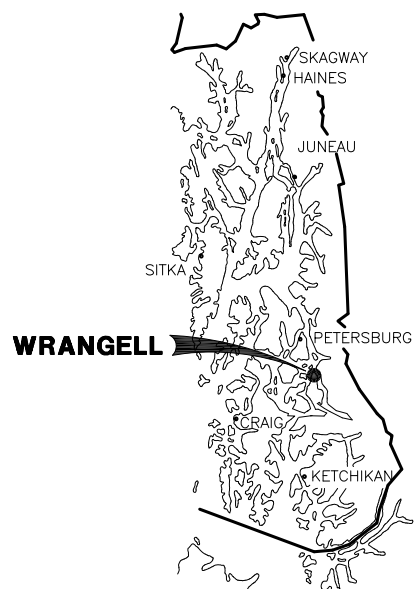


CITY & BOROUGH OF WRANGELL, ALASKA

WRANGELL CITY DOCK REHABILITATION

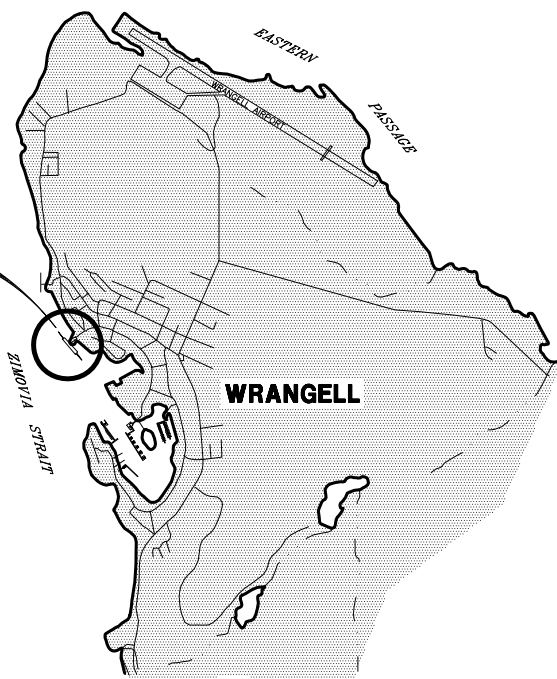


LOCATION MAP



SOUTHEAST ALASKA

PROJECT LOCATION



VICINITY MAP



PROJECT SCHEDULE	
DESCRIPTION	SCHEDULE
IN-WATER WORK RESTRICTIONS: NO WORK ACTIVITY SHALL BE ALLOWED BELOW THE TIDAL ELEVATION; NO PILE DRIVING.	MARCH 15-JUNE 15, ANY YEAR
EARLIEST FIELD START DATE:	CONCURRENT w/ NOTICE TO PROCEED
SUBSTANTIAL COMPLETION DATE:	NOVEMBER 1, 2012
FINAL COMPLETION DATE OF ALL WORK:	NOVEMBER 15, 2012

NOTICE:

CONTRACTOR FOREMAN/FIELD SUPERVISOR WILL BE REQUIRED TO HOLD A CURRENT T.W.I.C. CARD (TRANSPORTATION WORKER IDENTIFICATION CREDENTIAL) IN ACCORDANCE WITH MARITIME TRANSPORTATION SECURITY ACT (MTSA) AND REQUIREMENTS OF THE TRANSPORTATION SECURITY ADMINISTRATION (TSA), THE UNITED STATES COAST GUARD (USCG), AND THE UNITED STATES DEPARTMENT OF HOMELAND SECURITY.

DRAWING INDEX

SHEET NO.	TITLE
1 OF 11	COVER, VICINITY MAP & DRAWING INDEX
2 OF 11	EXISTING CONDITIONS DOCK PLAN - PILE LAYOUT
3 OF 11	EXISTING CONDITIONS TYPICAL SECTIONS
4 OF 11	EXISTING CONDITIONS MOORING CELL FENDER SYSTEM
5 OF 11	DOLPHIN REPAIR DETAILS
6 OF 11	DOLPHIN AND MOORING CELL REPAIR DETAILS
7 OF 11	MAIN DOCK PILE REPAIR DETAILS
8 OF 11	MAIN DOCK PILE REPAIR DETAILS
9 OF 11	APPROACH DOCK PILE REPAIRS
10 OF 11	APPROACH DOCK ABUTMENT REPAIR
11 OF 11	WATERLINE HANGER PLAN

GENERALIZED PROJECT SCOPE:

- DOCK WATERLINE HANGERS
 - * INSTALL NEW WATERLINE HANGERS PER PLANS
- APPROACH DOCK ABUTMENT
 - * INSTALL NEW EROSION PROTECTION PER PLANS
- APPROACH DOCK
 - * REMOVE EXISTING CROSS BRACING SYSTEM IN ITS ENTIRETY
 - * INSTALL NEW CROSS BRACING SYSTEM
 - * BLAST CLEAN AND SPRAY METALIZE PILE BASE PLATES AND PILE AREAS SPECIFIED ON PLANS.
 - * INSTALL NEW PILE WRAP/JACKETING SYSTEM
 - * INSTALL NEW ANODES
- MAIN DOCK
 - * BLAST CLEAN AND SPRAY METALIZE PILE BASE PLATES AND PILE AREAS SPECIFIED ON PLANS.
 - * INSTALL NEW PILE WRAP/JACKETING SYSTEM
 - * INSTALL NEW ANODES - ADDITIVE ALTERNATE A AND/OR B
- DOLPHINS
 - * BLAST CLEAN AND SPRAY METALIZE PILE BASE PLATES AND PILE AREAS SPECIFIED ON PLANS.
 - * INSTALL NEW PILE WRAP/JACKETING SYSTEM
 - * INSTALL NEW ANODES
- MOORING CELL FENDER SYSTEM REPAIRS
 - * RETRIEVE ALL EXISTING RUBBER FENDERS FROM SEA FLOOR
 - * CLEAN/PRESSURE WASH ALL EXISTING FENDERS
 - * REPAIR/REPLACE ALL CONNECTION HARDWARE AS REQUIRED TO ACHIEVE ORIGINAL FENDER SYSTEM CONFIGURATION AS SHOWN IN ORIGINAL DESIGN DRAWINGS.
- POST ANODE INSTALLATION - CONFIRMATION OF SYSTEM FUNCTION
 - * FIELD MEASURE AND RECORD CP SYSTEM CONTINUITY READINGS AND POTENTIAL READINGS FOR ALL ANODES
 - * PHOTOGRAPH ALL INSTALLED ANODES



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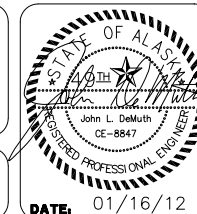
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DRAWN: APPROVED: CRS

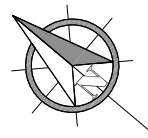
SCALE:
AS SHOWN



CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK REHABILITATION

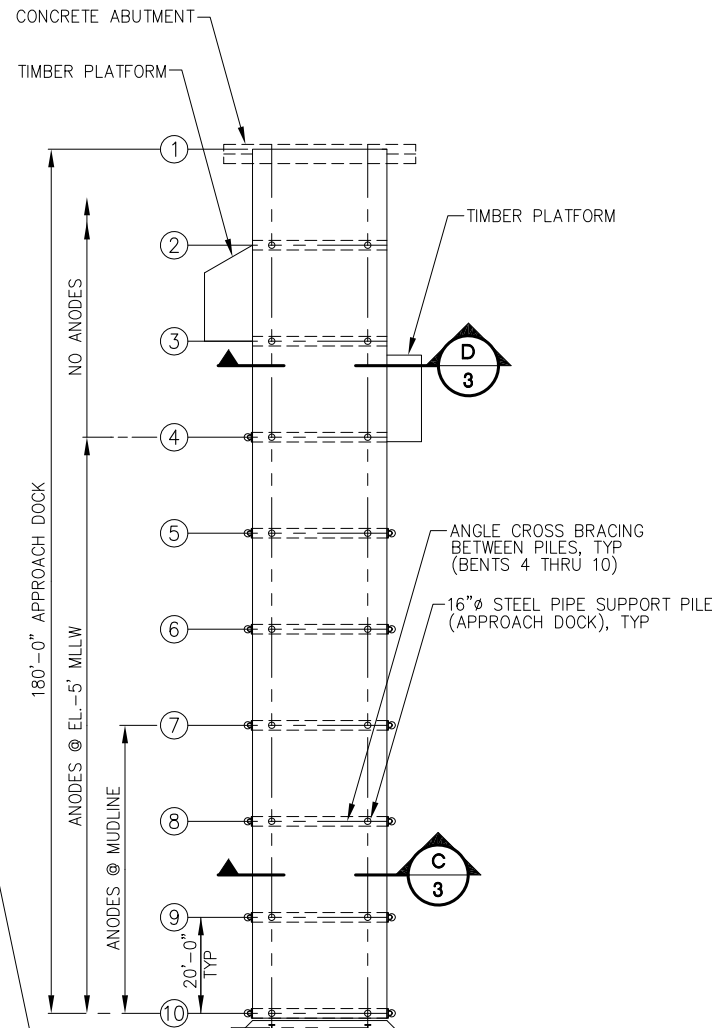
SHEET TITLE:
COVER SHEET, VICINITY MAP & DRAWING INDEX

PND PROJECT NO. 102070.02 DWG. FILE:

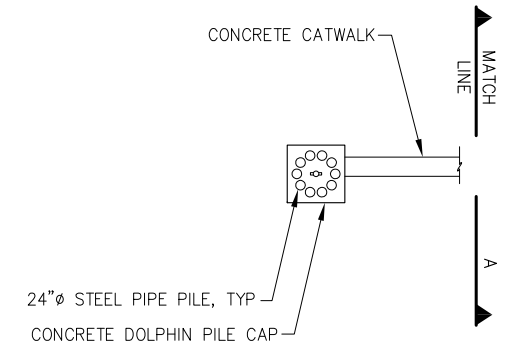


PILE SUMMARY				
PILE TYPE	A.D.	M.D.	DOLPH.	TOTAL
W14x159	-	130	8	138
16"Ø PIPE	18	34	1	53
20"Ø PIPE	-	-	6	6
24"Ø PIPE	-	-	13	13

NOTE: CONTRACTOR SHALL FIELD VERIFY PILE AND ANODE QUANTITIES PRIOR TO ORDERING MATERIALS.



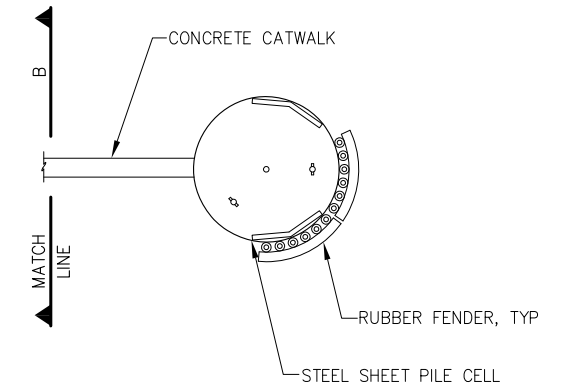
NORTH MOORING DOLPHIN #2



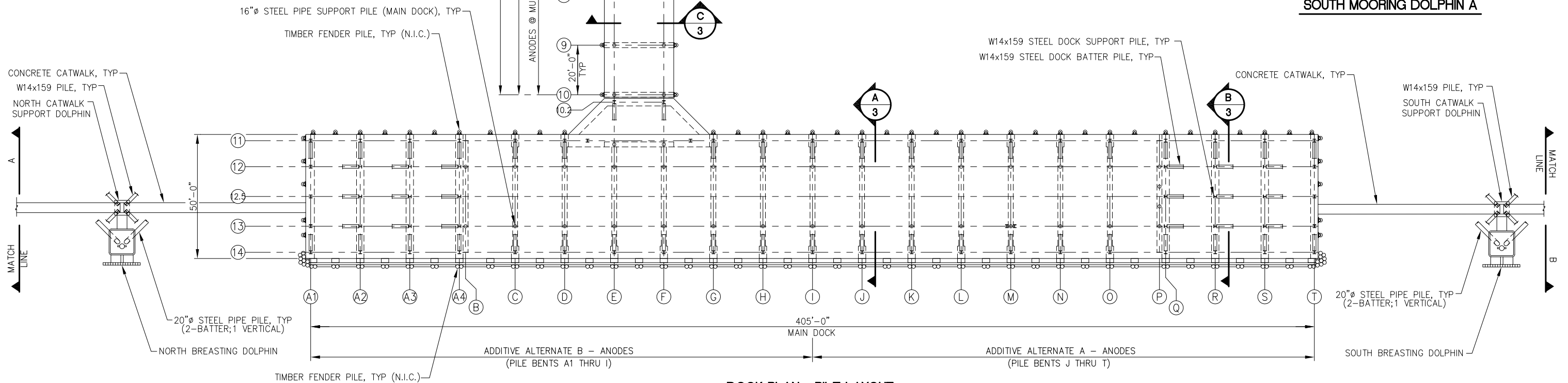
NORTH MOORING DOLPHIN #1

ANODE SCHEDULE										
TYPE	PILE	THK	WTH	LTH	WT	BASE	ALT A	ALT B	TOTAL	
1	16"Ø PIPE	6"	6"	72"	260#	44	64	72	180	
2	20"Ø PIPE	8"	8"	48"	310#	24	-	-	24	
3	24"Ø PIPE	8"	8"	60"	390#	52	-	-	52	
4	W14x159	8"	8"	72"	460#	32	248	268	548	
4A**	W14x159	6"	6"	72"	260#	-	8	-	8	
4	SHEETPILE	8"	8"	72"	460#	20	-	-	20	

