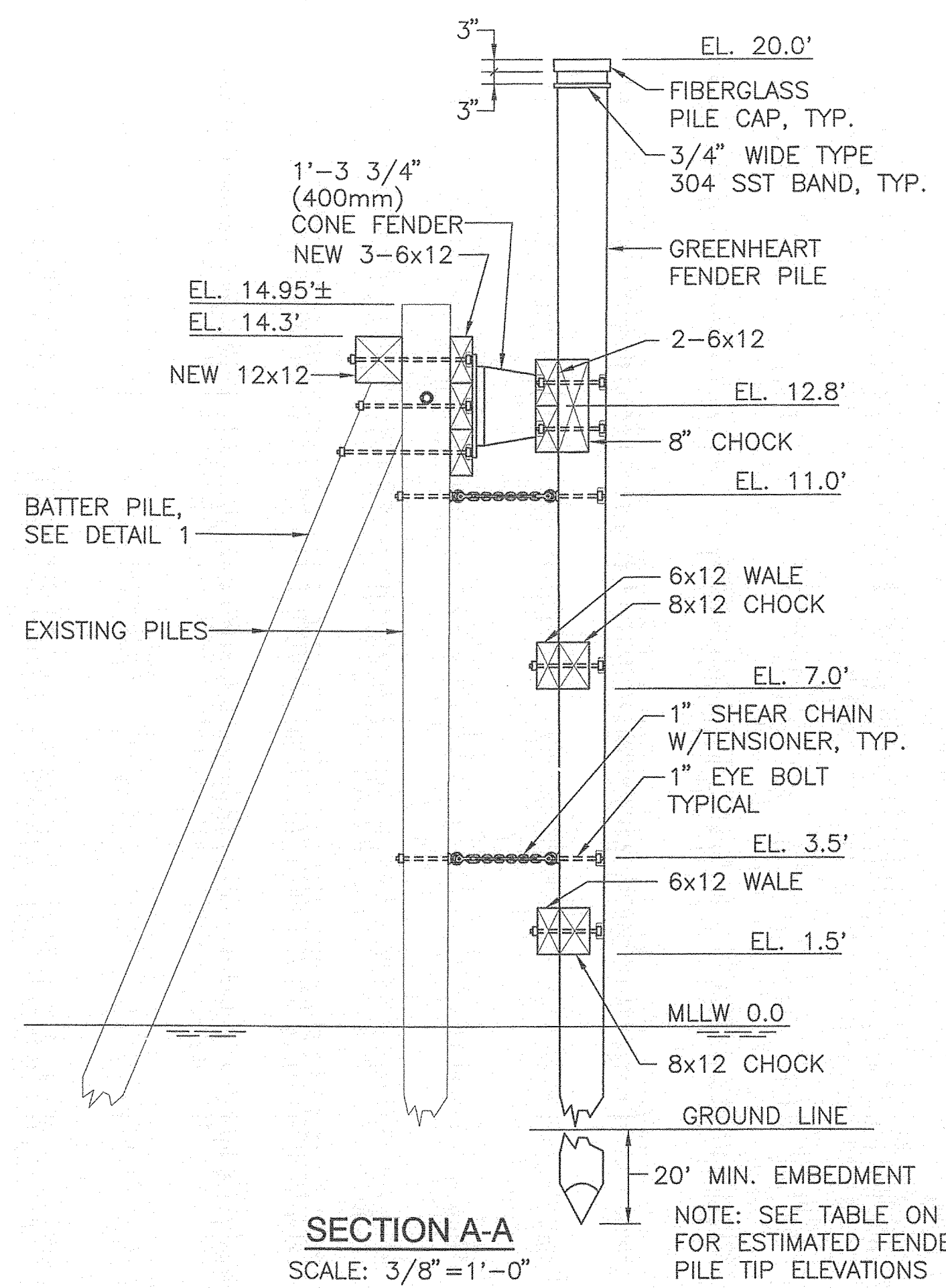
PLAN AT ELEVATION 3.5'
 SCALE: 3/8"=1'-0"



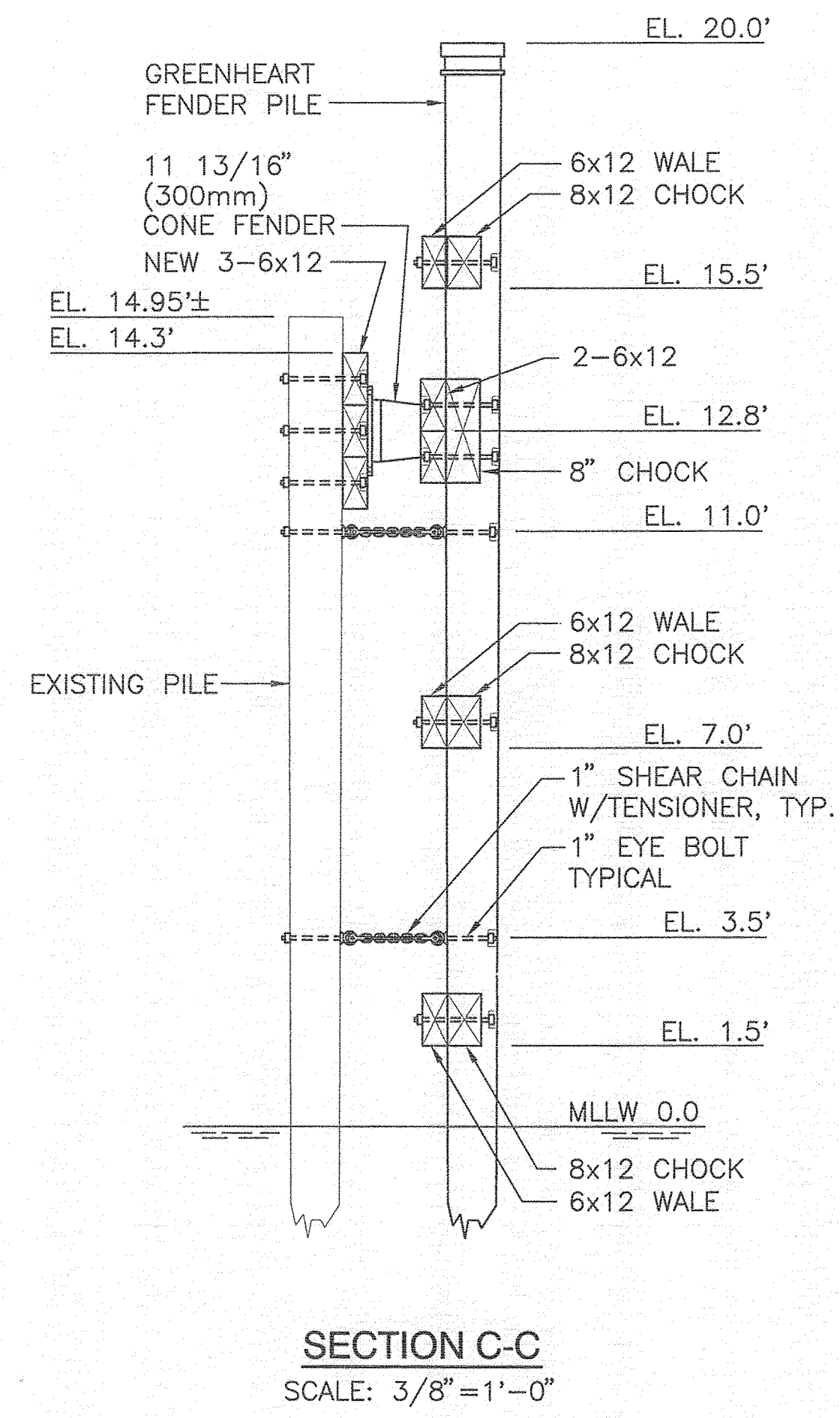
PLAN AT ELEVATION 15.3'
 SCALE: 3/8"=1'-0"



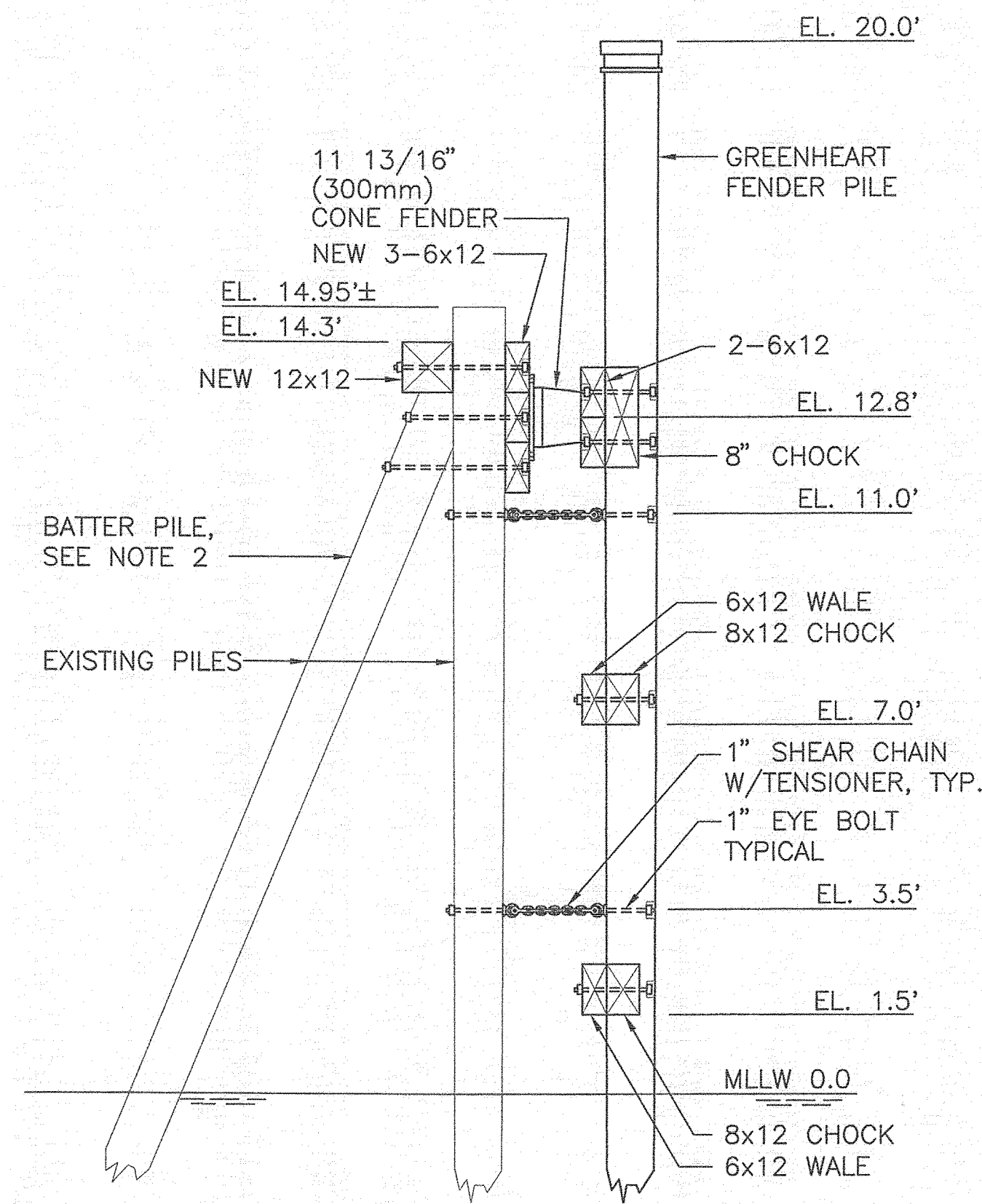
SECTION D-D
 SCALE: 3/8"=1'-0"



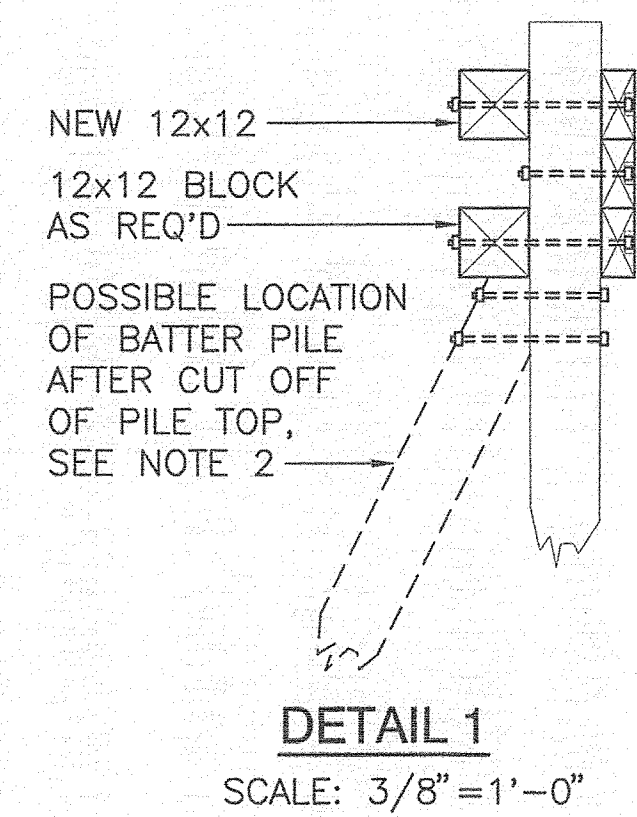
SECTION A-A
 SCALE: 3/8"=1'-0"



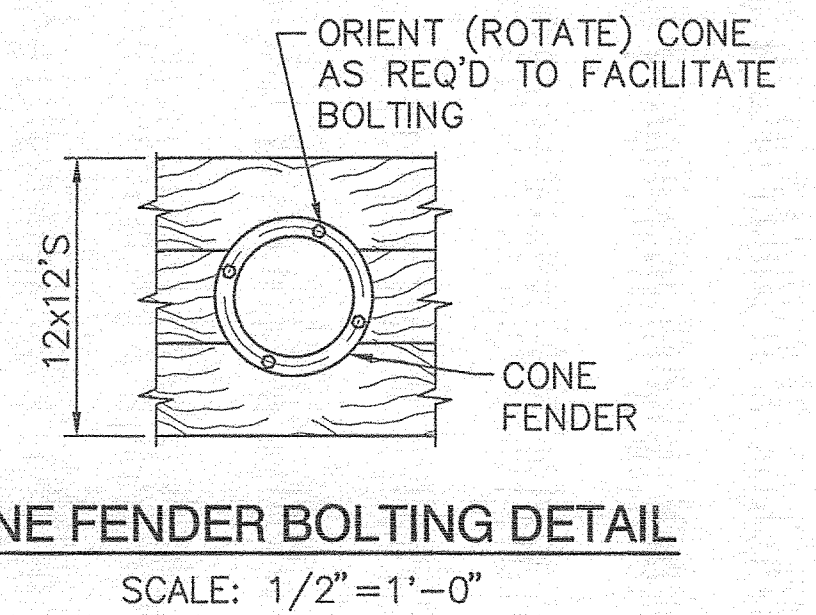
SECTION C-C
 SCALE: 3/8"=1'-0"



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



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



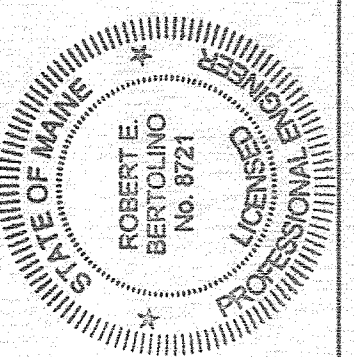
CONE FENDER BOLTING DETAIL
 SCALE: 1/2"=1'-0"

NOTES:

- SEE S1 FOR TIMBER, PILE AND HARDWARE NOTES.
- UP TO FIVE EXISTING BATTER PILES SHALL BE CUT AND RECONNECTED AS DIRECTED. PROVIDE TWO BOLTS PER CONNECTION. REMAINING BOLTS HOLES IN PLUMB PILES SHALL BE PLUGGED WITH HARDWOOD DOWELS. SEE DETAIL 1.

