**US Army Corps
of Engineers
Alaska District**

Regulatory Division (1145)
CEPOA-RD
Post Office Box 6898
JBER, Alaska 99506-0898

Public Notice of Application for Permit

PUBLIC NOTICE DATE:	**October 27, 2021**
EXPIRATION DATE:	**November 26, 2021**
REFERENCE NUMBER:	**POA-2003-00442**
WATERWAY:	**Tongass Narrows**

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

All comments regarding this Public Notice should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the Project Manager's email as listed below or to regpagemaster@usace.army.mil. All comments should include the Public Notice reference number listed above.

All comments should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Roberta Budnik at (907) 753-2785, toll free from within Alaska at (800) 478-2712, by fax at (907) 753-5567, or by email at roberta.k.budnik@usace.army.mil if further information is desired concerning this notice.

APPLICANT: NOAA Office of Marine and Aviation Operations; POC: Mr. Greg Raymond; 8403 Colesville Road, Suite 500, Silver Spring, Maryland 20910

AGENT: AECOM; POC: Mr. Jeff Walker; 1111 Third Avenue, Suite 1600, Seattle, Washington, 98101

LOCATION: The project site is located at Latitude 55.3356º N., Longitude 131.6293º W.; 1040 Stedman Street, in Ketchikan, Alaska.

PURPOSE: The applicant's stated purpose is to recapitalize the property to enable NOAA Office of Marine and Aviation Operations (OMAO) to provide critical management and operational and logistical support to the NOAA Ship Fairweather and intermittently to other NOAA and non-NOAA vessels. Additionally, the project would meet the congressional mandate of the Frank LoBiondo Coast Guard Authorization Act of 2018 (see Additional Information).

PROPOSED WORK: Discharge up to 4,920 cubic yards (CY) of fill material into 0.27-acre of Tongass Narrows, a navigable water of the U.S., below High Tide Line (HTL) and remove up to 200 remnant piles and install up to 18, 24-inch diameter steel piles in order to construct a floating pier, transfer bridge and support float, small boat dock, gangway, and catwalk, and small boat launch ramp.

Specifically, the proposed work would involve the following:

The following structures would be removed:

- Remnant wooden access trestle and parallel utility trestle and supporting piles;
- Main pile-supported pier structure and supporting piles and structure located on the pier;
- Three concrete-filled steel mooring dolphins;
- Two single piles extending above the water surface;
- Steel pipe struts and cable braces; and
- Floating cylindrical fendering.

The floating cylindrical fendering may be saved or salvaged by OMAO's contractor. An existing concrete/steel mooring platform and breasting dolphin with fender would be retained and connecting metal would be salvaged.

Remnant piles would be removed with a vibratory hammer. If the piles break during removal, they would be cut at or about two (2) feet from the ocean bottom.

A 240-foot long by 50-foot wide floating replacement pier would be installed, secured by ten (10) 24-inch diameter steel piles, and accessed by a 140-foot long by 17-foot wide steel transfer bridge. A 24-foot by 22-foot bridge support float would be secured by four (4) additional 24-inch diameter steel piles and hinged to a concrete abutment at the shoreline. This abutment would require the discharge of 320 CY into 620 square feet (0.1423-acre) of waters of the U.S. below HTL. Replacement mooring dolphins and fenders would also be installed.

An 86-foot long by 14-foot wide small boat dock would be installed and connected to the floating pier by a 30-foot long by 5-foot wide aluminum gangway.

A 200-foot long by 70-foot wide (toe-to-toe) small boat launch ramp would be constructed along the shoreline of the NOAA property.

New piles would be installed from a barge using a down-the-hole rock socket drill and a vibratory hammer. Drill cuttings (up to 58 CY) would be allowed to redeposit on the seafloor adjacent to the drill site. Piles would be embedded into bedrock to a minimum depth of 20 feet. The last foot of each pile would be proofed using an impact hammer.

All work would be performed in accordance with the enclosed plan (sheets 1-34), dated June 15 and August 11 of 2021.

ADDITIONAL INFORMATION: The existing facilities at the OMAO Ketchikan Port Facility are currently inefficient to berth the NOAA ship Fairweather, and the in-water structures are in disrepair and have been closed to berthing or staging of vessels since 2008. Section 1003, Homeport of Certain Research Vessels, subpart (a), of the Frank LoBiondo Coast Guard Authorization Act of 2018, states, "The Secretary of Commerce may accept non-Federal funds for the purpose of the construction of a new port facility, including obtaining such cost estimates, designs, and permits as may be necessary to facilitate the homeporting of the R/V FAIRWEATER in accordance with Title II of the Departments of Commerce, Justice, and State; the Judiciary; and Related Agencies Appropriations Act, 2002 (Public Law 107-77; 115 Stat. 775) at a location that during such homeporting shall be under the administrative jurisdiction of the Secretary of Commers for Oceans and Atmosphere." Statute 775 specifically provides that the R/V FAIRWEATER shall be homeported in Ketchikan, Alaska.

APPLICANT PROPOSED MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance: As the proposed project is for the homeporting of the NOAA vessel Fairweather, a marine vessel, avoidance of impacts to waters of the U.S. is not achievable.

b. Minimization: The applicant considered a fixed-pile supported pier instead of a floating pier, as proposed. However, a fixed-pile supported pier would have required 70 to 110 steel piles to support the structures. The proposed project would only require 18 piles total. The applicant has committed to implementing minimization measures to avoid impacts to species listed as threatened or endangered under the Endangered Species Act (ESA), other marine mammals, fish and essential fish habitat; implementing a Stormwater Pollution Prevention Plan and Erosion Control Plan; implementing standard Best Management Practices for sediment control and water quality during in-water construction; and implementing a Pile Removal and Installation Plan. Additionally, the transfer bridge would be constructed of metal grating, which would allow light transmission to the water.

c. Compensatory Mitigation: The proposed project would result in a loss of 0.27-acre below the HTL of Tongass Narrows, a marine water, but would remove up to 200 old piles and all existing, dilapidated in-water structures. Removal of these would alleviate the issue of material from the existing structures sloughing into the waterbody and remove creosote-containing piles from the waterbody. For these reasons, the applicant has not proposed any compensatory mitigation.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The applicant is the lead Federal agency and is responsible for compliance with the requirements of Section 106 of the National Historic Preservation Act. The Corps will review NOAA OMAO's documentation and either concur with their documentation or continue to work with them until any issues are resolved. A permit for the described work will not be issued until the Section 106 process has been completed and the Corps concurs with NOAA OMAO's work or documentation.

ENDANGERED SPECIES: The project area is within the known or historic range of the Mexico Distinct Population Segment (DPS) of humpback whales (*Megaptera novaeangliae*). The applicant is the lead Federal agency and is responsible for compliance with the requirements of Section 7 of the Endangered Species Act. The Corps will review NOAA OMAO's documentation and either concur with their documentation or continue to work with them until any issues are resolved. A permit for the described work will not be issued until the Section 7 process has been completed and the Corps concurs with NOAA OMAO's work or documentation.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The project area is within the known range of the Chinook salmon (*Oncorhynchus tshawytscha*), sockeye salmon (*O. nerka*), chum salmon (*O. keta*), coho salmon (*O. kisutch*), and pink salmon (*O. gorbuscha*). The applicant is the lead Federal agency and is responsible for compliance with the requirements of the Act. The Corps will review NOAA OMAO's documentation and either concur with their documentation or continue to work with them until any issues are resolved. A permit for the described work will not be issued until compliance with the Act has been demonstrated and the Corps concurs with NOAA OMAO's work or documentation.

TRIBAL CONSULTATION: The Alaska District fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This Public Notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(l) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

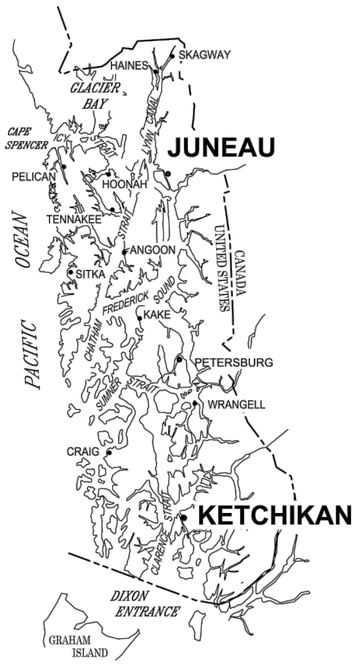
Project drawings are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

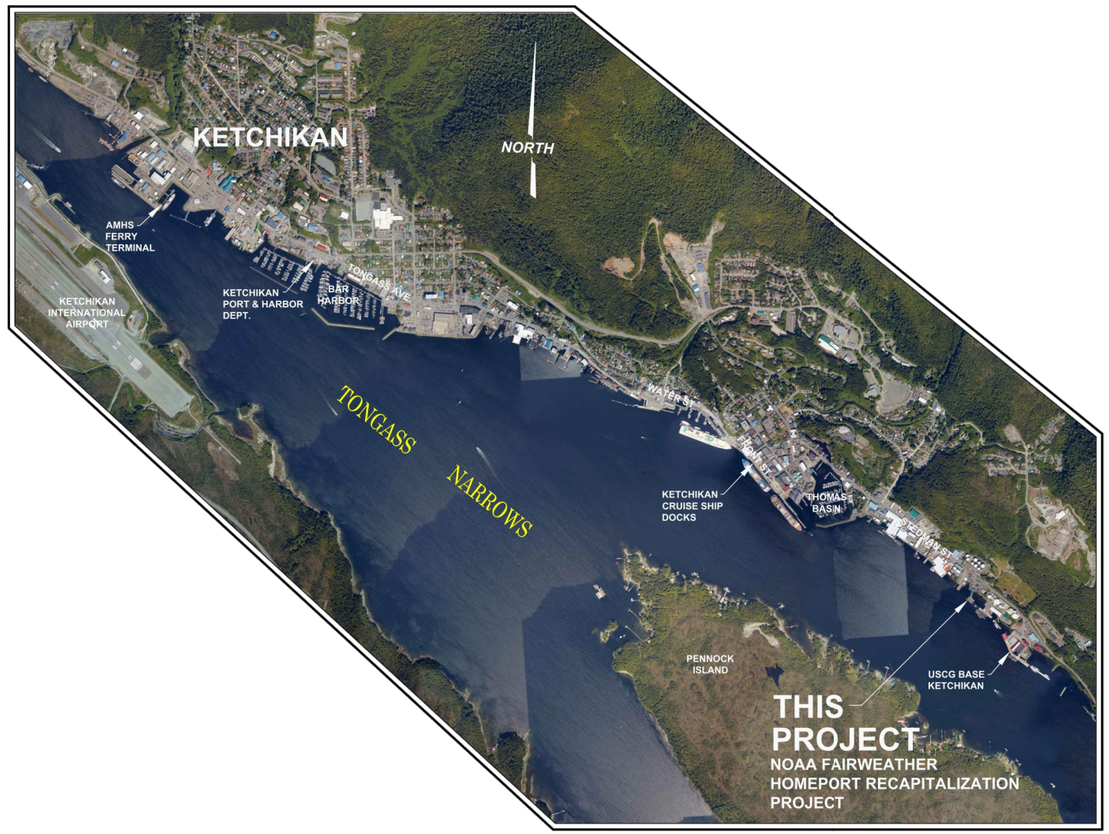
Enclosures

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE
NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT
CONTRACT NO. 1305M421CNAAJ0005

VICINITY



SOUTHEAST ALASKA



VICINITY MAP

SCALE IN MILES

0 ¼ ½ 1

TIDAL DATA	
SOURCE: NOAA NOS/CO-OPS STATION ID: 9450460 KETCHIKAN, AK. 9/26/11	
DESCRIPTION	ELEV. (FT.)
HIGHEST OBSERVED WATER LEVEL	+21.3
MEAN HIGHER HIGH WATER (MHHW)	+15.5
MEAN HIGH WATER (MHW)	+14.5
MEAN SEA LEVEL (MSL)	+8.1
MEAN TIDE LEVEL (MTL)	+8.1
MEAN LOW WATER (MLW)	+1.6
MEAN LOWER LOW WATER (MLLW)	0.0
LOWEST OBSERVED WATER LEVEL	−5.3
HIGH TIDE LEVEL (HTL)	+19.7

POA-2003-00442

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway Ste 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: CRS CHECKED: JLD
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN
DATE: AUGUST 11, 2021

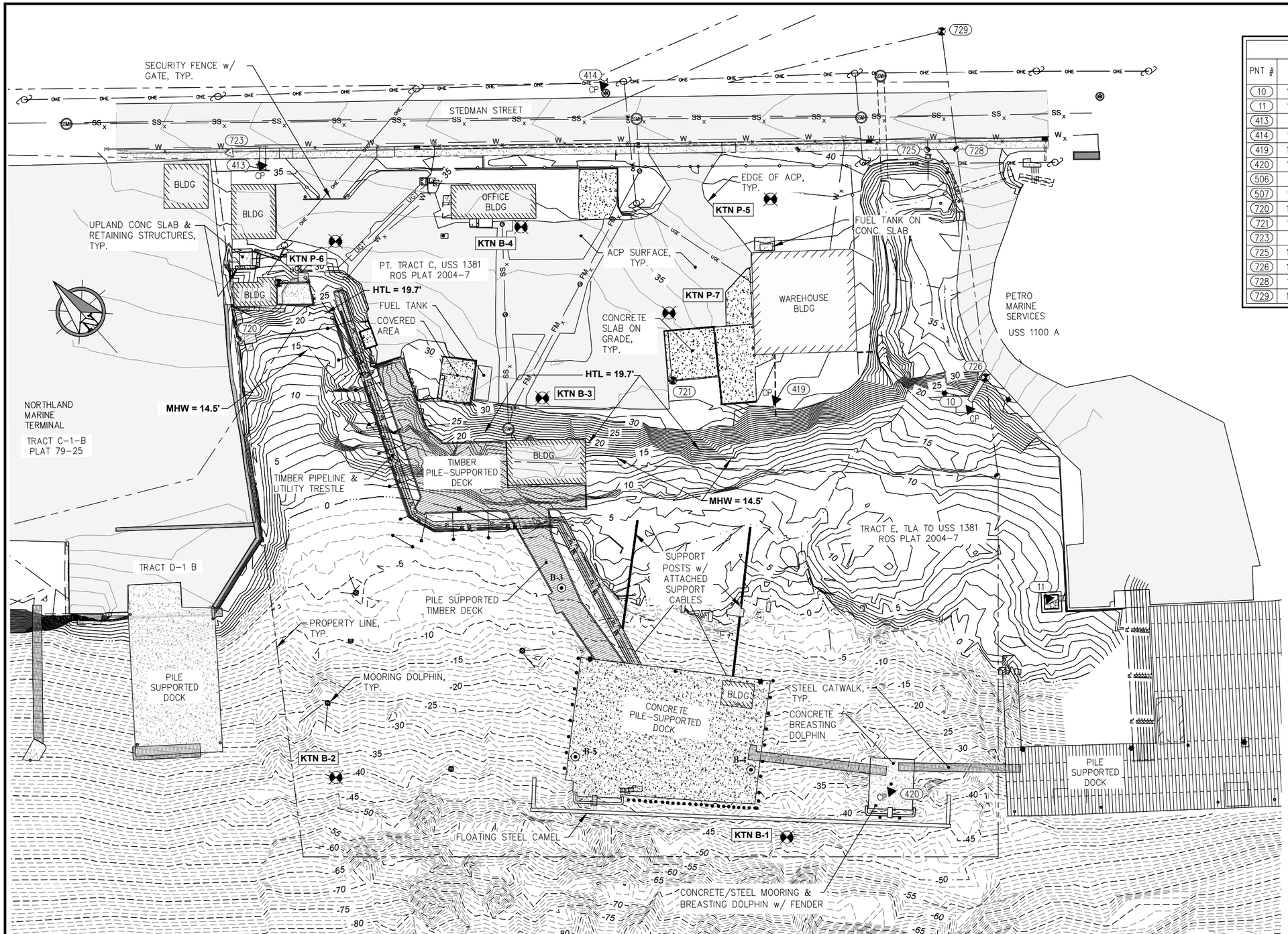
60% DESIGN SUBMITTAL

NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT

SHEET TITLE: TITLE SHEET AND VICINITY MAP

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

G1.01



SURVEY CONTROL

PNT #	NORTHING	EASTING	ELEV. (FT.)	DESCRIPTION
10	1284789.36	3110264.32	22.23	FAM
11	1284673.15	3110230.45	22.53	FBC
413	1285164.15	3110030.18	35.54	SNS
414	1285074.19	3110216.71	38.38	SNS
419	1284865.85	3110178.99	35.56	SNL
420	1284643.26	3110086.34	22.04	SNL
506	1286137.51	3107894.00	22.62	TB-3 2001, 3.25" DOMED SBC
507	1287128.46	3107465.89	21.77	TB-4 2001, 3.25" DOMED SBC
720	1285093.27	3109954.97	22.61	FAC
721	1284912.80	3110139.13	32.66	FBC
723	1285181.88	3110020.50	34.76	FNS
725	1284924.42	3110341.32	41.00	FAC
726	1284798.08	3110283.60	31.09	FBC
728	1284913.57	3110355.07	40.64	FRBR
729	1284973.24	3110392.08	50.07	FBC

SURVEY NOTES:

1. BASIS OF COORDINATES FOR THIS SURVEY ARE NAD 83, ALASKA STATE PLANE ZONE 1 IN U.S. SURVEY FEET, DERIVED FROM AND HOLDING VALUES PROVIDED ON THE US ARMY CORPS OF ENGINEERS, ALASKA DISTRICT, "THOMAS BASIN HARBOR TOPOGRAPHIC / HYDROGRAPHIC SURVEY" DATED FEBRUARY 20-24, 2017. COORDINATES OF "TB-3 2001," (POINT 506 THIS SURVEY) HELD FOR THIS PROJECT ARE:
   N=1286137.510
   E=3107894.000
2. THE VERTICAL CONTROL FOR THIS SURVEY IS MEAN LOWER LOW WATER (MLLW=0.0') IN U.S. SURVEY FEET, DERIVED FROM AND HOLDING VALUES PROVIDED ON THE US ARMY CORPS OF ENGINEERS, ALASKA DISTRICT, "THOMAS BASIN HARBOR TOPOGRAPHIC / HYDROGRAPHIC SURVEY" DATED FEBRUARY 20-24, 2017. ELEVATION OF "TB-3 2007," (POINT 506 THIS SURVEY) HELD FOR THIS PROJECT ARE:
   EL=22.62
3. THE FIELD SURVEY WAS PERFORMED APRIL 27-29, 2021, BY PND ENGINEERS.
4. ALL DIMENSIONS AND COORDINATES ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
5. THIS SURVEY WAS COMPLETED USING GNSS SURVEY TECHNIQUES. REAL TIME KINEMATIC (RTK) OBSERVATIONS WERE STORED USING TRIMBLE R10 MODEL 2, GNSS RECEIVERS.
6. BATHYMETRIC DATA COLLECTED USING AN OHMEX SONARMITE INTEGRATED WITH TRIMBLE R10 MODEL 2 GNSS RECEIVER.
7. UTILITY LOCATES WERE SURVEYED WHERE MARKED BY LOCATE COMPANIES.
8. CONTOURS ARE IN FEET, WITH ONE FOOT INTERVALS.
9. NO TITLE SEARCH WAS PREPARED FOR THIS SURVEY. EASEMENTS AND ENCUMBRANCES SHOWN HEREON ARE FROM PLATS OF RECORD. OTHER EASEMENTS AND ENCUMBRANCES MAY EXIST.
10. EXISTING SURFACE SHOWN HEREON IS A COMPOSITE OF UPLANDS AND BATHYMETRY DATA COLLECTED DURING THIS SURVEY.

BOREHOLE LEGEND

KTN B-1 — PND (2021)

B-4 — DAMES & MOORE (1974)

POA-2003-00442

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Ahtna Infrastructure & Technologies, LLC

PND ENGINEERS, INC.
9360 Glacier Highway Ste 100
Juneau, Alaska 99801
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www.pndengineers.com

DESIGN: CRS CHECKED: PJD
DRAWN: PJD APPROVED: CRS
SCALE: SCALE IN FEET 0 30 60 FT.
DATE: AUGUST 11, 2021

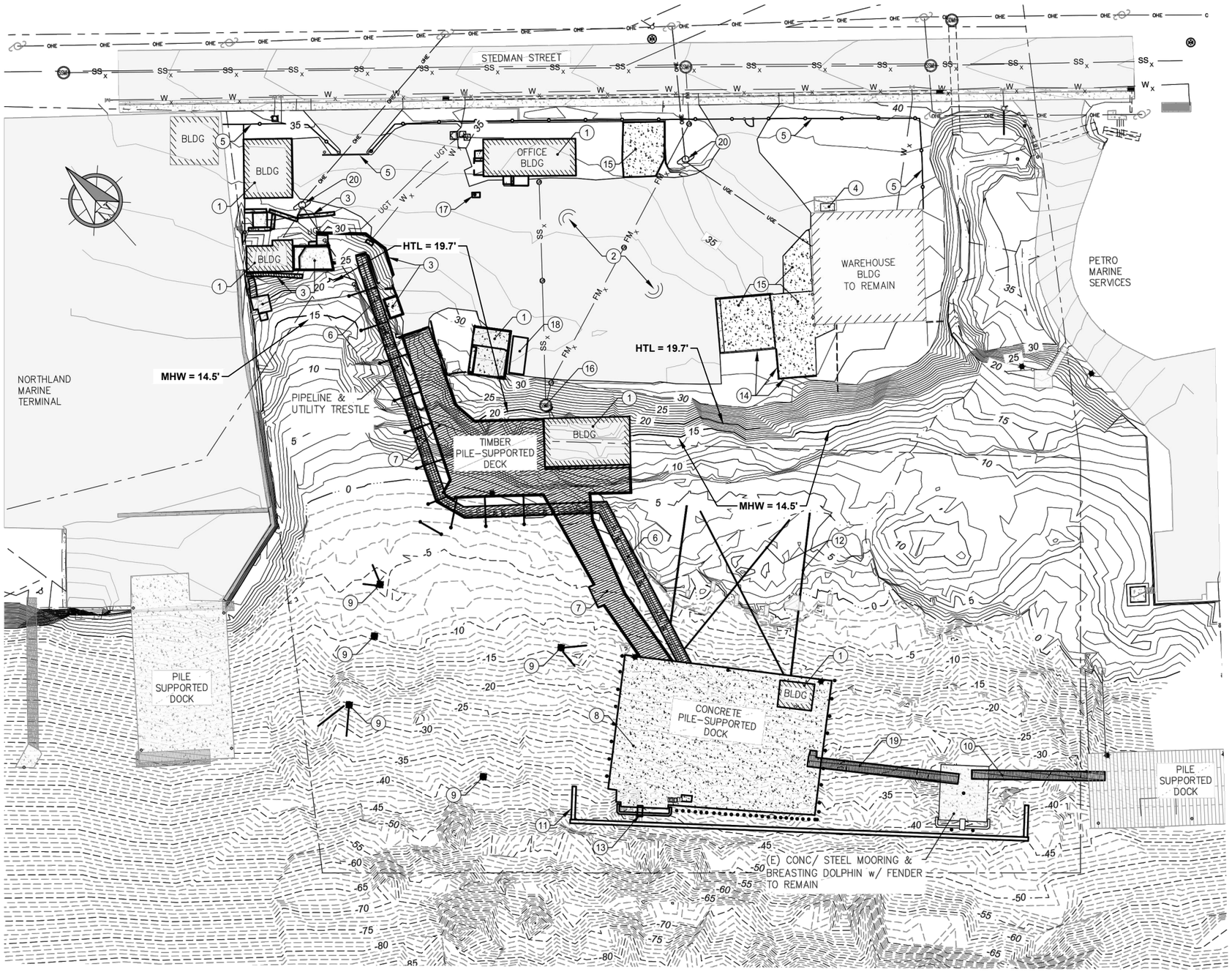
60% DESIGN SUBMITTAL

NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT

SHEET TITLE:
EXISTING CONDITIONS, SURVEY CONTROL AND BOREHOLE LOCATIONS

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

G1.04



GENERAL NOTES

(A)	ALL DEMOLISHED MATERIALS SHALL BE REMOVED FROM SITE AND PROPERLY DISPOSED OFF SITE PER REGULATORY REQUIREMENTS.
(B)	DEMOLISH (E) UTILITIES CONFLICTING WITH NEW IMPROVEMENTS. PLUG (E) UTILITIES TO REMAIN WITH CONCRETE AND/ OR CAP AS REQ'D.
(C)	PREVENT DEBRIS FROM ENTERING WATER. IMMEDIATELY COLLECT AND REMOVE ANY DEBRIS FALLING INTO WATER.
(D)	PERFORM DIVE INSPECTION OF COMPLETE PROJECT AREA UPON COMPLETION OF DEMOLITION ACTIVITIES. REMOVE ANY/ ALL DEBRIS FROM SEAFLOOR. PROVIDE VIDEO RECORDING OF SEAFLOOR FOLLOWING COMPLETION OF ALL DEMOLITION ACTIVITIES.
(E)	REMOVE EXISTING PILES IN THEIR ENTIRETY OR CUT OFF AT SEAFLOOR WHERE ANCHORED INTO BEDROCK. REMOVE ENTIRELY WHERE CONFLICT WITH NEW IMPROVEMENTS.
(F)	DEMOLISH ANY/ ALL OTHER MISCELLANEOUS ITEMS ENCOUNTERED AS REQ'D. TO CONSTRUCT NEW IMPROVEMENTS.

DEMOLITION SUMMARY

(1)	DEMOLISH (E) BUILDING STRUCTURE IN ENTIRETY INCLUDING SLAB, FOUNDATION, FINISHES, EQUIPMENT & UTILITIES.
(2)	DEMOLISH ALL (E) ACP ON–SITE.
(3)	DEMOLISH (E) CONCRETE WALLS, VAULTS & STRUCTURES.
(4)	SALVAGE (E) FUEL TANK & APPURTENANCES.
(5)	DEMOLISH (E) SECURITY FENCE AND GATES.
(6)	DEMOLISH (E) TIMBER UTILITY TRESTLE INCLUDING DECKING, SUB–DECK, PILES, CONCRETE FOUNDATION AND ALL PIPELINES/ UTILITIES.
(7)	DEMOLISH (E) TIMBER PILE–SUPPORTED DECK, SUB–DECK, PILES AND CONCRETE FOUNDATIONS.
(8)	DEMOLISH (E) CONCRETE DECK, STEEL SUB–STRUCTURES, PILES, PILE CAPS, BRACING, STRUTS AND OTHER APPURTENANCES.
(9)	DEMOLISH ALL (E) PILES AND DOLPHIN STRUCTURES
(10)	SALVAGE (E) CATWALK, WELDMENTS & HARDWARE
(11)	SALVAGE (E) FLOATING STEEL CAMEL FOR REFURBISHMENT & REUSE ON–SITE.
(12)	DEMOLISH (E) STEEL PIPE STRUTS & CABLE BRACES.
(13)	DEMOLISH (E) CONCRETE & STEEL MOORING & BREASTING DOLPHIN WITH STEEL PILES AND FENDERS IN ENTIRETY.
(14)	DEMOLISH (E) TIMBER & CONCRETE RETAINING WALLS & FENCE.
(15)	DEMOLISH (E) CONCRETE SLABS ON–GRADE.
(16)	DEMOLISH (E) SEWER LIFT STATION & ASSOCIATED PIPING.
(17)	SALVAGE (E) FLAG POLE.
(18)	DISPOSE (E) FUEL TANK.
(19)	DISPOSE (E) CATWALK, WELDMENTS & HARDWARE.
(20)	DEMOLISH POWER POLE & OHE BY PUBLIC UTILITY (KPU).

DEMOLISH = REMOVE & DISPOSE AT CONTRACTOR PROVIDED DISPOSAL SITE.