**NOTE: TYPE 4A ANODES AT PILE LOCATION M13 ONLY.



SOUTH MOORING DOLPHIN A



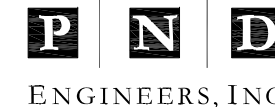
DOCK PLAN - PILE LAYOUT



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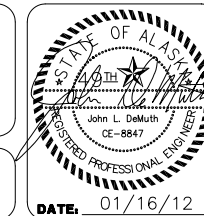
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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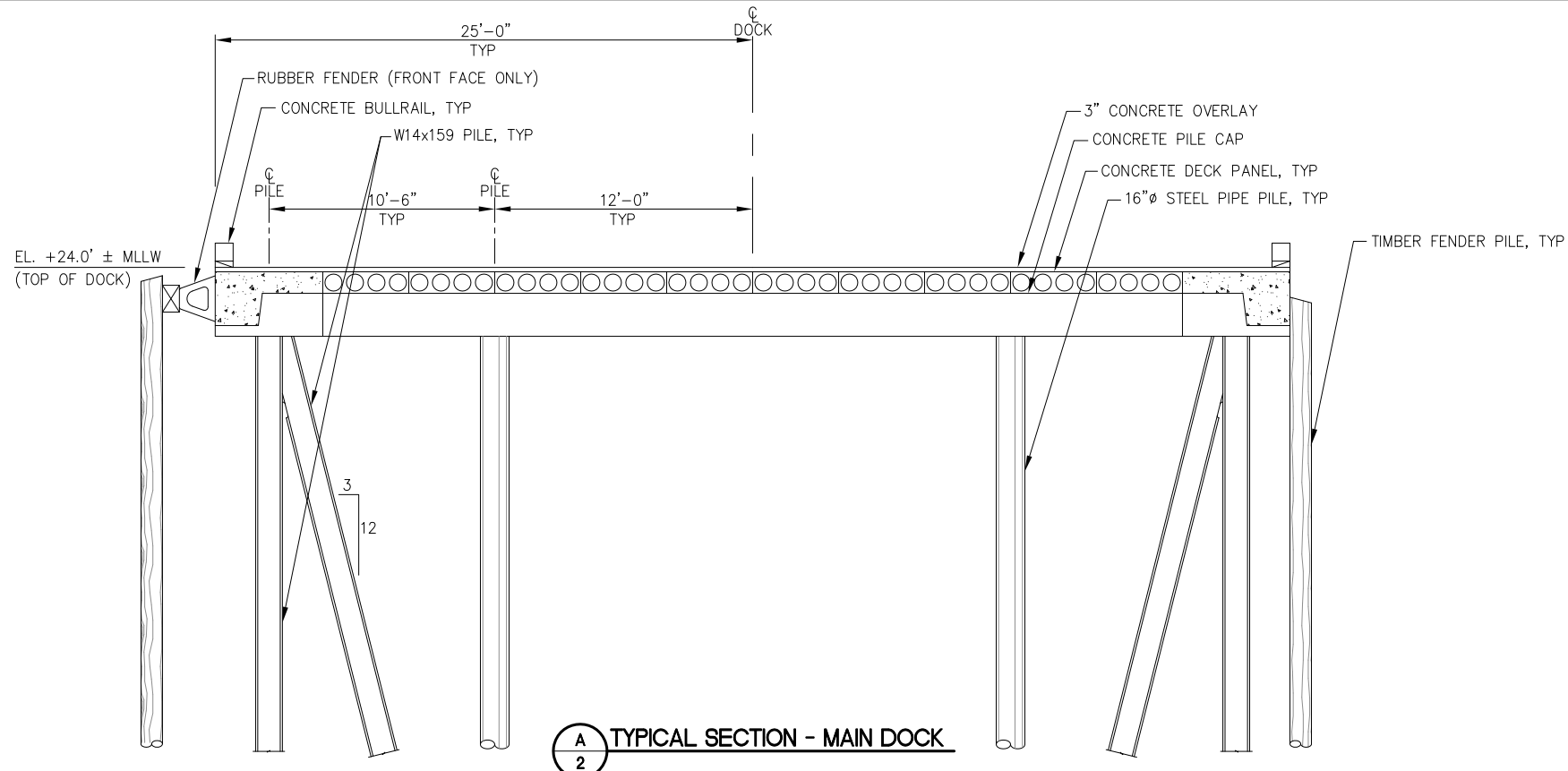
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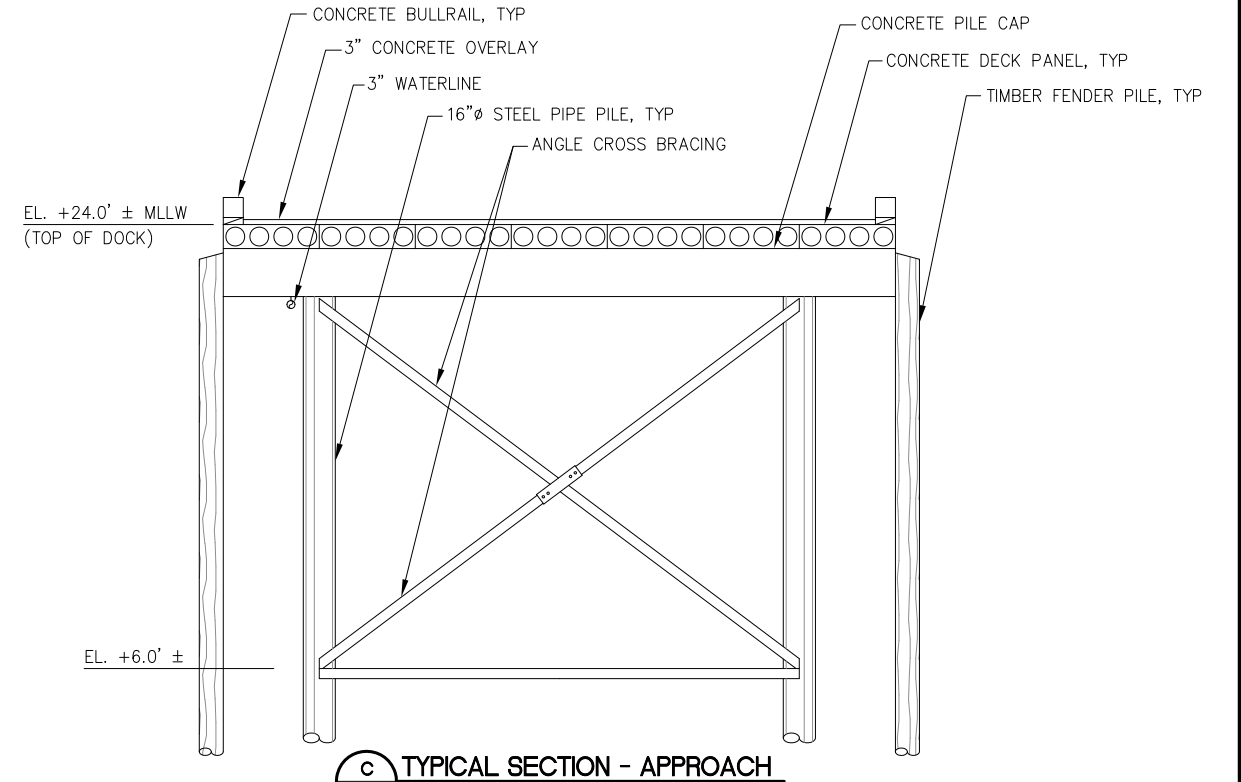
CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK
REHABILITATION

SHEET TITLE:
EXISTING CONDITIONS
DOCK PLAN - PILE LAYOUT

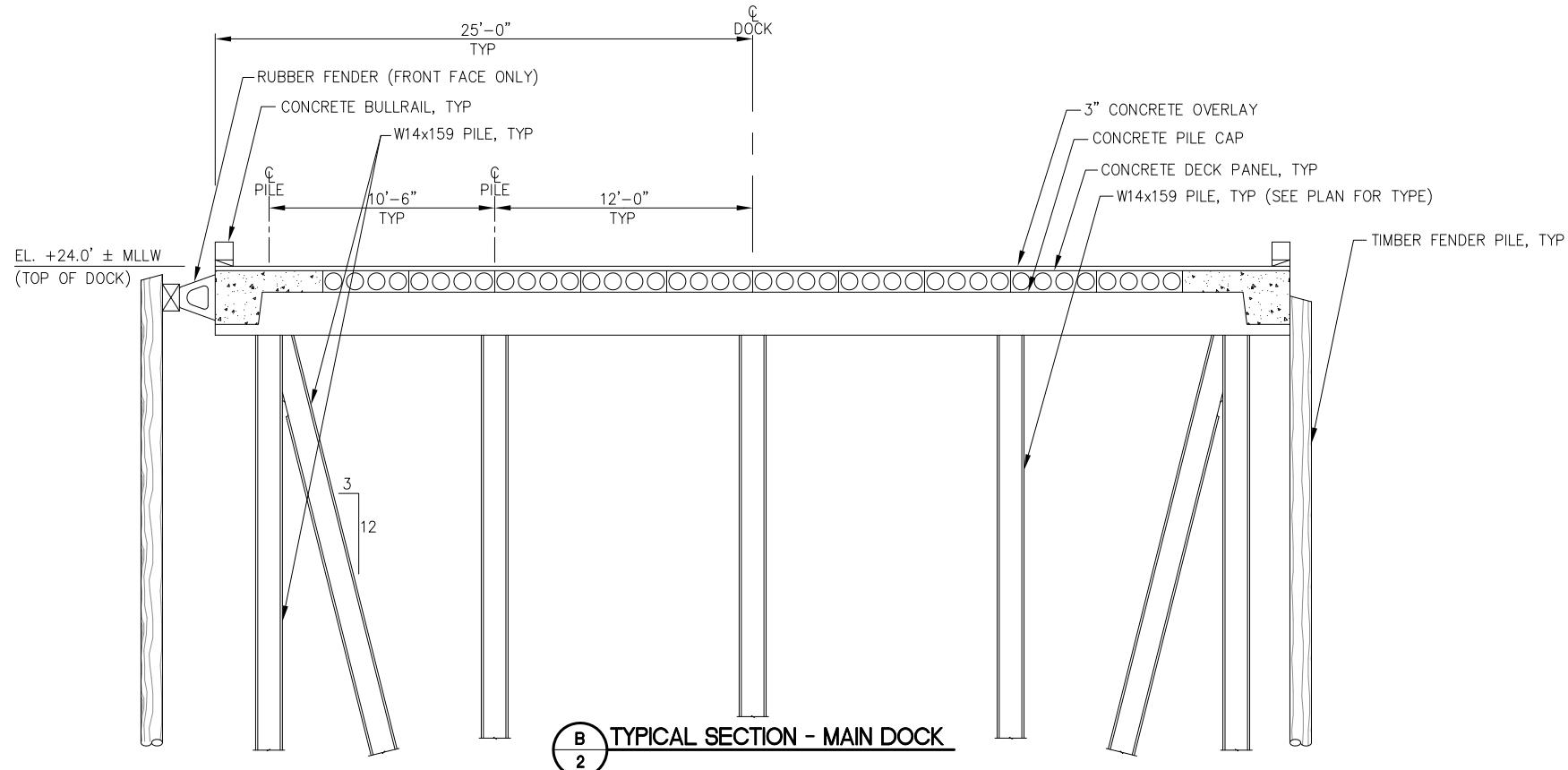
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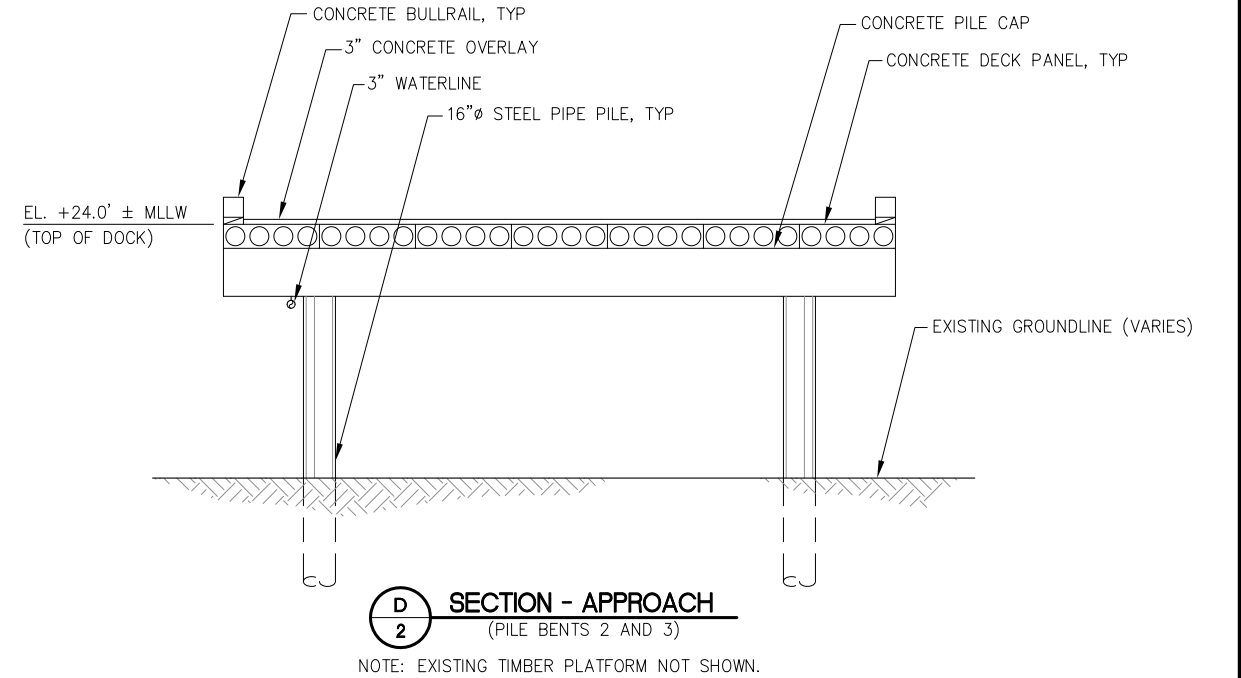
A TYPICAL SECTION - MAIN DOCK



C TYPICAL SECTION - APPROACH
(PILE BENTS 4 THRU 10)



B TYPICAL SECTION - MAIN DOCK



D SECTION - APPROACH
(PILE BENTS 2 AND 3)

NOTE: EXISTING TIMBER PLATFORM NOT SHOWN.



