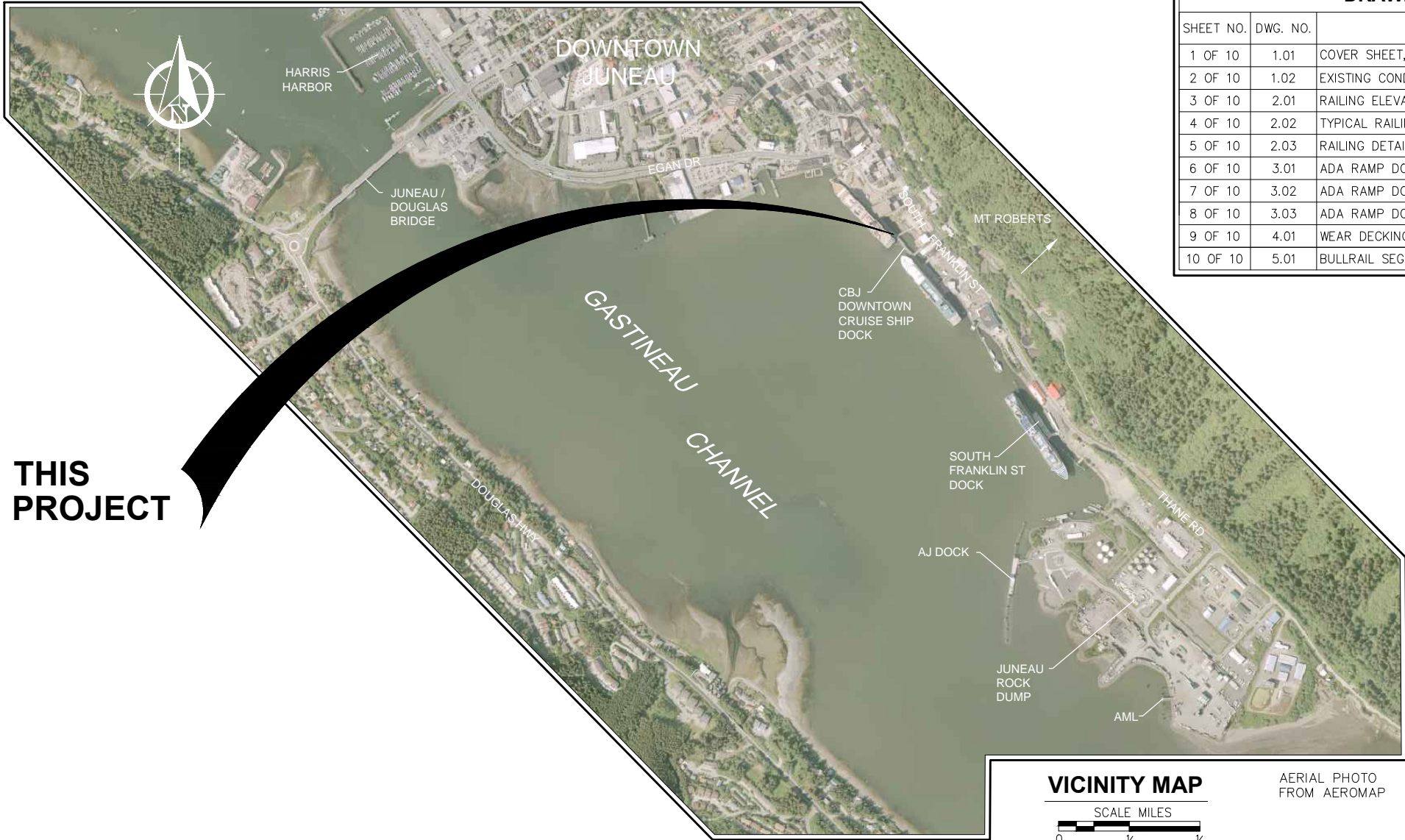
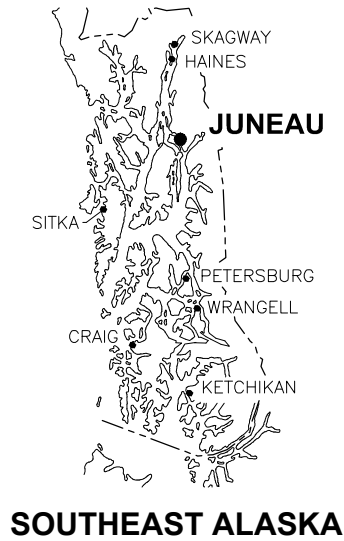
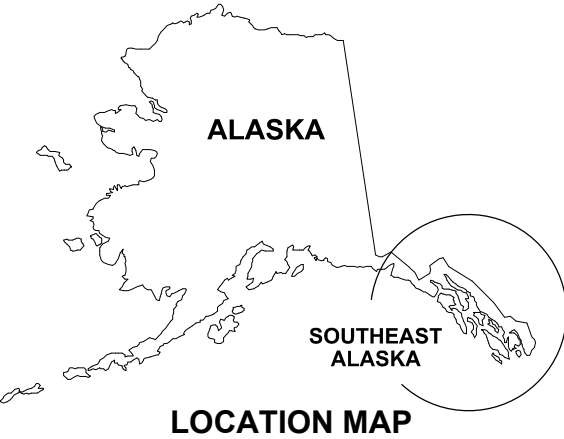


CITY & BOROUGH OF JUNEAU, ALASKA

PORT OF JUNEAU CRUISE SHIP BERTHS

SAFETY IMPROVEMENTS

CBJ CONTRACT NO. DH17-045

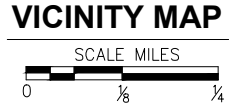


PROJECT SCHEDULE	
DESCRIPTION	SCHEDULE
1. EARLIEST FIELD START	OCTOBER 2, 2017
2. SUBSTANTIAL COMPLETION	DECEMBER 1, 2017
3. FINAL COMPLETION	DECEMBER 15, 2017

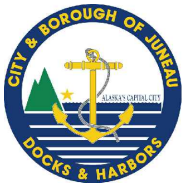
DRAWING INDEX		
SHEET NO.	DWG. NO.	TITLE
1 OF 10	1.01	COVER SHEET, VICINITY MAP AND DRAWING INDEX
2 OF 10	1.02	EXISTING CONDITIONS AND GENERAL SITE PLAN
3 OF 10	2.01	RAILING ELEVATIONS AND DETAILS
4 OF 10	2.02	TYPICAL RAILING POST DETAILS
5 OF 10	2.03	RAILING DETAILS AT TRANSITION
6 OF 10	3.01	ADA RAMP DOCK MODIFICATIONS PLAN AND SECTIONS
7 OF 10	3.02	ADA RAMP DOCK MODIFICATIONS PLAN AND PROFILE
8 OF 10	3.03	ADA RAMP DOCK MODIFICATIONS DETAILS
9 OF 10	4.01	WEAR DECKING REPLACEMENT DETAILS
10 OF 10	5.01	BULLRAIL SEGMENT AT DOLPHINS

TIDAL DATA	ELEV. (FT)
HIGHEST OBSERVED WATER LEVEL	+24.58
MEAN HIGHER HIGH WATER (MHHW)	+16.30
MEAN HIGH WATER (MHW)	+15.34
MEAN SEA LEVEL (MSL)	+8.56
MEAN TIDE LEVEL (MTL)	+8.47
MEAN LOWER WATER (MLW)	+1.60
MEAN LOWER LOW WATER (MLLW)	0.0
LOWEST OBSERVED WATER LEVEL	-6.12

FROM:
NOAA NOS/CO-OPS STATION ID: 9452210 JUNEAU, ALASKA



AERIAL PHOTO FROM AEROMAP



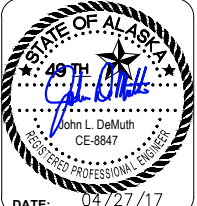
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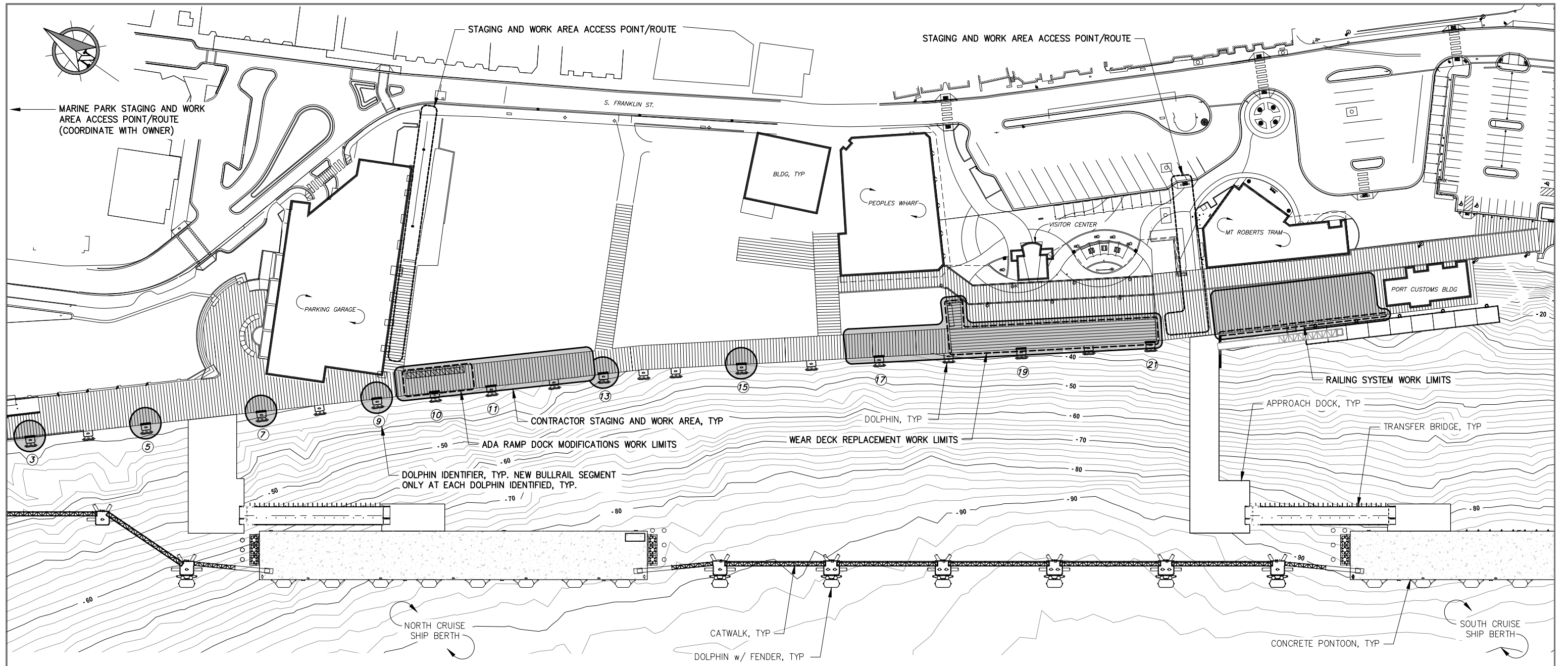


PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045

SHEET TITLE:
COVER SHEET, VICINITY MAP
AND DRAWING INDEX

PN&D PROJECT NO.: 102050.09 DWG. FILE:

1.01
SHEET
1 OF 10



CONTRACTOR STAGING AND WORK AREAS

THE JUNEAU CRUISE SHIP BERTHS, TIMBER DOCKS, ADJACENT STRUCTURES AND PARKING AREAS SHALL REMAIN ACTIVE FACILITIES AND WILL BE OCCUPIED BY THE PUBLIC AND OTHER PATRONS DURING CONSTRUCTION. THE APPROXIMATE CONTRACTOR STAGING AND WORK AREAS SHOWN WILL BE ALLOTTED TO THE CONTRACTOR FOR THE DURATION OF THE PROJECT FOR CONSTRUCTION OF EACH WORK ITEM WITHIN THE STAGING AND WORK AREA, INCLUDING STORAGE OF MATERIALS AND EQUIPMENT, FABRICATION, MANEUVERING, ETC.. WORK SHALL OCCUR ONLY WITHIN THE STAGING AND WORK AREAS SHOWN. CONSTRUCTION OF THE STAGING AND WORK AREAS, DISPOSAL OF DEMOLISHED MATERIALS, MATERIALS AND EQUIPMENT DELIVERIES TO AND FROM THE STAGING AND WORK AREAS SHALL BE PERFORMED IN OFF HOURS (AFTER 5PM AND BEFORE 8AM) OR AT TIMES PREVIOUSLY COORDINATED WITH THE OWNER AND BY USING THE STAGING AND WORK AREA ACCESS POINT/ROUTES SHOWN. INSTALLATION OF BULLRAIL SEGMENTS AT DOLPHINS OUTSIDE OF THE DESIGNATED STAGING AND WORK AREAS SHALL BE PERFORMED IN OFF HOURS OR AT TIMES PREVIOUSLY COORDINATED WITH THE OWNER AND WILL REQUIRE TEMPORARY FENCING AROUND THE BULLRAIL WORK AREAS. THE OWNER WILL MAKE AVAILABLE UP TO 400-LF OF YELLOW PLASTIC FENCE TO THE CONTRACTOR TO ASSIST WITH DELINEATING THE WORK AREAS AND PROVIDING SAFE SEPARATION BETWEEN THE PUBLIC AND THE WORK. THE CONTRACTOR SHALL PICK-UP, INSTALL, MAINTAIN, AND RETURN ALL OWNER SUPPLIED FENCING UTILIZED AND SHALL PROVIDE AND INSTALL ANY ADDITIONAL FLAGGING, SIGNAGE, CONES, ETC. NEEDED TO SECURE THE WORK AREAS. OWNER WILL SUPPLY ADDITIONAL SIGNAGE AS NEEDED.

