



**Alabama State Port Authority**  
**Addendum to R&P or Specification Booklet**

**Project Name** McDuffie Dual Barge Shifter and Barge Haul System Marine Construction

**Project No.** 10873      **Task No.** 03      **Addendum No.** 1

**To:** Prospective Bidders      **Date:** 11/29/23

The following items are clarifications to questions received. These items are hereby included in the bid documents by this addendum.

Item	Description
1.	The Pre-Bid sign in sheet is attached and is hereby incorporated into the bid documents by this addendum.
2.	Attached is the revised Division I schedule of prices hereby incorporated into the bid documents by this addendum.
3.	Revised drawings attached and hereby incorporated into the bid documents by this addendum: 4224M-C4, 4224M-C5, 4224M-C7, 4224M-S1, 4224M-S2, 4224M-S3, 4224M-S4, 4224M-S9, 4224M-S15, and 4224M-S17
4.	Question: Will you please send out REW drawing 8090 shown on REW 8001 with the addendum?  Answer: Requested drawing is included and hereby incorporated into the bid documents by this addendum.
5.	Question: If demo piles cannot be removed full length, is it acceptable to cut them at the mud line?  Answer: Yes
6.	Question: Please confirm the coating requirement for the steel piles and the coating length that is required.  Answer: 40 mils of polyurea or 20 mils coal tar epoxy, 50' of coating.
7.	Question: On drawing S-9 for the 60" pipe piles, there is a note for donut fenders. Please confirm if donut fenders are required for the 60" piles.  Answer: No donut fenders on 60"Ø piles.
8.	Question: The quantity of type III fenders shown for BU1 does not match on the schedule of prices versus the drawings. The schedule of prices shows 6 each and there are 19 each on the drawing. Please confirm the correct quantity.  Answer: See revised Schedule of Prices and revised drawings.
9.	Question: The quantity of type IV fenders shown for BU1 does not match on the schedule of prices versus the drawings. The schedule of prices shows 12 each and there are 6 each on the drawing.



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	<p>Please confirm the correct quantity.</p> <p>Answer: See revised Schedule of Prices and revised drawings.</p>
10.	<p>Question: There are new wide flange beams shown for supporting the new BU1 and BU3 fenders. Please provide the member sizes and connection details.</p> <p>Answer: The fender support structure design shall be provided by the fender manufacturer. The steel support frames shall be attached to the concrete dock, 3' thick. The support structure shall be designed to support the fender panels, fender elements, the self weight of the steel frames and the loads delivered into the frames by the barges.</p>
11.	<p>Question: Spec.2.1: To which fender type is the performance referring to?</p> <p>Answer: Fenders on each side of slip along concrete dock.</p>
12.	<p>Question: Spec. 2.2.: Are these limits in reference to the stand-off on the drawing?</p> <p>Answer: Yes</p>
13.	<p>Question: Spec. 3.6 and following, which fender type is referenced here?</p> <p>Answer: Arch Fender elements</p>
14.	<p>Question: Please provide spec section 13020 for the donut fenders –</p> <p>Answer: Donut fenders shall be “Ocean Guard Monopile Donut Fenders” super high capacity or approved equal. Sizes: 6’ diameter x 8’ long and 7’ diameter x 8’ long.</p>
15.	<p>Question: Drawing S2: Please provide specifics on the fender system, what is the size of the panel, what is the material of the panel, what are the design loads, is there low friction material on the panels etc.</p> <p>Answer: Fender system shall be designed with panels similar in size to the panels shown on the Addendum 1 drawings.</p>
16.	<p>Question: Drawing S8: Please provide OD of the donut fender, as well as the performance requirements.</p> <p>Answer: Donut fenders shall be “Ocean Guard Monopile Donut Fenders” super high capacity or approved equal. Sizes: 6’ diameter x 8’ long and 7’ diameter x 8’ long.</p>
17.	<p>Question: Drawing S15: What is the required length of the arch-fenders?</p> <p>Answer: As designed by manufacturer for specified loading.</p>
18.	<p>Approved Fender Manufacturers:</p> <p>Trelleborg</p>



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	<p>The Rubber Company</p> <p>Pacific Marine &amp; Industrial</p> <p>Shibata Fender Team</p> <p>ESC Marine Systems</p> <p>Prosertek</p> <p>Marinus Engineering</p> <p>Or Approved Equal</p>
19.	<p>The bid opening date has been postponed. Delete all previous references to the bid opening and replace with the following:</p> <p>Sealed bid proposals will be received via courier to the Alabama State Port Authority (ASPA), 1400 Alabama State Docks Blvd, Room 216, Administration Building, Mobile, AL 36602 by 1:00pm on December 12<sup>th</sup>, 2023. Sealed bid proposals can also be hand delivered from 1:45pm to 2:00pm on Tuesday, December 12<sup>th</sup>, 2023 to the Alabama State Port Authority in the International Trade Center building, 250 North Water Street, 1<sup>st</sup> floor – Killian Room, Mobile, AL. The official bid opening will be conducted in the Killian Room at 2:00 P.M. on Tuesday, December 12<sup>th</sup>, 2023. Faxed or electronically submitted bids will not be accepted. ATTENDANCE TO THE BID OPENING IS NOT MANDATORY. Sealed bids shall have the bidder's name, contractor's license number, project name, and time and date of bid opening shown on the outside. Additions and deducts will not be allowed on the outside of the bid.</p>

Please indicate your receipt of this addendum by adding the addendum number in the appropriate place in your Requisition & Proposal or Specification Book.





Alabama State Port Authority  
Specification Booklet

Project Name McDuffie Unloaders 1 and 3 Dual Barge Shifter Systems Marine  
Construction/Equipment Installation  
Location Mobile, AL  
Project # 10873 Task # 3 October 2023

SCHEDULE OF PRICES (REVISED 11/29/2023)

Description		Unit	Quantity	Unit Price	Total
<b>1</b>	<b>Demolition BU3</b>				
1.1	Remove Existing Sheet Pile Cell (Crew, Equipment, OH & Profit - Work Days)	D	15	\$	\$
1.2	Remove Existing North (4) Pile Sheave Dolphin	LS	1	\$	\$
1.3	Remove All Fendering Within the Unloading Slip	LS	1	\$	\$
1.4	Remove Existing Winches	LS	1	\$	\$
1.5	Remove Existing Camel Barge Haul System; Camels, Cables, Sheaves, Fairleads, Etc.	LS	1	\$	\$
1.6	Remove Existing Cable Reel	LS	1	\$	\$
1.7	Remove All Existing Miscellaneous Structures/Equipment/Appurtenances Required for the Performance of the Work	LS	1	\$	\$
<b>Subtotal</b>					\$
<b>2</b>	<b>Marine Structures BU3</b>				
2.1	Furnish and Install New Five (5) Pile Breasting/Sheave Support Structures	EA	2	\$	\$
2.2	Furnish and Install New Single Pile Dolphins 30" Type "B"	EA	6	\$	\$



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Project # 10873

Task # 3

October 2023

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2.3	Furnish and Install New Single Pile Dolphins 36" Type "A"	EA	2	\$	\$
2.4	Furnish and Install New Fender Structure, Elements, and Panels Type I	EA	6	\$	\$
2.5	Furnish and Install New Fender Structure, Elements, and Panels Type II	EA	6	\$	\$
<b>Subtotal</b>					\$
<b>3</b>	<b>Mechanical BU3</b>				
3.1	Receive, Handle, Store, and Install New REW Furnished Dual Barge Shifter Barge	LS	1	\$	\$
3.2	Receive, Handle, Store, and Install New REW Furnished Barge Haul Winches	EA	2	\$	\$
3.3	Receive, Handle, Store, and Install New REW Furnished Wire Ropes and Wire Rope Fittings	LS	1	\$	\$
3.4	Receive, Handle, Store, and Install New REW Furnished Snatch Block w/swivel	EA	2	\$	\$
3.5	Receive, Handle, Store, and Install New REW Furnished Four Roller Fairlead	EA	6	\$	\$
3.6	Receive, Handle, Store, and Install New REW Furnished Cable Reel and Cable Guide	LS	1	\$	\$
3.7	Receive, Handle, Store, and Install New REW Furnished Cable Reel Cable	LS	1	\$	\$
3.8	Receive, Handle, Store, and Install New REW Furnished Miscellaneous Parts and Appurtenances	LS	1	\$	\$



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					<b>Subtotal</b>	\$
<b>4</b>	<b>Demolition BU1</b>					
4.1	Remove Existing (4) Pile Sheave Dolphin	EA	2	\$		\$
4.2	Remove All Fendering Within the Unloading Slip	LS	1	\$		\$
4.3	Remove Existing Winches	LS	1	\$		\$
4.4	Remove Existing Camel Barge Haul System; Camels, Cables, Sheaves, Fairleads, Etc.	LS	1	\$		\$
4.5	Remove Existing Cable Reel	LS	1	\$		\$
4.6	Remove All Existing Miscellaneous Structures/Equipment/Appurtenances Required for the Performance of the Work	LS	1	\$		\$
					<b>Subtotal</b>	\$
<b>5</b>	<b>Marine Structures BU1</b>					
5.1	Furnish and Install New Five (5) Pile Breastings/Sheave Support Structures	EA	2	\$		\$
5.2	Furnish and Install New Single Pile Dolphins 30" Diameter Type "B"	EA	5	\$		\$
5.3	Furnish and Install New Single Pile Dolphins 36" Diameter Type "A"	EA	4	\$		\$
5.4	Furnish and Install New Fender Structures, Elements, and Panels Type III	EA	17	\$		\$
5.5	Furnish and Install New Fender Structures, Elements, and Panels Type IV	EA	6	\$		\$



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5.6	Furnish and Install New Single Pile Dolphins 36" Diameter Type "A"	EA	2	\$	\$
5.7	Furnish and Install New Single Pile Dolphins 60" Diameter Type "C"	EA	2	\$	\$
<b>Subtotal</b>					\$
<b>6</b>	<b>Mechanical BU1</b>				
6.1	Receive, Handle, Store, and Install New REW Furnished Dual Barge Shifter Barge	LS	1	\$	\$
6.2	Receive, Handle, Store, and Install New REW Furnished Barge Haul Winches	EA	2	\$	\$
6.3	Receive, Handle, Store, and Install New REW Furnished Wire Ropes and Wire Rope Fittings	LS	1	\$	\$
6.4	Receive, Handle, Store, and Install New REW Furnished Snatch Block w/swivel	EA	2	\$	\$
6.5	Receive, Handle, Store, and Install New REW Furnished Four Roller Fairlead	EA	6	\$	\$
6.6	Receive, Handle, Store, and Install New REW Furnished Cable Reel and Cable Guide	LS	1	\$	\$
6.7	Receive, Handle, Store, and Install New REW Furnished Cable Reel Cable	LS	1	\$	\$
6.8	Receive, Handle, Store, and Install New REW Furnished Miscellaneous Parts and Appurtenances	LS	1	\$	\$
<b>Subtotal</b>					\$





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Project # 10873 Task # 3 October 2023 I-13 | Page

7	<b>General Conditions</b>				
7.1	Mobilization/Demobilization	LS	1	\$	\$
7.2	Insurance	LS	1	\$	\$
7.3	Performance and Labor & Material Bonds	LS	1	\$	\$
<b>Subtotal</b>					\$
<b>Base Project Total</b>					\$