SALVAGE = REMOVE, SAVE & SUITABLY STORE AT NOAA DESIGNATED LOCATION OR INCORPORATE INTO PROJECT AS SHOWN ON PLANS.

(E) = EXISTING

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SCALE: SCALE IN FEET 0 30 60 FT.
DATE: AUGUST 11, 2021

60% DESIGN SUBMITTAL

NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT

SHEET TITLE: **DEMOLITION PLAN**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

G1.05

TRANSFER BRIDGE LAYOUT TABLE

POINT	NORTHING	EASTING	ELEV. (FEET)	DESCRIPTION
1	1284920.17	3110039.50	-	℄ TRANSFER BRIDGE & CENTER FACE OF CONCRETE ABUTMENT
2	1284812.30	3109952.16	-	℄ TRANSFER BRIDGE & CENTER BEARING PIN

NORTHLAND MARINE TERMINAL

PETRO MARINE TERMINAL

(E) WAREHOUSE BLDG

PAVED UPLANDS STAGING & PARKING AREA

MHW = 14.5'

HTL = 19.7'

TRANSFER BRIDGE CONCRETE ABUTMENT

TRANSFER BRIDGE

BOAT LAUNCH RAMP

PILE SUPPORTED DOCK

BRIDGE SUPPORT FLOAT

14-7" x 86' SMALL VESSEL MOORAGE FLOAT

COVERED GANGWAY

MAIN FLOATING DOCK

MOORING FRAME, TYP.

PILE SUPPORTED DOCK

(E) MOORING & BREASTING DOLPHIN

FLOATING CAMEL

NOAA VESSEL FAIRWEATHER

POA-2003-00442

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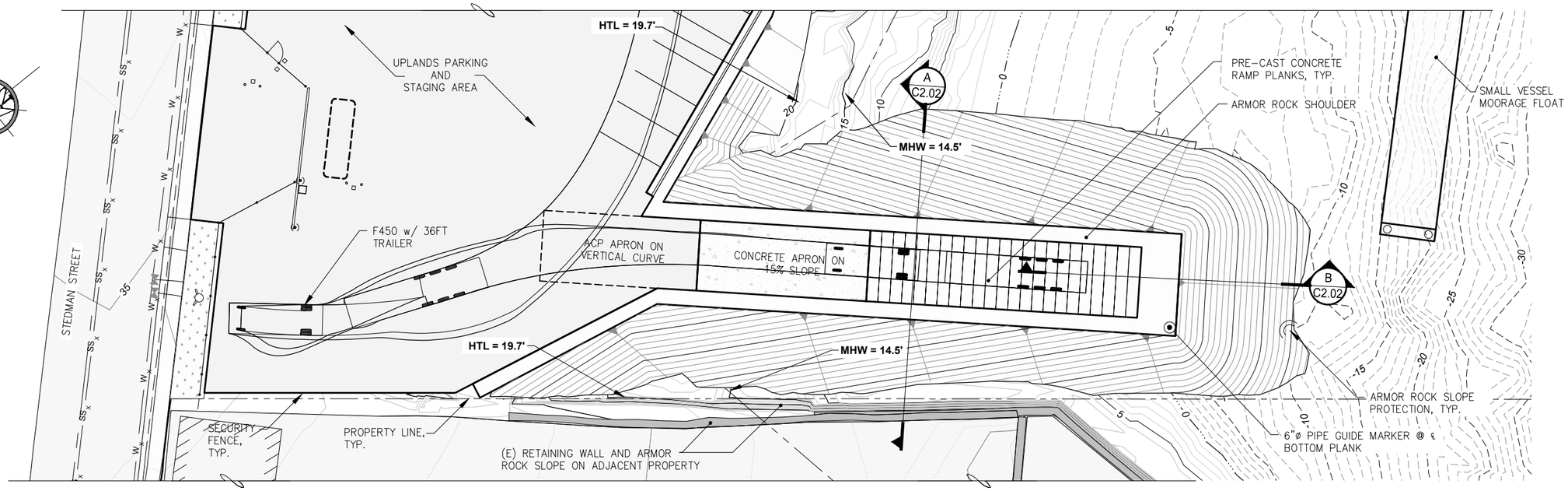
NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT

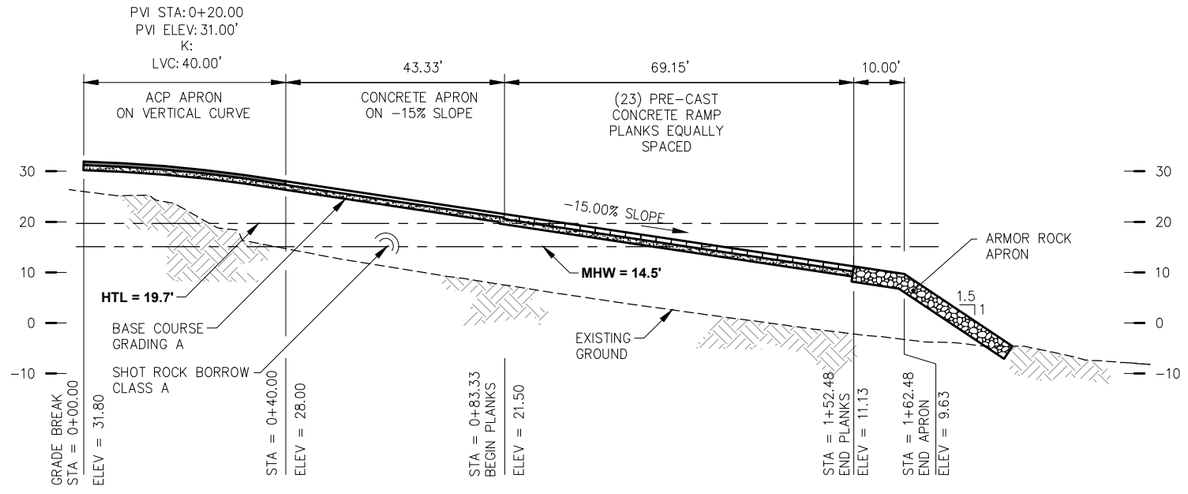
SHEET TITLE: **GENERAL SITE PLAN**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

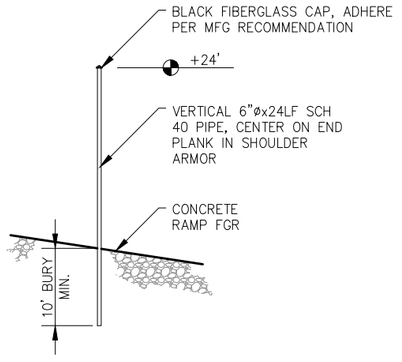
G1.06



BOAT LAUNCH RAMP PLAN



BOAT LAUNCH RAMP PROFILE



GUIDE MARKER PIPE DETAIL

(1) EA REQ'D NTS

POA-2003-00442

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DESIGN: CRS CHECKED: TCB
DRAWN: PJD APPROVED: CRS
SCALE: SCALE IN FEET 0 15 30 FT.

60% DESIGN SUBMITTAL

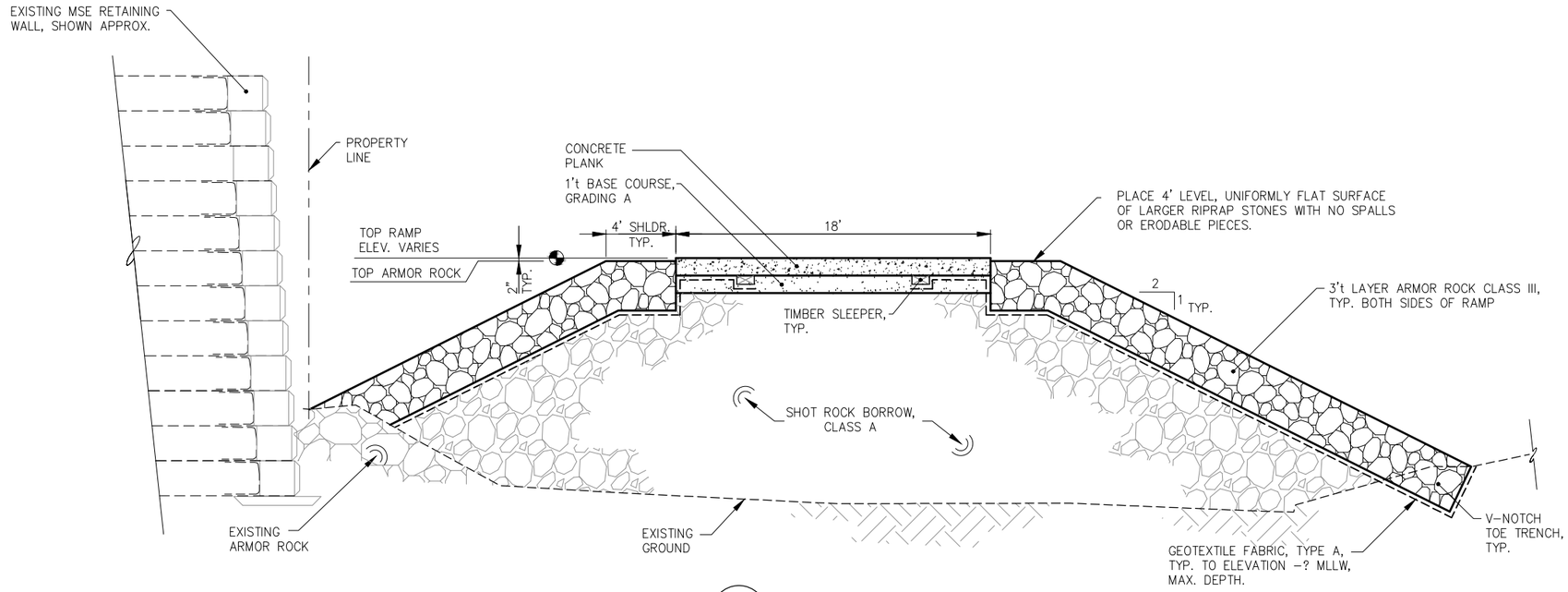
DATE: AUGUST 11, 2021

NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT

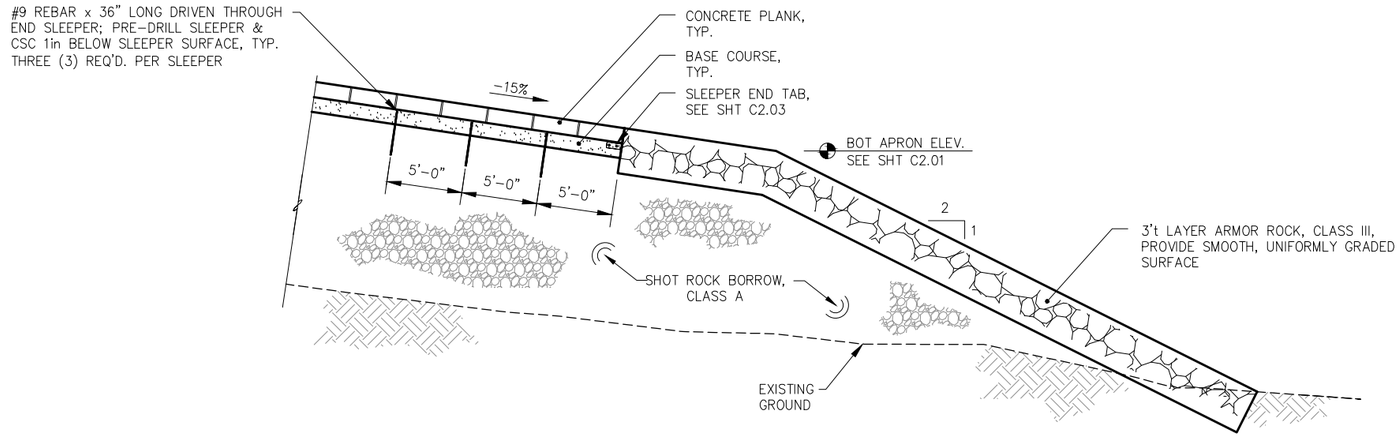
SHEET TITLE: **BOAT LAUNCH RAMP PLAN & PROFILE**

C2.01

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250



A **TYPICAL SECTION**
BOAT LAUNCH RAMP



B **TYPICAL SECTION**
RIPRAP APRON

POA-2003-00442

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

Ahtna Infrastructure & Technologies, LLC

PND ENGINEERS, INC.
9360 Glacier Highway Ste 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: CRS CHECKED: JLD
DRAWN: PJD APPROVED: CRS
SCALE: SCALE IN FEET 0 10 20 FT.
DATE: JUNE 15, 2021

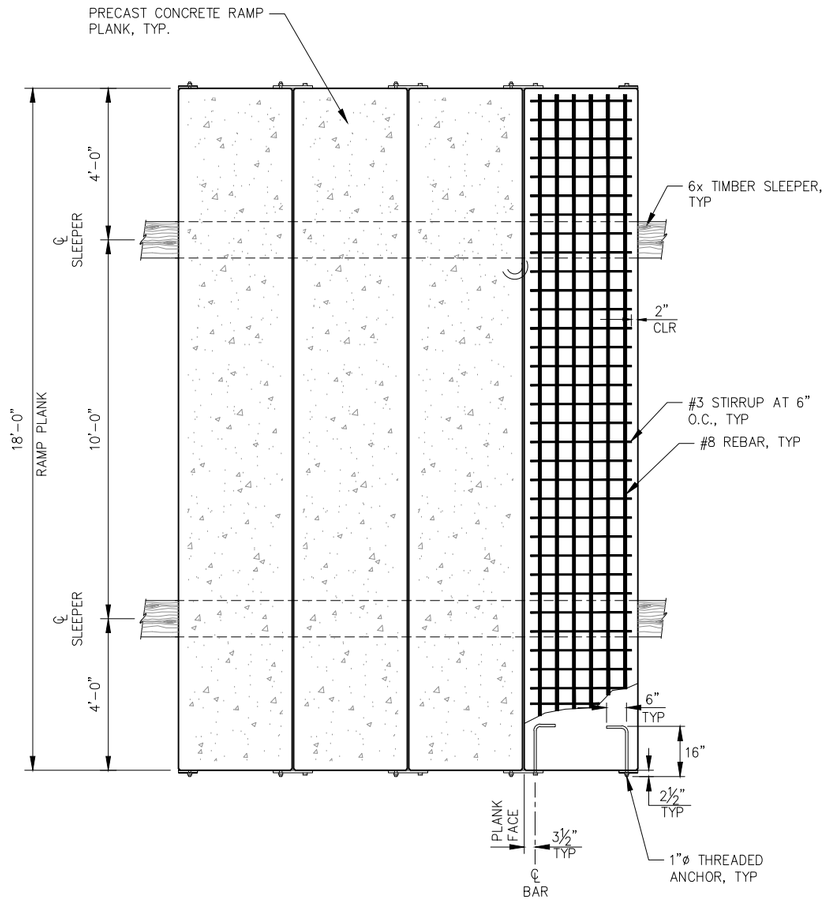
30% DESIGN SUBMITTAL

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **BOAT LAUNCH RAMP TYPICAL SECTIONS**

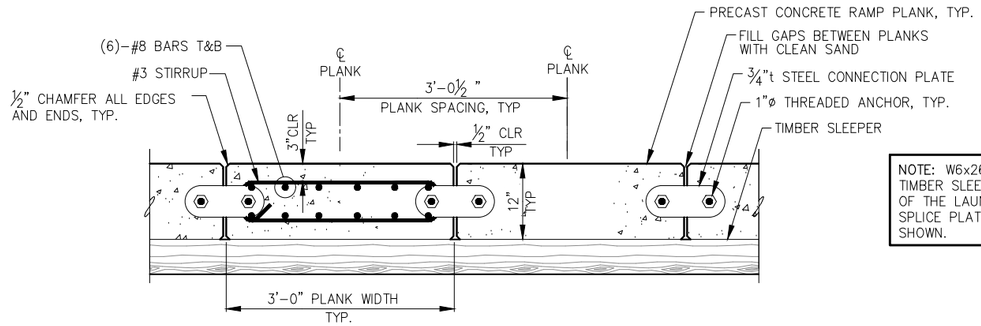
C2.02

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250



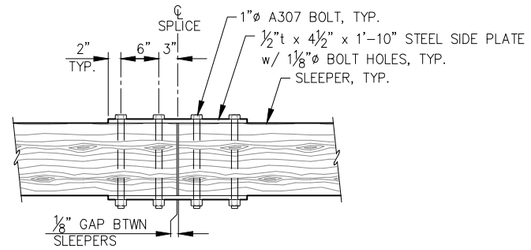
CONCRETE RAMP PLANKS - PLAN

NOTE: PROVIDE ROUGH TRANSVERSE TINE TEXTURE ON PLANKS

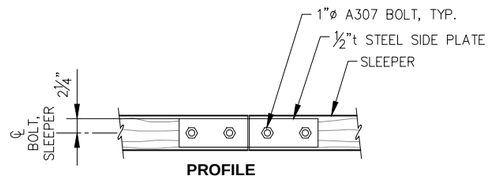


TYPICAL RAMP PLANK SECTION

NOTE: W6x26 BEAM MAY BE USED IN LIEU OF TIMBER SLEEPER ON THE SUBMERGED PORTION OF THE LAUNCH RAMP. ATTACH END TAB AND SPLICE PLATES TO BEAM WEB SIMILAR AS SHOWN.



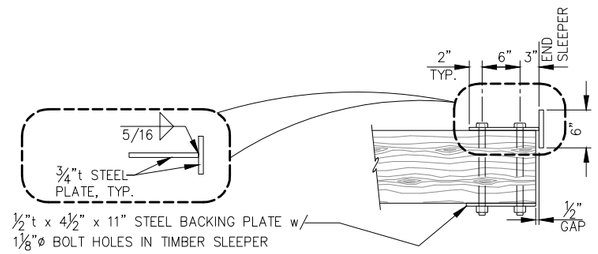
PLAN



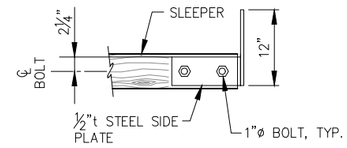
PROFILE

SLEEPER SPLICE DETAIL

NOTE: SLEEPER SPLICES SHALL BE STAGGERED.

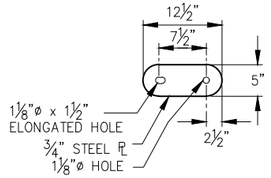


PLAN



PROFILE

SLEEPER END TAB DETAIL



CONNECTION PLATE DETAIL

POA-2003-00442

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SCALE: SCALE IN FEET 0 10 20 FT.

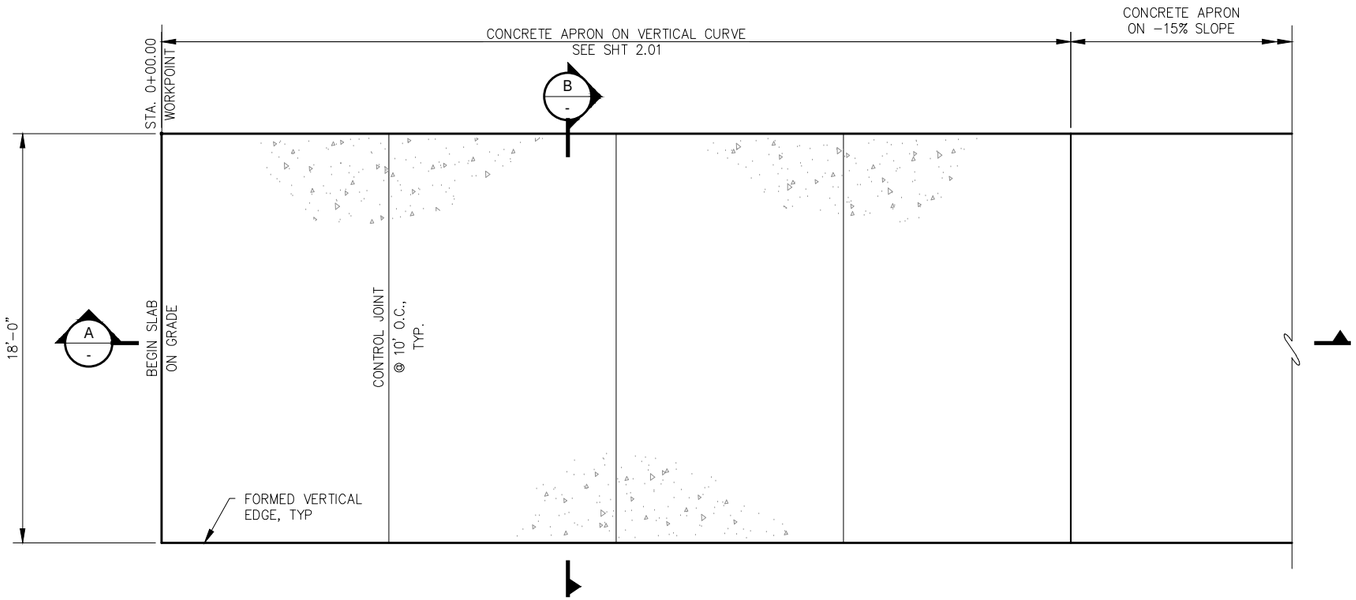
30% DESIGN SUBMITTAL
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: BOAT LAUNCH RAMP PLANK & SLEEPER DETAILS

C2.03

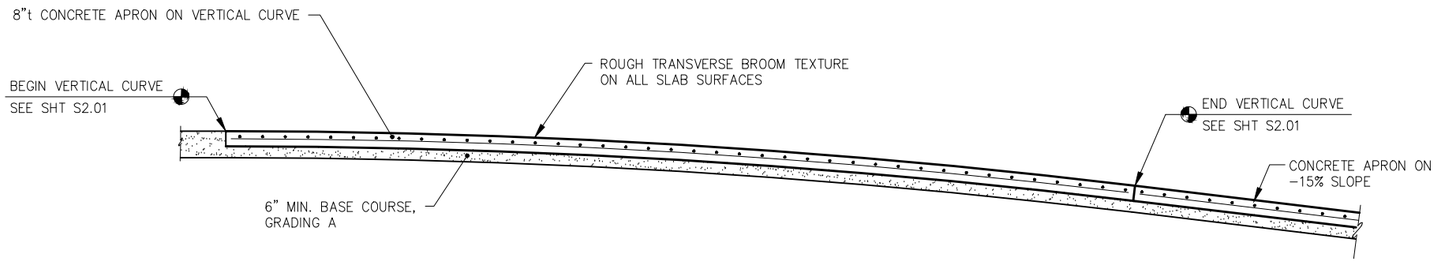
PND PROJECT NO.: 202101 C.A.N. NO.: AECC250



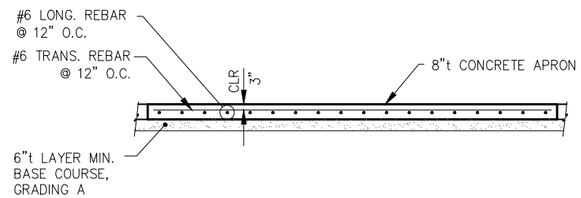
CONCRETE APRON ON VERTICAL CURVE PLAN

NOTES:

1. ARMOR ROCK NOT SHOWN FOR CLARITY.
2. CONTROL JOINTS ¼" x 1½" TOOLED JOINT w/ ¼" RADIUS. FILL SLOT W/FIELD−MOLDED FILLER ASPHALT SEALANT.



A **APRON - PROFILE VIEW**



B **APRON -TYPICAL SECTION**

NOTE:
MAINTAIN 3" CONCRETE COVER OVER REINFORCEMENT, TOP, BTM, AND ALL SIDES.

POA-2003-00442

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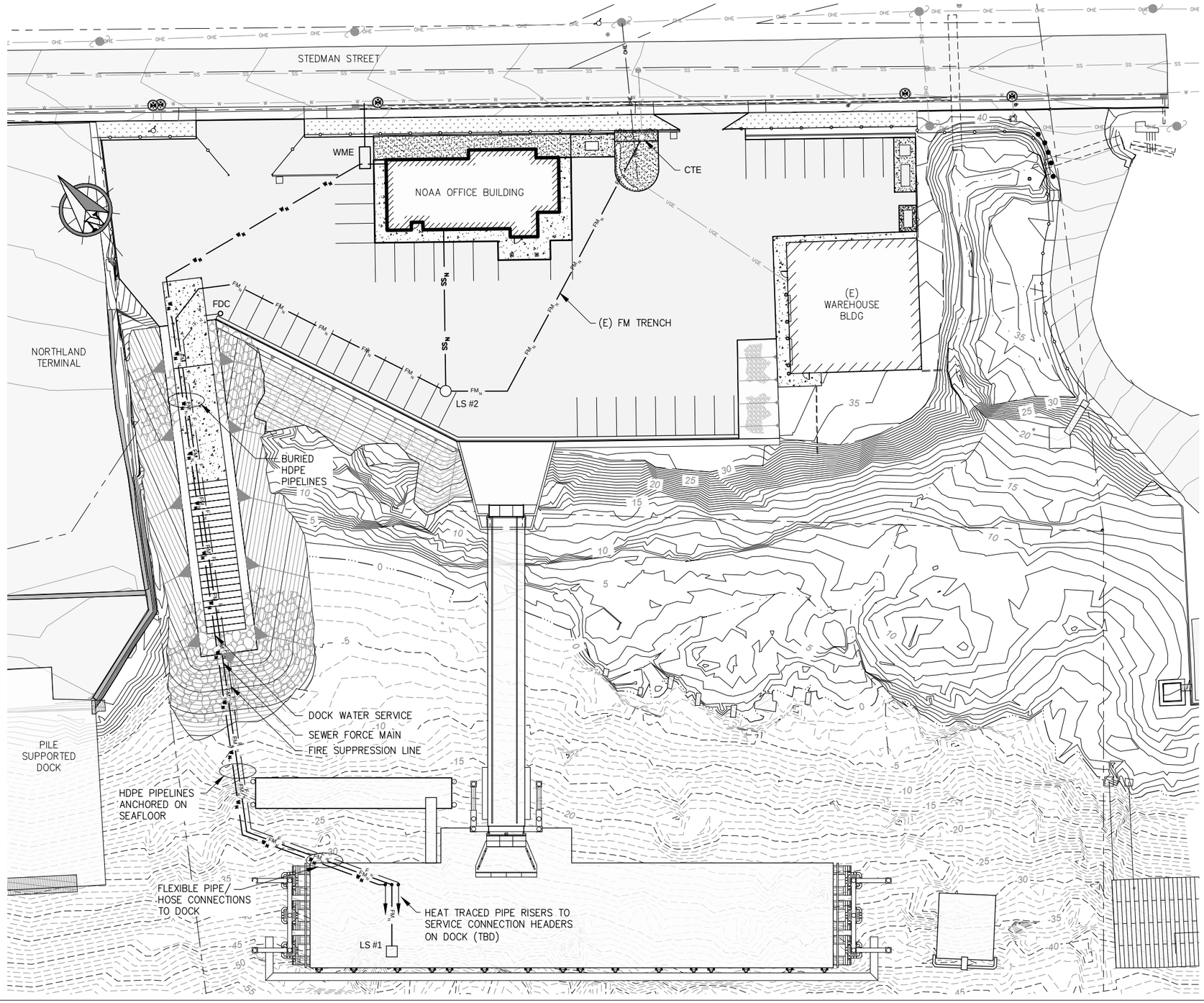
30% DESIGN SUBMITTAL
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE:
BOAT LAUNCH RAMP APRON DETAILS

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

C2.04



LEGEND:

SS_N	SANITARY SEWER (GRAVITY SERVICE)
FM_N	SEWER FORCE MAIN
W_N	WATER SERVICE
F_N	DRY FIRE LINE
CTE	CONNECT TO EXISTING SERVICE
FDC	FIRE DEPARTMENT CONNECTION
LS	SEWER LIFT STATION (2 EA. REQ'D.)
WME	WATER METER ENCLOSURE (HEATED) w/ BACKFLOW PREVENTOR