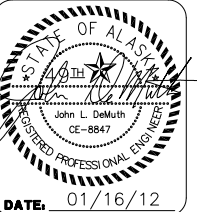
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 SCALE: —



CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK
REHABILITATION

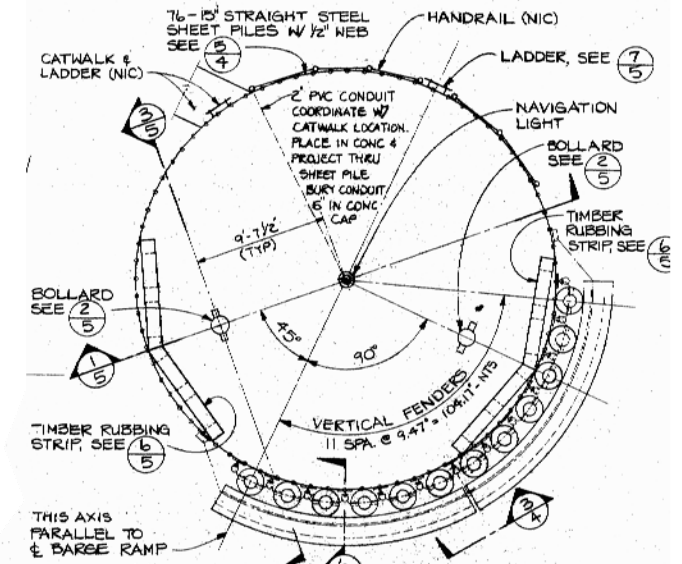
SHEET TITLE: **EXISTING CONDITIONS TYPICAL SECTIONS**
 PND PROJECT NO. 102070.02 DWG. FILE: —
 SHEET 3 OF 11

**MOORING CELL FENDER SYSTEM
REPAIR WORK SUMMARY**

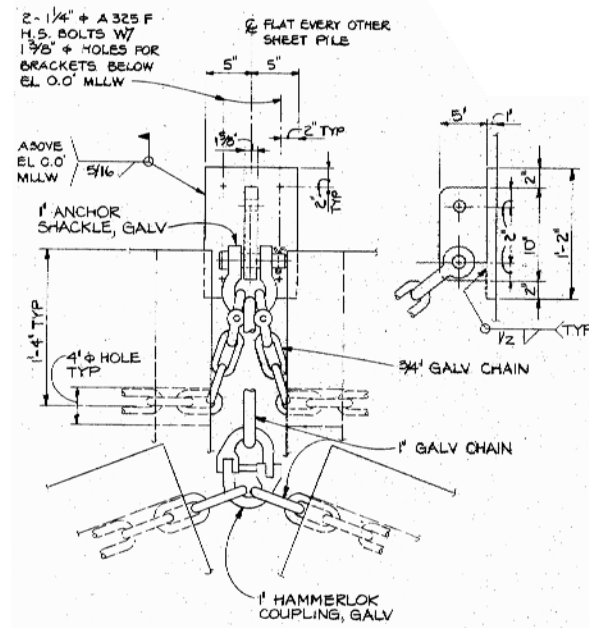
- * RETRIEVE ALL RUBBER FENDERS FROM SEA FLOOR
- * CLEAN/PRESSURE WASH ALL FENDERS
- * REPAIR/REPLACE ALL CONNECTION HARDWARE AS REQUIRED TO ACHIEVE ORIGINAL DESIGN SYSTEM CONFIGURATION AS SHOWN IN ORIGINAL DESIGN DRAWINGS.

GENERAL NOTES:

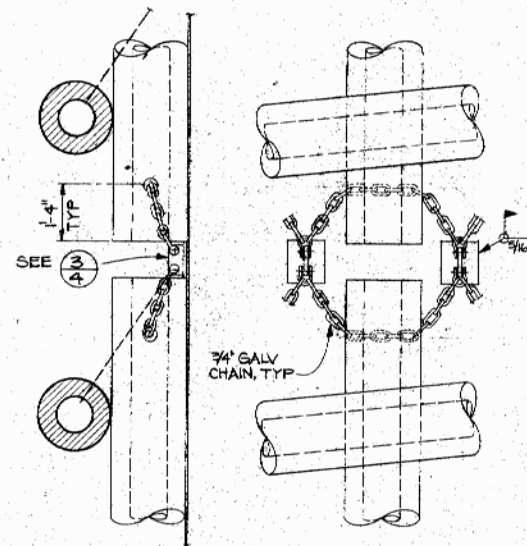
- ALL CHAIN SHALL BE STUD LINK, GRADE 3, HOT-DIP GALVANIZED. CHAIN SHALL BE SUITABLE FOR FENDERING APPLICATIONS AND SIZED AS SHOWN ON THE DRAWINGS.
- SHACKLES SHALL BE SAFETY BOLT SHACKLES, HOT-DIP GALVANIZED AND SIZED AS SHOWN ON THE DRAWINGS AND FOR CHAIN USED.



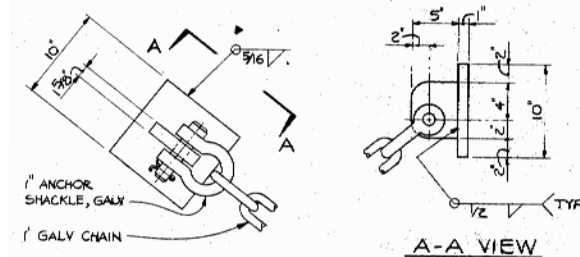
2 PLAN - CELL 'A'
3/16\"/>



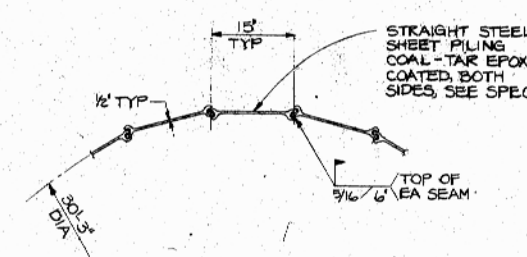
3 DETAIL - TYPICAL
4 HARDWARE
1/2\"/>



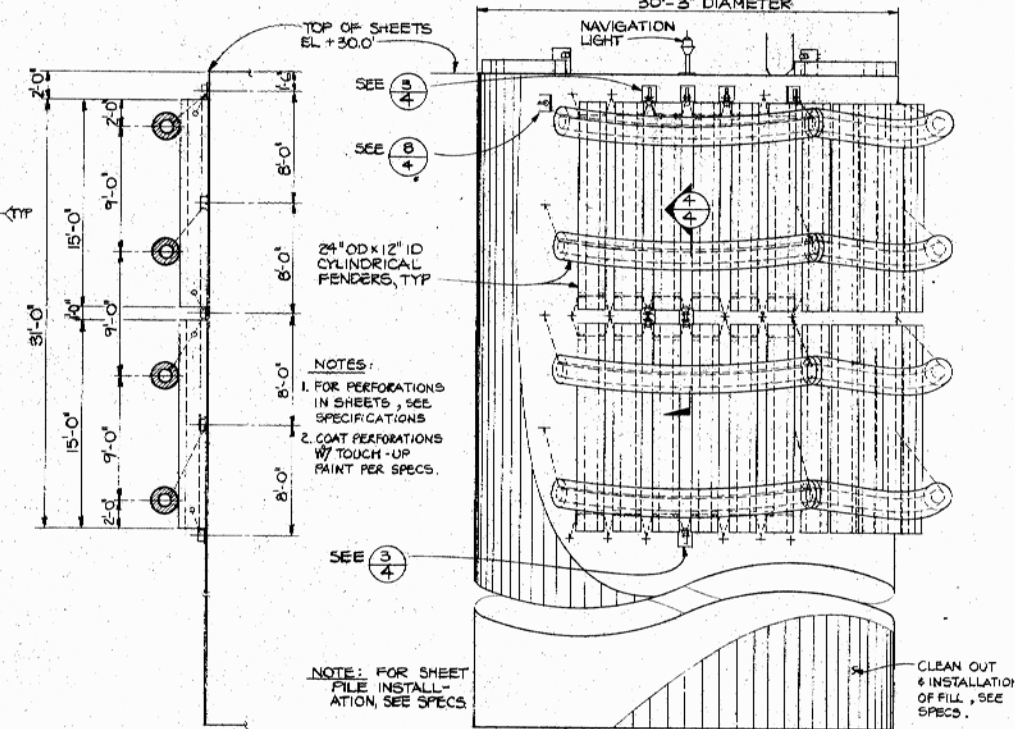
4 DETAIL BETWEEN VERTICAL FENDERS
4 1/2\"/>



8 DETAIL - BRACKET
4 1/2\"/>



5 DETAIL
4 NO SCALE



6 SECTION - FENDER
4 SYSTEM
3/16\"/>

7 ELEVATION - CELL 'A'
4 FENDER SYSTEM
3/16\"/>

NOTE: DRAWING AND DETAILS SHOWN FROM ORIGINAL ABAM ENGINEERS DESIGN DRAWING MARCH 17, 1981.



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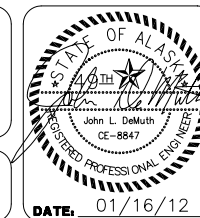
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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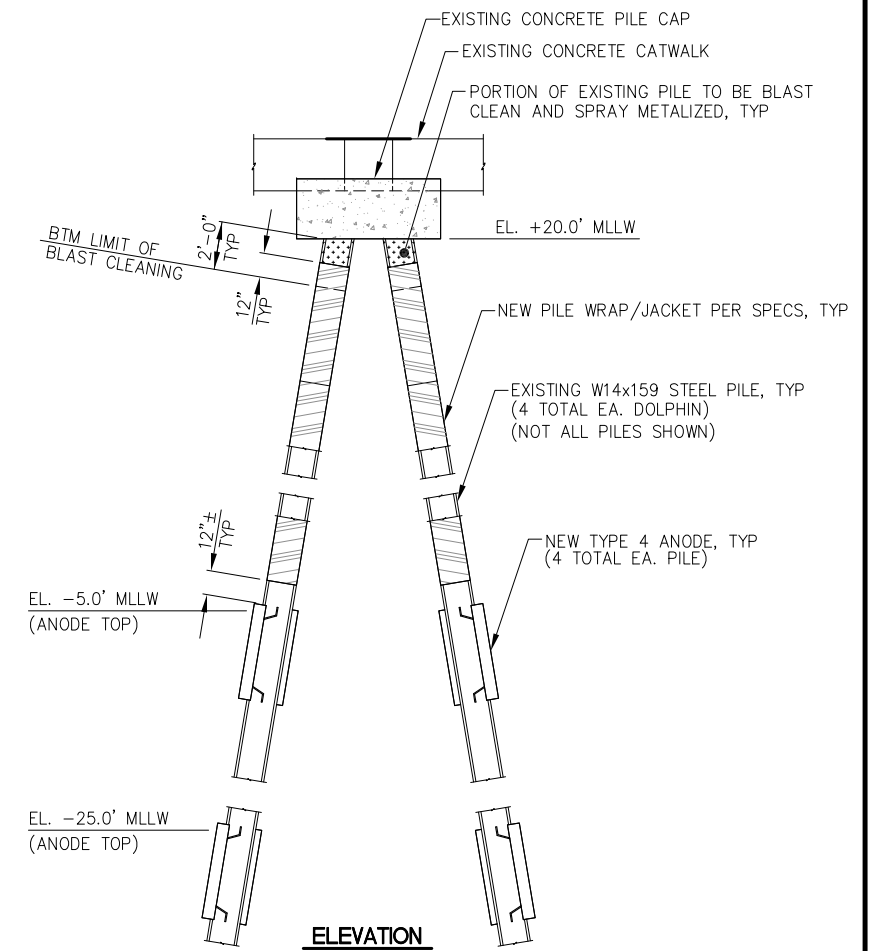
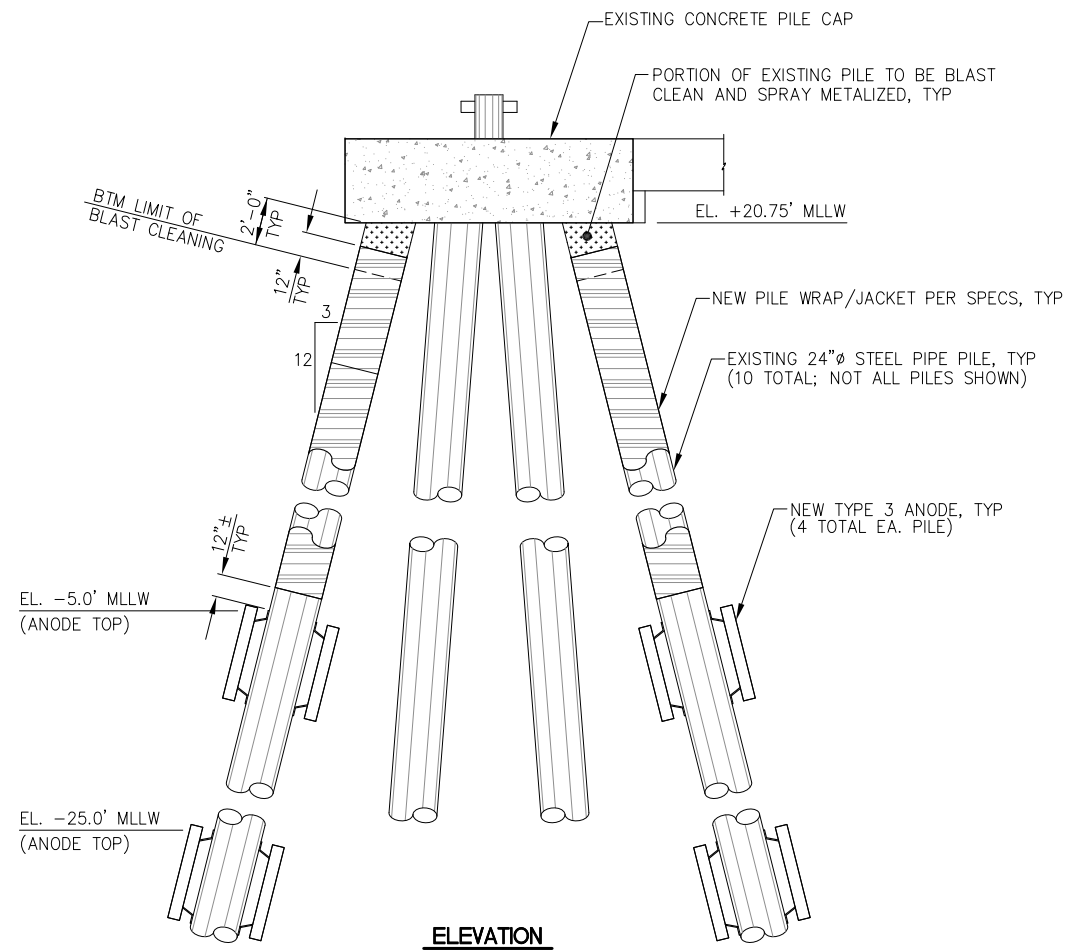
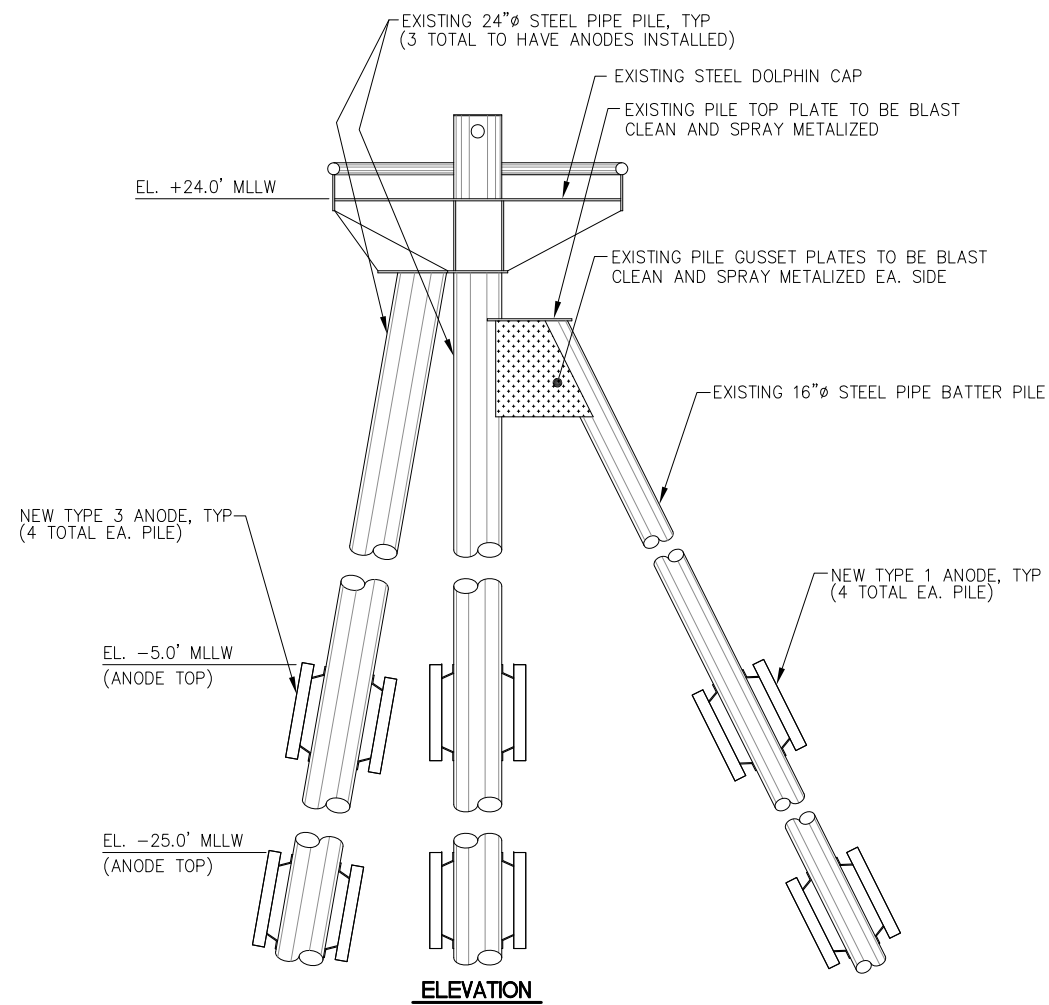
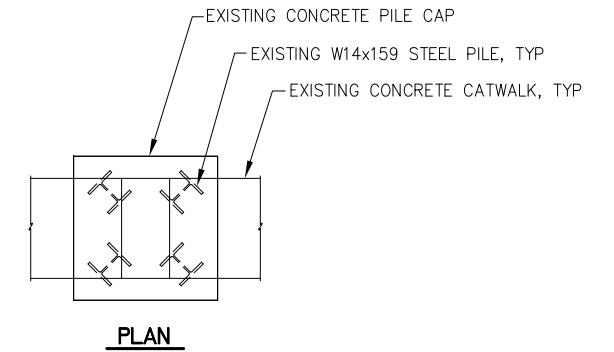
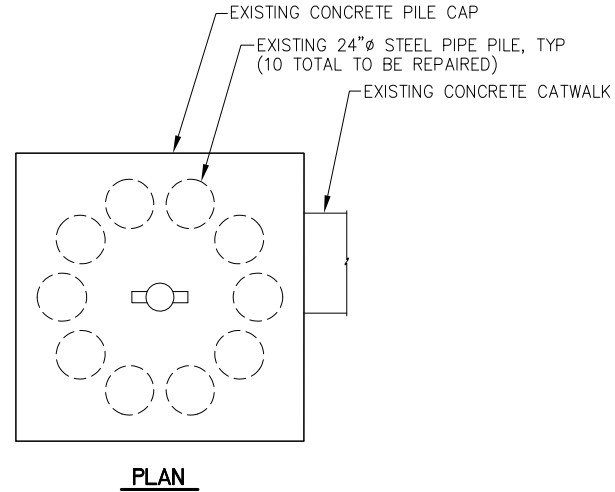
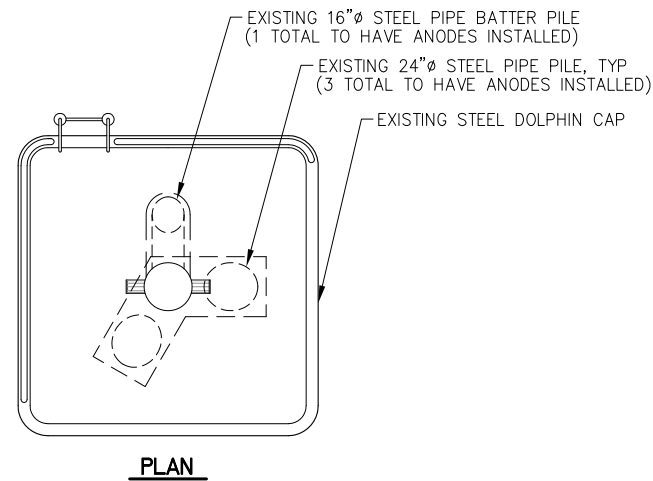
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DRAWN: — APPROVED: —
SCALE: AS SHOWN



**CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK
REHABILITATION**

SHEET TITLE:
**EXISTING CONDITIONS
MOORING CELL FENDER SYSTEM**

PN&D PROJECT NO. 102070.02 DWG. FILE



NORTH MOORING DOLPHIN #2

(3- 24"Ø STEEL PIPE PILES AND 1-16"Ø STEEL PIPE PILE TO HAVE ANODES INSTALLED THIS DOLPHIN)

NORTH MOORING DOLPHIN #1

(10 - 24"Ø STEEL PIPE PILES TO BE REPAIRED THIS DOLPHIN)

CATWALK SUPPORT DOLPHIN

(2 CATWALK SUPPORT DOLPHINS; 4-W14x159 PILES EA. DOLPHIN TO BE REPAIRED)



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SCALE:



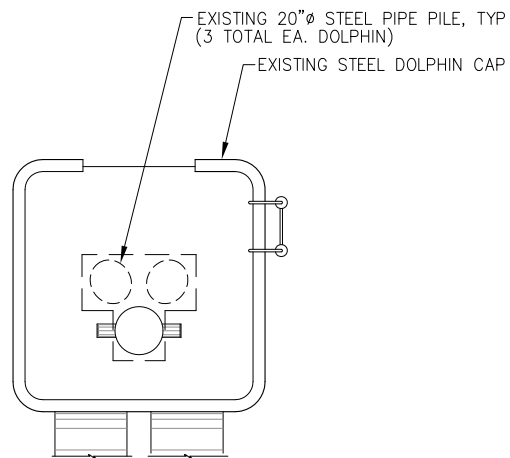
CITY AND BOROUGH OF WRANGELL, ALASKA
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SHEET TITLE:

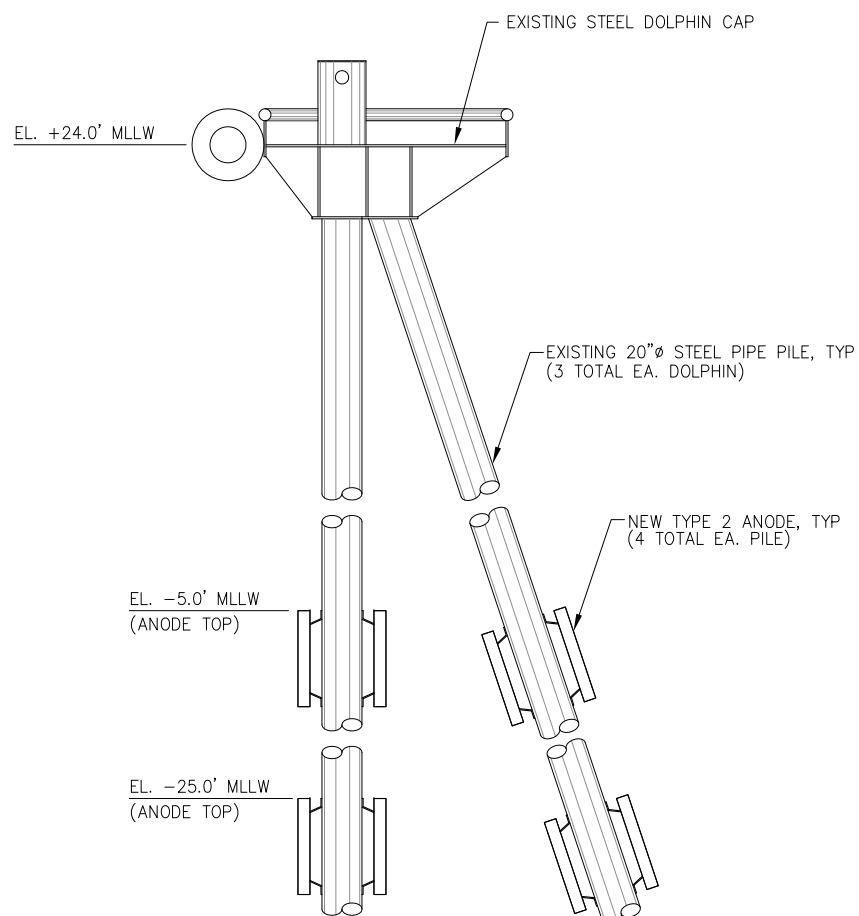
DOLPHIN DETAILS

PN&D PROJECT NO. 102070.02 DWG. FILE:

SHEET 5 OF 11



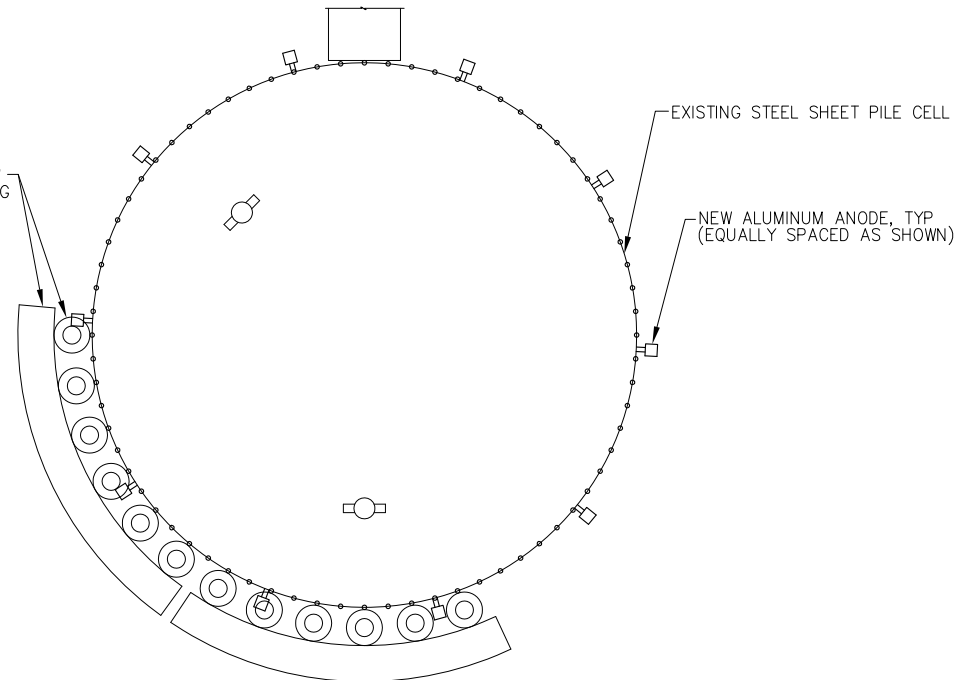
PLAN



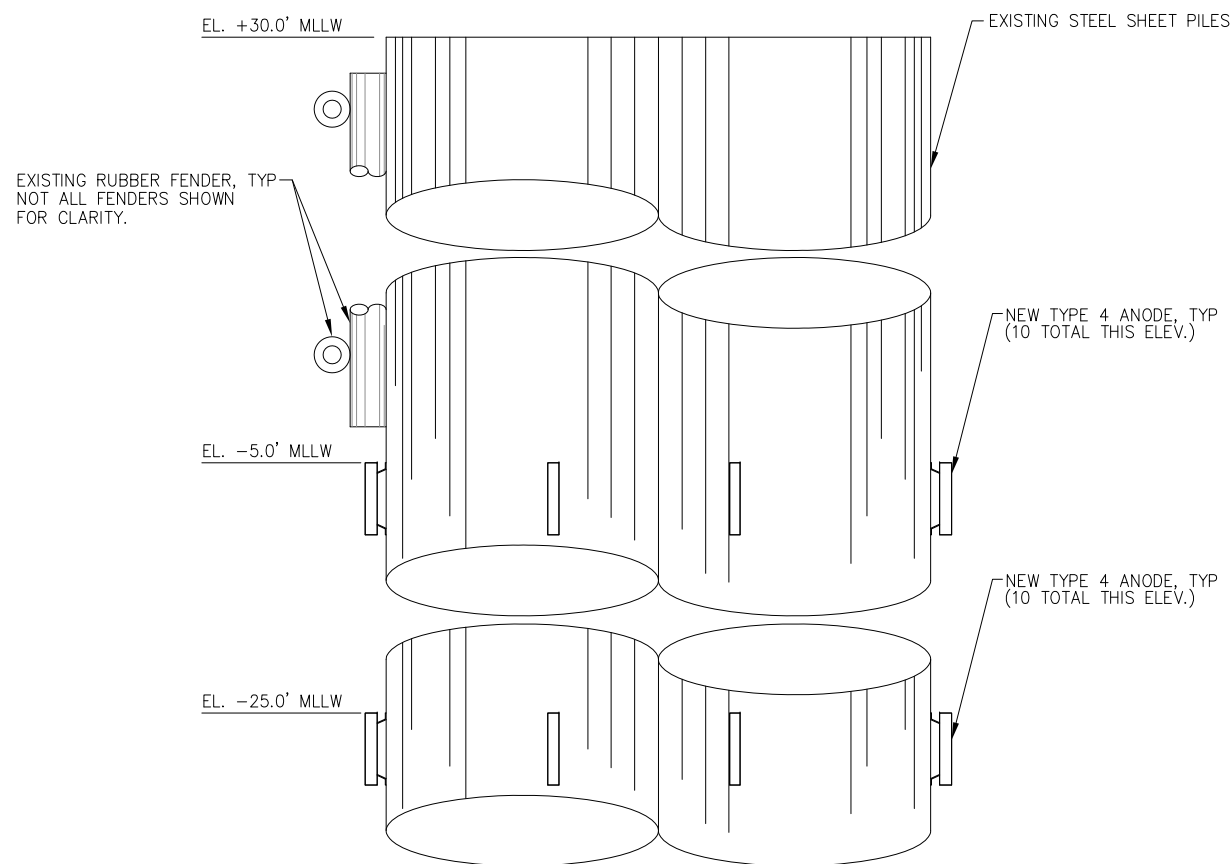
ELEVATION

BREASTING DOLPHIN

EXISTING RUBBER FENDER, TYP
(TO BE REPAIRED PER MOORING
CELL REPAIR WORK SUMMARY)