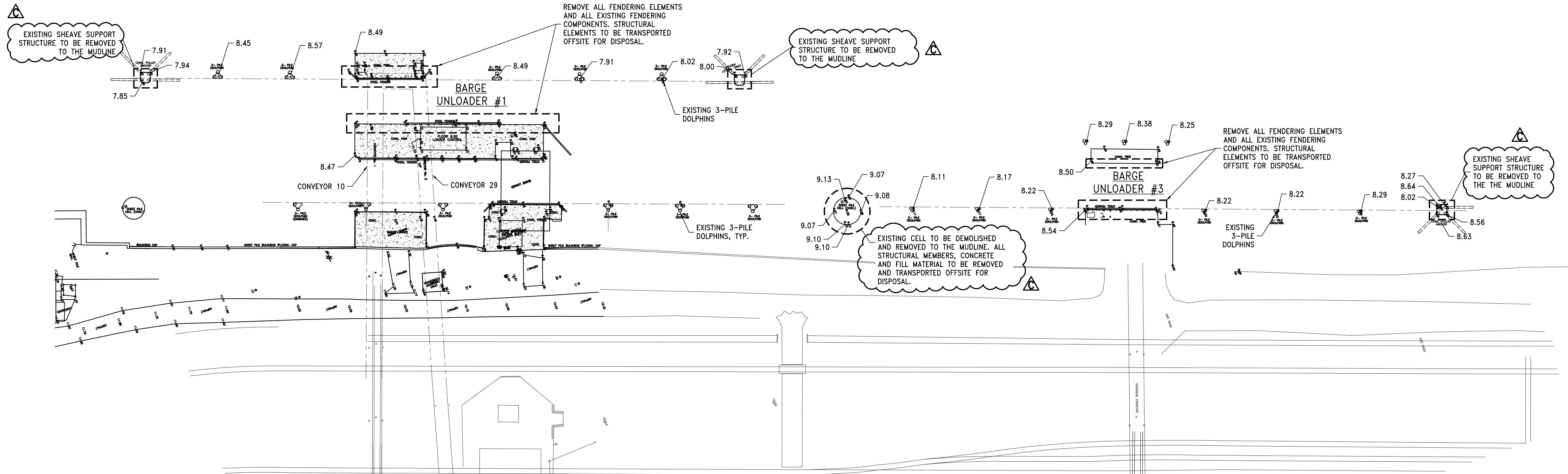
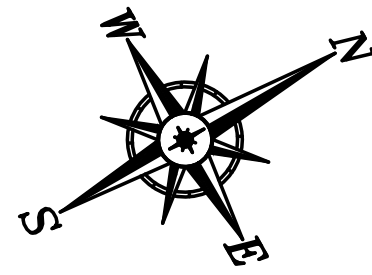
- (1) The general requirements cost shall be absorbed into the listed line items with the schedule of prices, including insurances, overhead profit and all other miscellaneous fabrication activities involved with the specific equipment system supply phase including the drawings, installation manuals and construction related activities.
- (2) Miscellaneous (Item 3.8 and 6.8) should include any other items not specifically detailed in the schedule of prices but included in the complete construction and installation of the dual barge shifter systems in accordance with the specifications.
- (3) All construction work and equipment installation shall be warranted for (2) years.

I, the undersigned bidder, hereby acknowledge receipt of the following addenda:

ADDENDA NOs. \_\_\_\_\_ thru \_\_\_\_\_

<b>Contractor's Signature:</b>		
Contractor Company _____		
Name	Title	Date





**DUAL BARGE SHIFTER – DEMOLITION PLAN**

1"=50'

**SEQUENCE NOTES:**

ALL WORK SHALL BE PERFORMED ON BARGE UNLOADER #3 (BU3) IN PHASE I OF THE WORK. DEMOLITION WORK ASSOCIATED WITH BARGE UNLOADER #1 (BU1) SHALL NOT BEGIN UNTIL BU3 HAS BEEN COMPLETED, COMMISSIONED AND FULLY OPERATIONAL.

**DEMOLITION PLAN**

- ONE SHEET PILE CELL
- THREE CONCRETE CAP/SHEET PILE SHEAVE SUPPORT DOLPHINS
- STEEL PIPE FENDER SYSTEM WITHIN THE UNLOADER SLIP
- REMOVAL OF EXISTING CAMEL HAUL SYSTEMS, WINCHES, SHEAVES, CABLES POWER SUPPLIES, ETC.

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REV.	DESCRIPTION	DATE	BY	CHK'D
C	ADDENDUM 1	11/28/23	WBS	GDEC
B	ISSUED FOR BID	11/03/23	RCC	GDEC
A	ISSUED FOR REVIEW	10/11/23	JWM	GDEC

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PROJECT

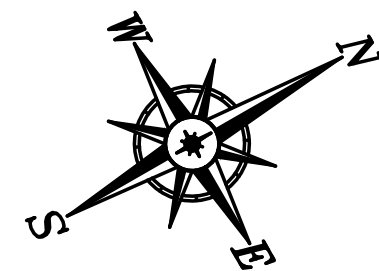
**DUAL BARGE SHIFTER AND  
BARGE HAUL MARINE CONSTRUCTION**

**McDUFFIE COAL TERMINAL  
MOBILE, ALABAMA**

TITLE

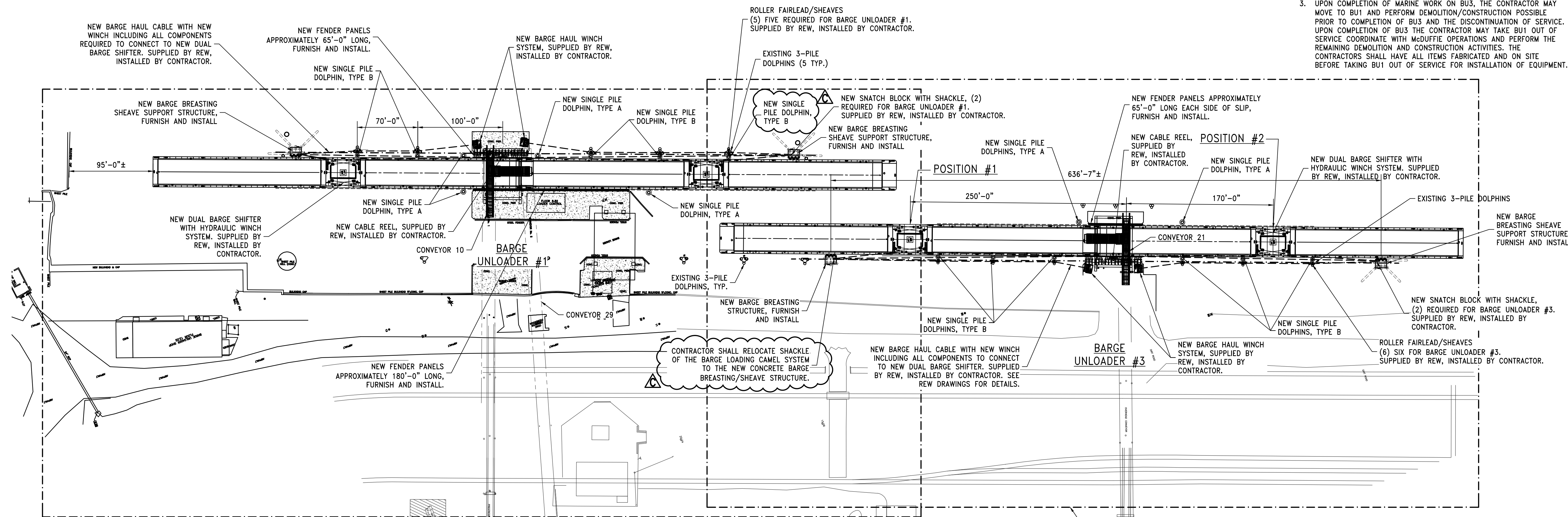
**DUAL BARGE SHIFTER  
DEMOLITION PLAN**

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	JWM	01/22/23	— OF —	22x34 C
JOB NO. 4224M	CHECKED BY GDEC	DATE 3/17/23	DRAWING NUMBER 4224M-C4	



**NOTES:**

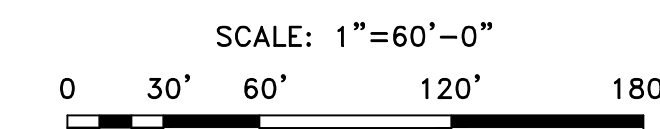
1. TYPE A SINGLE PILE DOLPHIN: 36"Ø x 100' LONG PIPE PILE WITH 8' LONG OCEAN GUARD MONOPILE DONUT FENDER. TYPE B SINGLE PILE DOLPHIN: 30"Ø x 100' LONG PIPE PILE WITH 8' LONG OCEAN GUARD MONOPILE DONUT FENDER.
2. BARGE UNLOADER 3 (BU3) SHALL BE THE FIRST UNLOADER REQUIRED. THE CONTRACTOR SHALL PERFORM ALL DEMOLITION/CONSTRUCTION POSSIBLE PRIOR TO TAKING THE UNLOADER OUT OF SERVICE. THE NEW DOLPHIN PILES SHALL BE INSTALLED PRIOR TO TAKING THE UNLOADER OUT OF SERVICE. THE CONTRACTOR SHALL FABRICATE AND REPAIR ALL FENDER EXTENSIONS AND EXISTING CONCRETE AREAS FOR INSTALLATIONS PRIOR TO TAKING THE UNLOADER OUT OF SERVICE. THE BARGE UNLOADER SHALL BE OUT OF SERVICE A MAXIMUM OF \_\_\_\_\_ WEEKS FOR COMPLETION OF MARINE CONSTRUCTION, INSTALLATION AND COMMISSIONING OF EQUIPMENT. DURING THE OUTAGE McDUFFIE PERSONNEL SHALL BE PERFORMING MAINTENANCE WORK, I.E. REPAIR CHAIN TENSIONER, ETC. ALL BARGE UNLADER 3 EQUIPMENT SHALL BE OPERATIONAL AND SHALL HAVE CONTINUOUSLY OPERATED FOR (2) 12 HOUR PERIODS PRIOR TO TAKING BARGE UNLOADER 1 (BU1) OUT OF SERVICE.
3. UPON COMPLETION OF MARINE WORK ON BU3, THE CONTRACTOR MAY MOVE TO BU1 AND PERFORM DEMOLITION/CONSTRUCTION POSSIBLE PRIOR TO COMPLETION OF BU3 AND THE DISCONTINUATION OF SERVICE. UPON COMPLETION OF BU3 THE CONTRACTOR MAY TAKE BU1 OUT OF SERVICE COORDINATE WITH McDUFFIE OPERATIONS AND PERFORM THE REMAINING DEMOLITION AND CONSTRUCTION ACTIVITIES. THE CONTRACTORS SHALL HAVE ALL ITEMS FABRICATED AND ON SITE BEFORE TAKING BU1 OUT OF SERVICE FOR INSTALLATION OF EQUIPMENT.