POA-2003-00442

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: CRS CHECKED: JLD
DRAWN: PJD APPROVED: CRS
SCALE: SCALE IN FEET 0 25 50 FT.
DATE: JUNE 15, 2021

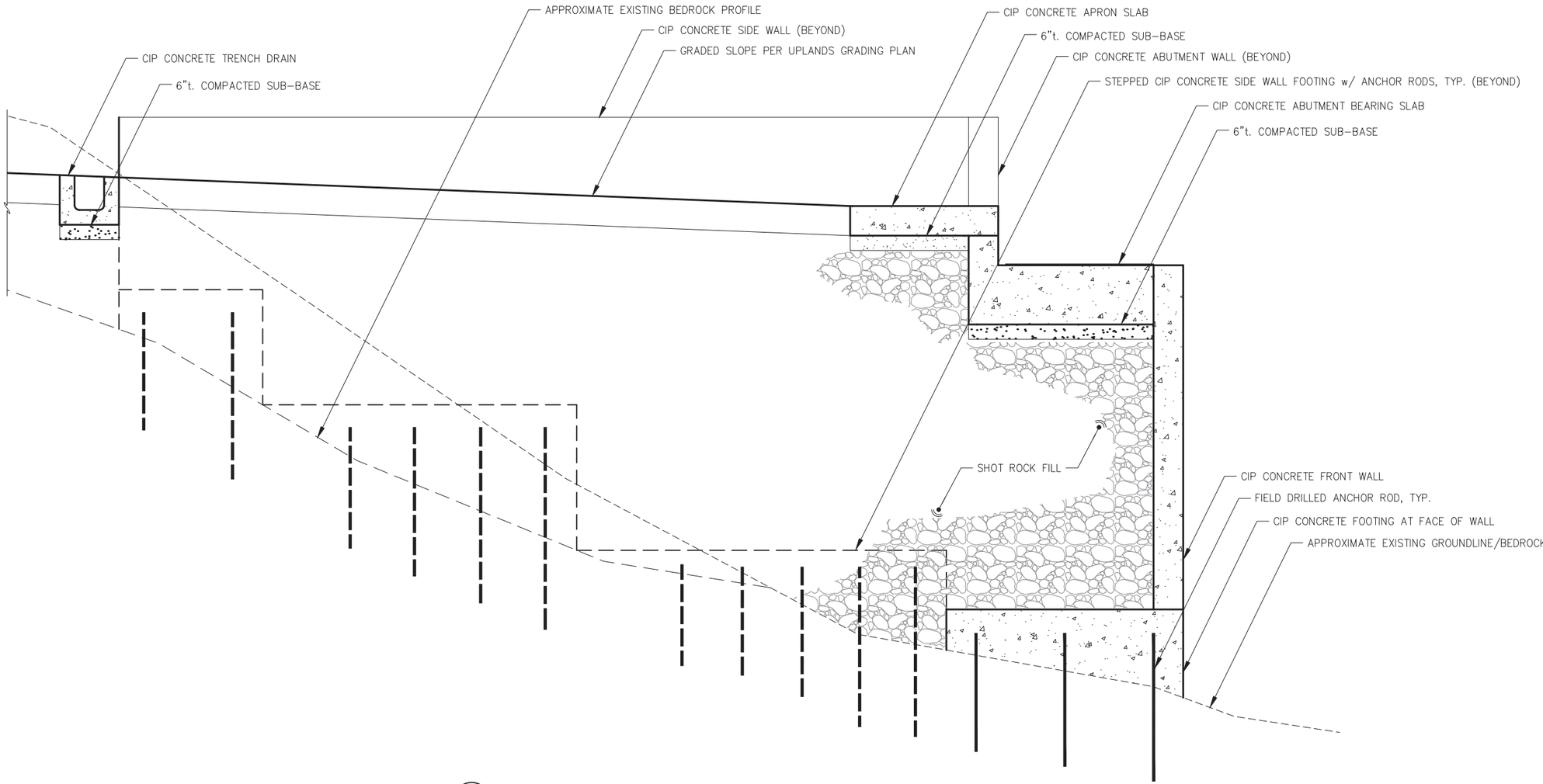
30% DESIGN SUBMITTAL

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE:
UTILITIES SYSTEM PRELIMINARY SCHEMATIC PLAN

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

C3.01



A
S2.01 **TRANSFER BRIDGE ABUTMENT SECTION**

POA-2003-00442

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SCALE: NTS

30% DESIGN SUBMITTAL

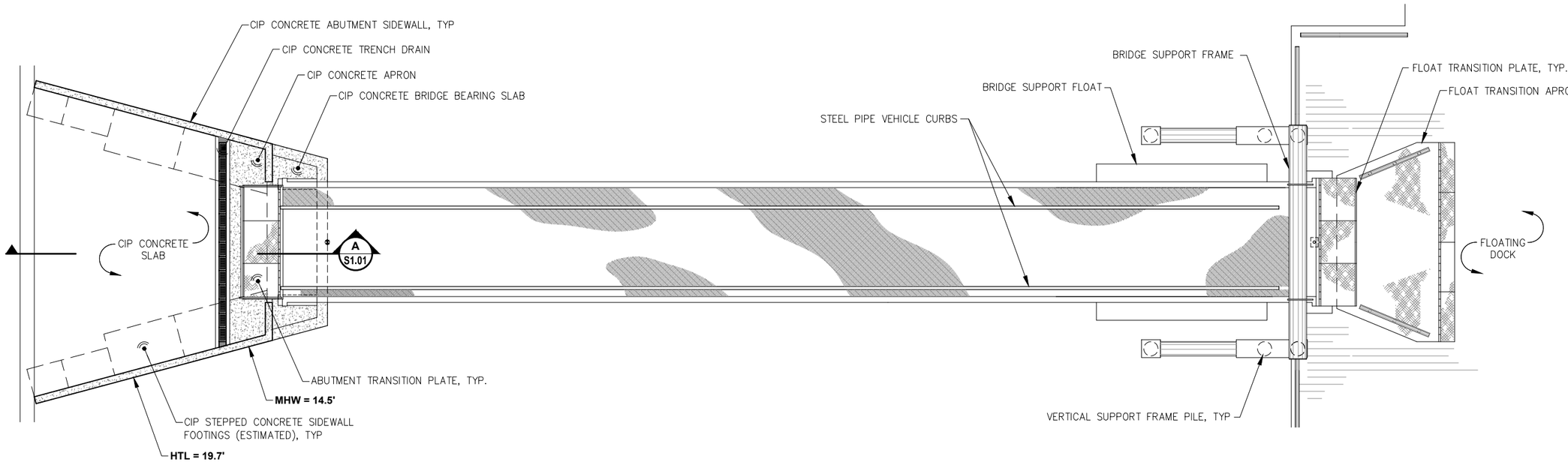
DATE: JUNE 15, 2021

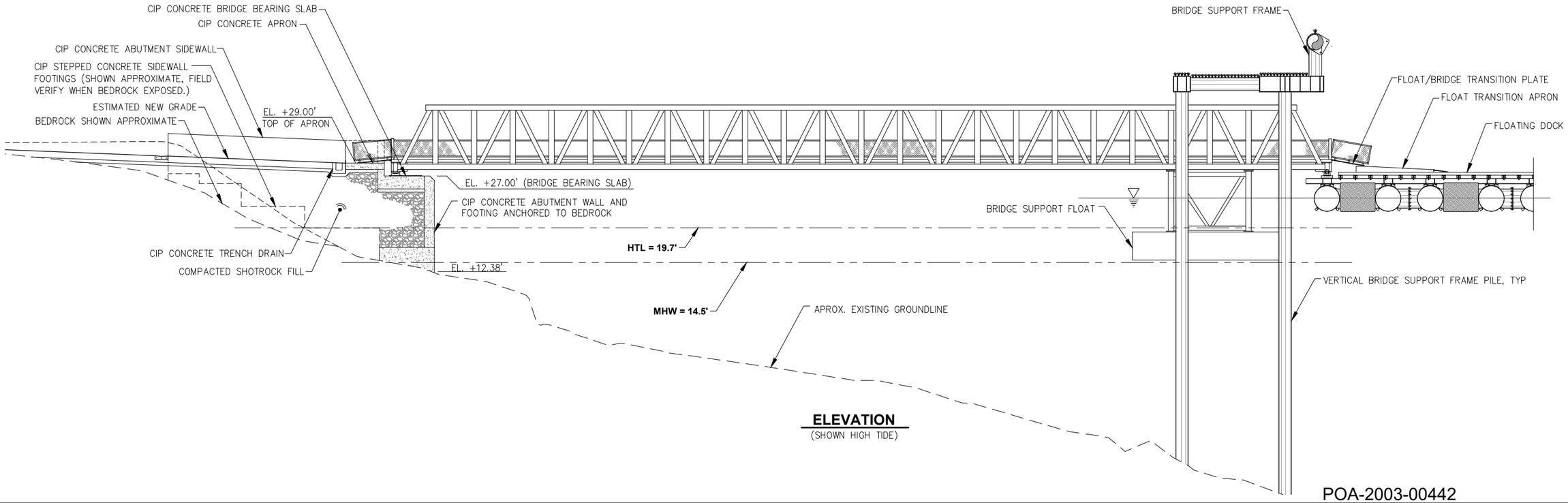
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **TRANSFER BRIDGE ABUTMENT**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S1.01





ELEVATION
(SHOWN HIGH TIDE)

POA-2003-00442

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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www.pndengineers.com

DESIGN: JLD CHECKED: ____
DRAWN: PJD APPROVED: CRS
SCALE: NTS

60% DESIGN SUBMITTAL

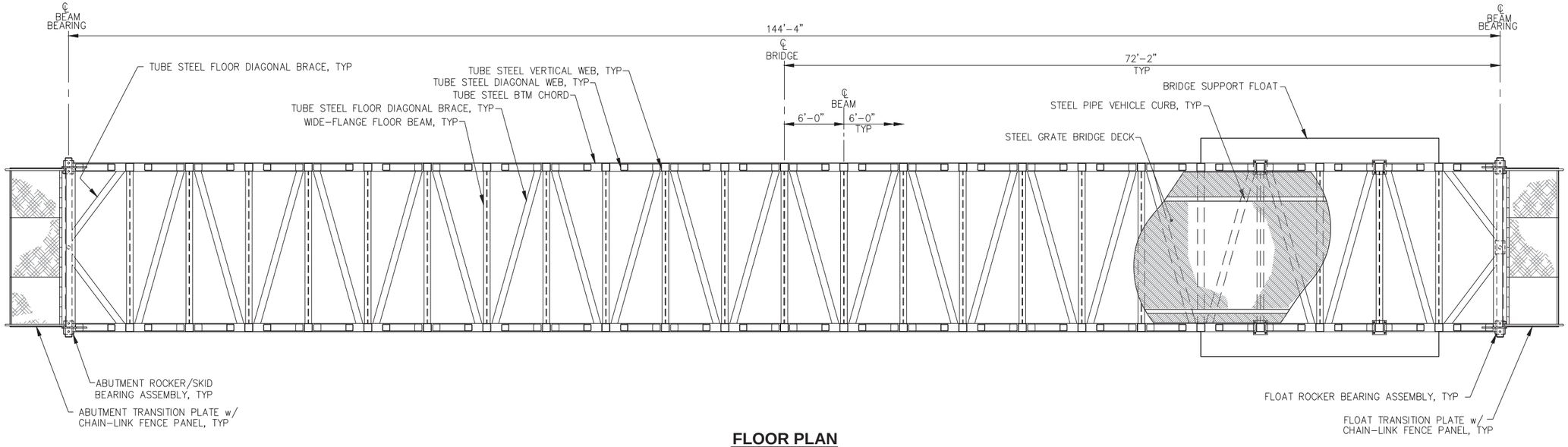
DATE: AUGUST 11, 2021

NOAA FAIRWEATHER HOMEPORT RECAPITALIZATION PROJECT

SHEET TITLE:
TRANSFER BRIDGE GENERAL PLAN AND ELEVATION

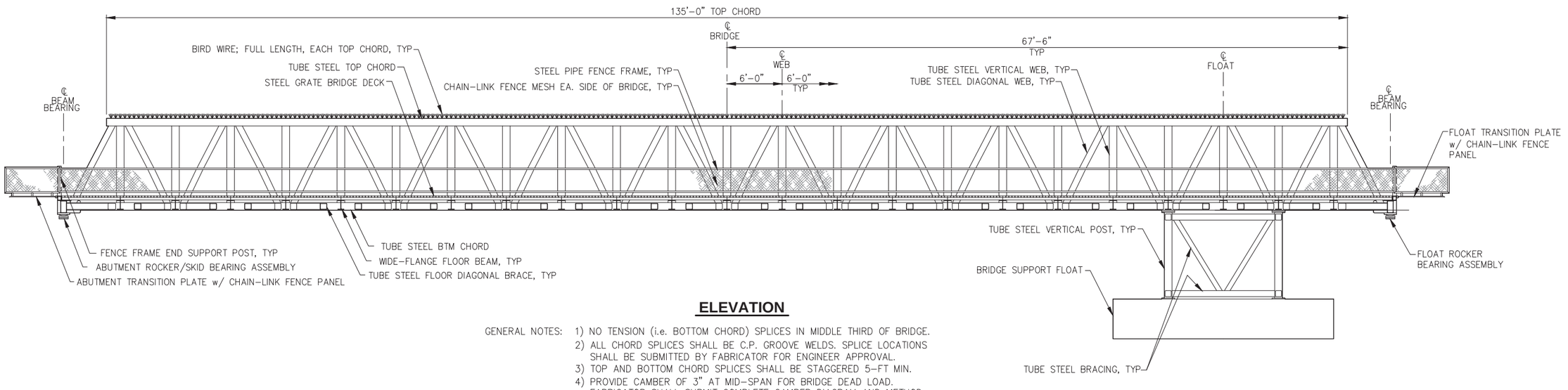
PND PROJECT NO.: 202101
C.A.N. NO.: AECC250

S2.01



FLOOR PLAN

NOTE: TOP CHORD NOT SHOWN THIS VIEW FOR CLARITY.



ELEVATION

GENERAL NOTES:
1) NO TENSION (i.e. BOTTOM CHORD) SPLICES IN MIDDLE THIRD OF BRIDGE.
2) ALL CHORD SPLICES SHALL BE C.P. GROOVE WELDS. SPLICE LOCATIONS SHALL BE SUBMITTED BY FABRICATOR FOR ENGINEER APPROVAL.
3) TOP AND BOTTOM CHORD SPLICES SHALL BE STAGGERED 5–FT MIN.
4) PROVIDE CAMBER OF 3" AT MID–SPAN FOR BRIDGE DEAD LOAD. FABRICATOR SHALL SUBMIT COMPLETE CAMBER DIAGRAM AND METHOD TO ACHIEVE CAMBER FOR ENGINEER REVIEW PRIOR TO FABRICATION.

POA-2003-00442

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SCALE: NTS

30% DESIGN SUBMITTAL

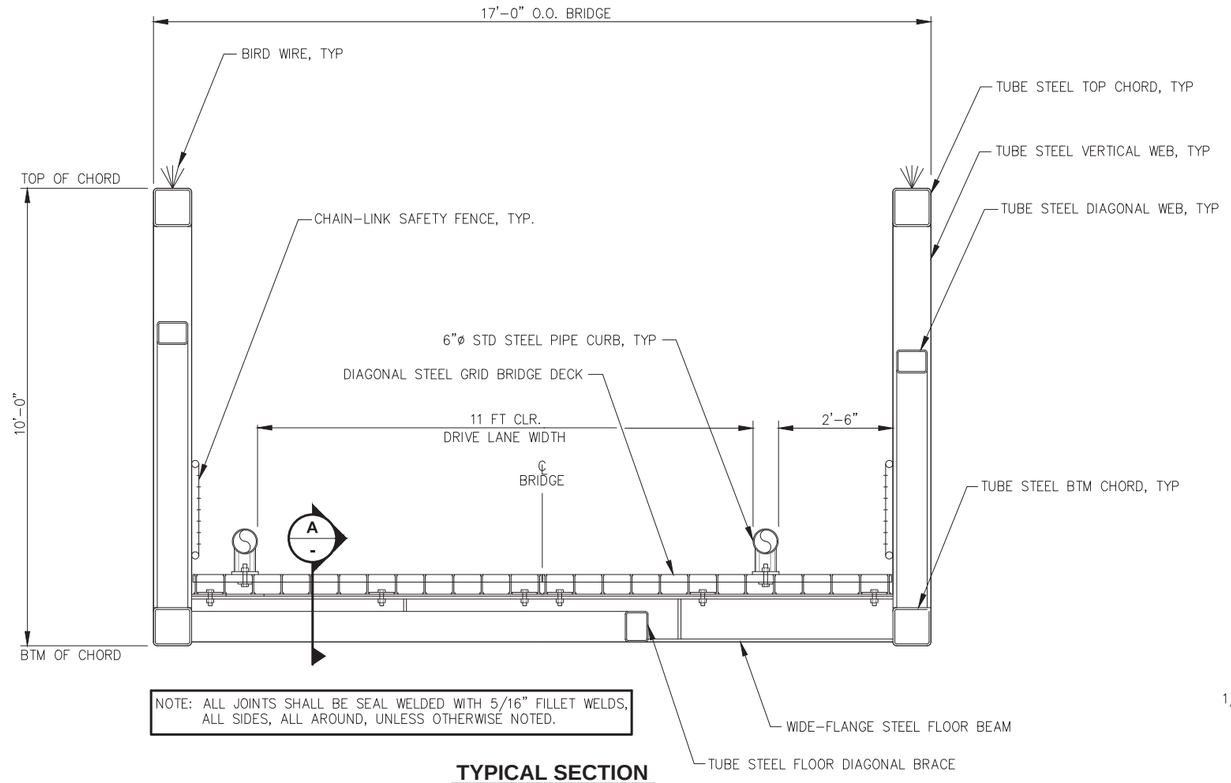
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **BRIDGE PLAN AND ELEVATION**

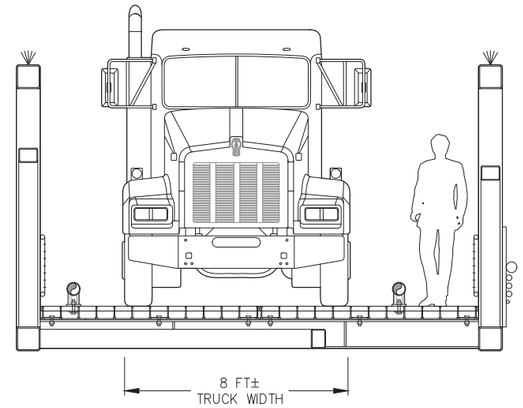
PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S2.02



NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.

TYPICAL SECTION

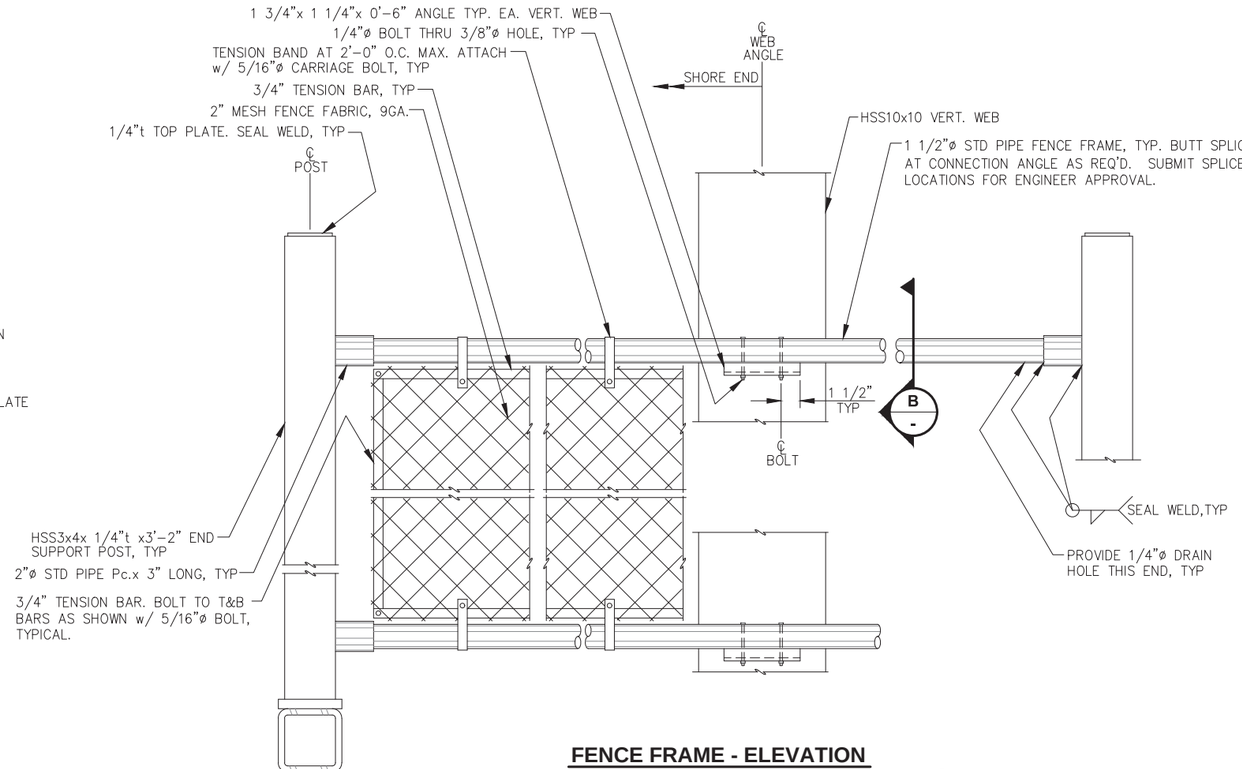


TYPICAL SECTION w/ TRUCK

(AML TRUCK)

A
-
SECTION AT FLOOR BEAM

DECK CONNECTION



FENCE FRAME - ELEVATION

POA-2003-00442

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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SCALE: NTS

30% DESIGN SUBMITTAL

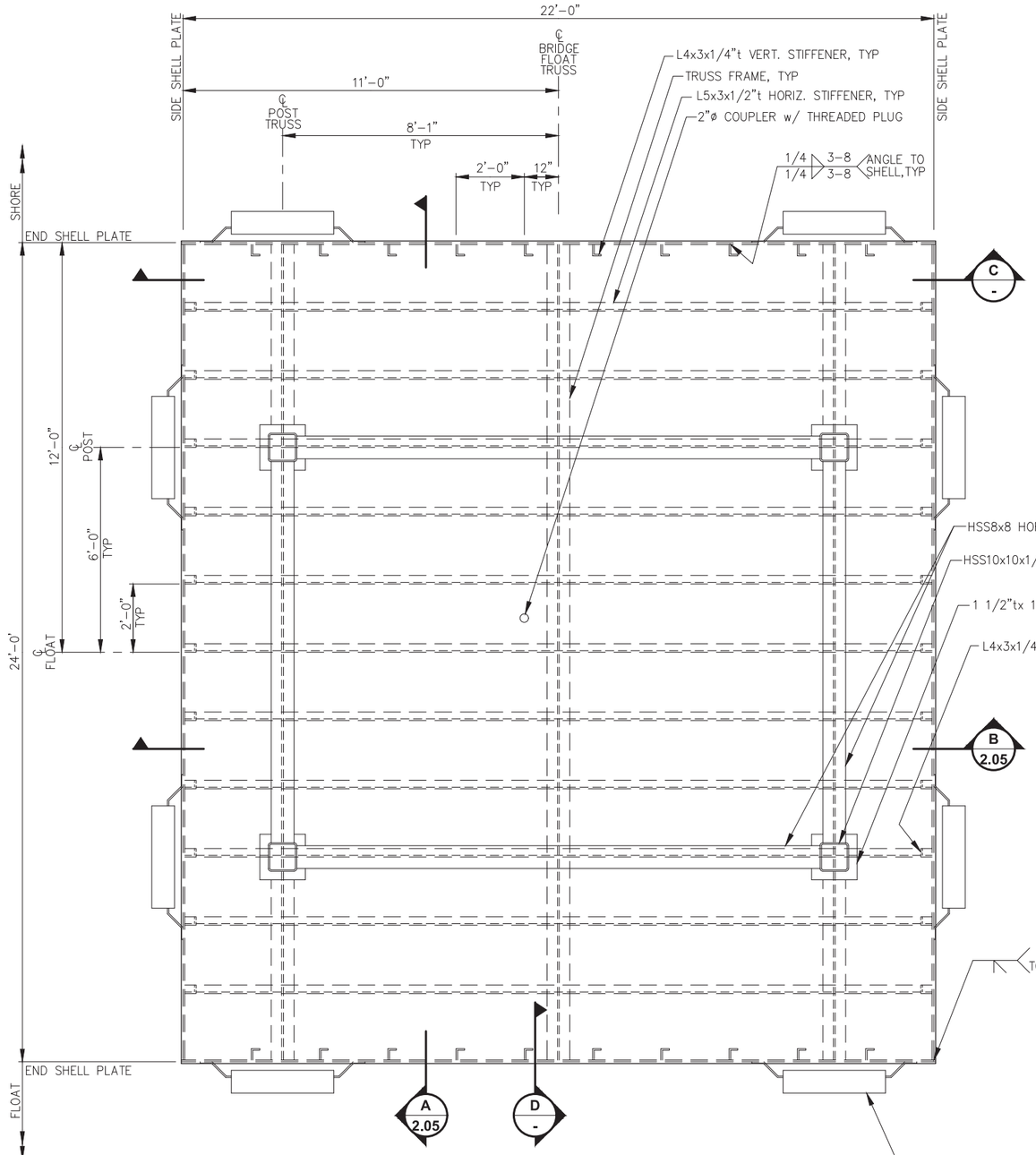
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

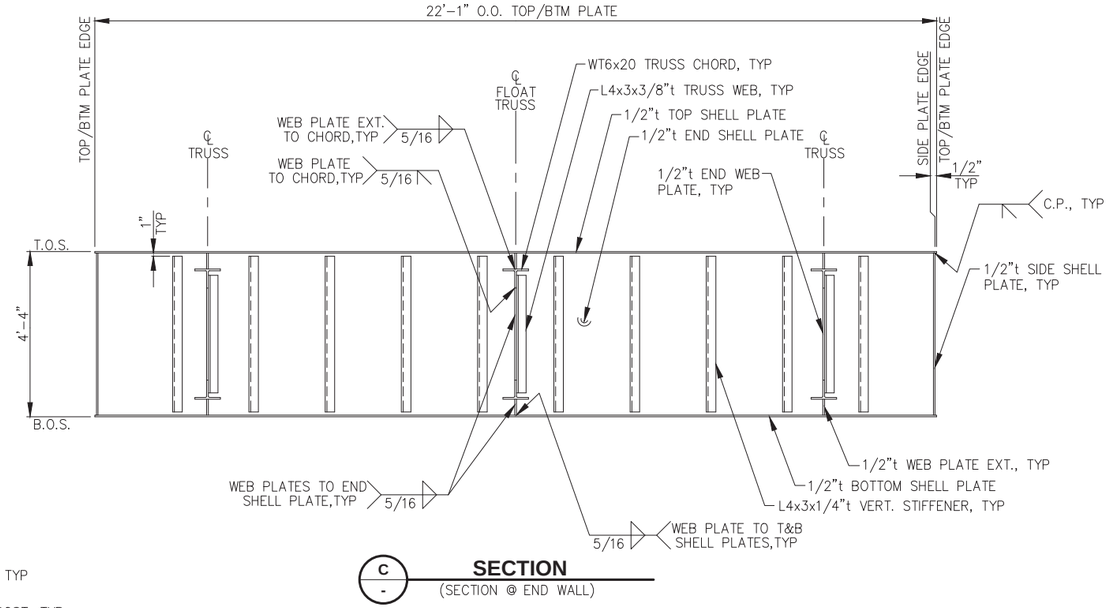
SHEET TITLE: TYPICAL SECTION AND DETAILS

S2.03

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

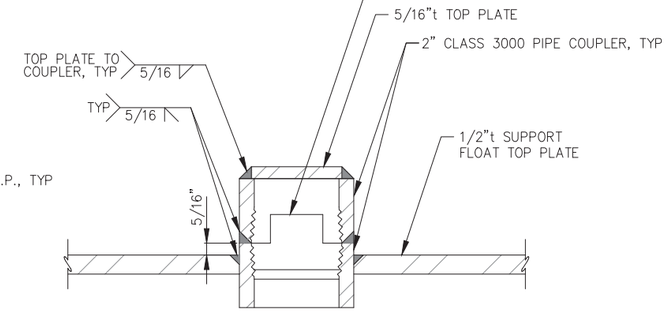


SUPPORT FLOAT - FRAMING PLAN



C - **SECTION**
(SECTION @ END WALL)

D - **SECTION**
(SECTION @ TRUSS FRAME END)



COUPLER - SECTION

NOTE: THREADED PLUG AND COUPLER COVER TO BE INSTALLED AFTER SUCCESSFUL PRESSURE TESTING OF SUPPORT FLOAT.