EXISTING SITE PLAN

NOTE: THE CONTRACTOR SHALL ASSESS THE CONDITIONS AND LOAD LIMITS OF EXISTING PILE SUPPORTED DOCKS AND OTHER STRUCTURES PRIOR TO MOBILIZATION. CONTRACTOR OPERATIONS SHALL BE CONDUCTED IN A MANNER THAT DOES NOT EXCEED ALLOWABLE LOAD LIMITS. ANY DAMAGE CAUSED BY CONTRACTOR OPERATIONS SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST.

NOTE: THE OWNER MAY HAVE OTHER SMALL WORK CREWS INSTALLING ELECTRICAL AND ARTWORK ON EXISTING DOLPHIN PILE CAPS. CONTRACTOR SHALL COORDINATE WITH OWNER AND OWNERS OTHER WORK CREWS FOR SCHEDULING/SEQUENCING OF WORK.



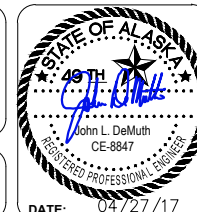
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DESIGN: BMI CHECKED: JLD
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SCALE: SCALE IN FEET
0 50 100 FT.

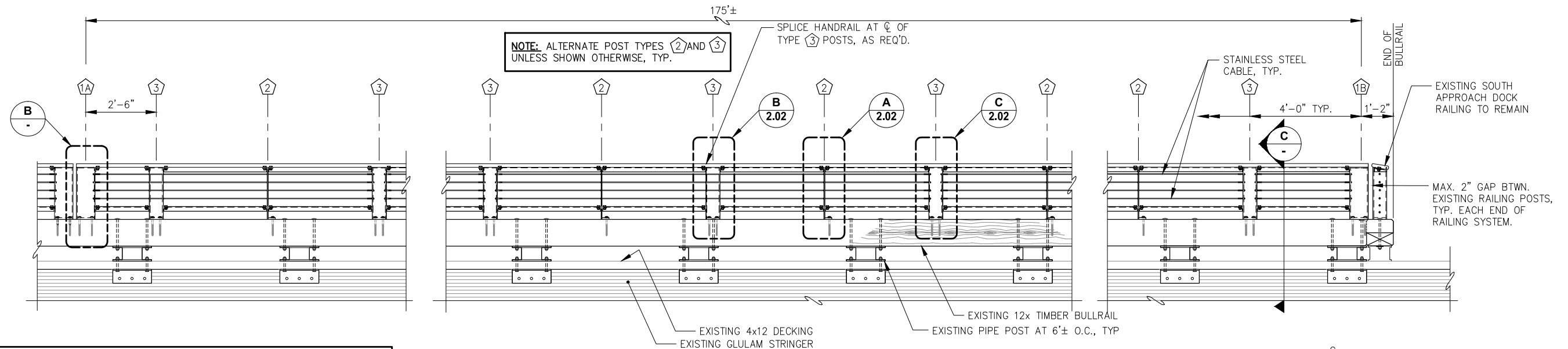


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CONTRACT NO. DH17-045**

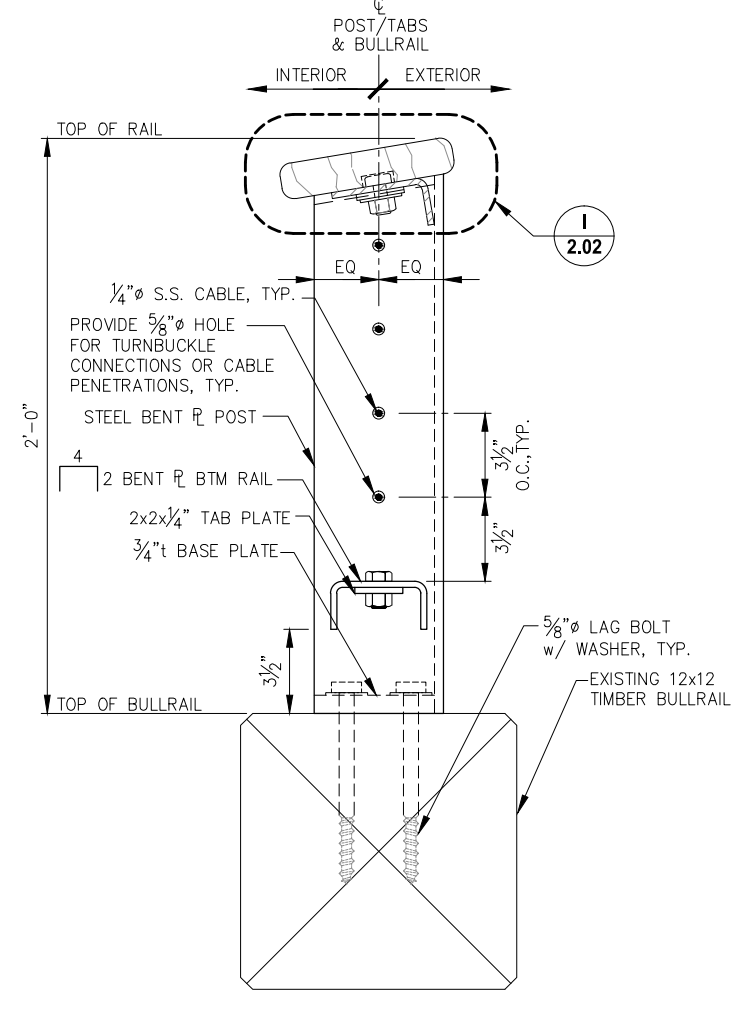
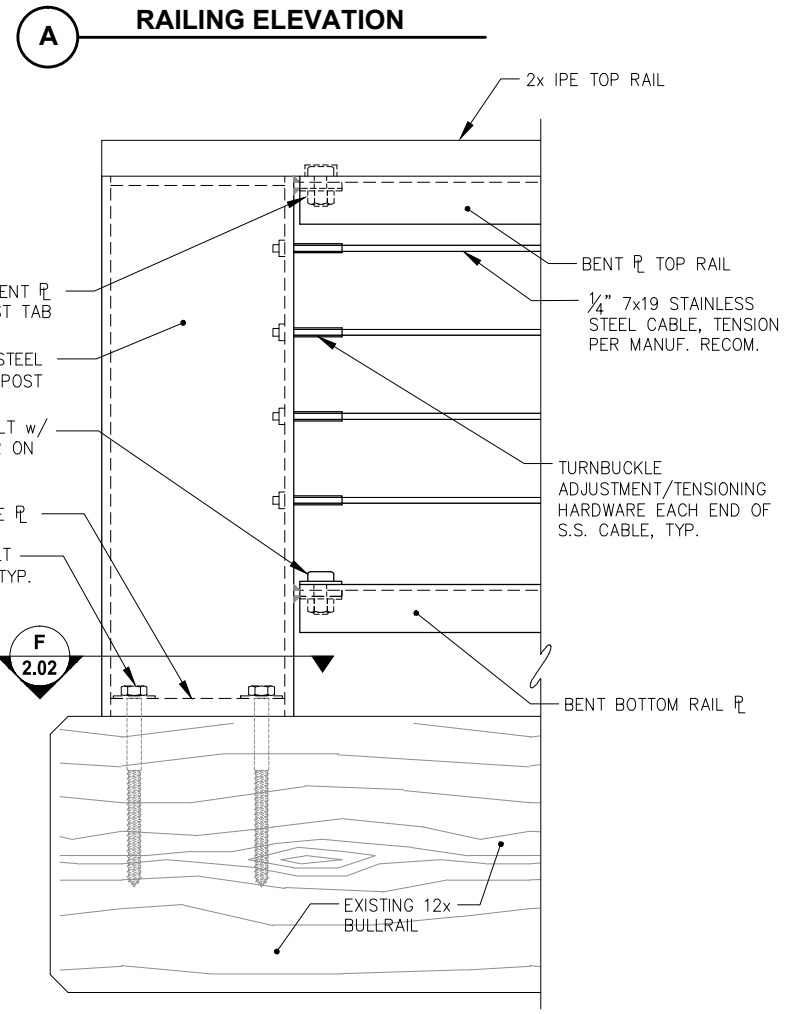
SHEET TITLE: **EXISTING CONDITIONS
AND OVERALL SITE PLAN**

PN&D PROJECT NO.: 102050.09 DWG. FILE:

1.02
SHEET
2 OF 10



- RAILING NOTES:**
- TOP AND BOTTOM BENT PLATE BOLTED CONNECTIONS MUST BE INSTALLED PRIOR TO CABLE INSTALLATION AND TIGHTENING.
 - ALL WELDS SHALL BE GROUND SMOOTH AND ALL METAL EDGES DEBURRED AND LIGHTLY ROUNDED PRIOR TO GALVANIZING.
 - TREAT TIMBER FIELD CUTS PER SPECIFICATIONS. ALL CUT OR FIELD WELDED GALV. MEMBERS SHALL BE GALV. REPAIRED PER SPECIFICATIONS.
 - LOCATION OF TURNBUCKLES FOR ILLUSTRATION PURPOSES ONLY. COORDINATE ACTUAL LOCATIONS PER CABLE MANUFACTURERS RECOMMENDATIONS.
 - TIGHTEN STAINLESS STEEL CABLE AS NECESSARY TO ALLEVIATE SAGGING PER MANUFACTURER'S RECOMMENDATIONS.
 - REMOVE EXISTING BULLRAIL TO POST ECONOMY HEAD CONNECTION BOLTS THAT MAY INTERFERE WITH BOTTOM OF RAILING POST BASE PLATES. COUNTERSINK EXISTING BULLRAIL AND REINSTALL BOLT WITH HEAD FLUSH TO TOP OF TIMBER. FIELD TREAT TIMBER WITH MASTIC PER SPECIFICATIONS.
 - FIELD VERIFY FINAL LAYOUT OF HANDRAIL POST SPACINGS AS REQUIRED TO FIT EXISTING BULLRAIL TO REMAIN AND TO TRANSITION AT EXISTING BULLRAIL LAP.



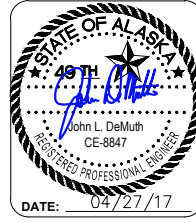
RAILING POST SCHEDULE		
TYPE	TAB & HOLE LOCATIONS	NOTES
1A	RIGHT SIDE ONLY	CABLE PENETRATE RIGHT SIDE WITH TURNBUCKLES SEE DETAIL B/2.01
1B	LEFT SIDE ONLY	CABLE PENETRATE LEFT SIDE WITH TURNBUCKLES SEE DETAIL B/2.01 SIM.
2	BOTH SIDES	CABLE PENETRATE BOTH SIDE NO TURNBUCKLES, SEE DETAIL A/2.02
3	BOTH SIDES	CABLE PENETRATE BOTH SIDES, TURNBUCKLES AS NOTED IN GUARD RAIL NOTES, SEE DETAILS B&C/S2.02

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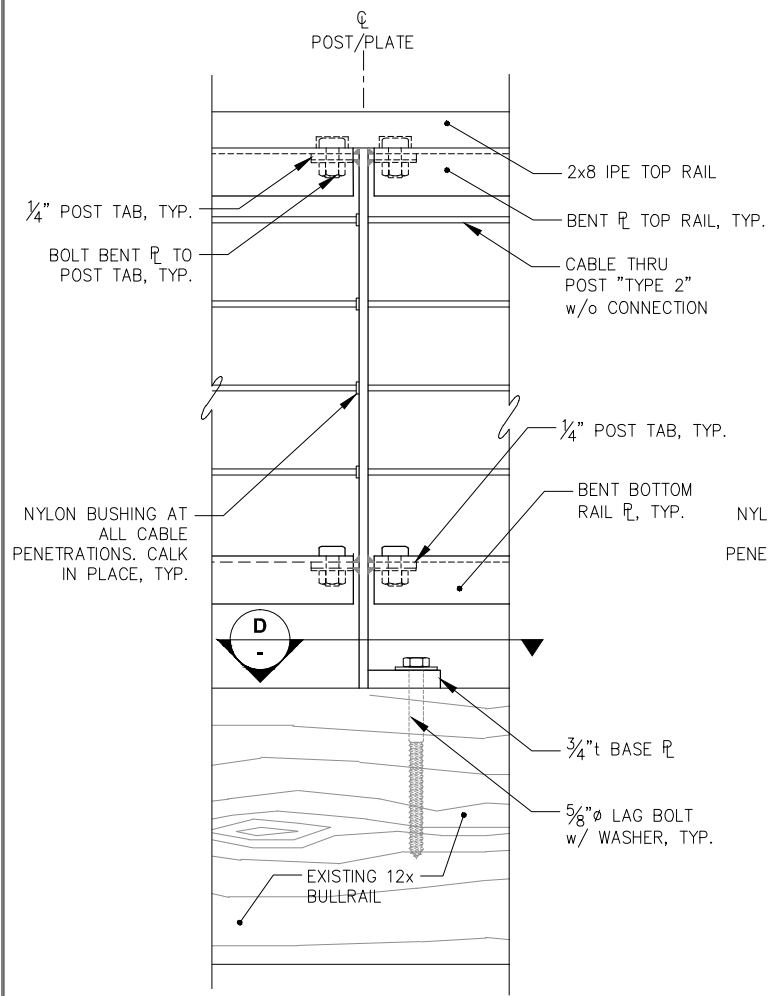
**PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