**DUAL BARGE SHIFTER - PLAN**  
1"=60'

SEE 4224M-C7 FOR ENLARGED PLAN

SEE 4224M-C6 FOR ENLARGED PLAN



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PROJECT

**DUAL BARGE SHIFTER AND BARGE HAUL MARINE CONSTRUCTION**

**McDUFFIE COAL TERMINAL MOBILE, ALABAMA**

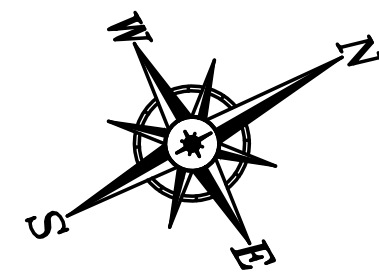
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**DUAL BARGE SHIFTER NEW OVERALL SITE PLAN**

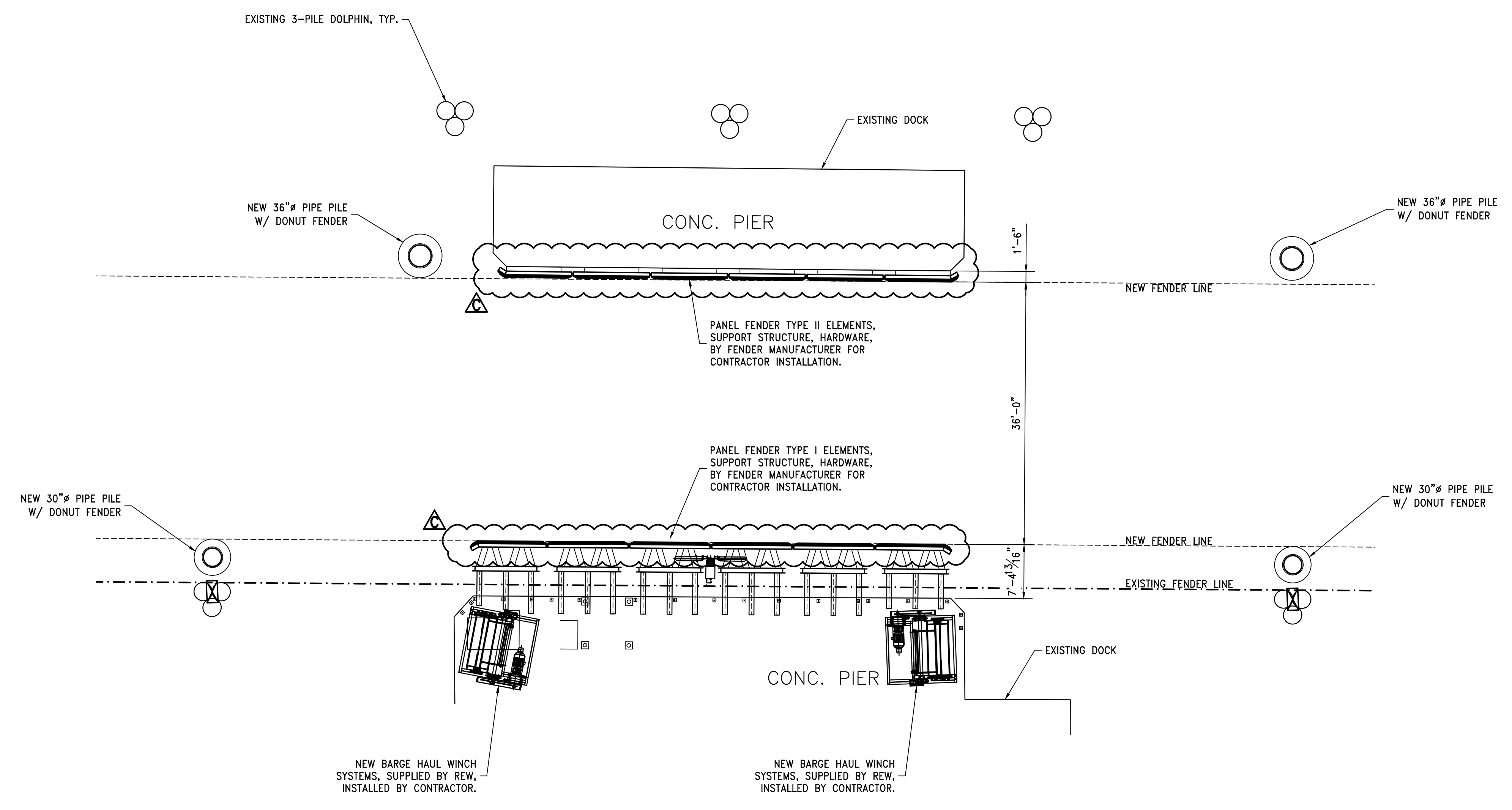
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AS NOTED	JDG	01/22/23	22x34	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4224M	GDEC	3/17/23	4224M-C5	

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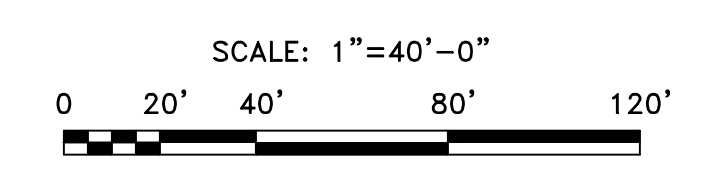




**NOTE:**  
 THE DESIGN OF THE FENDER ELEMENTS, FENDER PANELS, SUPPORT STRUCTURE AND MISCELLANEOUS APPURTENANCES AS REQUIRED TO PROVIDE A SYSTEM TO RESTRAIN THE BARGE DURING UNLOADING SHALL BE PROVIDED BY THE FENDER MANUFACTURER. THE DESIGN SHALL BE SUBMITTED FOR OWNER REVIEW AND APPROVAL PRIOR TO FABRICATION. A GENERIC LAYOUT AND DETAILS SHALL BE PROVIDED WITH THE BID.



**DUAL BARGE SHIFTER BU3 – NEW ENLARGED SITE PLAN**  
 1"=10'



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REV.	DESCRIPTION	DATE	BY	CHK'D
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B	ISSUED FOR BID	11/03/23	RCC	GDEC
A	ISSUED FOR REVIEW	09/08/23	RCC	GDEC

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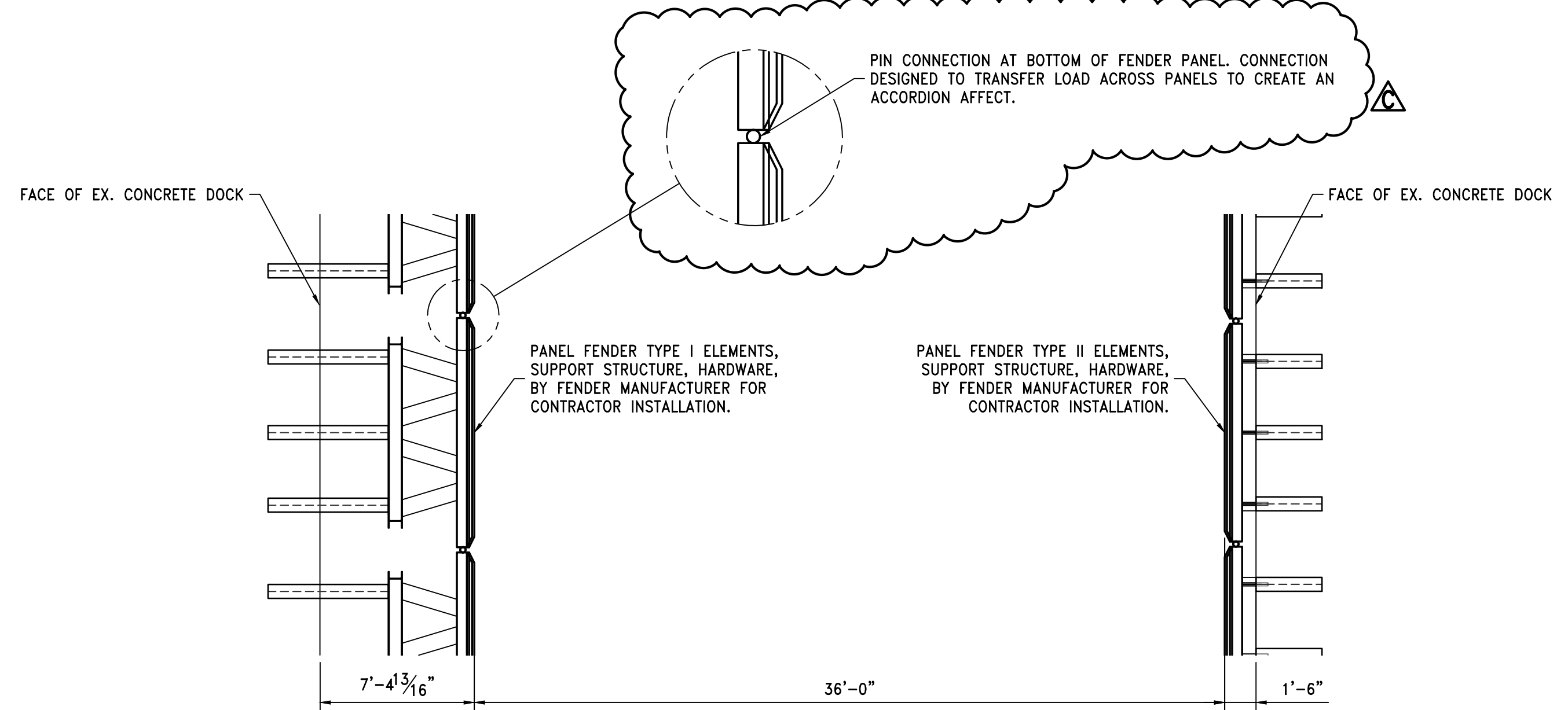
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PROJECT  
**DUAL BARGE SHIFTER AND BARGE HAUL MARINE CONSTRUCTION**  
**McDUFFIE COAL TERMINAL MOBILE, ALABAMA**

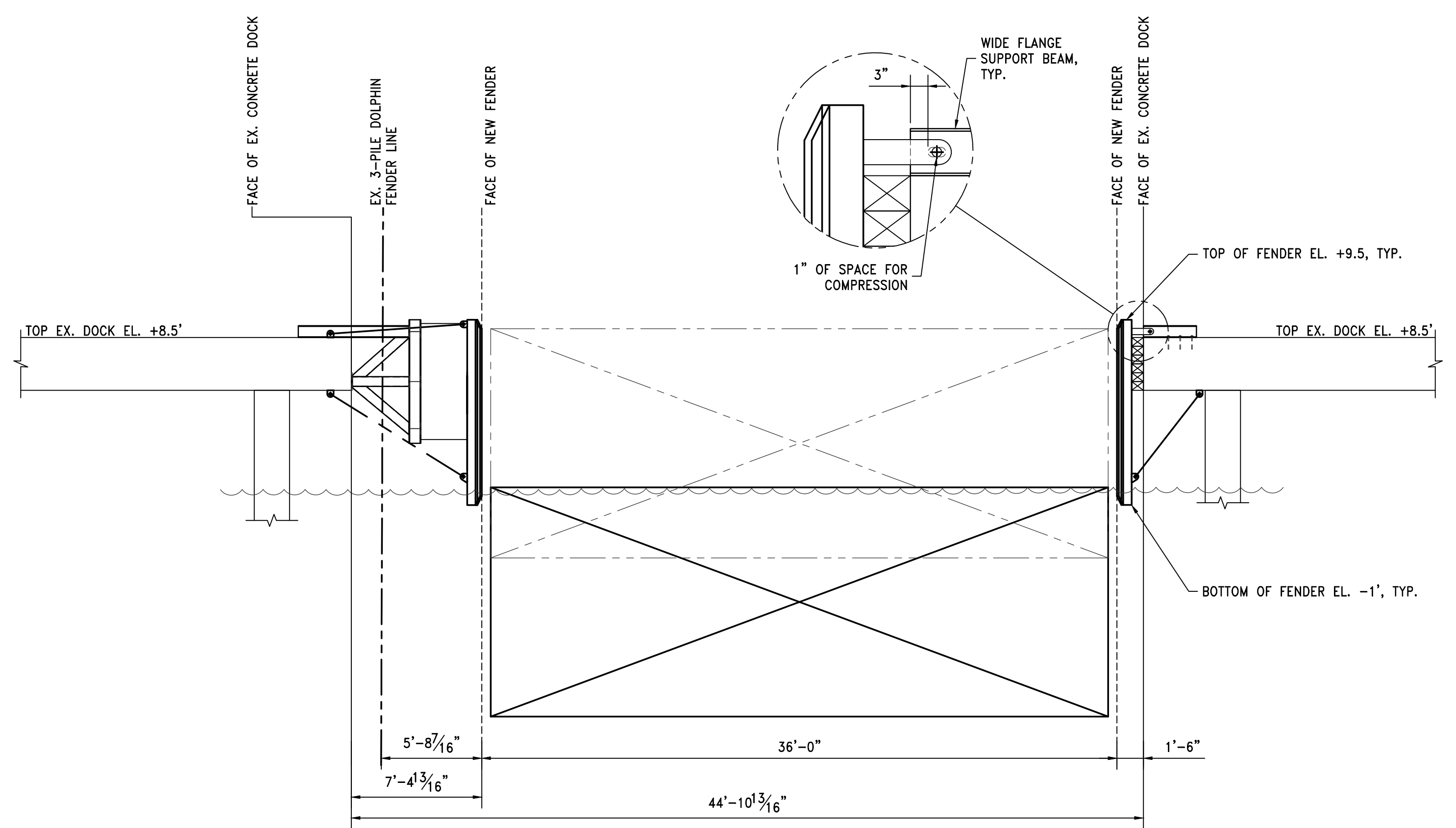
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<b>DUAL BARGE SHIFTER BU3 NEW ENLARGED DOCK PLAN</b>				
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AS NOTED	JDG	01/22/23	— OF —	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4224M	GDEC	3/17/23	<b>4224M-S1</b>	

