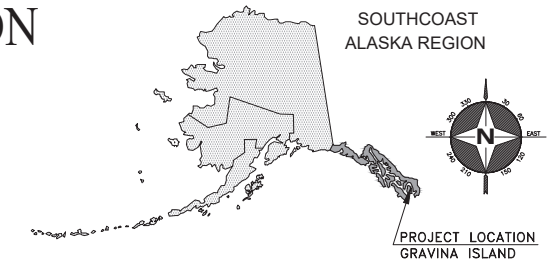
NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	G01	89

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES



TIDAL DATA	
EHW	+21.3
HTL	+19.7'
MHW	+14.6'
MLLW	0.0'
ELW	-5.3'

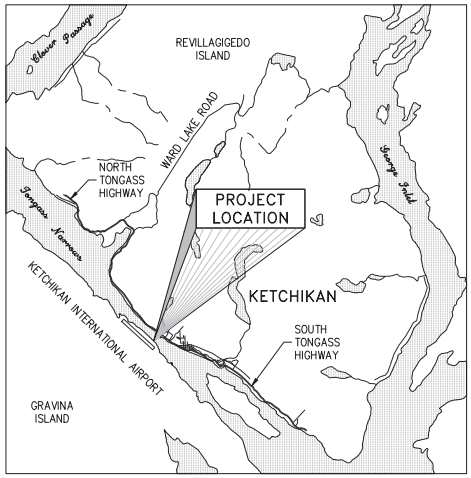
THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:

G-10.20	G-05.10W	G-14.00
G-30.01	L-23.01	S-00.11
S-01.01	S-05.01	S-20.10
S-30.04	S-32.00	U-03.01
D-20.05		

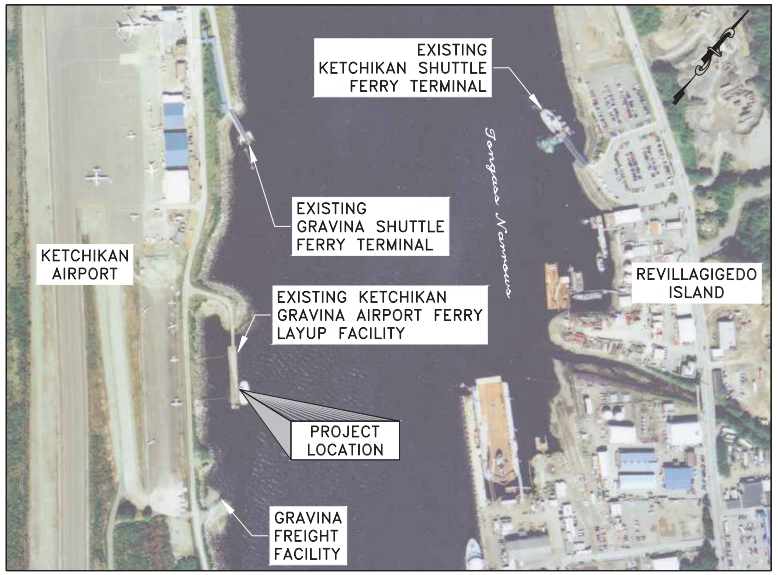
PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

PROJECT DESIGNATION SFHWY00152/0952018

As-Builts
Contractor: Pacific Pile & Marine, LP
Project Engineer: Patty Lont
Start Date: June 1, 2021
End Date: May 2, 2024



VICINITY MAP



SITE MAP

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

DIGITAL SIGNATURE:

THIS DRAWING SET WAS CREATED AS AN ELECTRONIC DOCUMENT. IF THE ELECTRONIC DOCUMENT DOES NOT INCLUDE A VERIFIABLE DIGITAL SIGNATURE IN THE BOX ABOVE, PLEASE CONTACT THE ENGINEER OF RECORD FOR THE ORIGINAL CERTIFIED ELECTRONIC DOCUMENT.

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA 49TH Alan M. Johnson SE 141129 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TITLE SHEET

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-G01.dwg | DATE | 10/14/2024 5:00 | LAYOUT | G01 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00152/0952018	2019	G02	88

SHEET INDEX

SHEET NO.	DESCRIPTION
G01	TITLE SHEET
G02	SHEET INDEX
G03	ESTIMATE OF QUANTITIES
G04	ABBREVIATIONS AND GENERAL NOTES
C01	PROJECT CONTROL
C02	EXISTING SITE AND DEMOLITION PLAN
C03	INVASIVE SPECIES SITE PLAN
C04	NEW SITE PLAN
C05	ACCESS ROAD PLAN AND PROFILE
C06	ACCESS ROAD SECTIONS
C07	RETAINING AND GUARDRAIL WALL DETAILS
C08	GRADING PLAN
C09	RIPRAP SECTIONS
C10	CONCRETE WING WALL DETAILS
T01	TRANSFER BRIDGE AT HOWL AND LOWL
T02	TRANSFER BRIDGE PLAN AND ELEVATION
T03	TRANSFER BRIDGE SECTIONS
T04	TRANSFER BRIDGE SECTION DETAILS
T05	TRANSFER BRIDGE END DETAILS
T06	TRANSFER BRIDGE BRIDGE DECK
T07	TRANSFER BRIDGE TRANSITION PLATE
T08	TRANSFER BRIDGE GUARDRAIL AND LIGHT POLE
T09	TRANSFER BRIDGE ABUTMENT PLAN AND SECTIONS
T10	TRANSFER BRIDGE ABUTMENT END SLIDE BEARING
T11	TRANSFER BRIDGE FLOATING DOCK END PINNED BEARING
P01	FLOATING DOCK PLAN & GENERAL NOTES
P02	FLOATING DOCK PRECAST DECK PANEL PLAN
P03	FLOATING DOCK KEEL SLAB PLAN
P04	FLOATING DOCK TYPICAL ELEVATION VIEW
P05	FLOATING DOCK LONGITUDINAL ELEVATION
P06	FLOATING DOCK TYPICAL SECTION
P07	FLOATING DOCK TYPICAL SECTION DETAILS
P08	FLOATING DOCK TRANSVERSE WALL SECTION AND DETAILS
P09	FLOATING DOCK SECTION AT END WALL
P10	FLOATING DOCK END WALL DETAILS
P11	FLOATING DOCK END WALL PILASTER DETAILS – 1
P12	FLOATING DOCK END WALL PILASTER DETAILS – 2
P13	FLOATING DOCK BOLLARD AND ACCESS HATCH DETAILS
P14	FLOATING DOCK SHORE SIDE LIGHT POLE BASE
P15	FLOATING DOCK BOLLARD AND LIGHT POLE DETAILS
P16	FLOATING DOCK PRECAST DECK PANEL DETAILS
P17	FLOATING DOCK FENDER DETAILS
P18	FLOATING DOCK END BULLRAIL AND LADDER DETAILS
P19	FLOATING DOCK TRANSITION RAMP PLAN, ELEVATION AND SECTION
P20	FLOATING DOCK TRANSITION RAMP SECTIONS
P21	FLOATING DOCK TRANSITION RAMP DETAILS
P22	FLOATING DOCK FLOAT RESTRAINT PILE COLLAR
D01	RESTRAINT DOLPHIN PLAN, ELEVATION, AND SECTION
D02	RESTRAINT DOLPHIN PILE CAP DETAILS
D03	RESTRAINT DOLPHIN PILE DETAILS AND SCHEDULE
D04	RESTRAINT DOLPHIN PILE TIP DETAILS

SHEET INDEX

SHEET NO.	DESCRIPTION
U01	UTILITY KEY PLAN
U02	UPLAND UTILITY PLAN
U03	TRANSFER BRIDGE UTILITY PLAN
U04	FLOATING DOCK UTILITY PLAN
U05	FLOATING DOCK UTILITY PENETRATIONS
U06	UTILITY DETAILS
U07	FLOATING DOCK UTILITY DETAILS – SHEET 1
U08	FLOATING DOCK UTILITY DETAILS – SHEET 2
U09	FLOATING DOCK UTILITY DETAILS – SHEET 3
B01	STORAGE BUILDING PLAN
B02	STORAGE BUILDING ELEVATIONS
B03	STORAGE BUILDING DETAILS – SHEET 1
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E01	GENERAL NOTES & LEGEND
E02	EXISTING AND INTERIM ELECTRICAL PLAN
E03	OVERAL SITE PLAN – ELECTRICAL
E04	UPLANDS SITE PLAN – ELECTRICAL
E05	BRIDGE PLAN & PROFILE – ELECTRICAL
E06	FLOATING DOCK PLAN – ELECTRICAL
E07	SINGLE LINE DIAGRAM
E08	LIGHTING SCHEMATIC
E09	UPLANDS ELECTRICAL RACK ELEVATION & LIGHTING SCHEMATIC
E10	LIGHT POLE, HAND HOLE & TRENCH DETAILS
E11	RETAINING WALL SECTION – CONDUIT SUPPORT DETAIL
E12	ABUTMENT – BRIDGE CONNECTION – ELECTRICAL
E13	BRIDGE SECTION – ELECTRICAL
E14	BRIDGE – FLOAT CONNECTION – ELECTRICAL
E15	STORAGE BUILDING FLOOR PLAN – ELECTRICAL
E16	LUMINAIRE SCHEDULE
E17	FLOATING DOCK & MARINE LIGHT POLE DETAILS
E18	FLOATING DOCK POST MOUNTED DETAILS
E19	PEDESTAL BASE DETAILS
E20	PEDESTAL POWERHEAD DETAILS
E21	PEDESTAL POWERHEAD WIRING DIAGRAM
E22	TELEPHONE & VIDEO SCHEMATIC
E23	CAMERA, SCHEMATIC, MOUNTING DETAILS, & SCHEDULE
CP01	CATHODIC PROTECTION SECTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/15/25

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624–1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA 49TH
Rion M. Johnson SE 14129
REGISTERED PROFESSIONAL ENGINEER
4-17-2020

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

SHEET INDEX

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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ESTIMATE OF QUANTITIES

ITEM NUMBER	PAY ITEM	PAY UNIT	PLAN QUANTITY
201.2001.0000	Invasive Plant Species Control, Removal, and Disposal	SY	220
202.MF01.0001	Removal of Structures and Obstructions – Floating Dock	LS	All Required
202.MF01.0002	Removal of Structures and Obstructions – Transfer Bridge	LS	All Required
202.MF01.0003	Removal of Structures and Obstructions – Railings and Signs	LS	All Required
203.0003.0000	Unclassified Excavation	LS	SEE C07
203.0005.000D	Borrow – Selected Material, Type D	LS	SEE C07
203.0005.000E	Borrow – Selected Material, Type E	LS	SEE C07
205.0001.0000	Excavation for Structures	LS	SEE C07
205.0007.0000	Porous Backfill Material	LS TON	~~SEE C07~~
301.0002.00D1	Aggregate Base Course, Grading D–1	LS	SEE C07
401.0001.002B	HMA, Type II; Class B	TON	110
501.MF02.0001	Utility Pad	LS	All Required
501.MF03.0001	Retaining Wall	LS	All Required
501.MF04.0001	Apron	LS	All Required
501.MF05.0001	Abutment	LS	All Required
501.MF06.1001	Concrete In–Fill for Steel Abutment Piles	LS	All Required
501.MF40.1001	Concrete Float (21,250 sq ft)	LS	All Required
504.MF01.0001	Steel Structure – Float Bullrail	LS	All Required
504.MF20.0001	Transfer Bridge – 19'W x 140'L	LS	All Required
504.MF45.0021	Float Restraint – Pile Collar	EACH	2
504.MF45.0022	Float Restraint – Pile Cap	EACH	2
505.MF01.3007	Pile, Furnished 30" x 0.875"	LF	1,600
505.MF02.3007	Pile, Driven 30" x 0.875"	EACH	14
505.MF21.3000	Drilled Rock Socket – 30" Pipe Pile	EACH	8
514.MF01.0021	Cathodic Protection – Pile Anodes	EACH	24
518.MF01.0021	Tension Pile Anchor	EACH	12
604.0001.0002	Storm Sewer Manhole, Type II	EACH	1
606.0001.0000	W–Beam Guardrail	LF	371
606.0006.0000	Removing and Disposing of Guardrail	LF	560
606.2011.0000	Downstream End Anchor	EACH	2
611.0001.0003	Riprap, Class III	LS	SEE C07
615.2000.0000	Remove and Relocate Sign	EACH	2
615.MF01.0001	Standard Sign	LS	All Required
616.0003.0000	Thaw Wire Installation	LF	25
627.0003.0000	Install Valve Box	EACH	2
627.0005.0000	Fire Hydrant Installation	EACH	1
627.0009.0004	Gate Valve, 4 Inch	EACH	1
627.0009.0006	Gate Valve, 6 Inch	EACH	1
627.2012.0000	HDPE Water Conduit – 2 inch, DR 11	LF	104.40
627.2012.0000	HDPE Water Conduit – 4 inch, DR 7	LF	130
627.2012.0000	HDPE Water Conduit – 6 inch, DR 7	LF	25
627.MF01.0001	Water System –Marine	LS	All Required
627.MF05.0001	Fire Suppression System –Marine	LS	All Required
627.MF09.0061	Double Check Valve Assembly – 2 inch	EACH	1
640.0001.0000	Mobilization and Demobilization	LS	All Required
640.0004.0000	Worker Meals and Lodging, or Per Diem	LS	All Required
641.0001.0000	Erosion, Sediment and Pollution Control Administration	LS	All Required, SEE C01A
641.0003.0000	Temporary Erosion, Sediment and Pollution Control	LS	All Required, SEE C01A
641.0005.0000	Temporary Erosion, Sediment and Pollution Control by Directive	CS	All Required, SEE C01A
641.0006.0000	Withholding	CS	All Required, SEE C01A
641.0007.0000	SWPPP Manager	LS	All Required, SEE C01A
642.MF01.0001	Construction Surveying	LS	All Required
643.0002.0000	Traffic Maintenance	LS	All Required
644.0001.0000	Field Office	LS	All Required
644.0006.0000	Vehicle (s) and Skiff	LS	All Required
644.2004.0000	Engineering Communications	CS	All Required
645.0001.0000	Training Program, 2 Trainee/Apprentice	LH	1,000
646.0001.0000	CPM Scheduling	LS	All Required
654.MF01.0001	Marine Mammal Monitoring	LS	All Required
662.MF01.0001	Electrical System– Uplands	LS	All Required
662.MF01.0002	Electrical System – Marine	LS	All Required
695.MF50.0001	Storage Building	LS	All Required

See next page for New Items

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PE Patty Lont 7/2/2025

PLANS DEVELOPED BY:

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624–1387

CERTIFICATE OF AUTHORIZATION NUMBER:

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

ESTIMATE OF QUANTITIES

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024–G03.dwg | DATE | 10/14/2024 5:00 | LAYOUT | G03 | DESIGNED | PND | CHECKED | | DRAFTED | | GRD |

New Items Added By CO:

Item Number	Pay Item	Pay Unit	Pay Quantity
504.MF20.0002	Transfer Bridge Camber & CVN Modifications	LS	1 See CO 2
504.MF70.1021	Mooring Dolphin Access Platform Modifications	LS	1 See CO 2
603.9999.0001	Drainpipe Extension	LS	1 See CO 5
644.0010.0000	Spare Ferry Mooring	CS	7 See CO 6A
203.0003.0000	Unclassified Excavation	LS	1 See CO 7
203.0005.000D	Borrow Selected Material Type-D	LS	1 See CO 7
203.0005.000E	Borrow Selected Material Type-E	LS	1 See CO 7
205.0001.0000	Excavation for Structures	LS	1 See CO 7
301.0002.00D1	Aggregate Base Course, Grading D-1	LS	1 See CO 7
611.0001.0003	Riprap, Class III	LS	1 See CO 7
642.MF01.0002	Construction Surveying Credit	LS	1 See CO 7
203.003.0007	Ramp Material Removal & Resurfacing	LS	All Required See CO 12
203.0003.000F	Additional Ramp Material	Ton	34.69 See CO 12
205.0004.000F	Additional Porous Material & Grading	LS	All Required See CO 12
401.0001.0002	Roadway Pavement Patch Replacement	LS	All Required See CO 14
662.MF01.002A	Additional Electrical Pedestal and Crash Collar	LS	All Required See CO 15
662.MF01.0003A	Abutment Utility Post Extension	LS	All Required See CO 15
662.MF01.004A	Pedestal Conduit Routing	LS	All Required See CO 15
662.MF01.005A	Cable Tray Grounding	LS	All Required See CO 15 plans
615.MF01.001A	Additional Signs	LS	1 See CO 16 plans
05.MF30.0001	Additional Pile & Drive Time	LS	All Required See CO 17
504.MF90.0003	Cable Tray Modifications	LS	All Required See CO 18
627.2014.0001	Cap Existing 2-inch Waterline	LS	All Required See CO 19 Plans
654.MF01.0002	Additional Marine Mammal Monitoring	LS	+1 See CO 20
504.MF90.0001	Temporary Fender Tires	LS	All Required See CO 21
504.MF90.0004	Fender Tire System	LS	All Required See CO 21
695.MF50.001A	Storage Building Changes	LS	1 See CO 23 plans
627.MF09.006A	Backflow Preventer Dewatering	LS	All Required See CO 25
627.MF09.006B	Uplands Manhole 6 inch Pipe Sleeve Plug	LS	All Required See CO 26 plans
205.0007.000A	Abutment Drainage Modification and Removal of Obstructions	LS	All Required See CO 31
627.0005.0001	Fire Hydrant Installation-10" Main Material ID Pothole	LS	All Required See CO 32
611.0001.003A	Additional Riprap Slope Stabilization	LS	All Required See CO 33 plans
662.MF01.314A	Data Rack Enclosure Modifications	LS	All Required See CO 34

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PE Patty Lont 7/14/25

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ABBREVIATIONS

ABUT	ABUTMENT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
BTM	BOTTOM
BVC	BEGINNING OF VERTICAL CURVE
CJP	COMPLETE PENETRATION WELL
℄	CENTERLINE
CIP	CAST–IN–PLACE
CLR	CLEAR
CONC	CONCRETE
CPE	CORRUGATED POLYETHYLENE
CY	CUBIC YARD
DL	DEAD LOAD
E	EAST
EA	EACH
EHW	EXTREME HIGH WATER
EL	ELEVATION
ELW	EXTREME LOW WATER
EQ	EQUAL
EQUIV	EQUIVALENT
EVC	END OF VERTICAL CURVE
EXT	EXTERNAL
FF	FINISH FLOOR
FT	FEET
GALV	GALVANIZED
GR	GRADE
HDPE	HIGH DENSITY POLYETHYLENE PLASTIC
HSS	HOLLOW STRUCTURAL SECTION
HOWL	HIGHEST OBSERVED WATER LEVEL
HTL	HIGH TIDE LINE
K	HORIZONTAL DISTANCE TO ACHIEVE A 1% CHANGE IN SLOPE OF A VERTICAL CURVE
LF	LINEAR FEET
LL	LIVE LOAD
LONG.	LONGITUDINAL
LOWL	LOWEST OBSERVED WATER LEVEL
LS	LUMP SUM
LT	OFFSET LEFT
LVC	LENGTH OF VERTICAL CURVE
MHW	MEAN HIGH WATER
MLLW	MEAN LOWER LOW WATER
N	NORTH
NIC	NOT IN CONTRACT
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
POB	POINT OF BEGINNING
PL	PLATE
PT	POINT OF TANGENCY, PRESSURE TREATED
PVI	POINT OF VERTICAL INFLECTION
R	RADIUS
REQ'D	REQUIRED
RT	OFFSET RIGHT
S	SOUTH
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STIFF	STIFFENER
SY	SQUARE YARD
SYM	SYMMETRIC
t	THICK
TBD	TO BE DETERMINED
TYP	TYPICAL
T.O.	TOP OF
UHMW	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE PLASTIC
UON	UNLESS OTHERWISE NOTED
W	WEST

GENERAL NOTES

DESIGN SPECIFICATIONS

PER CONTRACT DOCUMENTS FOR PROJECT NO. 0952018. SEE ALSO GENERAL NOTES ON SHEET.

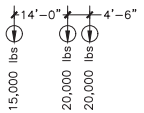
DESIGN STANDARDS: AISC STEEL CONSTRUCTION MANUAL 14TH ED. LRFD.

DESIGN VESSEL: MV ORAL FREEMAN AND MV KEN EICHNER 2.

DESIGN LOADS

DEAD LOAD: ALL
BRIDGE ESTIMATED WEIGHT: 340,000 LBS
(INCLUDES CONCRETE IN–FILL, GUARDRAILS, AND TRANSITION PLATES)

LIVE LOAD: 85 PSF (UNIFORM)
HS20 (VEHICLE) OR AXLE LOAD DIAGRAM BELOW.



MATERIALS

STEEL SHAPE & PLATES:

PLATES & SHAPES –	ASTM A572, GR 50, UON
HOLLOW STRUCTURAL SECTIONS (ROUND) –	ASTM A500, GR B, Fy = 42 KSI MIN.
HOLLOW STRUCTURAL SECTIONS (TUBES) –	ASTM A500, GR B/C, Fy = 46 KSI MIN.
H–PILE –	ASTM A572, GR 50
PIPE (12IN O.D. OR LESS) –	ASTM A53, GR B
STAINLESS STEEL –	ASTM A276, TYPE 316
WIDE FLANGE SECTIONS –	ASTM A992, ASTM A709 GR 50

PILING: STEEL – PER SPECS.

GRATING: PER SPECS.

PLASTIC: ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE PLASTIC, PER SPECS.

CONCRETE: CAST–IN–PLACE PER TABLE 2 IN SPECIFICATION SECTION 501
PRECAST PER TABLE 3 IN SPECIFICATION SECTION 501

PROTECTIVE COATINGS

ALL STEEL, PILING, & WELDMENTS: GALVANIZED AFTER FABRICATION PER SPEC 5.04–2.03, UNLESS OTHERWISE NOTED.

BRIDGE: GIRDERS–COAT PER SPEC 513–SYSTEM 10 TRANSITION PLATE
WALKING SURFACE–COAT PER SPEC 513–SYSTEM 7A.
CONCRETE IN–FILL WALKWAY SURFACE–COAT PER SPEC 513–SYSTEM 9
BEARING PLATES/SLIDE PLATES: COAT PER SPEC 513–SYSTEM 2

FLOATING DOCK, RESTRAINT FRAME PILE COLLARS: COAT PER SPEC 513–SYSTEM 2

FIELD REPAIR OF EXISTING COATINGS: DAMAGED GALVANIZED AND PAINT COATINGS SHALL BE REPAIRED PER SPEC 504–3.03.

PILING

DIAMETER & WALL THICKNESS AS PER PILING TABLE & PLANS DRIVING SHOES REQUIRED ON ALL PILES, UNLESS PILES ARE SOCKET INSTALLED.

WELDS

ALL WELDING SHALL BE PERFORMED BY CERTIFIED PERSONS IN ACCORDANCE WITH AWS D1.1 OR D1.5 AS PER SPECIFICATION SECTION 504.

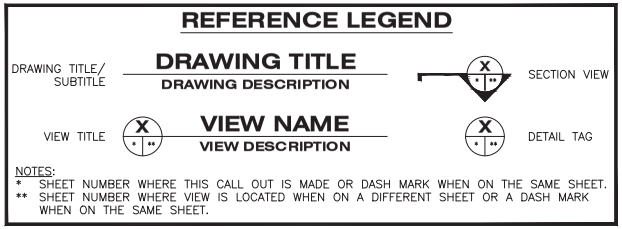
TEMPLATE PILES

PROJECT HAS BEEN PERMITTED FOR THE TEMPLATE PILE LIMITS AS OUTLINED IN APPENDIX B.

FLOATING DOCK WAVE LOAD

THE FLOATING DOCK WAS DESIGNED TO RESIST A 6 FOOT WAVE WITH A 250 FOOT WAVE LENGTH ALIGNED IN ANY DIRECTION TO THE FLOAT PLAN.