R:\TM-092\cadd\DOLPHIN DETAILS P3.dwg 10/30/12 14:27 [48.67] By Tripp_LR

CASCO BAY ISLAND
 TRANSIT DISTRICT



Signature: Robert E. Bertolino
 No. 8721
 P.E. NUMBER: 10/30/2012
 DATE

PROJECT INFORMATION	
PROGRAM	CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS PORTLAND, MAINE
PROJECT MANAGER	
DESIGNER	DWH/MN
CONSULTANT	FAY, SPOTFORD & THORNDIKE
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

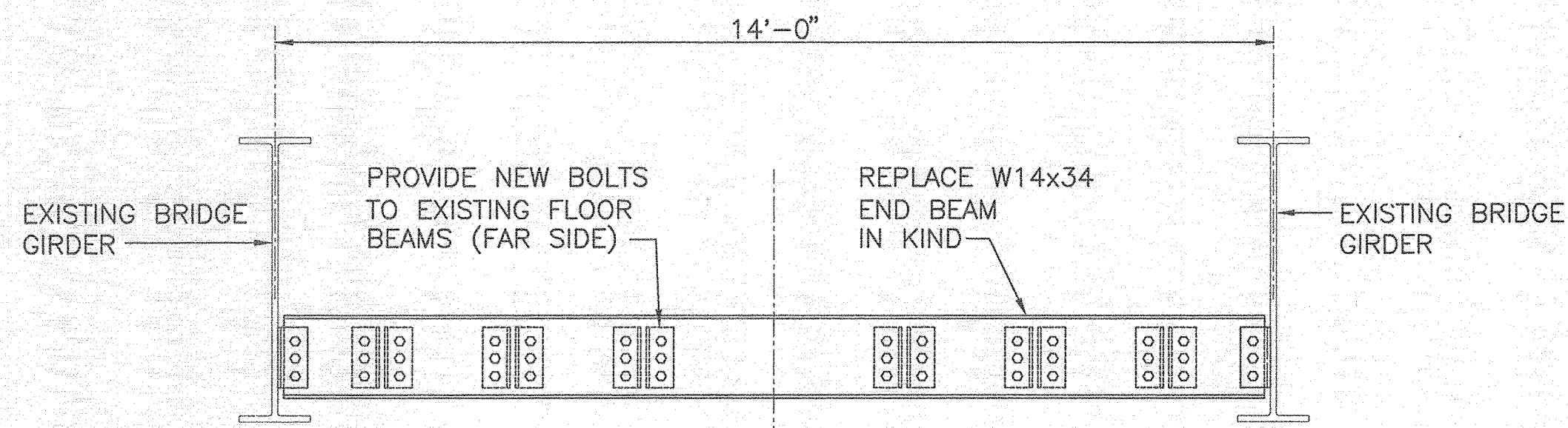
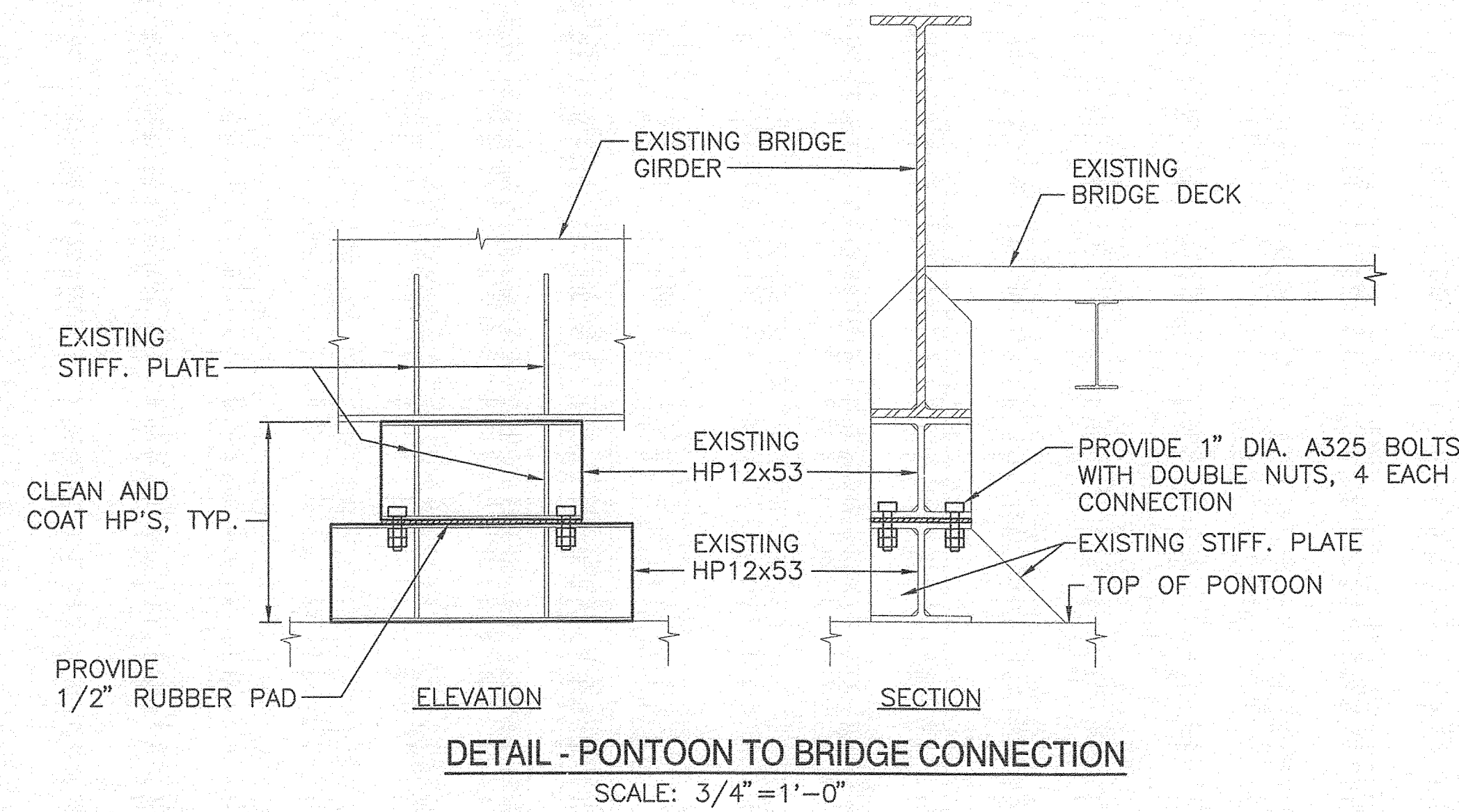
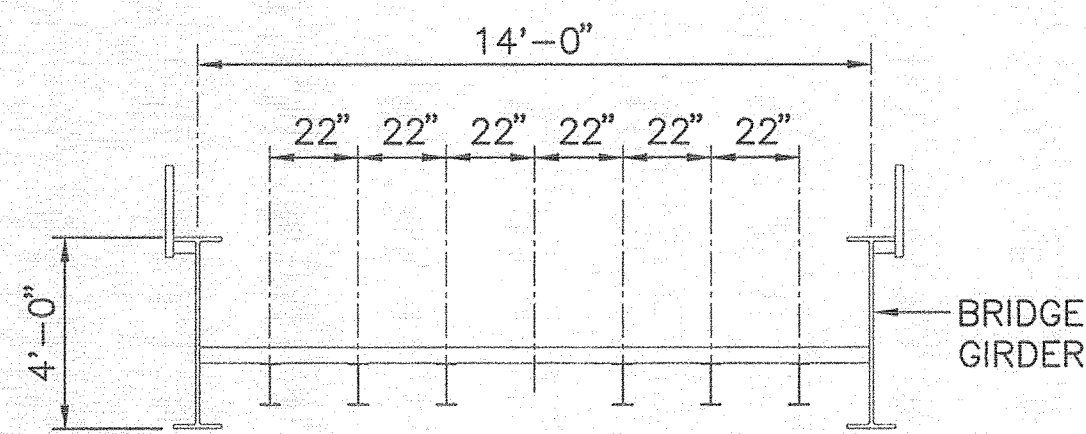
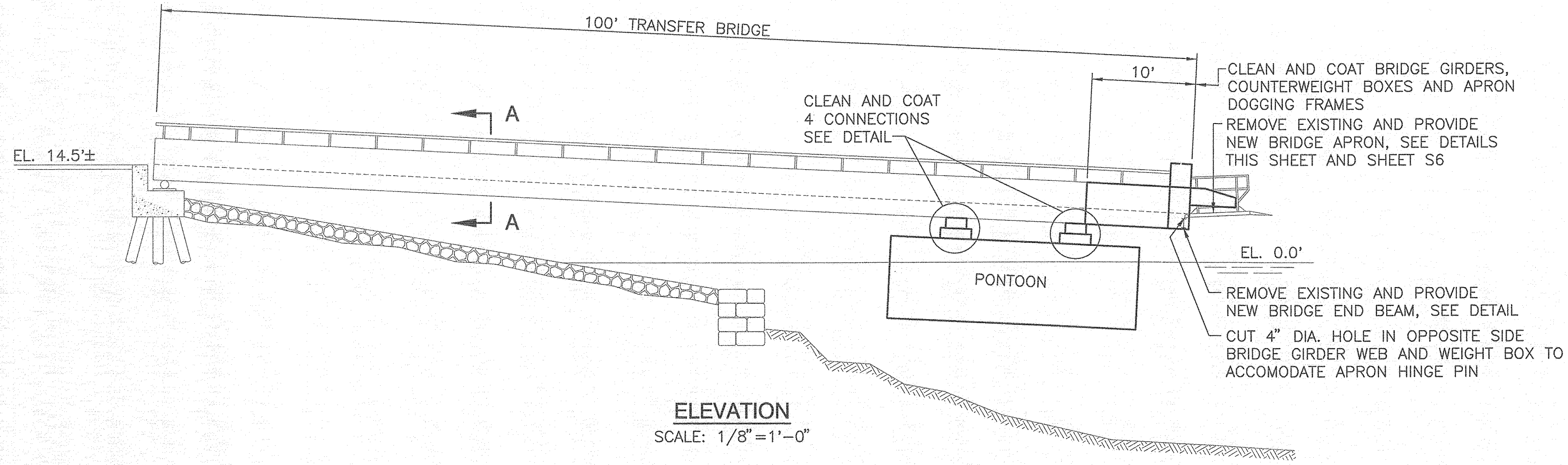
CASCO BAY FERRY TERMINAL
 MARINE STRUCTURES IMPROVEMENTS
 PORTLAND, MAINE