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**NOTE:**  
 THE DESIGN OF THE FENDER ELEMENTS, FENDER PANELS, SUPPORT STRUCTURE AND MISCELLANEOUS APPURTENANCES AS REQUIRED TO PROVIDE A SYSTEM TO RESTRAIN THE BARGE DURING UNLOADING SHALL BE PROVIDED BY THE FENDER MANUFACTURER. THE DESIGN SHALL BE SUBMITTED FOR OWNER REVIEW AND APPROVAL PRIOR TO FABRICATION. A GENERIC LAYOUT AND DETAILS SHALL BE PROVIDED WITH THE BID.



**BU3 PLAN AT DOCK**  
 $\frac{3}{16}'' = 1'-0''$



**BU3 SECTION AT DOCK**  
 $\frac{3}{16}'' = 1'-0''$

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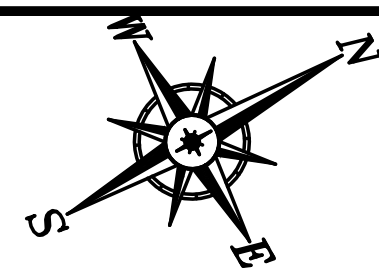
PROJECT

**DUAL BARGE SHIFTER AND BARGE HAUL MARINE CONSTRUCTION**

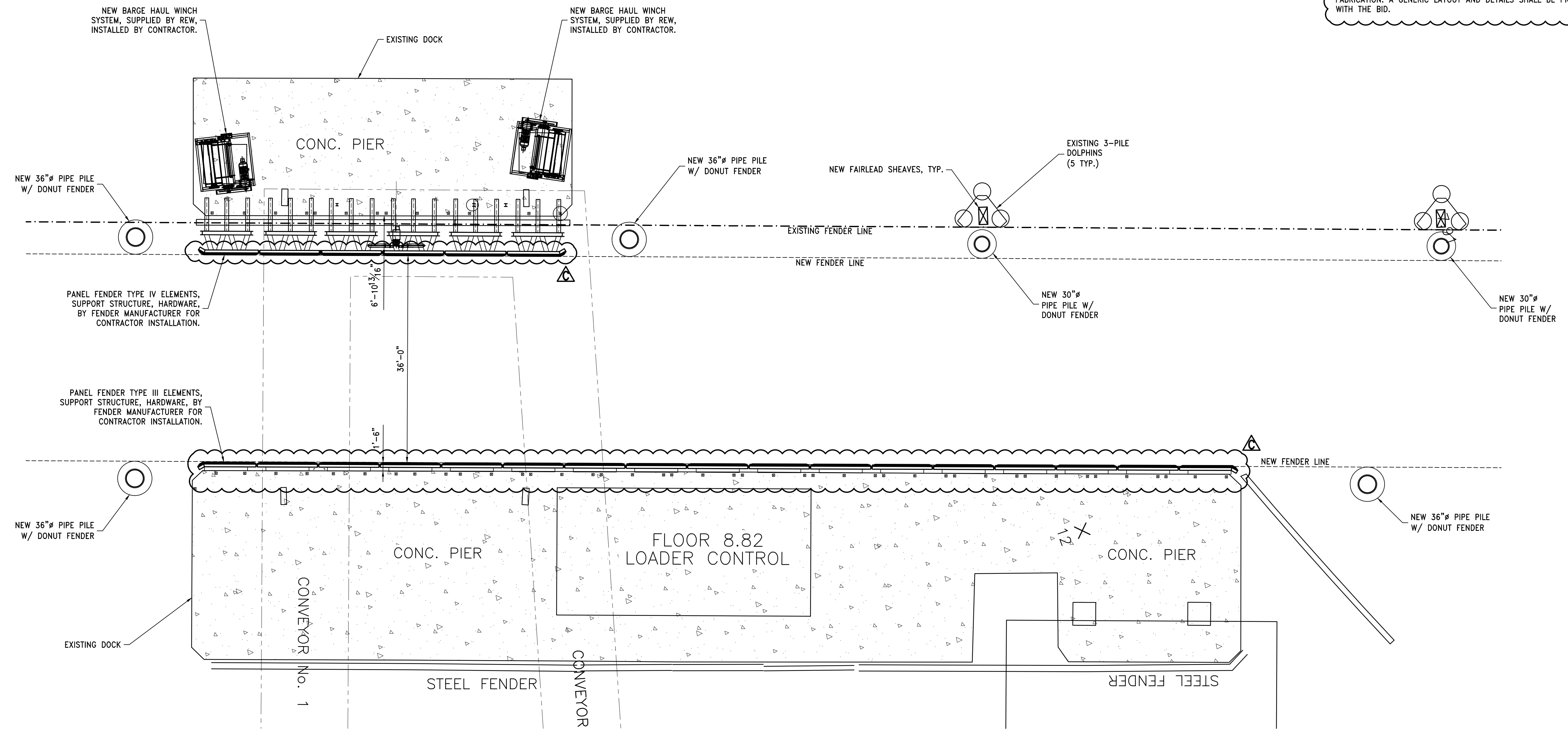
**McDUFFIE COAL TERMINAL MOBILE, ALABAMA**

TITLE				
<b>BU3 DOCK SECTION</b>				
SCALE	DRAWN BY	DATE	SHEET	22x34 REV.
AS NOTED	JWM	09/06/23	— OF —	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4224M	GDEC	09/06/23	<b>4224M-S2</b>	

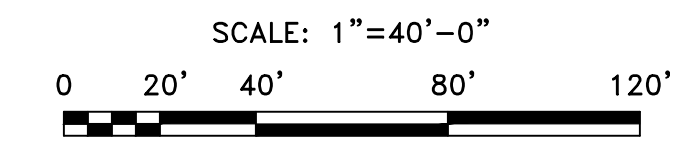
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**NOTE:**  
 THE DESIGN OF THE FENDER ELEMENTS, FENDER PANELS, SUPPORT STRUCTURE AND MISCELLANEOUS APPURTENANCES AS REQUIRED TO PROVIDE A SYSTEM TO RESTRAIN THE BARGE DURING UNLOADING SHALL BE PROVIDED BY THE FENDER MANUFACTURER. THE DESIGN SHALL BE SUBMITTED FOR OWNER REVIEW AND APPROVAL PRIOR TO FABRICATION. A GENERIC LAYOUT AND DETAILS SHALL BE PROVIDED WITH THE BID.



DUAL BARGE SHIFTER BU1 – NEW ENLARGED SITE PLAN  
 1"=10'