SHEET TITLE:
RAILING ELEVATIONS AND DETAILS

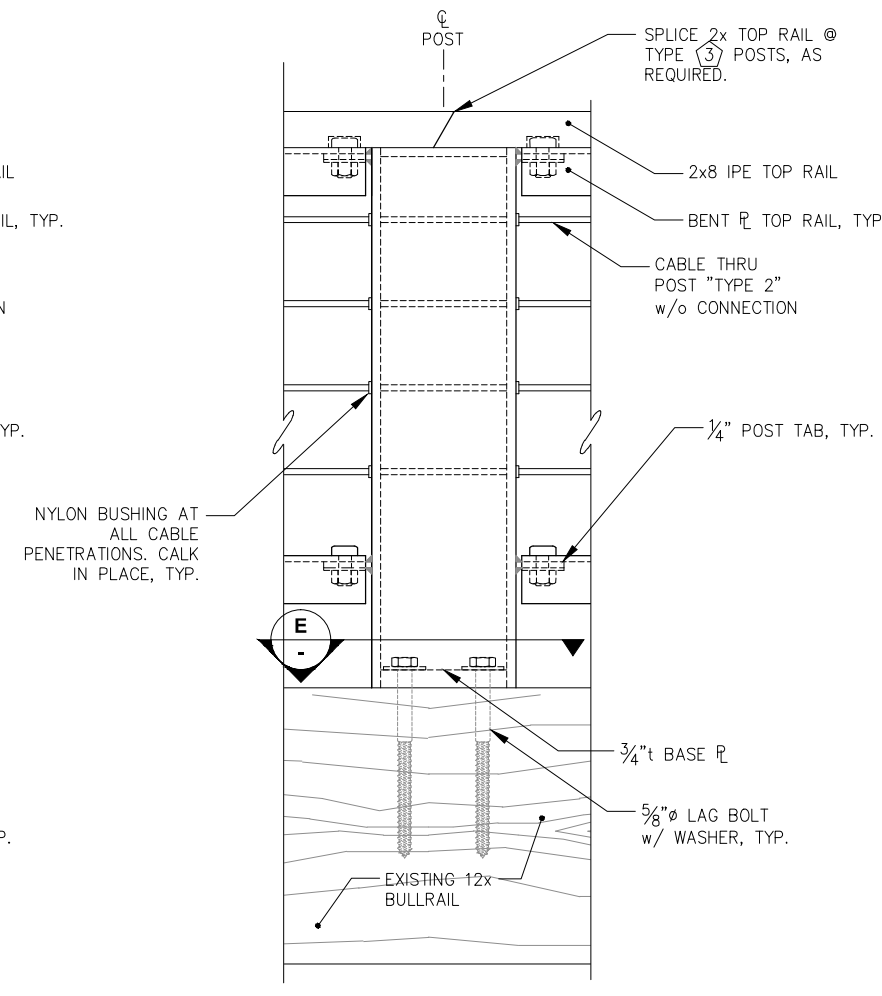
PN&D PROJECT NO.: 102050.09 DWG. FILE: -----.DWG

2.01
SHEET
3 OF 10

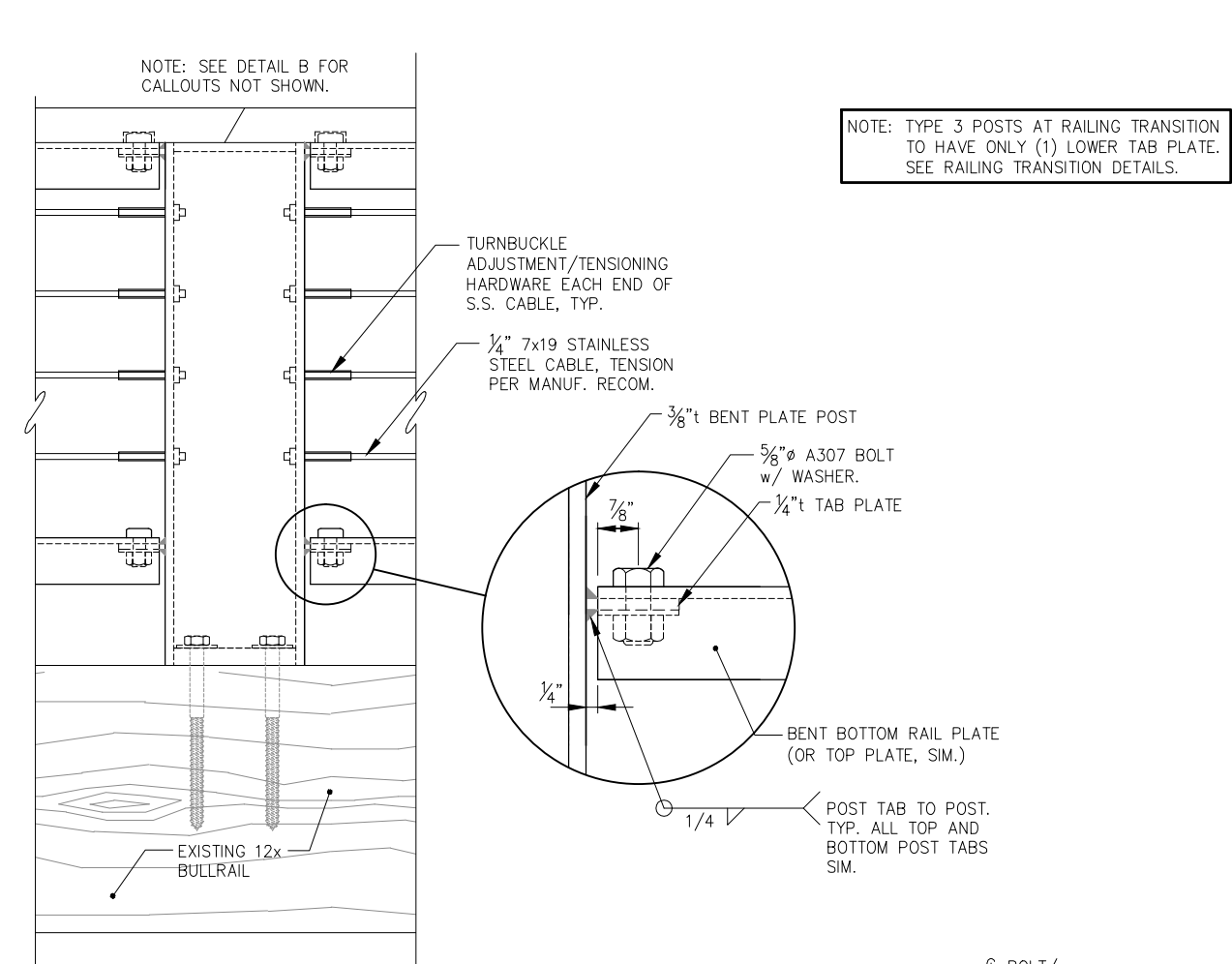




A STANDARD RAILING POST TYPE 2 ELEVATION

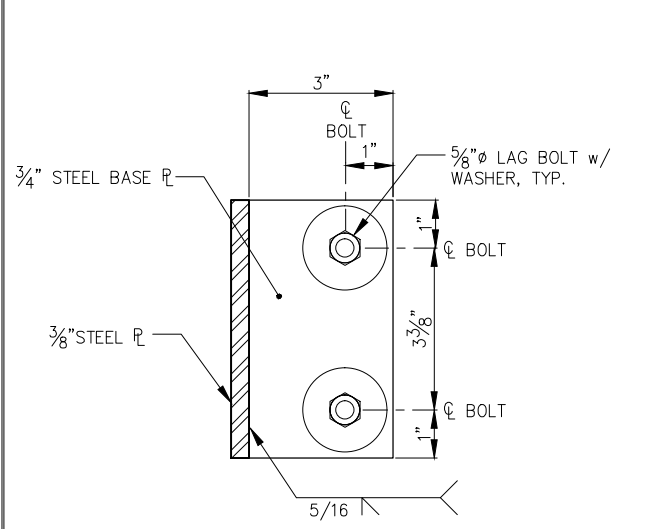


B POST TYPE 3 w/o TURNBUCKLES ELEVATION

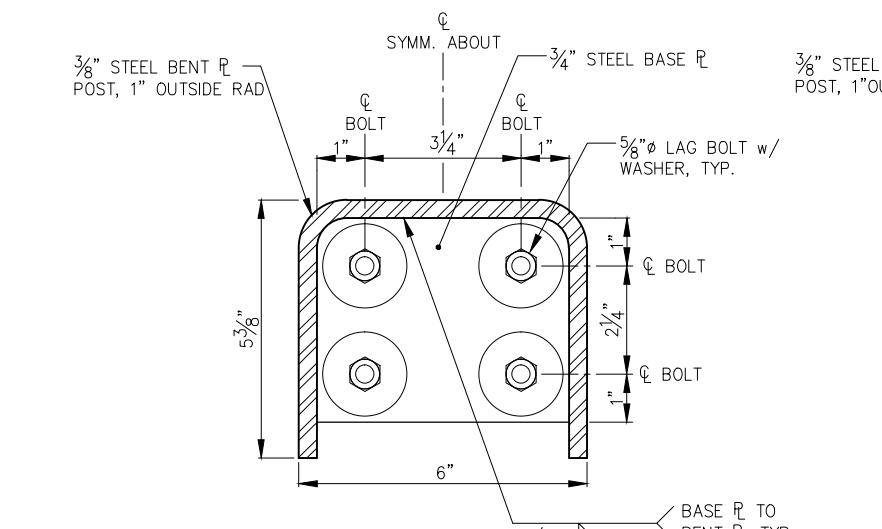


C POST TYPE 3 w/ TURNBUCKLES ELEVATION

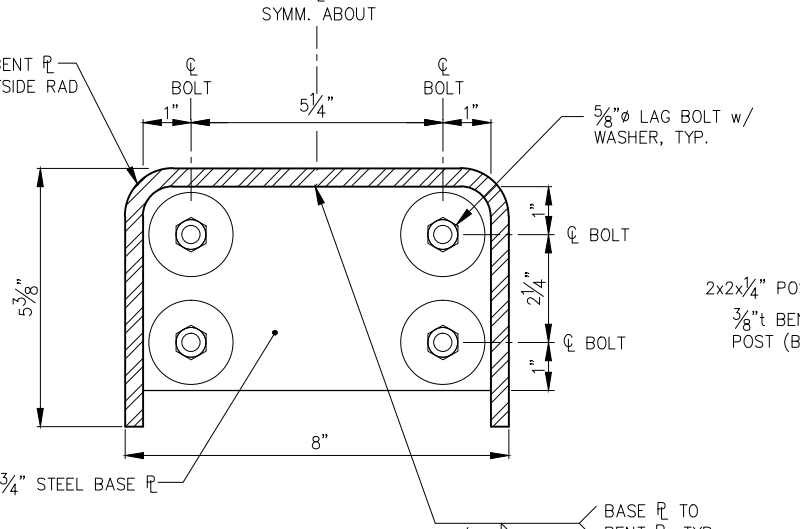
NOTE: TYPE 3 POSTS AT RAILING TRANSITION TO HAVE ONLY (1) LOWER TAB PLATE. SEE RAILING TRANSITION DETAILS.