DOLPHIN DETAILS - PART 3

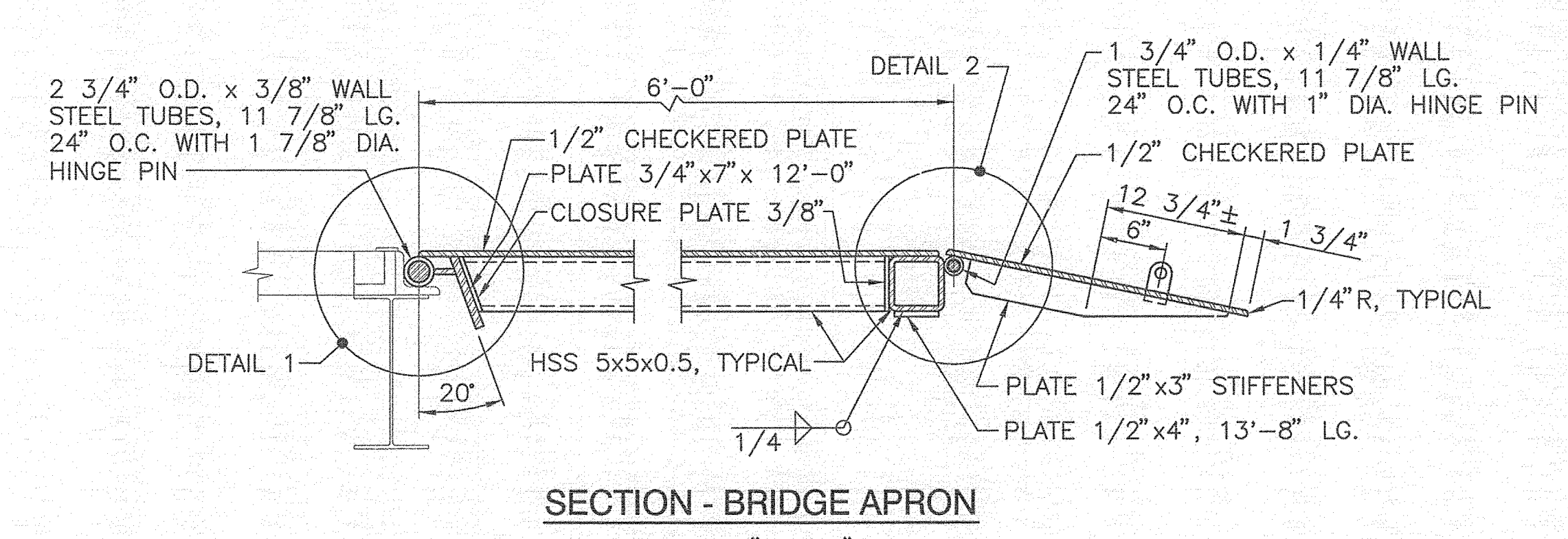
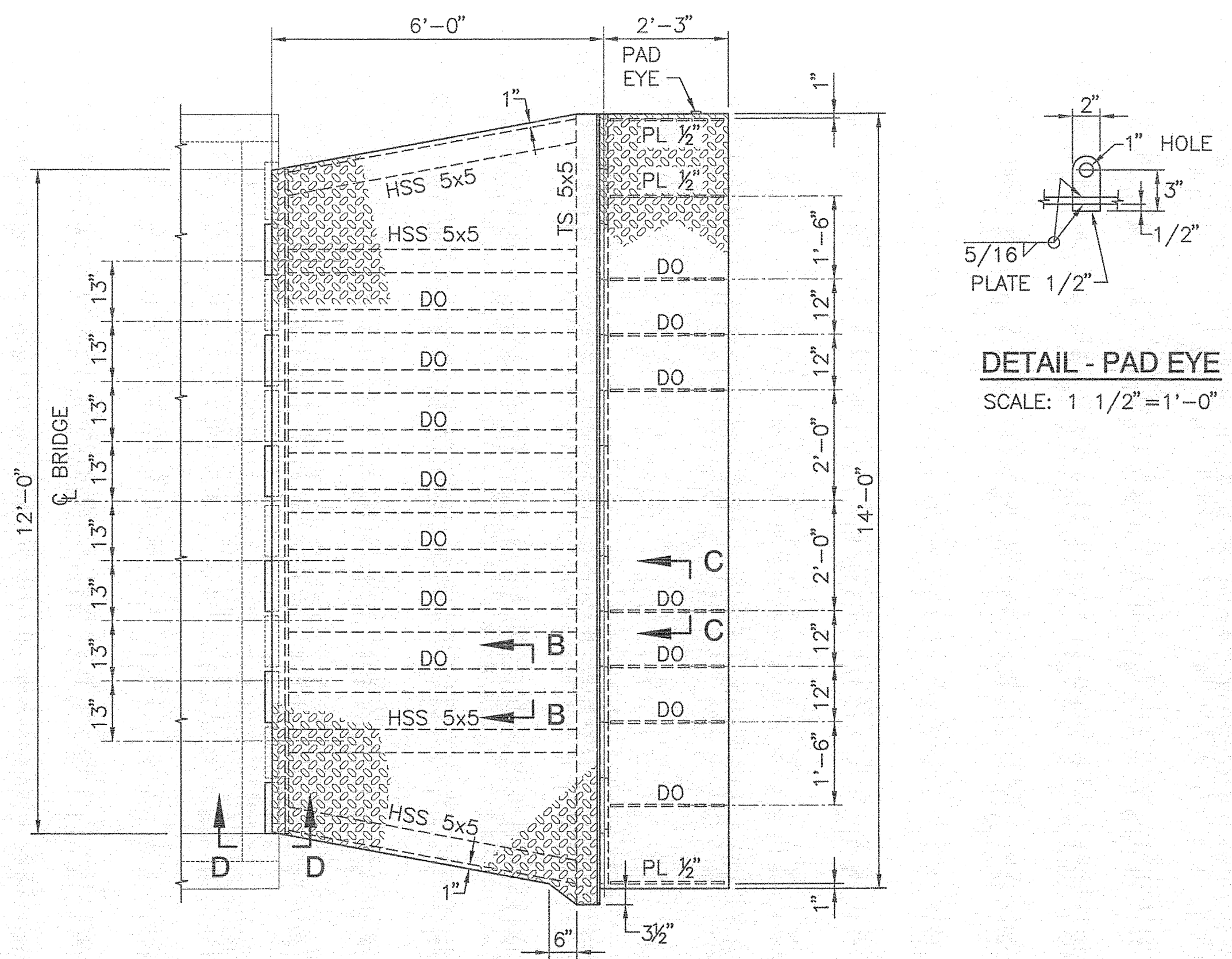
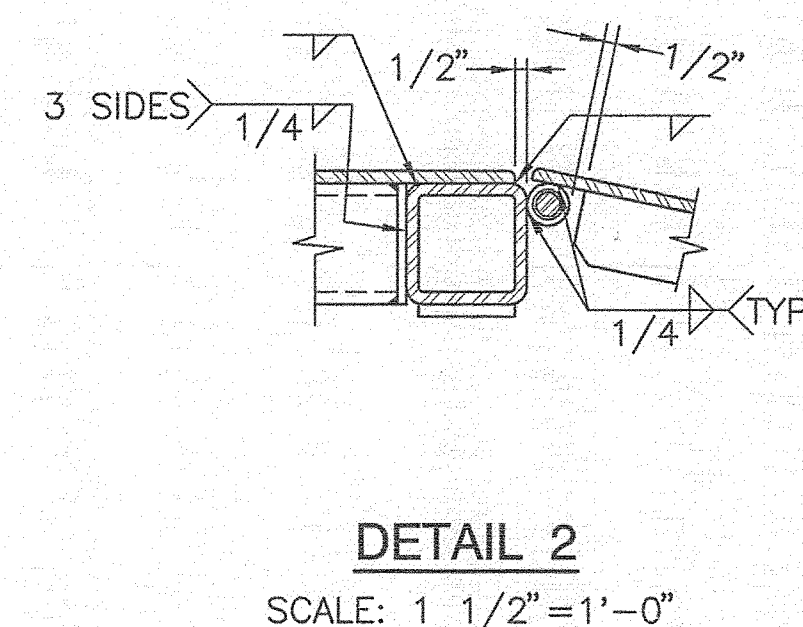
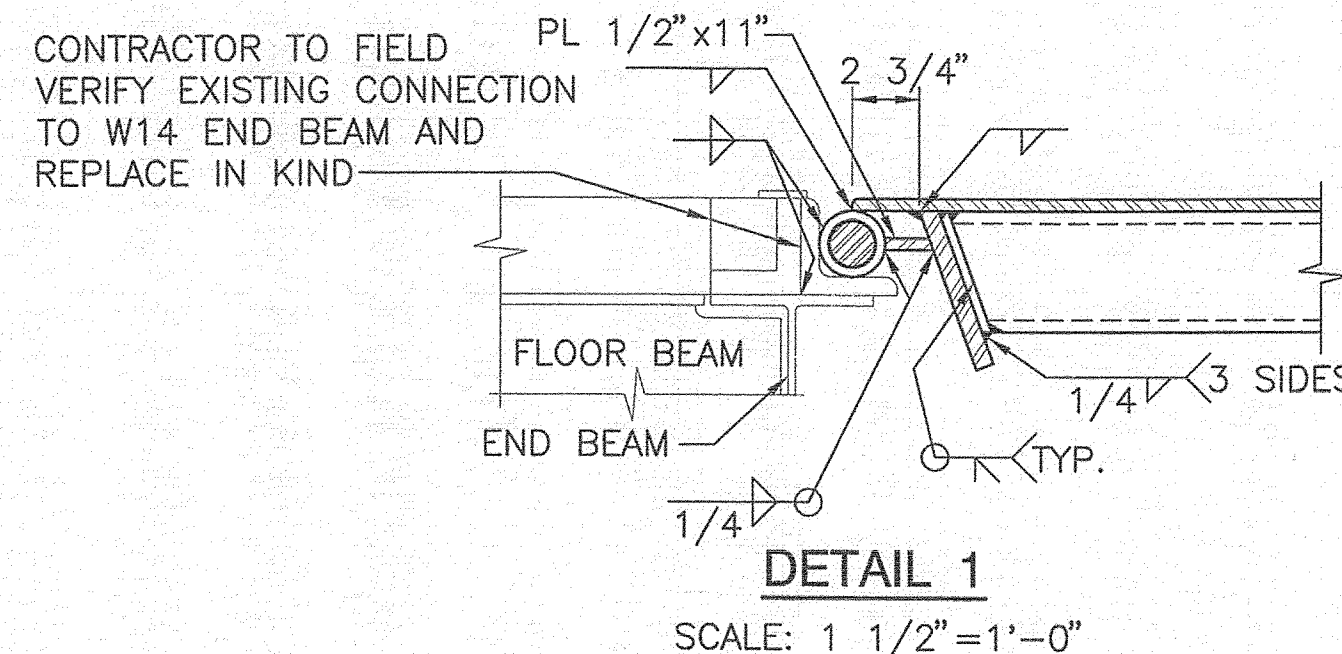
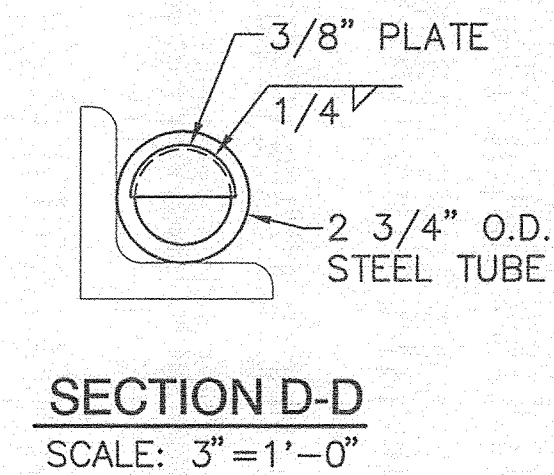
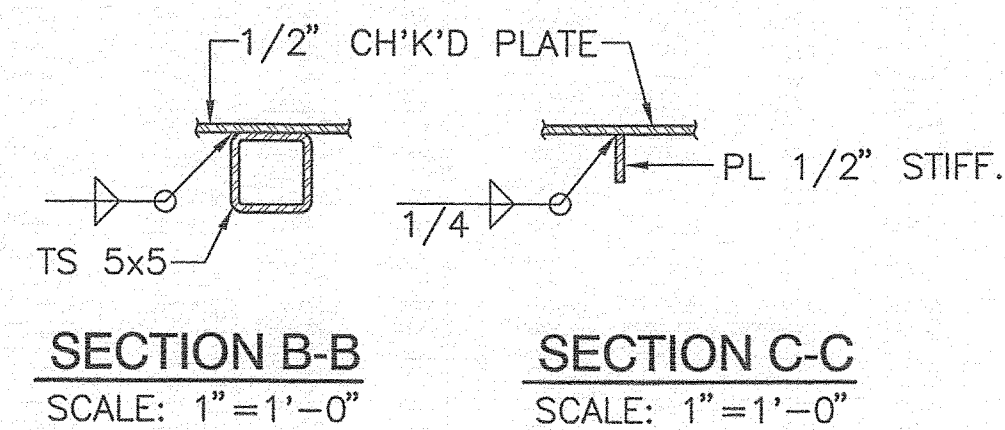
SHEET NUMBER

S4

7 OF 12



- NOTES:
1. CONTRACTOR SHALL FIELD VERIFY FLOOR BEAM AND BOLT SPACINGS
2. END BEAM SHALL BE PAINTED



- NOTES:**
- PONTOON SHALL BE UNBOLTED FROM TRANSFER BRIDGE AND BROUGHT OFF-SITE TO BE PAINTED INSIDE AND OUT. REINSTALL PONTOON AFTER PAINTING IS COMPLETE.
 - TRANSFER BRIDGE SHALL BE SUPPORTED IN SUCH A MANNER THAT IT WILL NOT BE SUBMERGED DURING TIDAL CYCLES.
- APRON NOTES:**
- ALL WELDS SHALL BE 5/16" FILLET WELDS MADE ALL-AROUND UNLESS SHOWN OTHERWISE.
 - CLOSURE PLATES ON ENDS OF HSS MEMBERS SHALL BE WELDED WATERTIGHT.
 - THE TOP OF THE APRON WEARING SURFACE (1/2" CHECKERED PLATE) SHALL BE PAINTED WITH A SKID RESISTANT MATERIAL, AS-175 MANUFACTURED BY AMERICAN SAFETY TECHNOLOGIES, ROSELAND, NJ, OR AN APPROVED EQUAL.