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**DUAL BARGE SHIFTER AND BARGE HAUL MARINE CONSTRUCTION**

**McDUFFIE COAL TERMINAL MOBILE, ALABAMA**

TITLE

**DUAL BARGE SHIFTER BU1 NEW ENLARGED DOCK PLAN**

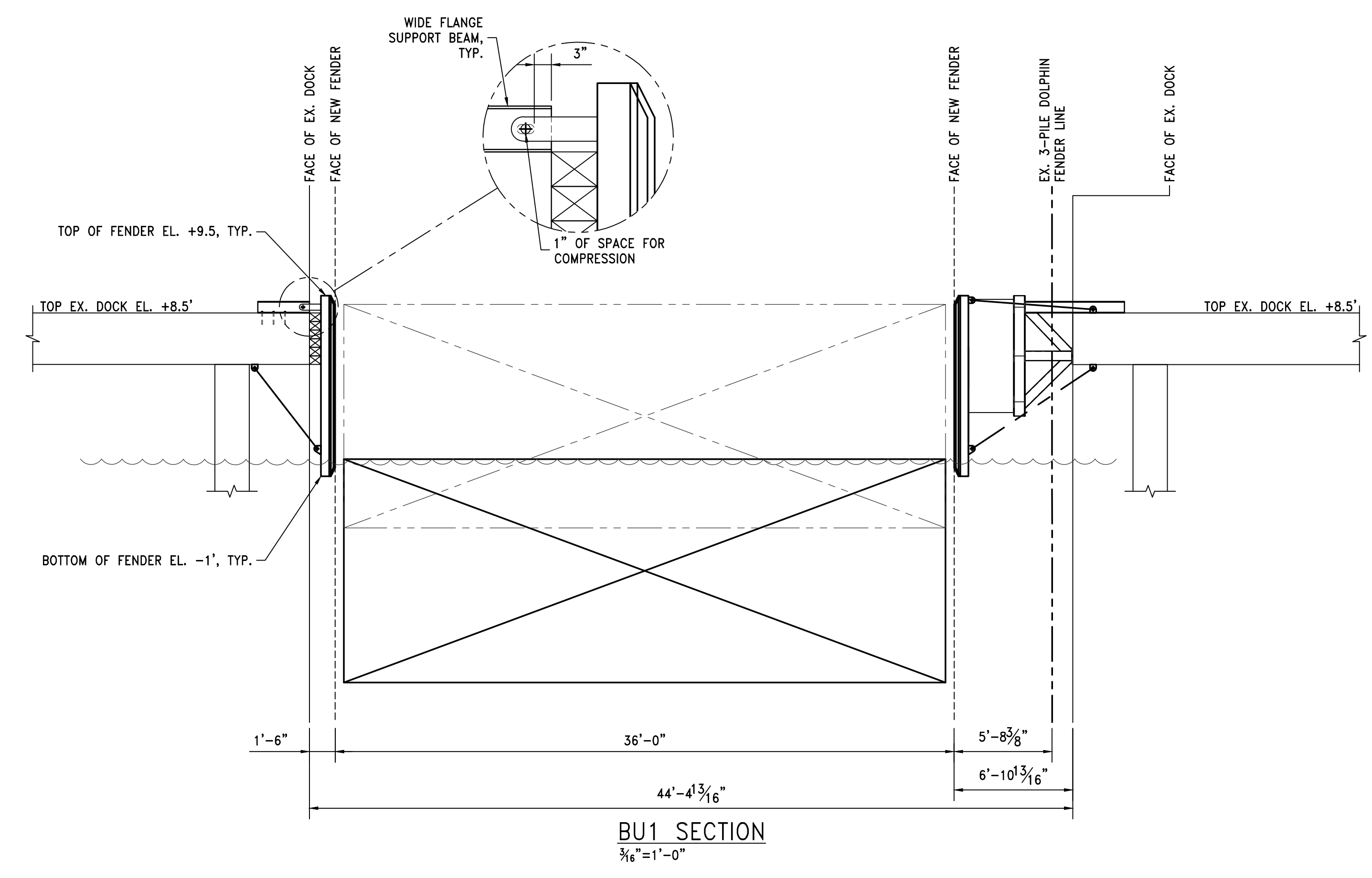
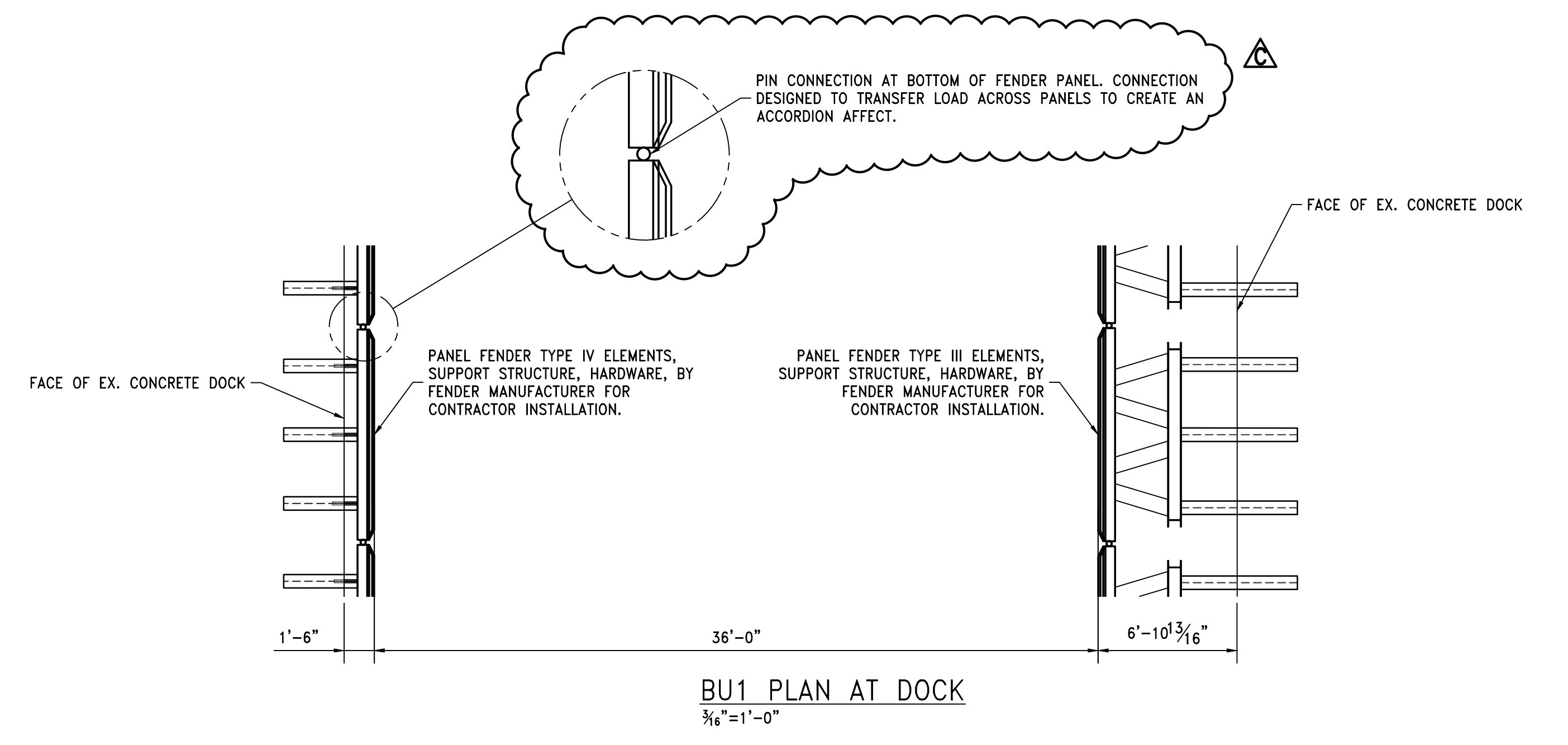
SHEET 22x34 OF 22x34

SCALE	DRAWN BY	DATE	REV.
AS NOTED	JDG	01/22/23	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER
4224M	GDEC	3/17/23	4224M-S3

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**NOTE:**  
 THE DESIGN OF THE FENDER ELEMENTS, FENDER PANELS, SUPPORT STRUCTURE AND MISCELLANEOUS APPURTENANCES AS REQUIRED TO PROVIDE A SYSTEM TO RESTRAIN THE BARGE DURING UNLOADING SHALL BE PROVIDED BY THE FENDER MANUFACTURER. THE DESIGN SHALL BE SUBMITTED FOR OWNER REVIEW AND APPROVAL PRIOR TO FABRICATION. A GENERIC LAYOUT AND DETAILS SHALL BE PROVIDED WITH THE BID.



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REV.	DESCRIPTION	DATE	BY	CHK'D
C	ADDENDUM 1	11/28/23	WBS	GDEC
B	ISSUED FOR BID	11/03/23	RCC	GDEC
A	ISSUED FOR REVIEW	09/08/23	JWM	GDEC

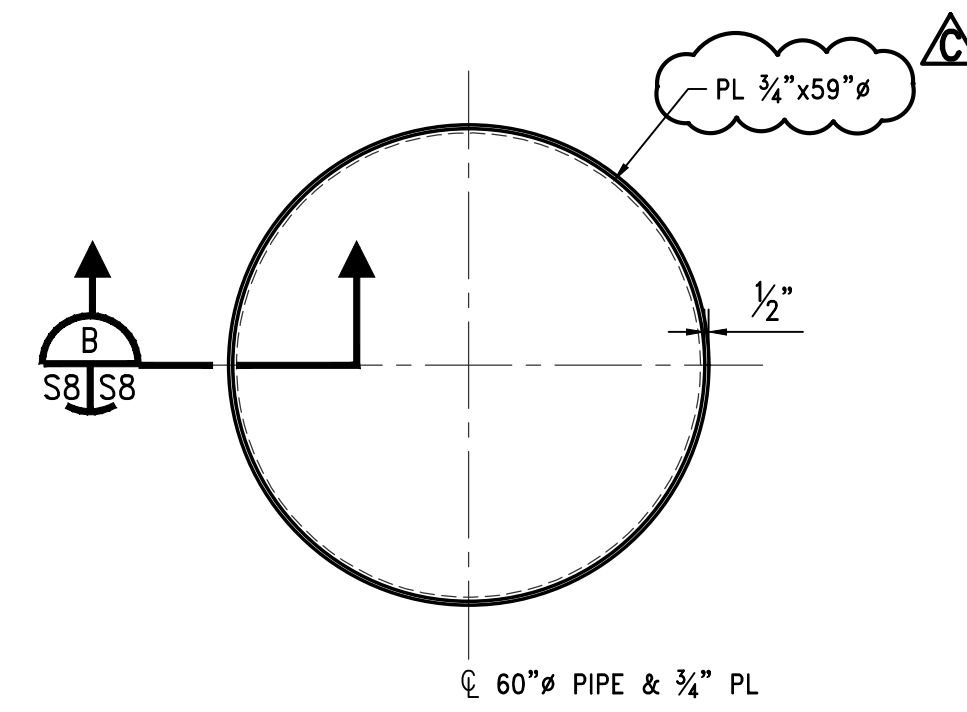
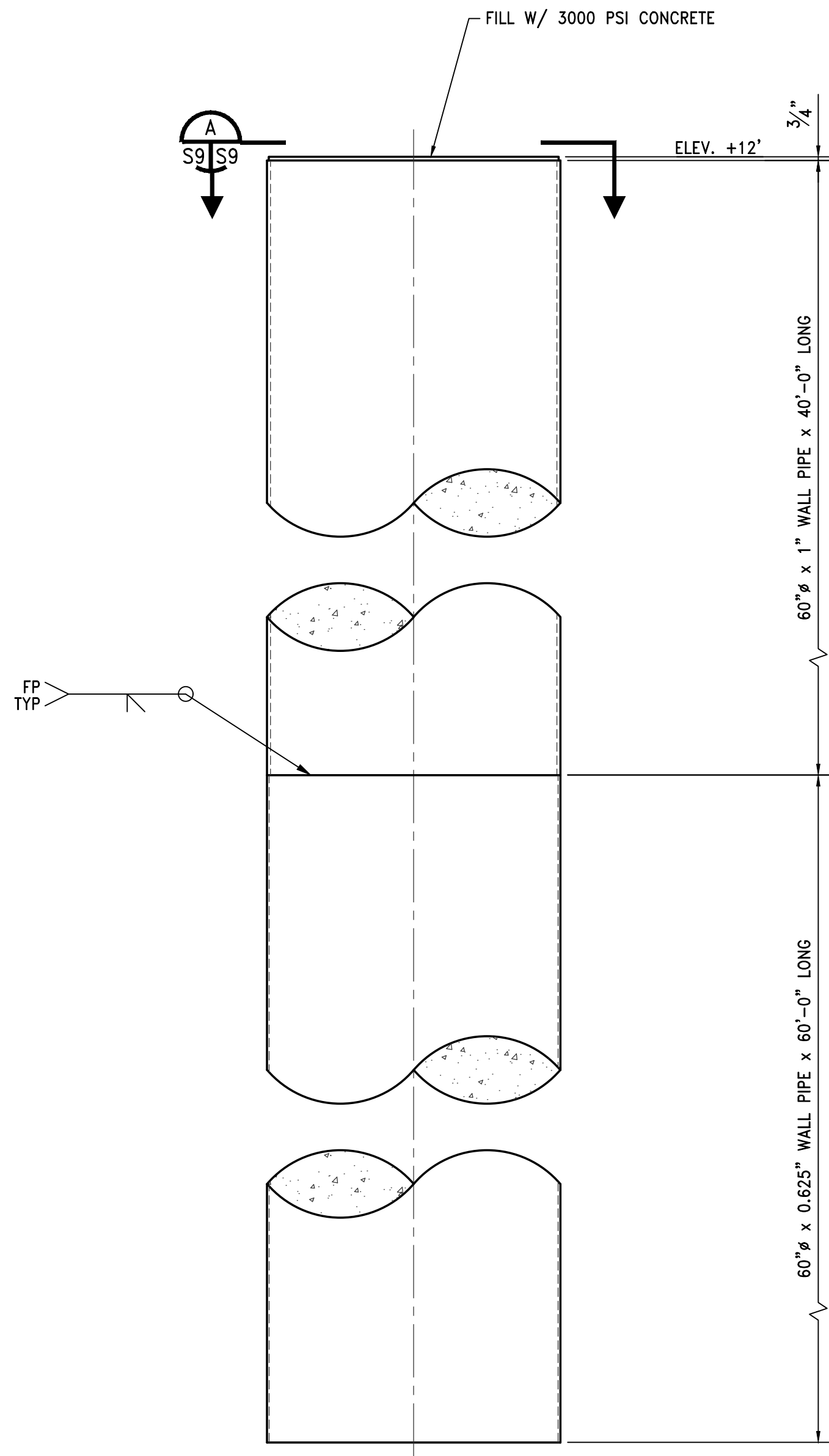
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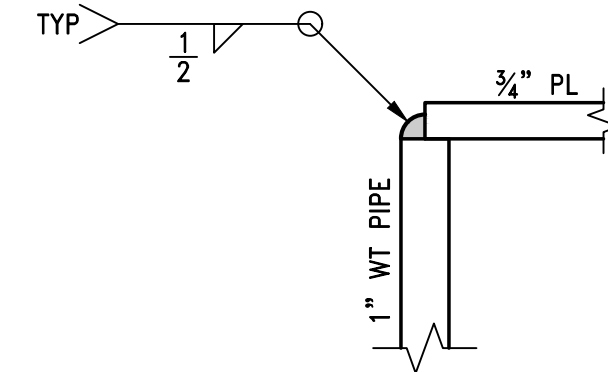
PROJECT  
**DUAL BARGE SHIFTER AND BARGE HAUL MARINE CONSTRUCTION**  
**McDUFFIE COAL TERMINAL MOBILE, ALABAMA**