REFERENCE LEGEND



NOTES:
* SHEET NUMBER WHERE THIS CALL OUT IS MADE OR DASH MARK WHEN ON THE SAME SHEET.
** SHEET NUMBER WHERE VIEW IS LOCATED WHEN ON A DIFFERENT SHEET OR A DASH MARK WHEN ON THE SAME SHEET.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/2/2025

PLANS DEVELOPED BY:

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624–1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA 49TH Alan M. Johnson SE 14129 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

ABBREVIATIONS AND GENERAL NOTES

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024–G04.dwg | DATE | 10/14/2024 5:00 | LAYOUT | G04 | DESIGNED | PND | CHECKED | DRAFTED | GRD

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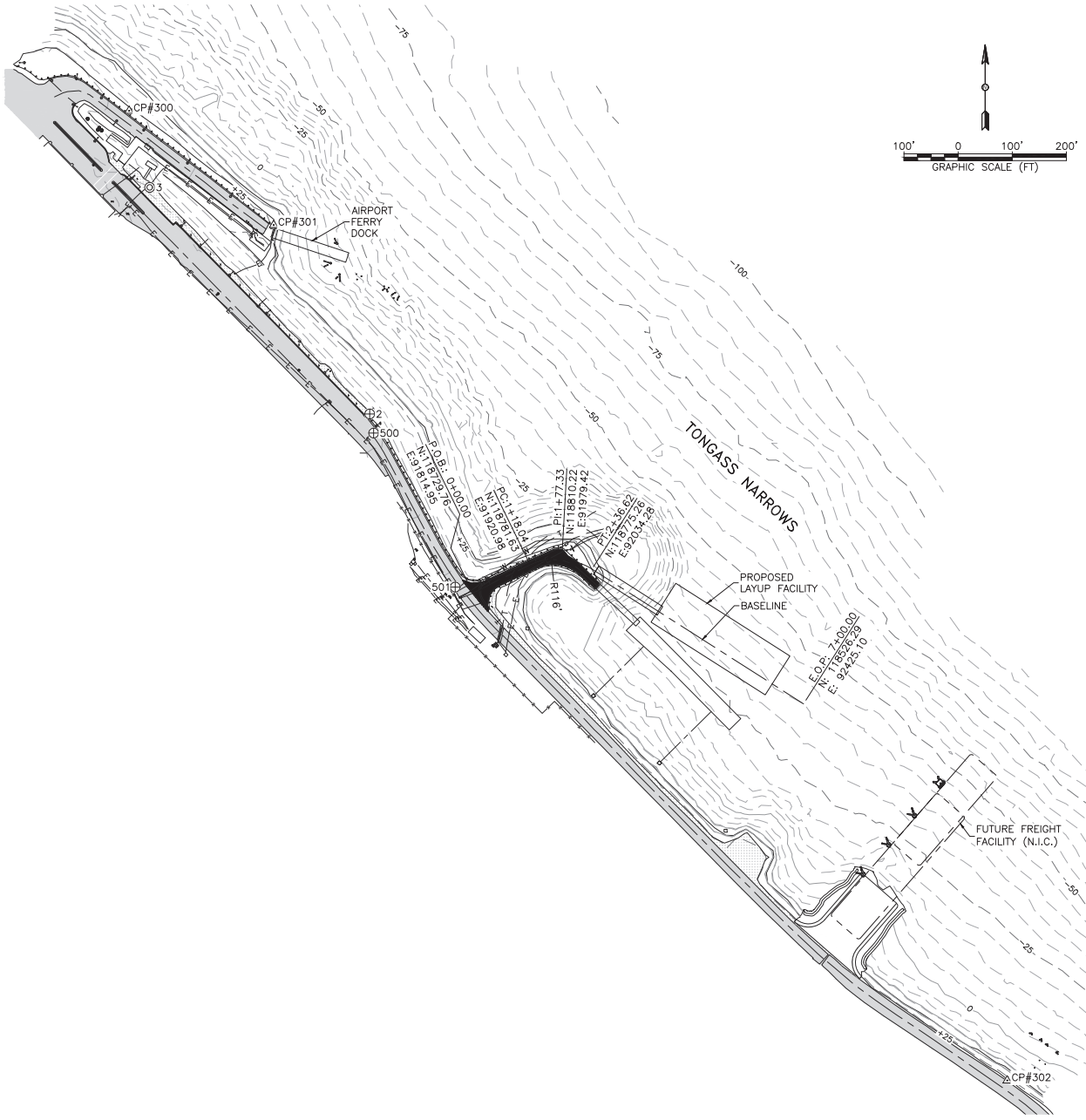


SURVEY CONTROL NOTES

BASE MAP SURVEY "67698_BASEMAP_REV4.DWG" PROVIDED BY ALASKA DOT.

HORIZONTAL CONTROL

THE HORIZONTAL CONTROL FOR THIS PROJECT IS BASED ON THE LDP KTN GRID 2016.

IT RELATES TO AKSPC ZONE 1 NAD83 2011 THROUGH THE FOLLOWING PARAMETERS:
GRID SCALE FACTOR: 1.000002
ROTATION: 0.000000

VERTICAL CONTROL

THE VERTICAL CONTROL FOR THE KTN GRID IS MEAN LOWER LOW WATER (MLLW) = 0.00FT. BASED ON NATIONAL OCEAN SERVICE TIDAL BENCHMARK STATION 9450460.

LOCAL SYSTEM COORDINATES

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	119061.7420'	91623.7285'	45.31'	BC2"_AKDOT-2_SET
500	119026.4965'	91630.9670'	45.61'	BC2.5"_FND_S/R_C.L_P.I_8
501	118742.0325'	91781.6665'	33.77'	BC2.5"_FND_S/R_C.L_P.I_9
CP#300	119621.6552'	91179.3531'	37.32'	CP#300
CP#301	119410.6505'	91446.3103'	25.15'	CP#301
CP#302	117830.6931'	92801.1500'	27.34'	CP#302

NAD83 GEOGRAPHIC

POINT NO.	NORTHING	EASTING	DESCRIPTION
2	N55° 21' 20.6660"	W131° 42' 24.9093"	BC2"_AKDOT-2_SET
500	N55° 21' 20.3187"	W131° 42' 24.7837"	BC2.5"_FND_S/R_C.L_P.I_8
501	N55° 21' 17.5158"	W131° 42' 22.1738"	BC2.5"_FND_S/R_C.L_P.I_9
CP#300	N55° 21' 26.1820"	W131° 42' 32.6028"	CP#300
CP#301	N55° 21' 24.1039"	W131° 42' 27.9822"	CP#301
CP#302	N55° 21' 08.5389"	W131° 42' 04.5293"	CP#302

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/2/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

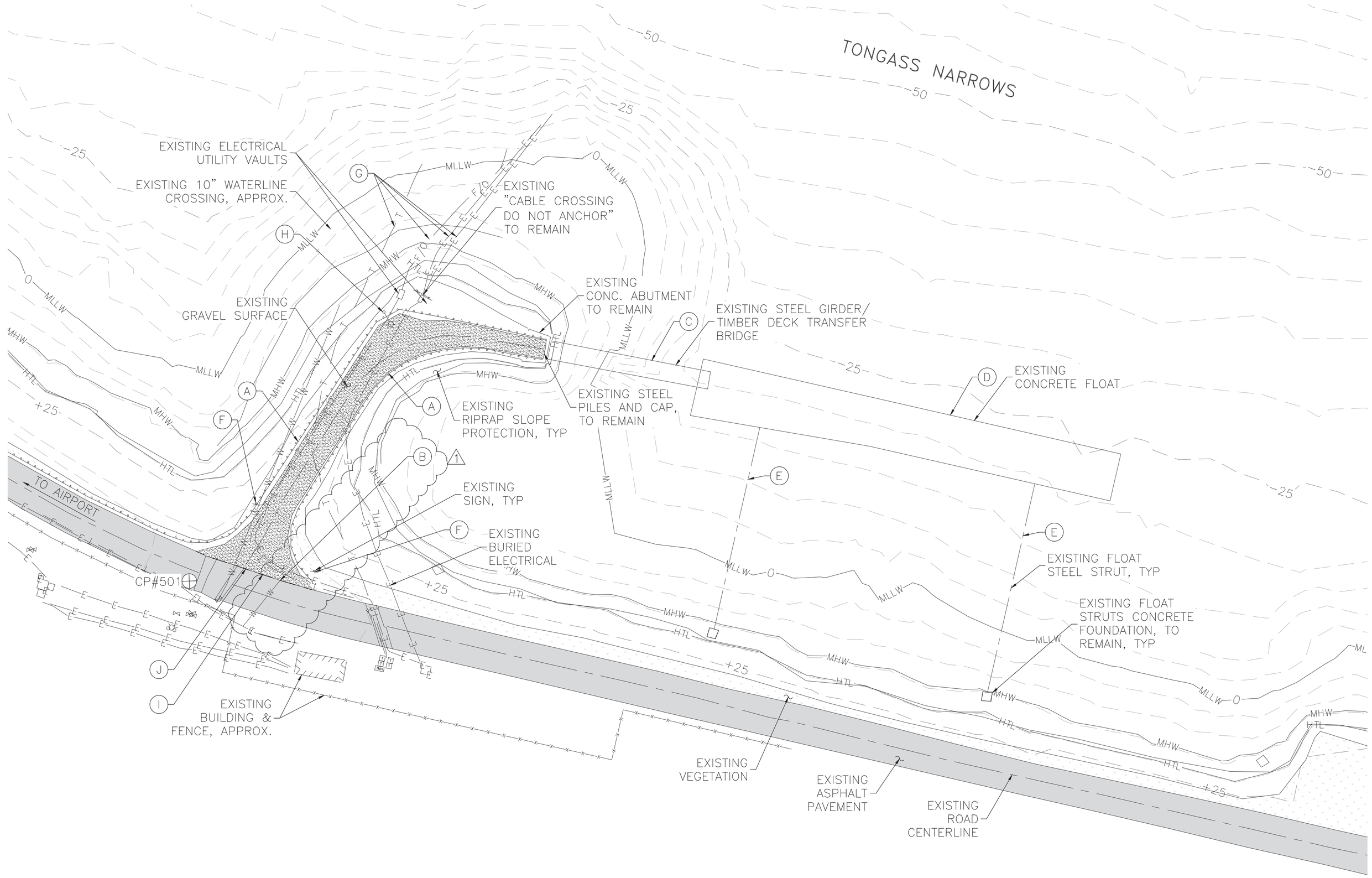
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

PROJECT CONTROL

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C01.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C01 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	C02	89



40' 0 40' 80'
GRAPHIC SCALE (FT)

EXISTING LEGEND

- ELECTRICAL POWER LINE
- LIGHT POLE
- ELECTRICAL VAULT
- TELEPHONE LINE
- FIBEROPTIC LINE
- TELECOM VAULT
- WATER LINE
- WATER VALVE
- ASPHALT PAVEMENT
- GRAVEL SURFACE
- VEGETATION
- GUARDRAIL
- FENCE
- BUILDING
- MAJOR CONTOUR
- MINOR CONTOUR

DEMOLITION NOTES

- (A) REMOVE EXISTING GUARDRAIL
- (B) CAP EXISTING 2" WATER SERVICE WITH BALL VALVE AND ABANDON WATERLINE TO THE WEST
- (C) REMOVE EXISTING TRANSFER BRIDGE
- (D) REMOVE EXISTING FLOAT
- (E) REMOVE EXISTING FLOAT STRUTS.
- (F) REMOVE EXISTING SIGNS
- (G) PROTECT AND MAINTAIN EXISTING UTILITY CROSSINGS
- (H) DEMO EXISTING LIGHT POLE
- (I) SAWCUT NEAT LINE ALONG EXISTING PAVEMENT BEFORE INSTALLING NEW PAVEMENT
- (J) INSTALL TEMPORARY TRAFFIC BARRIERS DURING CONSTRUCTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/17/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA 49TH
Ryan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

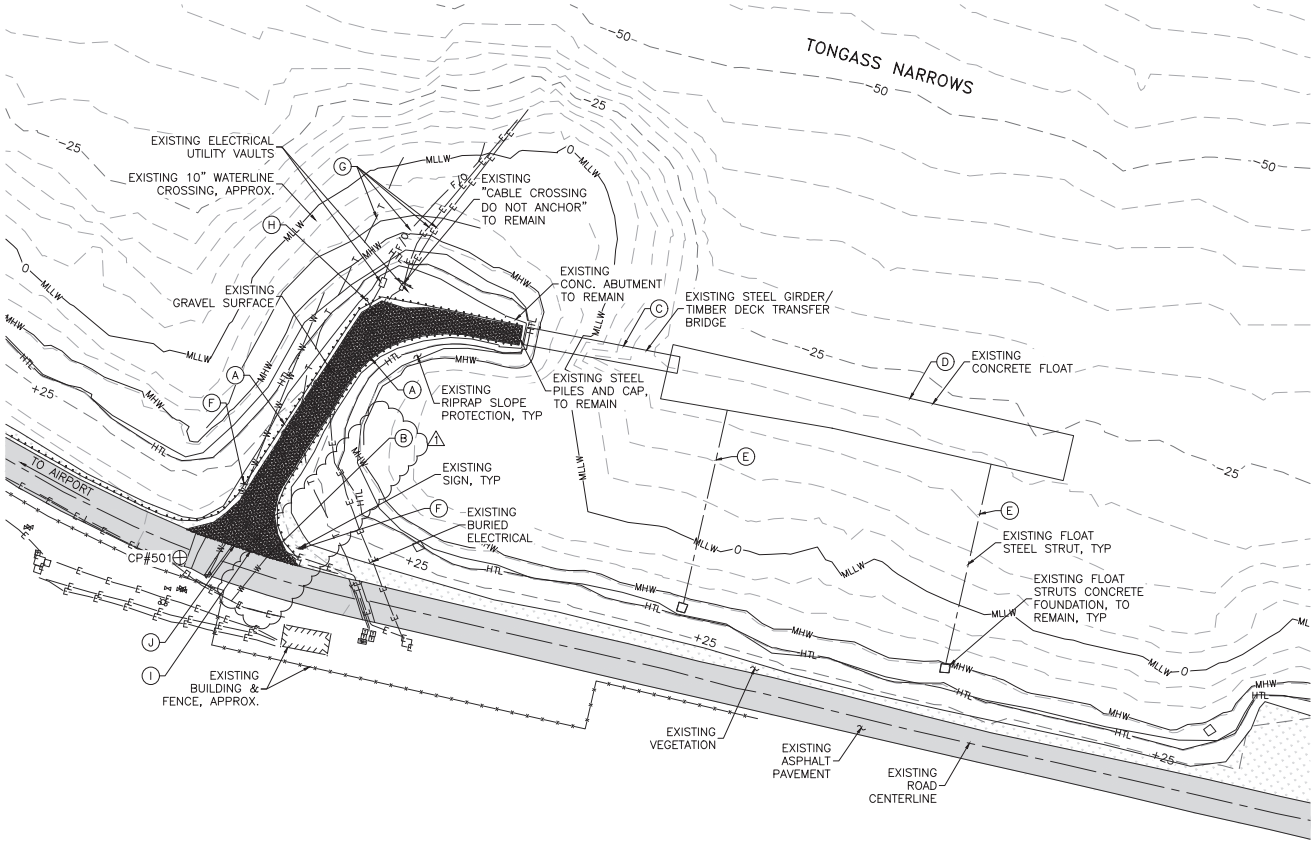
EXISTING SITE AND DEMOLITION PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C02.dwg | LAYOUT | C02 | DATE | 10/14/2024 5:00 | DESIGNED | PND | CHECKED | | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	C02	89

See CO 19



40' 0 40' 80'
GRAPHIC SCALE (FT)

EXISTING LEGEND

- ELECTRICAL POWER LINE
- LIGHT POLE
- ELECTRICAL VAULT
- TELEPHONE LINE
- FIBEROPTIC LINE
- TELECOM VAULT
- WATER LINE
- WATER VALVE
- ASPHALT PAVEMENT
- GRAVEL SURFACE
- VEGETATION
- GUARDRAIL
- FENCE
- BUILDING
- MAJOR CONTOUR
- MINOR CONTOUR

DEMOLITION NOTES

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Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/2/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

EXISTING SITE AND DEMOLITION PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C02.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C02 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	C03	89

INVASIVE SPECIES LOCATION PLAN
NOT TO SCALE

Invasive Plant Species Locations

AREA	SPECIES	APPROXIMATE LOCATION	SPECIES DENSITY	APPROX. INFESTATION SIZE (SQ. FT.)
1	OXEYE DAISY	IN WEST SIDE ARMPIT	COMMON	1,021 SQFT.
	ORANGE HAWKWEED		COMMON	
	HAIRY CATS EAR		SCATTERED	
2	OXEYE DAISY	ALONG WEST GUARDRAIL AND INTO ALDER	COMMON	2,381 SQFT.
	ORANGE HAWKWEED		SCATTERED	
3	OXEYE DAISY	ALONG EAST GUARDRAIL AND INTO ALDER	COMMON	2,329 SQFT.
	HAIRY CATS EAR		SCATTERED	

NOTE: REFERENCE SPECIAL PROVISIONS SECTION 202.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/2/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

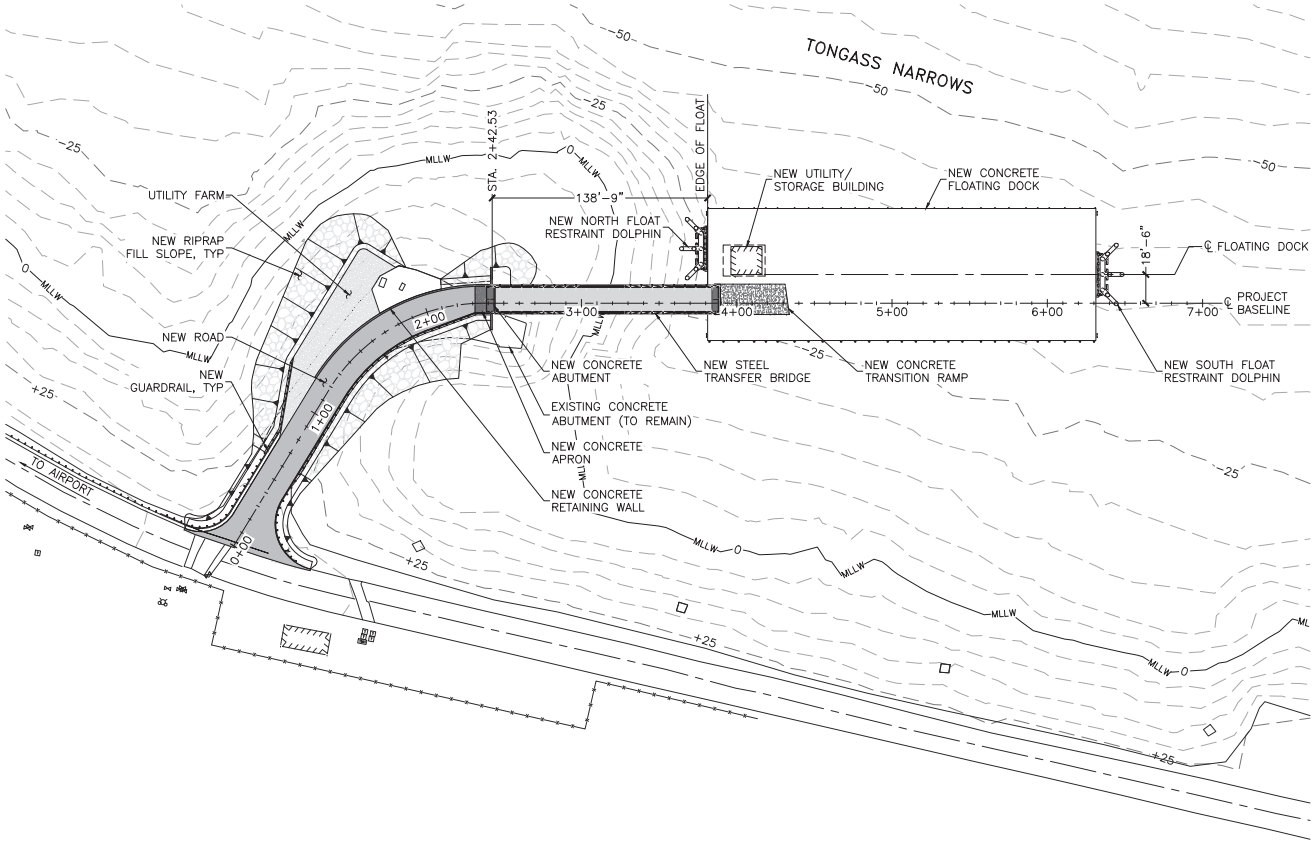
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

INVASIVE SPECIES SITE PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C03.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C03 | DESIGNED | PND | CHECKED | | DRAFTED | GRD |

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	C04	89



40' 0 40' 80'
GRAPHIC SCALE (FT)

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/2/2025

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

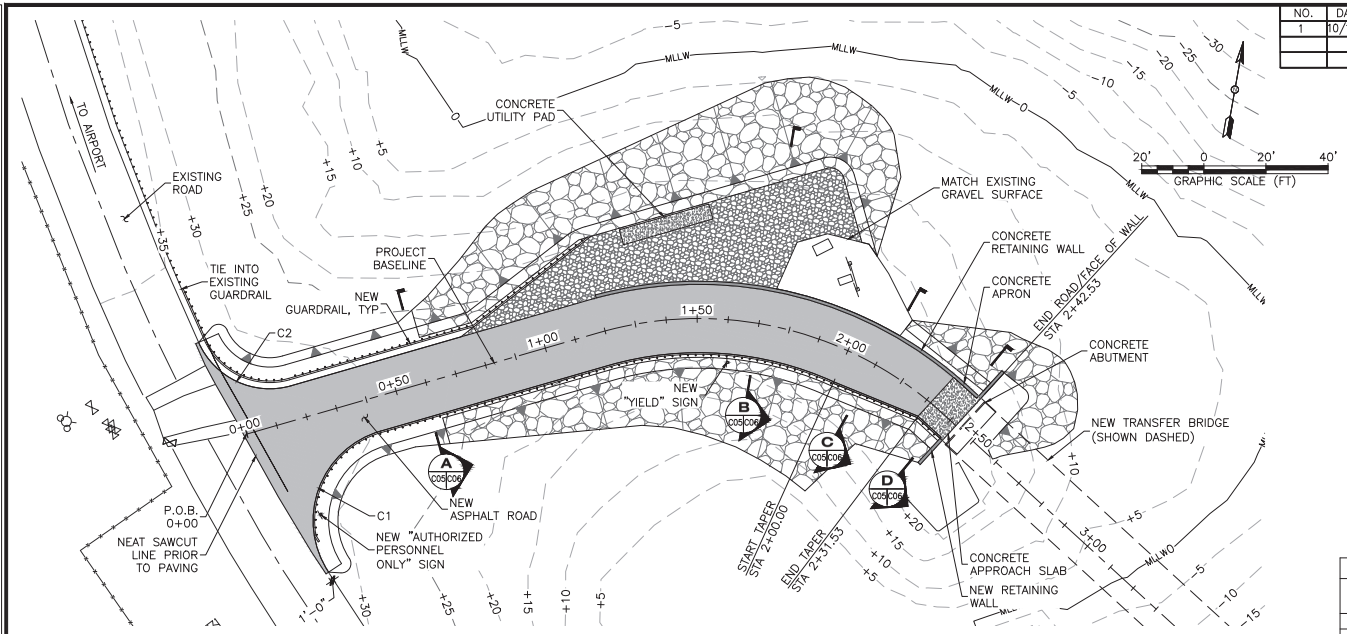
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

NEW SITE PLAN

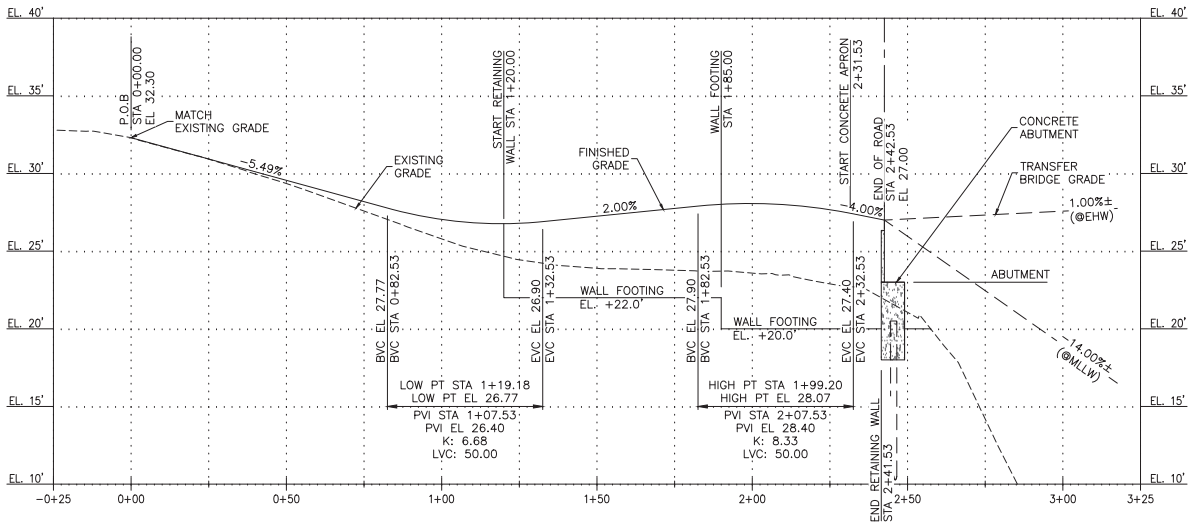
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C04.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C04 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	C05	89



PLAN



PROFILE

LEGEND

- HMA
- CEMENT CONCRETE
- GRAVEL
- RIPRAP

NOTES:
FOR HORIZONTAL ALIGNMENT DATA SEE SHEET C01. FOR GUARDRAIL LOCATION SEE SHEET C08.