PLAN



ELEVATION

SHEET PILE MOORING CELL

(20 TOTAL ANODES THIS MOORING CELL)



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DRAWN: JLD APPROVED: CRS

SCALE:

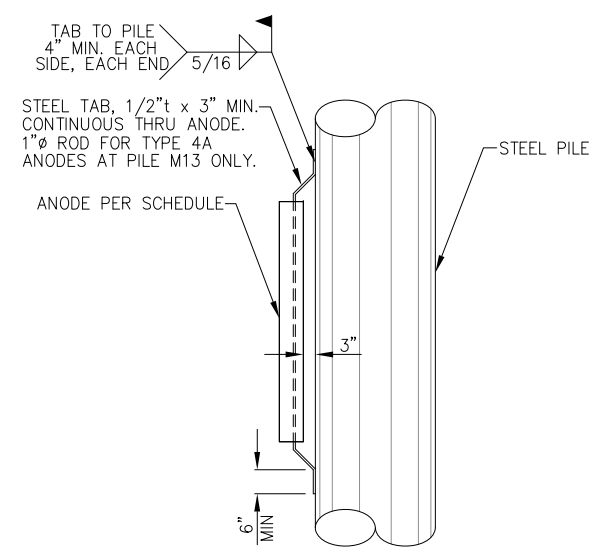
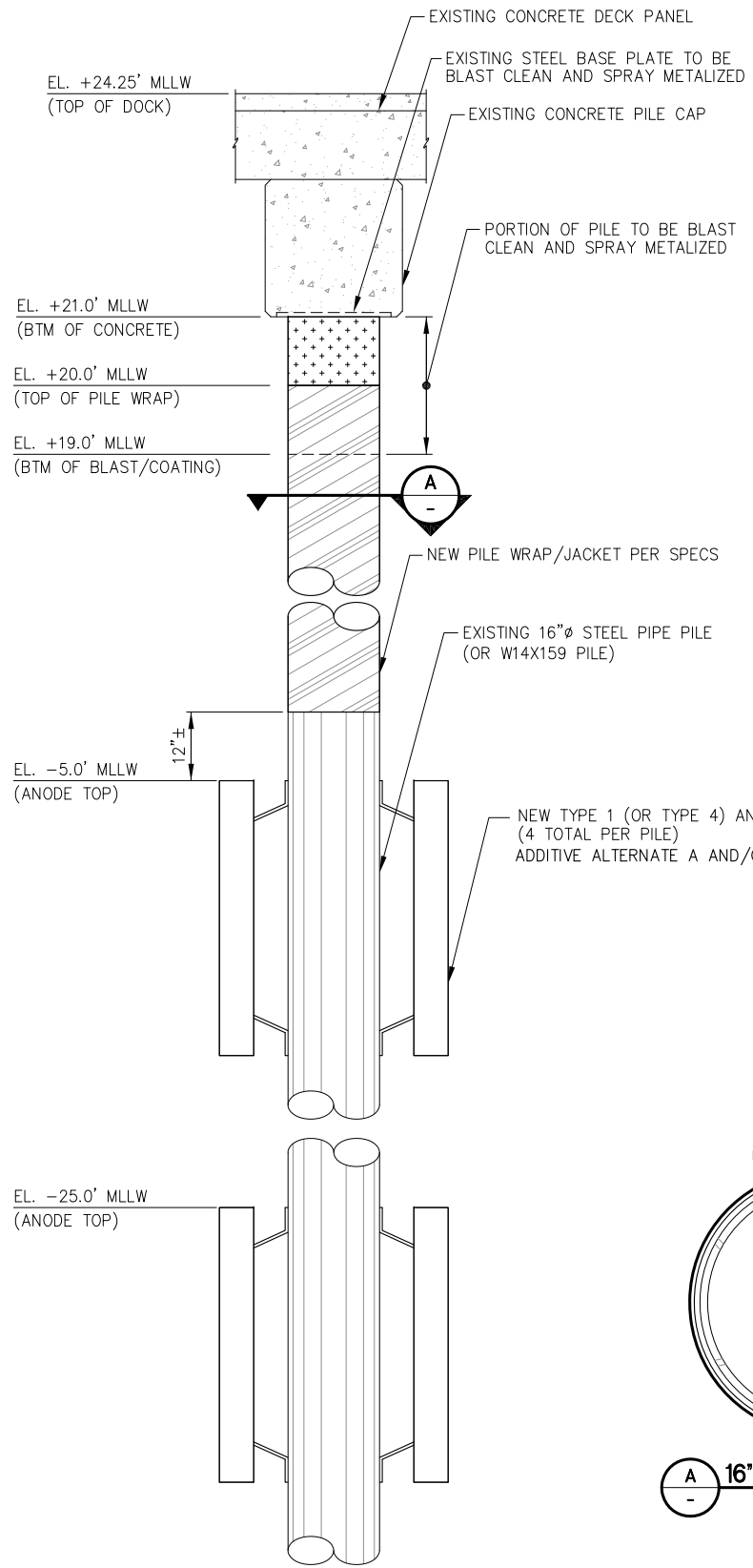


**CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK
REHABILITATION**

SHEET TITLE:
DOLPHIN AND MOORING CELL DETAILS

PN&D PROJECT NO. 102070.02 DWG. FILE:

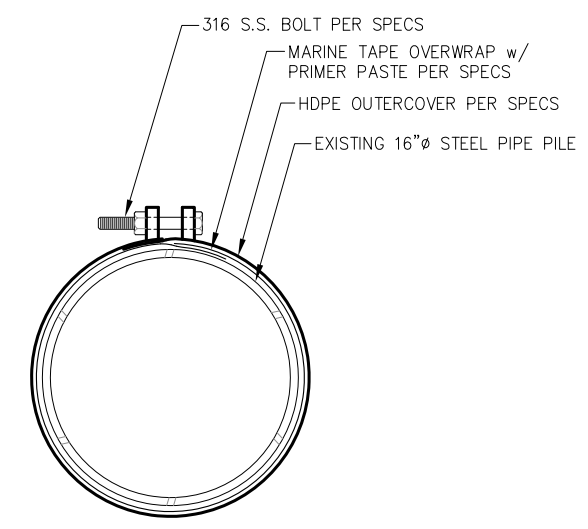
SHEET
6 OF 11



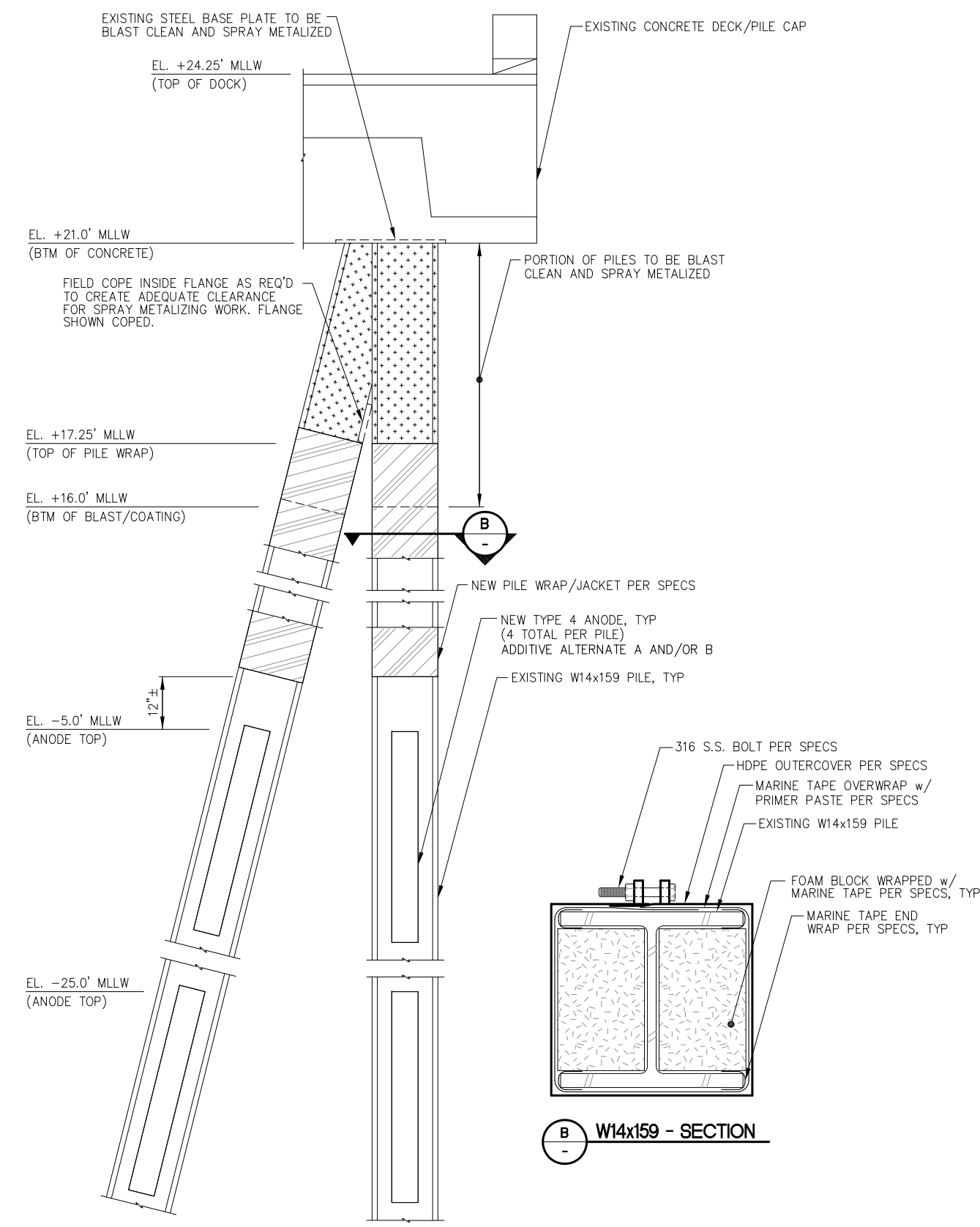
ANODE DETAIL

NOTE: ONLY ONE ANODE SHOWN FOR CLARITY. INSTALL (2) ANODES AT EACH REQUIRED LOCATION/ELEVATION, OFFSET 180° AS SHOWN IN TYPICAL DETAILS. FOR W14x159 PILES, ANODES SHALL BE WELDED TO EACH SIDE OF PILE WEB.

NOTE: PRIOR TO WELDING ANODES TO PILES, ALL MARINE GROWTH AND ANY OTHER DELETERIOUS MATERIALS OR SUBSTANCES SHALL BE REMOVED IN THEIR ENTIRITY FROM THE WELD AREA.



A 16\"/>



W-PILE VERTICAL/BATTER GROUP REPAIR DETAIL
(SEE DOCK PLAN FOR PILE LAYOUT AND PILE SUMMARY)

VERTICAL PILE REPAIR DETAIL
(SEE DOCK PLAN FOR PILE LAYOUT AND PILE SUMMARY)