CASCO BAY ISLAND TRANSIT DISTRICT

CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS PORTLAND, MAINE

TRANSFER BRIDGE DETAILS - PART 1

SHEET NUMBER **S5**

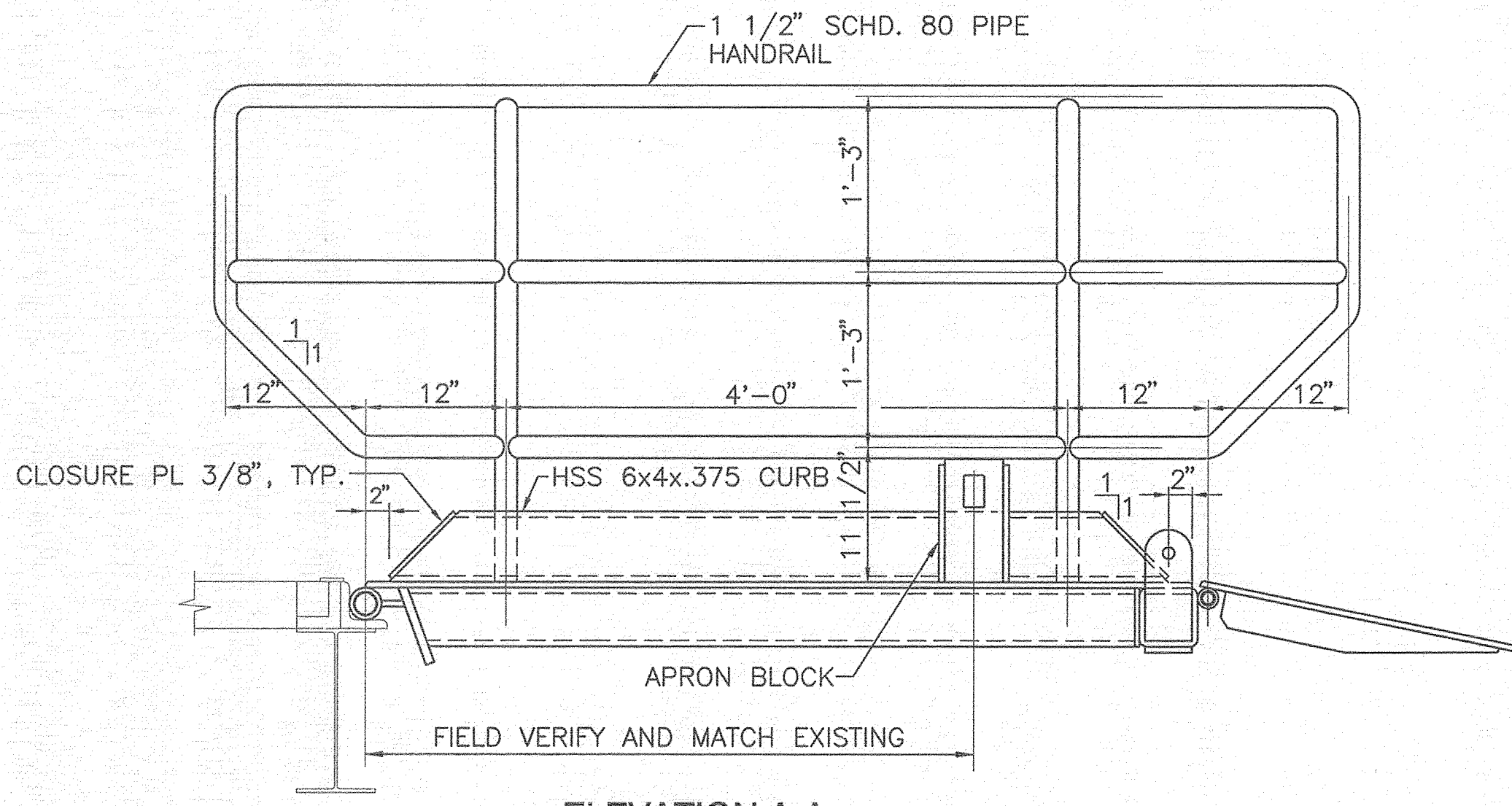
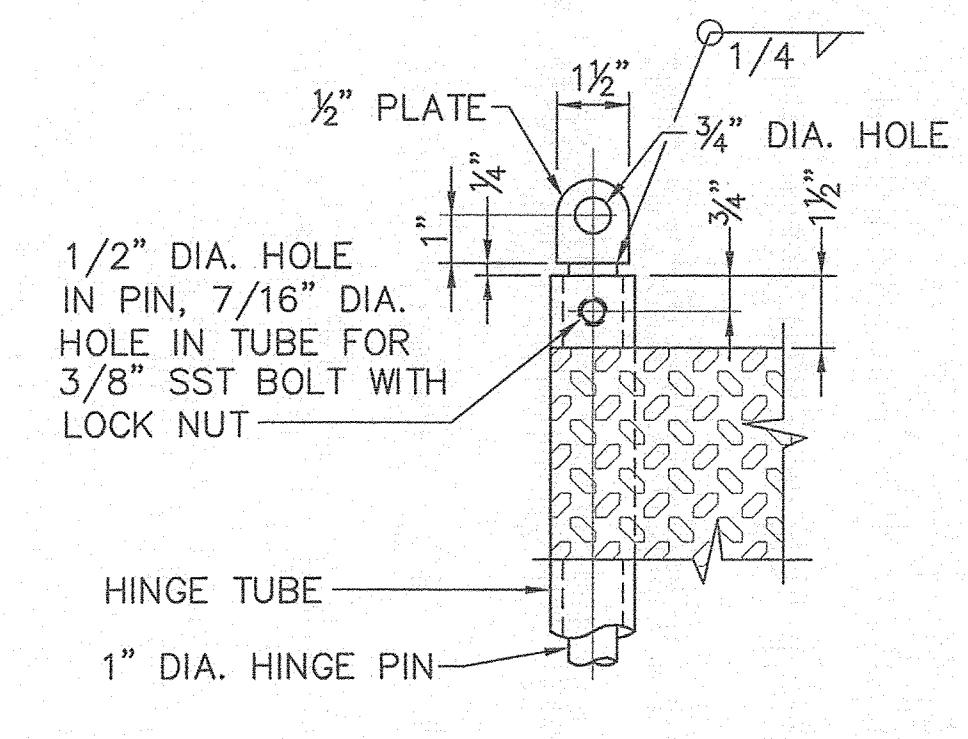
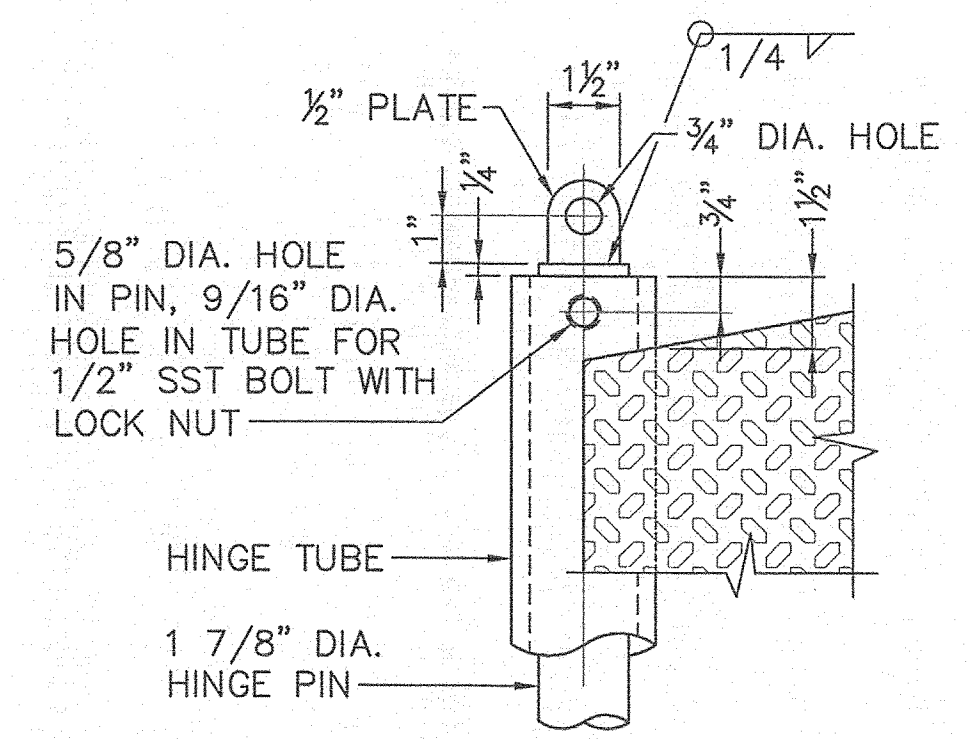
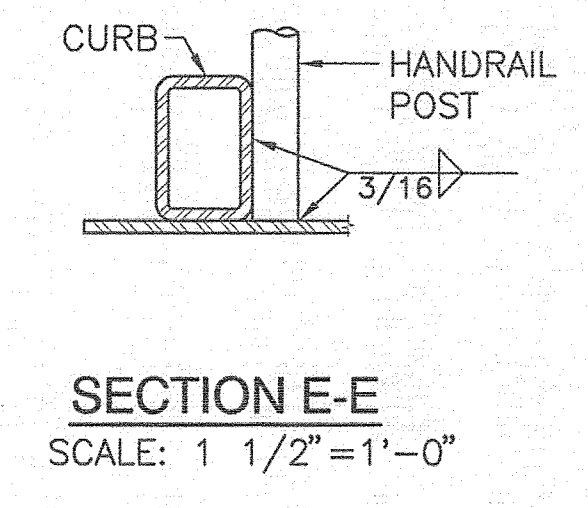
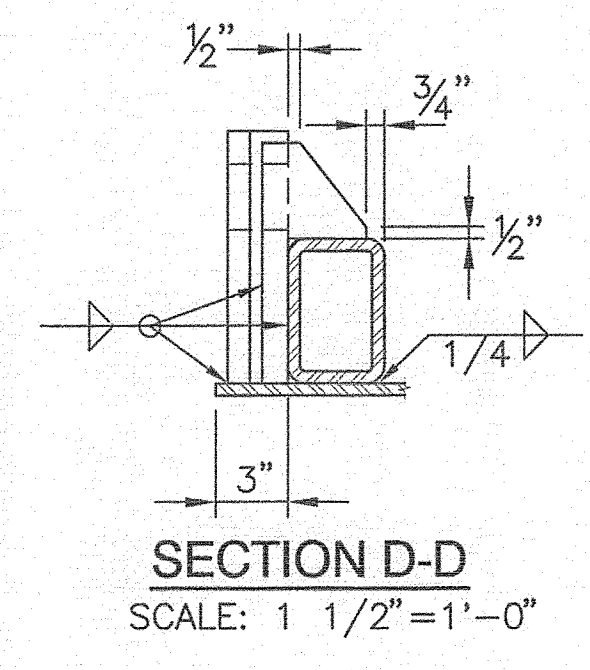
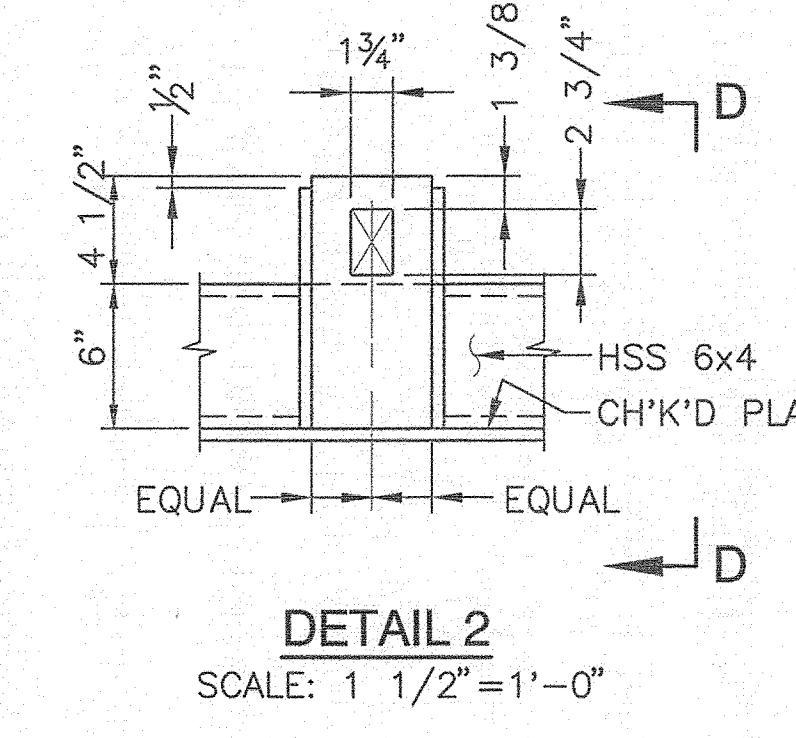
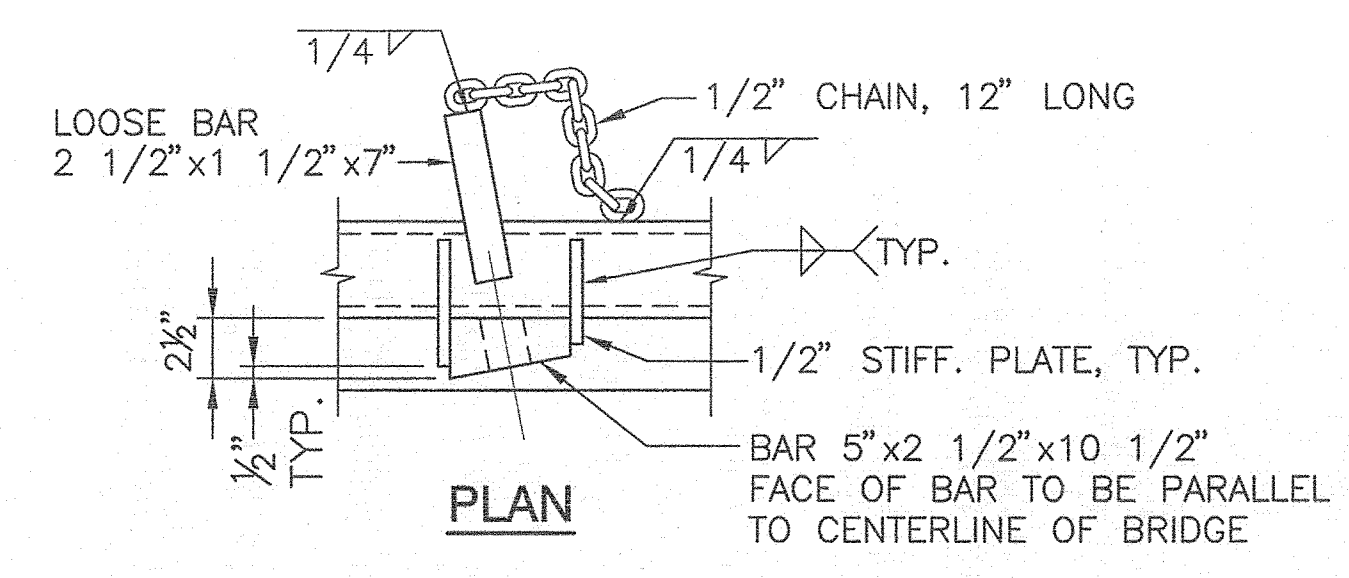
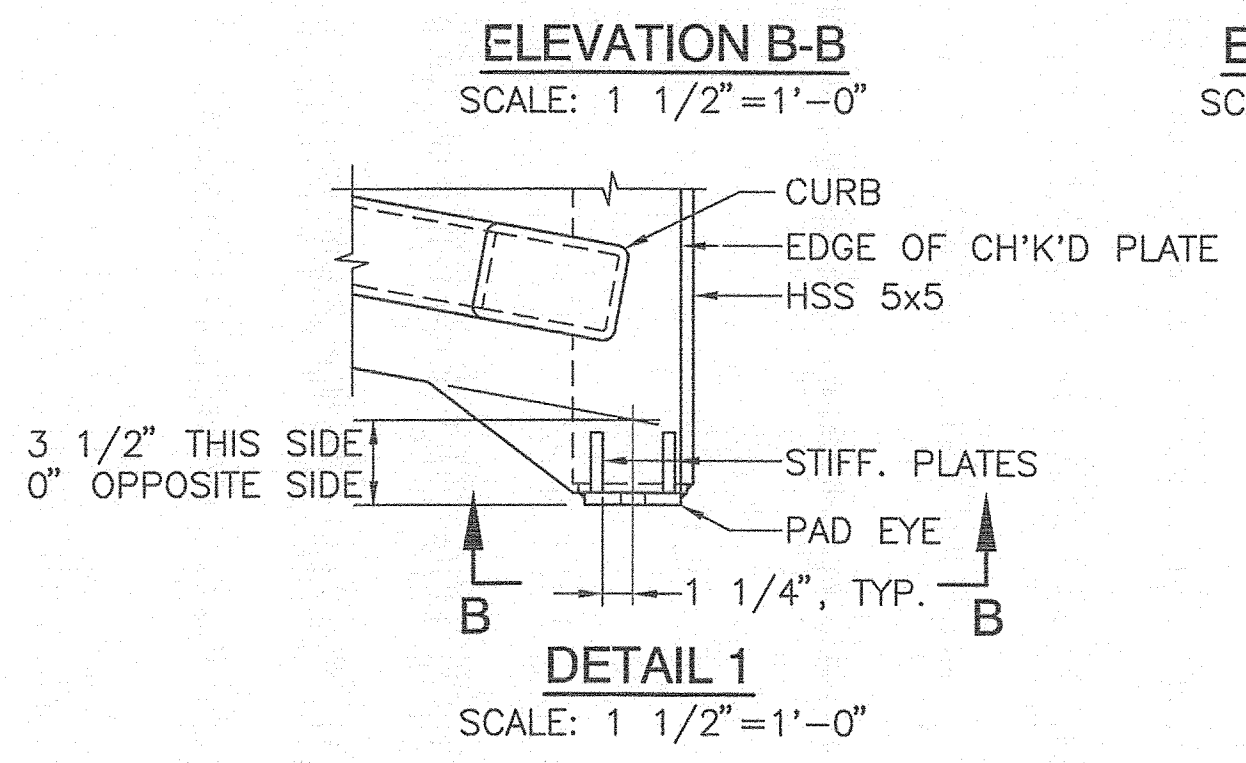
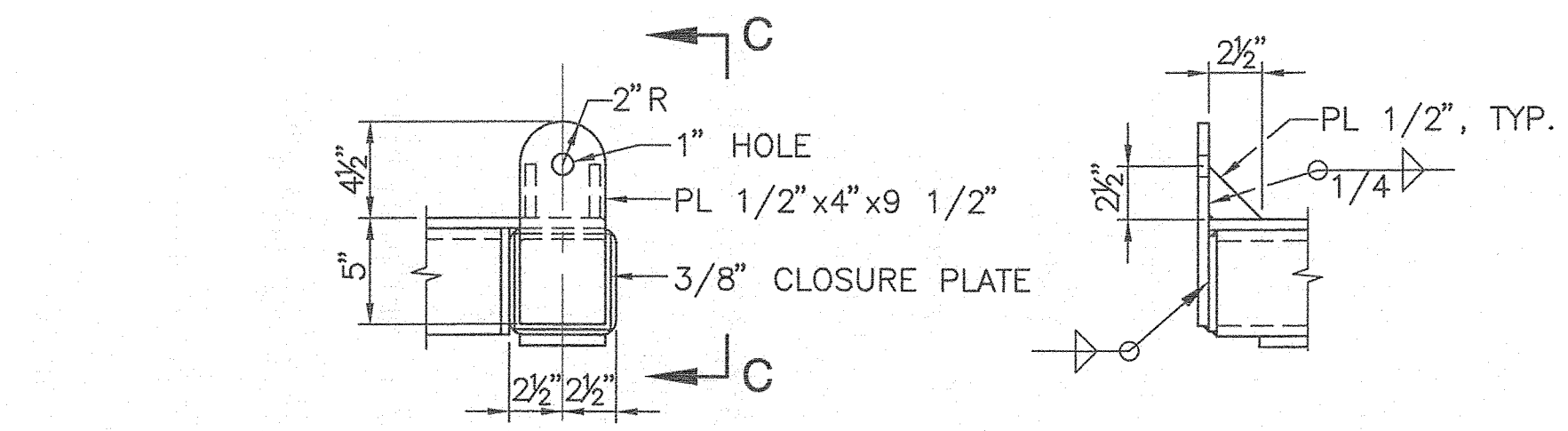
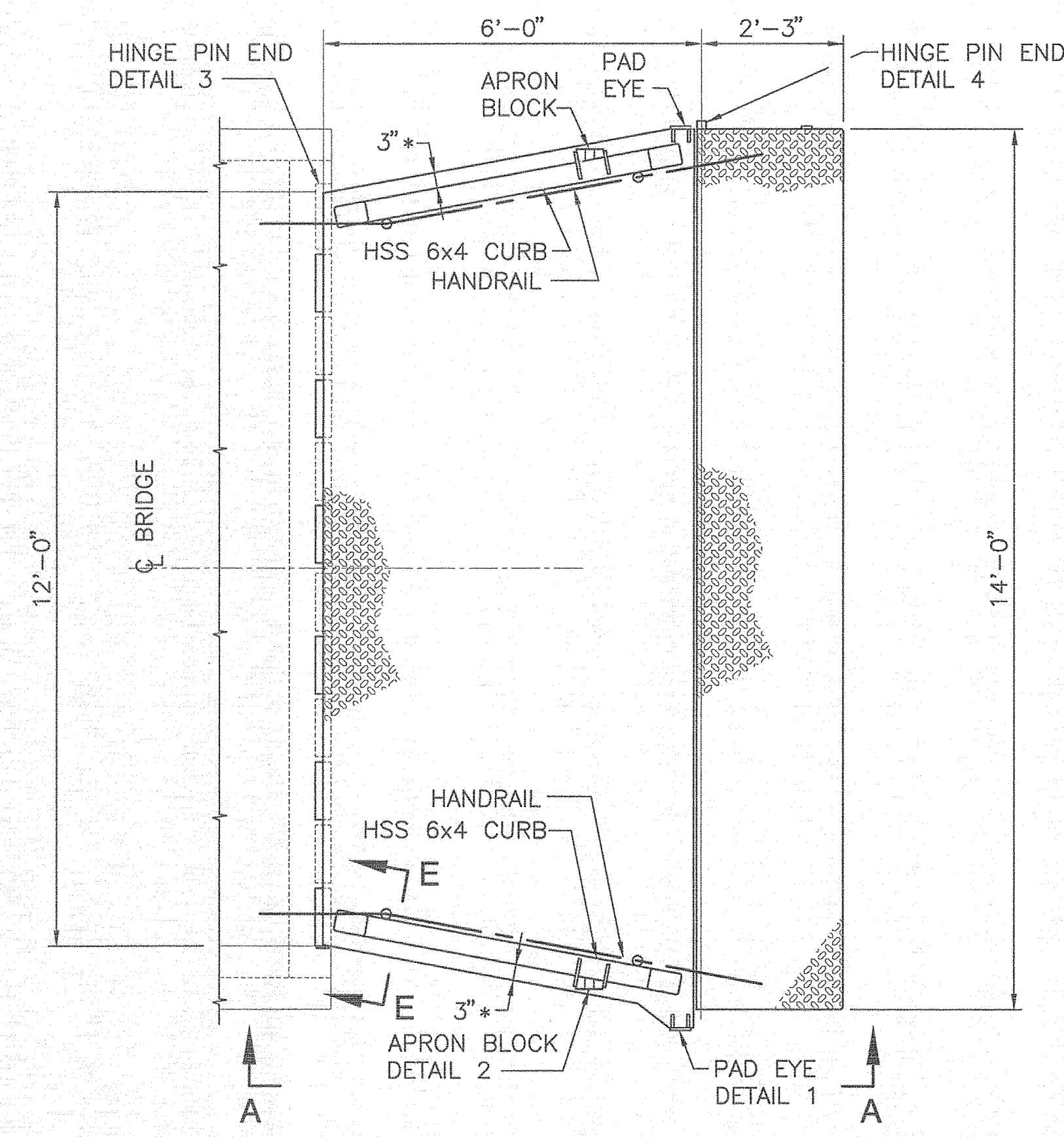
8 OF 12