CURVE TABLE

CURVE	RADIUS	CURVE LENGTH	RADIUS POINT	
			STA	OFFSET
C1	30'	56.26'	0+41.59	41'
C2	25'	35.91'	0+18.00	36'

CO 16

SIGN TABLE

SIGN NO.	STATION	OFFSET	SIZE (WxH)	TEXT	TEXT SIZE	MUTCD	NOTES
S-1	0+08	16.0' LT	N/A	AUTHORIZED PERSONAL ONLY	N/A	N/A	REUSE EXISTING SIGN
S-2	0+17	30.0' RT	1.5'x2.0	AUTHORIZED VEHICLES ONLY	2"	R05-11	NEW SIGN
S-3	0+18	50.0' RT	N/A	SLOW	N/A	N/A	REUSE EXISTING SIGN
S-4	N/A	N/A	1'x.5'	FIRE DEPARTMENT STANDPIPE	1"	N/A	ATTACH TO STANDPIPE (SEE U02)
S-5	1+60	17.0' RT	1.5'x1.5'x1.5'	YIELD	1.5"	R1-2	NEW SIGN

S-6 2+29 9.7 RT Authorized Vehicles Only

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/2/2025

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

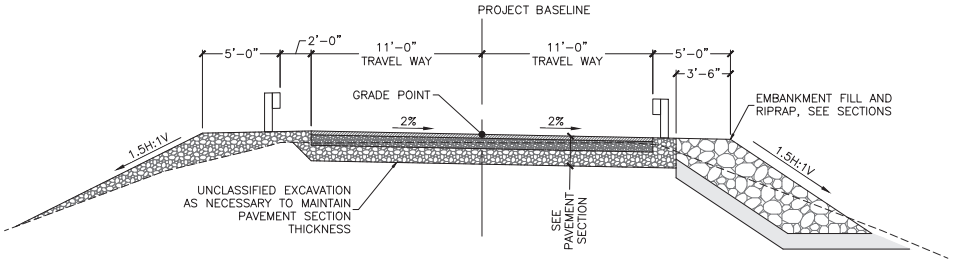
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

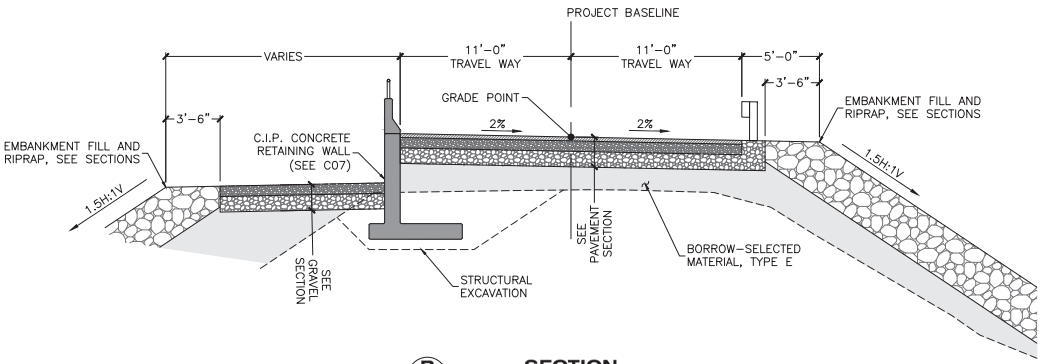
ACCESS ROAD
PLAN AND PROFILE

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C05.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C05 | DESIGNED | PND | CHECKED | DRAFTED | GRD

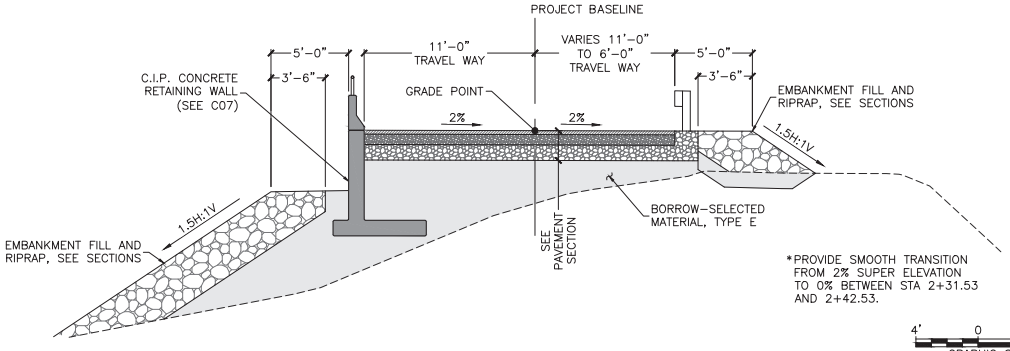
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	C06	89



A C05 C06 **SECTION**
STA 0+00 TO 1+20

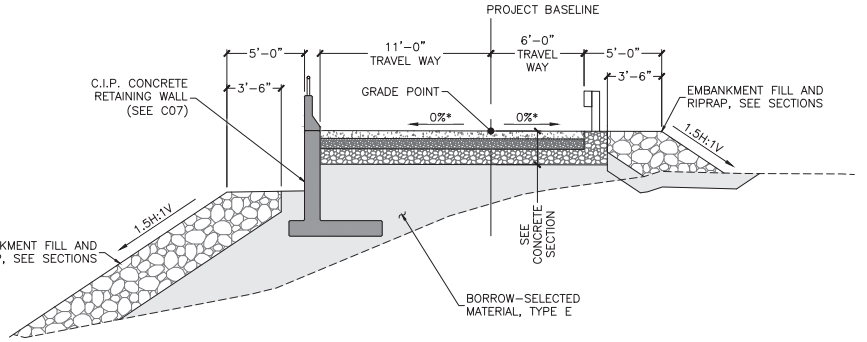


B C05 C06 **SECTION**
STA 1+20 TO 2+00

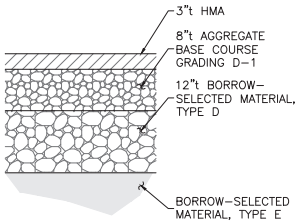


*PROVIDE SMOOTH TRANSITION FROM 2% SUPER ELEVATION TO 0% BETWEEN STA 2+31.53 AND 2+42.53.

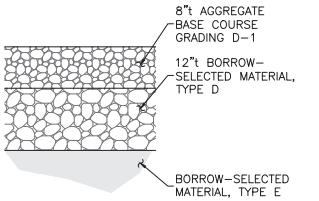
C C05 C06 **SECTION**
STA 2+00 TO 2+31.53



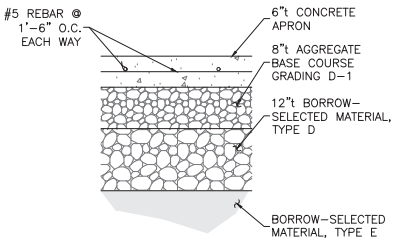
D C05 C06 **SECTION**
STA 2+31.53 TO 2+42.53



PAVEMENT SECTION



GRAVEL SECTION



CONCRETE SECTION

4' 0 4' 8'
GRAPHIC SCALE (FT)

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE *Patty Lont* 7/2/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Ron M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

ACCESS ROAD SECTIONS

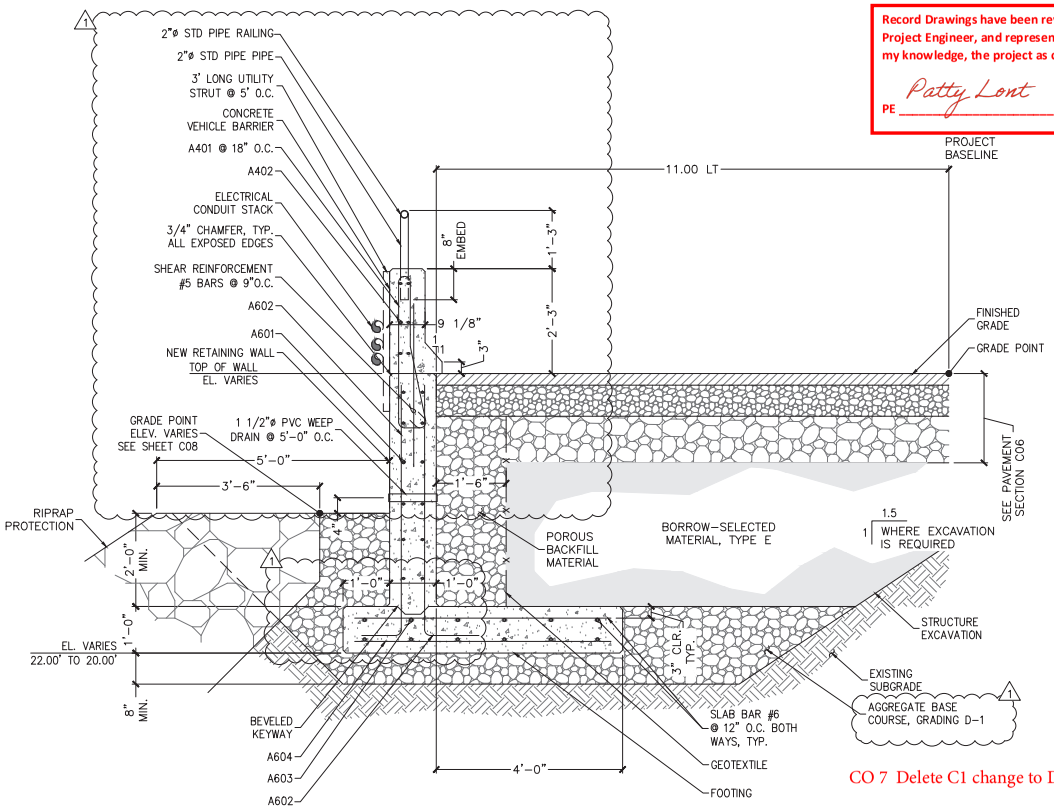
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C06.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C06 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	C07	89

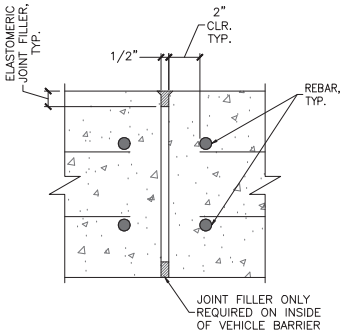
Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025



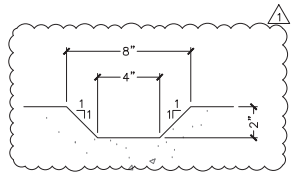
CO 7 Delete C1 change to D1

CONCRETE RETAINING WALL SECTION

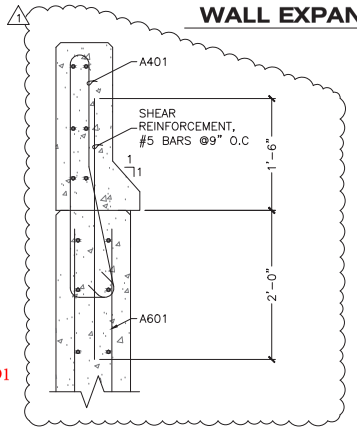


WALL EXPANSION JOINT

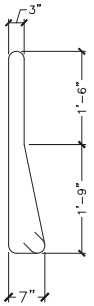
NOTE:
PROVIDE EXPANSION JOINT AT 3 EQ. SPACES ALONG LENGTH OF THE WALL.



BEVELED KEYWAY DETAIL

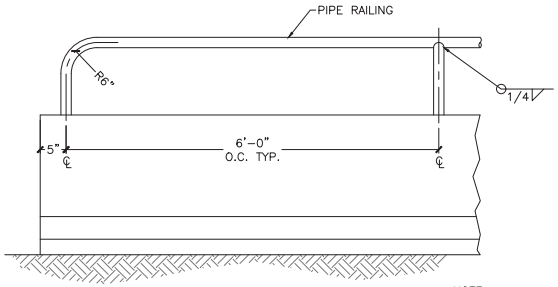


SHEAR REINFORCEMENT DETAIL



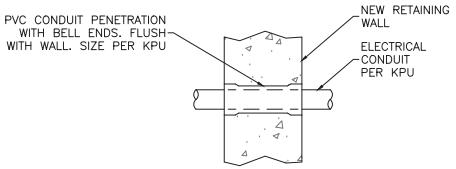
A401

A601/A602



END WALL DETAIL

NOTE:
PIPE RAILING SPLICES TO MATCH BRIDGE RAILING SPLICE DETAILS. LOCATE RAILING SPLICES OVER WALL EXPANSION JOINTS.



WALL CONDUIT PENETRATION

REINFORCING STEEL

MARK	SIZE	QTY.	LENGTH	TYPE	NOTES
A401	4	63	VARIES	BENT	
A402	4	6	31'-0"	STRAIGHT	6 BARS BETWEEN JOINTS, 18 TOTAL
A601	VARIES	VARIES	31'-0"	STRAIGHT	# BARS VARY BASED ON WALL HEIGHT
A602	6	106	VARIES	BENT	
A603	6	30	31'-0"	STRAIGHT	10 BAR BETWEEN JOINTS
A604	6	126	5'-6"	STRAIGHT	

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AECC 250

STATE OF ALASKA
Alan M. Johnson
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REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

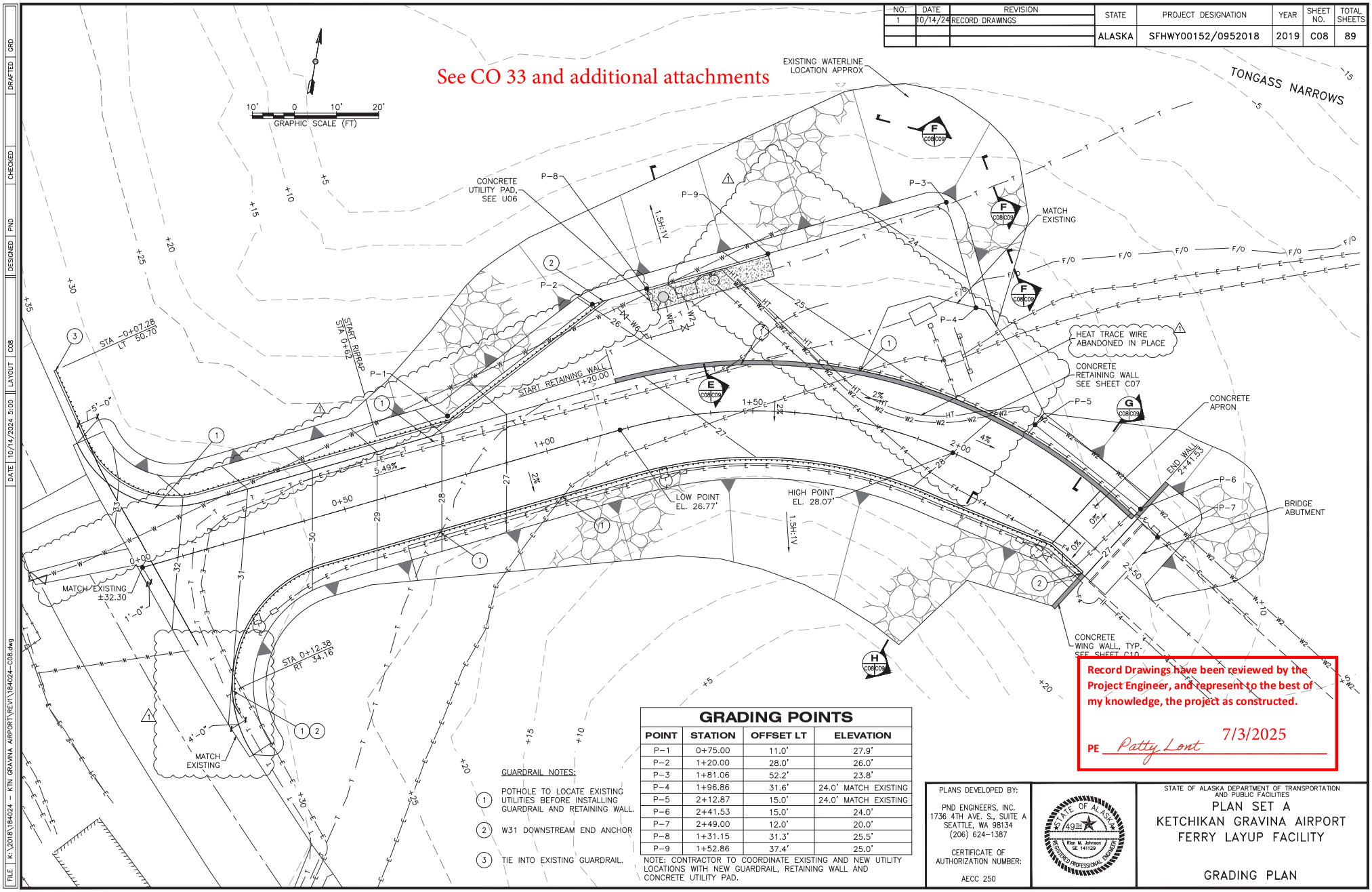
RETAINING AND GUARDRAIL WALL DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C07.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C07 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	C08	89

See CO 33 and additional attachments



GRADING POINTS

POINT	STATION	OFFSET LT	ELEVATION
P-1	0+75.00	11.0'	27.9'
P-2	1+20.00	28.0'	26.0'
P-3	1+81.06	52.2'	23.8'
P-4	1+96.86	31.6'	24.0' MATCH EXISTING
P-5	2+12.87	15.0'	24.0' MATCH EXISTING
P-6	2+41.53	15.0'	24.0'
P-7	2+49.00	12.0'	20.0'
P-8	1+31.15	31.3'	25.5'
P-9	1+52.86	37.4'	25.0'

NOTE: CONTRACTOR TO COORDINATE EXISTING AND NEW UTILITY LOCATIONS WITH NEW GUARDRAIL, RETAINING WALL AND CONCRETE UTILITY PAD.

GUARDRAIL NOTES:

1. POTHOLE TO LOCATE EXISTING UTILITIES BEFORE INSTALLING GUARDRAIL AND RETAINING WALL.
2. W31 DOWNSTREAM END ANCHOR
3. TIE INTO EXISTING GUARDRAIL.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

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SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

GRADING PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C08.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C08 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00152/0952018	2019	C08	88

FILE \\pndseafs01\Drowings\2018\184024 - KTN GRAVINA AIRPORT\FB\184024-C08.dwg | DATE 2/4/2020 11:16 | LAYOUT C08 | DESIGNED PND | DRAFTED GRD | CHECKED

10' 0 10' 20'
GRAPHIC SCALE (FT)

EXISTING WATERLINE LOCATION APPROX

TONGASS NARROWS

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PE Patty Lont 7/14/25

P-8
CONCRETE UTILITY PAD, SEE U06
P-9
1.5H:1V
P-3
MATCH EXISTING
P-2
P-4
START RETAINING WALL 1+20.00
START RIPRAP STA 0+62
P-1
STA 0+07.28 LT 50.70
5'-0"
1'-0"
MATCH EXISTING ±32.30
STA 0+12.38 RT 34.16'
MATCH EXISTING
0+00
0+50
1+00
1+50
2+00
5.49%
2%
4%
0%
LOW POINT EL. 26.77'
HIGH POINT EL. 28.07'
1.5H:1V
CONCRETE RETAINING WALL SEE SHEET C07
P-5
CONCRETE APRON
END WALL 2+41.53
P-6
P-7
BRIDGE ABUTMENT
2+50
CONCRETE WING WALL, TYP SEE SHEET C10
Approximate limits of additional riprap work
Approximate existing abutment & riprap limits
CO 33

F C08|C09
E C08|C09
G C08|C09
H C08|C09

GRADING POINTS

POINT	STATION	OFFSET LT	ELEVATION
P-1	0+75.00	11.0'	27.9'
P-2	1+20.00	28.0'	26.0'
P-3	1+81.06	52.2'	23.8'
P-4	1+96.86	31.6'	24.0' MATCH EXISTING
P-5	2+12.87	15.0'	24.0' MATCH EXISTING
P-6	2+41.53	15.0'	24.0'
P-7	2+49.00	12.0'	20.0'
P-8	1+31.15	31.3'	25.5'
P-9	1+52.86	37.4'	25.0'

NOTE: CONTRACTOR TO COORDINATE EXISTING AND NEW UTILITY LOCATIONS WITH NEW GUARDRAIL, RETAINING WALL AND CONCRETE UTILITY PAD.

GUARDRAIL NOTES:

1. POTHOLE TO LOCATE EXISTING UTILITIES BEFORE INSTALLING GUARDRAIL AND RETAINING WALL.
2. W31 DOWNSTREAM END ANCHOR
3. TIE INTO EXISTING GUARDRAIL.

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

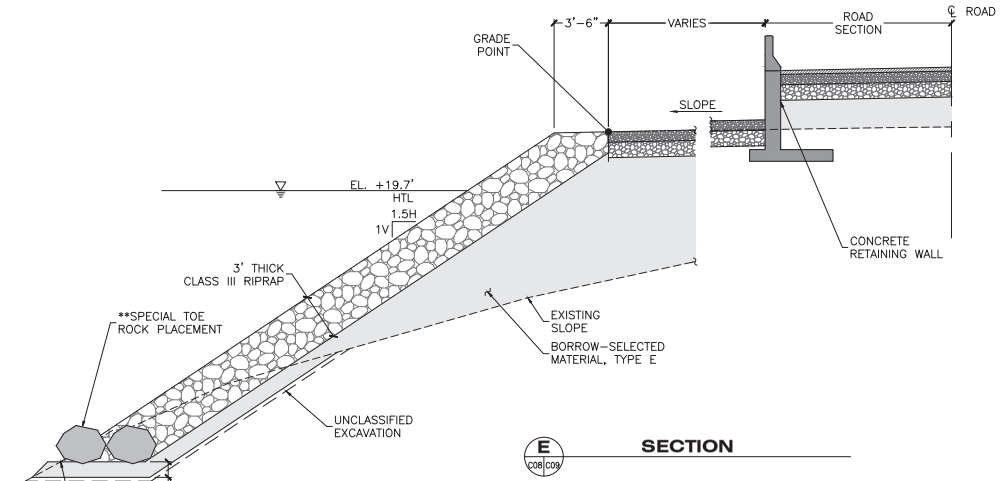
STATE OF ALASKA
Robert Wotters
CE 12987
REGISTERED PROFESSIONAL ENGINEER
4-17-2020

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

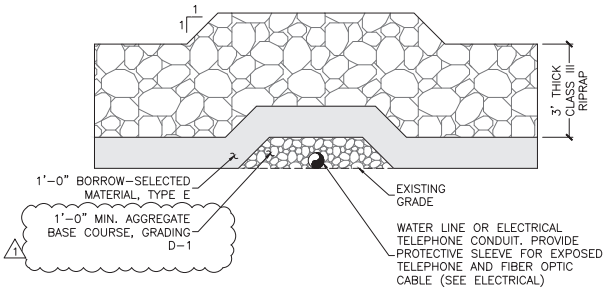
PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

GRADING PLAN

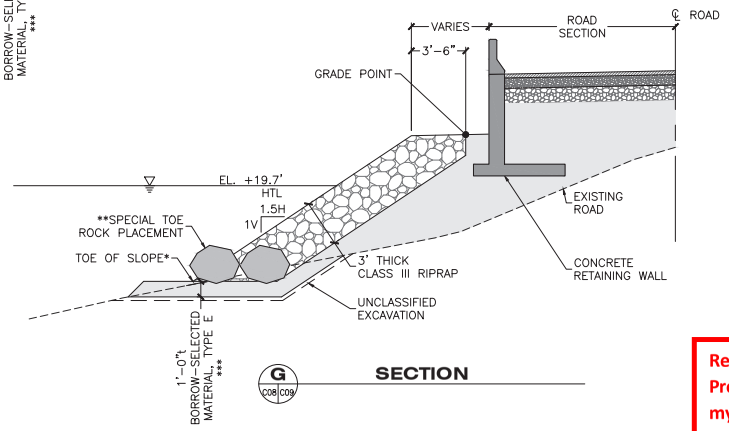
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	C09	89



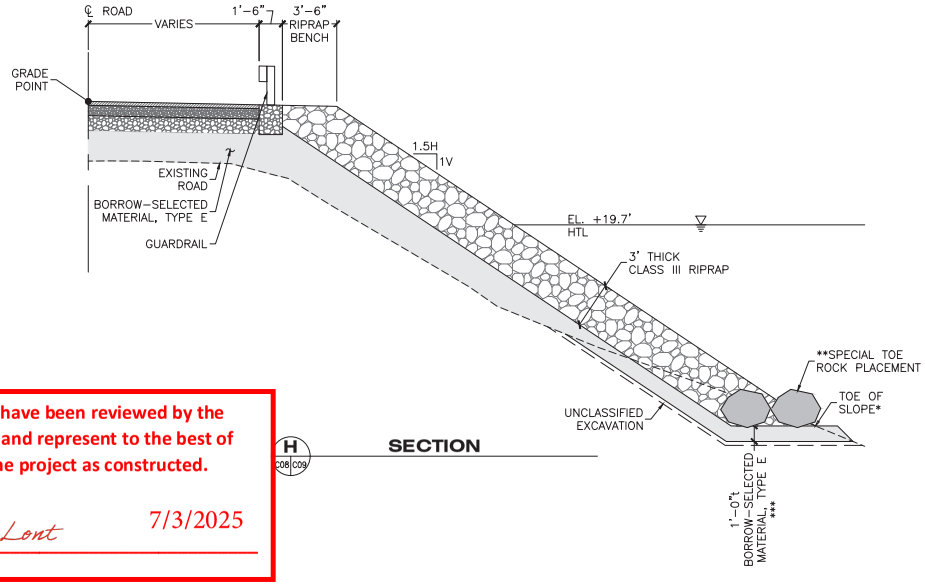
E C08 C09 SECTION



F C08 C09 SECTION



G C08 C09 SECTION



H C08 C09 SECTION

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PE Patty Lont 7/3/2025

RIPRAP SECTION

* INTERSECTION OF 1.5H:1V RIPRAP SLOPE & EXISTING SLOPE.
** SPECIAL TOE ROCK PLACEMENT. 2 LARGE ROCKS (2.5'-3' DIA) LOCKED INTO PLACE WITH LONG AXIS PERPENDICULAR TO SLOPE.
*** BORROW TYPE E MAY BE ELIMINATED AT APPROVAL OF ENGINEER IF THE PREPARED SUBGRADE IS ADEQUATE SIZE ROCK.