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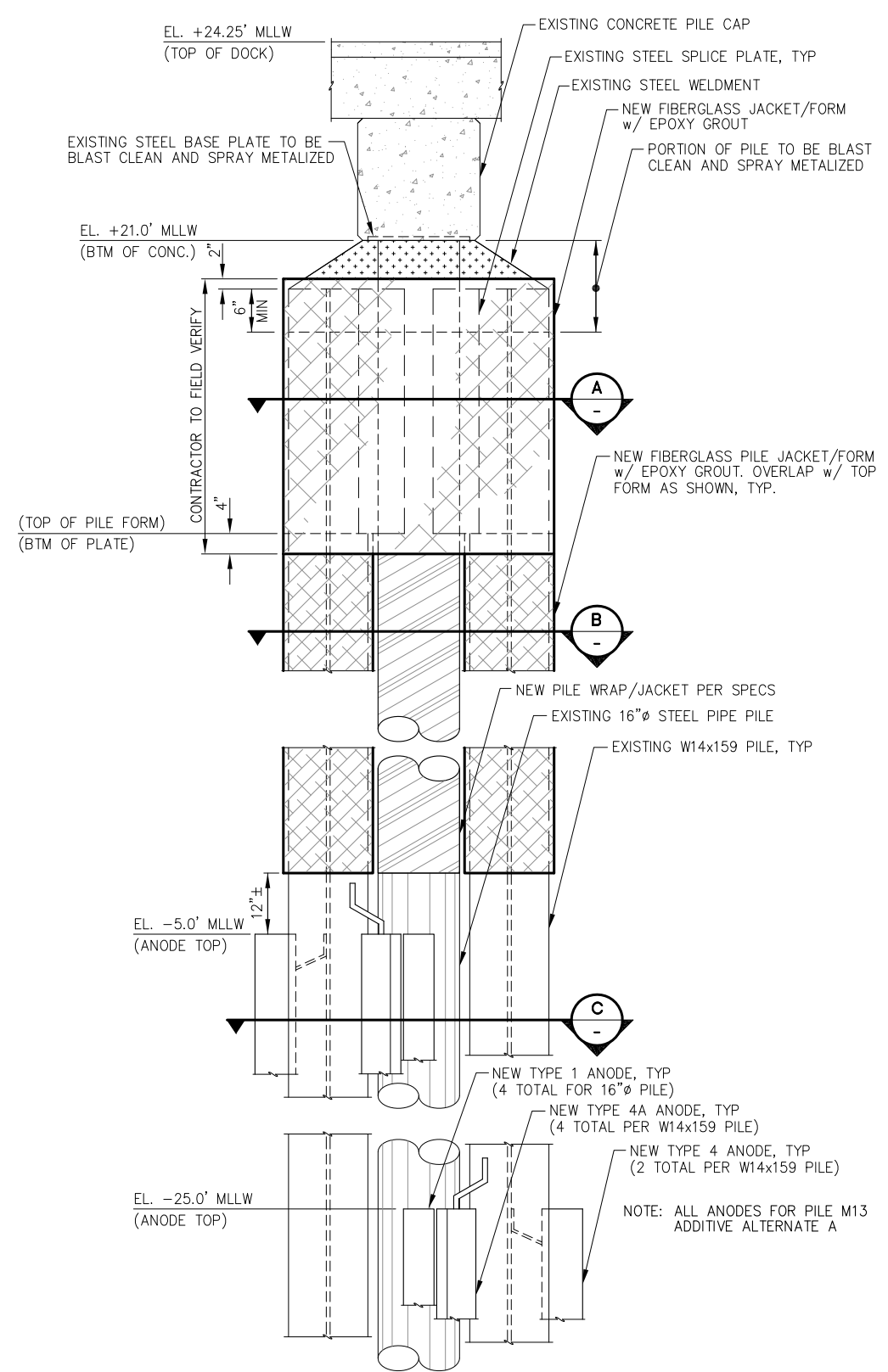
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Juneau, Alaska 99801
Phone: 907-586-2093
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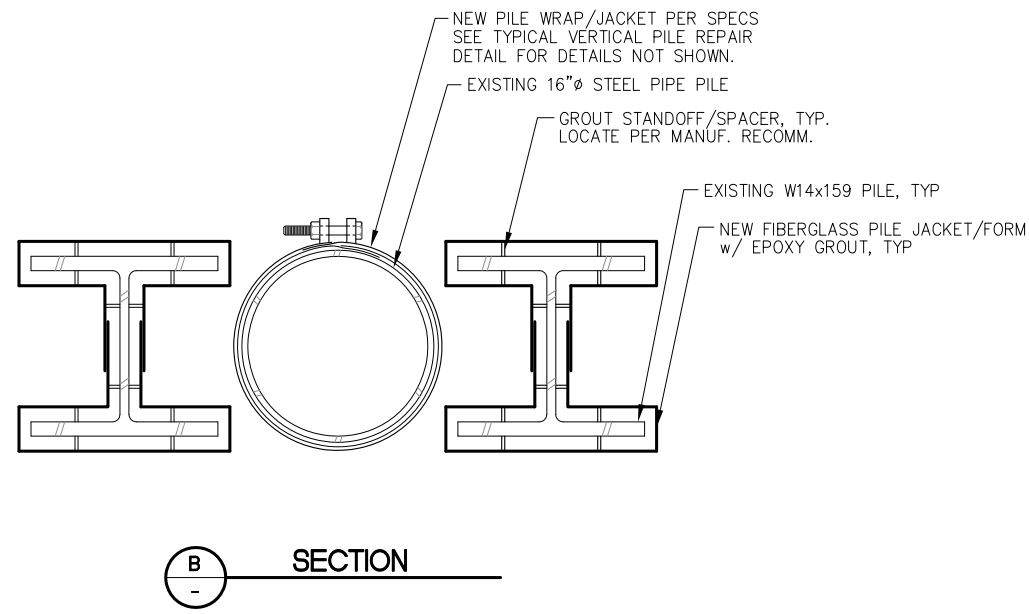
CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK
REHABILITATION

SHEET TITLE: DOCK PILE REPAIR DETAILS	PN&D PROJECT NO. 102070.02	DWG. FILE:

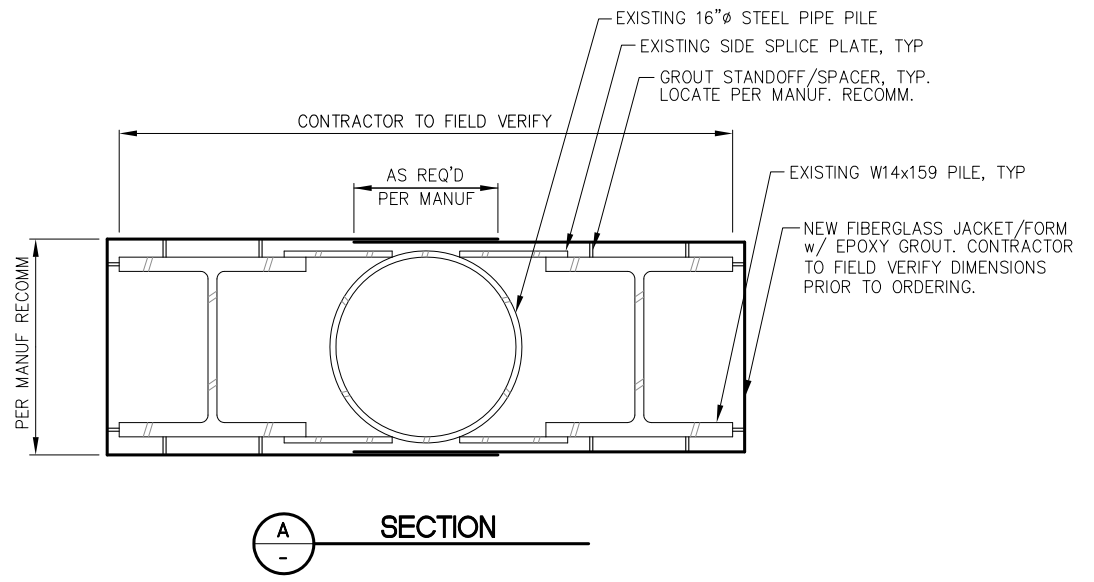


PILE M13 REPAIR DETAIL

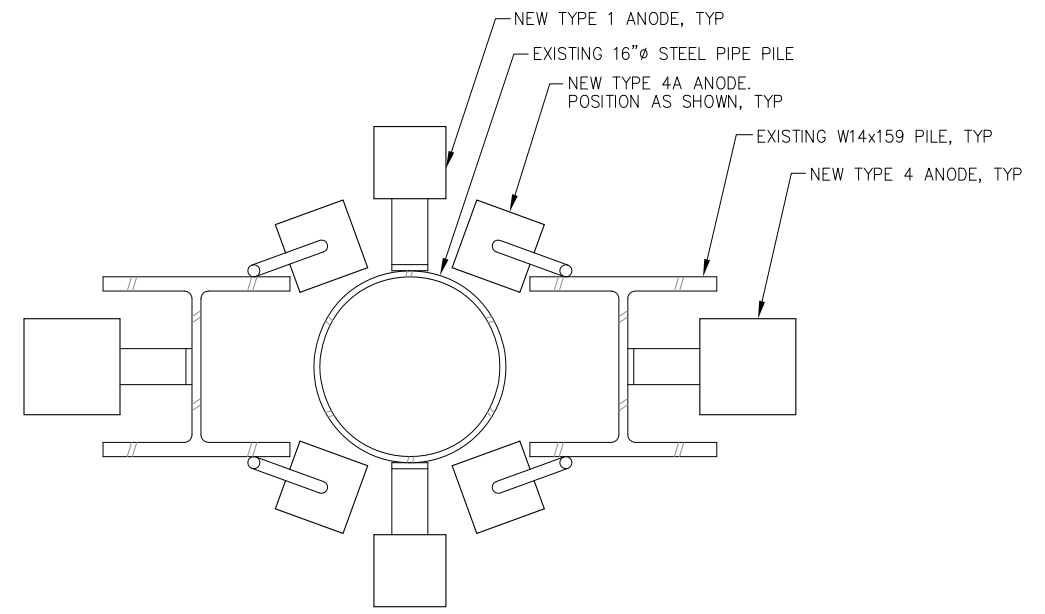
(SEE DOCK PLAN FOR PILE M13 LOCATION)
NOTE: NOT ALL ANODES SHOWN THIS VIEW FOR CLARITY.



B SECTION



A SECTION



C SECTION

NOTE: SECTION AT EL. -25.0' MLLW SIMILAR.



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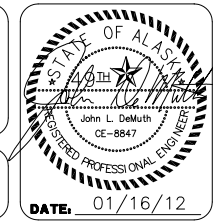
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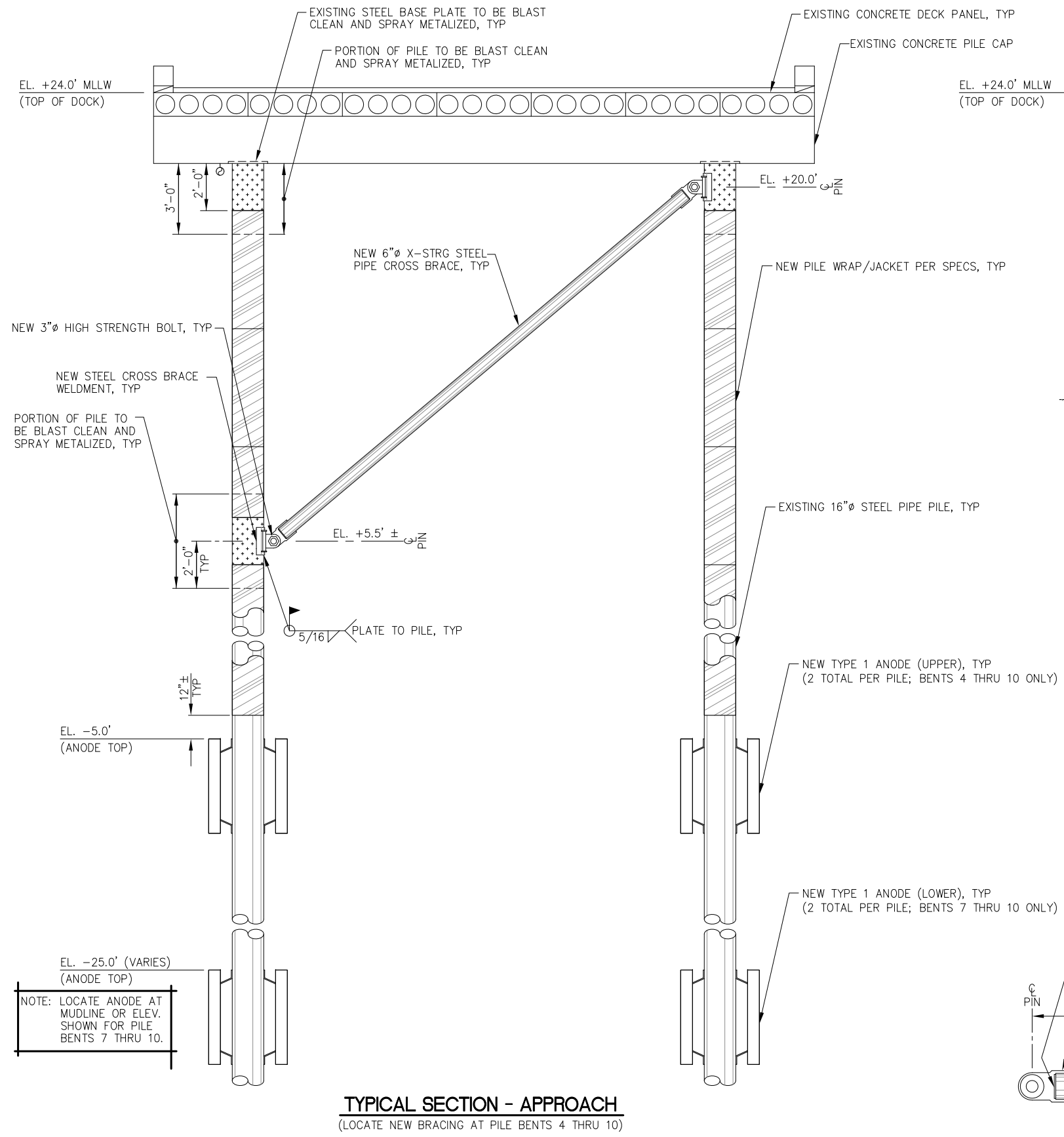
CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK REHABILITATION

SHEET TITLE:
DOCK PILE REPAIR DETAILS

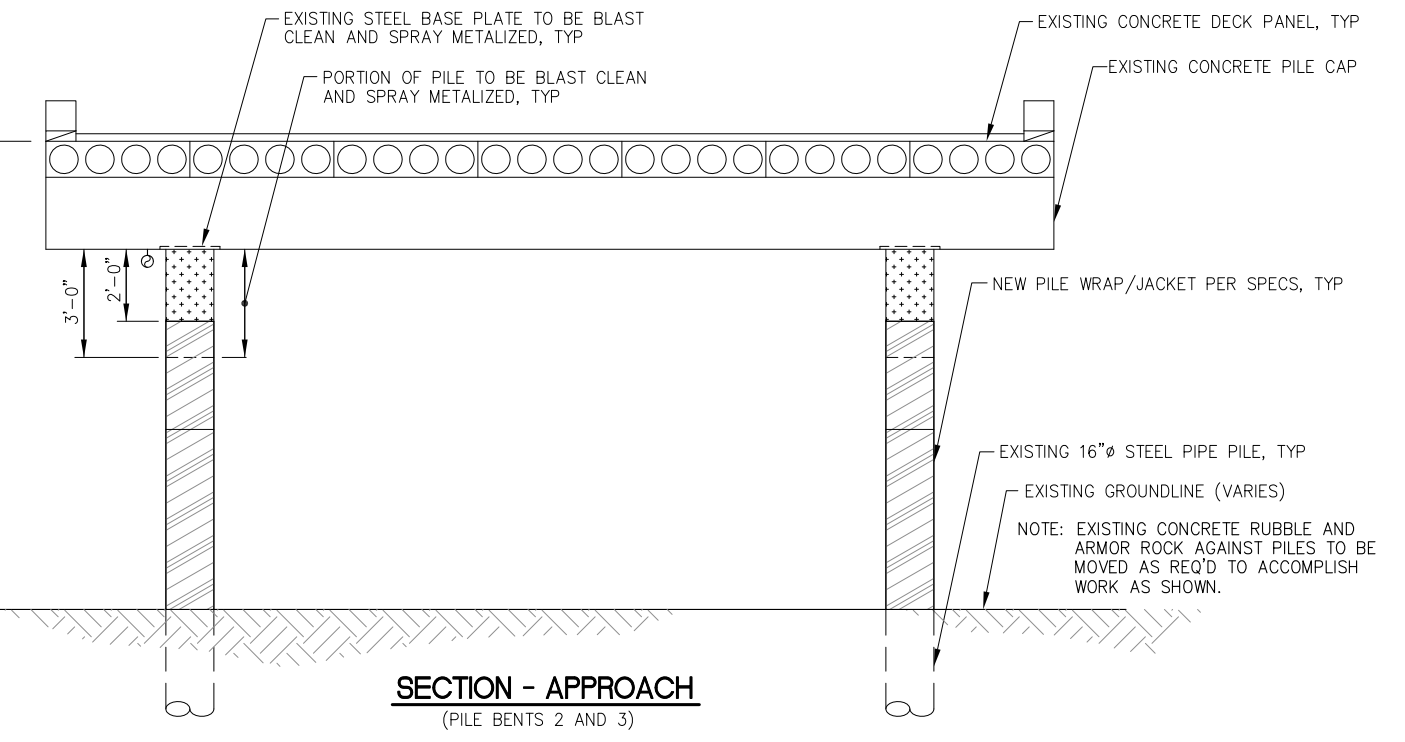
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DATE: 01/16/12