POA-2003-00442

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SCALE: NTS

30% DESIGN SUBMITTAL

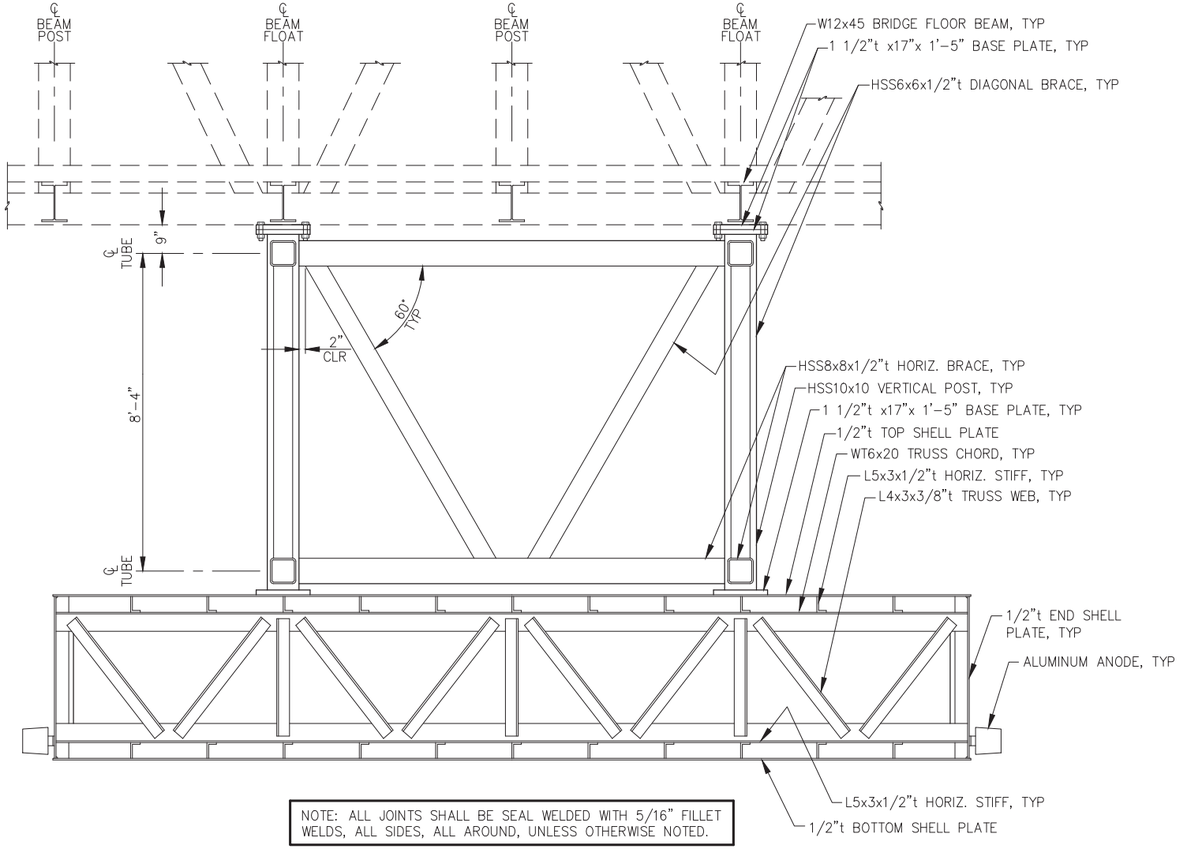
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **BRIDGE SUPPORT FLOAT**

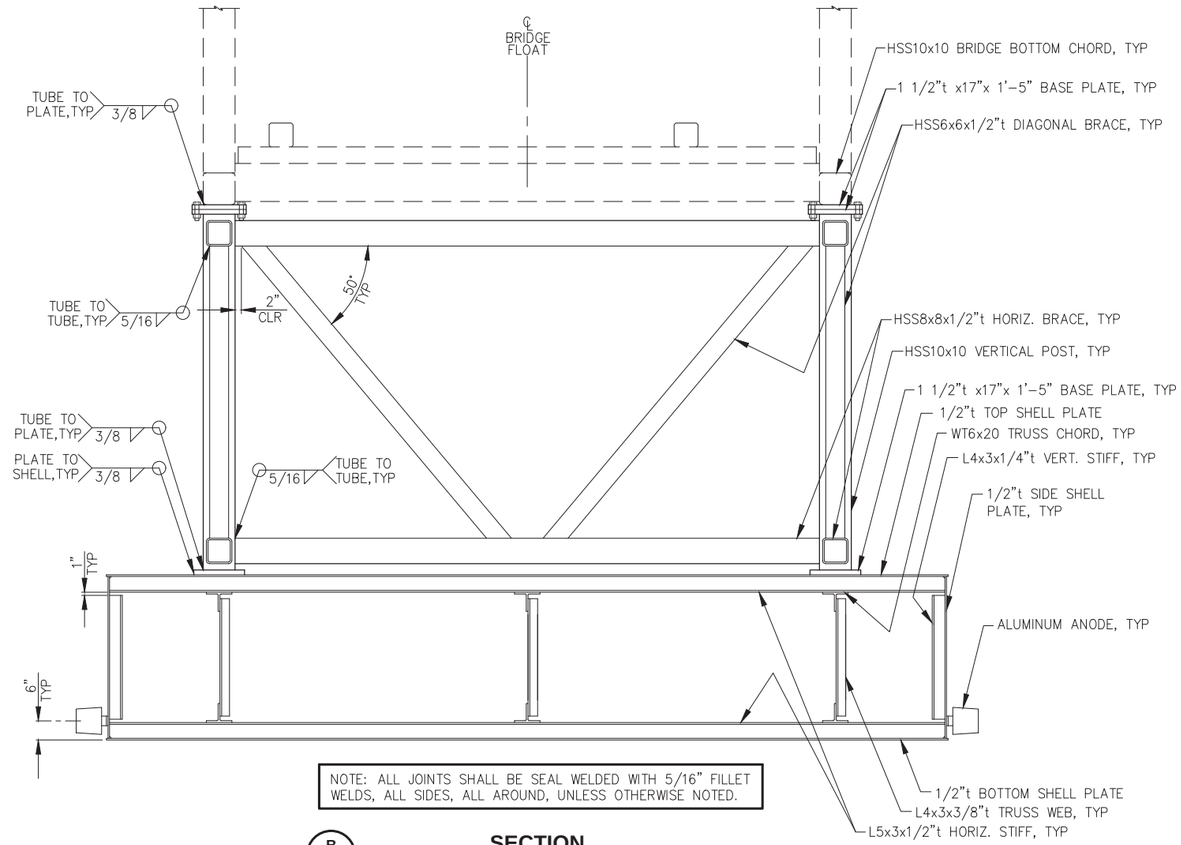
S2.04

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250



NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.

A 2.04 **SECTION**

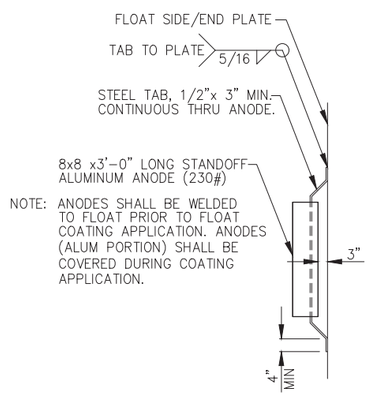


NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.

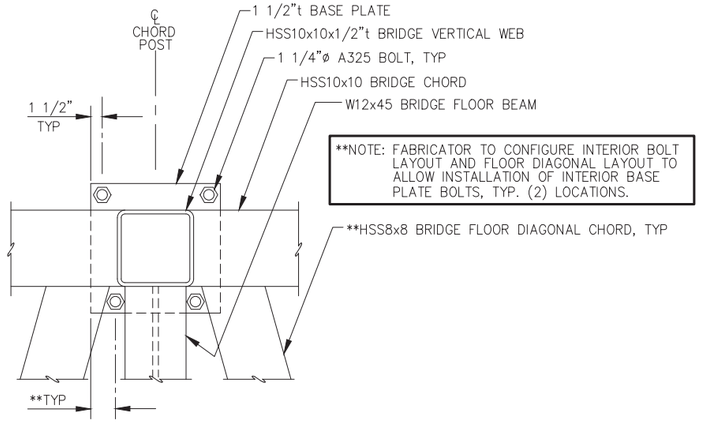
B 2.04 **SECTION**

NOTE: BILLETS SYMMETRICAL ABOUT CENTERLINE OF FLOAT.

GENERAL NOTES:
1) SUPPORT FLOAT AND BRIDGE WILL NOT BE STABLE PRIOR TO PLACEMENT AND CONNECTION TO DESIGNED BRIDGE ABUTMENT AND FLOAT BEARINGS. CONTRACTOR SHALL PROVIDE MEANS TO STABILIZE DURING CONSTRUCTION.
2) SUPPORT FLOAT SHALL BE LEAK TESTED PER SPECIFICATIONS. FABRICATOR SHALL SUBMIT WRITTEN PROCEDURE FOR ENGINEER APPROVAL.



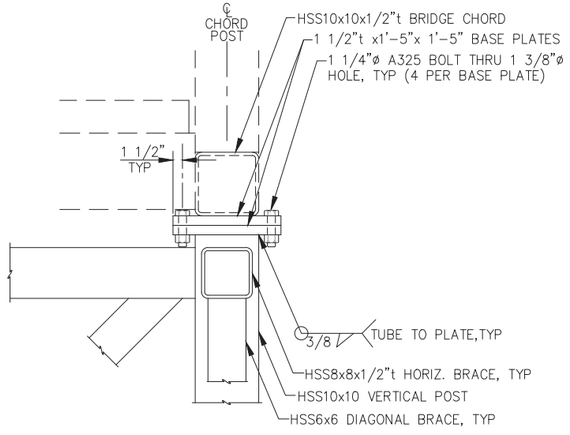
ANODE DETAIL
(8 TOTAL)



**NOTE: FABRICATOR TO CONFIGURE INTERIOR BOLT LAYOUT AND FLOOR DIAGONAL LAYOUT TO ALLOW INSTALLATION OF INTERIOR BASE PLATE BOLTS, TYP. (2) LOCATIONS.

BASE PLATE - PLAN

POA-2003-00442



BASE PLATE - TYPICAL SECTION

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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SCALE: NTS

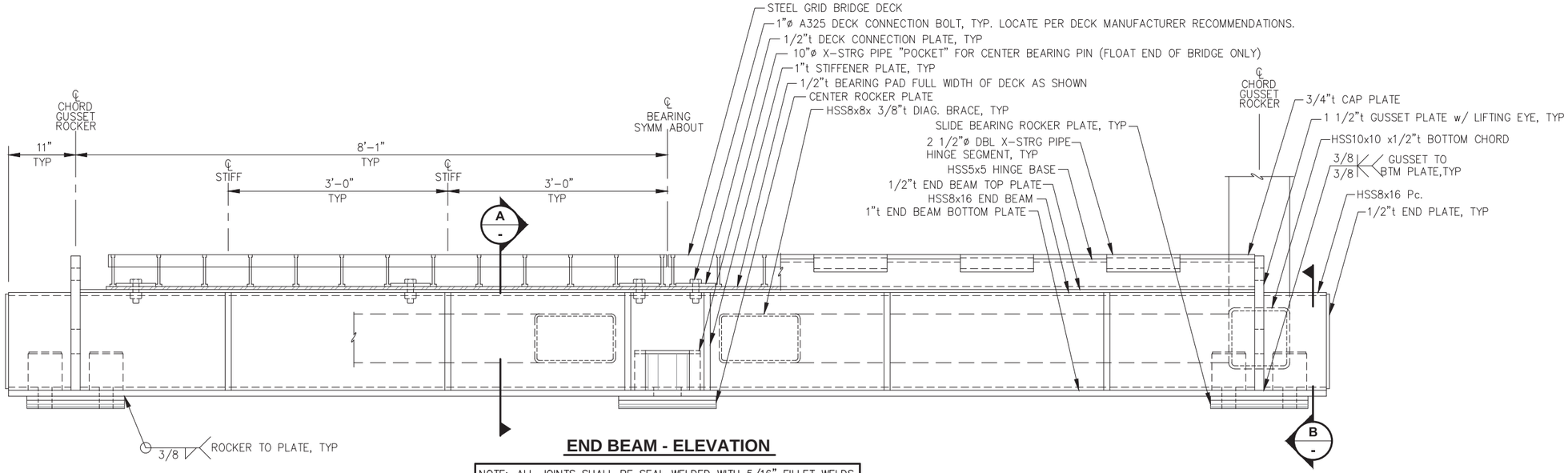
30% DESIGN SUBMITTAL
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **BRIDGE SUPPORT FLOAT**

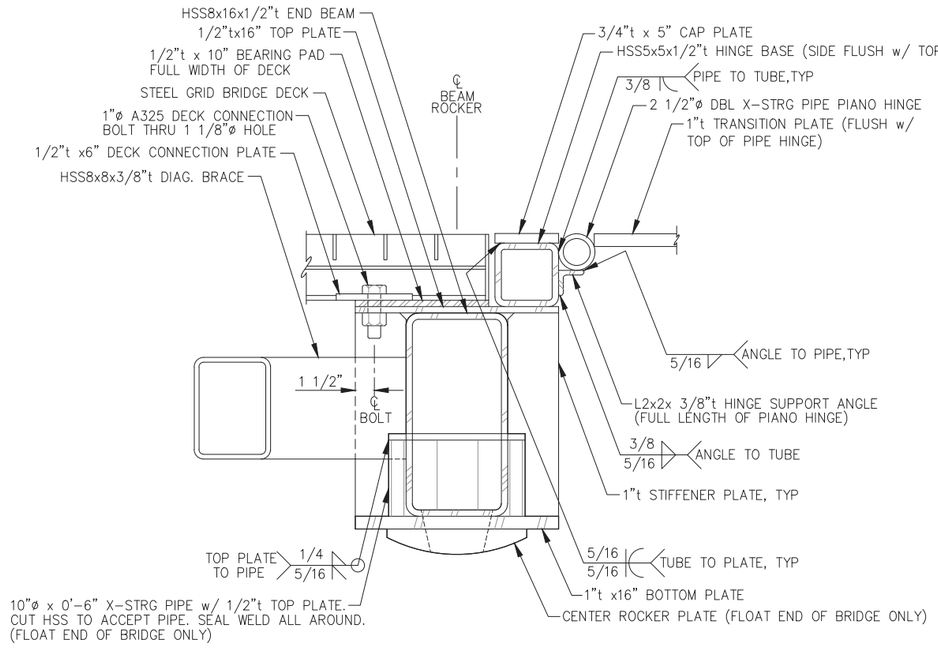
PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S2.05



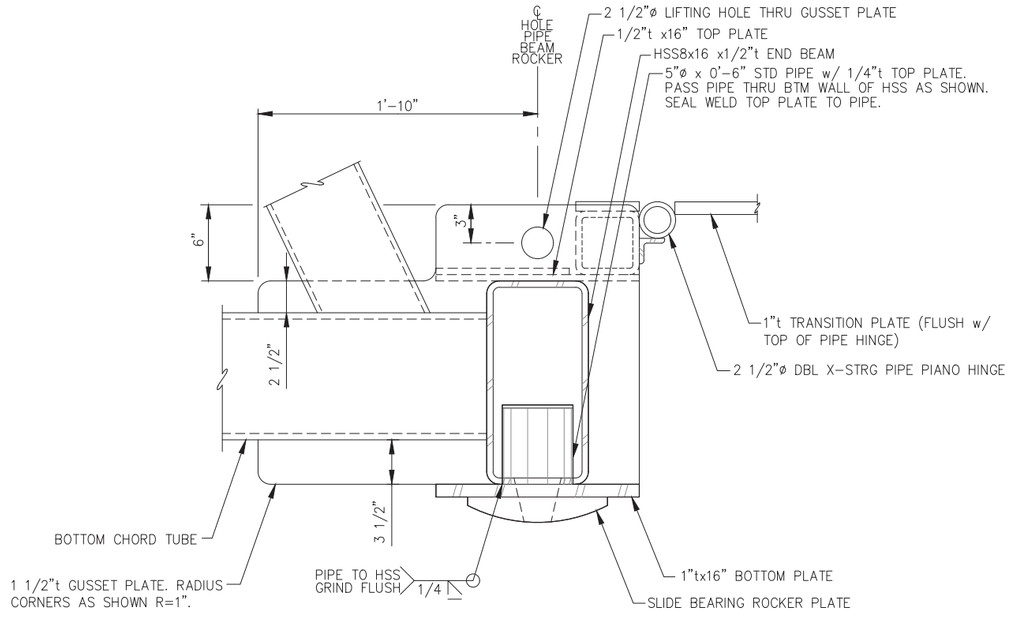
END BEAM - ELEVATION

NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.



A - CENTER BEARING - SECTION

NOTE: BEVELED HOLE IN ROCKER PLATE SHALL EXTEND THRU END BEAM BTM. PLATE AND END BEAM AS SHOWN.



B - SLIDE BEARING - SECTION

NOTE: BEVELED HOLE IN ROCKER PLATE SHALL EXTEND THRU END BEAM BTM. PLATE AND END BEAM AS SHOWN.

POA-2003-00442

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DATE: JUNE 15, 2021

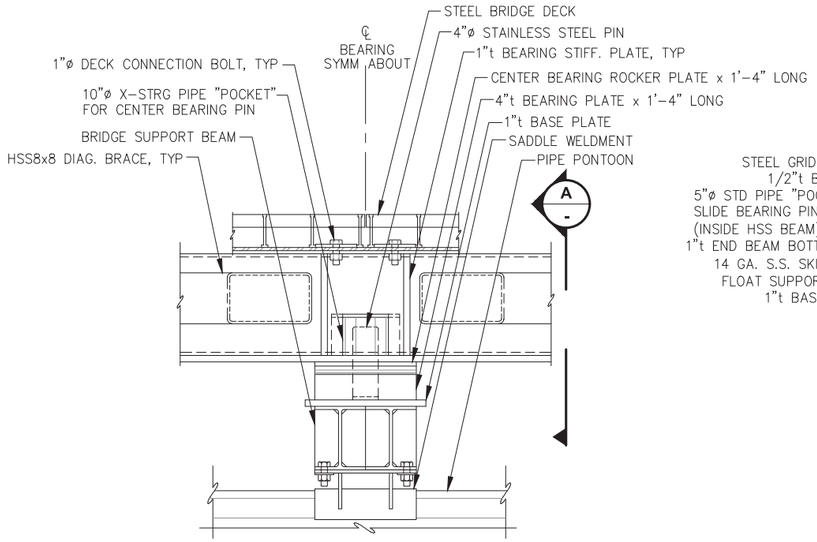
30% DESIGN SUBMITTAL

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

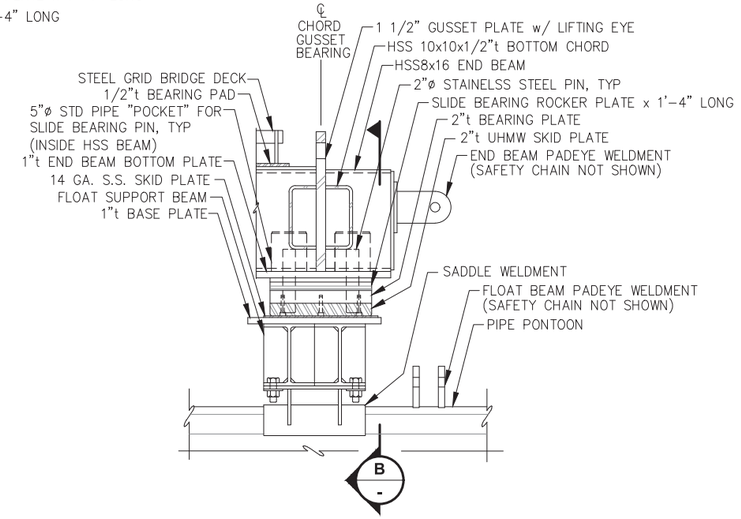
SHEET TITLE: END BEAM DETAILS

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S2.06

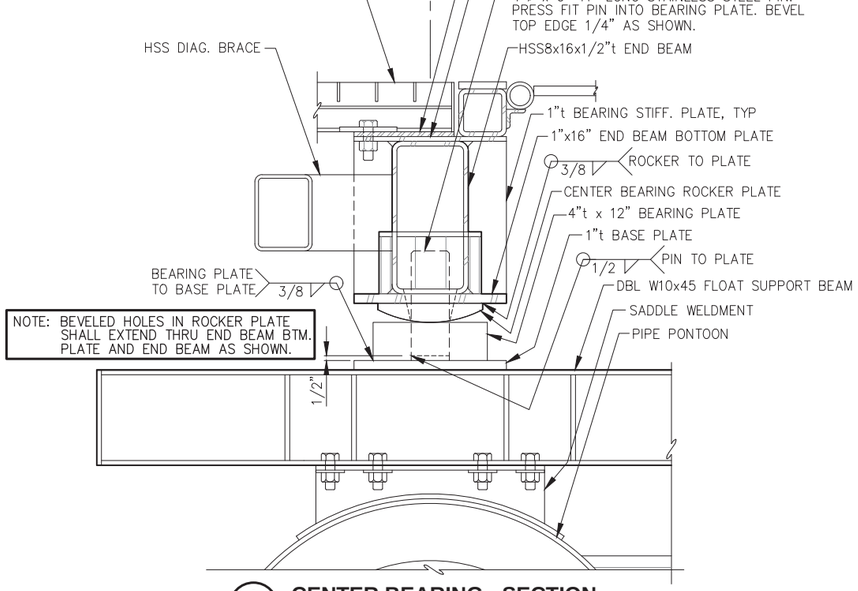


CENTER BEARING

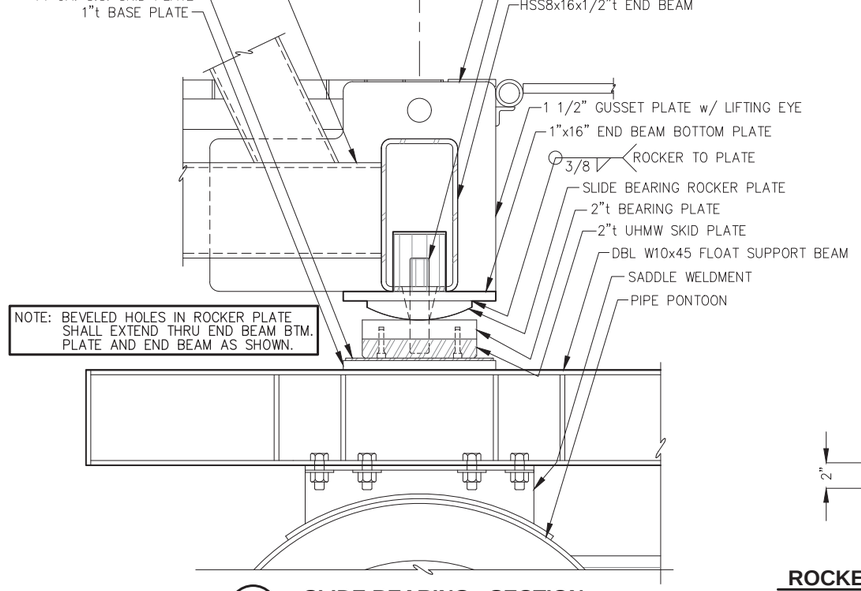


SLIDE BEARING

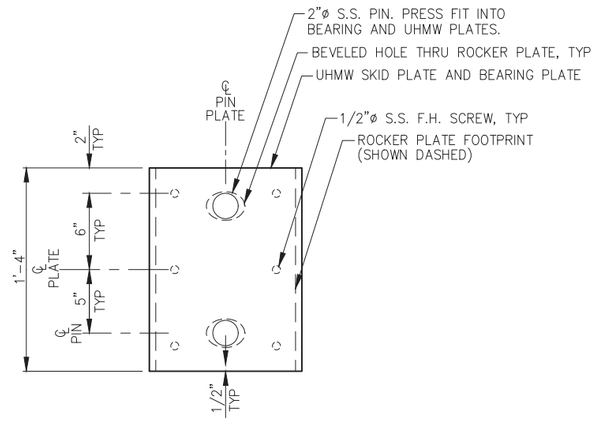
FLOAT SUPPORT BEAM BEARING - ELEVATION



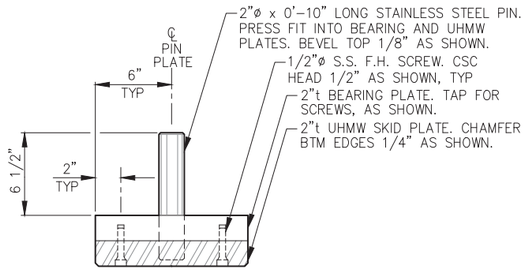
A - **CENTER BEARING - SECTION**



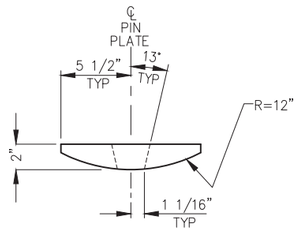
B - **SLIDE BEARING - SECTION**



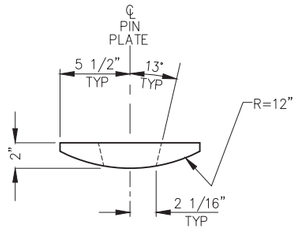
SLIDE BEARING - PLAN



SLIDE BEARING - ELEVATION



ROCKER PLATE - ELEVATION
(SLIDE BEARING – (2) TOTAL)



ROCKER PLATE - ELEVATION
(CENTER BEARING – (1) TOTAL)