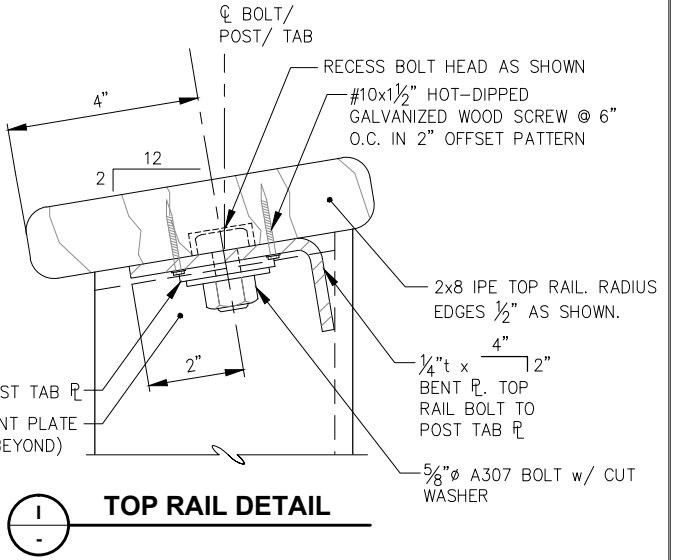
D POST BASE PLATE TYPE 2



E POST BASE PLATE TYPE 3



F POST BASE PLATE TYPE 3A & 3B



I TOP RAIL DETAIL

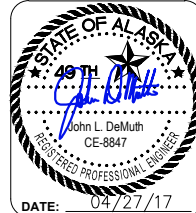


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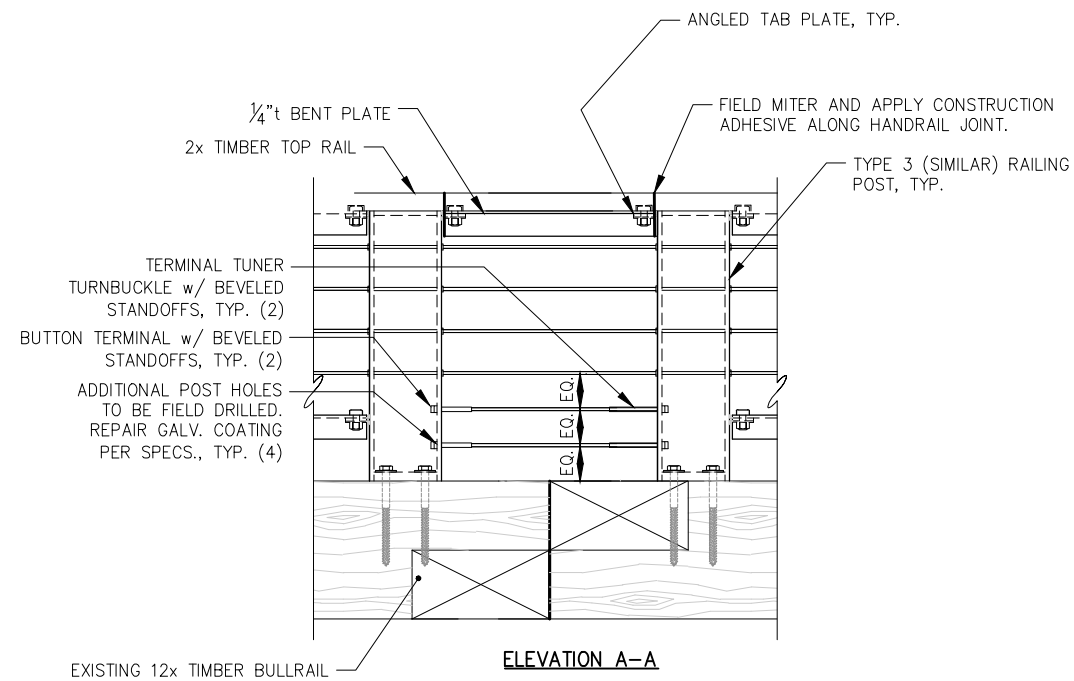


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SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

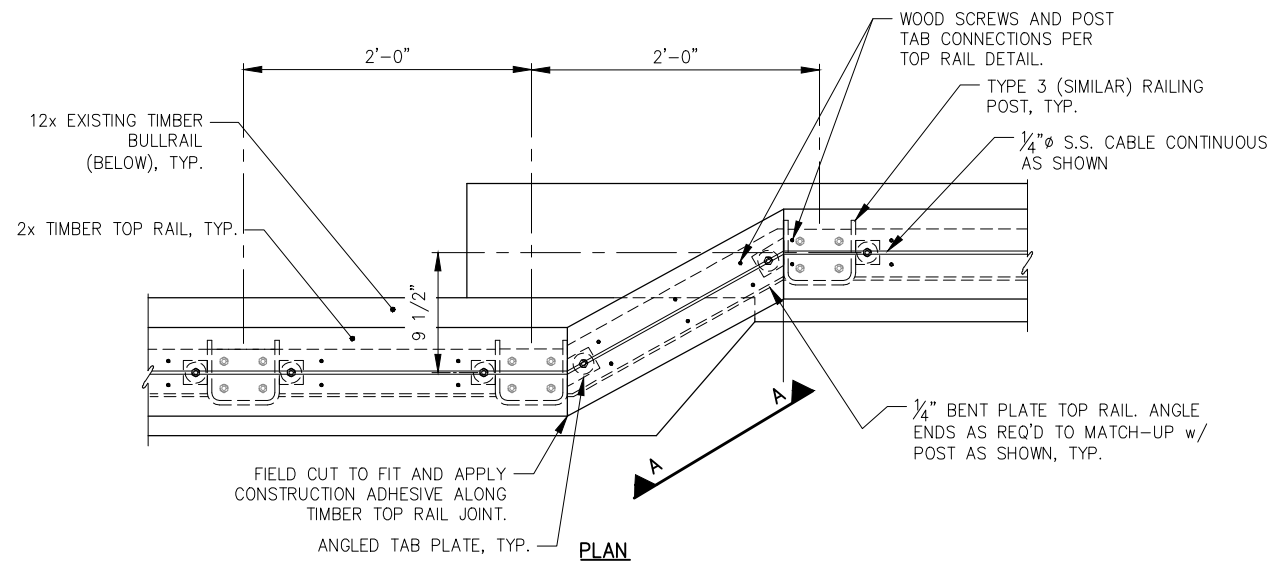
SHEET TITLE:
TYPICAL RAILING POST DETAILS

PN&D PROJECT NO.: 102050.09 DWG. FILE: ----.DWG

2.02
SHEET
4 OF 10



RAILING TRANSITION AT BULLRAIL LAP - ELEVATION

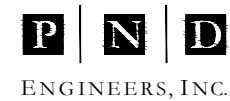


RAILING TRANSITION AT BULLRAIL LAP - PLAN

NOTE: DETAILS NOT SHOWN SIMILAR TO TYPICAL RAILING.



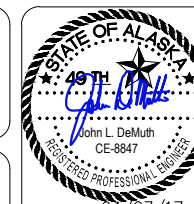
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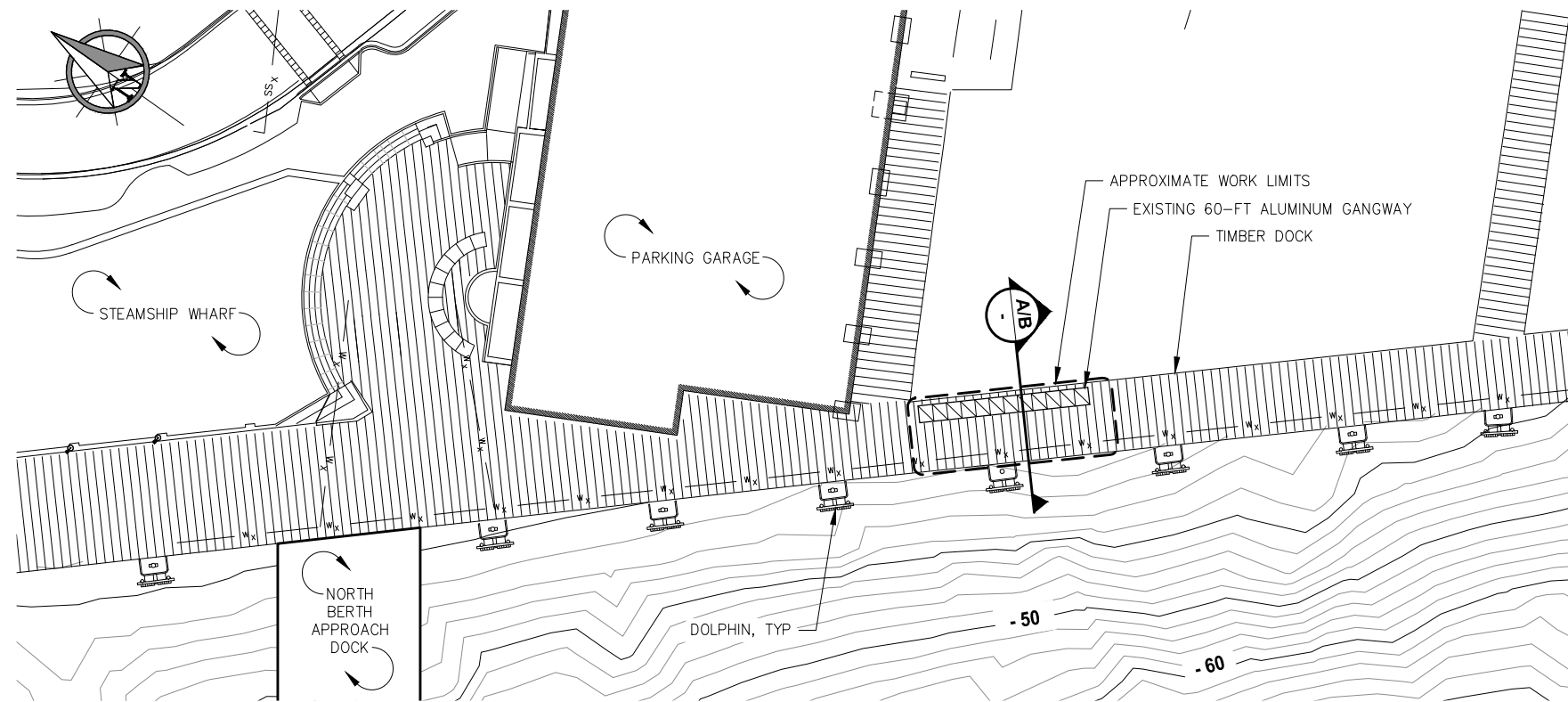
DATE: 04/27/17

**PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

SHEET TITLE: **RAILING DETAILS AT
TRANSITION**

PN&D PROJECT NO.: 102050.09 DWG. FILE:

2.03
SHEET
5 OF 10



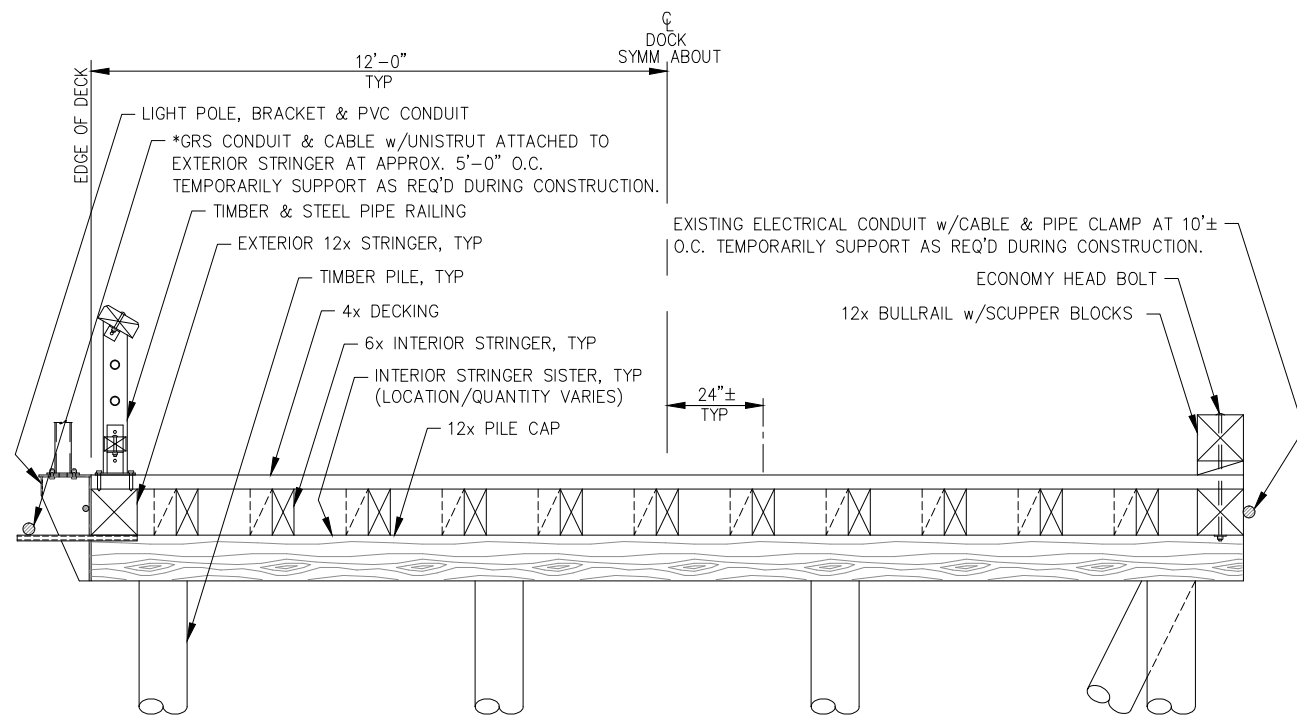
EXISTING SITE PLAN

- DOCK MODIFICATIONS SCOPE OF IMPROVEMENTS**
- REMOVE & SALVAGE EXISTING 60-FT ALUMINUM GANGWAY INCLUDING TRANSITION PLATES AND MISC. COMPONENTS. DELIVER TO OWNER DESIGNATED LOCATION WITHIN 5 MILES OF THE PROJECT SITE.
 - REMOVE & SALVAGE EXISTING RAILING, BULLRAIL & SCUPPER BLOCKS, LIGHT POLES, BRACKETS & CONDUIT AS REQUIRED. SUPPLY NEW HARDWARE FOR REINSTALLATION AS REQUIRED.
 - REMOVE AND DISPOSE EXISTING DECKING AND STRINGERS IN THEIR ENTIRETY INCLUDING DRIFT PINS CONNECTING STRINGERS TO PILE CAPS. PLUG HOLES IN EXISTING PILE CAPS TO REMAIN WITH TREATED DOWELS.
 - MINOR MODIFICATION OF EXISTING RAILING & BULLRAIL MAY BE REQUIRED FOR REINSTALLATION AND TO MATCH MODIFIED SLOPE OF DOCK.
 - INSTALL NEW GLULAM CAPS, STRINGERS, DECKING, SHIMS, CONNECTION ANGLES AS SHOWN.
 - CONTRACTOR SHALL VERIFY ALL FINAL ELEMENTS NOT SPECIFICALLY SHOWN AS REQUIRED TO PERFORM THE WORK.