PROJECT INFORMATION	PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	CONTRACTOR	PROJECT RESIDENT	PROJECT COMPLETION DATE

PROFESSIONAL ENGINEER
ROBERT E. BERTOLINO
No. 8721
LICENSED PROFESSIONAL ENGINEER
STATE OF MAINE

Signature: *Robert E. Bertolino*
SIGNATURE: ROBERT E. BERTOLINO No. 8721
DWG./AM: DWG./AM
FAX: SPOFFORD & THORNDIKE
P.E. NUMBER: 8721
DATE: 10/30/2012

R:\TW-092\cadd\DEMO BRIDGE.dwg 10/30/12 14:24 [36.20] By Tripp_R



NOTE:

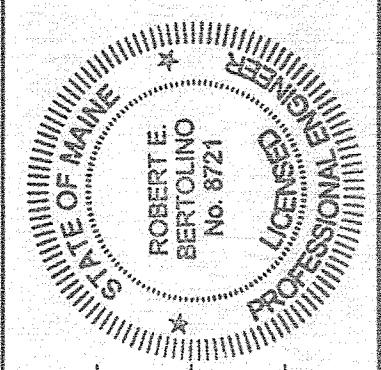
SEE S5 FOR APRON NOTES

APRON DESIGN LIVE LOADS

VERTICAL LOADS:
HS-25 TRUCK

HANDRAIL LOADS:
200 LB CONCENTRATED LOAD APPLIED IN ANY DIRECTION AT THE TOP OR 50 PLF UNIFORM LOAD APPLIED IN ANY DIRECTION

CASCO BAY ISLAND
TRANSIT DISTRICT



Robert E. Bertolino
SIGNATURE
8/21
P.E. NUMBER
10/30/2012
DATE

PROJECT INFORMATION	
PROGRAM	CASCO BAY FERRY TERMINAL
PROJECT MANAGER	MARINE STRUCTURES IMPROVEMENTS
DESIGNER	PORTLAND, MAINE
CONSULTANT	FAY, SPOTFORD & THORNDIKE
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

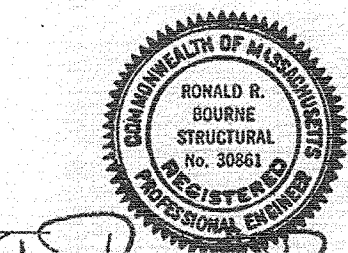
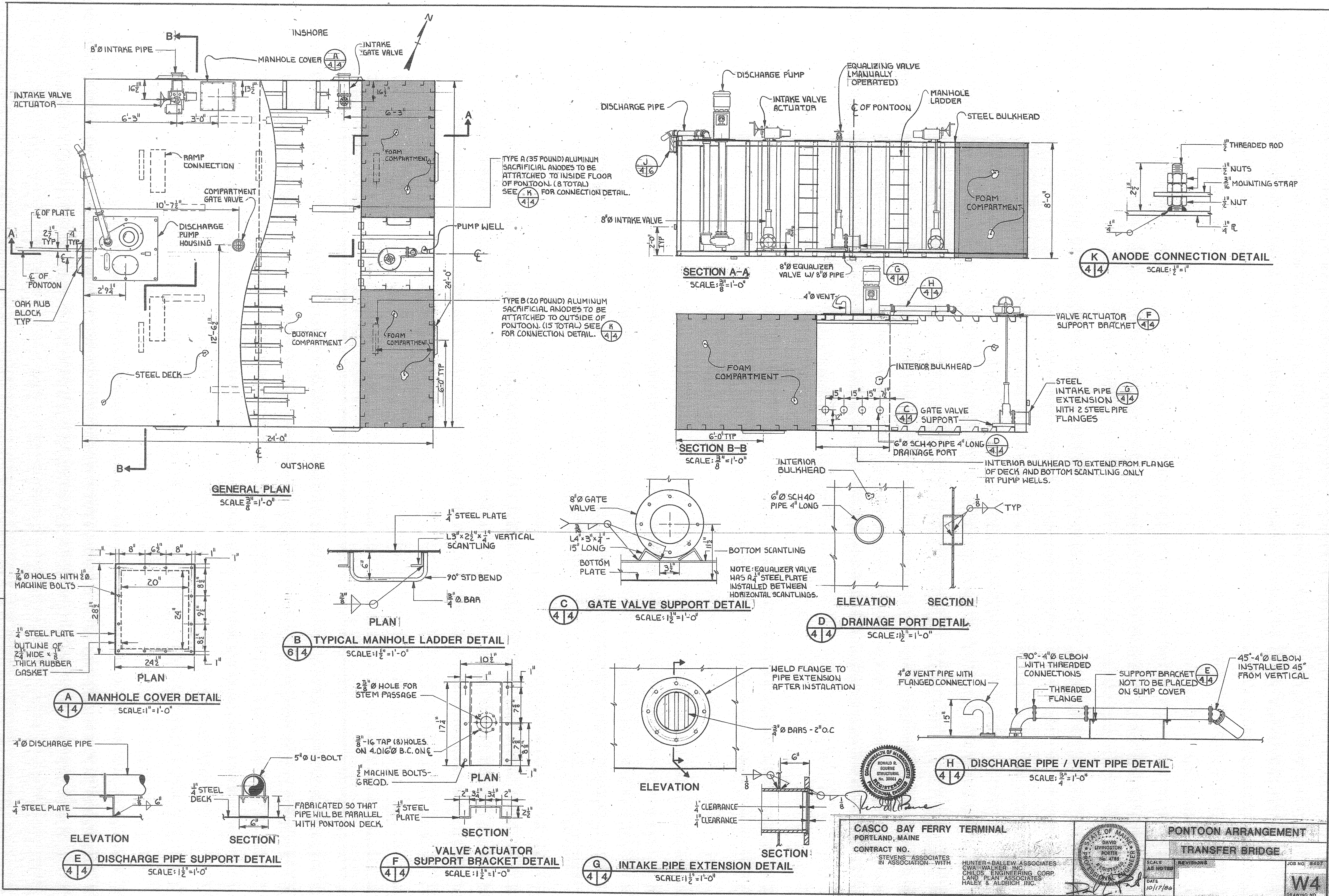
CASCO BAY FERRY TERMINAL
MARINE STRUCTURES IMPROVEMENTS
PORTLAND, MAINE
TRANSFER BRIDGE DETAILS - PART 2