4' 0 4' 8'
GRAPHIC SCALE (FT)

NOTES

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

RIPRAP SECTIONS

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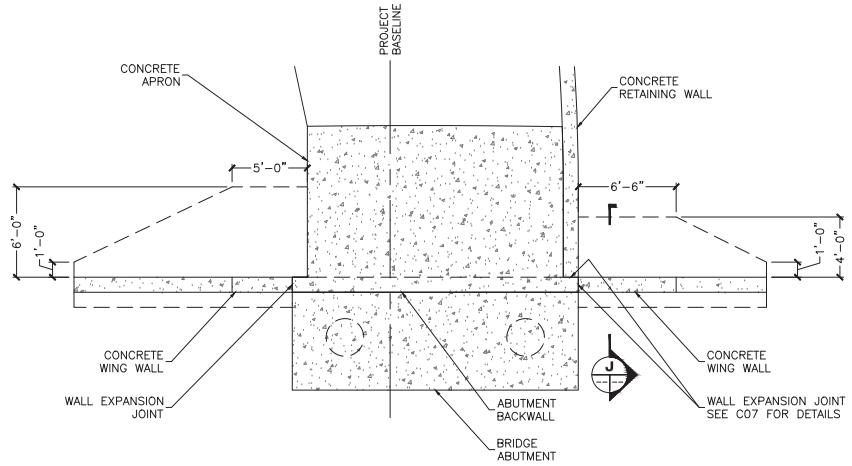
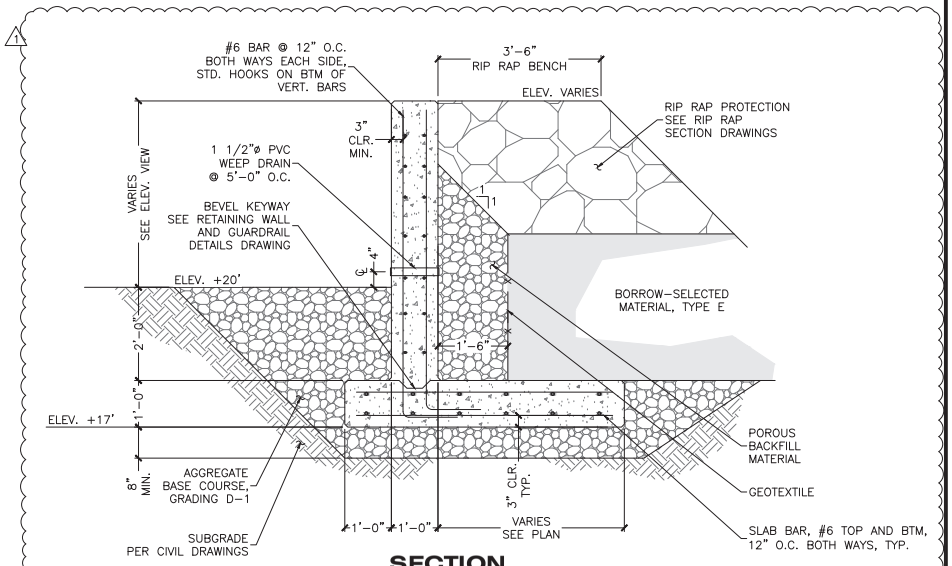
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS					
			ALASKA	SFHWY00152/0952018	2019	C10	89

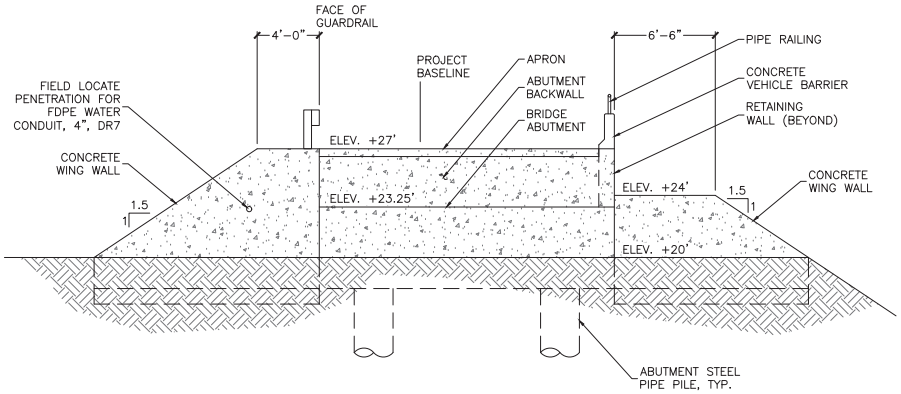


PLAN



SECTION

J **SECTION**



ELEVATION
LOOKING TOWARD ROAD, UP STATION

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PE Patty Lont 7/3/2025

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

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AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

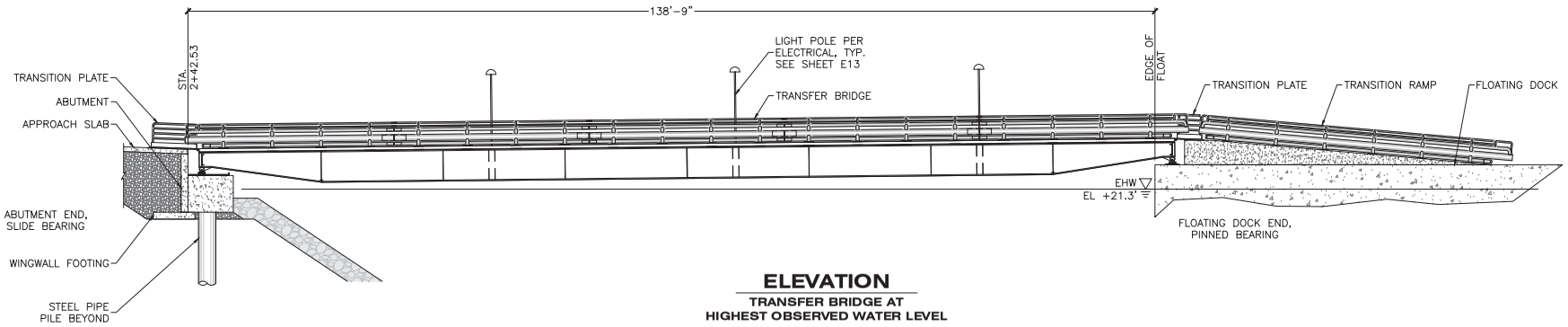
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

CONCRETE WING WALL DETAILS

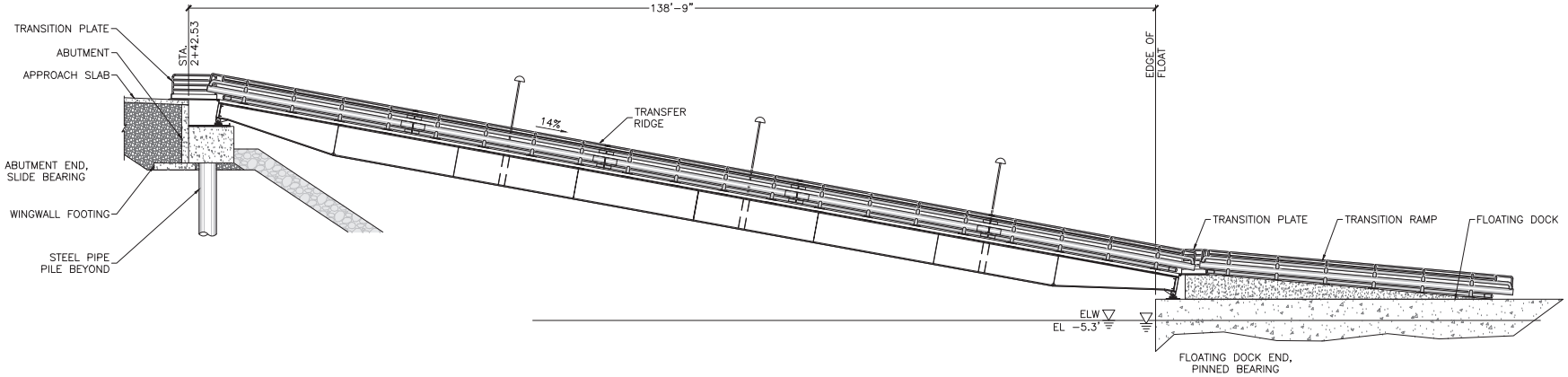
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-C10.dwg | DATE | 10/14/2024 5:00 | LAYOUT | C10 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS					
			ALASKA	SFHWY00152/0952018	2019	T01	89

CO2



ELEVATION
TRANSFER BRIDGE AT HIGHEST OBSERVED WATER LEVEL



ELEVATION
TRANSFER BRIDGE AT LOWEST OBSERVED WATER LEVEL

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

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AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE
AT HOWL AND LOWL

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T01 | DESIGNED | PND | CHECKED | | DRAFTED | | GRD |

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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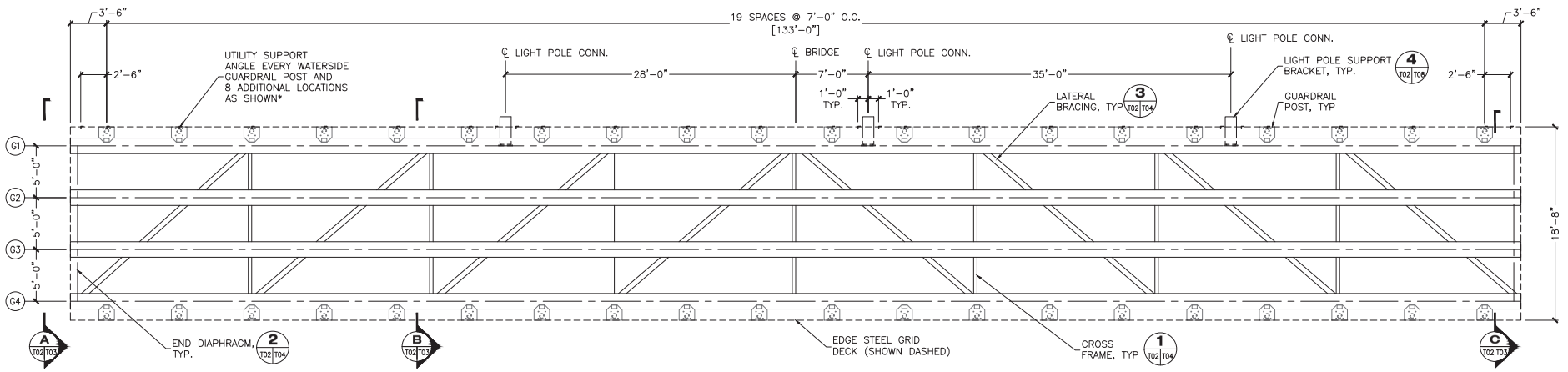
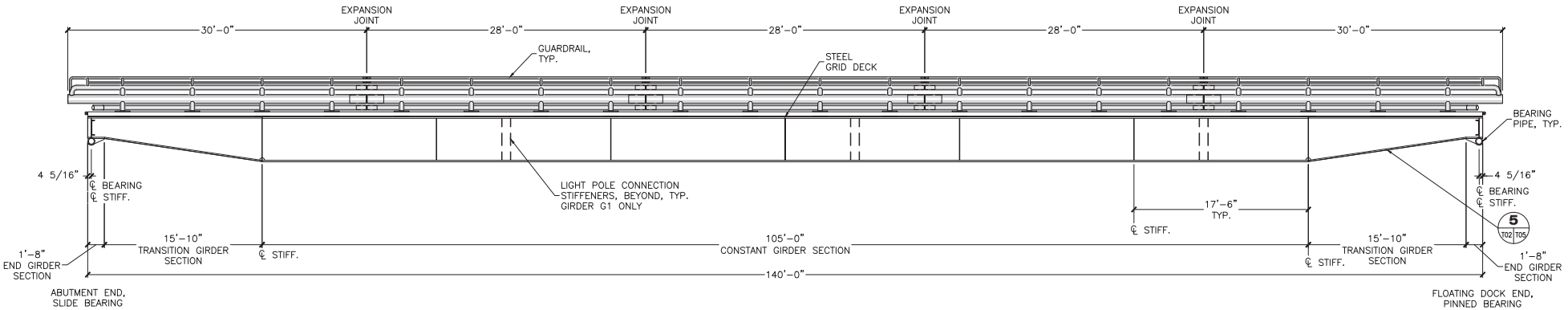
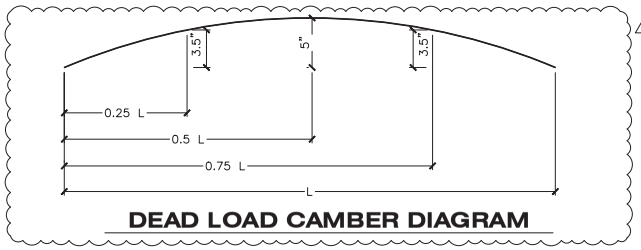


*CONTRACTOR TO COORDINATE WITH ELECTRICAL SUBCONTRACTOR ON ANY ADDITIONAL REQUIREMENT TO ADD UTILITY SUPPORTS ON TRANSFER BRIDGE.

PLAN
TRANSFER BRIDGE





DEAD LOAD CAMBER DIAGRAM

⚠See CO 2

ELEVATION

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SEATTLE, WA 98134
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PLAN SET A
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FERRY LAYUP FACILITY

TRANSFER BRIDGE
PLAN AND ELEVATION

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T02 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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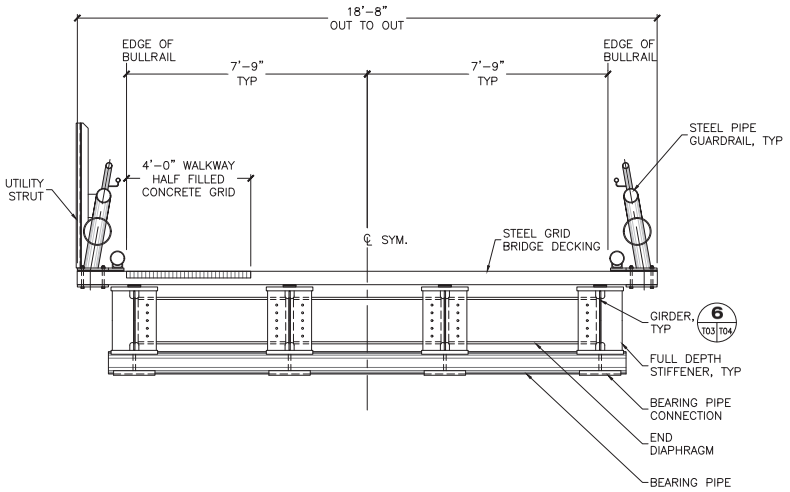
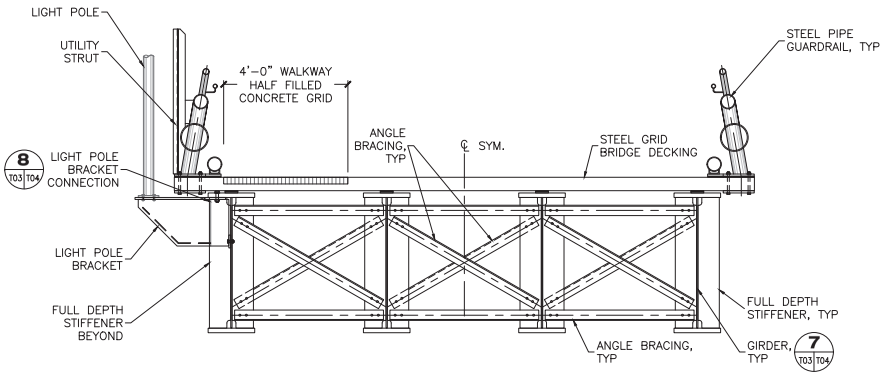
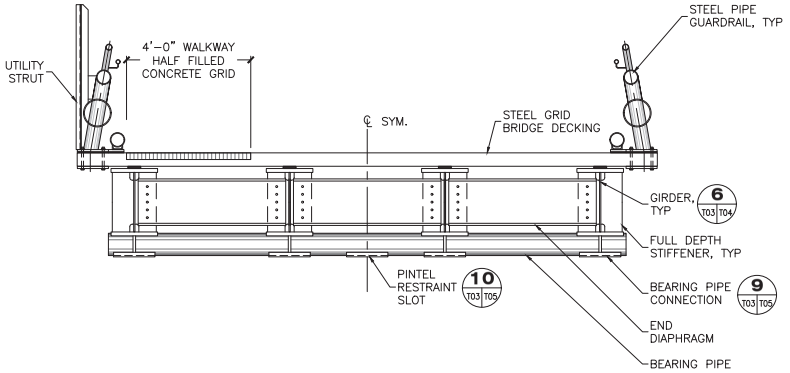
			ALASKA	SFHWY00152/0952018	2019	T03	89



A T02 T03 **SECTION**



B T02 T03 **SECTION**



C T02 T03 **SECTION**

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PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

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AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 141129
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE SECTIONS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T03 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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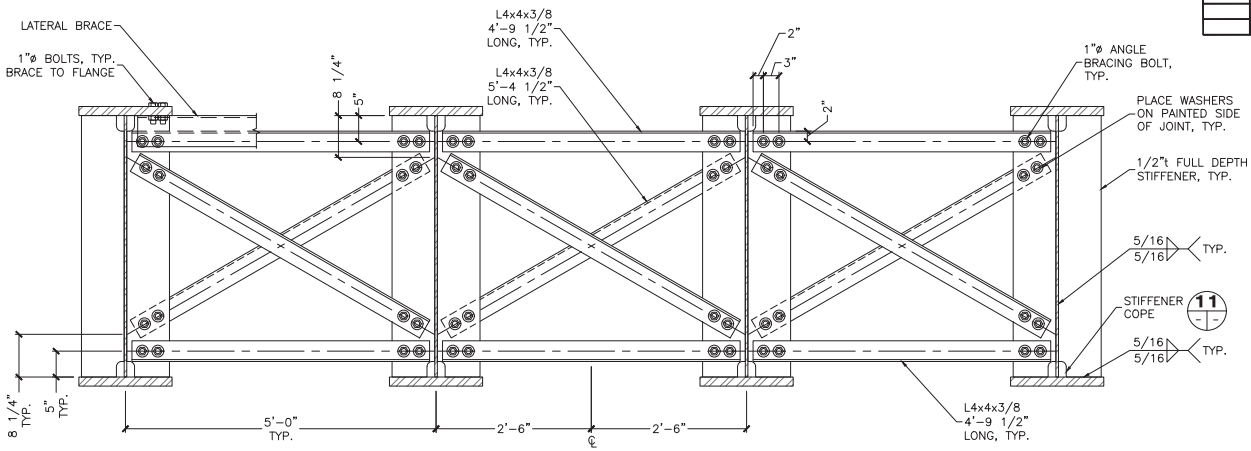
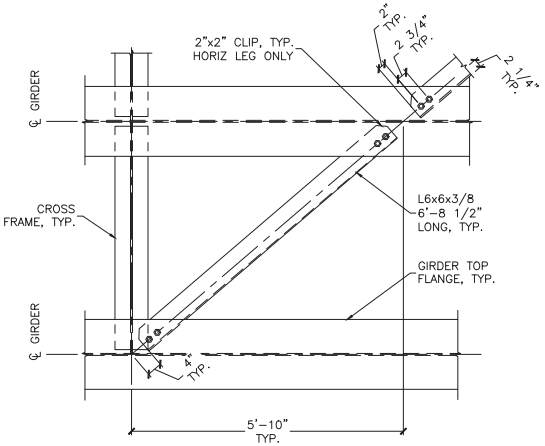
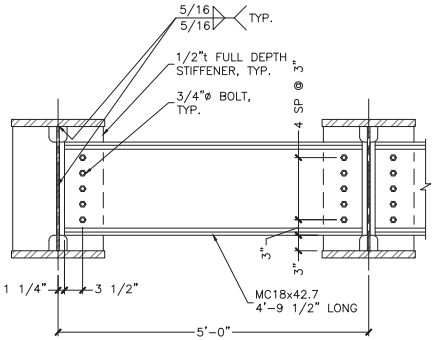


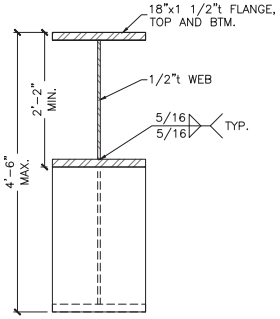
1 CROSS FRAMES
T02 T04



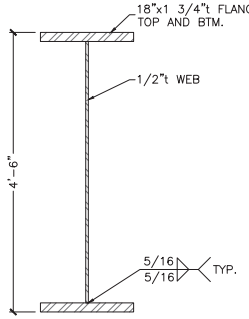
3 TYP LATERAL BRACE
T02 T04



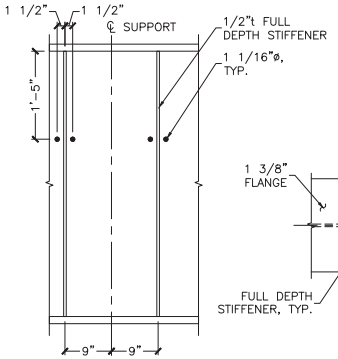
2 END DIAPHRAGM
T02 T04



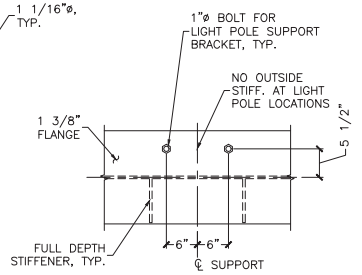
6 DETAIL
GIRDER
T03 T04



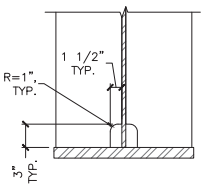
7 DETAIL
GIRDER
T03 T04



ELEVATION



PLAN



11 TYP COPE DETAIL
- -

8 LIGHT POLE BRACKET CONNECTION DETAIL
T03 T04

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

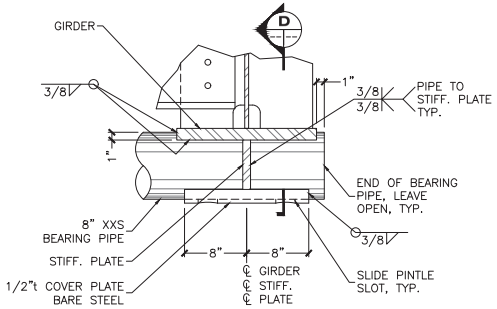
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

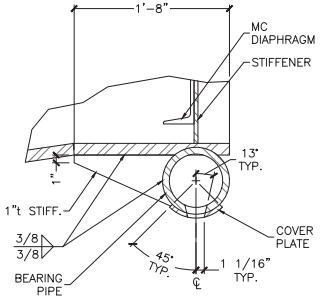
TRANSFER BRIDGE
SECTION DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T04 | DESIGNED | PND | CHECKED | DRAFTED | GRD

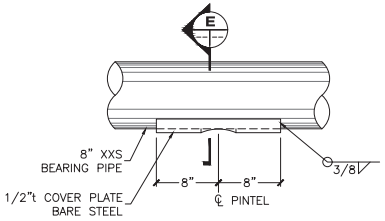
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS					
			ALASKA	SFHWY00152/0952018	2019	T05	89



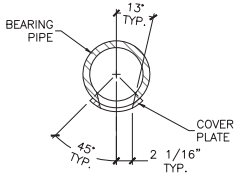
9 T03 T05 **DETAIL**
BEARING PIPE CONNECTION



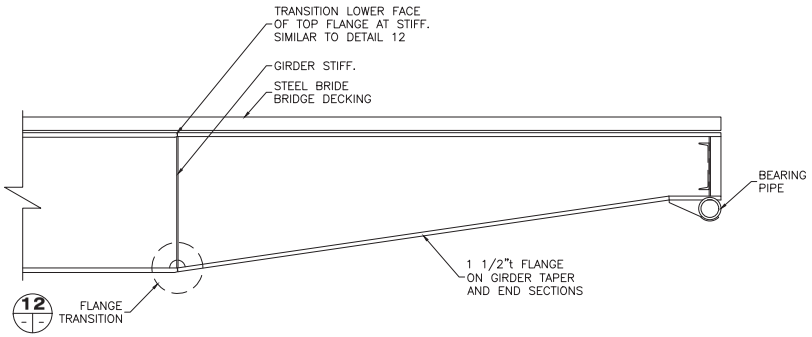
D **SECTION**
BEARING PIPE CONNECTION



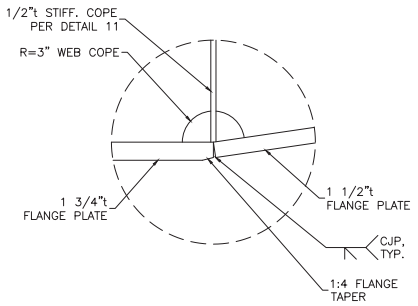
10 T03 T05 **DETAIL**
PINTEL RESTRAINT SLOT



E **SECTION**
BEARING PIPE CONNECTION



5 T02 T05 **DETAIL**
GIRDER END ELEVATION



12 **FLANGE TRANSITION DETAIL**
END GIRDER SECTION TRANSITION SIMILAR

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PE *Patty Lont* **7/3/2025**

PLANS DEVELOPED BY:

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SEATTLE, WA 98134
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AECC 250

STATE OF ALASKA
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Alan M. Johnson
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REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

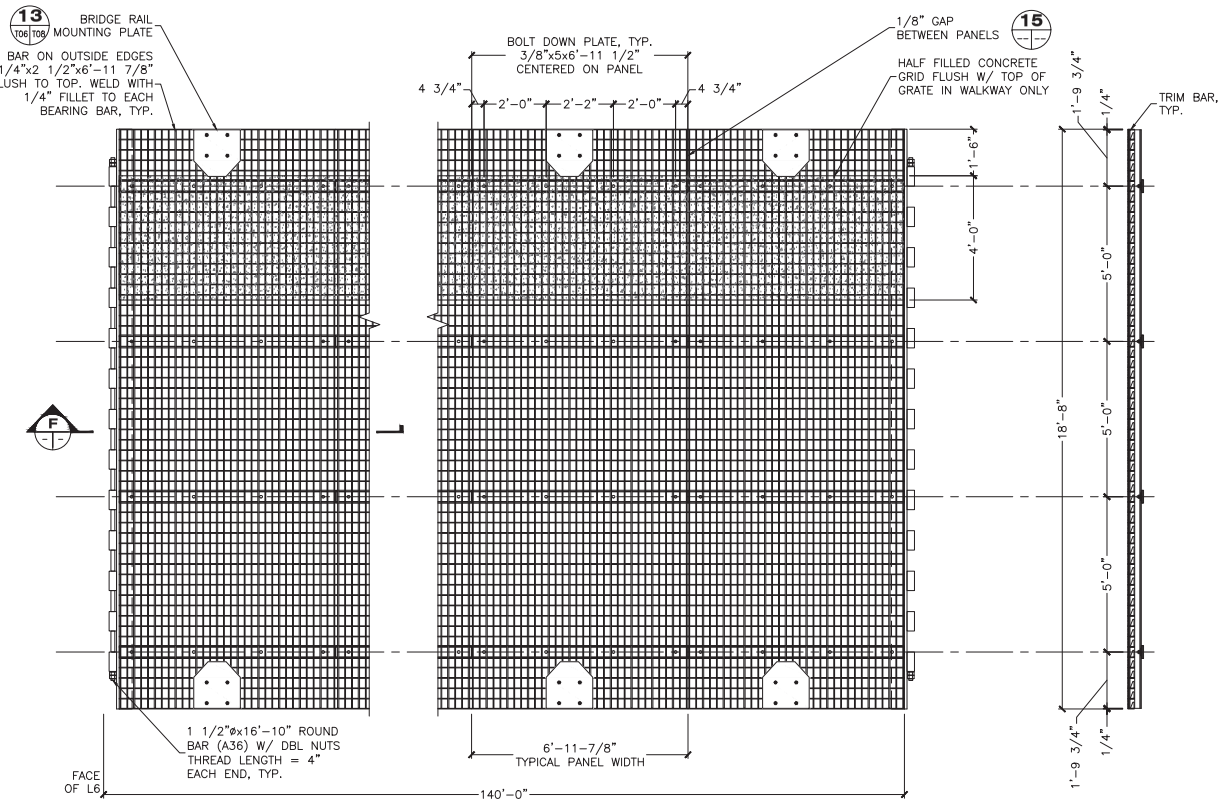
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE
END DETAILS