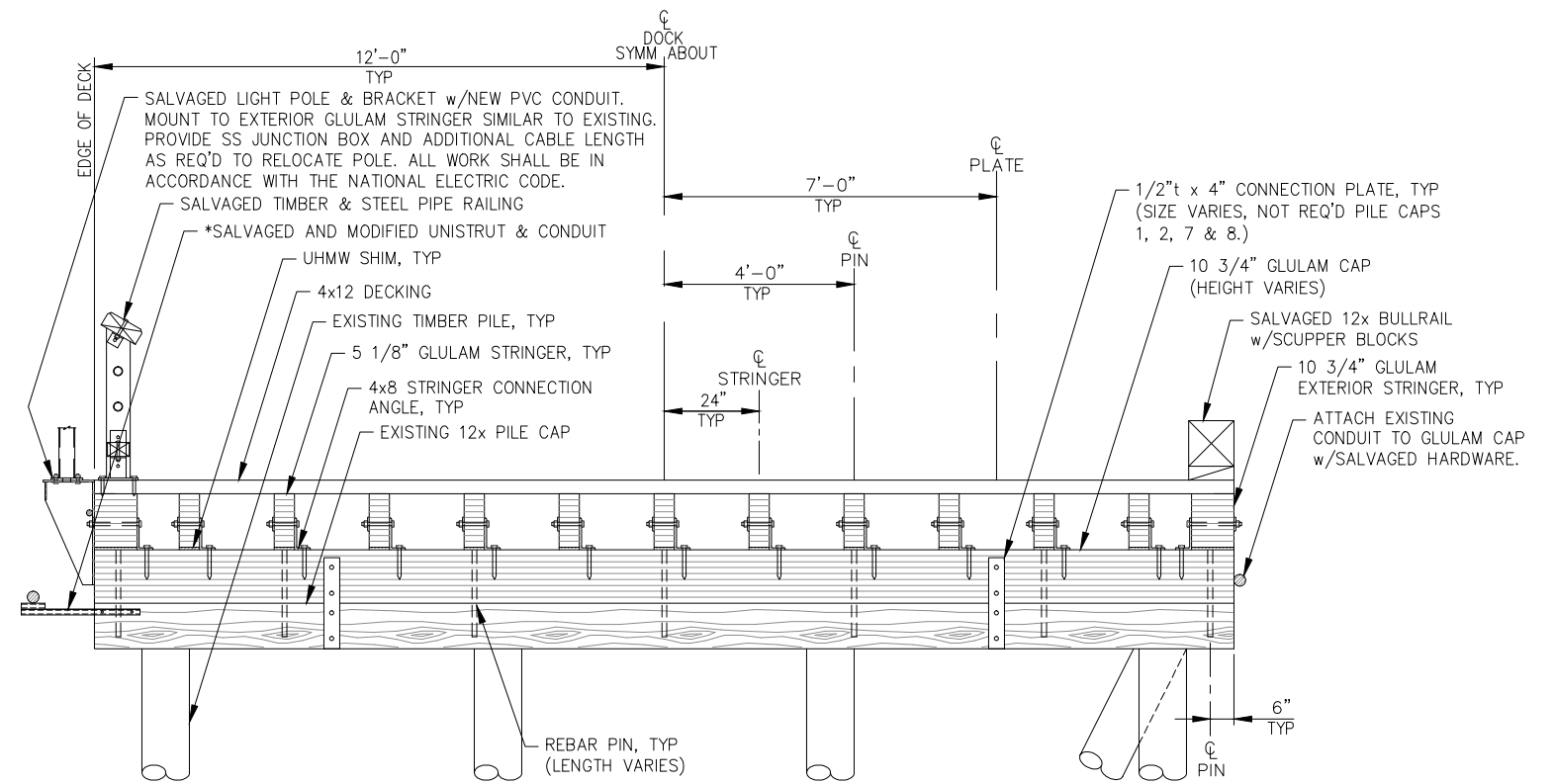
MATERIALS SCHEDULE

PILE CAP	GLULAM CAP HEIGHT	REBAR PIN LENGTH	UHMW SHIM ϕ HEIGHT
1	N/A	N/A	N/A
2	6"	14.5"	1.125"
3	13.5"	22"	.625"
4	20"	28.5"	.75"
5	15"	23.5"	.625"
6	9"	17.5"	1.375"
7	4.5"	13"	.75"
8	N/A	N/A	N/A

*NOTE: REMOVE EXISTING UNISTRUT PIECES AND ATTACH TO EXISTING PILE CAPS AT 10'± O.C. AS SHOWN. FIELD CUT UNISTRUT PIECES NOT BEING REINSTALLED TO 6"± LONG AND FIELD WELD TO UNISTRUT PIECE ATTACHED TO PILE CAP PERPENDICULAR TO CONDUIT ALIGNMENT. REINSTALL EXISTING PIPE CLAMPS AND HARDWARE.



A TYPICAL EXISTING DOCK SECTION
NOTE: ALUMINUM GANGWAY NOT SHOWN THIS VIEW.



B TYPICAL MODIFIED DOCK SECTION

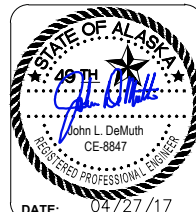


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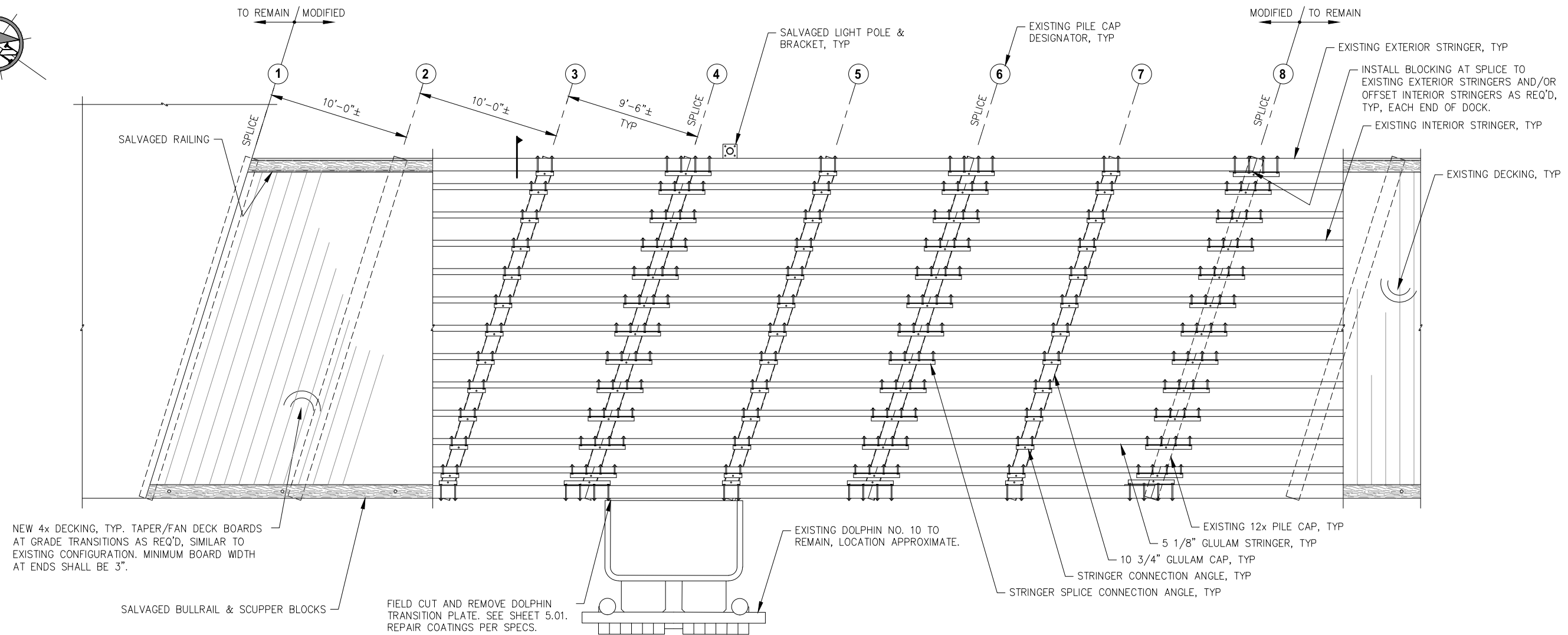
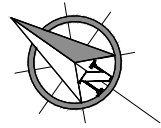
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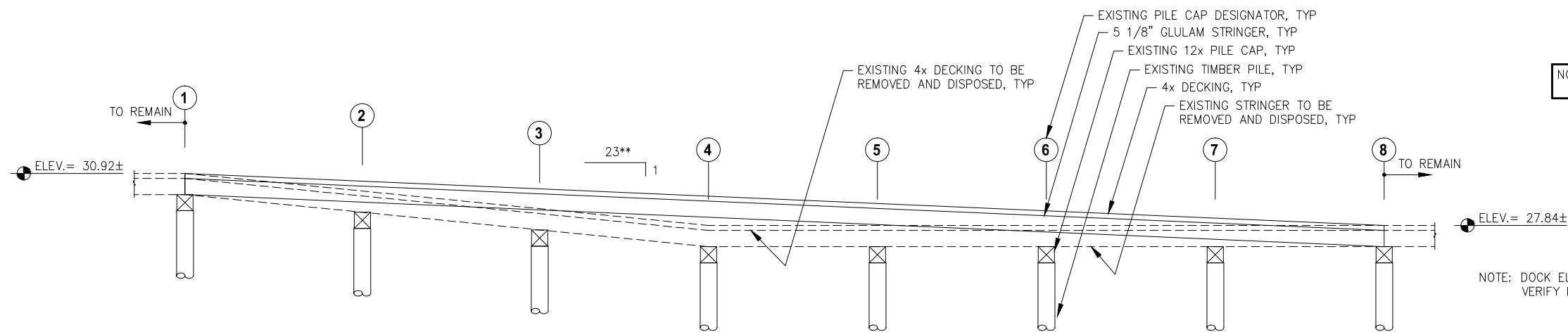
**PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

SHEET TITLE:
**ADA RAMP DOCK MODIFICATIONS PLAN
AND SECTIONS**

PN&D PROJECT NO.: 102050.09 DWG. FILE:



DOCK MODIFICATIONS - PLAN



DOCK MODIFICATIONS - PROFILE

**APPROXIMATE SLOPE
NOTE: NOT ALL REQUIRED COMPONENTS SHOWN THIS VIEW.

NOTE: NOT ALL UNDER DOCK MOUNTED UTILITIES AND ELECTRICAL AND APPURTENANCES SHOWN. FIELD CONFIRM ACTUAL SITE CONDITIONS.

NOTE: DOCK ELEVATION APPROXIMATE. VERIFY IN FIELD.



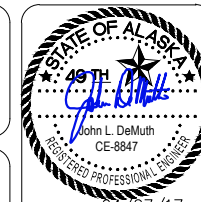
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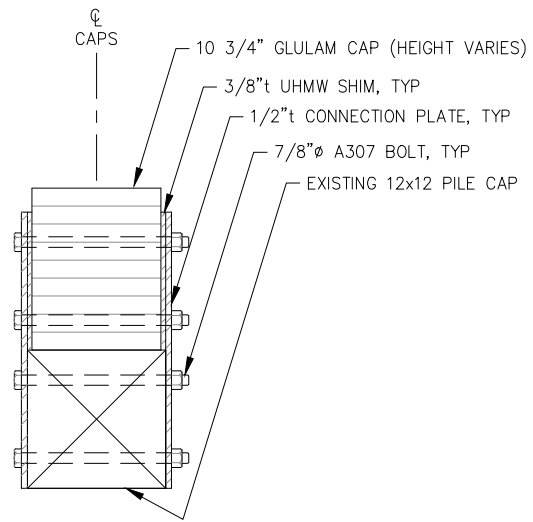
**PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

SHEET TITLE:
**ADA RAMP DOCK MODIFICATIONS
PLAN AND PROFILE**

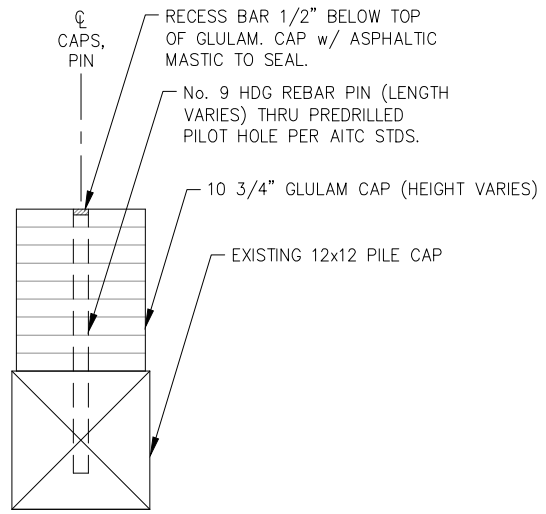
PN&D PROJECT NO.: 102050.09 DWG. FILE:

3.02

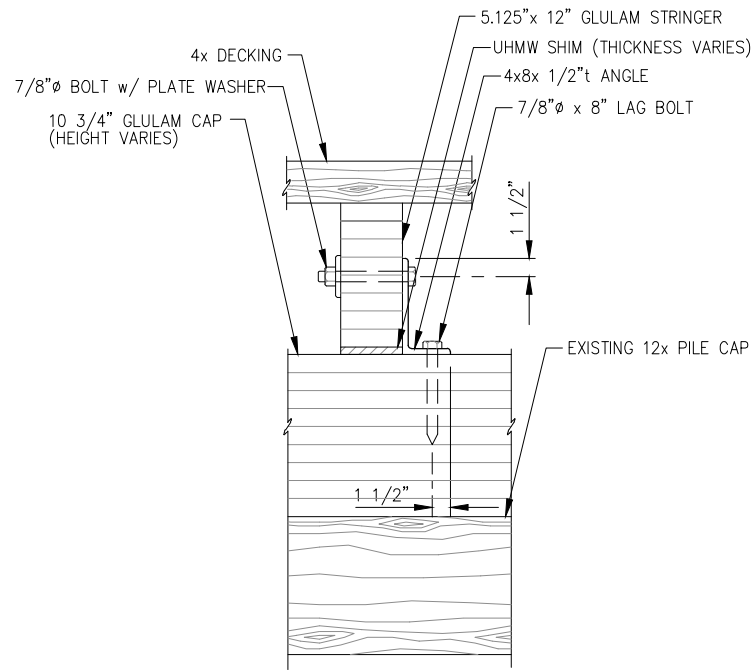
SHEET
7 OF 10



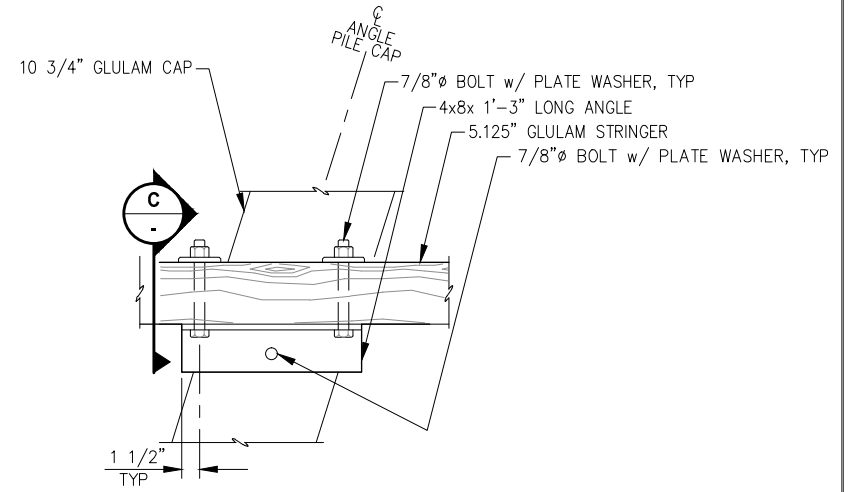
A CONNECTION PLATE TYPICAL SECTION



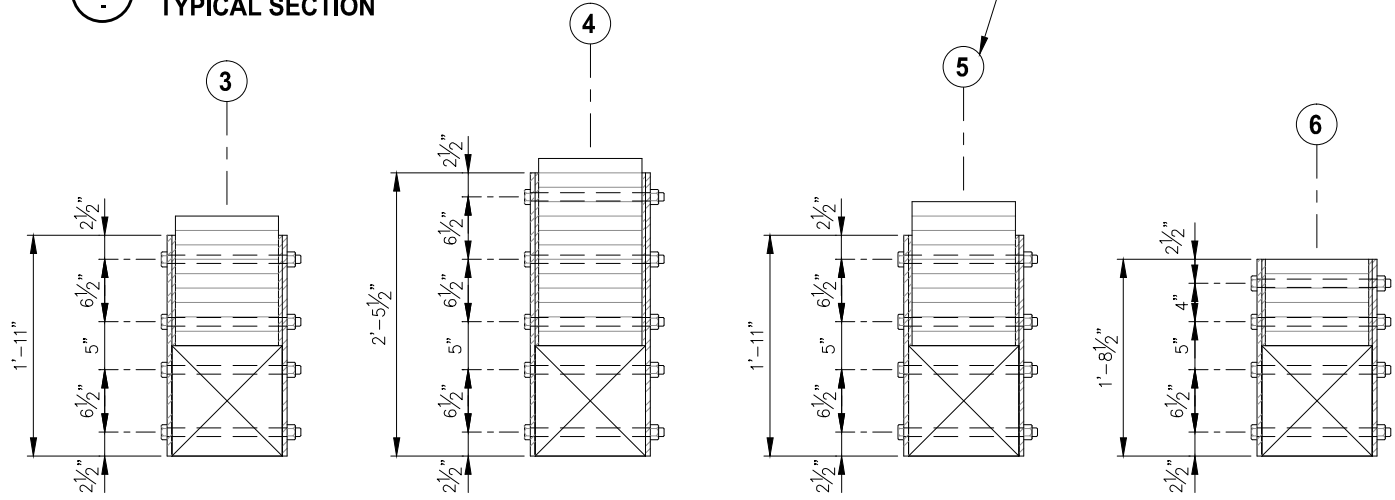
B REBAR PIN TYPICAL SECTION



C SECTION

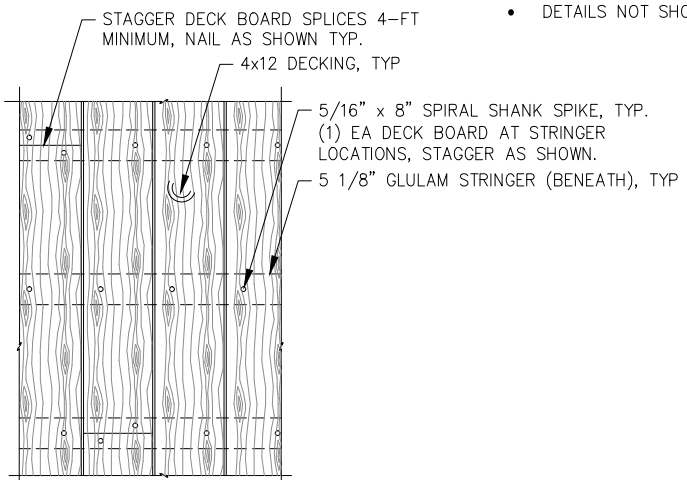


STRINGER CONNECTION - PLAN

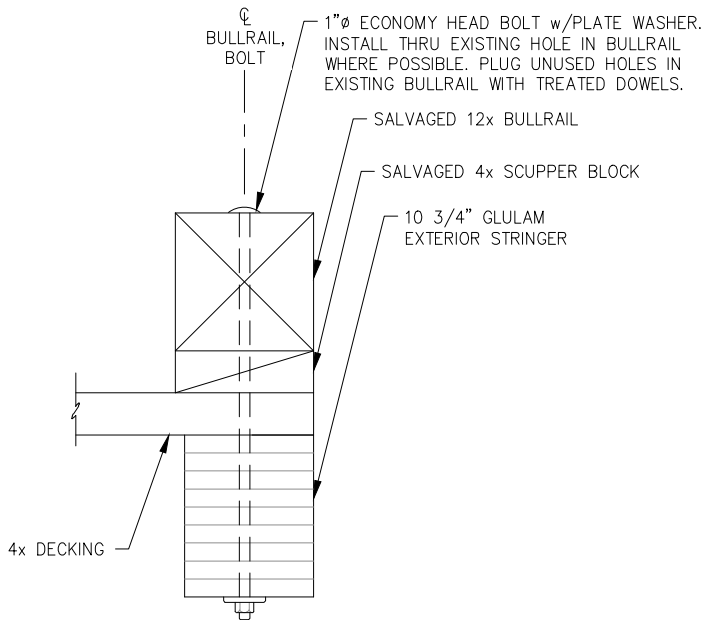


VARIOUS PILE CAP CONNECTION PLATES TYPICAL SECTION

NOTE:
 • DETAILS NOT SHOWN SIMILAR TO TYPICAL SECTION A.

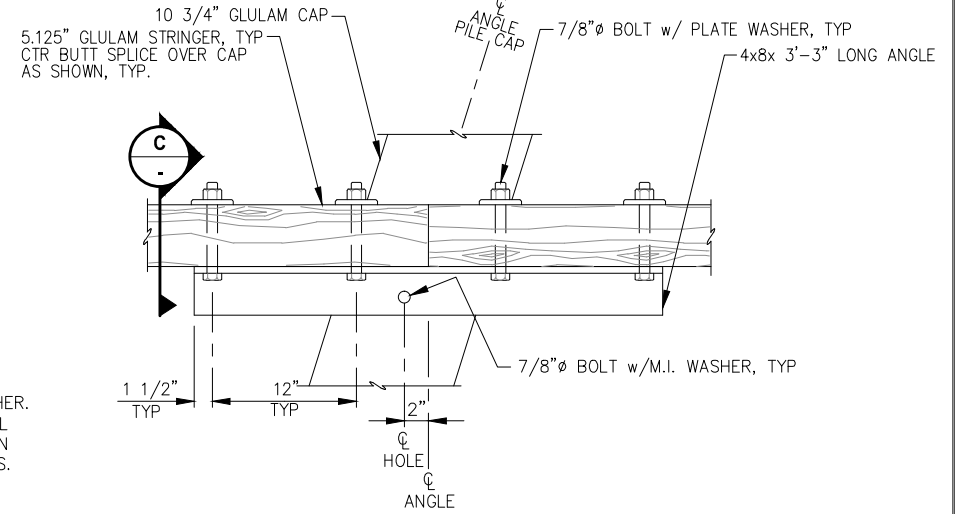


DECK NAILING - PLAN



D BULLRAIL - TYPICAL SECTION

NOTE:
 • PLUG EXISTING BOLT HOLES IN BULLRAIL WITH TREATED DOWELS.
 • LAP SPLICE BULLRAIL SEGMENTS SIMILAR TO EXISTING.
 • CONNECTION BOLT SPACING SHALL BE SIMILAR TO EXISTING.



E UHMW SHIM - TYPICAL SECTION

NOTE:
 • PROVIDE ADDITIONAL ASPHALT SHINGLES FOR SHIMMING AS REQ'D.



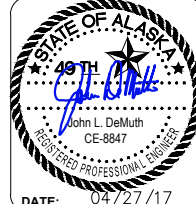
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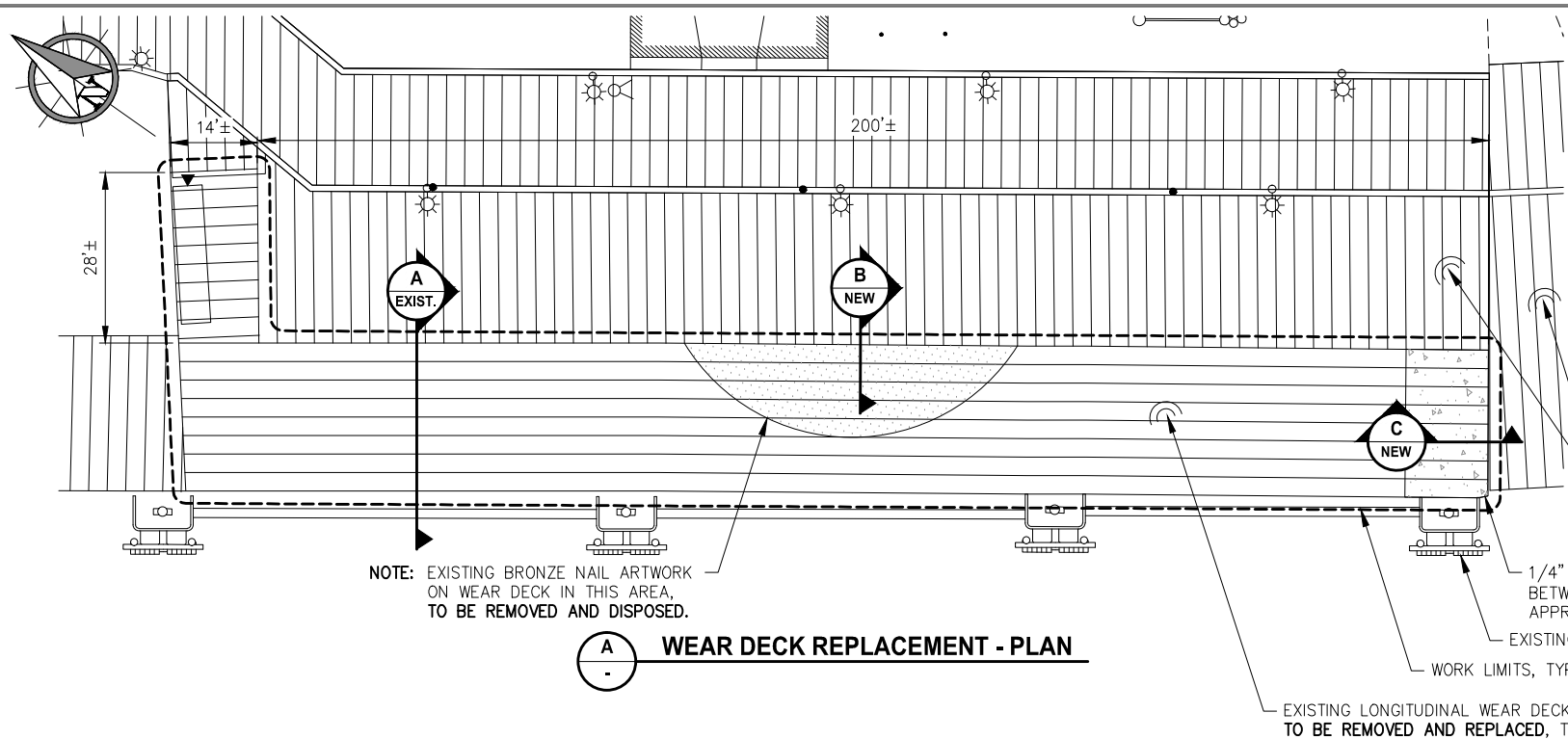
PORT OF JUNEAU CRUISE SHIP BERTHS SAFETY IMPROVEMENTS CONTRACT NO. DH17-045