SHEET NUMBER

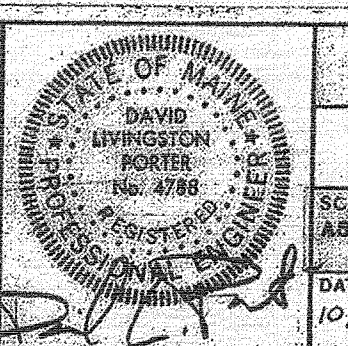
S6

9 OF 12

R:\TM-092\cadd\REF.DWG 1.dwg 11/01/12 07:39 [19.91] By Tripp_R



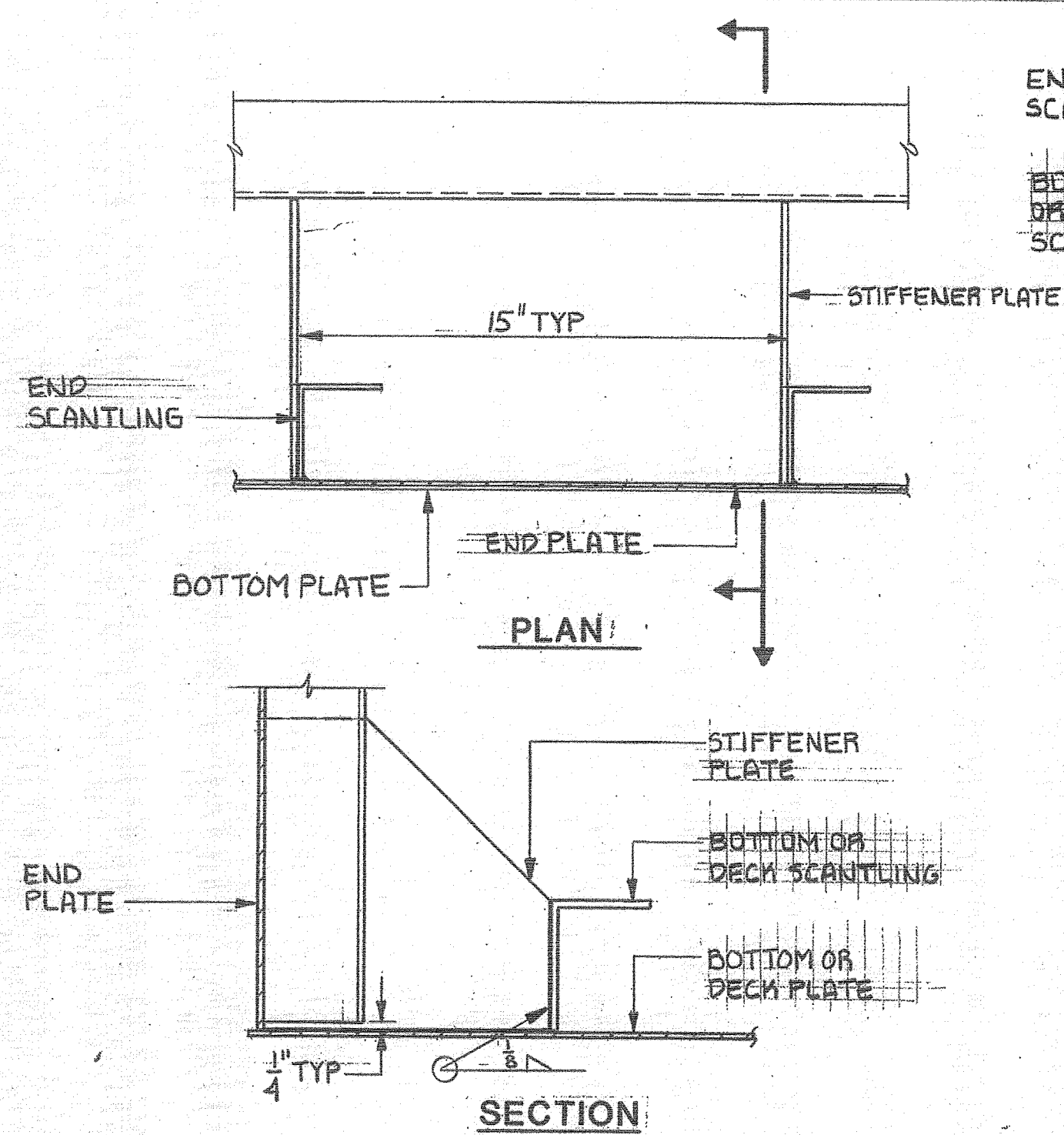
CASCO BAY FERRY TERMINAL
PORTLAND, MAINE
CONTRACT NO. STEVENS ASSOCIATES IN ASSOCIATION WITH HUNTER-GALLEW ASSOCIATES CWA WALKER INC. CHILDS ENGINEERING CORP. LAND PLAN ASSOCIATES



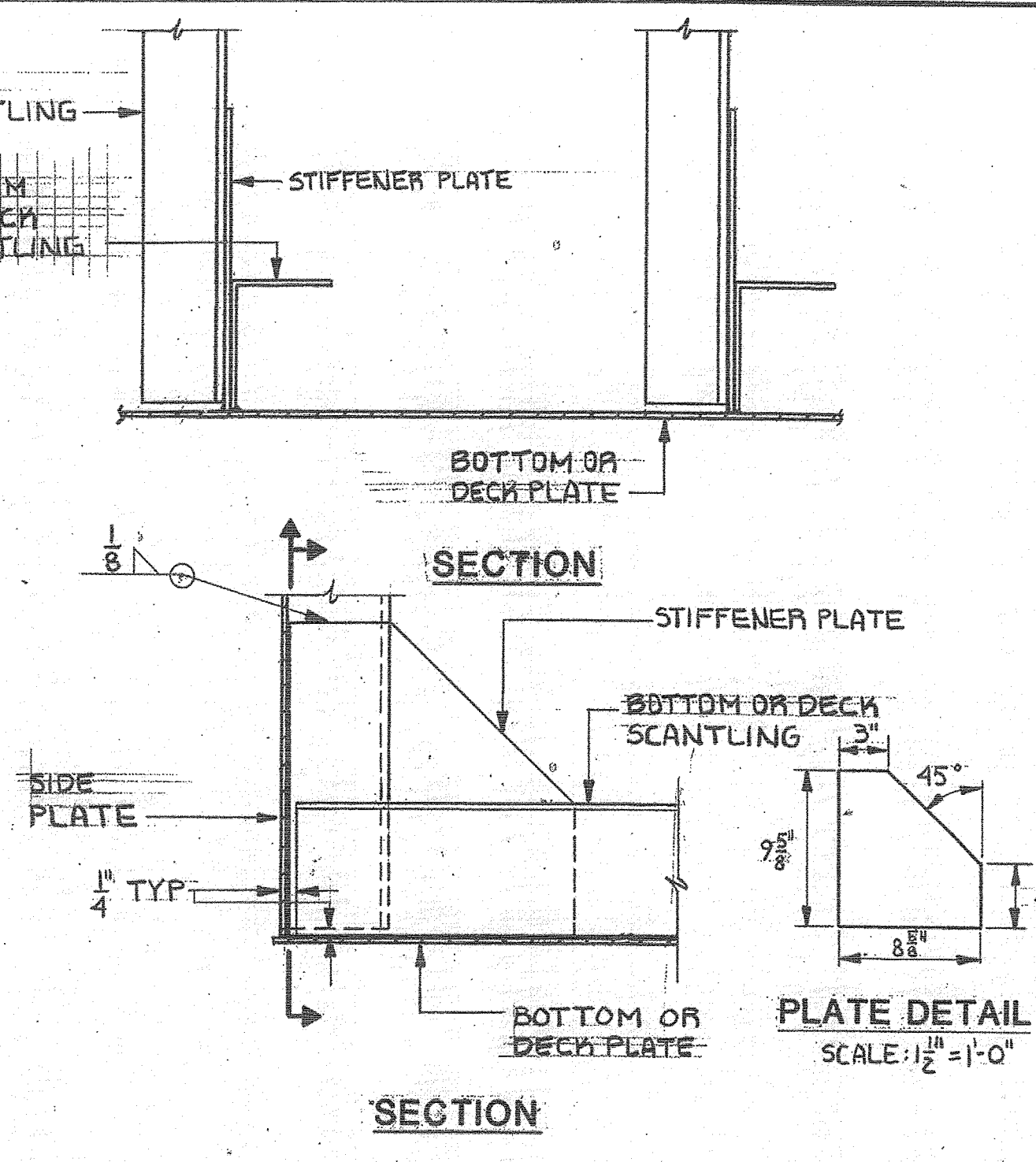
PONTOON ARRANGEMENT
TRANSFER BRIDGE
SCALE: AS NOTED
DATE: 10/17/00
JOB NO: 9407
DRAWING NO: W4

CASCO BAY ISLAND TRANSIT DISTRICT	
PROJECT INFORMATION	SIGNATURE
PROGRAM	PROJECT MANAGER
DESIGNER	CONSULTANT
PROJECT RESIDENT	CONTRACTOR
PROJECT COMPLETION DATE	DATE
CASCO BAY FERRY TERMINAL MARINE STRUCTURES IMPROVEMENTS PORTLAND, MAINE	
REFERENCE DRAWING	
SHEET NUMBER	
R1	
10 OF 12	