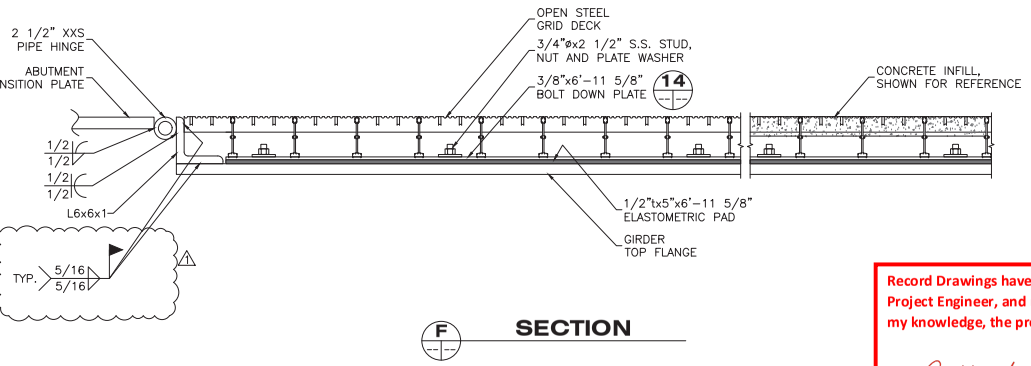
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T05 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	T06	89

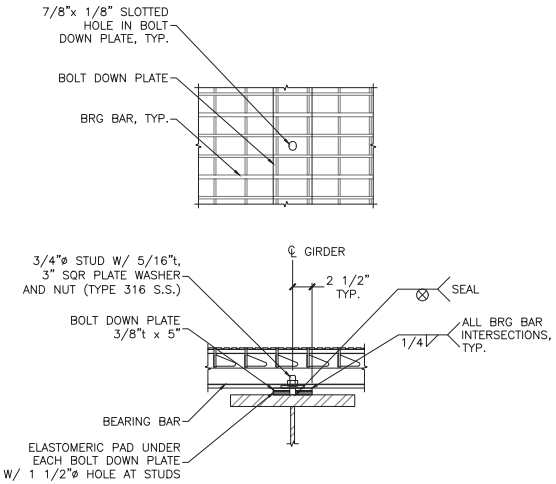
CO2



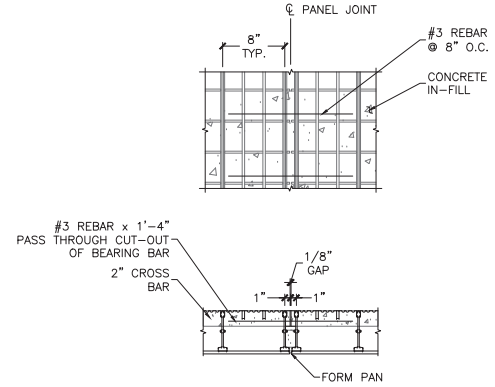
PARTIAL PLAN - DECK



F **SECTION**



14 **DETAIL**



15 **DETAIL**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

TRANSFER BRIDGE BRIDGE DECK

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T06 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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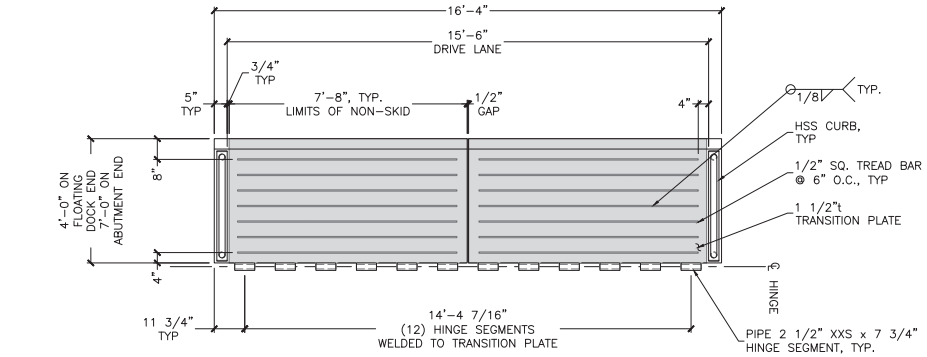
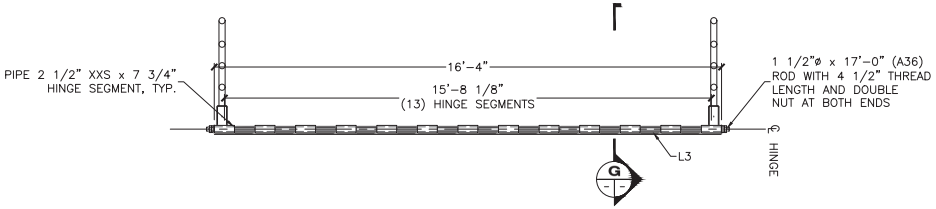
			ALASKA	SFHWY00152/0952018	2019	T07	89

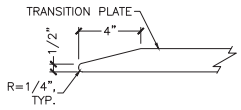


HINGE PLAN



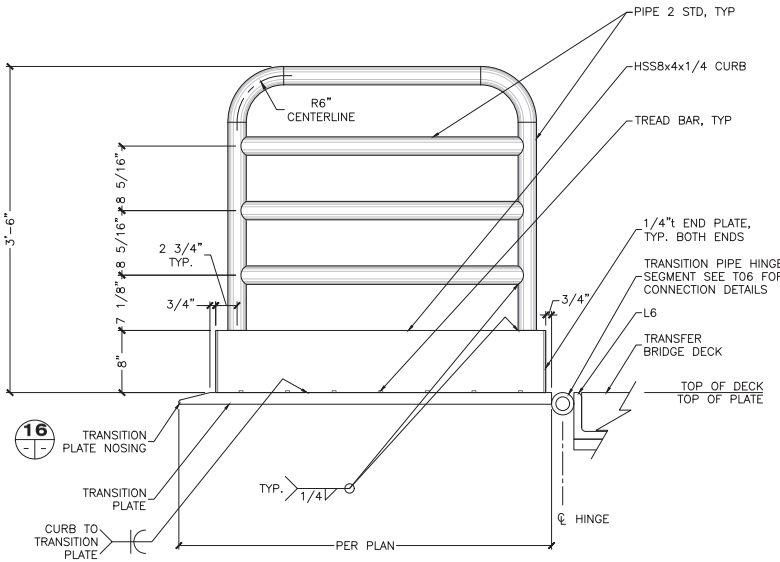
HINGE ELEVATION

HINGE SEGMENTS ATTACHED BRIDGE SHOWN



16 **DETAIL**

NOSING



G **SECTION**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE TRANSITION PLATE

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T07 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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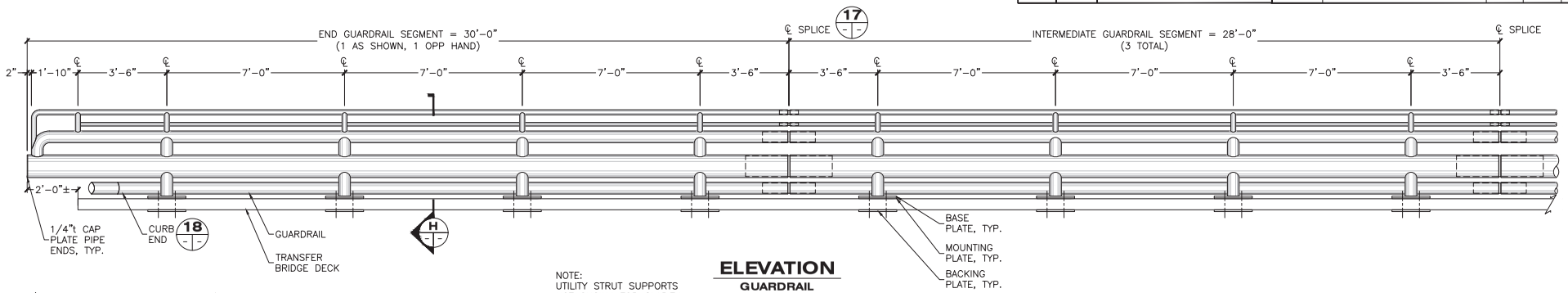
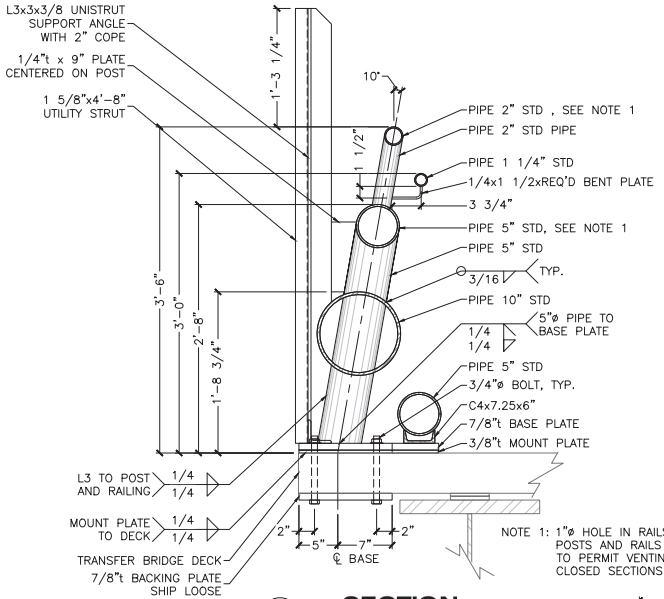
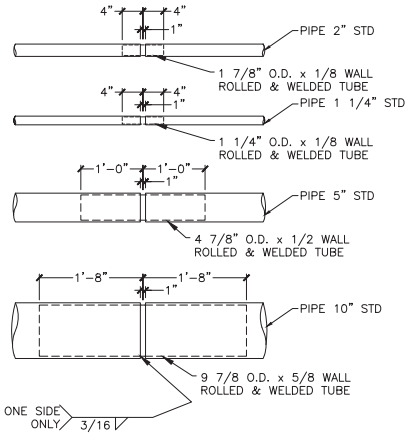


ELEVATION
GUARDRAIL

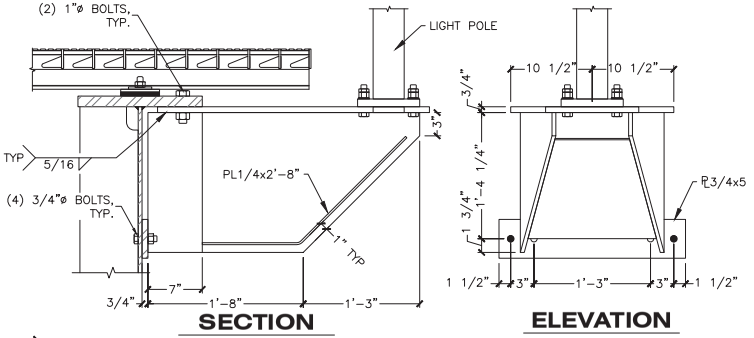
NOTE:
UTILITY STRUT SUPPORTS NOT SHOWN FOR CLARITY



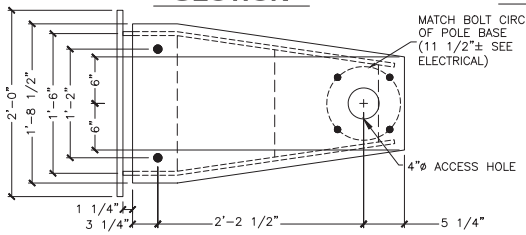
SECTION
H
GUARDRAIL



BRIDGE RAIL SPLICE
17
GUARDRAIL
GRIND EDGES SMOOTH

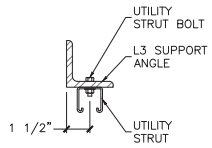


SECTION
ELEVATION

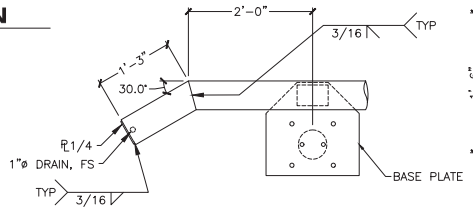


PLAN

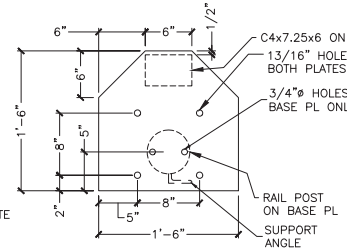
LIGHT POLE SUPPORT BRACKET
4
T02 T08



UTILITY STRUT MOUNTING DETAIL



CURB END
18
GUARDRAIL



BASE PLATE
13
T06 T08
MOUNT PLATE SIMILAR

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.
PE Patty Lent 7/3/2025

PLANS DEVELOPED BY:
PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387
CERTIFICATE OF AUTHORIZATION NUMBER:
AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

TRANSFER BRIDGE GUARDRAIL AND LIGHT POLE

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T08 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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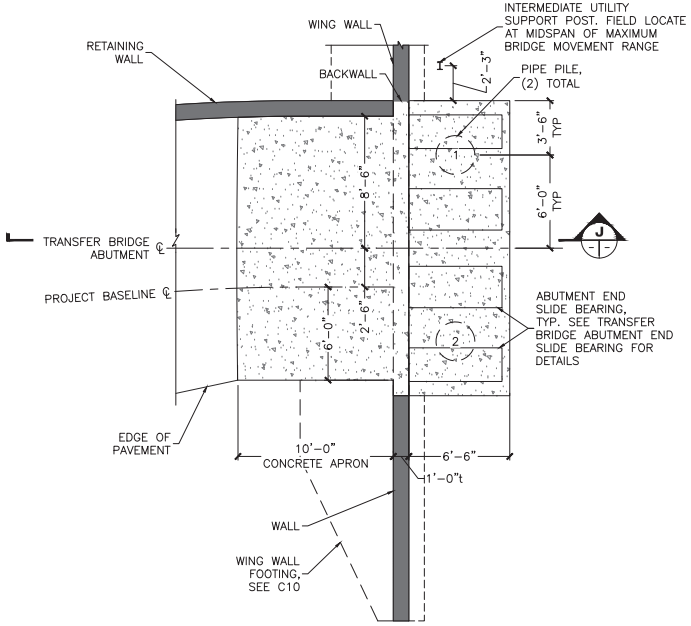
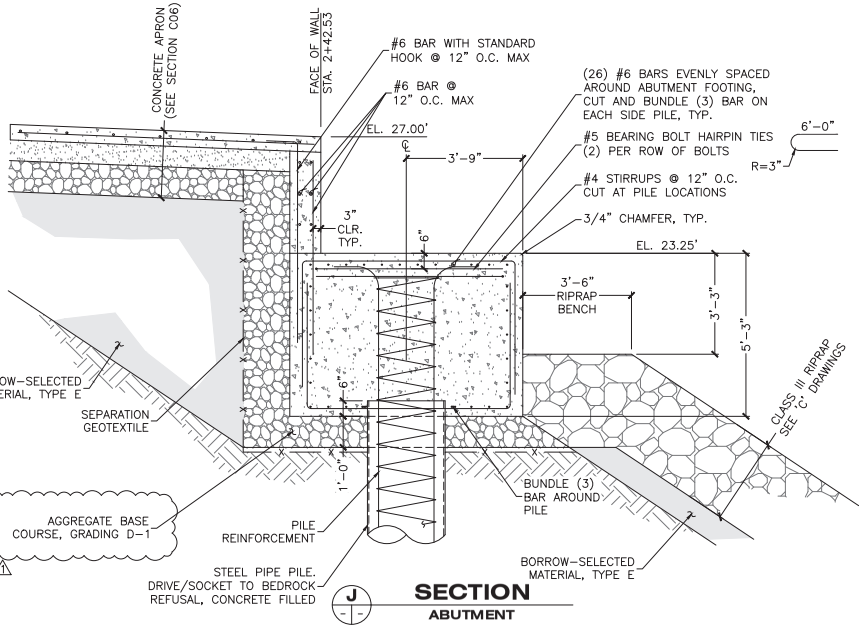
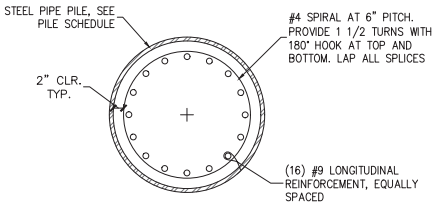


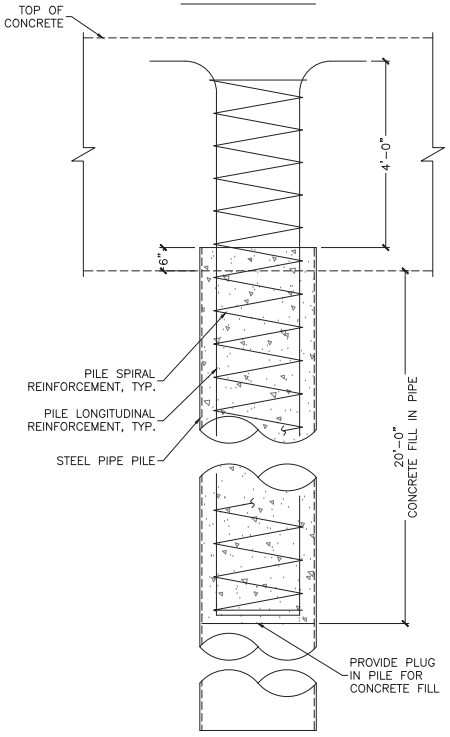
PLAN
ABUTMENT



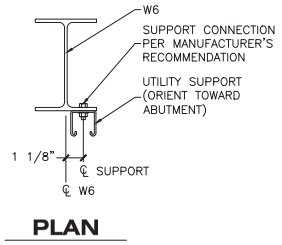
SECTION
ABUTMENT



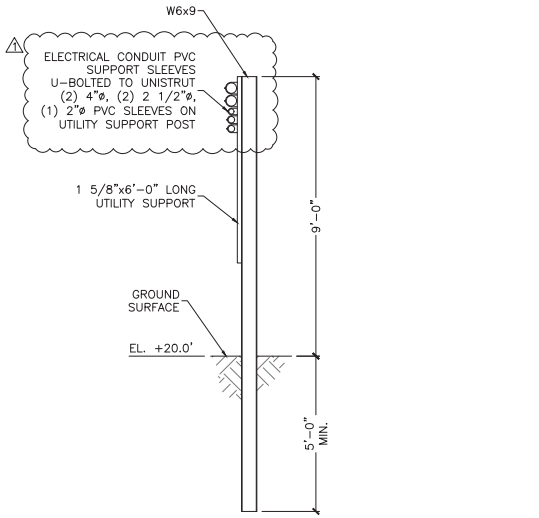
PLAN



ABUTMENT PIPE PILE DETAIL



PLAN



ELEVATION
INTERMEDIATE UTILITY SUPPORT POST

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE
ABUTMENT PLAN AND SECTIONS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T09 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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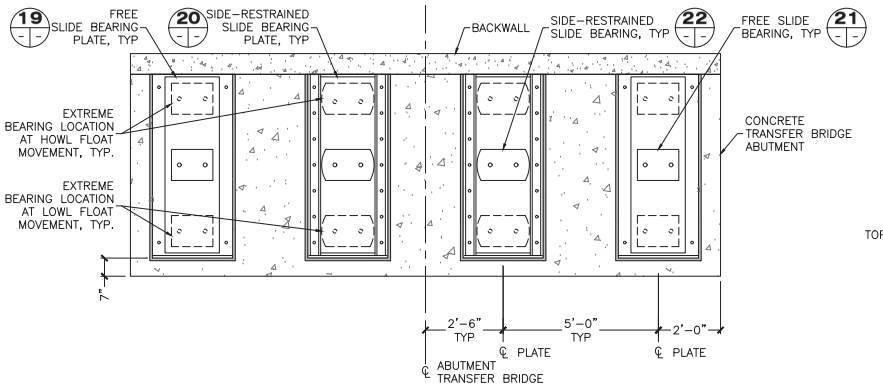
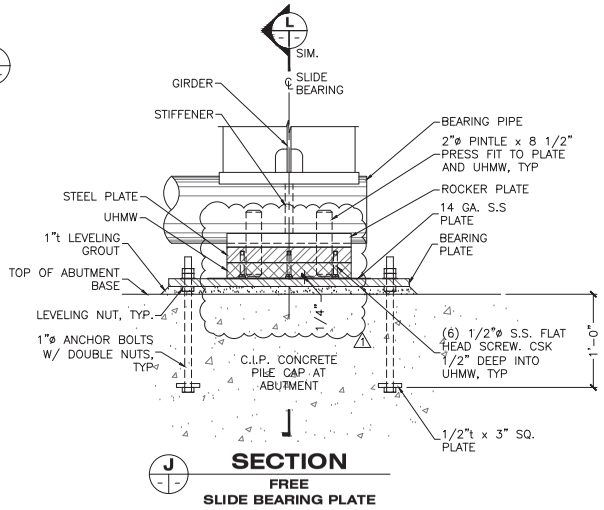
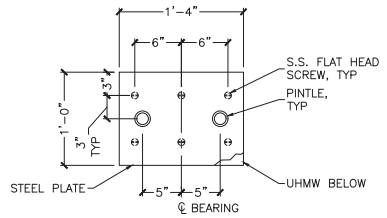


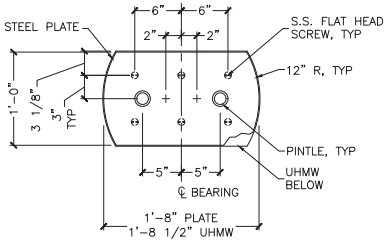
PLAN
ABUTMENT END SLIDE BEARING



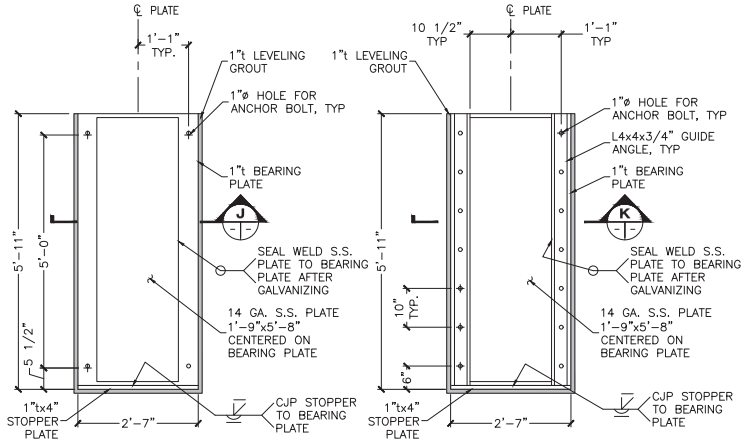
J **SECTION**
FREE SLIDE BEARING PLATE



21 **DETAIL**
FREE SLIDE BEARING

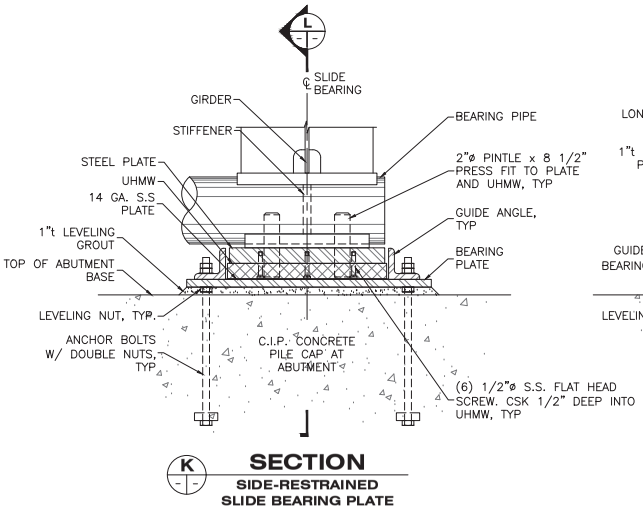


22 **DETAIL**
SIDE-RESTRAINED SLIDE BEARING

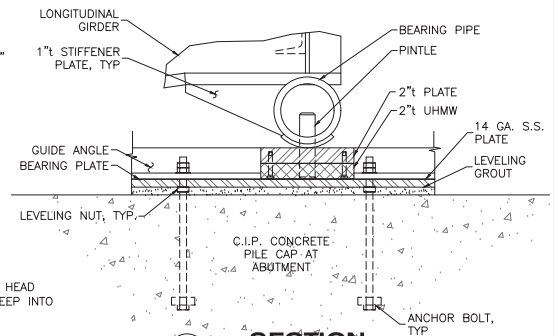


19 **DETAIL**
FREE SLIDE BEARING PLATE

20 **DETAIL**
SIDE-RESTRAINED SLIDE BEARING PLATE



K **SECTION**
SIDE-RESTRAINED SLIDE BEARING PLATE



L **SECTION**
SIDE-RESTRAINED SLIDE BEARING PLATE
(FREE SLIDE BEARING PLATE AT SIM.)