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SCALE: NTS

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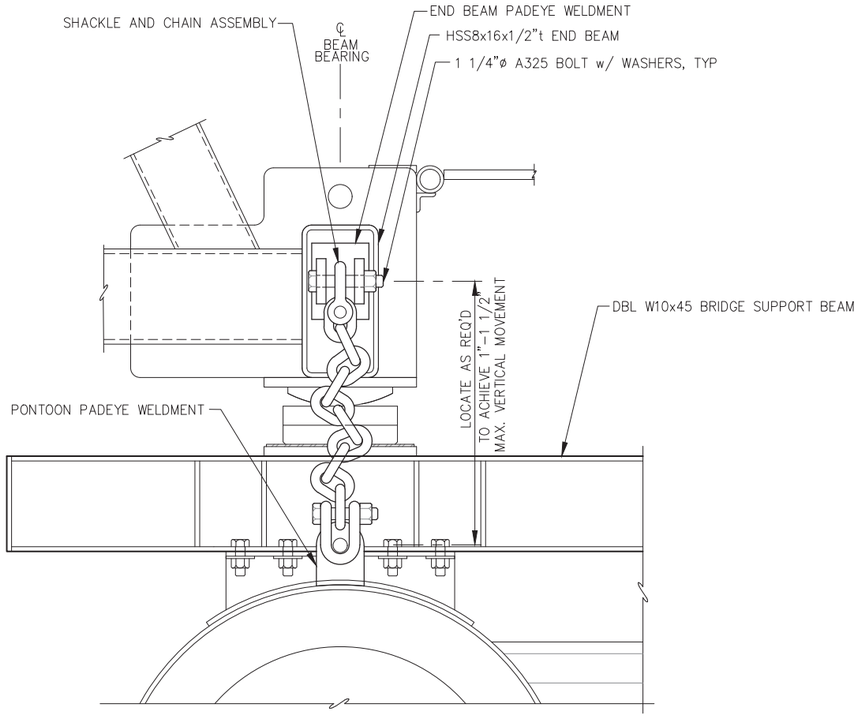
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

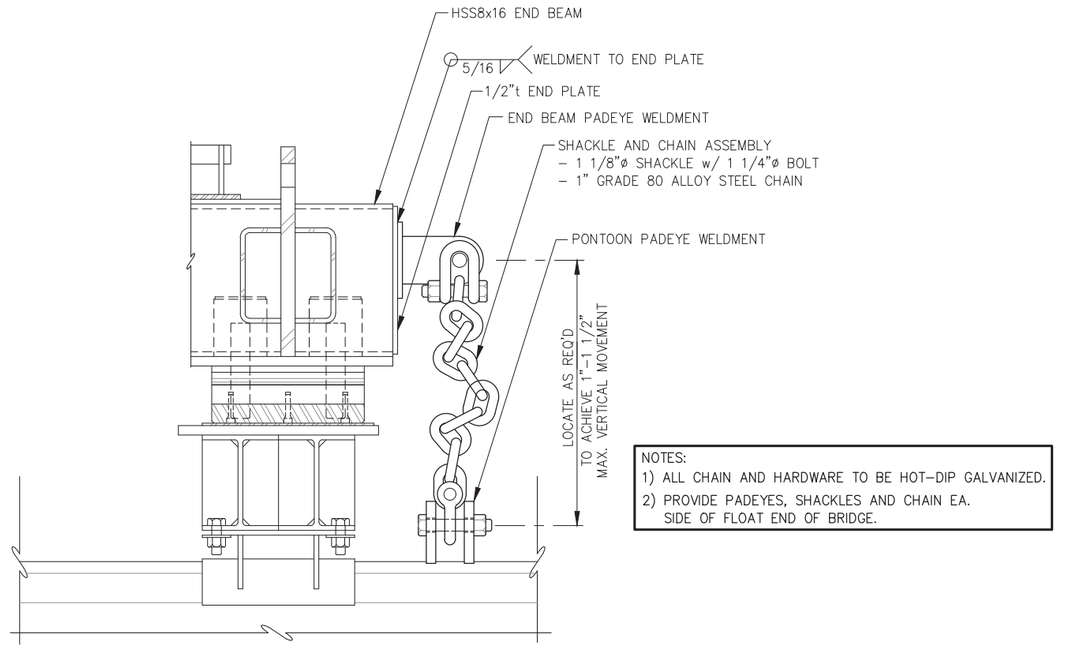
SHEET TITLE: **FLOAT BEARING DETAILS**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S2.07

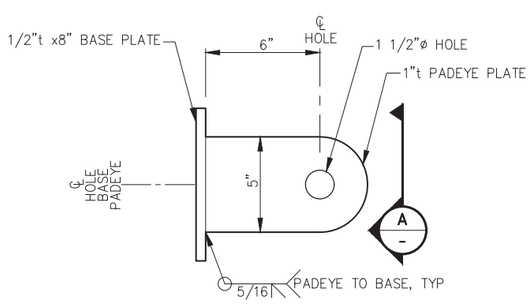


SLIDE BEARING - SIDE ELEVATION

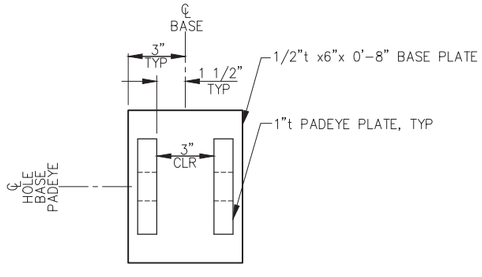


NOTES:
1) ALL CHAIN AND HARDWARE TO BE HOT–DIP GALVANIZED.
2) PROVIDE PADEYES, SHACKLES AND CHAIN EA. SIDE OF FLOAT END OF BRIDGE.

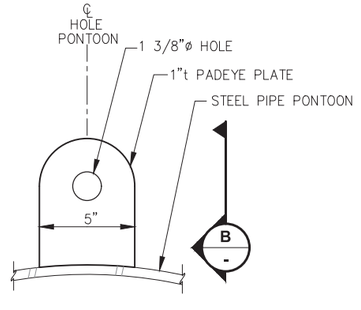
SLIDE BEARING - FRONT ELEVATION



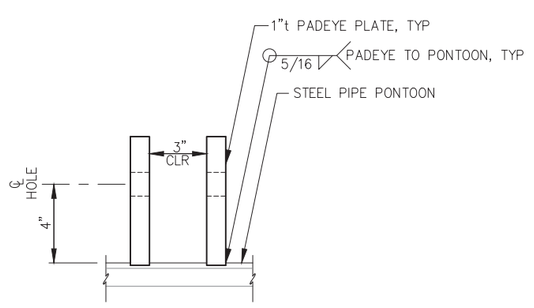
END BEAM PADEYE



A - **PADEYE - ELEVATION**



PONTOON PADEYE



B - **PADEYE - ELEVATION**

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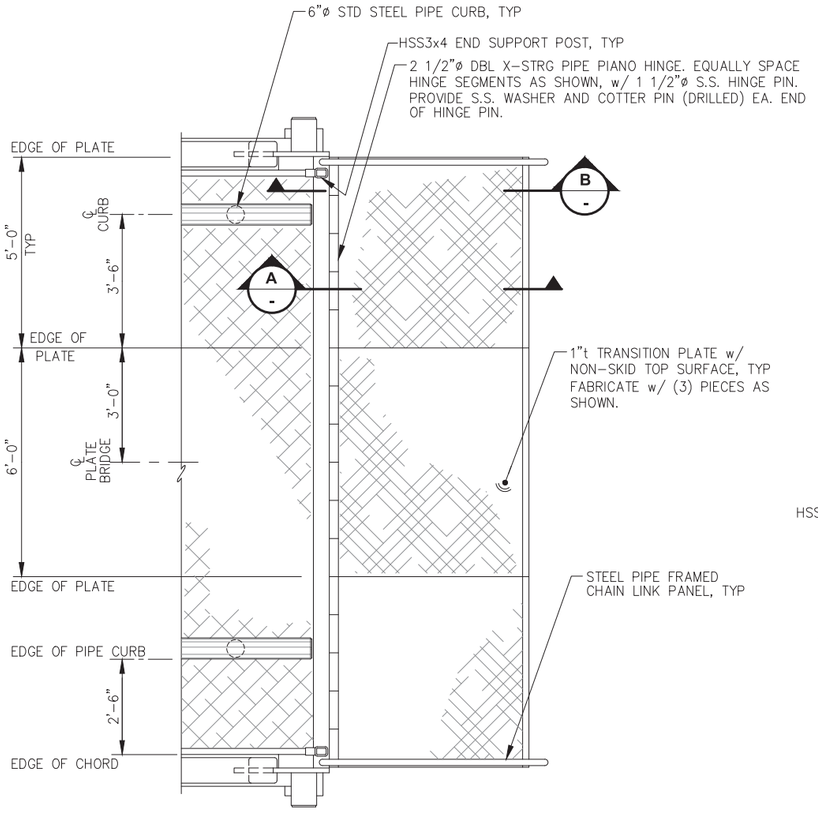
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

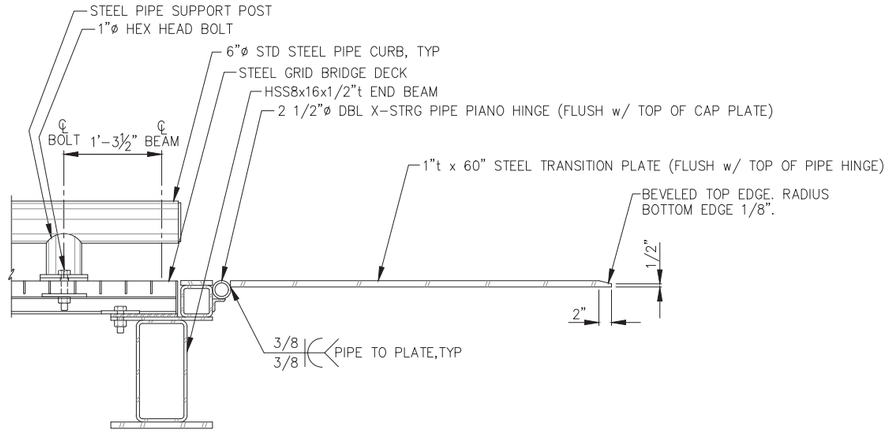
SHEET TITLE: **SAFETY CHAIN DETAILS**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

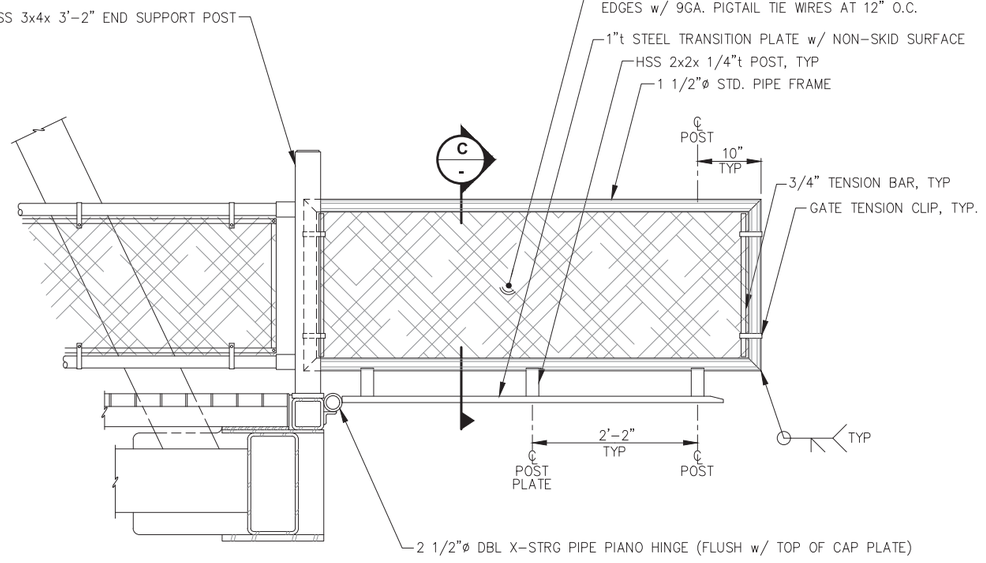
S2.08



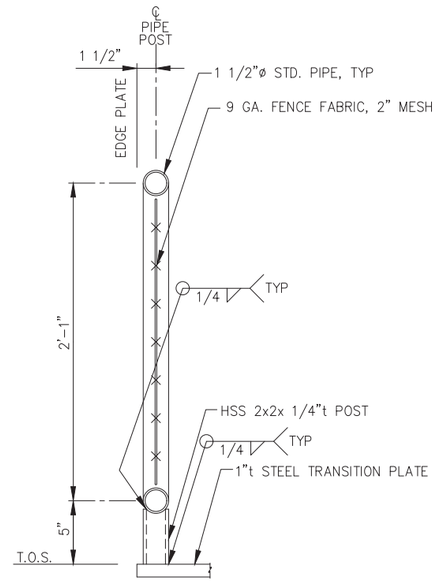
TRANSITION PLATE - PLAN



A - SECTION



B - SECTION



C - SECTION

POA-2003-00442

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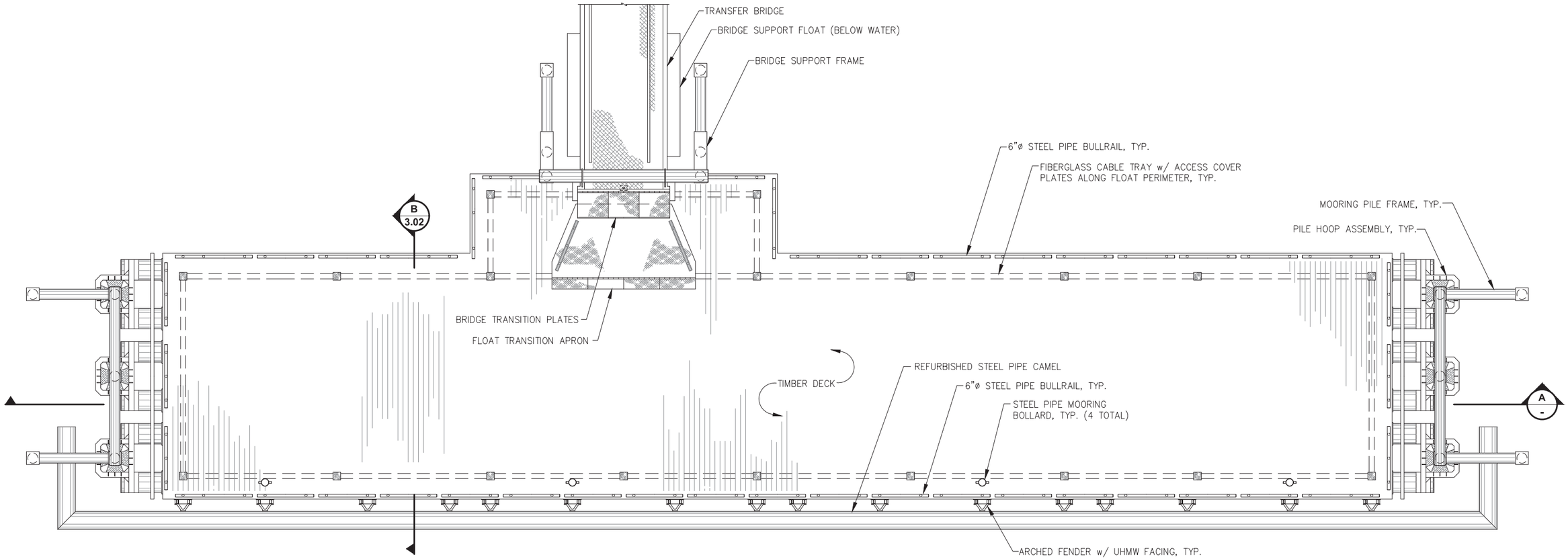
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

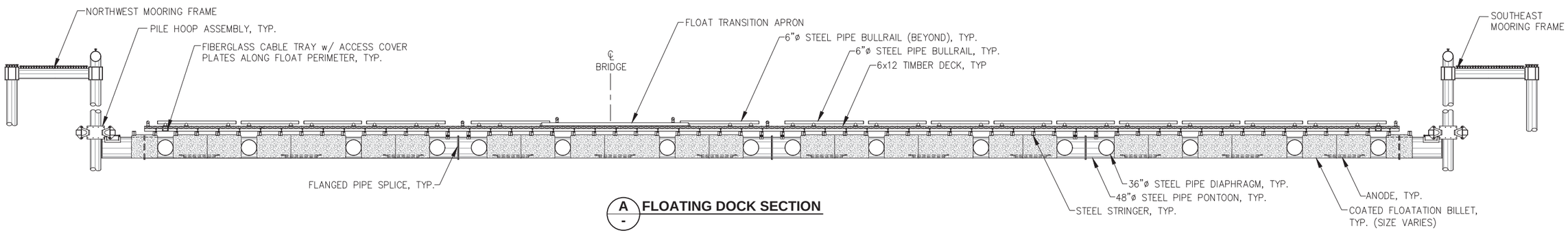
SHEET TITLE: **TRANSITION PLATE DETAILS**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S2.09



FLOATING DOCK PLAN



A - FLOATING DOCK SECTION

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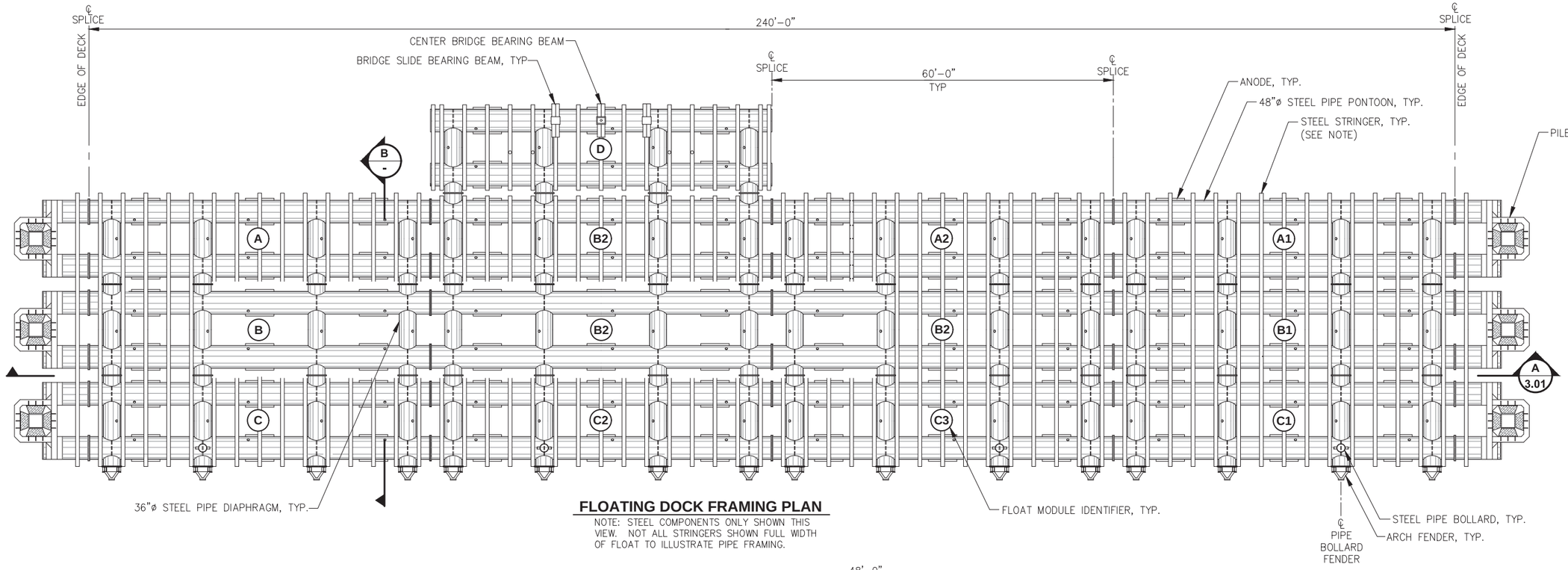
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE:
FLOATING DOCK PLAN AND SECTION

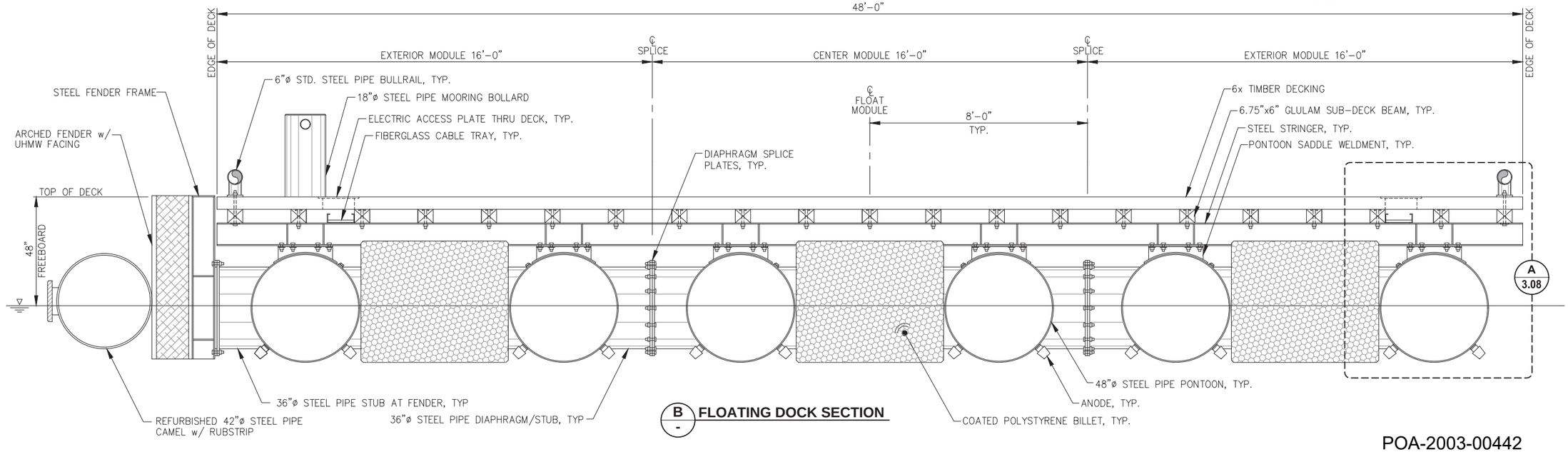
S3.01

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250



FLOATING DOCK FRAMING PLAN

NOTE: STEEL COMPONENTS ONLY SHOWN THIS VIEW. NOT ALL STRINGERS SHOWN FULL WIDTH OF FLOAT TO ILLUSTRATE PIPE FRAMING.



B - FLOATING DOCK SECTION

POA-2003-00442

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SCALE: NTS

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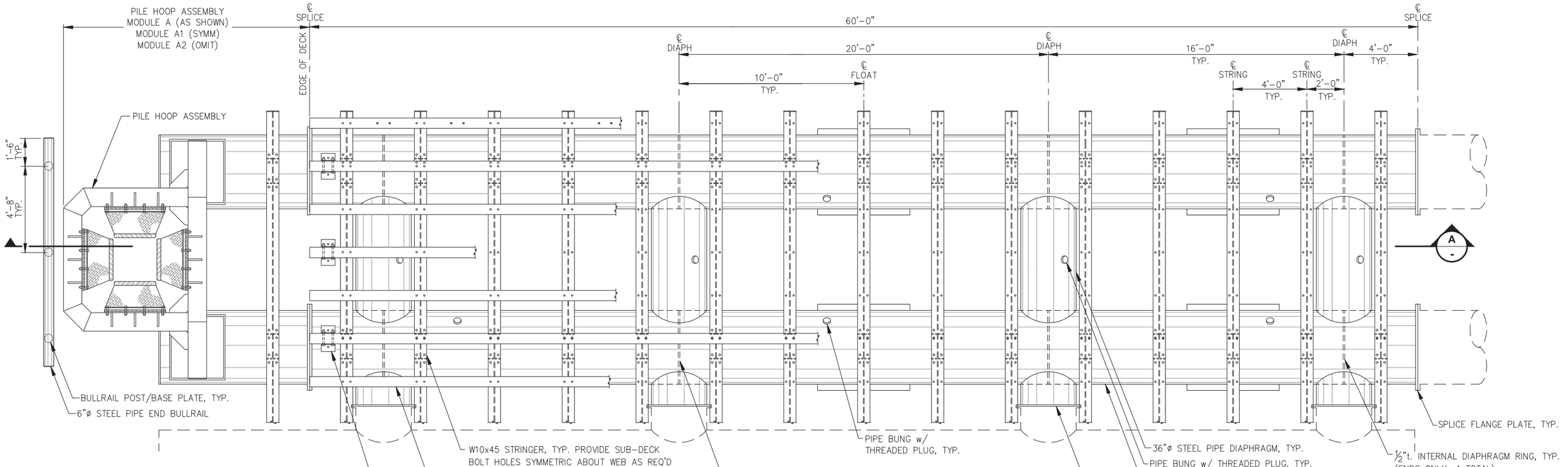
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE:
FLOATING DOCK FRAMING PLAN & TYPICAL SECTION

S3.02

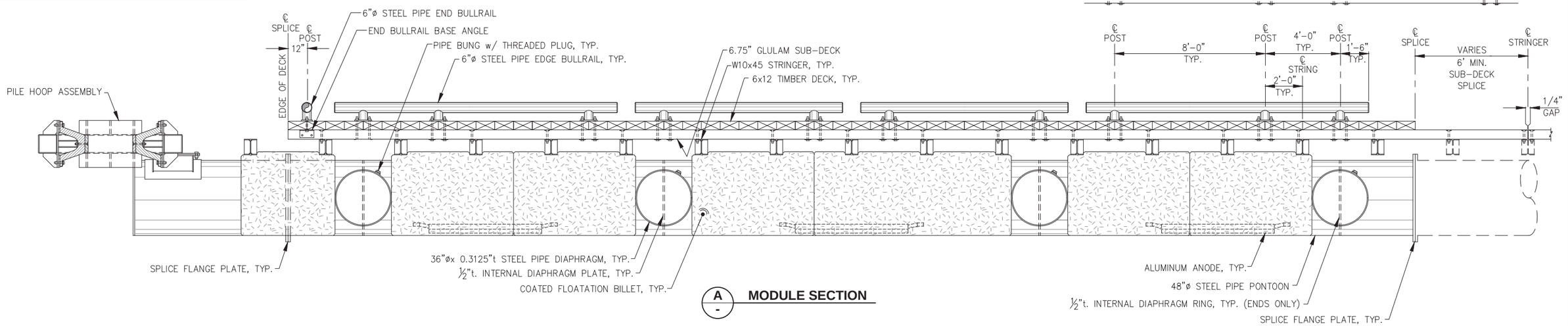
PND PROJECT NO.: 202101 C.A.N. NO.: AECC250



NOTES:
FLOAT MODULE "A" AS SHOWN.
FLOAT MODULE "A1" SYMMETRICAL.
FLOAT MODULE "A2"
- OMIT PILE HOOP ASSEMBLY
- OMIT END BULLRAIL
- DIAPHRAGM PIPE BUNGS SYMMETRICAL
- EDGE BULLRAIL MODIFIED AS SHOWN ON SECTION

MODULE "A", "A1" AND "A2" - PLAN

NOTE: TIMBER DECK, BULLRAIL AND FLOATATION BILLETS NOT SHOWN THIS VIEW FOR CLARITY.