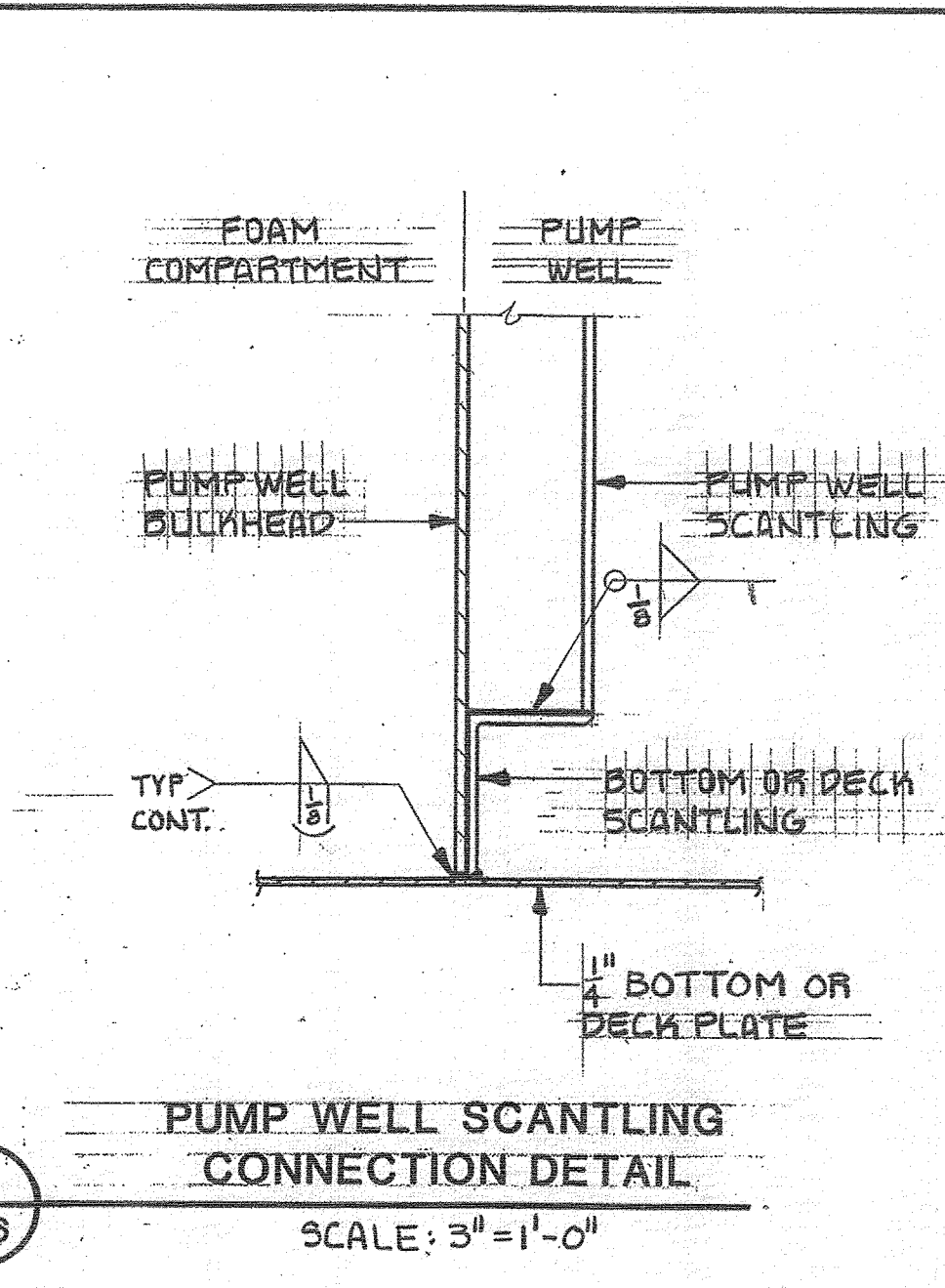
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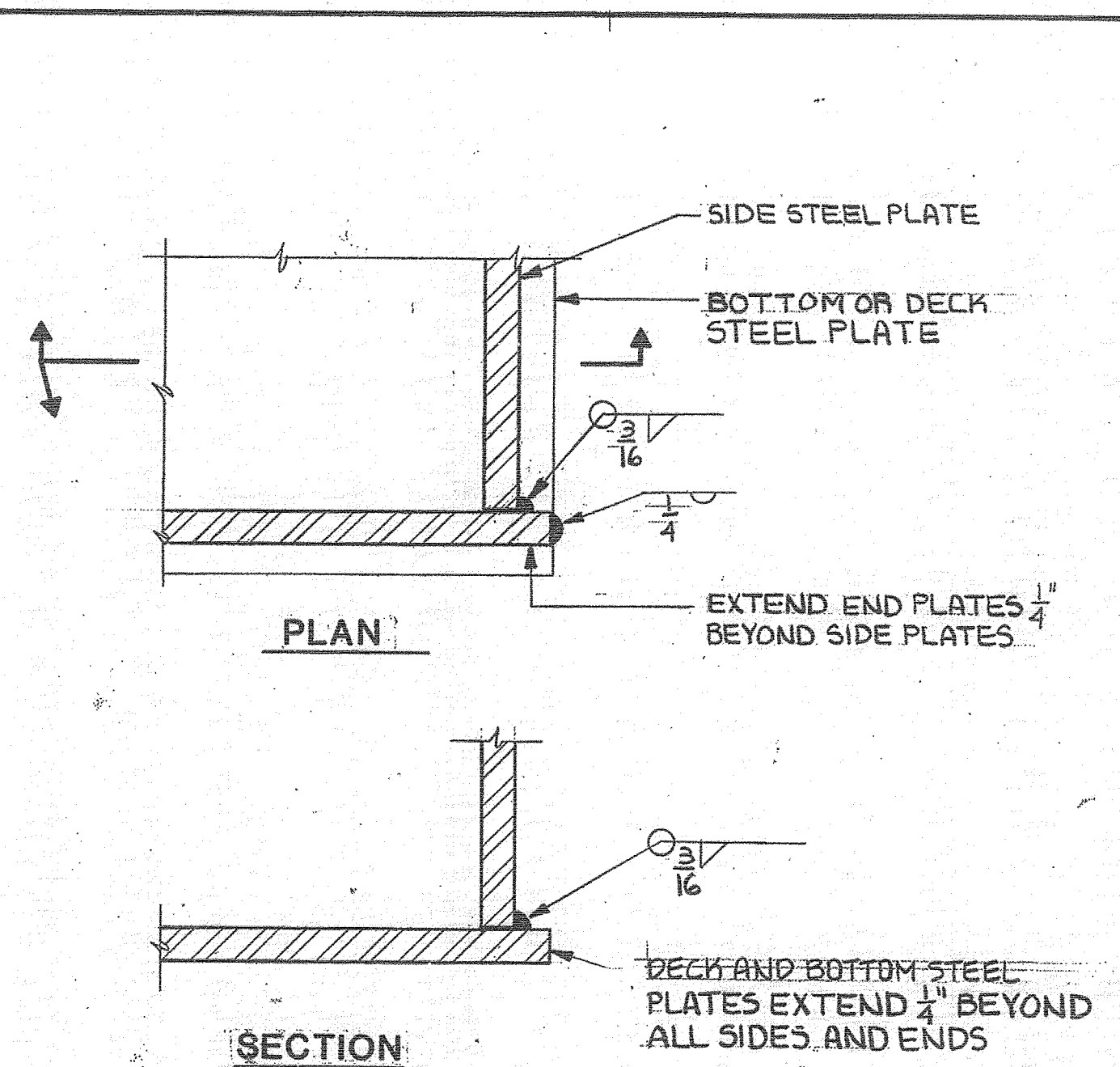
A END SCANTLING TO STEEL PLATE CONNECTION DETAIL
SCALE: 3"=1'-0"



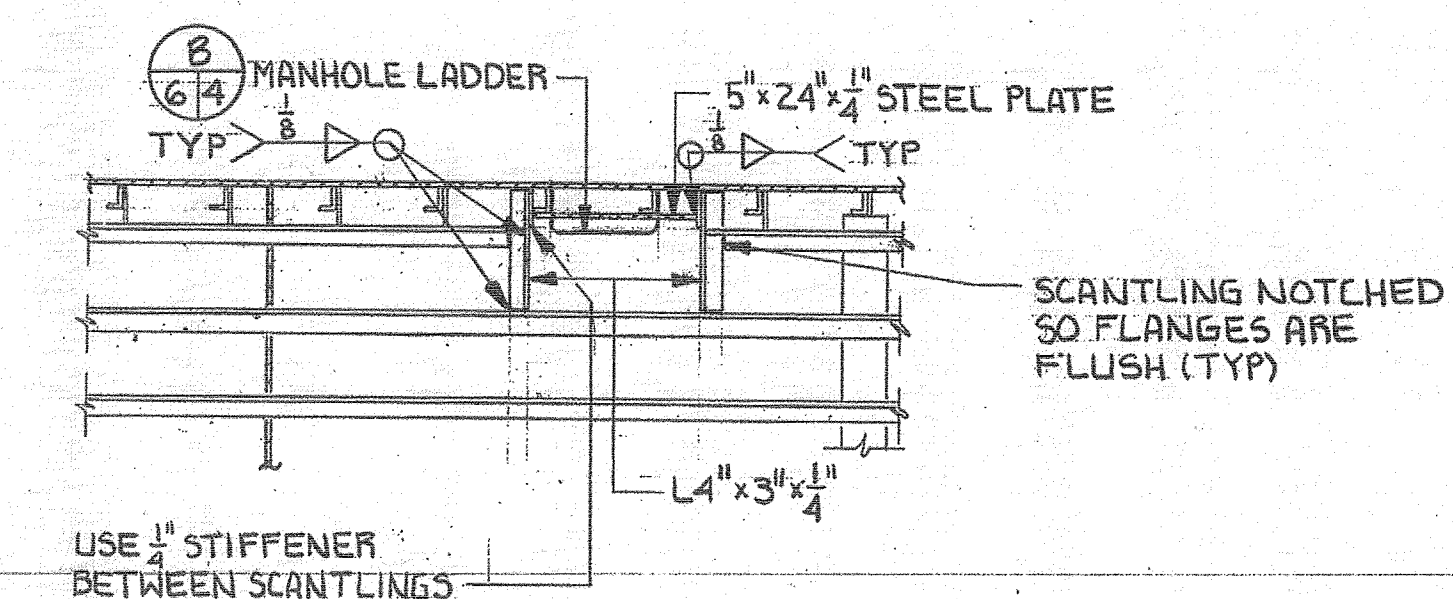
B BOTTOM OR DECK SCANTLING TO STEEL PLATE CONNECTION DETAIL
SCALE: 3"=1'-0"



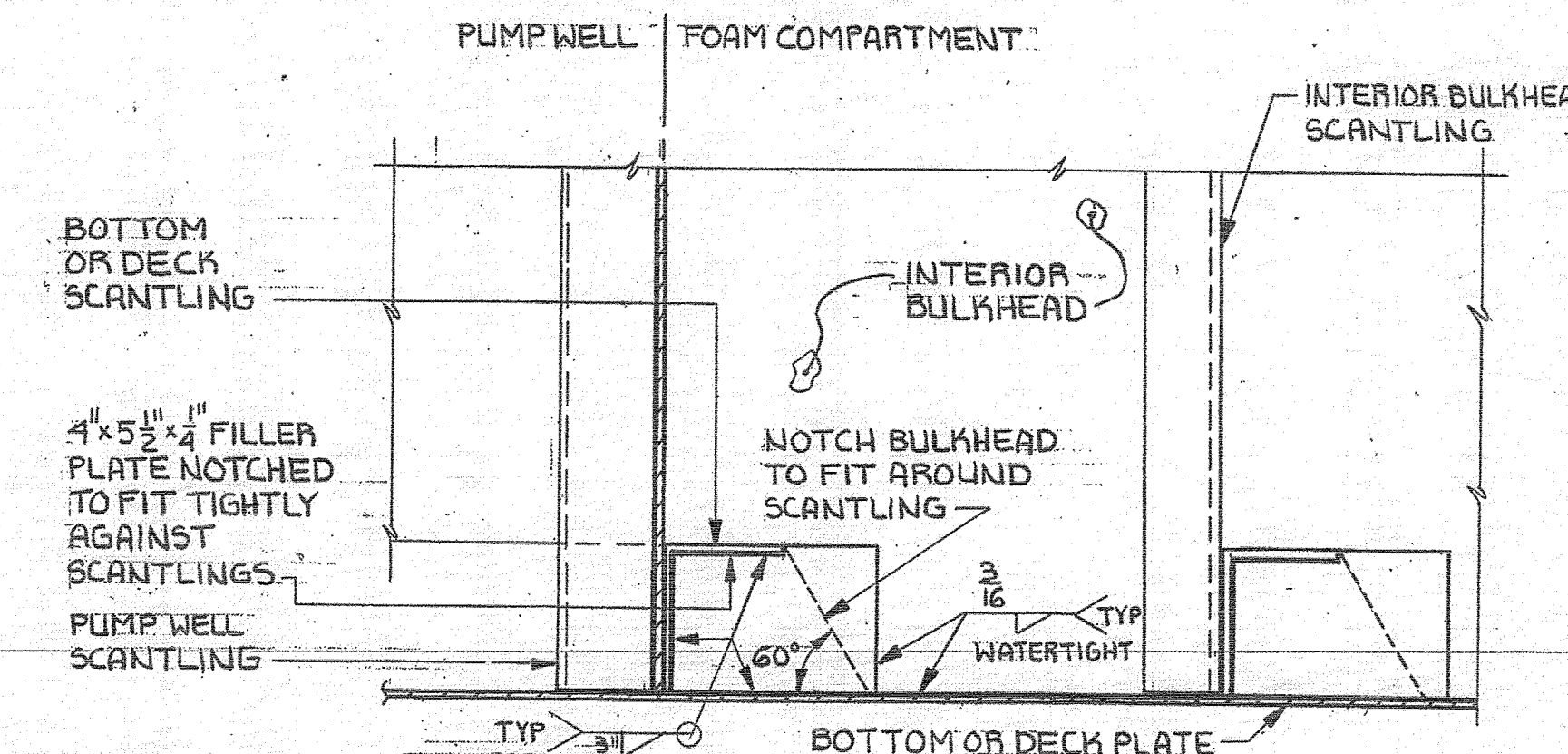
C PUMP WELL SCANTLING CONNECTION DETAIL
SCALE: 3"=1'-0"



D EXTERIOR STEEL PLATE CONNECTION DETAIL
SCALE: 1"=1"

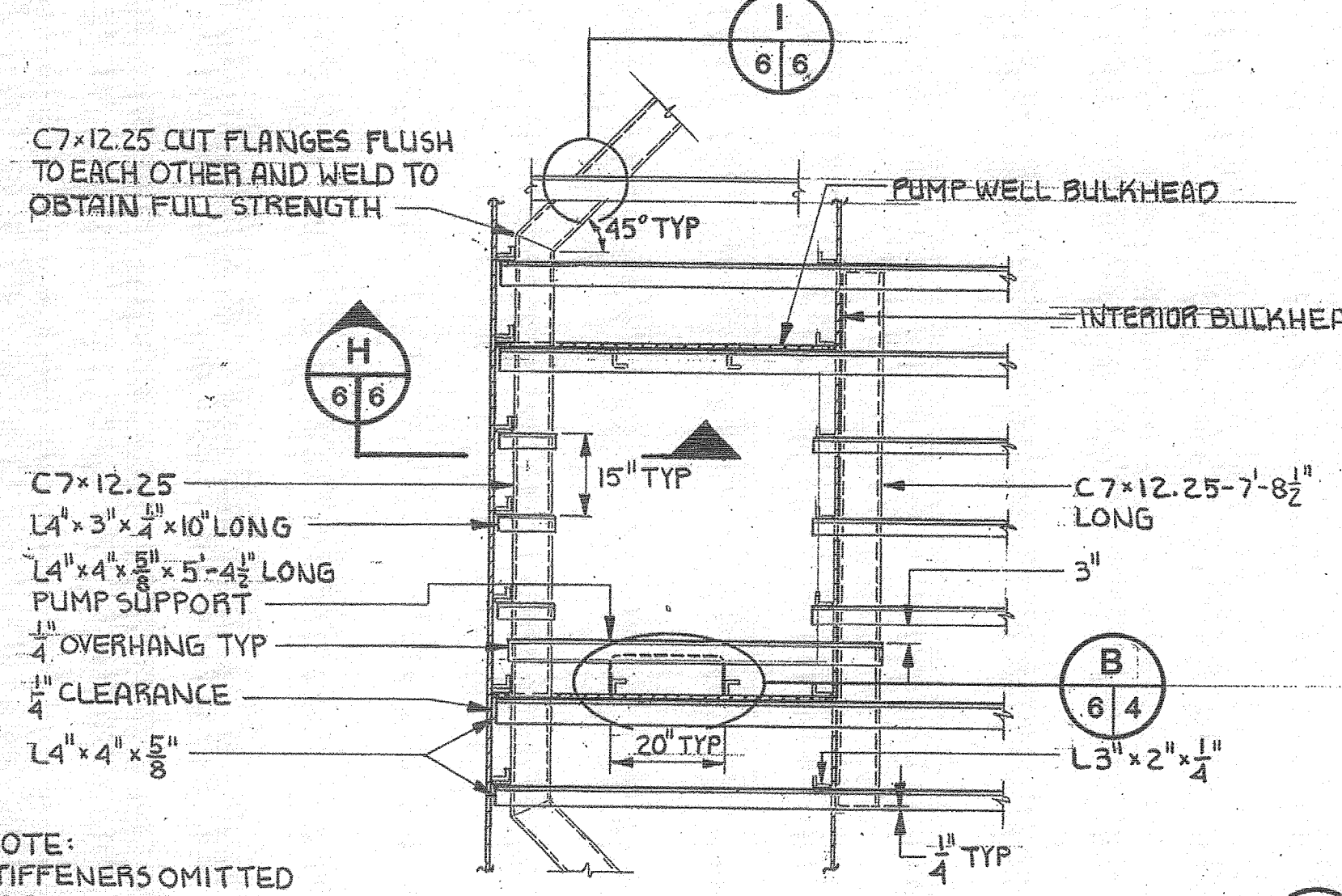


E MANHOLE FRAMING DETAIL
SCALE: 1/2"=1'-0"