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

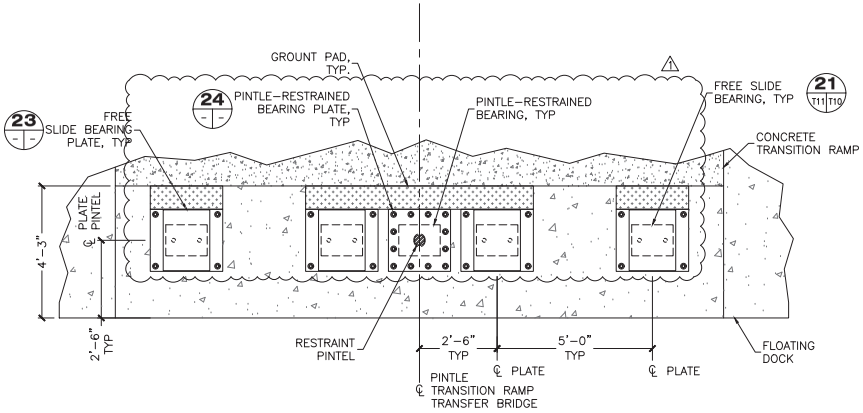
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE
ABUTMENT END SLIDE BEARING

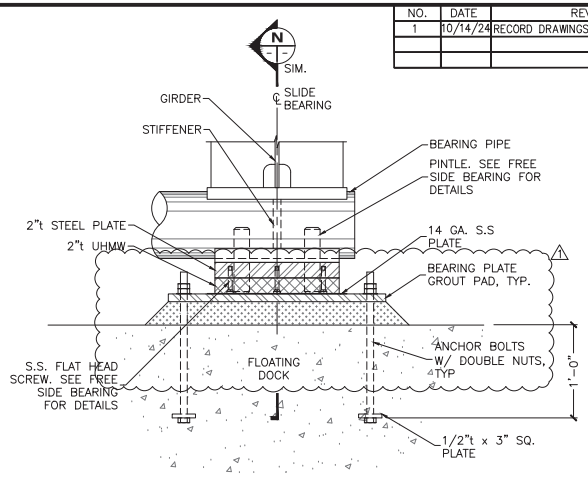
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T10 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

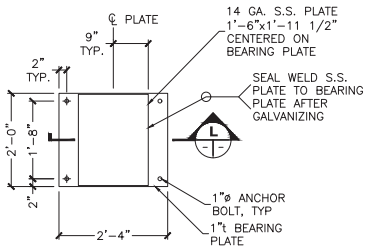
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	T11	89



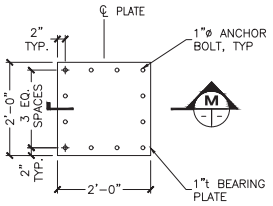
PLAN
FLOAT END PINNED BEARING



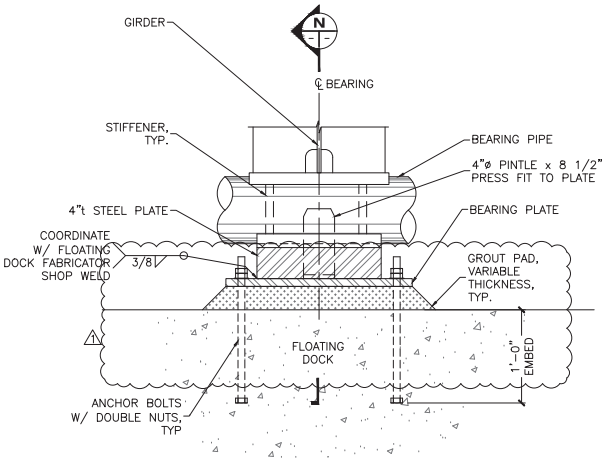
L SECTION
FREE SLIDE BEARING PLATE



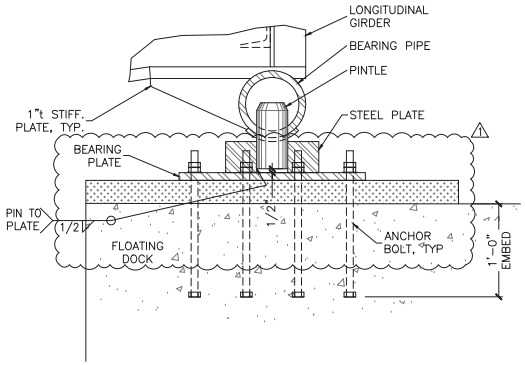
23 DETAIL
FREE SLIDE BEARING PLATE



24 DETAIL
PINTLE-RESTRAINED BEARING PLATE



M SECTION
PINTLE-RESTRAINED BEARING PLATE



N SECTION
PINTLE-RESTRAINED BEARING
(FREE SLIDE BEARING PLATE AT SIM.)

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

NOTE:
1. FOR ADDITIONAL DETAILS NOT SHOWN SEE FLOATING DOCK DRAWINGS.
2. CONTRACTOR TO COORDINATE BETWEEN BRIDGE ATTACHMENT AND FLOATING DOCK EMBED.

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

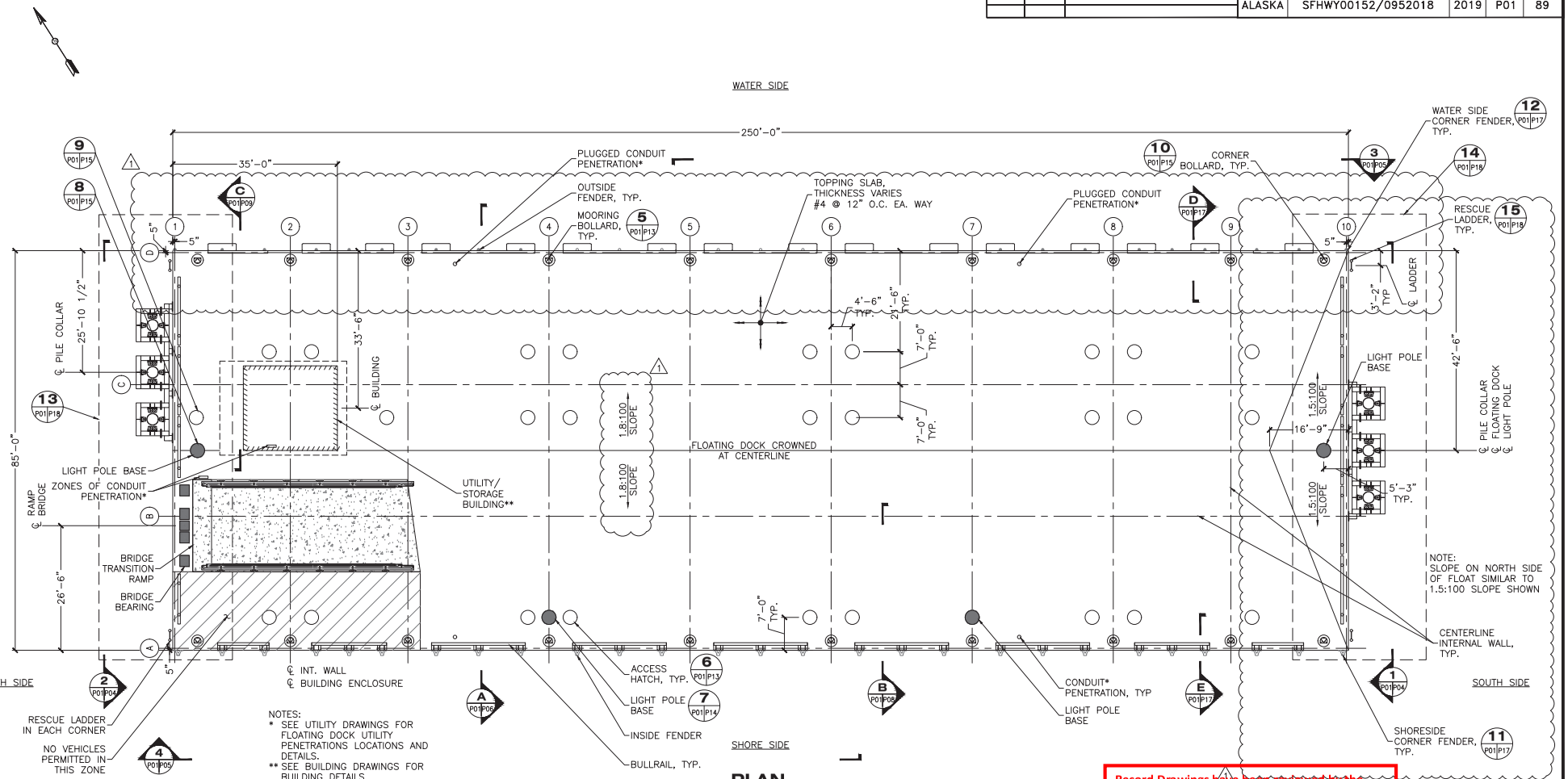
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE
FLOATING DOCK END PINNED BEARING

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-T01-T11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | T11 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	P01	89



NOTES:
* SEE UTILITY DRAWINGS FOR FLOATING DOCK UTILITY PENETRATIONS LOCATIONS AND DETAILS.
** SEE BUILDING DRAWINGS FOR BUILDING DETAILS.

PLAN

GRID LINES FALL ON CETERLINE OF INTERIOR AND PERIMETER WALLS

FLOATING DOCK GENERAL NOTES:

FLOATING DOCK REINFORCEMENT: ALL MILD REINFORCEMENT IN THE FLOATING DOCK SHALL BE ASTM A706 GR. 60. ALL DEFORMED BAR AND WELDED WIRE REINFORCEMENT SHALL BE GALVANIZED IN ACCORDANCE WITH IN THE REQUIREMENTS OF SPECIFICATION SECTION 503. SEE PROJECT SPECIFICATION SECTION 503 AND 709 FOR FURTHER DETAIL.

FLOATING DOCK PRETENSIONED: PRESTRESSED DECK PANEL SHALL USE ASTM A416 270 KSI LOW-LAX 7-WIRE PRESTRESSING STRAND. ALL STRAND SHALL BE 0.6"ø. STRANDS SHALL BE JACKED TO A TENSILE STRESS OF 189 KSI. SEE PROJECT SPECIFICATION SECTION 524.

FLOATING DOCK POST-TENSIONING: POST-TENSIONING STEEL SHALL BE ASTM A416 GR. 270 KSI LOW-LAS 7-WIRE PRESTRESSING STRAND. ALL STRAND SHALL BE 0.6"ø. STRANDS SHALL BE JACKED TO A TENSILE STRESS OF 189 KSI. SEE PROJECT SPECIFICATIONS 524 AND 721 FOR FURTHER DETAILS.

FLOATING DOCK CONCRETE: FLOATING DOCK CONCRETE SHALL BE PROPORTION PER PROJECT SPECIFICATION SECTION 524. FLOATING DOCK CONCRETE SHALL ACHIEVE A MINIMUM 28-DAY COMPRESSION STRENGTH OF 8000 PSI. ALL STRESSED CONCRETE COMPONENTS (POST-TENSIONED OR PRESTRESSED) SHALL ACHIEVE A MINIMUM COMPRESSION STRENGTH OF 6000 PSI PRIOR TO RELEASING.

POST-TENSIONING DUCT GROUT: GROUT INJECTED INTO POST-TENSIONING DUCTS SHALL ACHIEVE A MINIMUM 28-DAY COMPRESSION 8000 PSI. SEE PROJECT SPECIFICATION SECTION 524 FOR FURTHER DETAIL.

PRESTRESSING LOSSES
FLOATING DOCK POST-TENSIONING STEEL AFTER ALL LOSSES IS ANTICIPATED TO RETAIN EFFECTIVE PRESTRESS OF 140 KSI. PRETENSIONING STEEL AFTER ALL LOSSES IS ANTICIPATED TO RETAIN 160 KSI OF EFFECTIVE PRESTRESS.

BALLASTING
BALLAST FLOAT IN ACCORDANCE WITH SPECIFICATION SECTION 524. BALLAST SHALL NOT BE PLACED TO A DEPTH GREATER THAN 3 FEET WITHIN THE FLOATING DOCK. THE TOTAL BALLAST WEIGHT TO ACHIEVE THE SPECIFIED FREEBOARD IS ESTIMATED TO BE 742 TONS. CONTRACTOR TO VERIFY.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:
PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:
AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

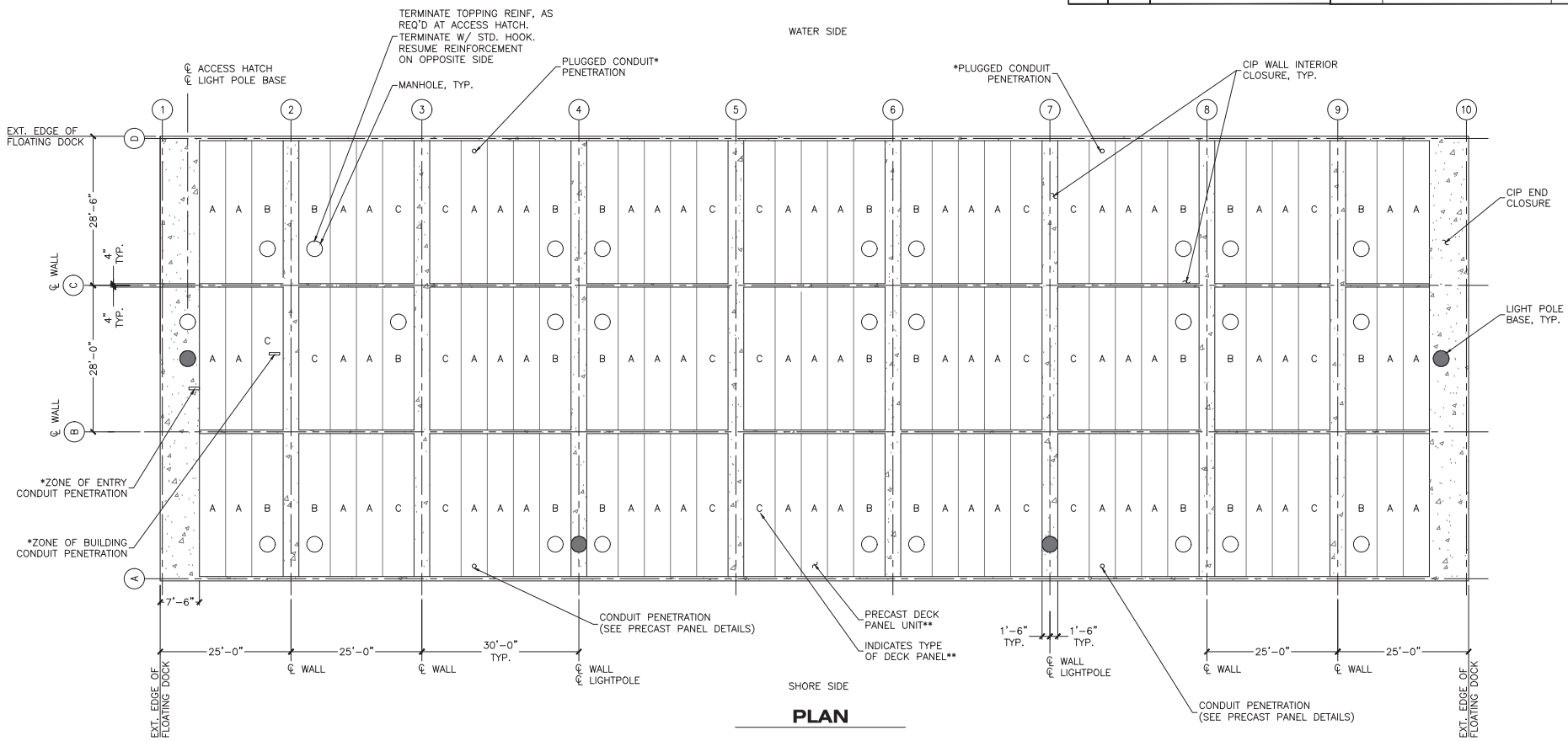
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
PLAN & GENERAL NOTES

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P01.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P01 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P02	89



PLAN

NOTES:
* SEE UTILITY DRAWINGS FOR FLOATING DOCK UTILITY PENETRATIONS LOCATIONS AND DETAILS.
** SEE SHEET P16 FOR PRECAST PANEL DETAILS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

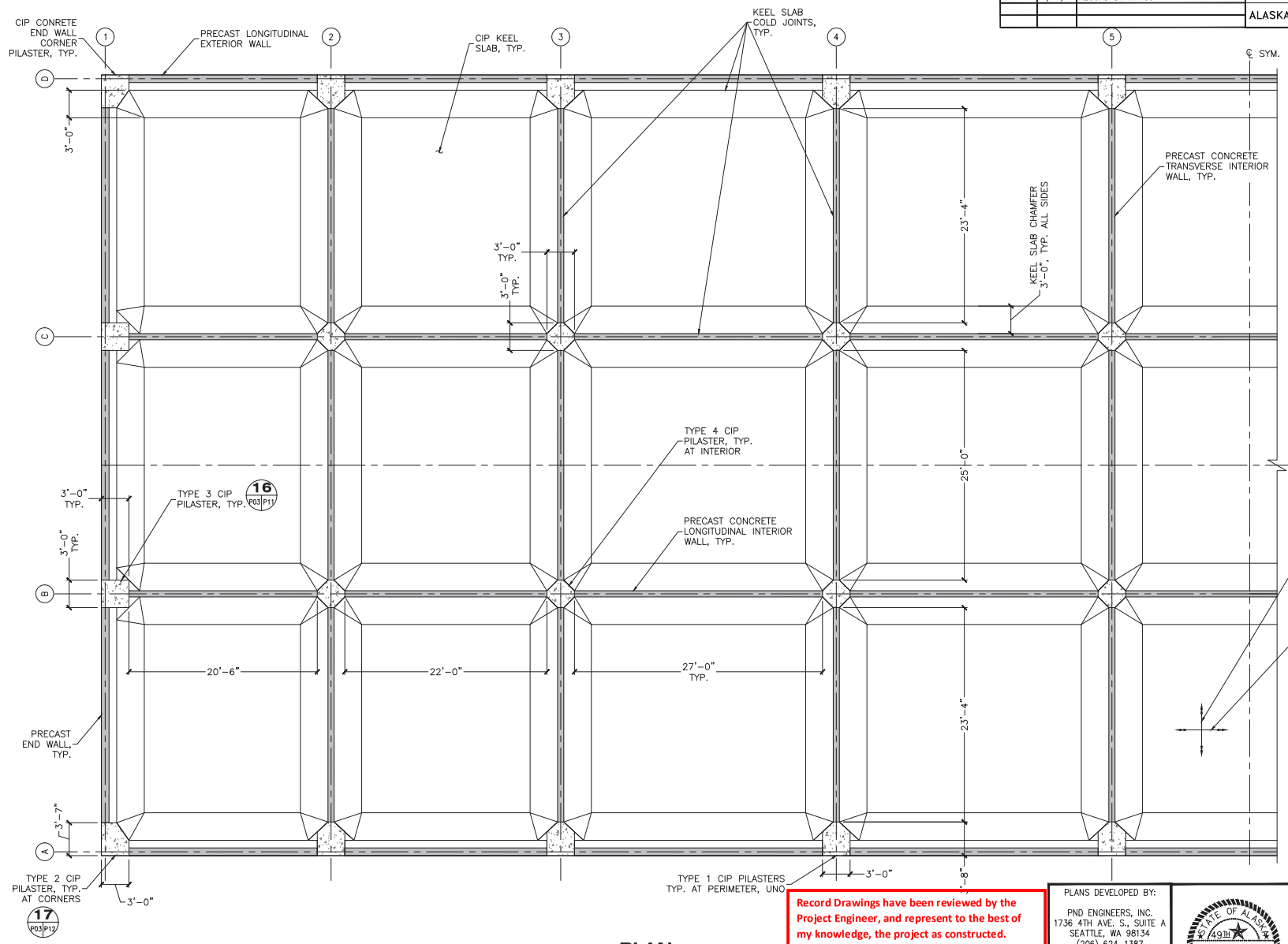
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
PRECAST DECK PANEL PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P02.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P02 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P03	89



NOTES:
1. SEE SHEET P08, P11 AND P12 FOR PILASTER DETAILS.
2. SEE SHEET P01 FOR ADDITIONAL PLAN DIMENSIONS.

PLAN

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lent 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

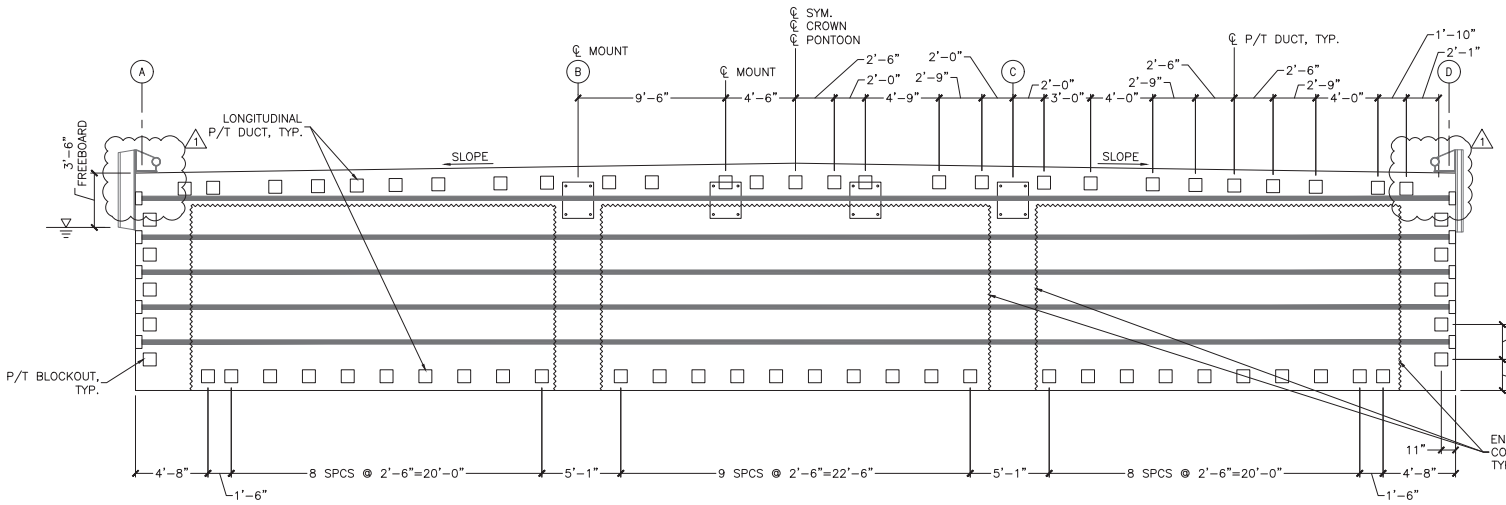
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
KEEL SLAB PLAN

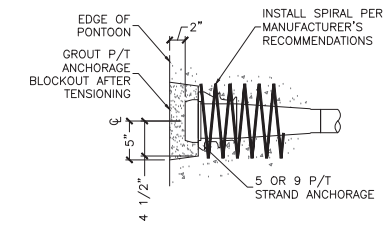
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P03.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P03 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

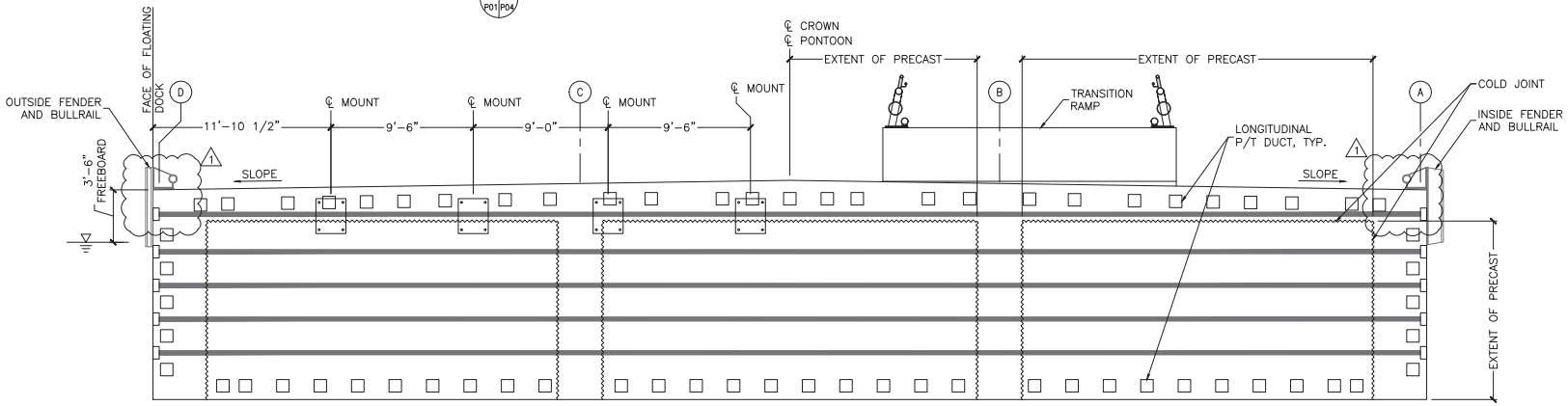
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P04	89