TITLE <b>BU1 DOCK SECTION</b>				
SCALE AS NOTED	DRAWN BY JWM	DATE 09/06/23	SHEET — OF —	22x34 REV. C
JOB NO. 4224M	CHECKED BY GDEC	DATE 09/06/23	DRAWING NUMBER <b>4224M-S4</b>	

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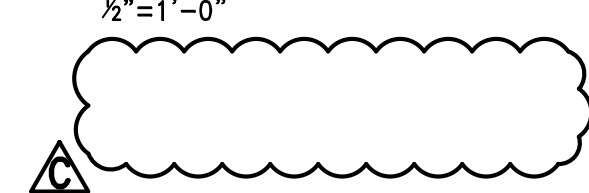


SECTION A  
1/2"=1'-0"



SECTION B  
3"=1'-0"

DOLPHIN "C" (60"  $\phi$ )  
1/2"=1'-0"



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C	ADDENDUM 1	11/28/23	WBS	GDEC
B	ISSUED FOR BID	11/03/23	RCC	GDEC
A	ISSUED FOR REVIEW	09/08/23	JWM	GDEC

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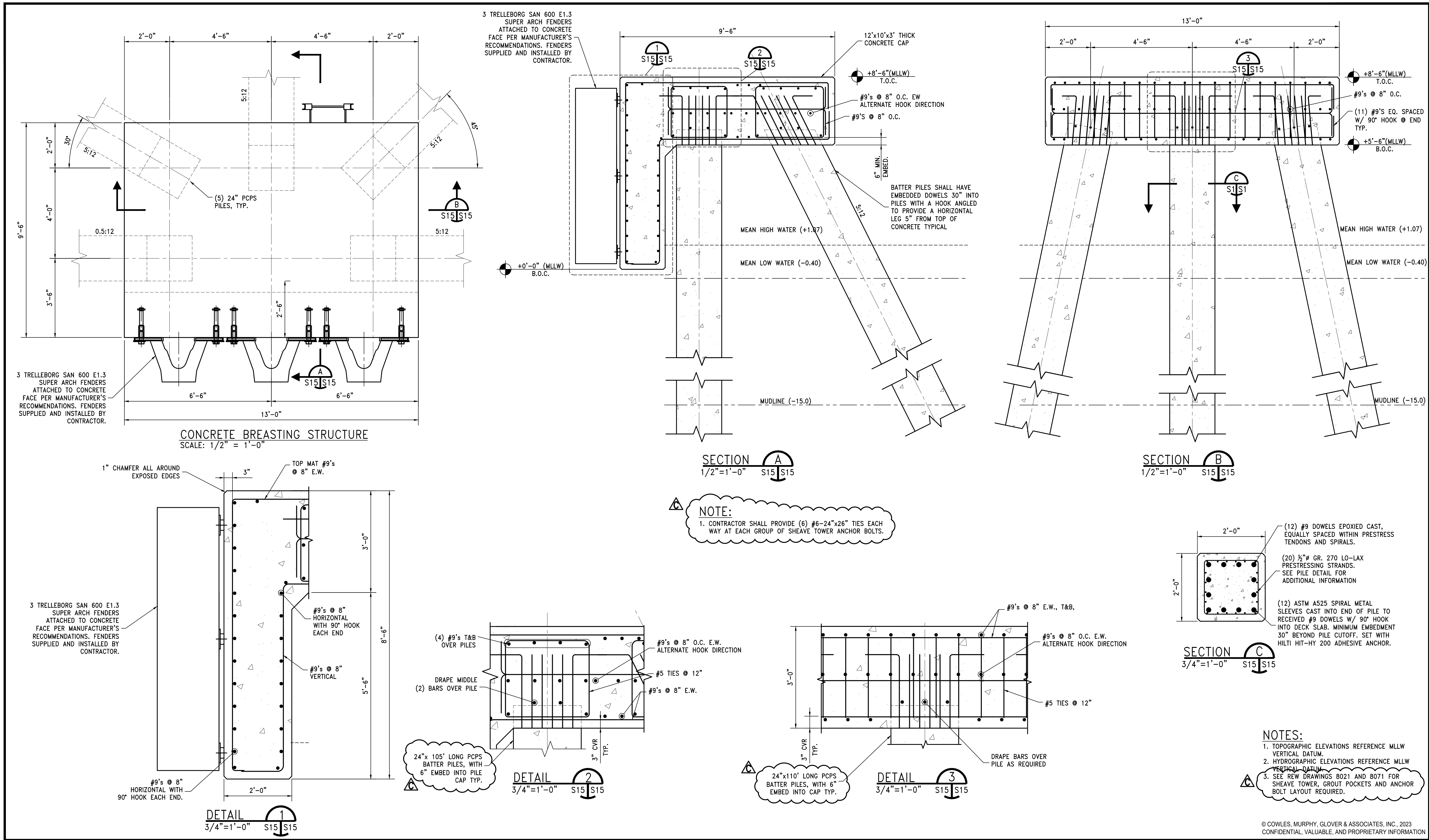
DUAL BARGE SHIFTER AND  
BARGE HAUL MARINE CONSTRUCTION

McDUFFIE COAL TERMINAL  
MOBILE, ALABAMA

TITLE

DOLPHIN "C" ELEVATION AND DETAILS

SCALE	DRAWN BY	DATE	SHEET	22x34	REV.
AS NOTED	JWM	09/06/23	—	—	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER		
4224M	GDEC	09/06/23	4224M-S9		



**NOTE:**  
 1. CONTRACTOR SHALL PROVIDE (6) #6-24"x26" TIES EACH WAY AT EACH GROUP OF SHEAVE TOWER ANCHOR BOLTS.

**NOTES:**  
 1. TOPOGRAPHIC ELEVATIONS REFERENCE MLLW VERTICAL DATUM.  
 2. HYDROGRAPHIC ELEVATIONS REFERENCE MLLW VERTICAL DATUM.  
 3. SEE REV DRAWINGS 8021 AND 8071 FOR SHEAVE TOWER, GROUT POCKETS AND ANCHOR BOLT LAYOUT REQUIRED.