SHEET TITLE:
ADA RAMP DOCK MODIFICATION DETAILS

PN&D PROJECT NO.: 102050.09 DWG. FILE:

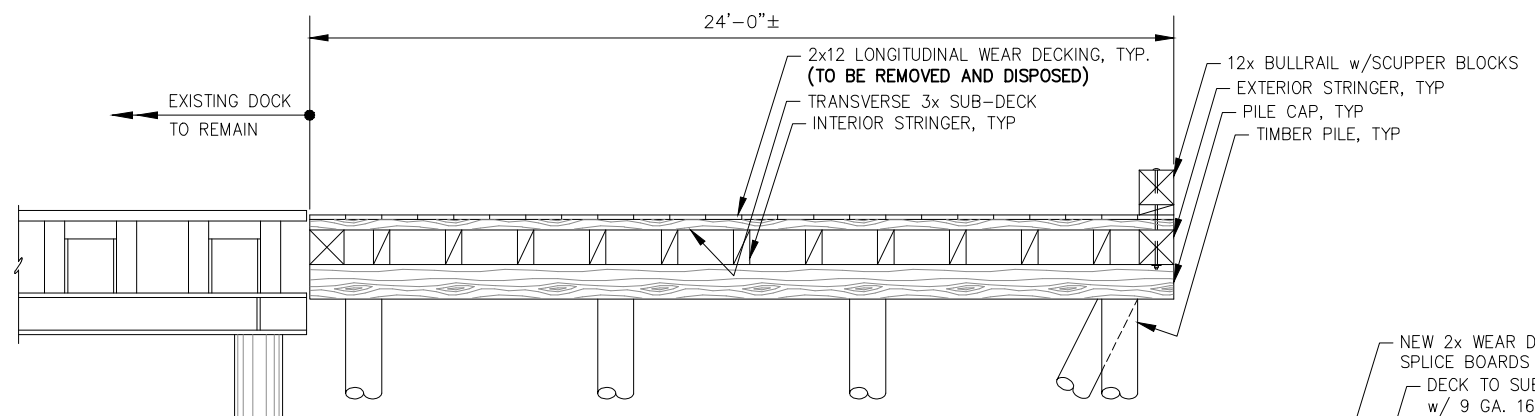
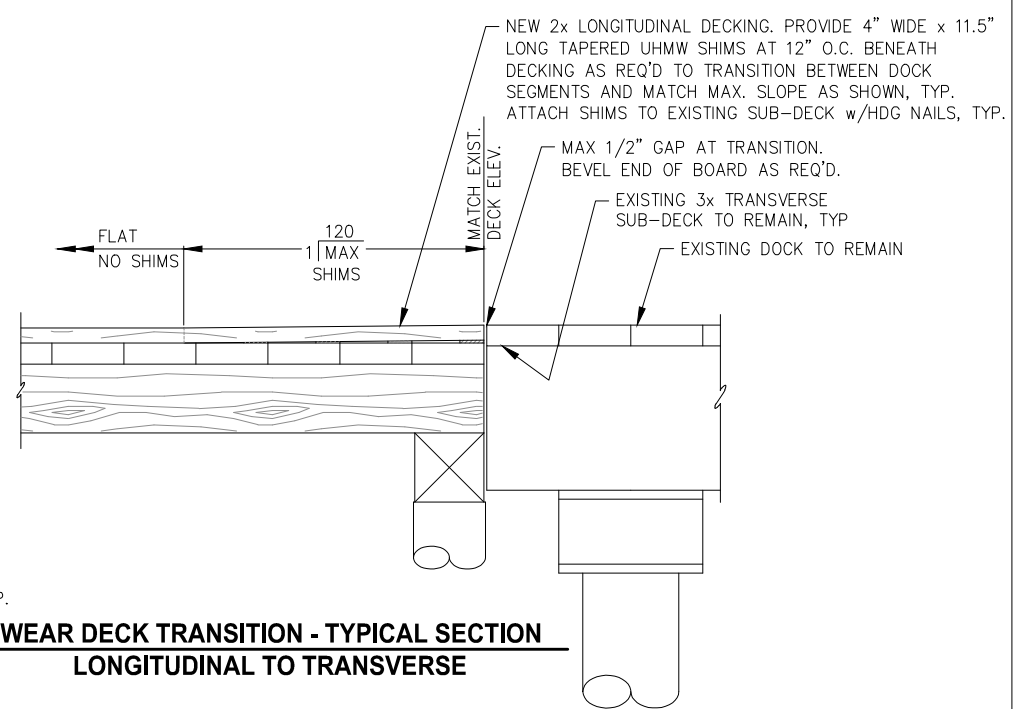
3.03
 SHEET
8 OF 10

DATE: 04/27/17



A WEAR DECK REPLACEMENT - PLAN

C WEAR DECK TRANSITION - TYPICAL SECTION LONGITUDINAL TO TRANSVERSE

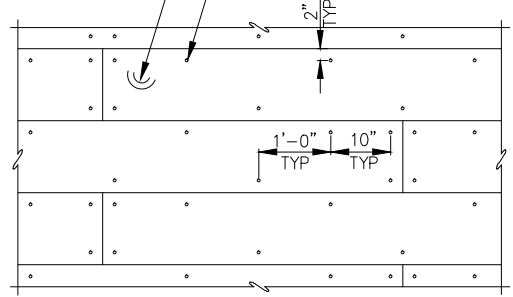


A WEAR DECK REPLACEMENT - TYPICAL EXISTING SECTION

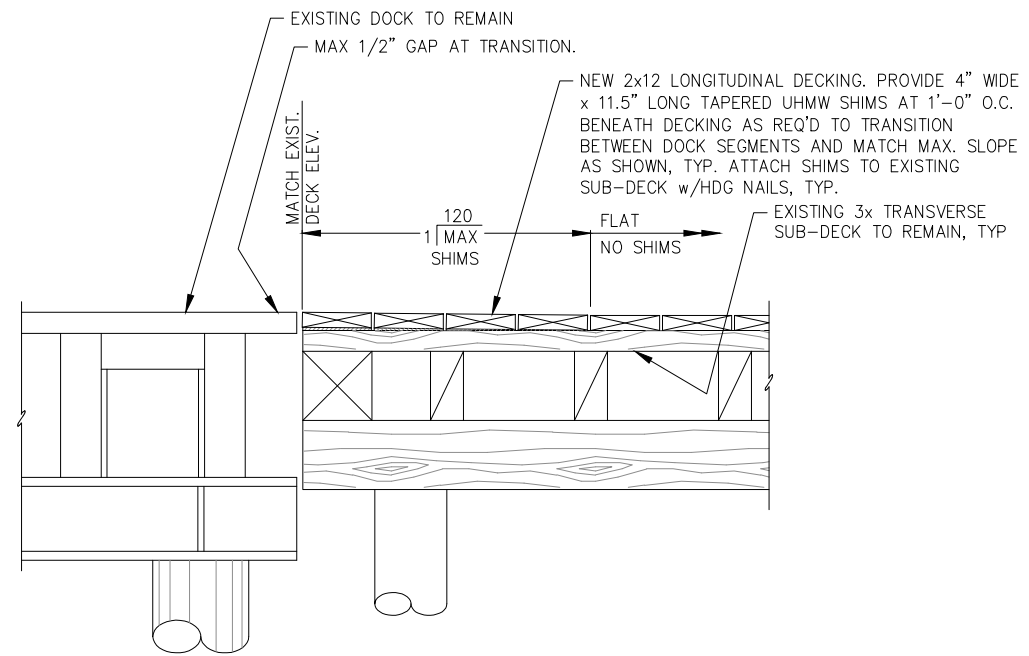
REMOVE AND DISPOSE ALL WEAR DECKING WITHIN WORK LIMITS, EXCLUDING THOSE BOARDS DIRECTLY BENEATH EXISTING BULLRAIL TO REMAIN. ALL OTHER EXISTING ITEMS TO REMAIN UNLESS OTHERWISE NOTED.

NOTE: ELEVATION DIFFERENCE BETWEEN TOP OF DECK OF THE WEAR DECK REPLACEMENT AND ADJACENT EXISTING DECKS TO REMAIN VARIES FROM 0" TO 1 1/2". CONTRACTOR SHALL CONFIRM QUANTITY AND HEIGHT OF SHIMS REQ'D TO MEET THE MAX SLOPE TRANSITION BETWEEN DECKS ON ALL SIDES AS SHOWN.

NEW 2x WEAR DECK, TYP. SPLICE BOARDS 4-FT MIN, TYP DECK TO SUB-DECK NAIL PATTERN, TYP. ATTACH w/ 9 GA. 16d HDG SPIRAL SHANK NAILS.



WEAR DECK ATTACHMENT - PLAN



B WEAR DECK TRANSITION - TYPICAL SECTION TRANSVERSE TO LONGITUDINAL

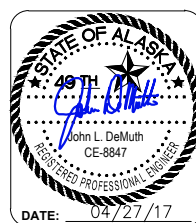


REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

P | N | D
ENGINEERS, INC.

9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
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DESIGN: BMI CHECKED: JLD SCALE: NTS
DRAWN: BMI APPROVED: JLD