1 P01 P04 FLOATING DOCK EXTERIOR ELEV. SOUTH SIDE



P/T ANCHORAGE DETAIL



2 P01 P04 FLOATING DOCK EXTERIOR ELEV. NORTH SIDE

NOTES:
1. SEE SHEET P05 FOR ADDITIONAL INFORMATION.
2. SEE SHEET U03 FOR PIPE ATTACHMENT DETAILS.
3. LONGITUDINAL P/T CONSIST OF 9–0.60"ø STRANDS PER TENDON, TYP.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/3/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA — 49TH — Alan M. Johnson SE 14129 — REGISTERED PROFESSIONAL ENGINEER

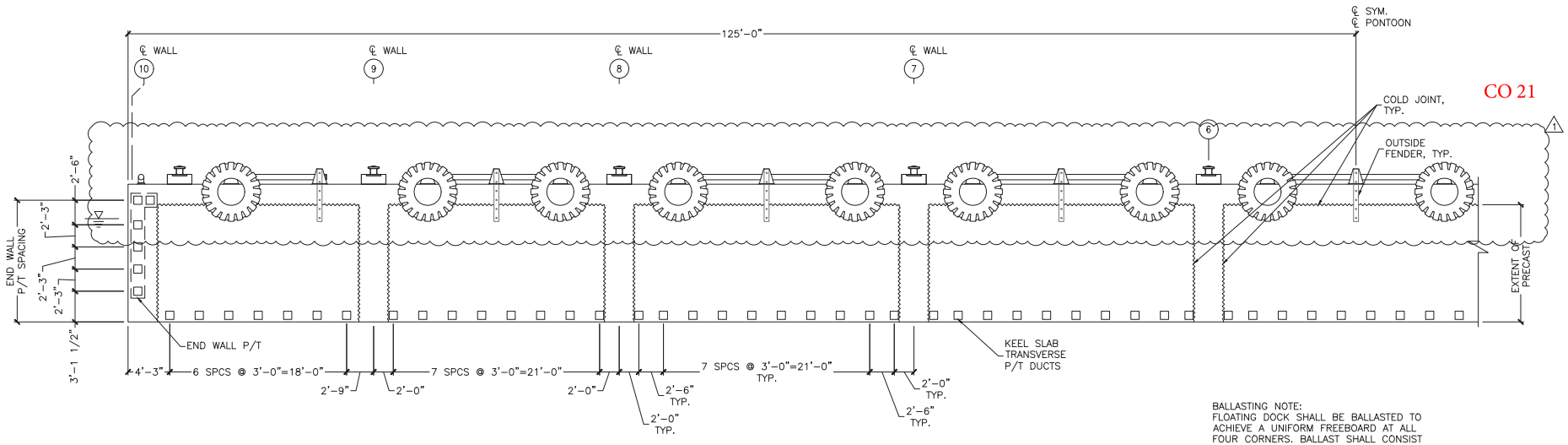
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TYPICAL ELEVATION VIEW

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024-P04.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P04 | DESIGNED | PND | CHECKED | DRAFTED | GRD

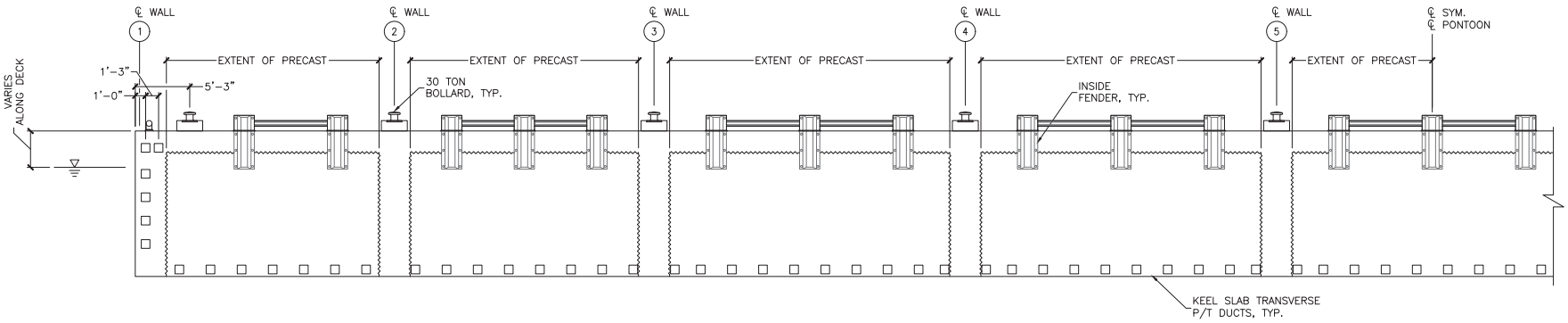
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	P05	89



3 EXTERIOR ELEVATION-WATER SIDE
P01 P05

SEE WATER SIDE FOR DETAILS NOT SHOWN.

BALLASTING NOTE:
FLOATING DOCK SHALL BE BALLASTED TO ACHIEVE A UNIFORM FREEBOARD AT ALL FOUR CORNERS. BALLAST SHALL CONSIST OF A GRANULAR FILL MATERIAL. BALLAST WEIGHT IS LIMITED TO 330PSF PER CELL. BALLAST SHALL BE RAKED TO A UNIFORM GRADE IN EACH CELL.



4 EXTERIOR ELEVATION-SHORE SIDE
P01 P05

SEE WATER SIDE FOR DETAILS NOT SHOWN.

NOTES:
1. SEE SHEET P04 FOR ADDITIONAL INFORMATION.
2. SEE SHEET U03 FOR PIPE ATTACHMENT DETAILS.
3. ALL KEEL SLAB TRANSVERSE P/T CONSISTS OF 5-0.6"ø STRANDS. ALL END WALL P/T CONSISTS OF 9-0.6"ø STRANDS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont. 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

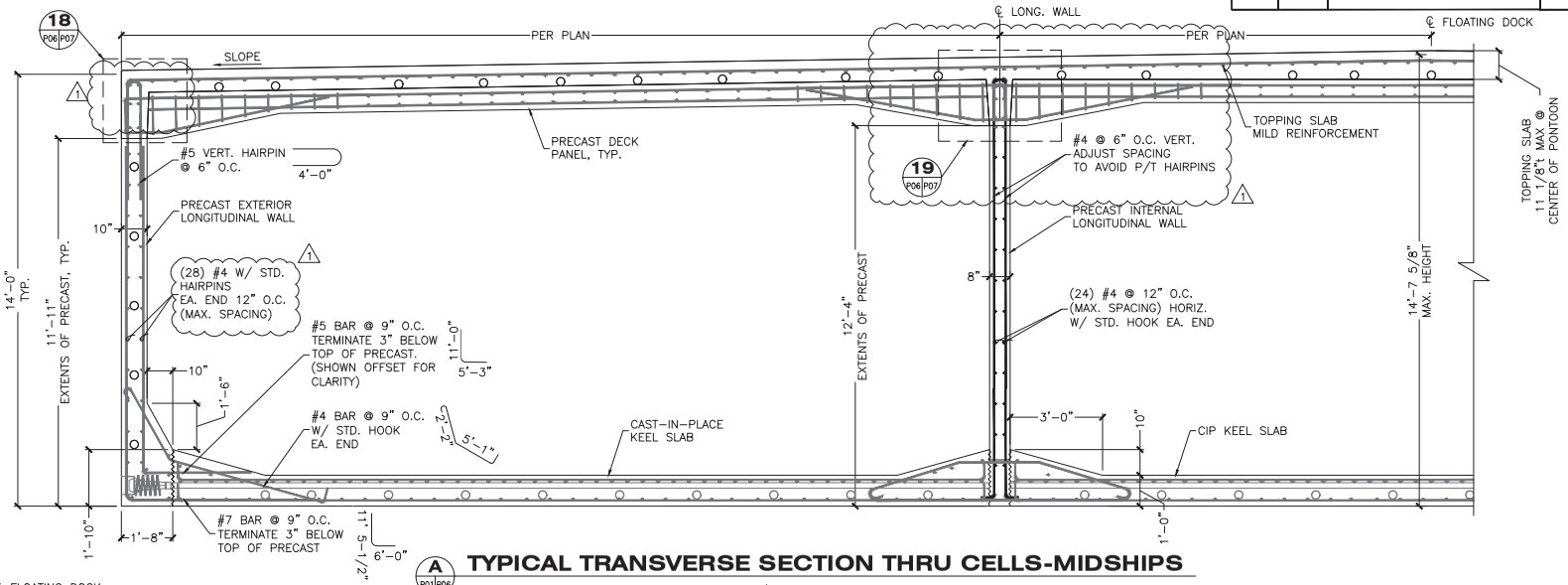
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
LONGITUDINAL ELEVATION

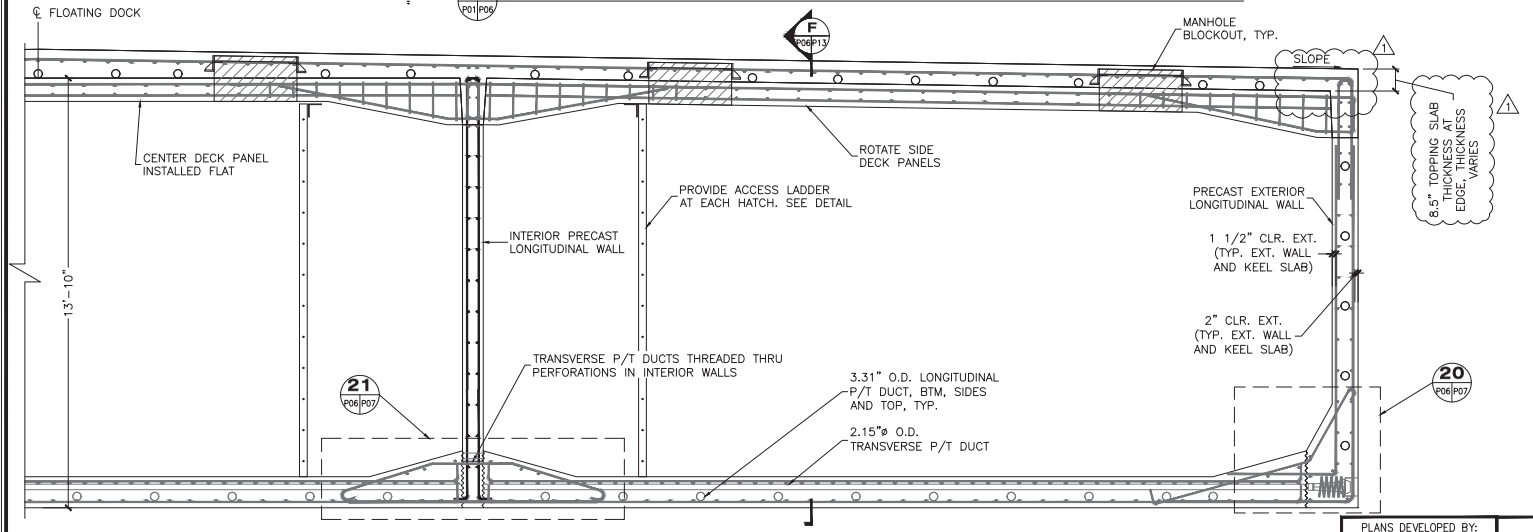
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P05.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P05 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	P06	89



A P01 P06 **TYPICAL TRANSVERSE SECTION THRU CELLS-MIDSHIPS**

NOTE:
CONTRACTOR MAY SUBMIT ALTERNATIVE AND EQUIVALENT REBAR DETAIL FOR ENGINEER'S APPROVAL.



A P01 P06 **TYPICAL TRANSVERSE SECTION THRU CELLS-MIDSHIPS**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA · 49TH · Nian M. Johnson SE 14129 · REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TYPICAL SECTION

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024-P06.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P06 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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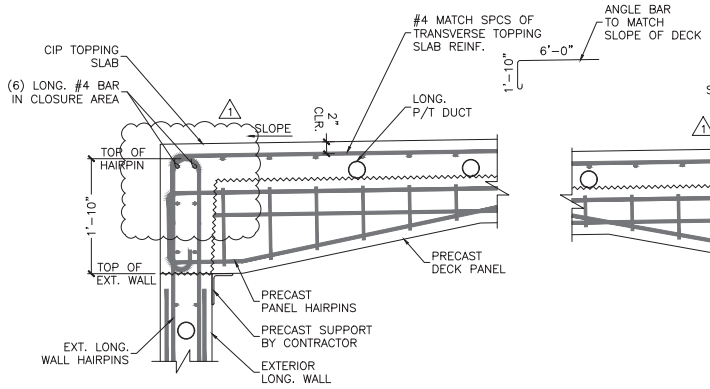
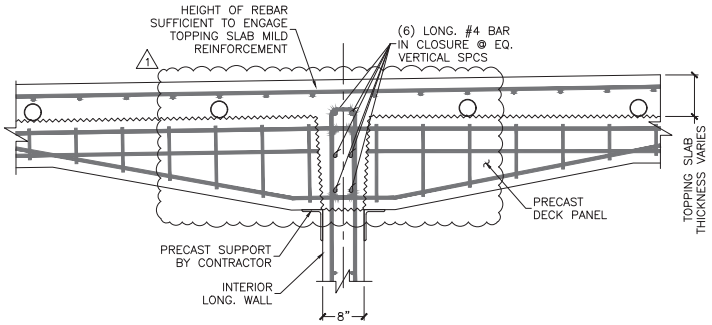


18 P06 P07 **DETAIL**



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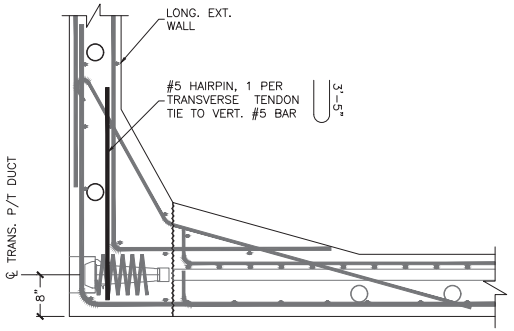

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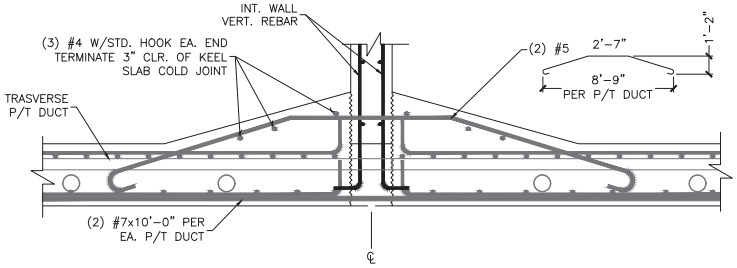


21 P06 P07 **DETAIL**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA · 49TH · Alan M. Johnson SE 141129 · REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

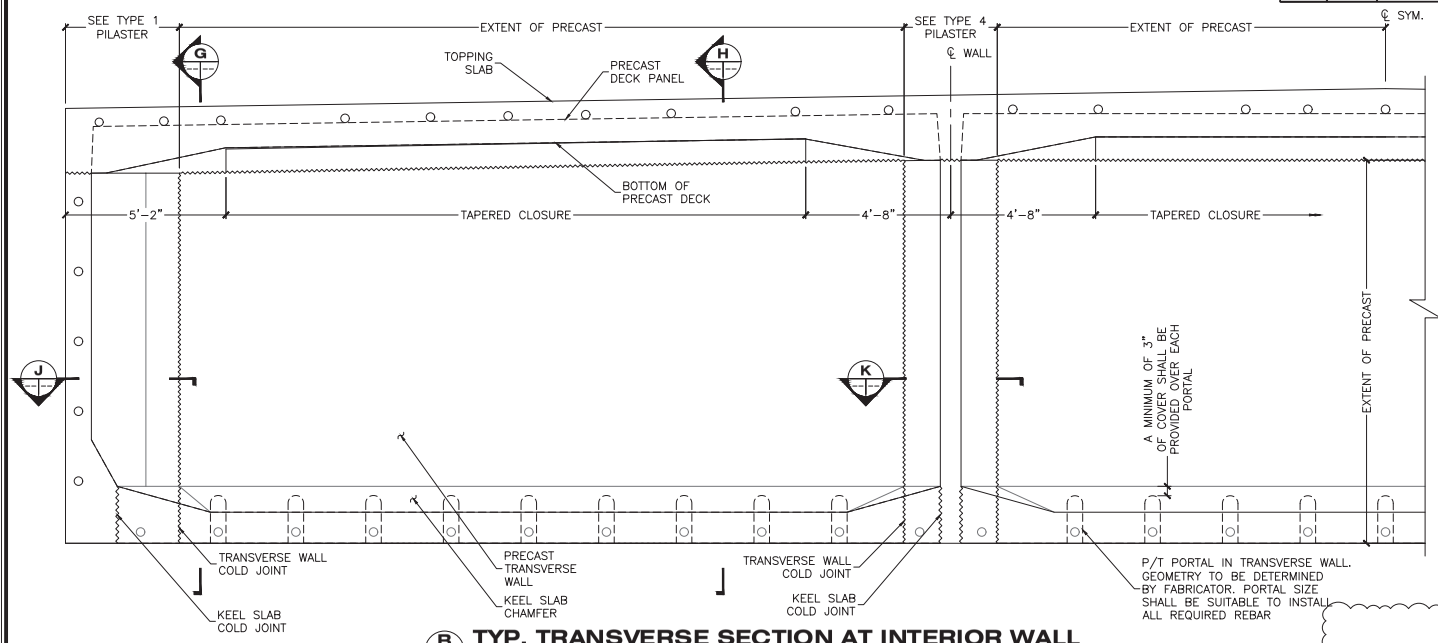
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TYPICAL SECTION DETAILS

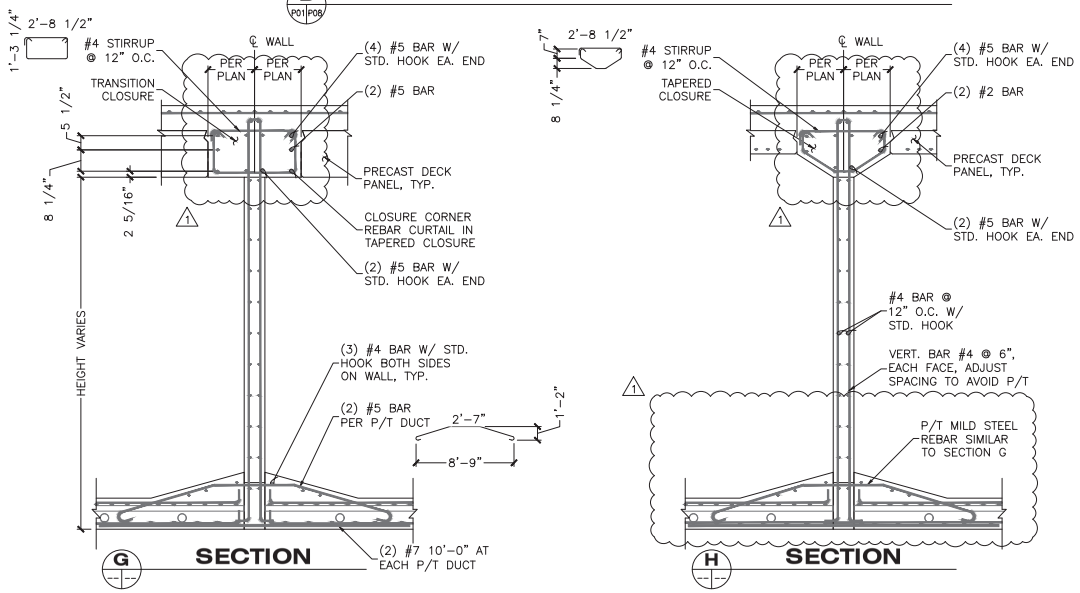
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P07.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P07 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P08	89

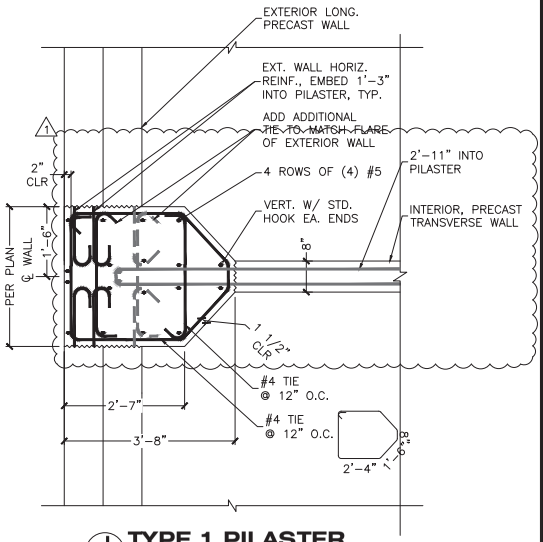


B TYP. TRANSVERSE SECTION AT INTERIOR WALL

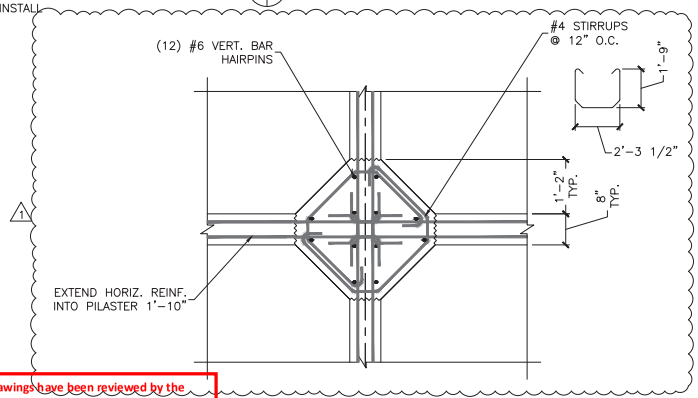


G SECTION

H SECTION



J TYPE 1 PILASTER



K TYPE 4 PILASTER

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TRANSVERSE WALL SECTION AND DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P08.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P08 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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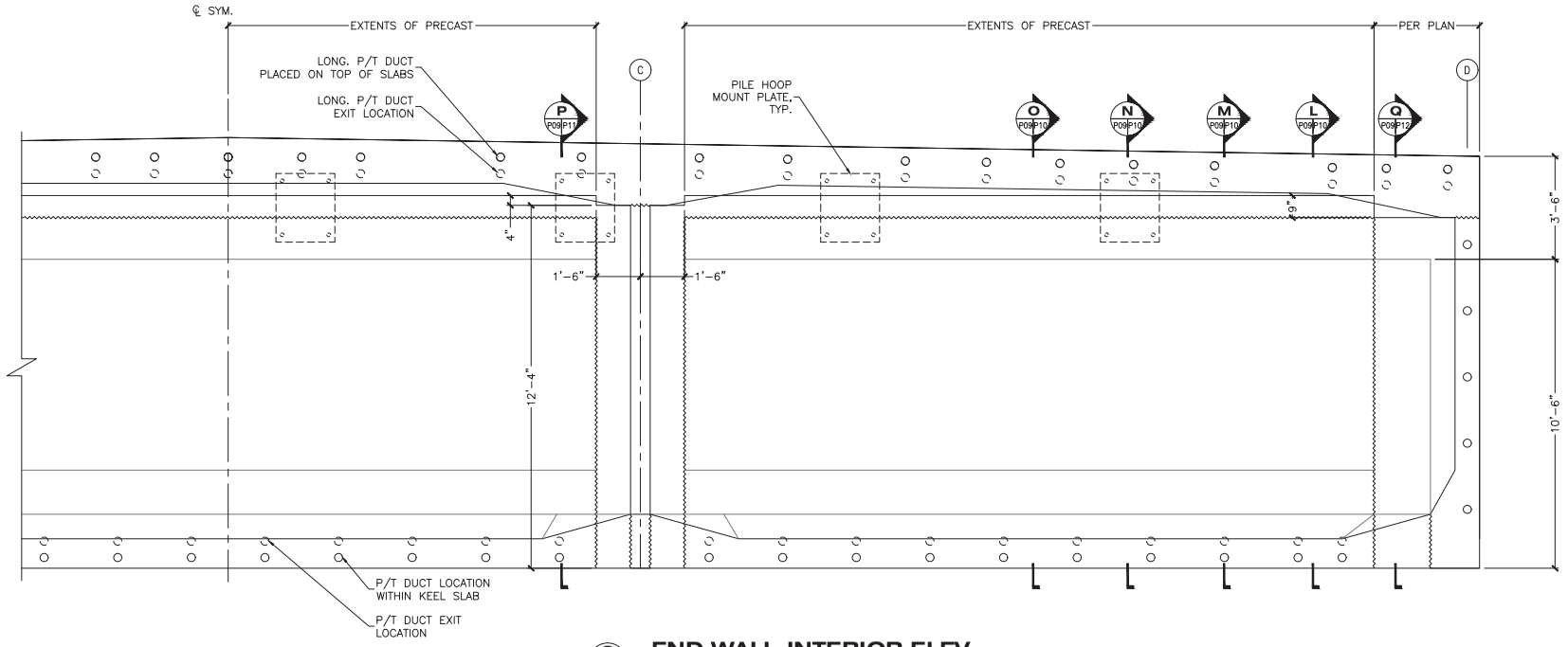

C P01 P10 END WALL-INTERIOR ELEV

NORTH SIDE SHOWN.
SOUTH SIDE SIMILAR

NOTE:
MILD REINFORCEMENT
NOT SHOWN FOR CLARITY.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

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AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