A - MODULE SECTION

POA-2003-00442

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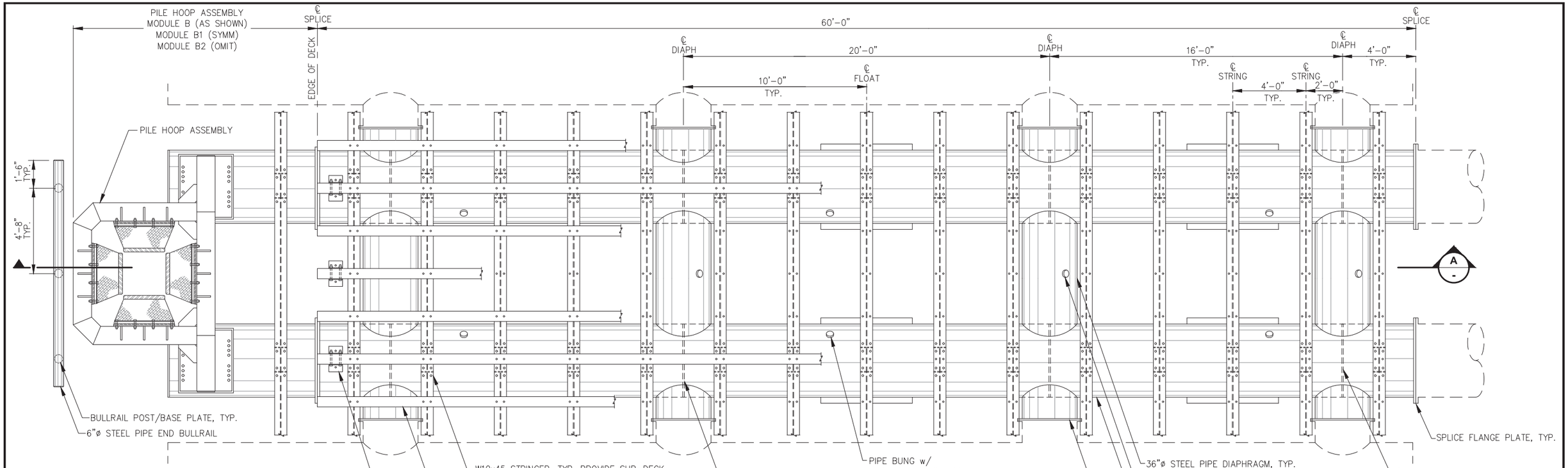
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: FLOAT MODULE "A", "A1" AND "A2"

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

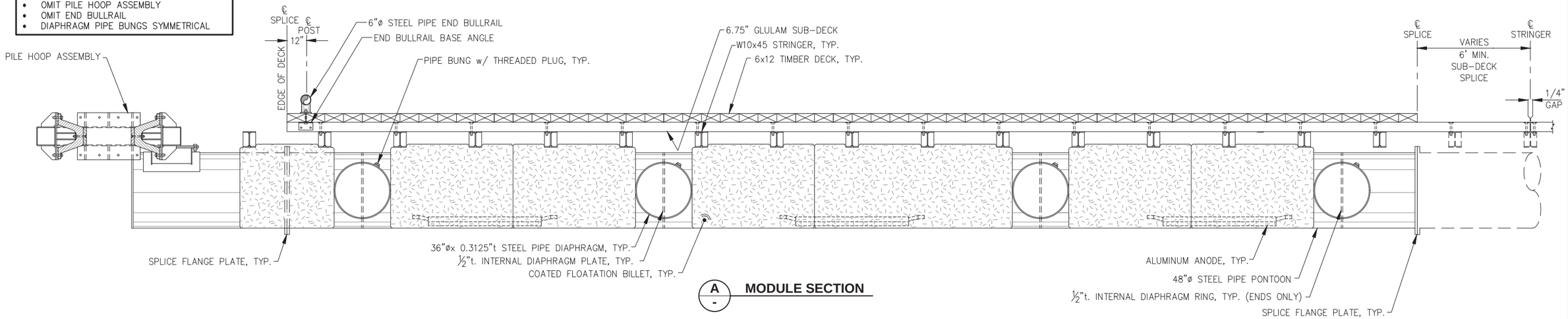
S3.03



MODULE "B", "B1" AND "B2" - PLAN

NOTE: TIMBER DECK, BULLRAIL AND FLOATATION BILLETS NOT SHOWN THIS VIEW FOR CLARITY.

NOTES:
FLOAT MODULE "B" AS SHOWN.
FLOAT MODULE "B1" SYMMETRICAL.
FLOAT MODULE "B2"
- OMIT PILE HOOP ASSEMBLY
- OMIT END BULLRAIL
- DIAPHRAGM PIPE BUNGS SYMMETRICAL



A - MODULE SECTION

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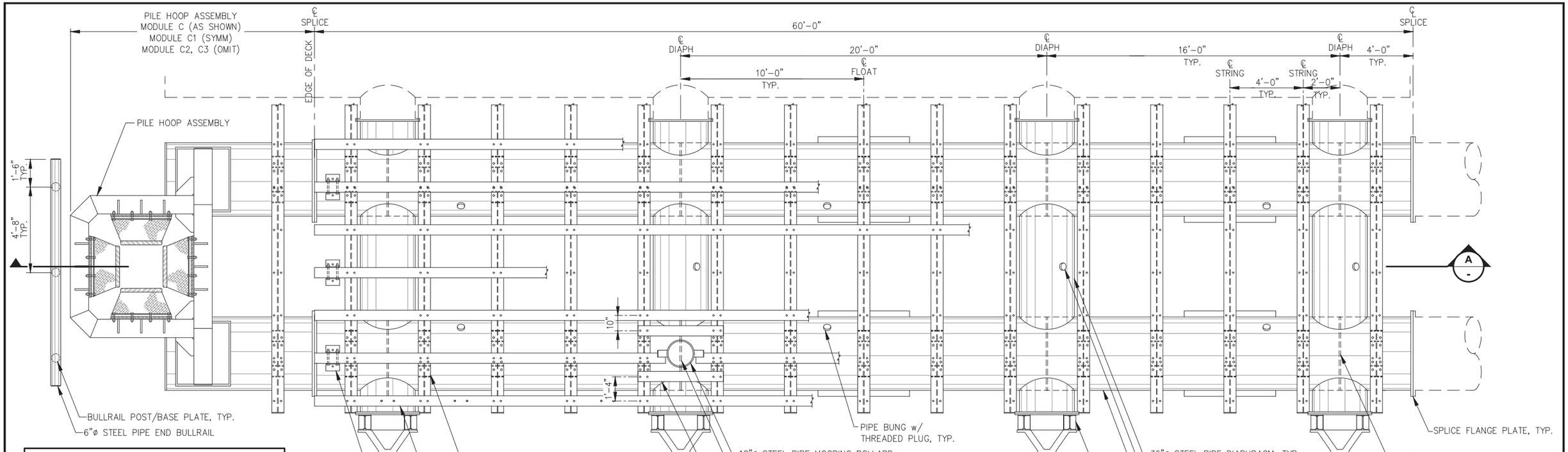
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: FLOAT MODULE "B", "B1", AND "B2"

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S3.04



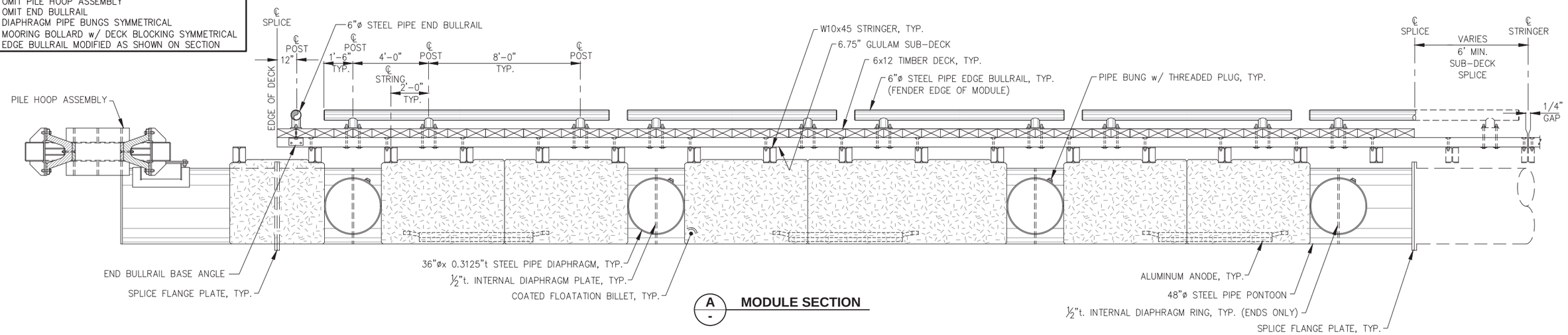
NOTES:

FLOAT MODULE "C" AS SHOWN.
FLOAT MODULE "C1" SYMMETRICAL.
FLOAT MODULE "C2"
- OMIT PILE HOOP ASSEMBLY
- OMIT END BULLRAIL
- DIAPHRAGM PIPE BUNGS SYMMETRICAL
- MOORING BOLLARD w/ DECK BLOCKING AS SHOWN
- EDGE BULLRAIL MODIFIED AS SHOWN ON SECTION

FLOAT MODULE "C3"
- OMIT PILE HOOP ASSEMBLY
- OMIT END BULLRAIL
- DIAPHRAGM PIPE BUNGS SYMMETRICAL
- MOORING BOLLARD w/ DECK BLOCKING SYMMETRICAL
- EDGE BULLRAIL MODIFIED AS SHOWN ON SECTION

MODULE "C", "C1","C2" AND "C3" - PLAN

NOTE: TIMBER DECK, BULLRAIL AND FLOATATION BILLETS NOT SHOWN THIS VIEW FOR CLARITY.



A
-
MODULE SECTION

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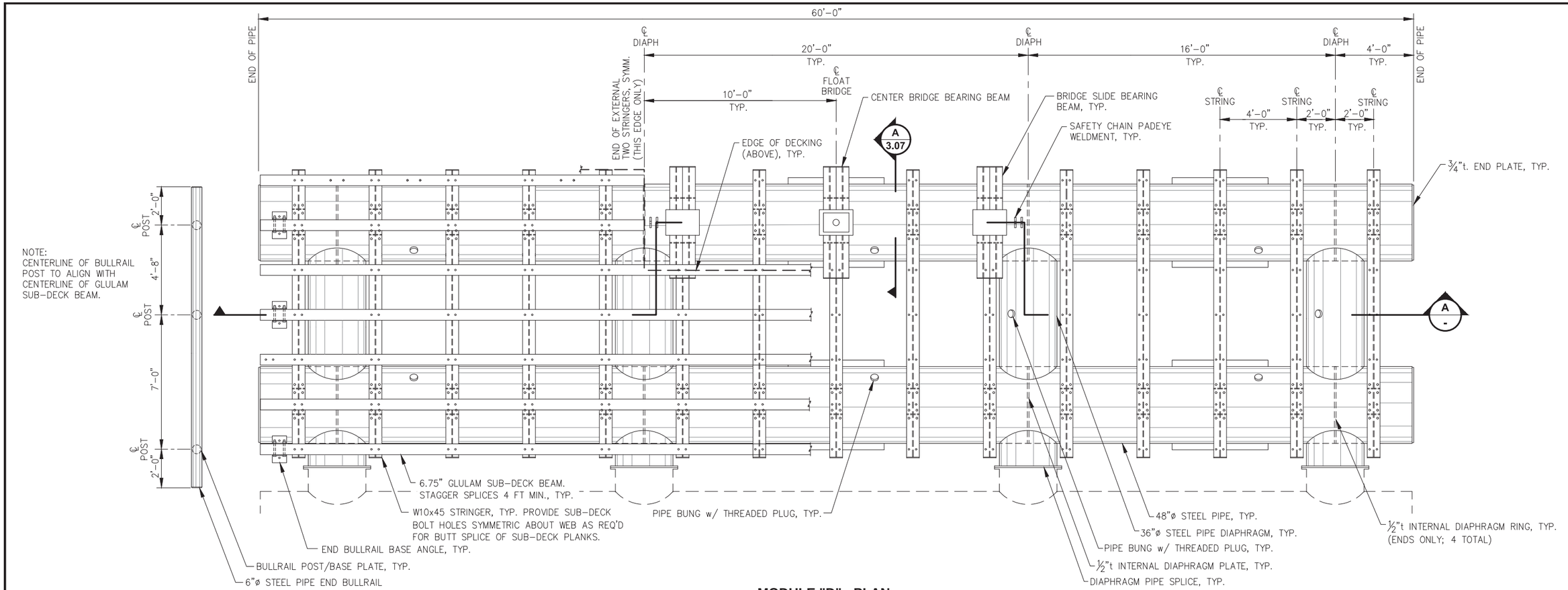
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: FLOAT MODULE "C", "C1", "C2" AND "C3"

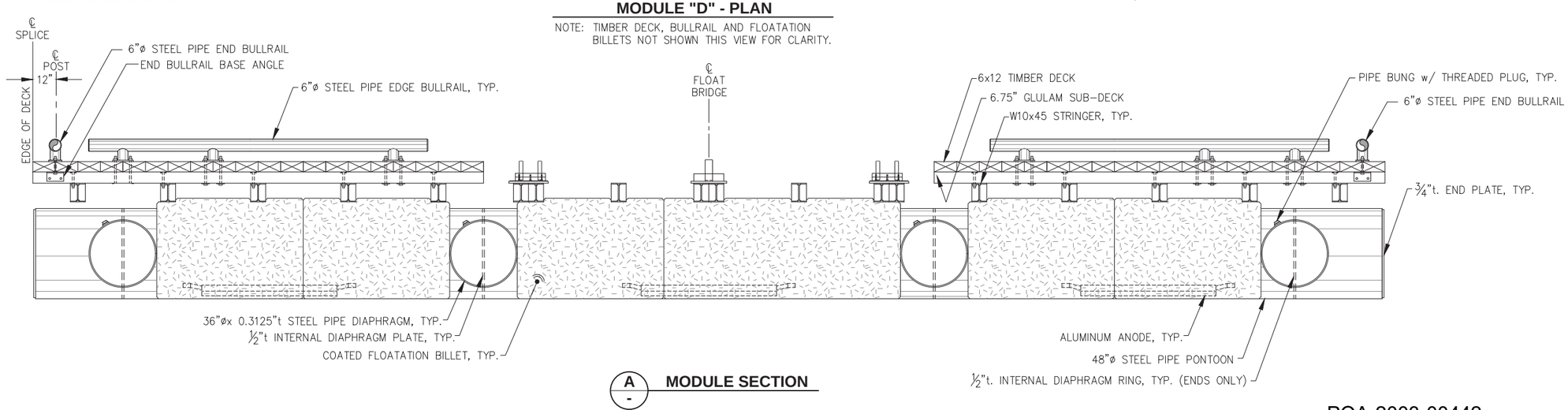
PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S3.05



MODULE "D" - PLAN

NOTE: TIMBER DECK, BULLRAIL AND FLOATATION BILLETS NOT SHOWN THIS VIEW FOR CLARITY.



A - MODULE SECTION

POA-2003-00442

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SCALE: NTS

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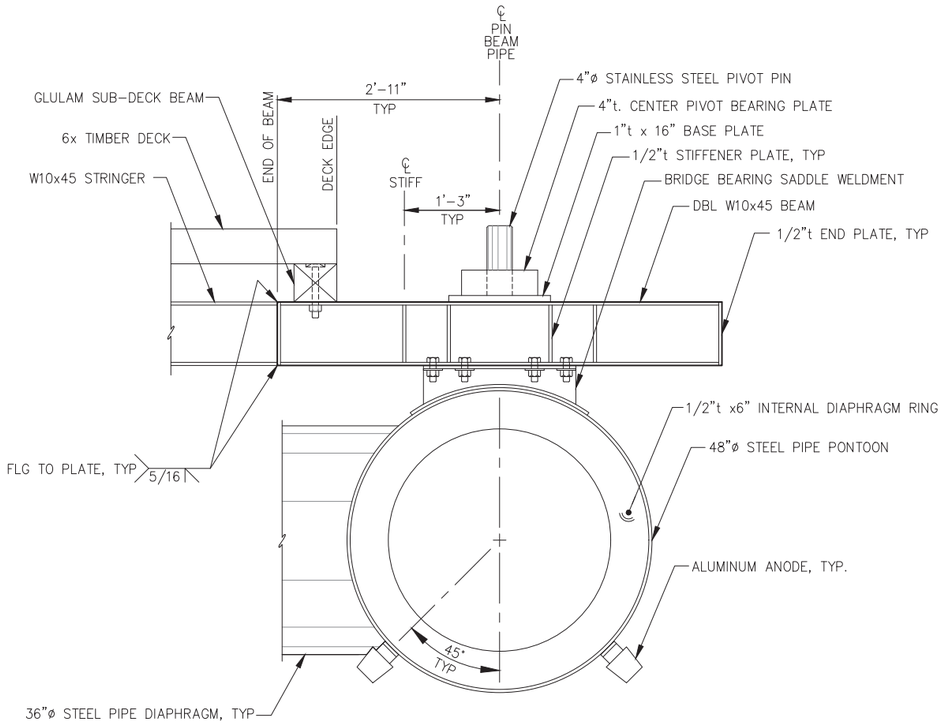
DATE: JUNE 15, 2021

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **FLOAT MODULE "D"**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

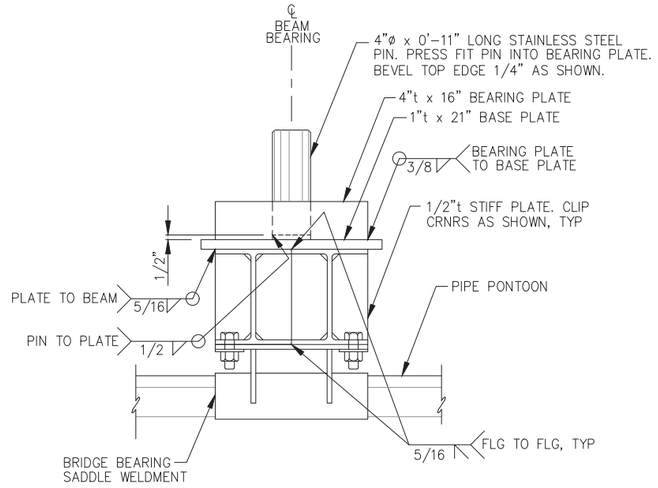
S3.06



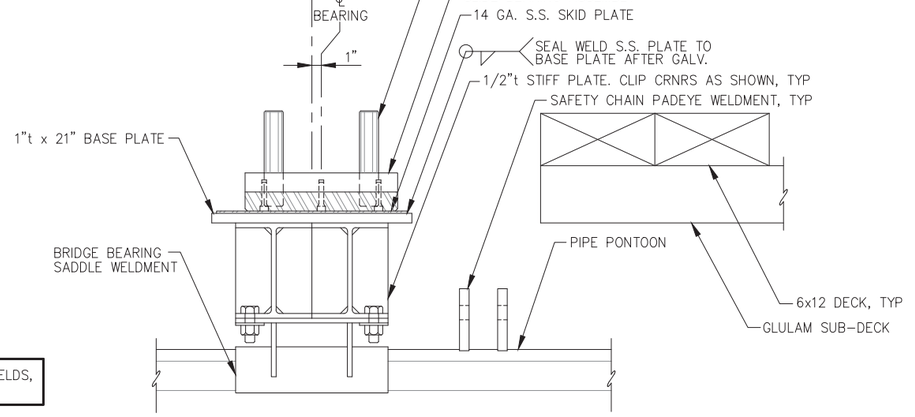
A / - **SECTION AT CENTER BRIDGE SUPPORT BEAM**

NOTE: SLIDE BEARING SECTION SIMILAR.

NOTE: ALL JOINTS SHALL BE SEAL WELDED w/ 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.



CENTER BEARING BEAM - SECTION



SLIDE BEARING BEAM - SECTION

NOTE: OPPOSITE SIDE SLIDE BEARING SYMMETRICAL ABOUT CENTER BEAM.

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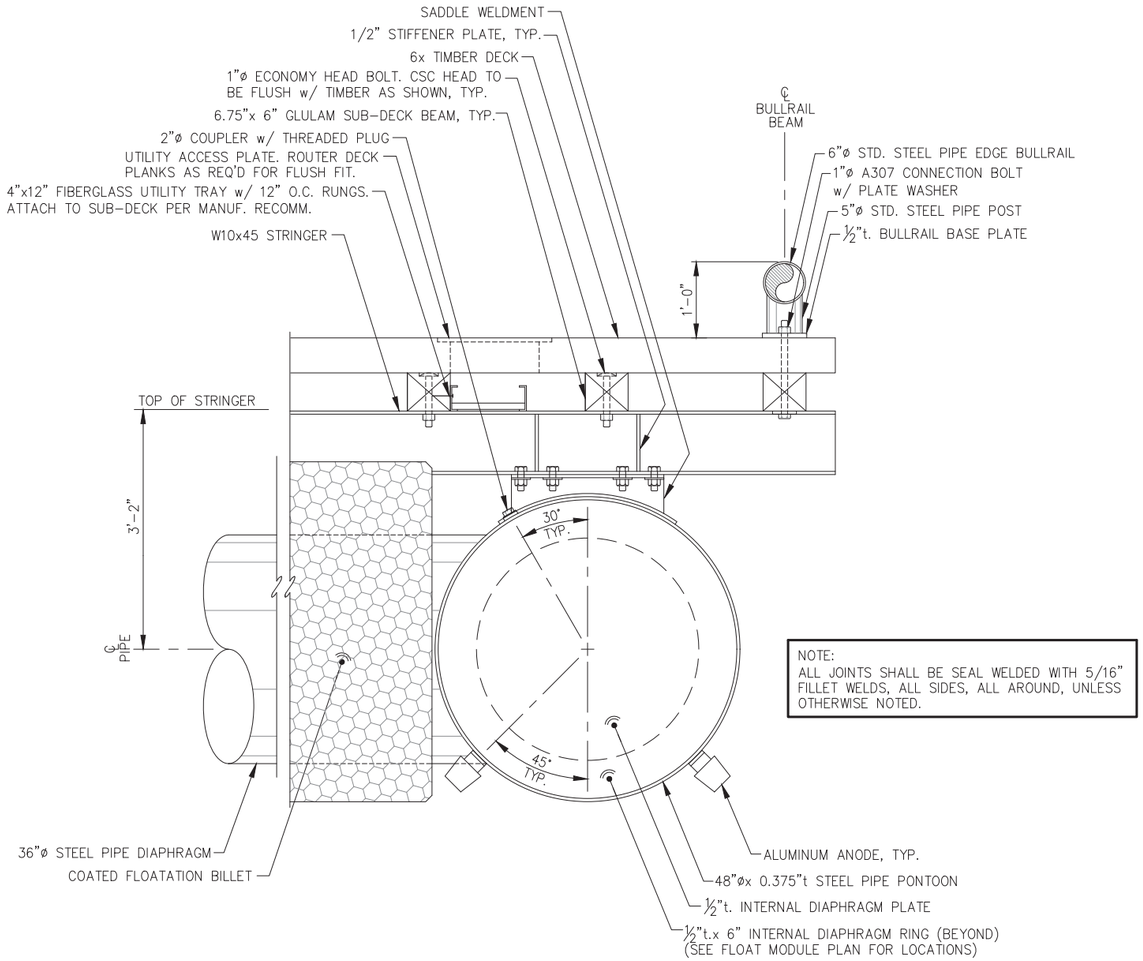
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **BRIDGE SUPPORT BEAM**

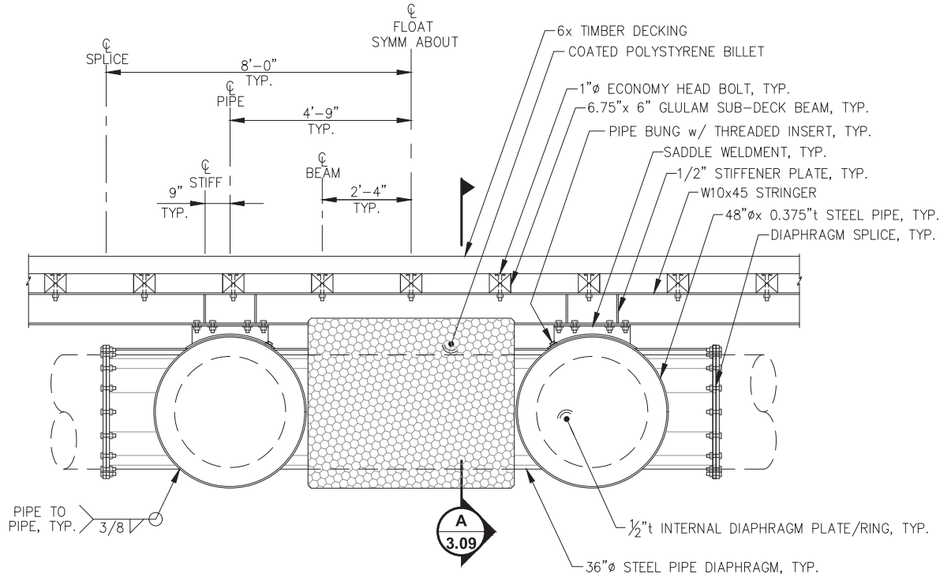
S3.07

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

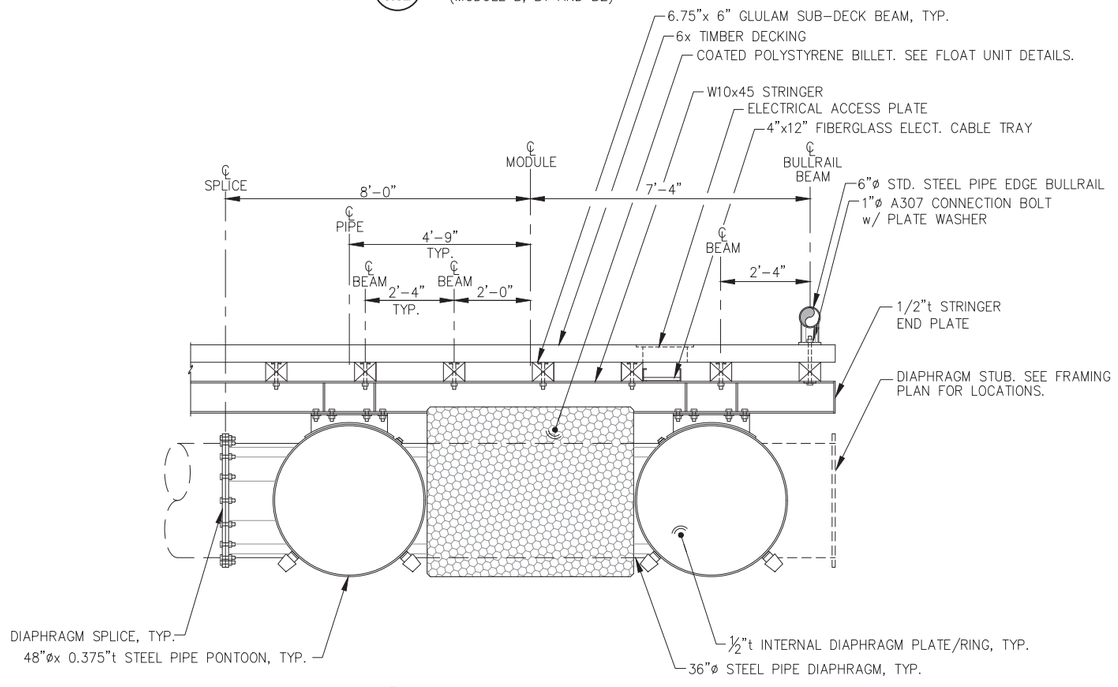


NOTE:
ALL JOINTS SHALL BE SEAL WELDED WITH 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.

A / - **TYPICAL SECTION**
(EXTERIOR EDGE OF MODULES A, C AND D)



B / 3.02 **TYPICAL SECTION**
(MODULE B, B1 AND B2)



C / 3.02 **TYPICAL SECTION**
NOTE: DETAILS NOT SHOWN SIMILAR TO CENTER MODULE.