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REV.	DESCRIPTION	DATE	BY	CHK'D
C	ADDENDUM 1	11/28/23	WBS	GDEC
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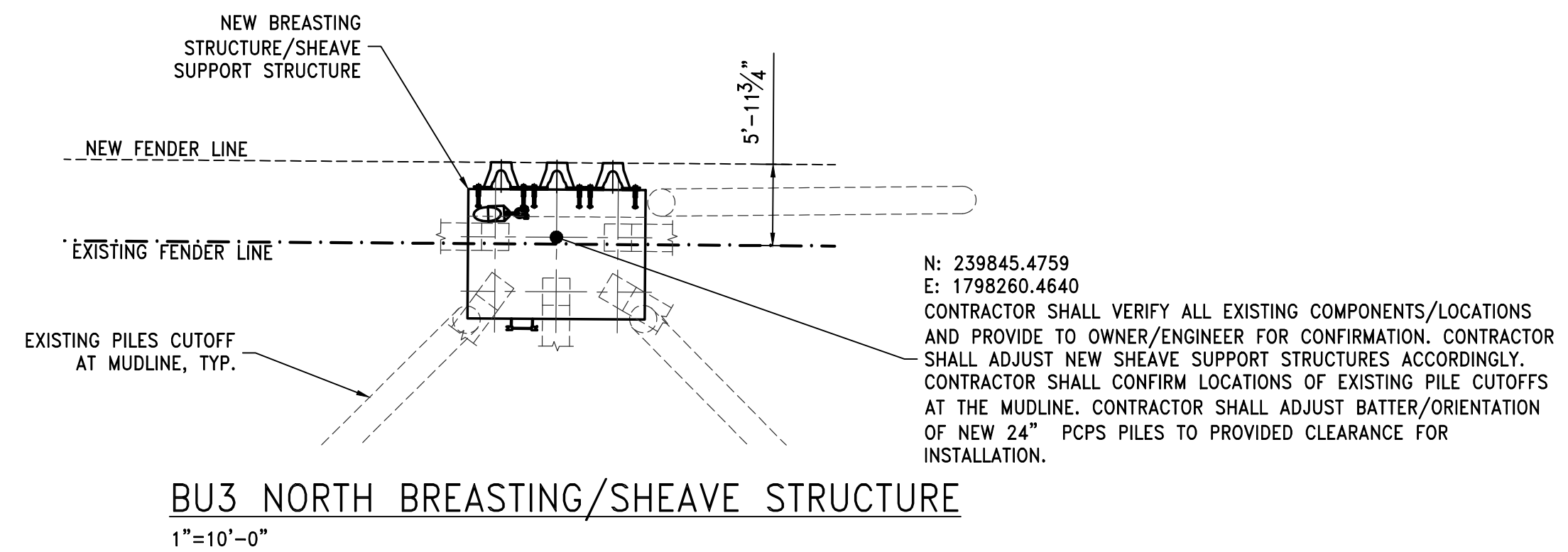
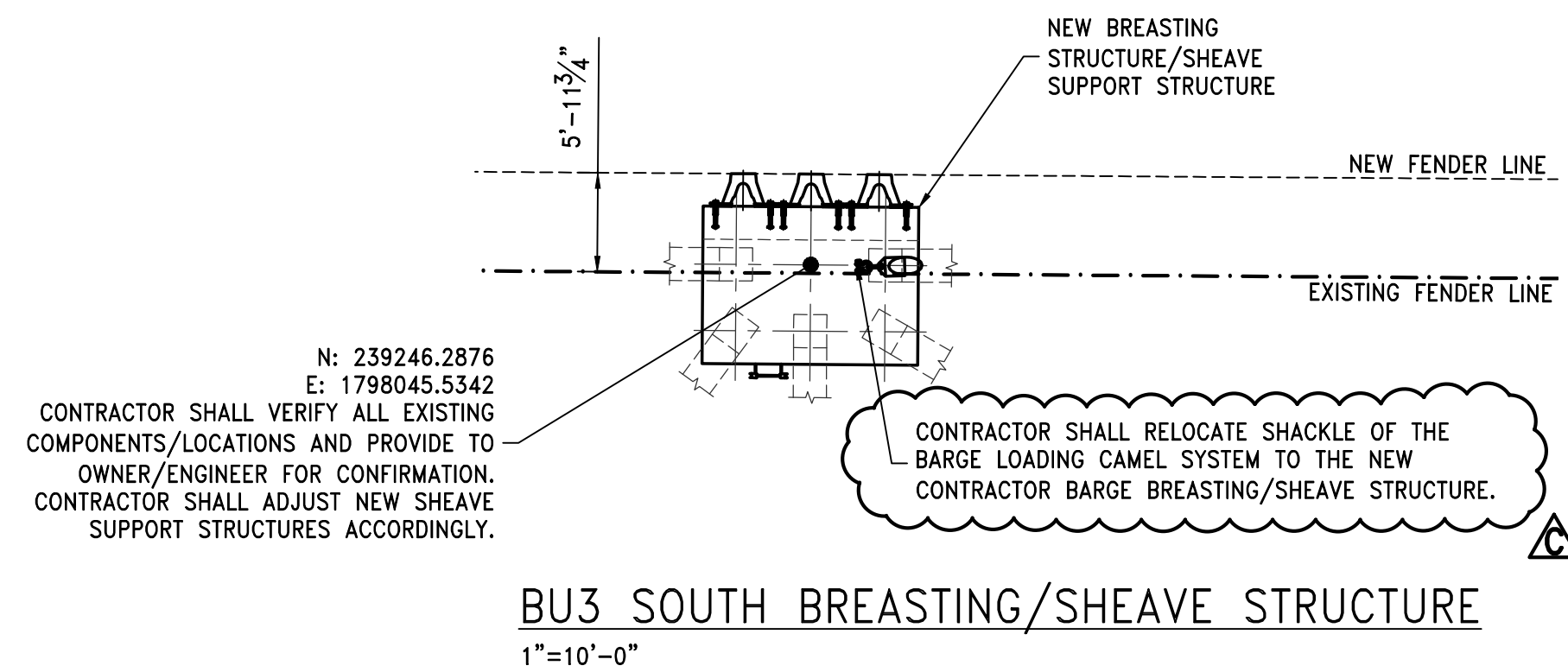
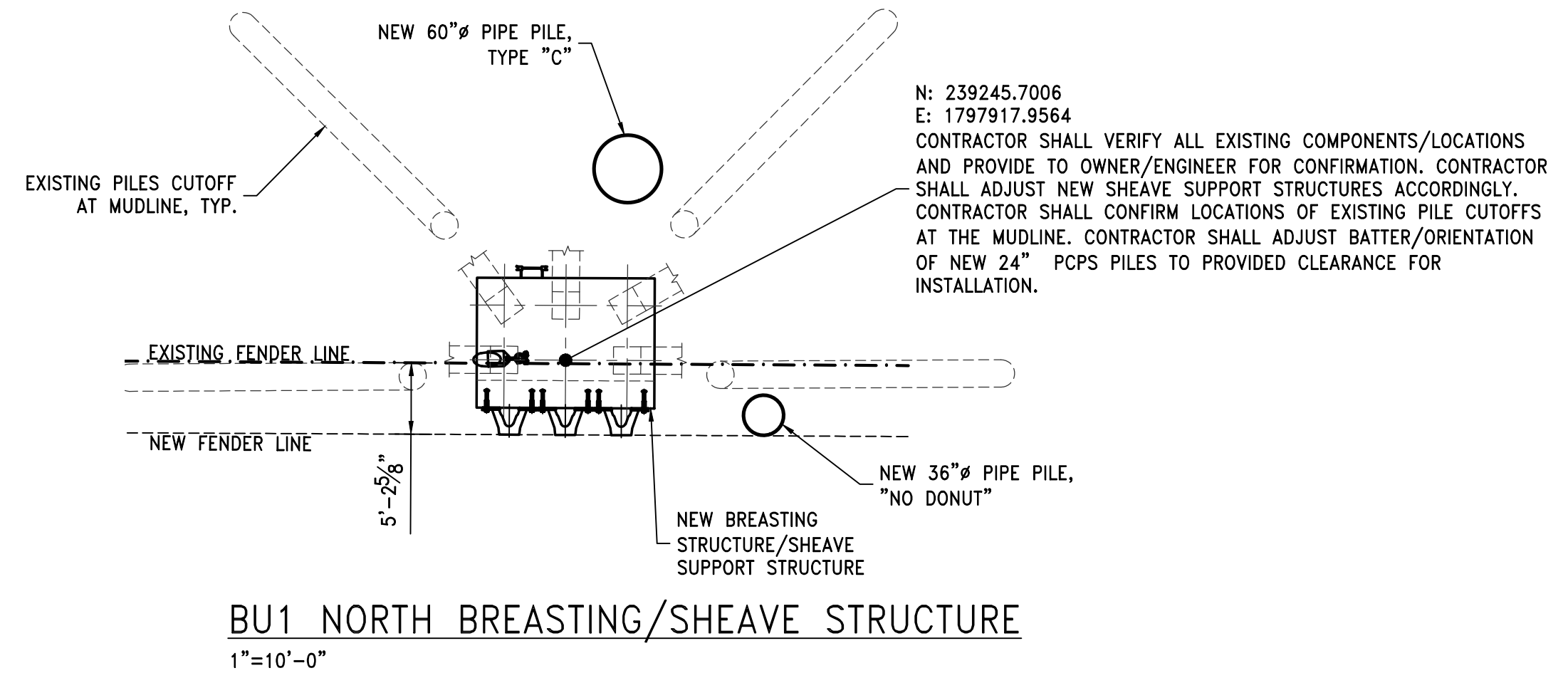
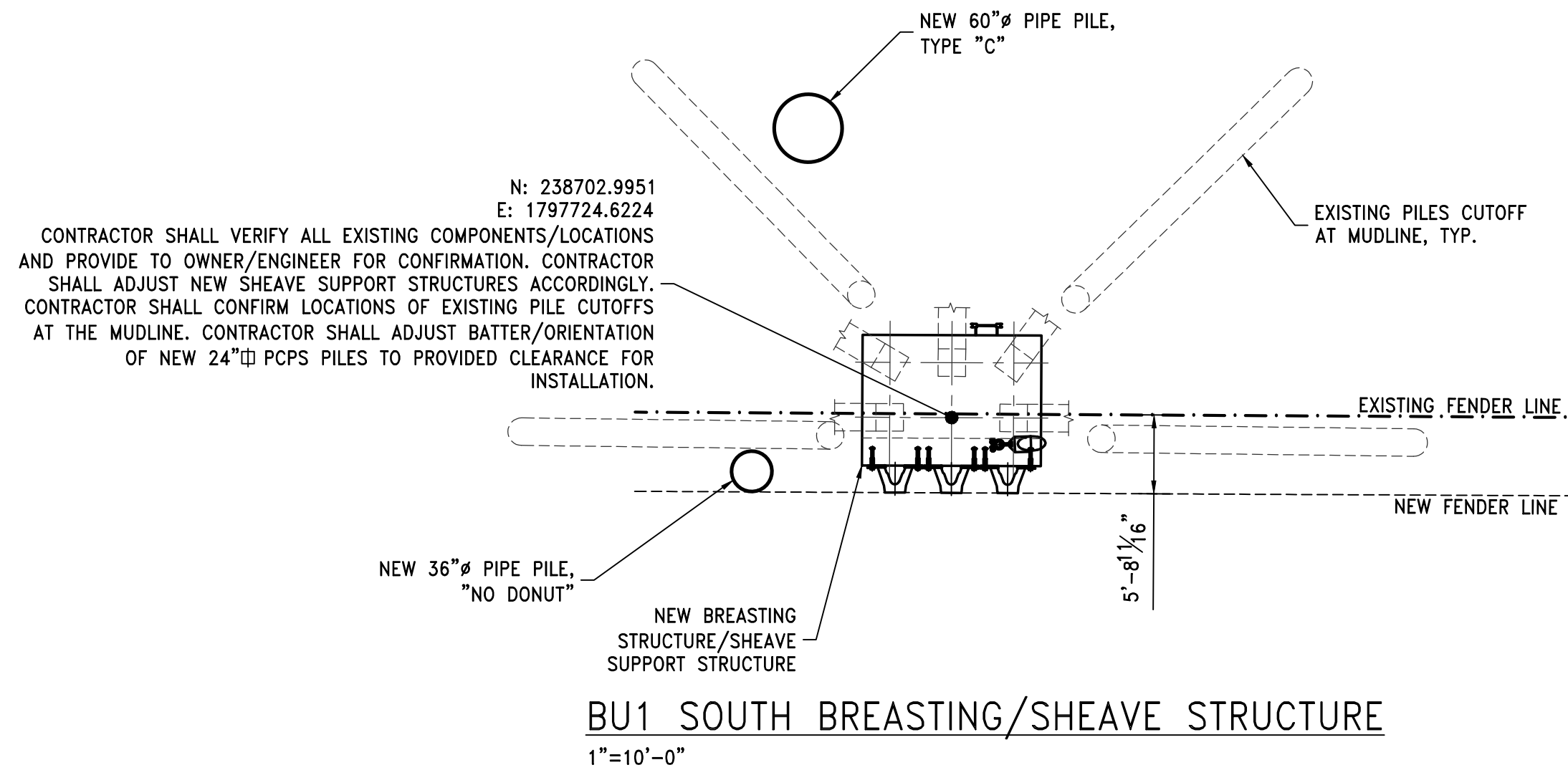
PROJECT

**DUAL BARGE SHIFTER AND BARGE HAUL MARINE CONSTRUCTION**

**McDUFFIE COAL TERMINAL MOBILE, ALABAMA**

TITLE				
<b>NEW BARGE BREASTING/SHEAVE SUPPORT STRUCTURE DETAILS &amp; SECTIONS</b>				
SCALE	DRAWN BY	DATE	SHEET	22x34 REV.
AS NOTED	RCC	09/01/23	— OF —	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4224M	GDEC	09/01/23	4224M-S15	

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REV.	DESCRIPTION	DATE	BY	CHK'D
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A	ISSUED FOR REVIEW	09/08/23	RCC	GDEC