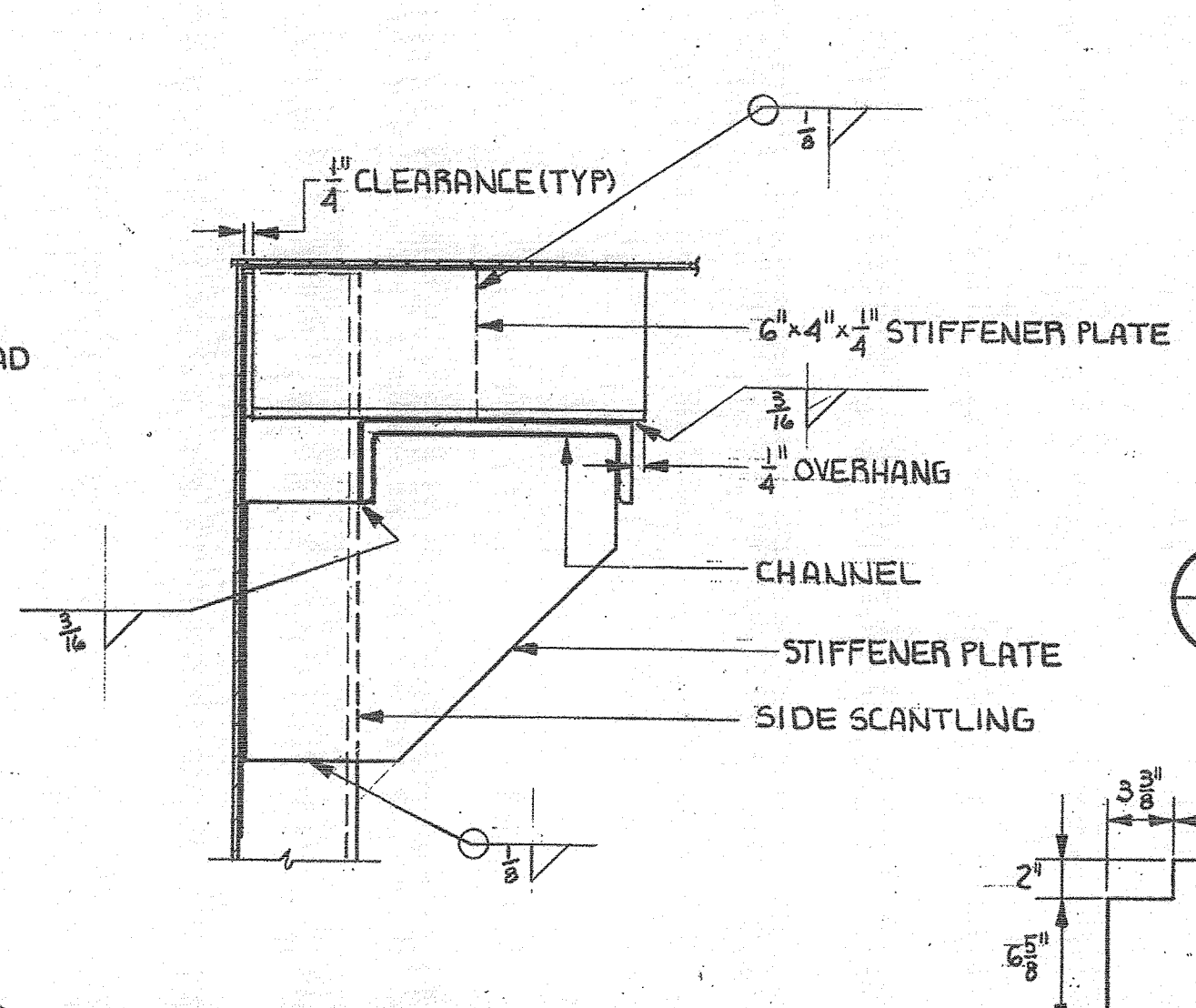


F INTERIOR & CENTERLINE BULKHEAD CONNECTION DETAIL
SCALE: 3"=1'-0"

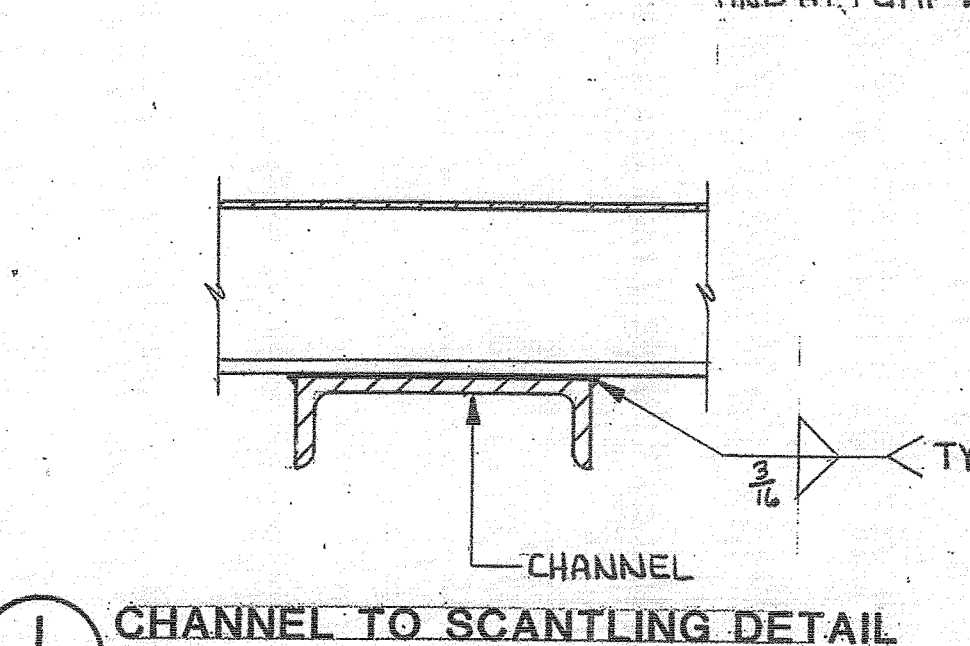
NOTE: NO FILLER PLATES INSTALLED AT CENTERLINE BULKHEAD/DECK CONNECTION AND AT PUMP WELL COMPARTMENT.



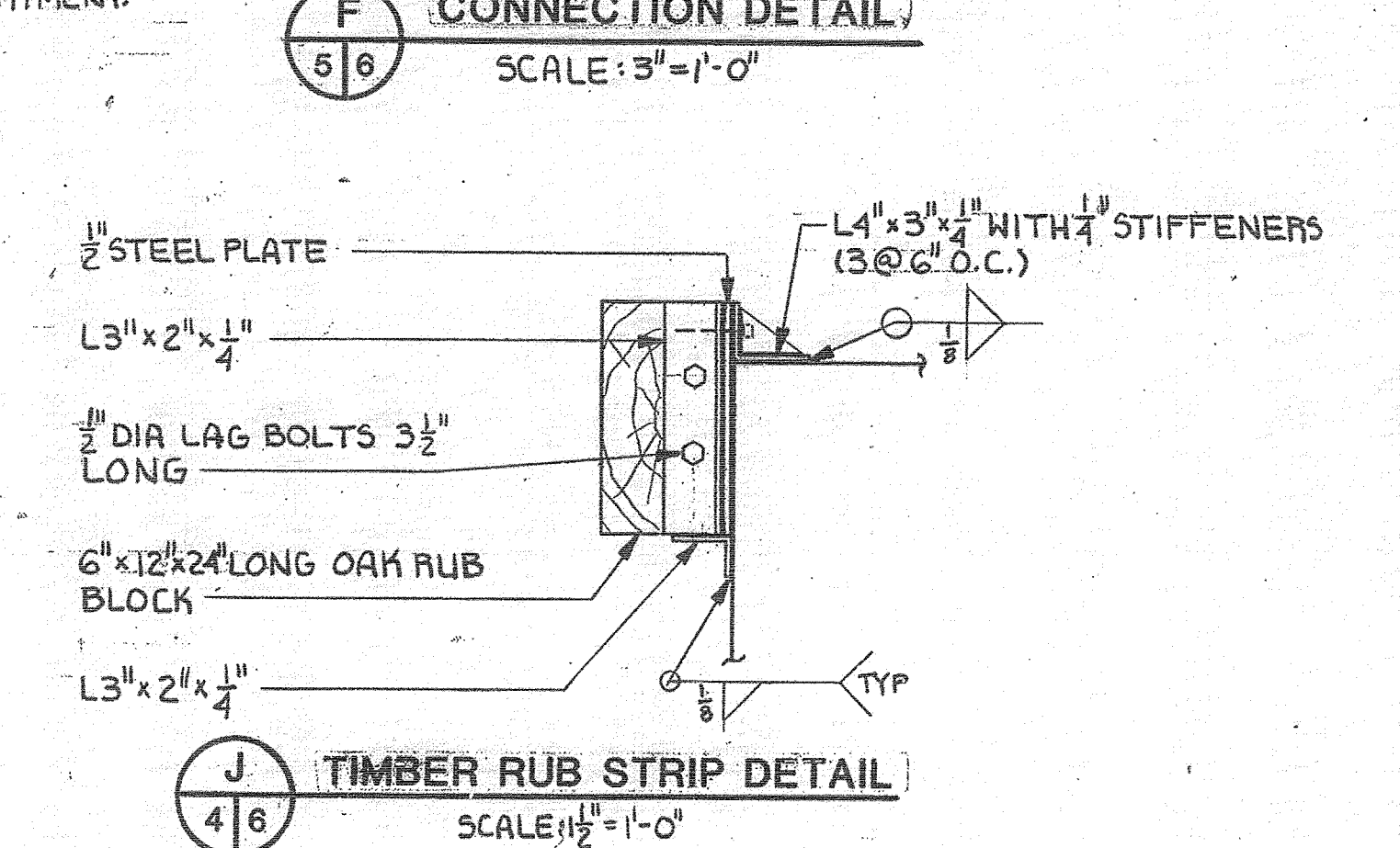
G PUMP HOUSING OPENING DETAIL
SCALE: 1/2"=1'-0"



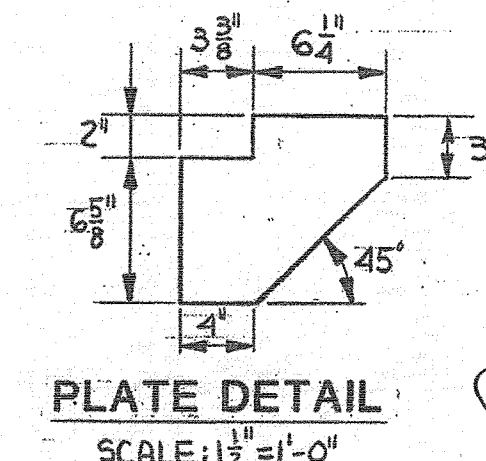
H CHANNEL CONNECTION DETAIL
SCALE: 3"=1'-0"



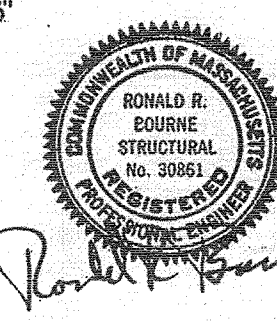
I CHANNEL TO SCANTLING DETAIL
SCALE: 1"=1"



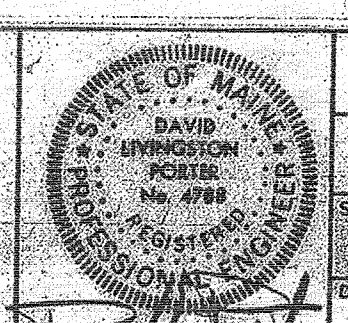
J TIMBER RUB STRIP DETAIL
SCALE: 1/2"=1'-0"



K PLATE DETAIL
SCALE: 1/2"=1'-0"



CASCO BAY FERRY TERMINAL
PORTLAND, MAINE
CONTRACT NO. STEVENS ASSOCIATES IN ASSOCIATION WITH HUNTER-BALLEW ASSOCIATES
DATE: 10/12/10



PONTOON DETAILS
TRANSFER BRIDGE
SCALE: AS SHOWN
DATE: 10/12/10
JOB NO. 2007
DRAWING NO. W6

CASCO BAY ISLAND
TRANSIT DISTRICT

CASCO BAY FERRY TERMINAL
MARINE STRUCTURES IMPROVEMENTS
PORTLAND, MAINE

SHEET NUMBER

R3

12 OF 12

PROGRAM	PROJECT INFORMATION	SIGNATURE
DESIGNER	PROJECT MANAGER	
CONSULTANT	DESIGNER	P.E. NUMBER
PROJECT RESIDENT	CONSULTANT	10/30/2012
CONTRACTOR	PROJECT RESIDENT	DATE
PROJECT COMPLETION DATE	CONTRACTOR	

REFERENCE DRAWING