POA-2003-00442

Ahtna Infrastructure & Technologies, LLC

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway Ste 100
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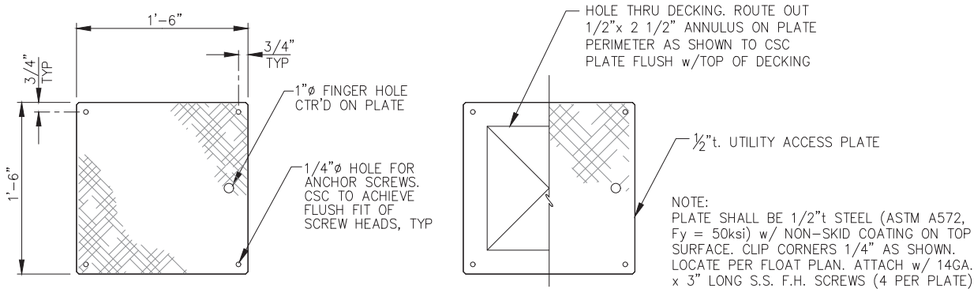
DESIGN: JLD CHECKED: JLD
DRAWN: WRB APPROVED: CRS
SCALE: NTS
DATE: JUNE 15, 2021

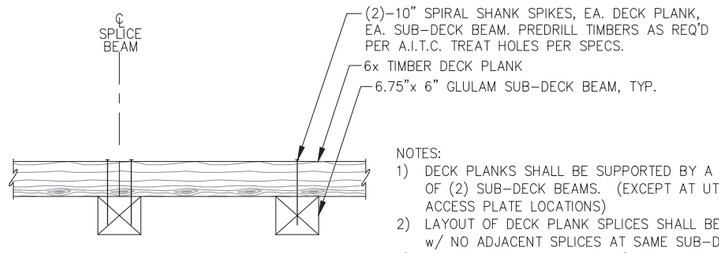
30% DESIGN SUBMITTAL

NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: TYPICAL SECTIONS
PND PROJECT NO.: 202101
C.A.N. NO.: AECC250
S3.08

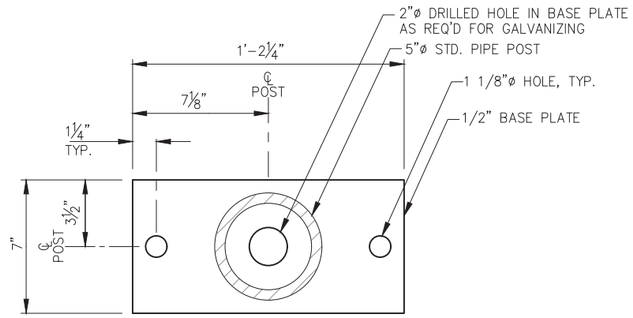


ELECTRICAL ACCESS PLATE - TYPE 1

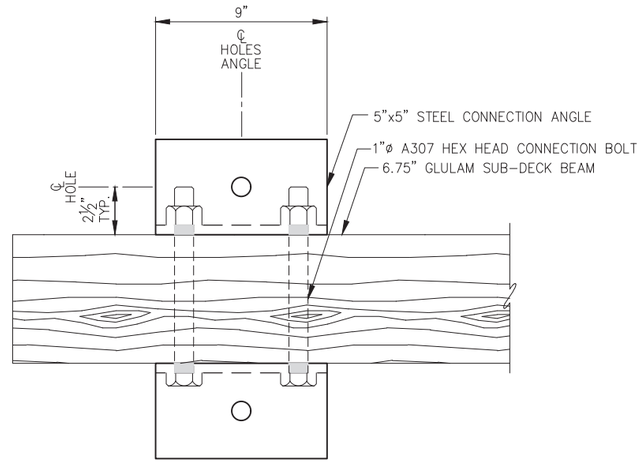


NOTES:
1) DECK PLANKS SHALL BE SUPPORTED BY A MINIMUM OF (2) SUB-DECK BEAMS. (EXCEPT AT UTILITY ACCESS PLATE LOCATIONS)
2) LAYOUT OF DECK PLANK SPLICES SHALL BE RANDOM w/ NO ADJACENT SPLICES AT SAME SUB-DECK BEAM.
3) OFFSET DECK SPIKES AS REQ'D TO MISS SUB-DECK CONNECTION BOLTS.

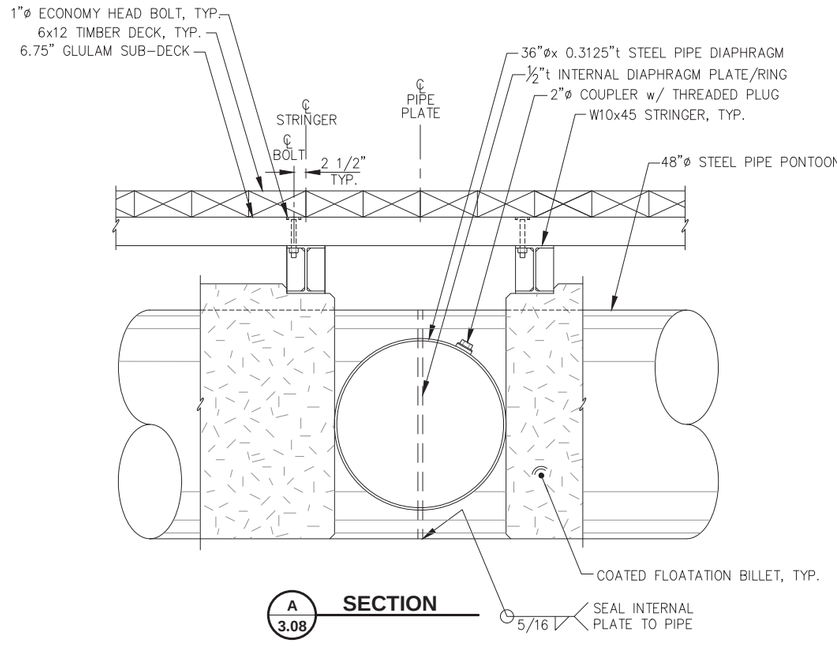
TYPICAL DECK CONNECTION



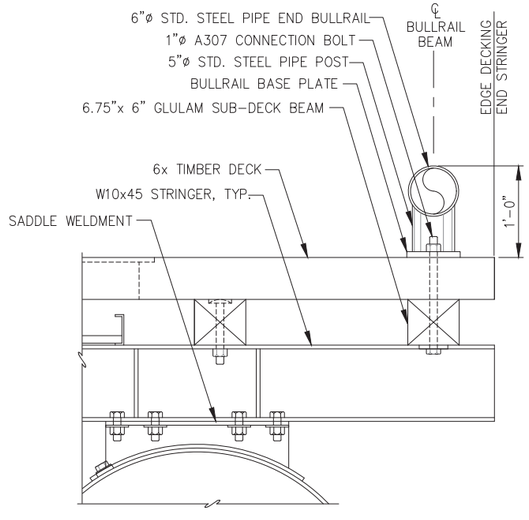
BULLRAIL BASE PLATE - PLAN



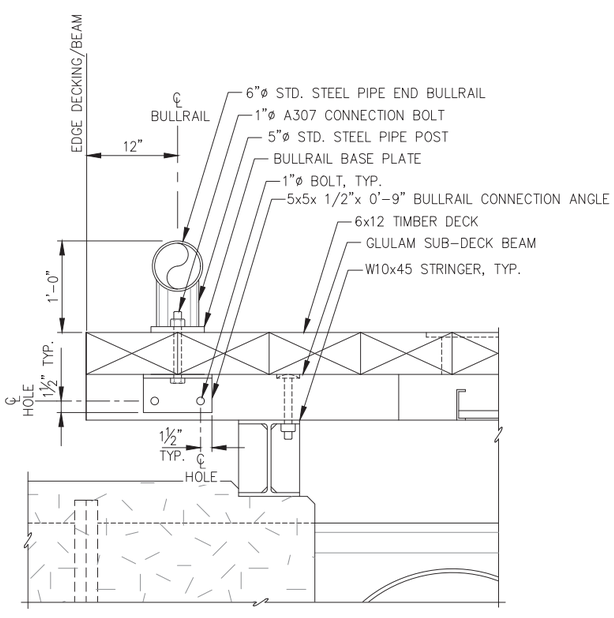
END BULLRAIL CONNECTION ANGLE - PLAN



A 3.08 **SECTION**



TYPICAL STEEL BULLRAIL - EDGE SECTION



TYPICAL STEEL BULLRAIL - END SECTION

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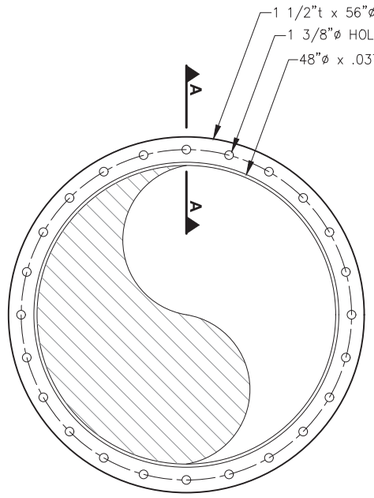
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **FLOATING DOCK DETAILS**

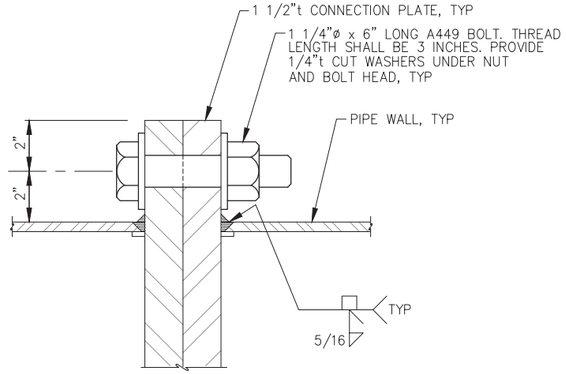
S3.09

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

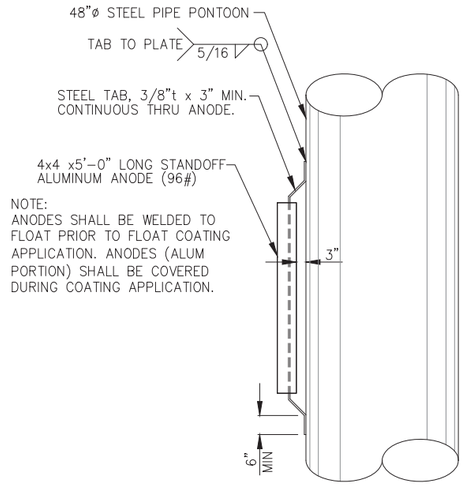


SPLICE CONNECTION PLATE

(BOLTED SPLICE CONNECTIONS FOR 48"ø PIPE PONTOONS)



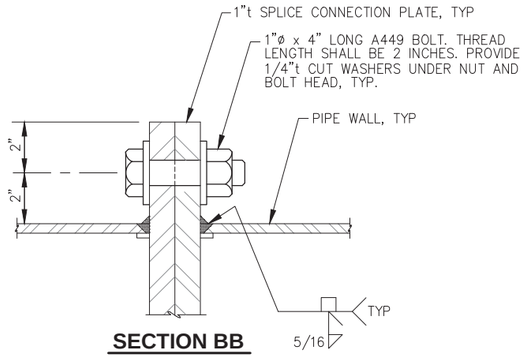
SECTION AA



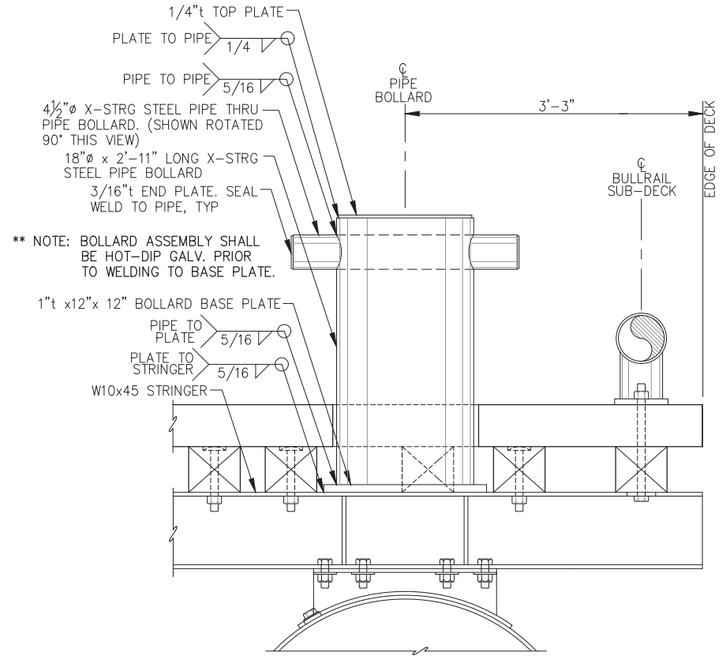
ANODE DETAIL

SPLICE CONNECTION PLATE

(BOLTED SPLICE CONNECTIONS FOR 36"ø PIPE DIAPHRAGMS)



SECTION BB



TYPICAL SECTION - BOLLARD

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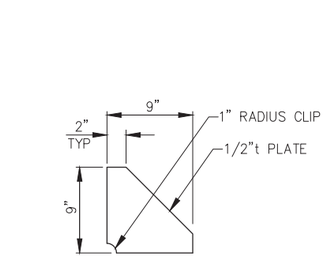
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

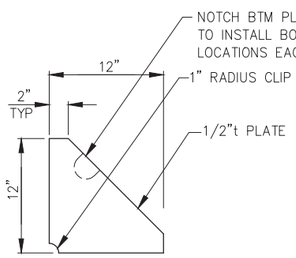
SHEET TITLE: **FLOATING DOCK DETAILS**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

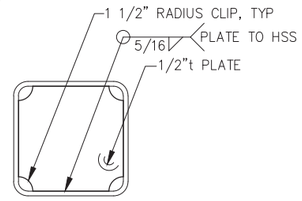
S3.10



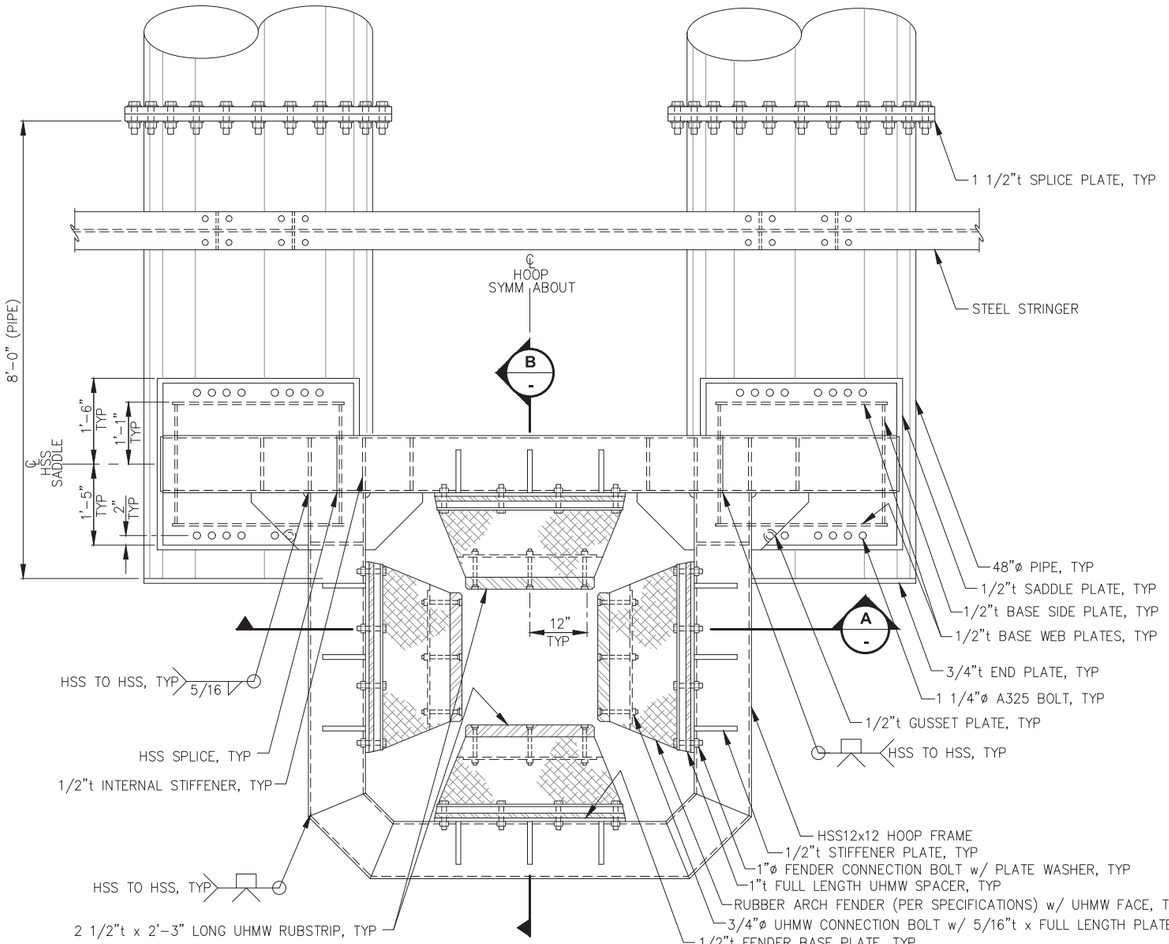
FENDER STIFFENER PLATE
(24 PER PILE HOOP)



GUSSET PLATE
(8 PER PILE HOOP)

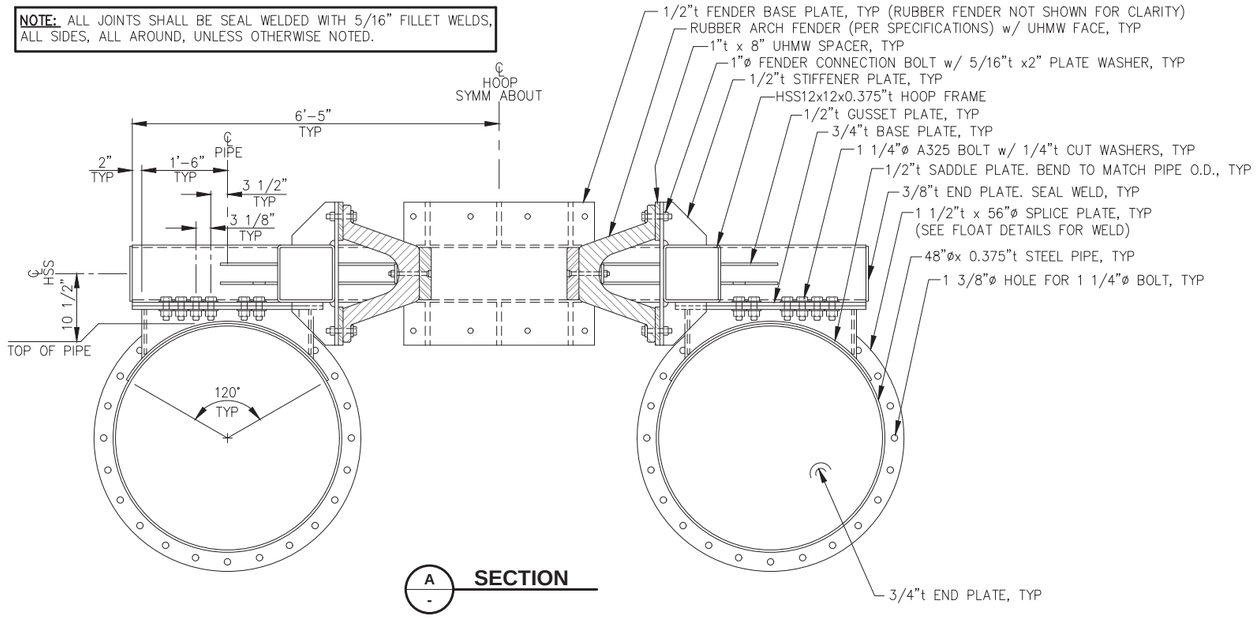


INTERNAL STIFFENER PLATE
(10 PER PILE HOOP)

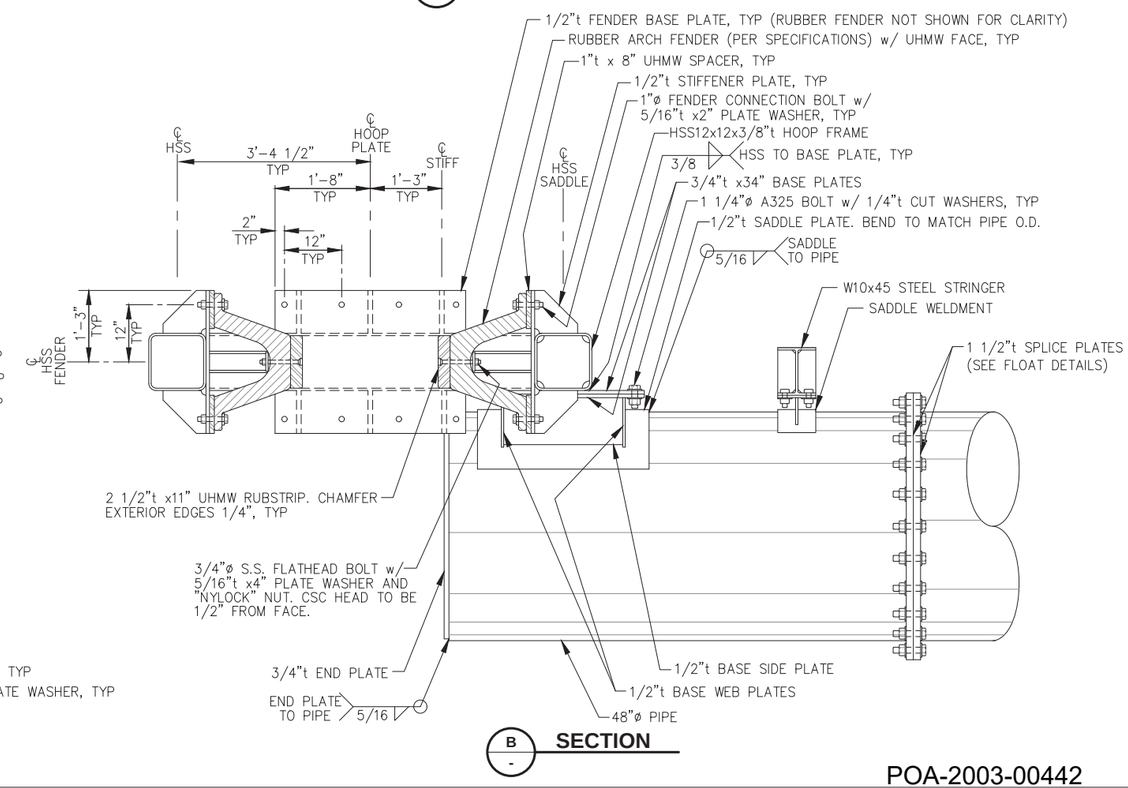


PILE HOOP - PLAN

NOTE: ALL JOINTS SHALL BE SEAL WELDED WITH 5/16" FILLET WELDS, ALL SIDES, ALL AROUND, UNLESS OTHERWISE NOTED.



A - SECTION



B - SECTION

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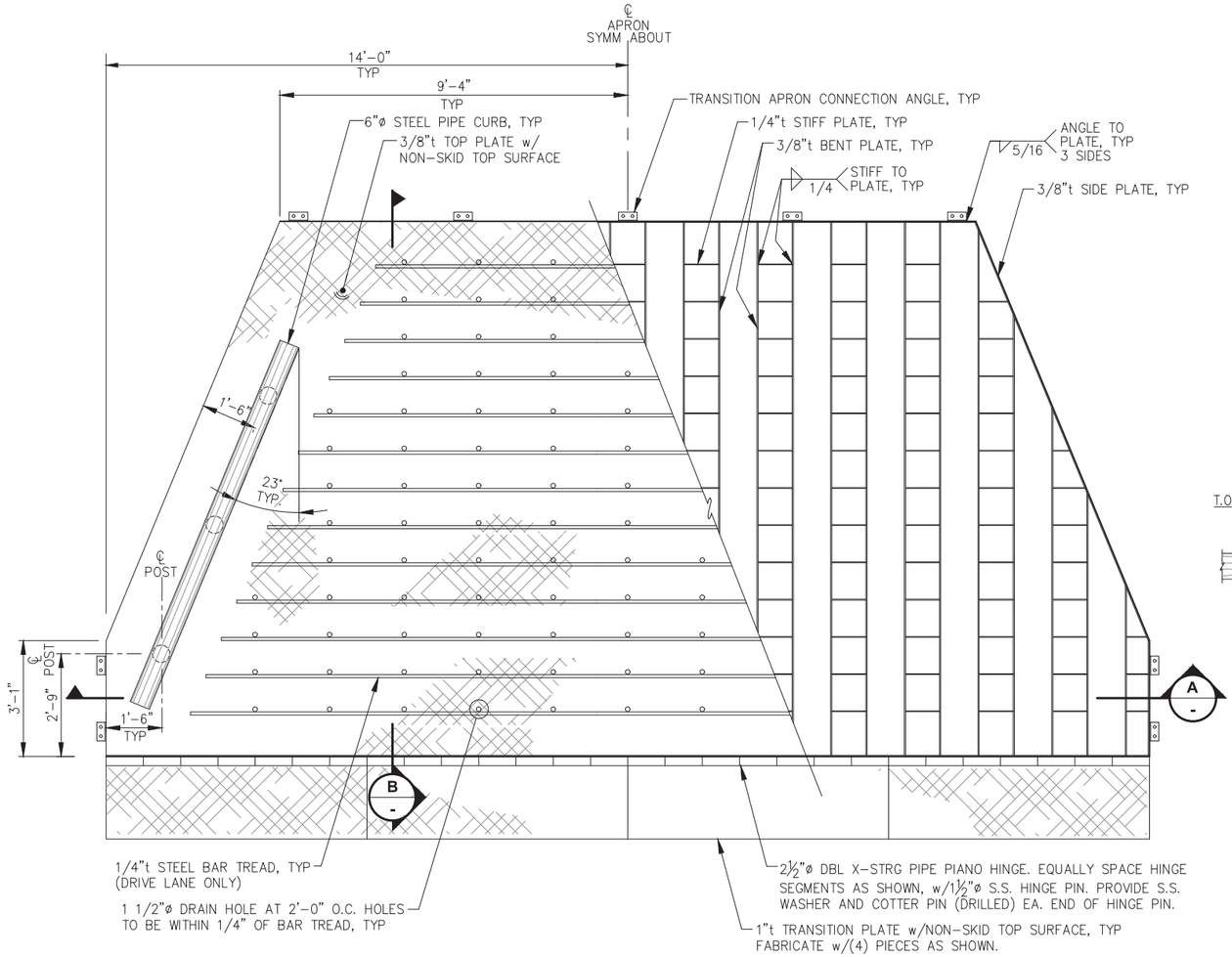
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

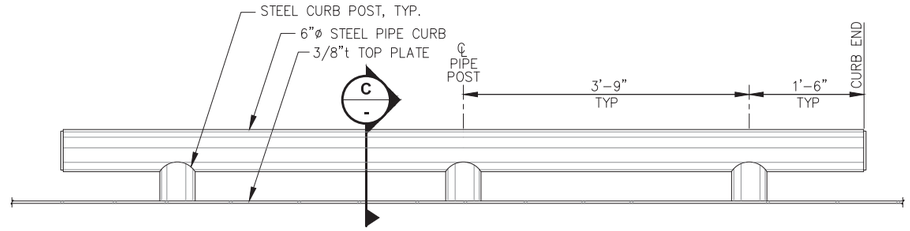
SHEET TITLE: **PILE HOOPS**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