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PROJECT

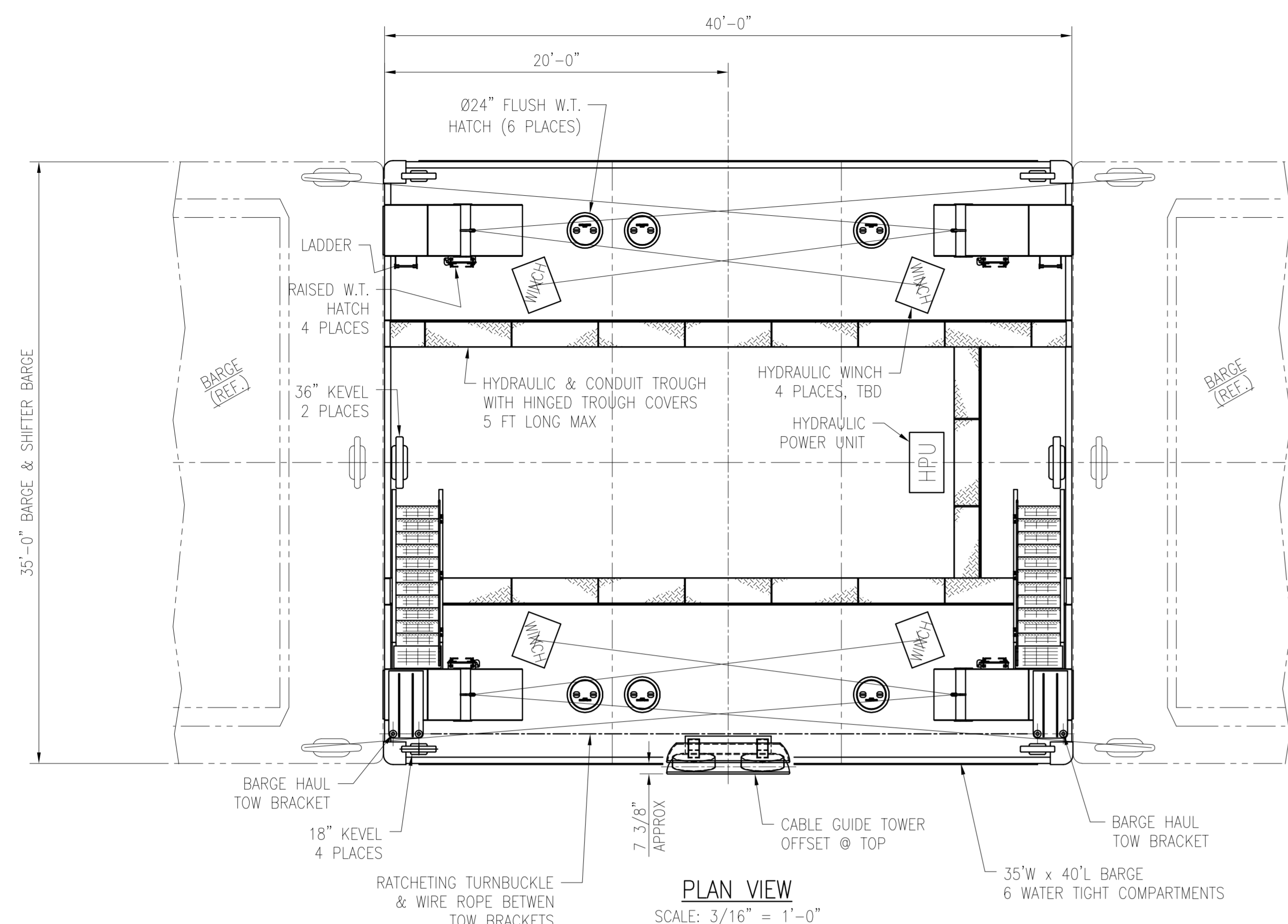
DUAL BARGE SHIFTER AND  
BARGE HAUL MARINE CONSTRUCTION

McDUFFIE COAL TERMINAL  
MOBILE, ALABAMA

TITLE

NEW BARGE BREASTING STRUCTURE  
PILE LAYOUT

SCALE	DRAWN BY	DATE	SHEET	22x34	REV.
AS NOTED	RCC	09/01/23	— OF —	—	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER		
4224M	GDEC	09/01/23	4224M-S17		



**HYDRAULIC POWER UNIT SPECIFICATIONS:**

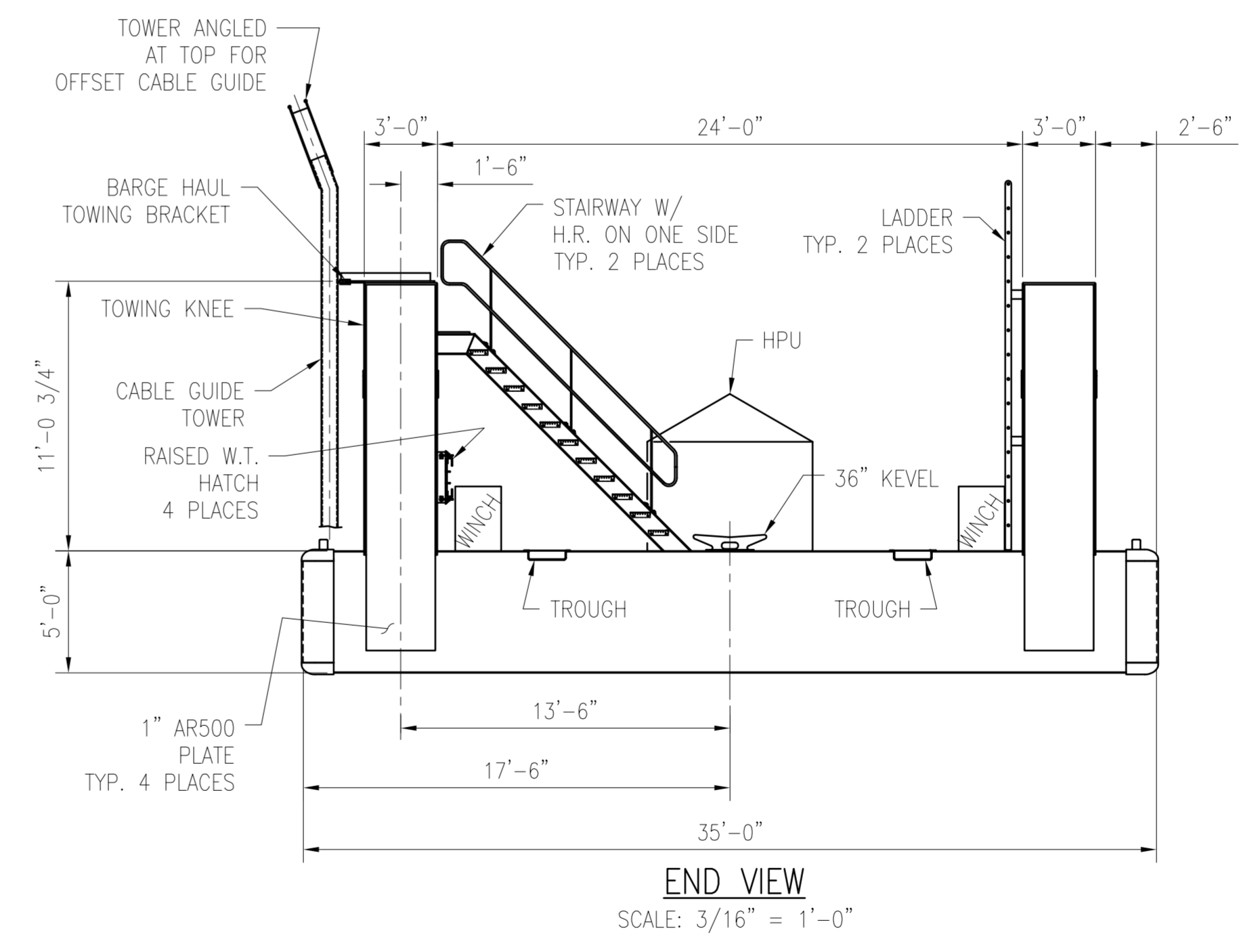
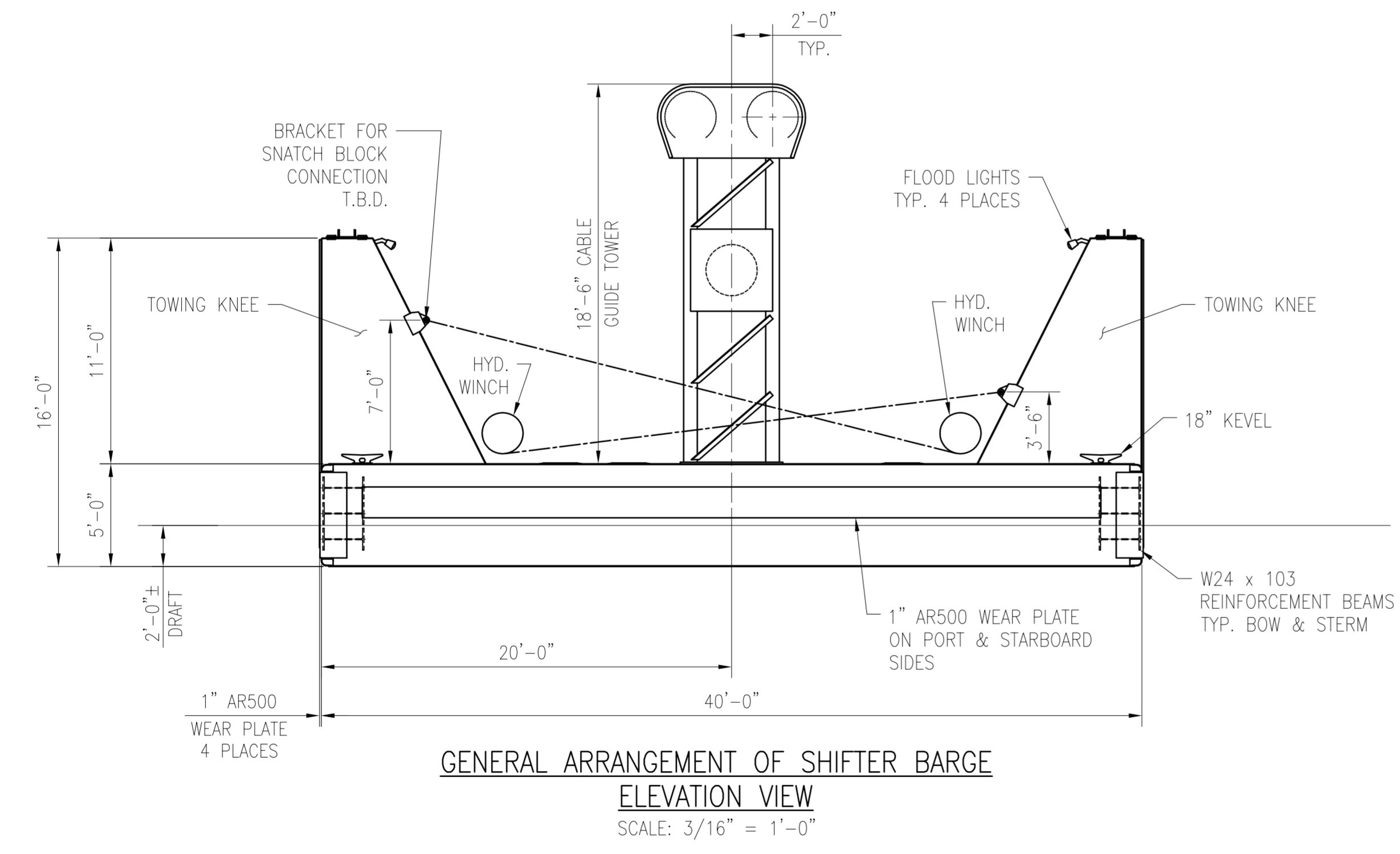
- 25 HP 460VAC/3PH/60HZ
- 45CC AXIAL PISTON PUMP, 20GPM, 2,500 PSI (MAX)
- 9GPM RE-CIRCULATION PUMP
- FAN DRIVEN OIL COOLER
- 60 GAL RESERVOIR W/ HEATER AND THERMOSTAT
- ALL FITTINGS RATED FOR 3,000 PSI
- ISO 32 PETROLEUM BASED FLUID
- CUSTOM ENCLOSURE WITH RAINGUARD

**HYDRAULIC WINCH SPECIFICATION:**

- TO BE DETERMINED


**HYDRAULIC PIPING NOTES:**

- PIPING MATERIAL TO BE SCH. 80 3000# STAINLESS STEEL WITH SOCKET WELD FITTINGS



Rev	Description	Date	Made	Chk'd	App'd
A	PRELIMINARY FOR DESIGN REVIEW	08/11/23	DJT	KES	

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Pittsburgh, PA 15205

Drawn By: DJT Date: 08/07/2023	Checked: - Date: -	Approved: - Date: -	Scale: 1" = 20'
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GENERAL ARRANGEMENT OF SHIFTER BARGE FOR BU1 & BU3

ALABAMA PORT AUTHORITY  
McDUFFIE ISLAND TERMINAL  
MOBILE, AL.  
S03828-8090  
Rev. A