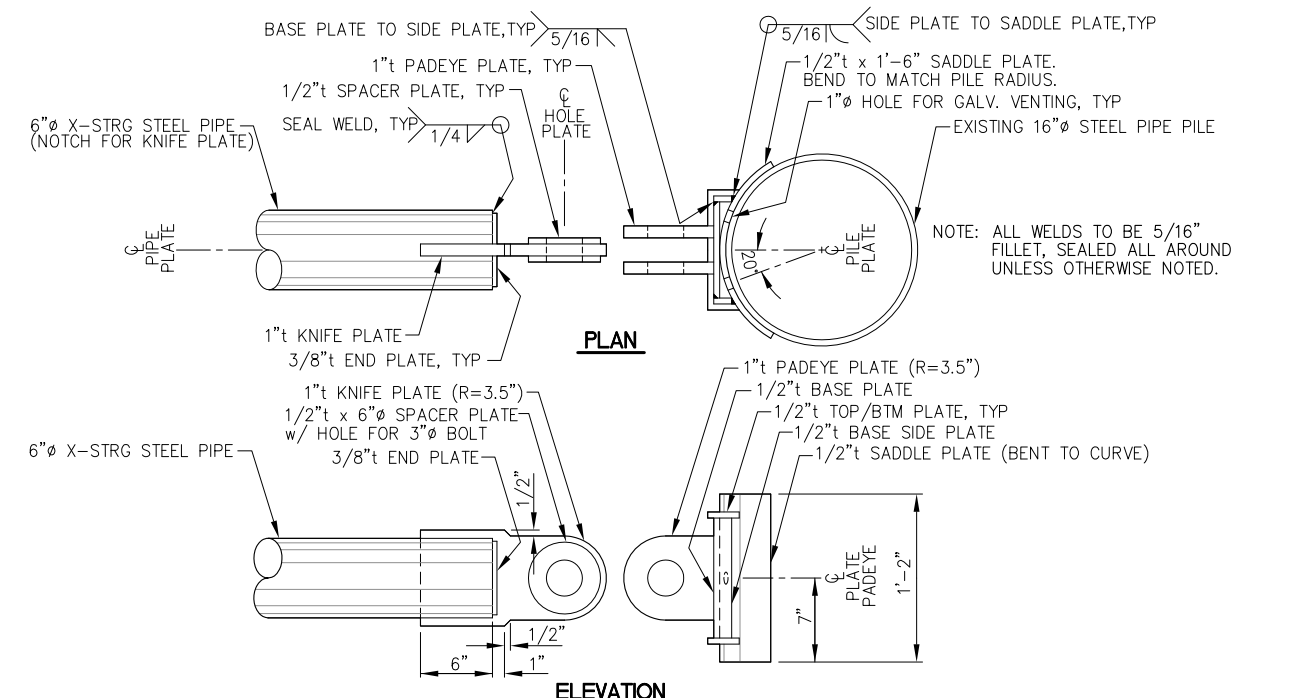
SHEET 8 OF 11



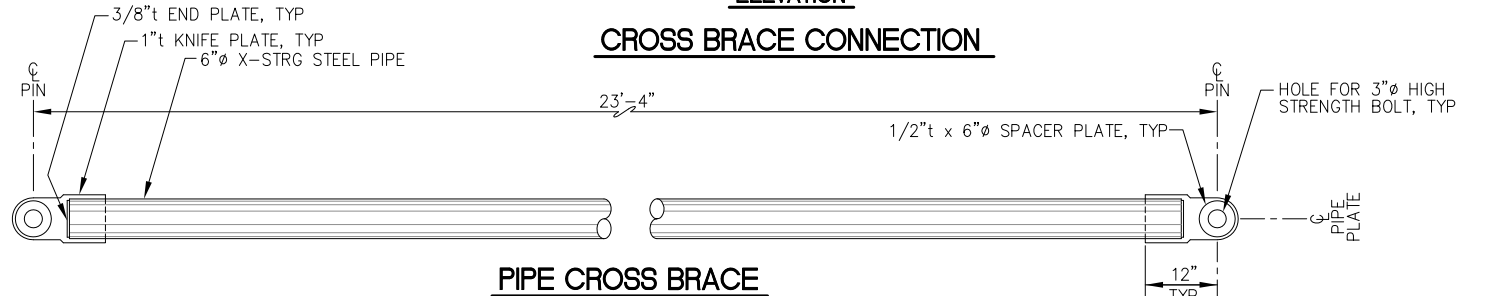
TYPICAL SECTION - APPROACH
(LOCATE NEW BRACING AT PILE BENTS 4 THRU 10)



SECTION - APPROACH
(PILE BENTS 2 AND 3)



CROSS BRACE CONNECTION



PIPE CROSS BRACE



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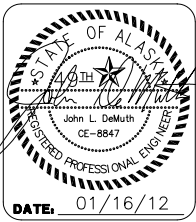
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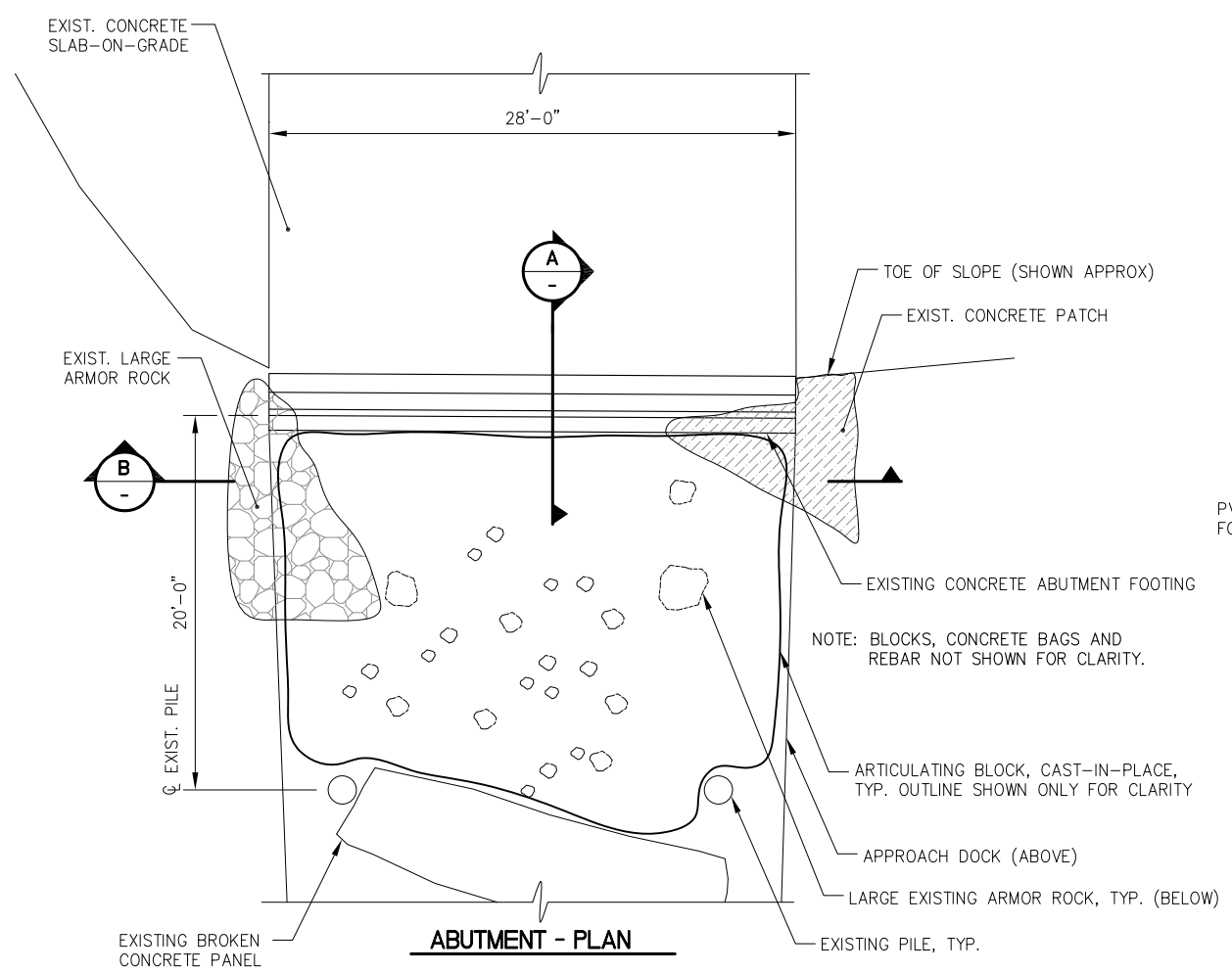
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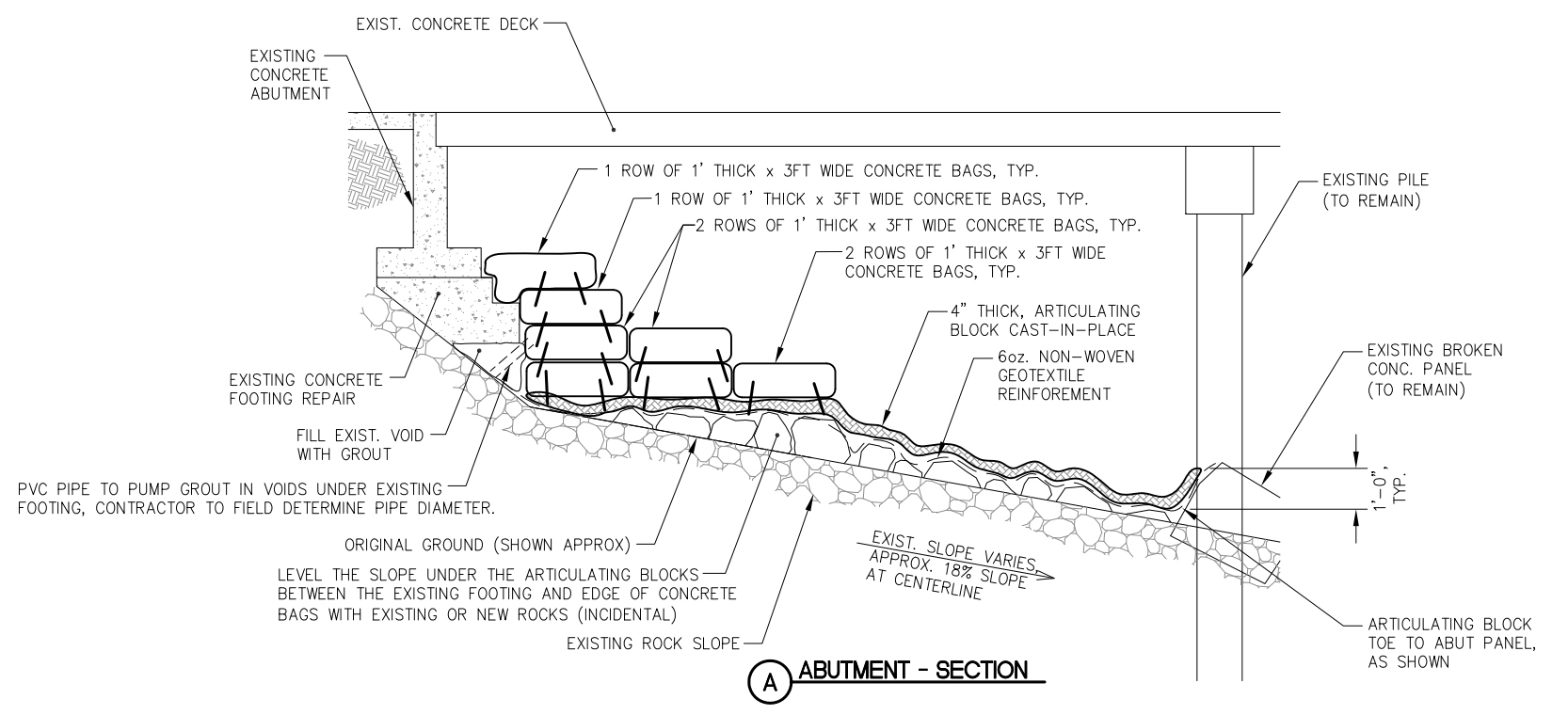
CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK REHABILITATION