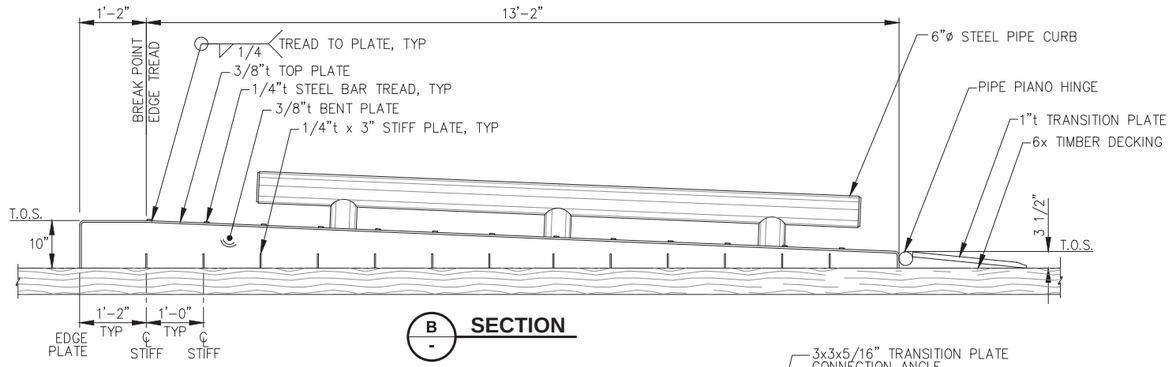
S3.11



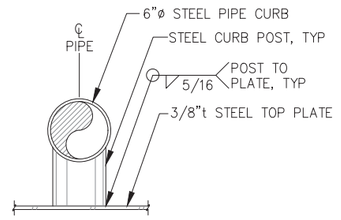
TRANSITION APRON - PLAN



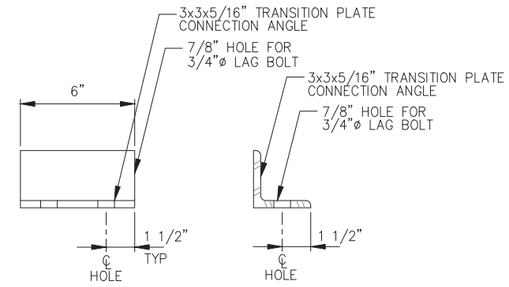
STEEL CURB



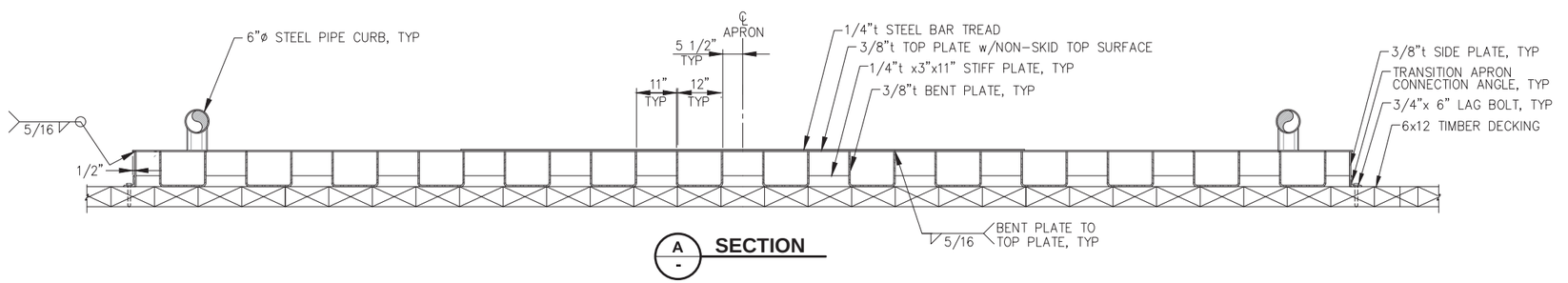
B SECTION



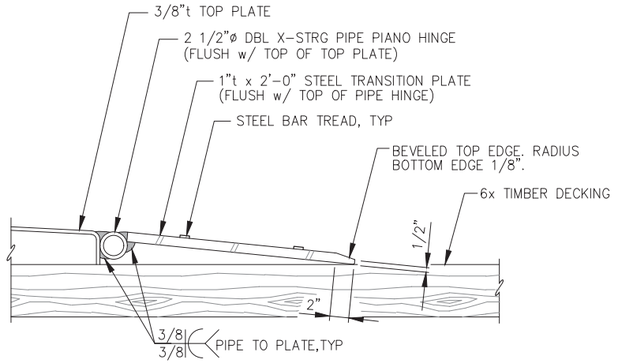
C SECTION



TRANSITION APRON CONNECTION ANGLE



A SECTION



TRANSITION PLATE

POA-2003-00442

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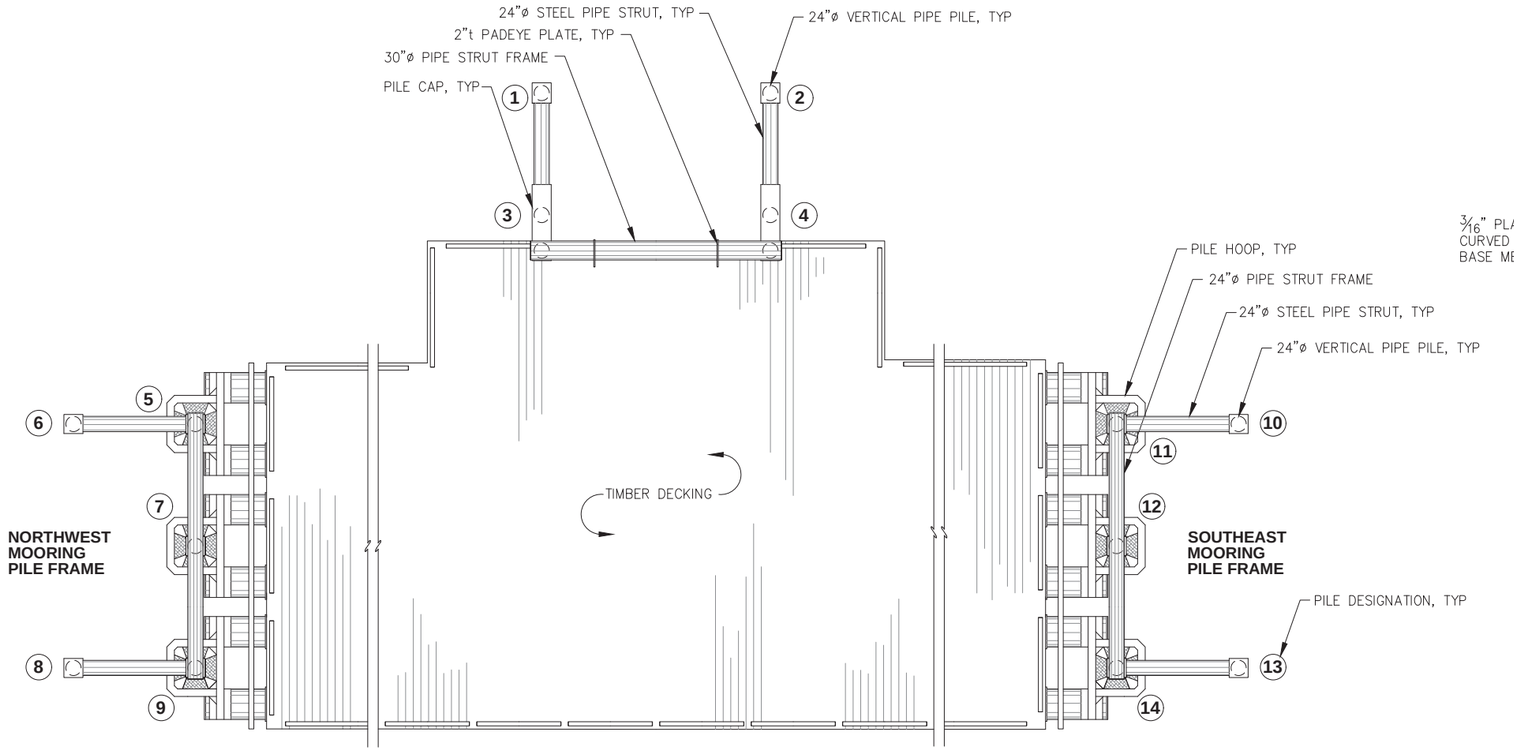
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: FLOATING DOCK TRANSITION APRON

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

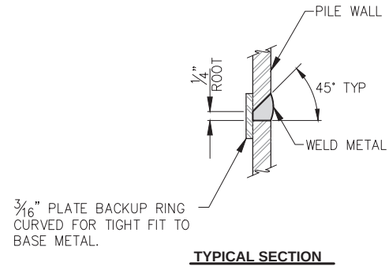
S3.12



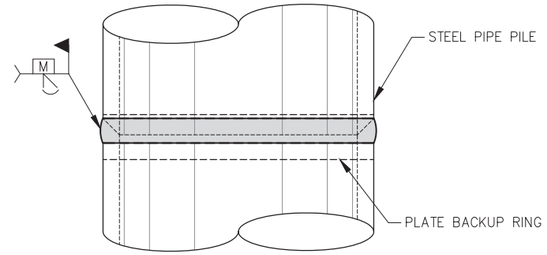
PILE LAYOUT - PLAN

FLOATING DOCK PILE SCHEDULE								MIN.
PILE NO.	M.L. EL	B.R. EL	SOCKET	TIP EL.	C.O. EL.	LENGTH	CONTIN.	SUPPLY
1	-19	-29	20	-49	34	83	5	90
2	-18	-28	20	-48	34	82	5	90
3	-23	-33	20	-53	34	87	5	90
4	-22	-32	20	-52	34	86	5	90
5	-34	-44	20	-64	30	94	5	100
6	-34	-44	20	-64	30	94	5	100
7	-40	-50	20	-70	30	100	5	110
8	-46	-56	20	-76	30	106	5	110
9	-45	-55	20	-75	30	105	5	110
10	-27	-37	20	-57	30	87	5	90
11	-26	-36	20	-56	30	86	5	90
12	-32	-42	20	-62	30	92	5	100
13	-38	-48	20	-68	30	98	5	100
14	-36	-46	20	-66	30	96	5	100
				TOTAL PILE LENGTH (L.F.)				1,370

NOTE: PILE SCHEDULE SHOWN IS PRELIMINARY ONLY AND WILL BE UPDATED FOLLOWING GEOTECHNICAL INVESTIGATION.



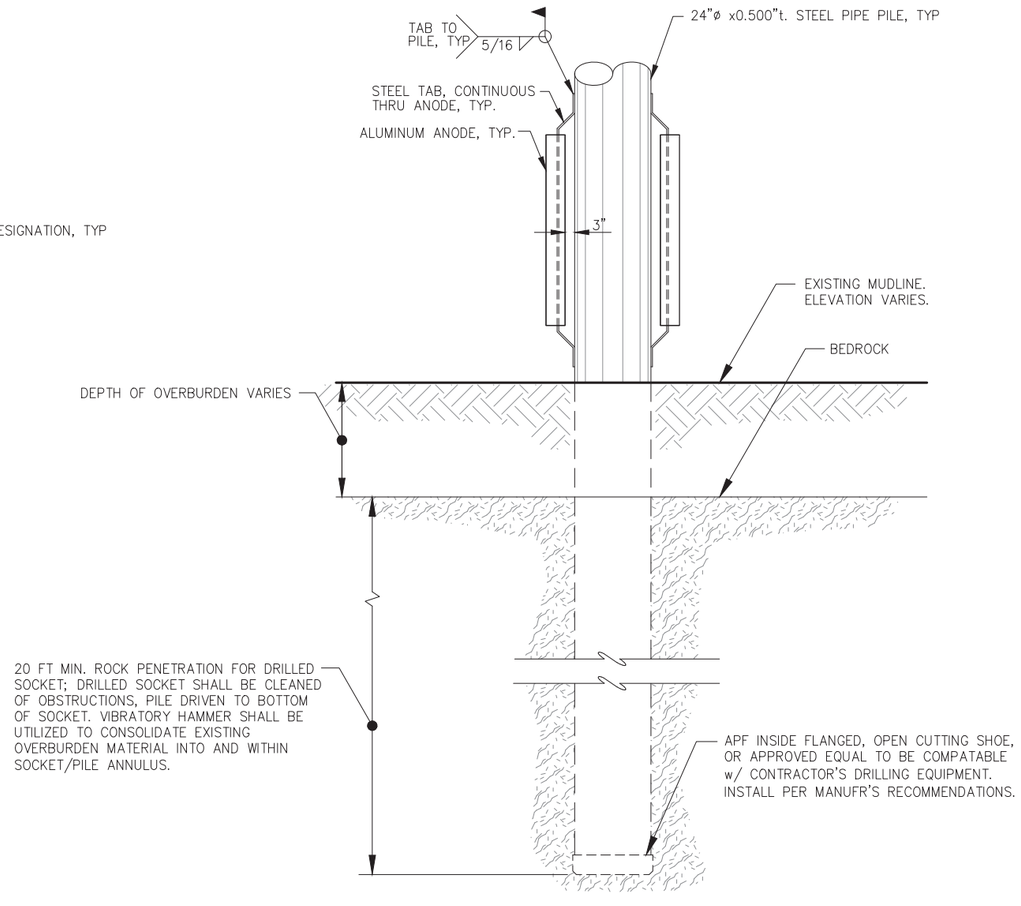
TYPICAL SECTION



ELEVATION

TYPICAL PILE SPLICE WELD

(TYPICAL FOR ALL PIPE PILE SPLICES)



SOCKETED MOORING PILE

(BEDROCK CONDITIONS)

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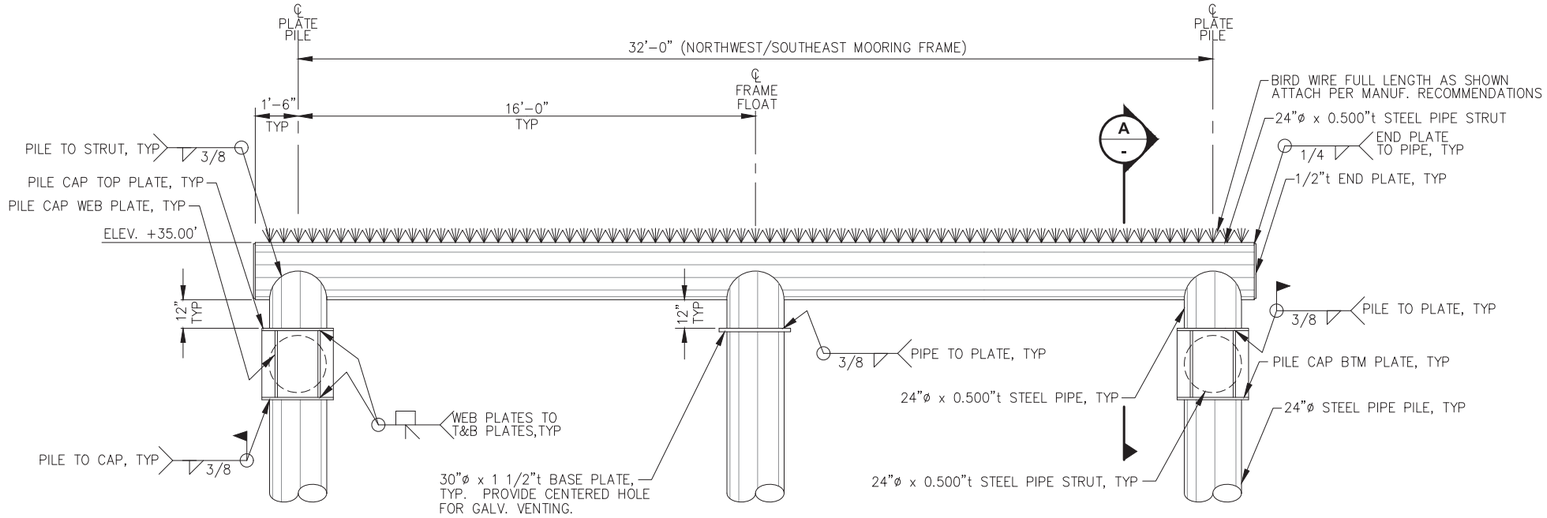
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

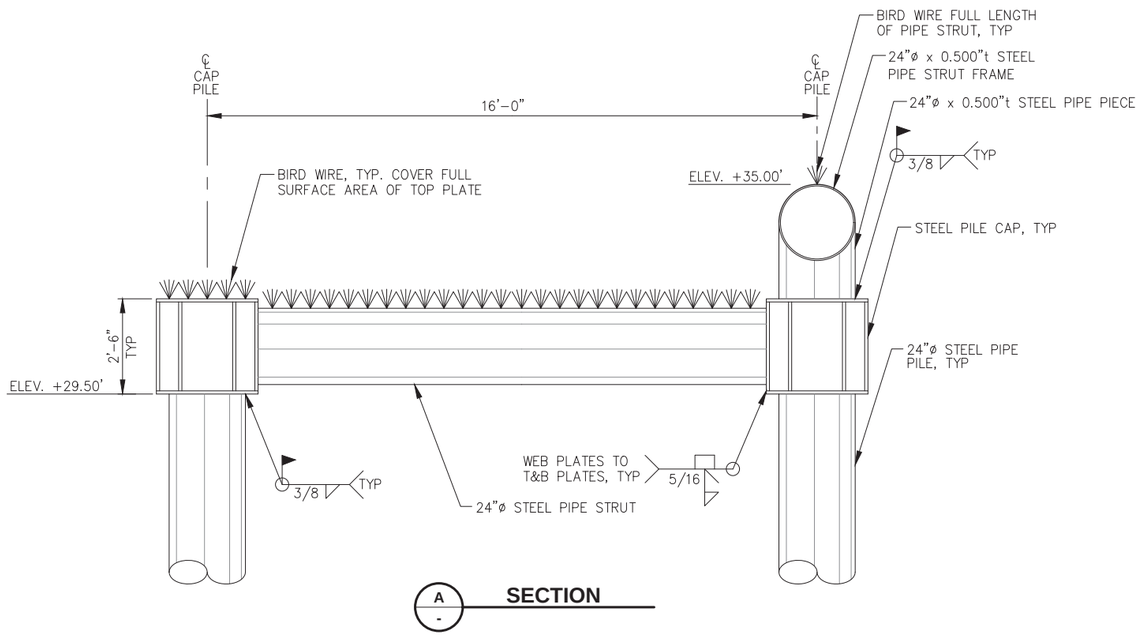
SHEET TITLE: PILE SCHEDULE AND PILE DETAILS

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

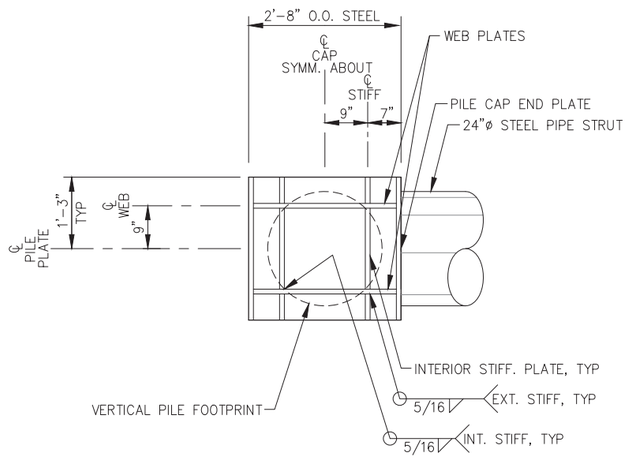
S3.13



EAST/WEST MOORING FRAME - ELEVATION



A - SECTION



PILE CAP A - BOTTOM PLATE PLAN

NOTE: ALL PLATE t=1" UNLESS OTHERWISE NOTED.

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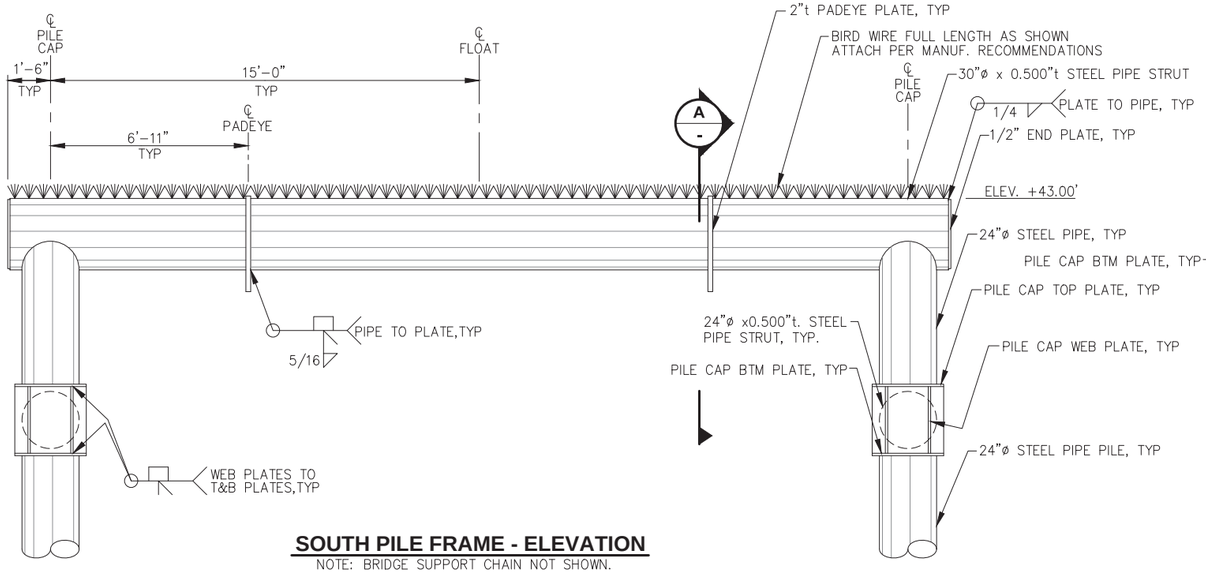
NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **NW / SE MOORING FRAME DETAILS**

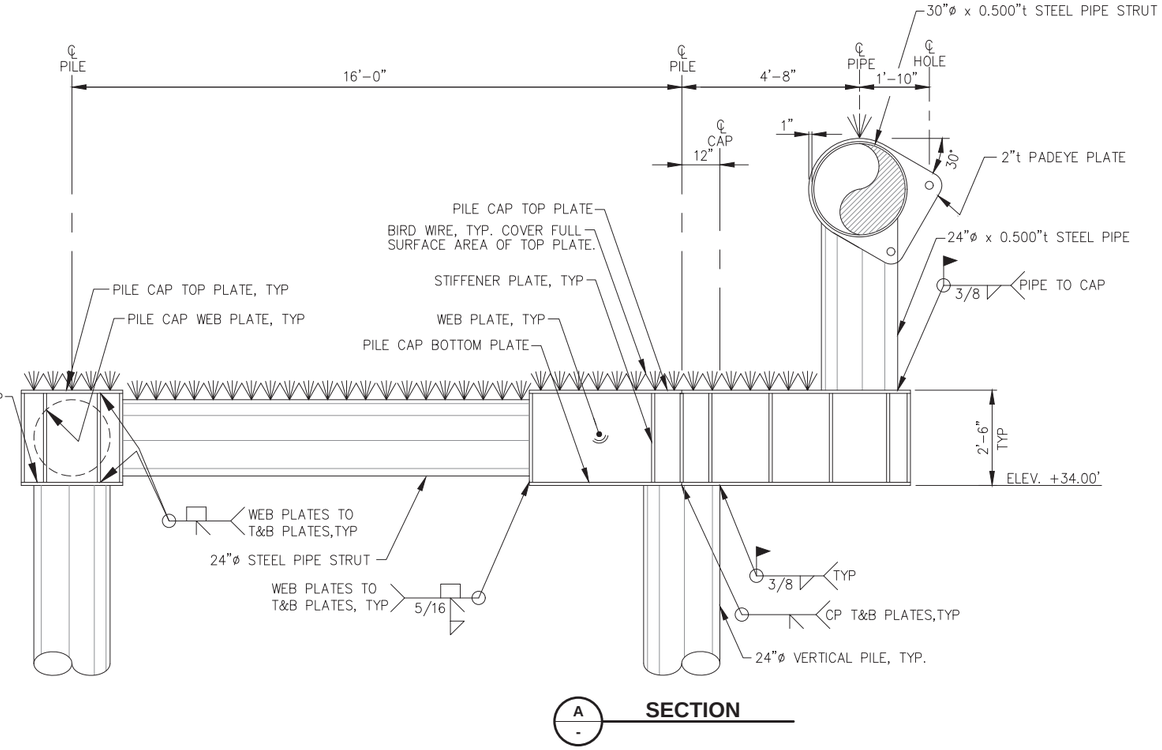
PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S3.14



SOUTH PILE FRAME - ELEVATION

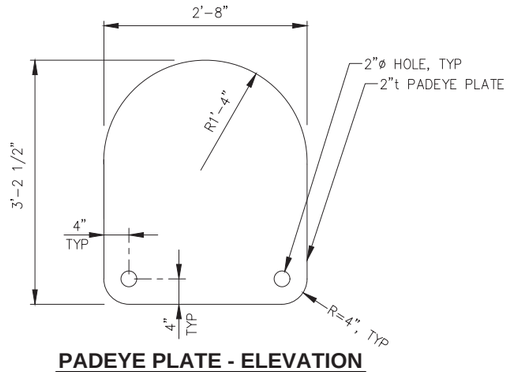
NOTE: BRIDGE SUPPORT CHAIN NOT SHOWN.



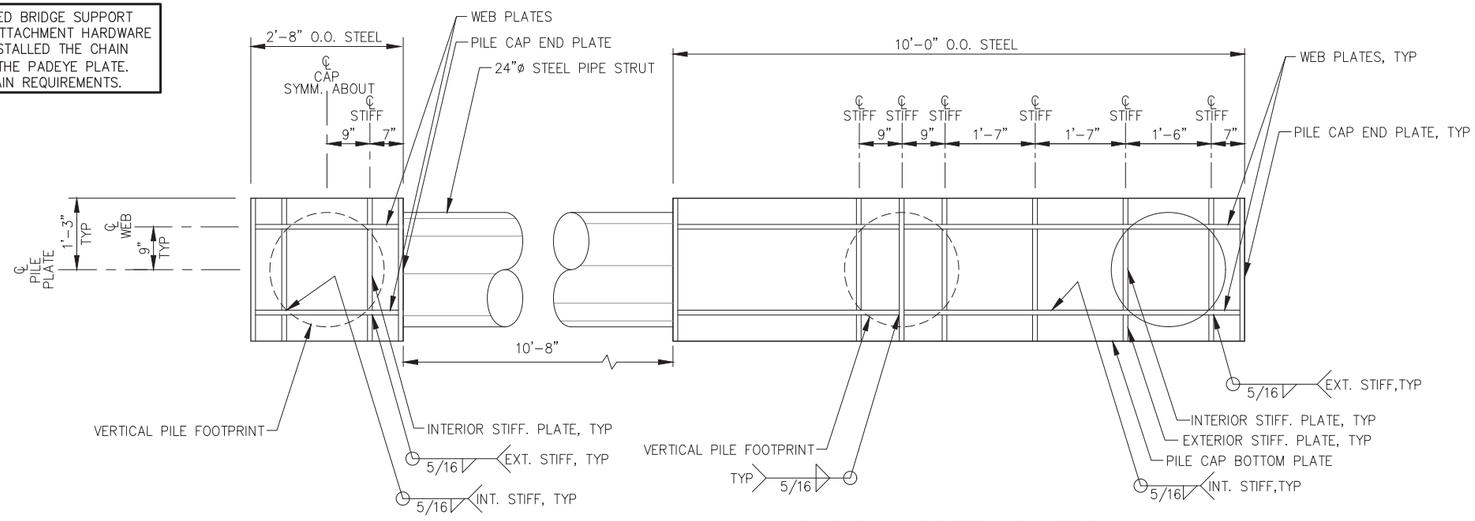
A -

SECTION

NOTE: SUPPLY AND INSTALL 20 LF OF HOT-DIP GALVANIZED BRIDGE SUPPORT CHAIN INCLUDING SHACKLES AND MISCELLANEOUS ATTACHMENT HARDWARE AT EACH MOORING FRAME PADEYE PLATE. WHEN INSTALLED THE CHAIN SHALL FORM A LOOP BETWEEN EACH 2"ø HOLE IN THE PADEYE PLATE. SEE SPECIFICATIONS SECTION 02894 FOR FINAL CHAIN REQUIREMENTS.



PADEYE PLATE - ELEVATION



PILE CAP - BOTTOM PLATE PLAN

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NOAA KETCHIKAN HOME PORT RECAPITALIZATION

SHEET TITLE: **NE MOORING FRAME DETAILS**

PND PROJECT NO.: 202101 C.A.N. NO.: AECC250

S3.15