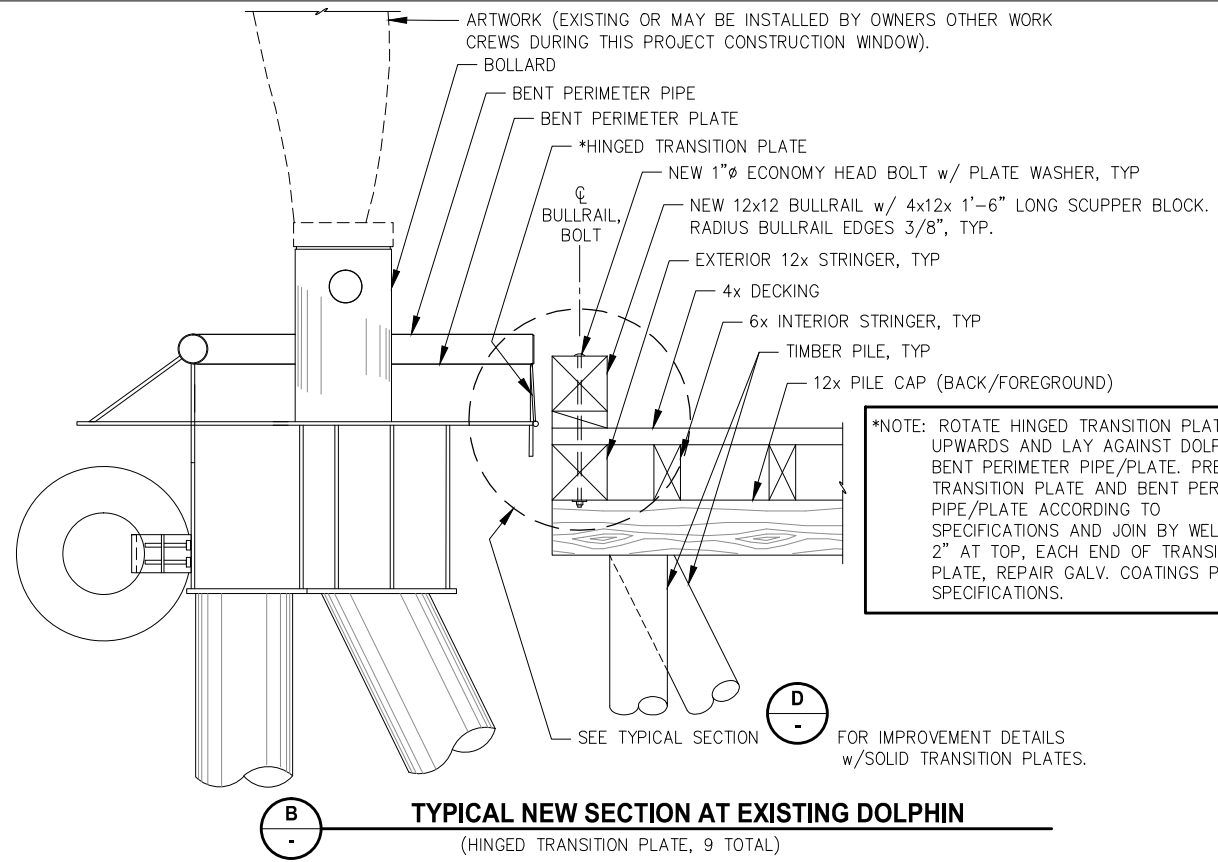
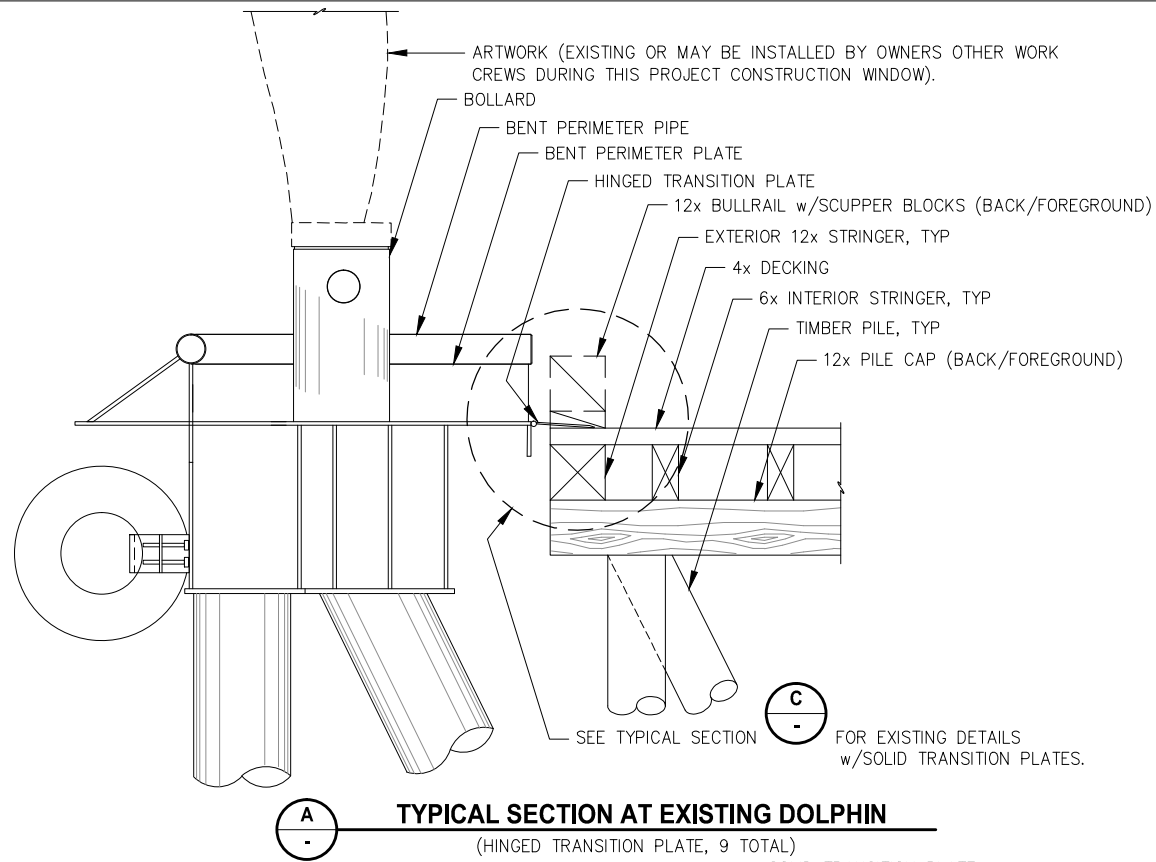
**PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

SHEET TITLE:
**WEAR DECKING REPLACEMENT
DETAILS**

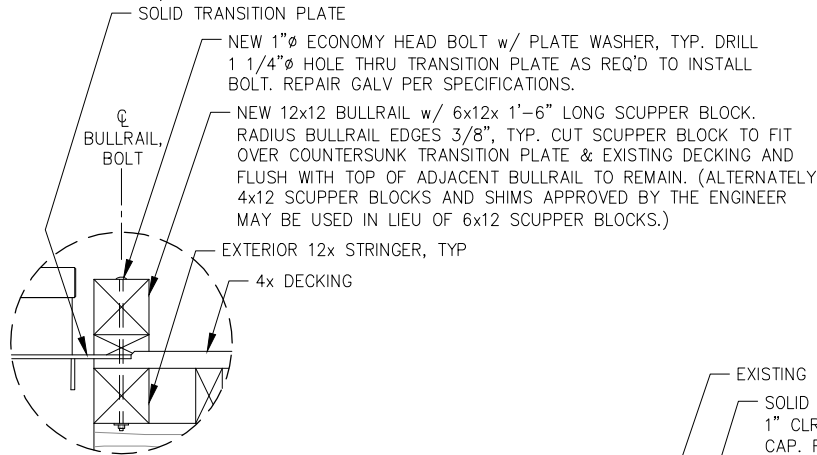
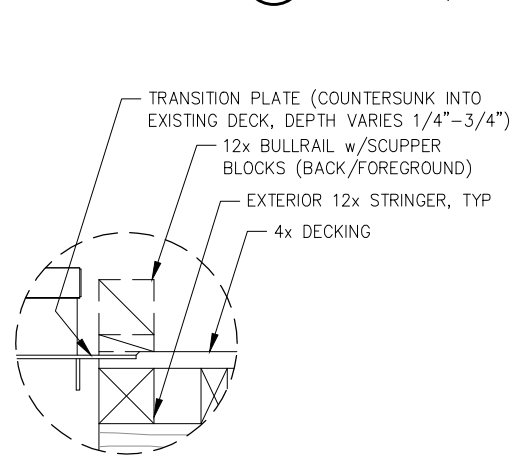
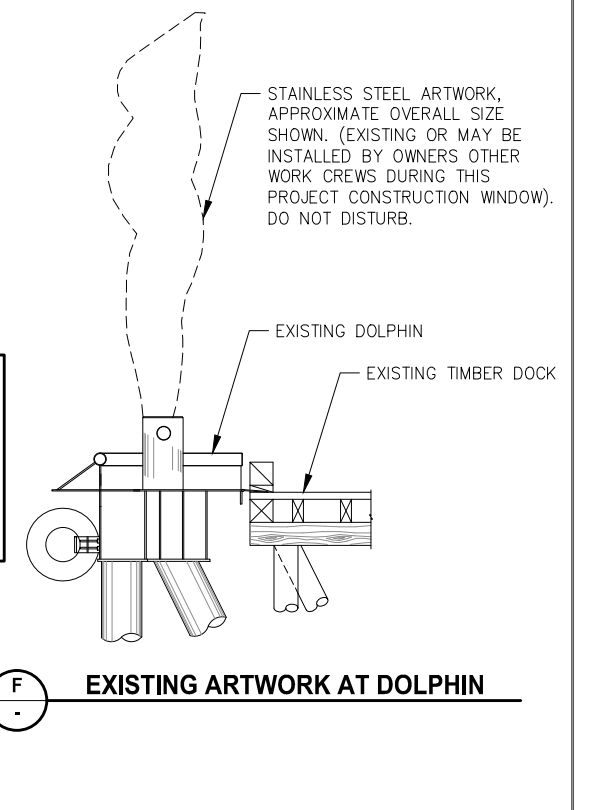
PN&D PROJECT NO.: 102050.09 DWG. FILE:

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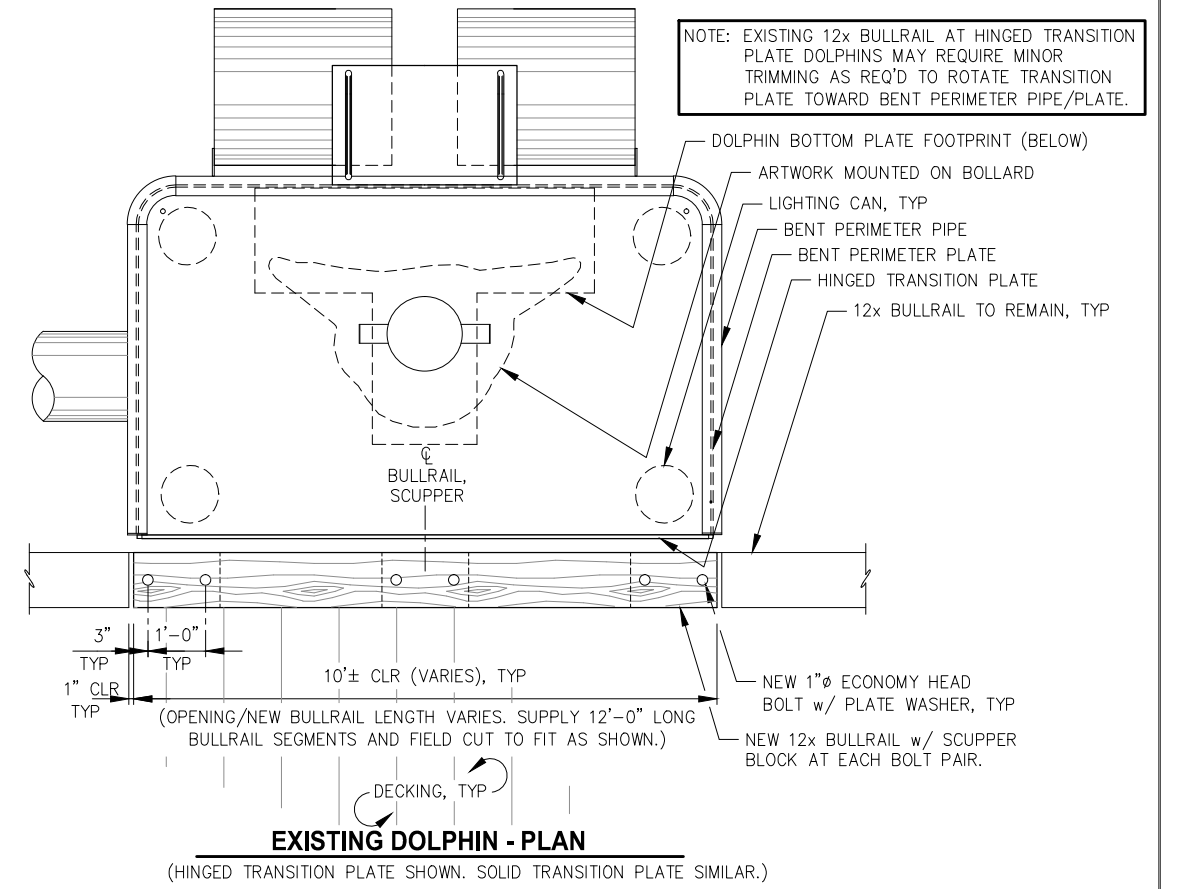
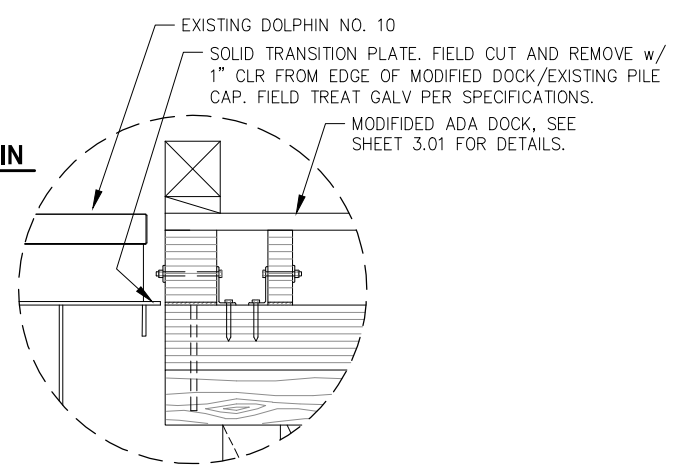
4.01
SHEET
9 OF 10



*NOTE: ROTATE HINGED TRANSITION PLATE UPWARDS AND LAY AGAINST DOLPHIN BENT PERIMETER PIPE/PLATE. PREPARE TRANSITION PLATE AND BENT PERIMETER PIPE/PLATE ACCORDING TO SPECIFICATIONS AND JOIN BY WELDING, 2" AT TOP, EACH END OF TRANSITION PLATE, REPAIR GALV. COATINGS PER SPECIFICATIONS.



NOTE: DOLPHINS NO. 10 AND NO. 13 ARE SOLID TRANSITION PLATE TYPE. ALL OTHER DOLPHINS ARE HINGED TRANSITION PLATE TYPE. DOLPHINS IDENTIFIED ON SHEET 1.02. FIELD CUT SOLID TRANSITION PLATE FROM DOLPHIN NO. 10 LEAVING 1" CLEARANCE FROM EDGE OF DOCK AS REQUIRED TO PERFORM DOCK MODIFICATIONS, SEE SHEET 3.02.

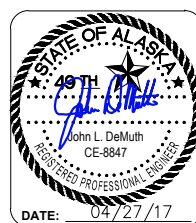


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DRAWN: BMI APPROVED: JLD



**PORT OF JUNEAU CRUISE SHIP BERTHS
SAFETY IMPROVEMENTS
CONTRACT NO. DH17-045**

SHEET TITLE:
BULLRAIL SEGMENT AT DOLPHINS

PN&D PROJECT NO.: 102050.09 DWG. FILE:

5.01
SHEET
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