SHEET TITLE:
APPROACH DOCK PILE REPAIRS

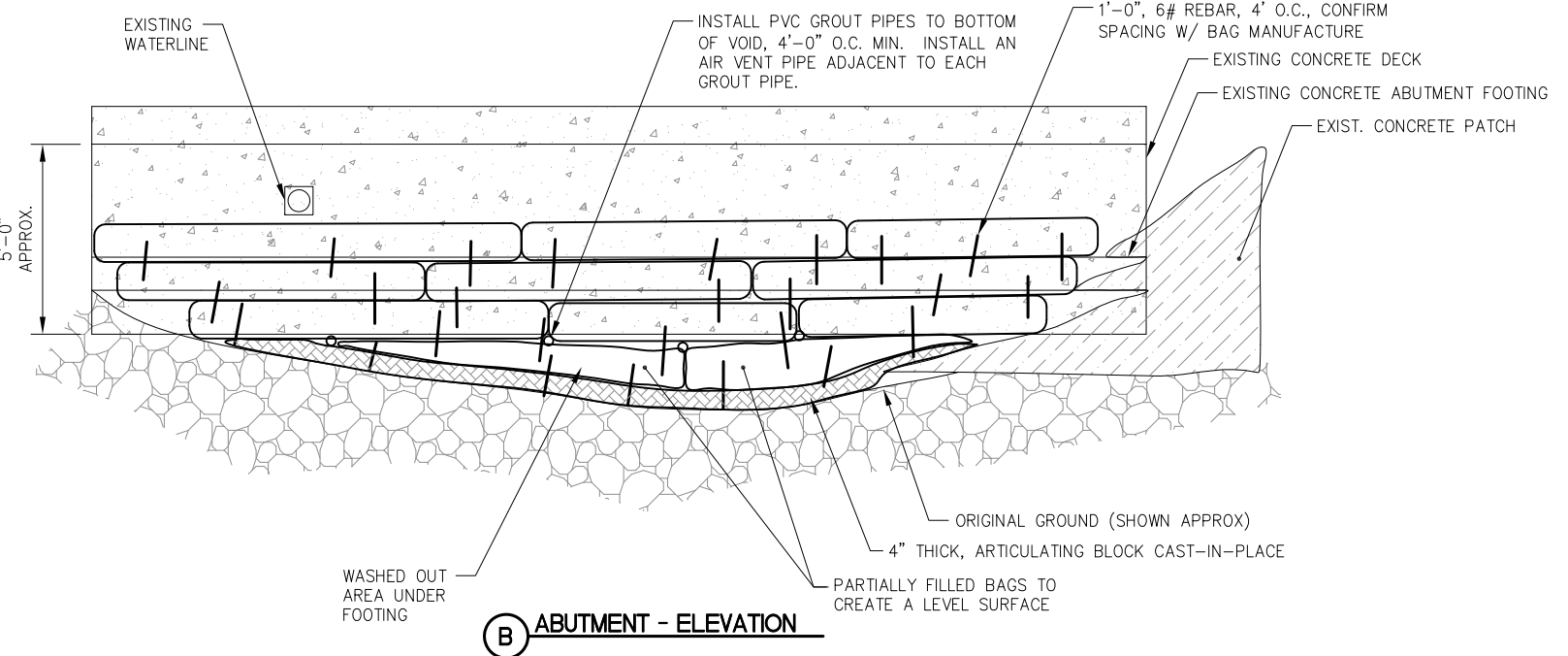
PND PROJECT NO. 102070.02 DWG. FILE:
9 OF 11



ABUTMENT - PLAN



ABUTMENT - SECTION



ABUTMENT - ELEVATION

VOID GROUTING:

1. THE CONTRACTOR SHALL FILL THE EXISTING VOID BENEATH THE ABUTMENT FOOTING WITH GROUT.
2. THE CONCRETE BAGS SHALL BE UTILIZED TO CONTAIN THE GROUT SEAWARD OF THE VOID.
3. PLACE GROUT PRIOR TO PLACING THE TOP TWO ROWS OF CONCRETE BAGS.
4. PROVIDE AND INSTALL GROUT PIPES TO THE BOTTOM OF THE VOID. THE CONTRACTOR SHALL SIZE THE GROUT PIPING TO ACCOMMODATE EQUIPMENT.
5. PROVIDE AND INSTALL AN AIR VENT PIPE ADJACENT TO EACH GROUT PIPE. WHEN THE AIR VENT PIPE EXPELS GROUT THE VOID IS FULL.
6. THE VOID IS ESTIMATED TO BE 5.0 CY.

ESTIMATE OF CONCRETE BAG VOLUME:

TYPE:	SIZE:	VOLUME:	CUMULATIVE VOLUME:
ARTICULATING BLOCK	4" THICK, 28' X 30'	75 FT ² CY.	12 CY
CONCRETE BAG	(7) 1' X 3' X 29'	2.75 FT ² CY.	20.5 CY

1. THIS ESTIMATE OF VOLUME IS BASED UPON THE MANUFACTURES WRITTEN INFORMATION. IN THE EVENT THAT THE GROUT VOLUME IS GREATER THAN 25% OF THE ESTIMATED VOLUME, THEN IT WILL BE PAID BY CHANGE ORDER.
2. THE CONTRACTOR SHALL INSTALL THE FABRIFORM BAGS PER THE MANUFACTURES WRITTEN INSTRUCTIONS, SEE SPECIFICATION SECTIONS 03302 AND 03303.
3. THE LENGTHS OF BAGS MAY BE CHOSEN BY THE CONTRACTOR. PLACE BAGS IN RUNNING BOND.
4. THE CONTRACTOR, IN CONSULTATION WITH THE MANUFACTURE, MAY FOLD BAGS TO CIRCUMVENT PILING AND LARGE ROCKS AT THE EDGE TO FIELD FIT SITE CONDITIONS. ENSURE THAT INLET VALVES ARE INSTALLED WHERE REQUIRED TO FILL THE BAGS.



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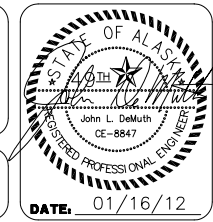
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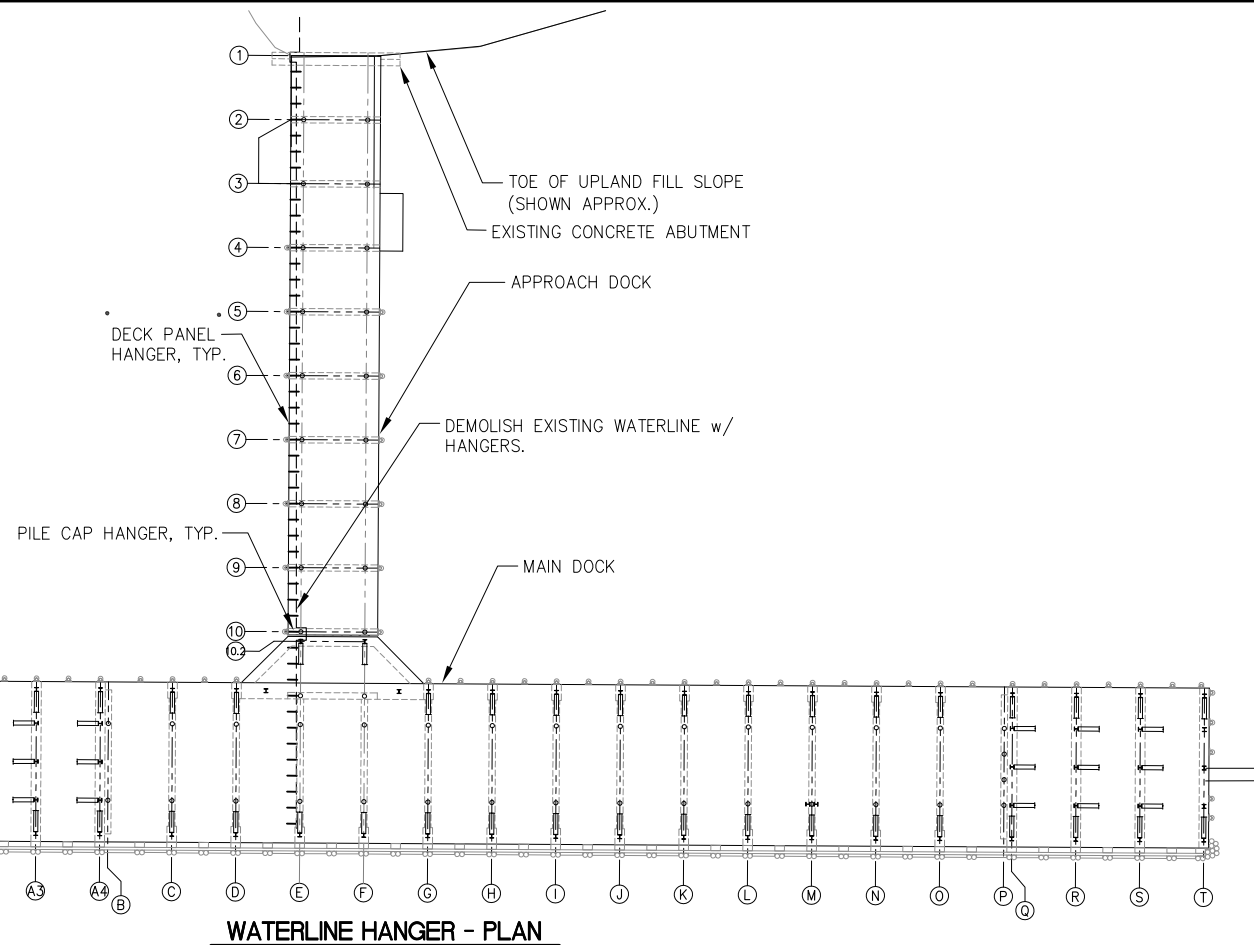
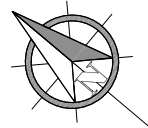
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CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK REHABILITATION

SHEET TITLE:
APPROACH DOCK ABUTMENT REPAIR

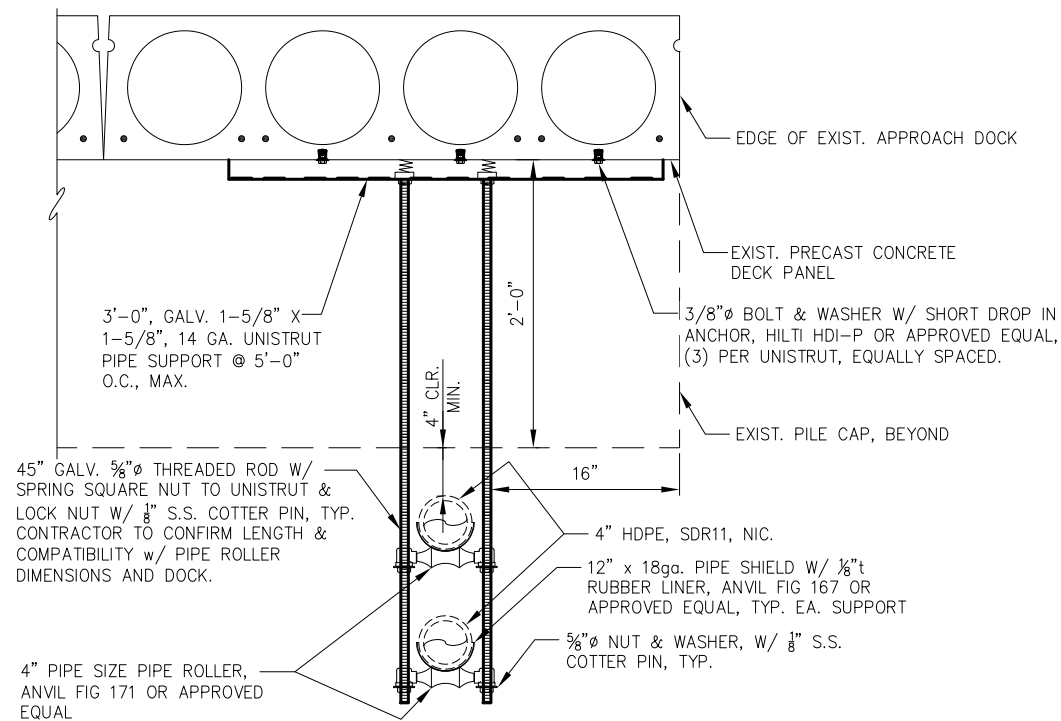
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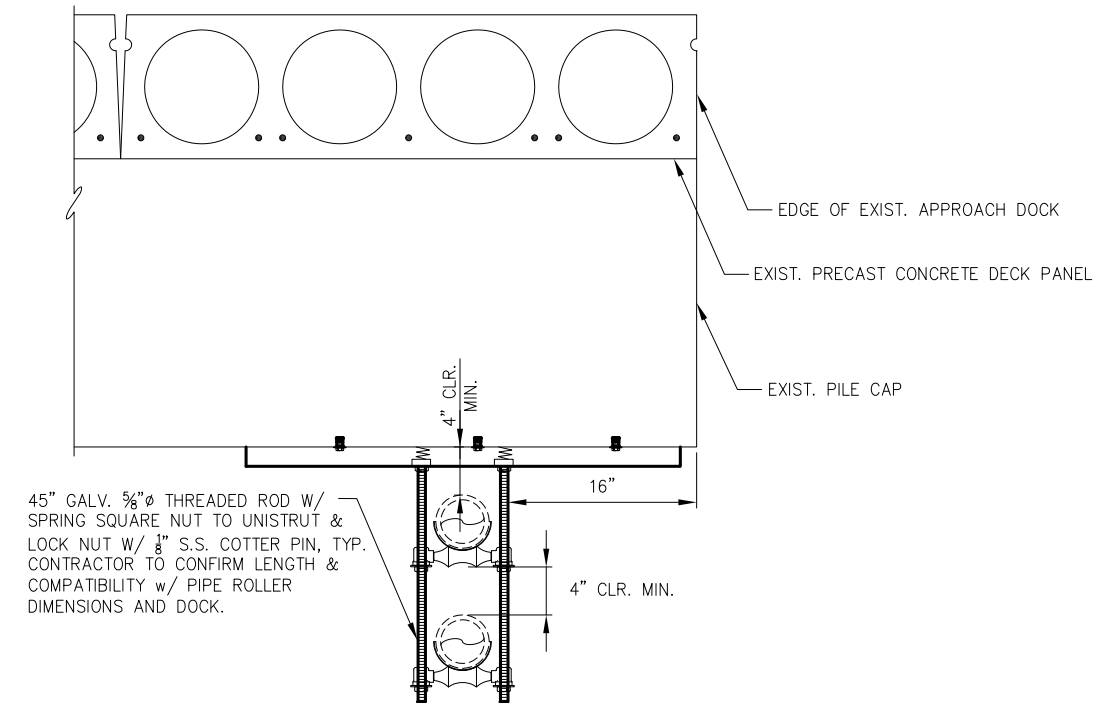
WATERLINE HANGER - PLAN



(A) EXISTING WATERLINE HANGERS - PHOTO



(B) DECK PANEL HANGER DETAIL
(38 TOTAL)



(C) PILE CAP HANGER DETAIL
(10 TOTAL) SEE DECK PANEL HANGER FOR DETAILS NOT SHOWN, SIM.



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CITY AND BOROUGH OF WRANGELL, ALASKA
WRANGELL CITY DOCK
REHABILITATION

SHEET TITLE:
WATERLINE HANGER PLAN

PN&D PROJECT NO. 102070.02 DWG. FILE:

SHEET
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