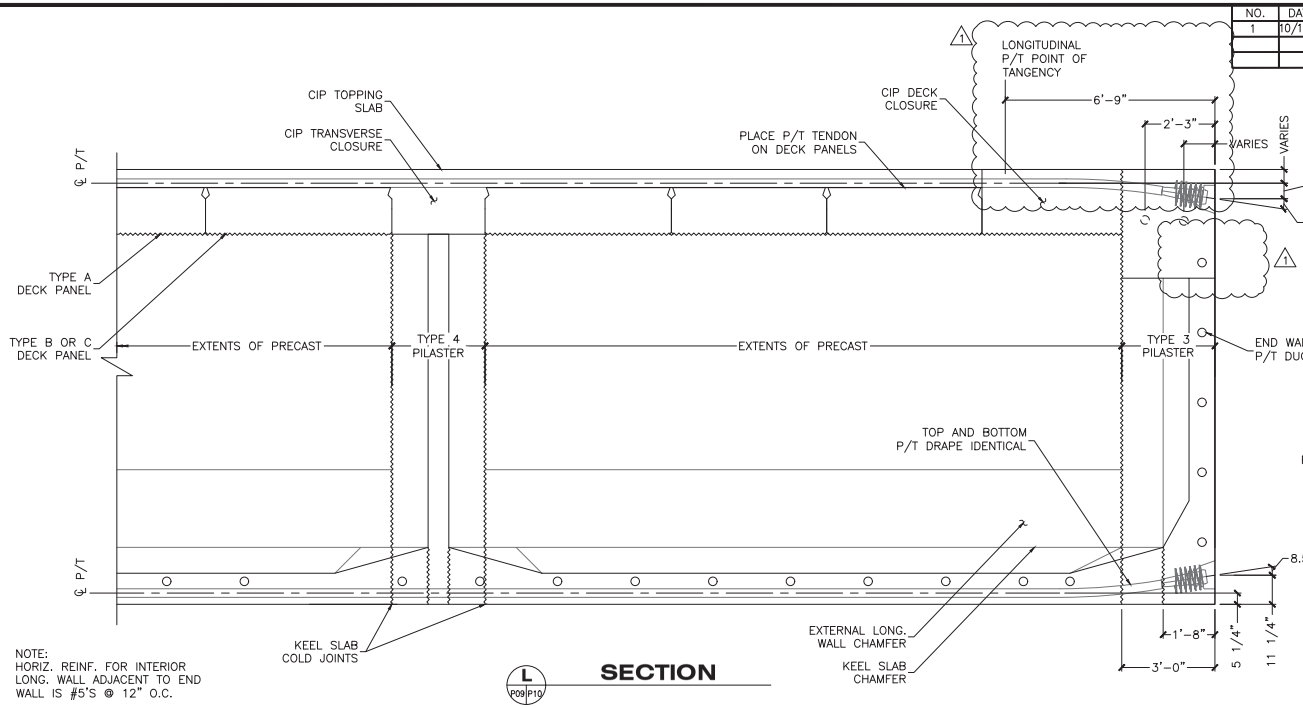
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
SECTION AT END WALL

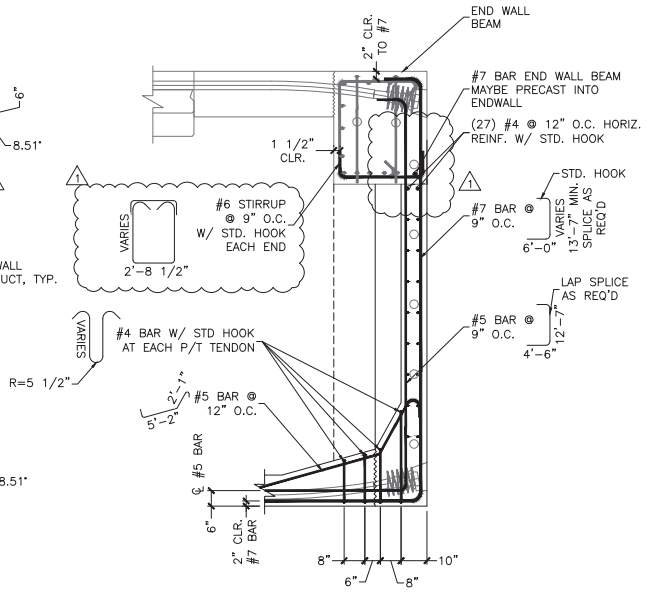
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P09.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P09 | DESIGNED | PND | CHECKED | | DRAFTED | | GRD |

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

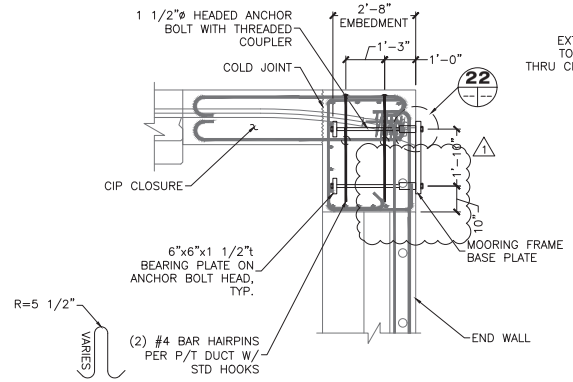
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P10	89



L P09 P10 **SECTION**



M P09 P10 **SECTION**



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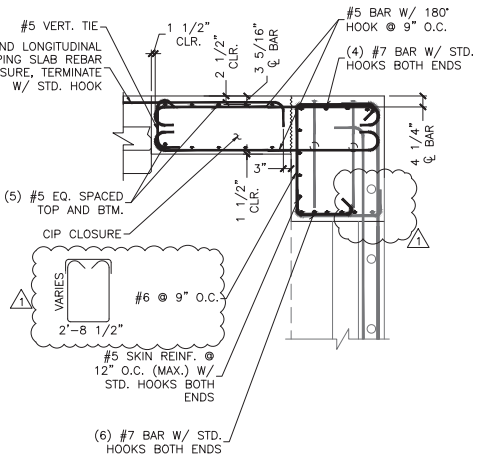
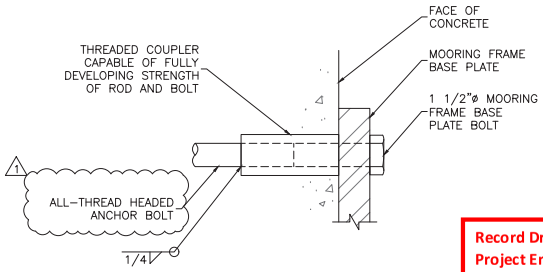


O P09 P10 **SECTION**



22 **DETAIL**
ANCHOR THREADED COUPLER

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

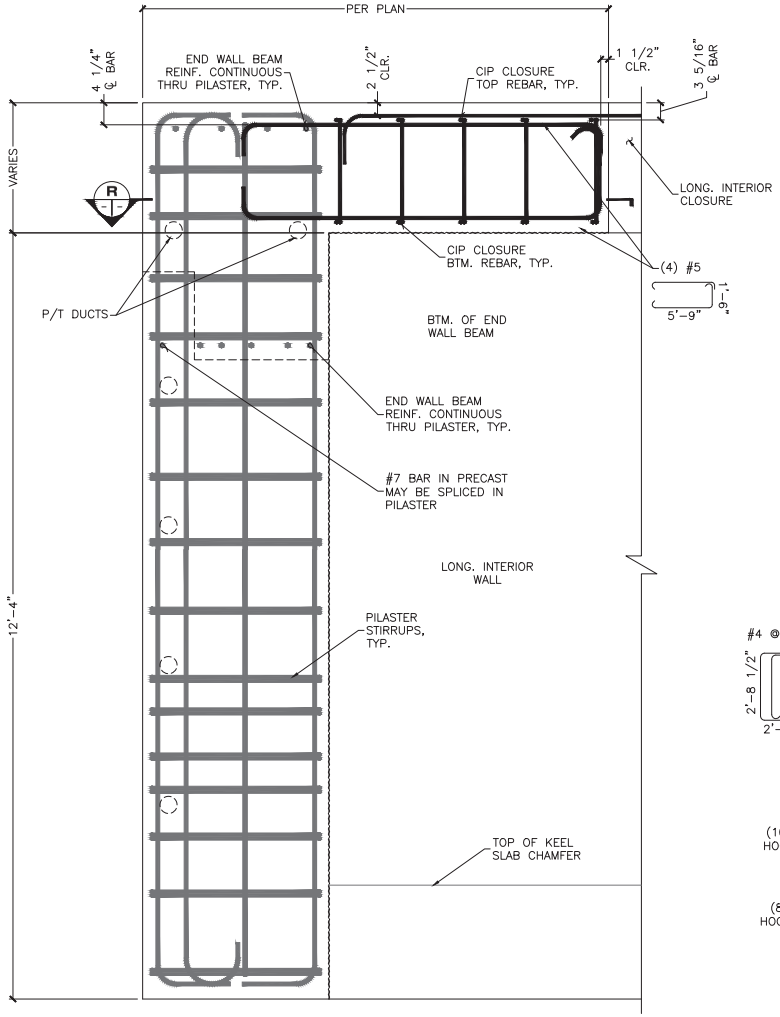
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
END WALL DETAILS

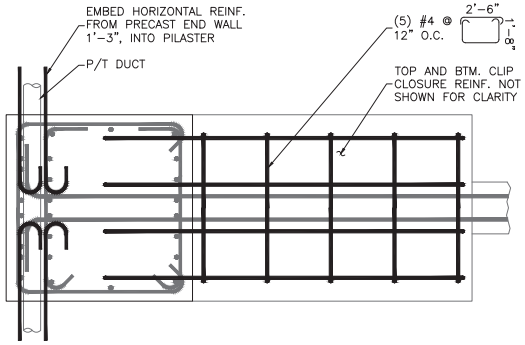
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P10.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P10 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

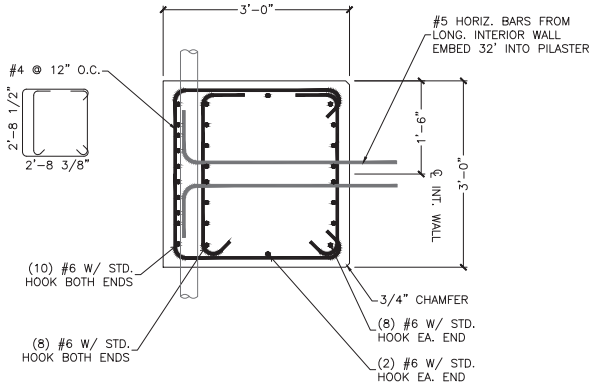
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P11	89



P P09 P11 **END WALL PILASTER**



R **SECTION**



16 P03 P11 **DETAIL**
TYPE 3 PILASTER

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

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STATE OF ALASKA
49TH
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REGISTERED PROFESSIONAL ENGINEER

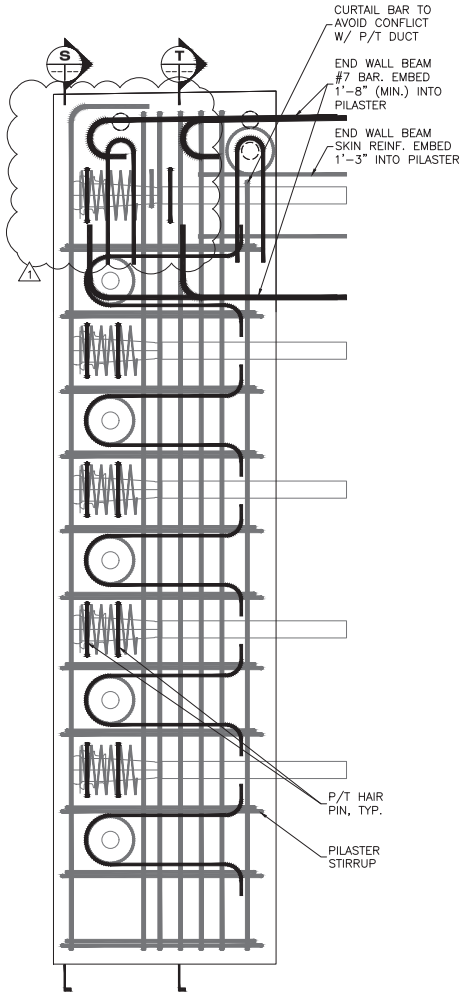
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

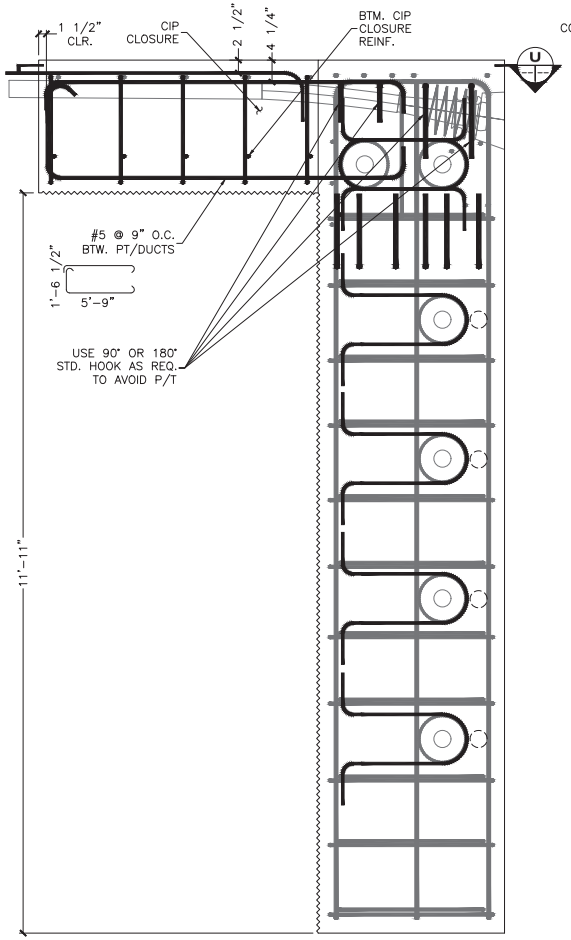
FLOATING DOCK
END WALL PILASTER DETAILS – 1

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024-P11.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P11 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	P12	89



Q P09 P12 **DETAIL**
NORTH/SOUTH PILASTER FACES



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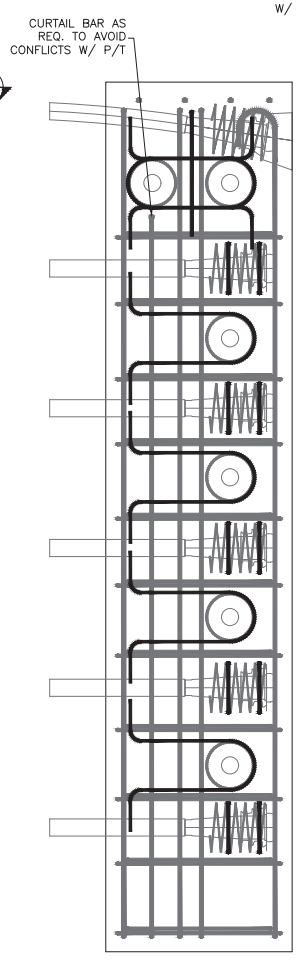

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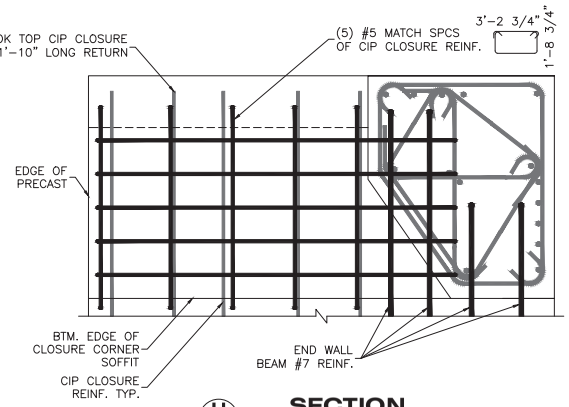

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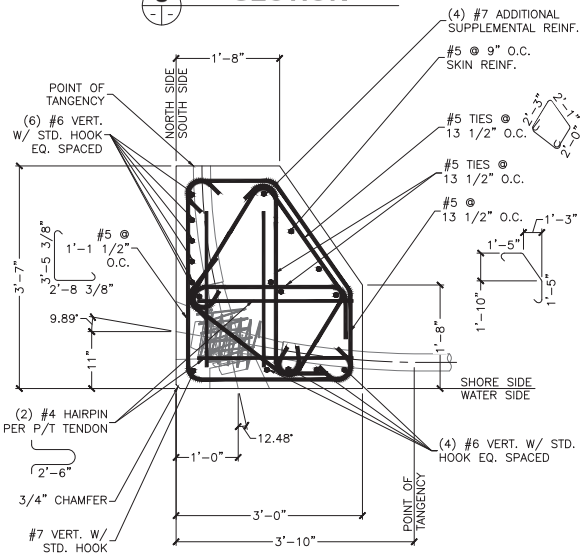

17 P03 P12 **TYPE 2 CIP CORNER PILASTER**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
END WALL PILASTER DETAILS – 2

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024-P12.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P12 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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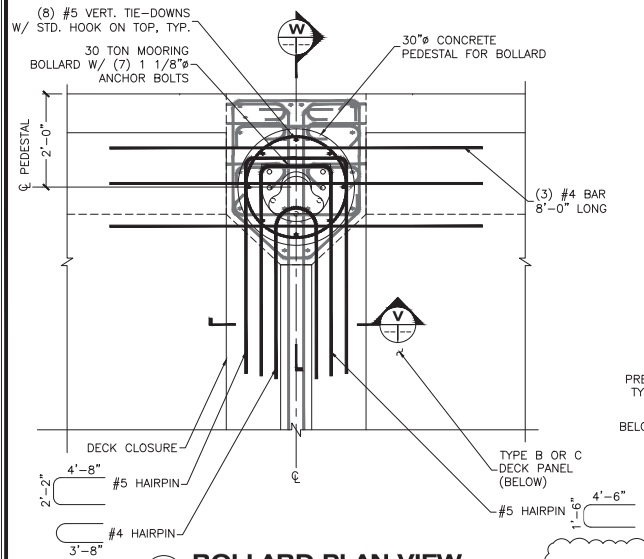
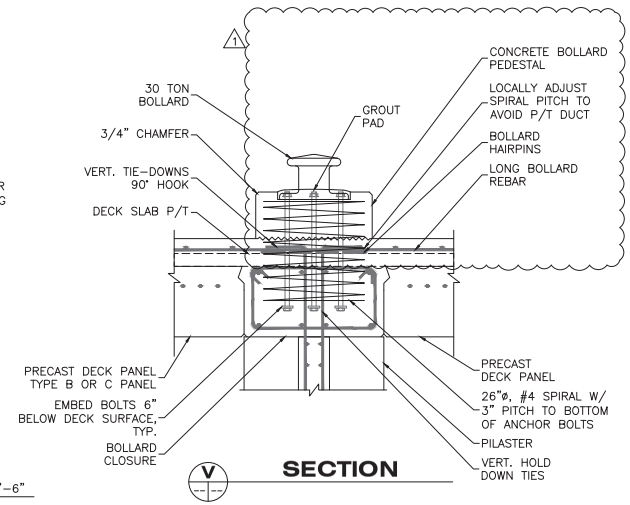


5 P01 P13 **BOLLARD PLAN VIEW**



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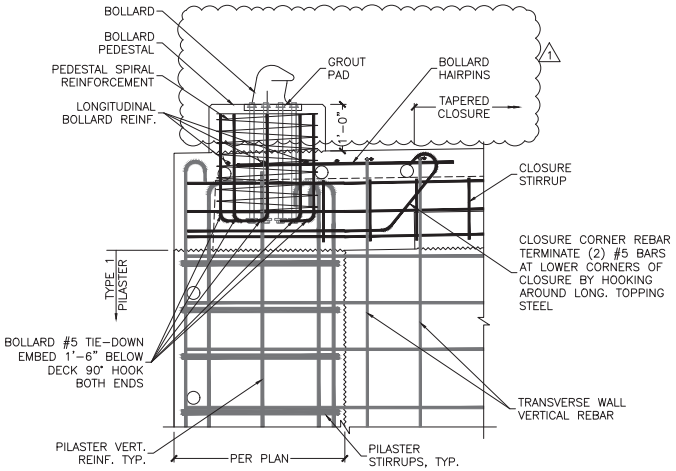

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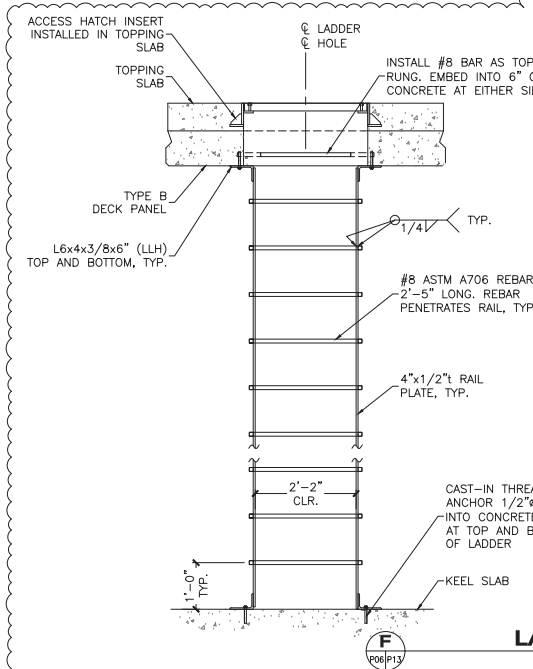
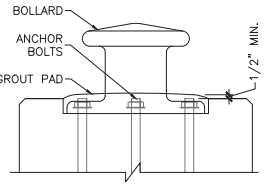
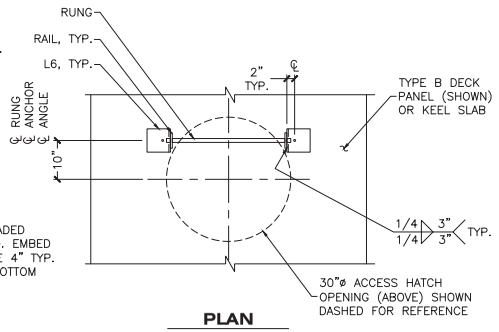


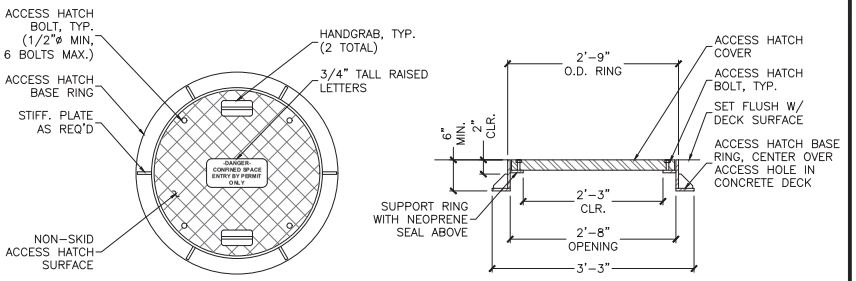
F P06 P13 **LADDER**



MOORING BOLLARD GROUT PAD



PLAN



PLAN SECTION

6 P01 P11 **ACCESS HATCH DETAIL**

NOTES:
1. PROVIDE ACCESS HATCH CAPABLE OF RESISTING FLOATING DOCK DECK LIVE LOADS.
2. ACCESS HATCH SHALL BE WATERTIGHT WITH THE NEOPRENE SEAL AFFIXED TO THE SUPPORT RING.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lent 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Ron M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

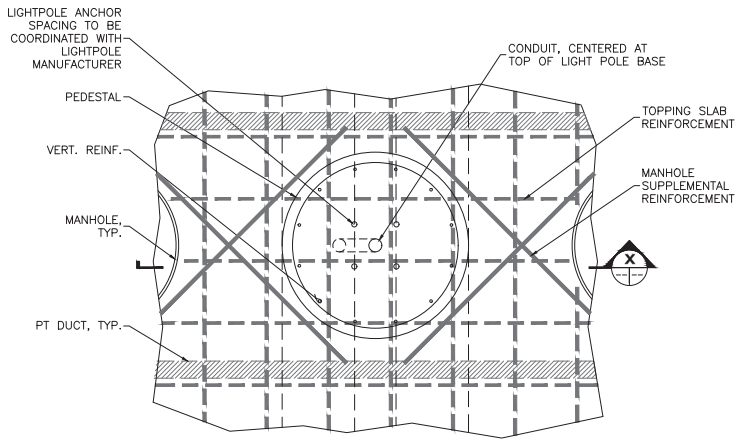
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

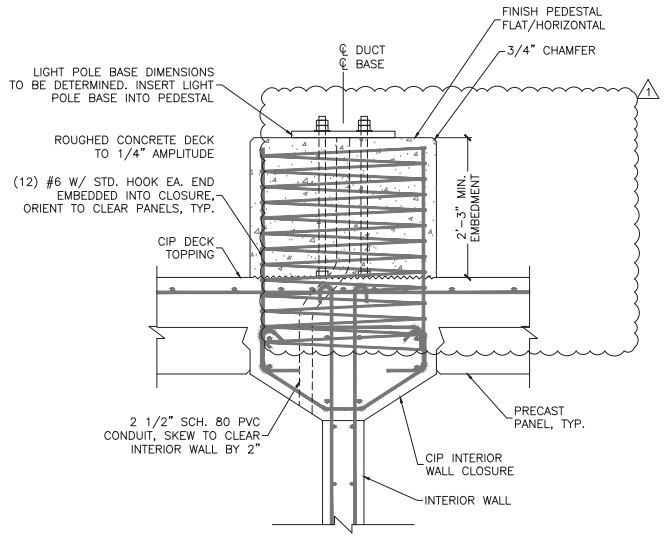
FLOATING DOCK
BOLLARD AND ACCESS HATCH DETAILS

FILE K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P13.dwg | DATE 10/14/2024 5:00 | LAYOUT P13 | DESIGNED PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS					
			ALASKA	SFHWY00152/0952018	2019	P14	89



7 SHORE SIDE LIGHT POLE BASE PLAN
P01 | P14



X SHORE SIDE LIGHT POLE BASE SECTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

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PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
SHORE SIDE LIGHT POLE BASE

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P14.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P14 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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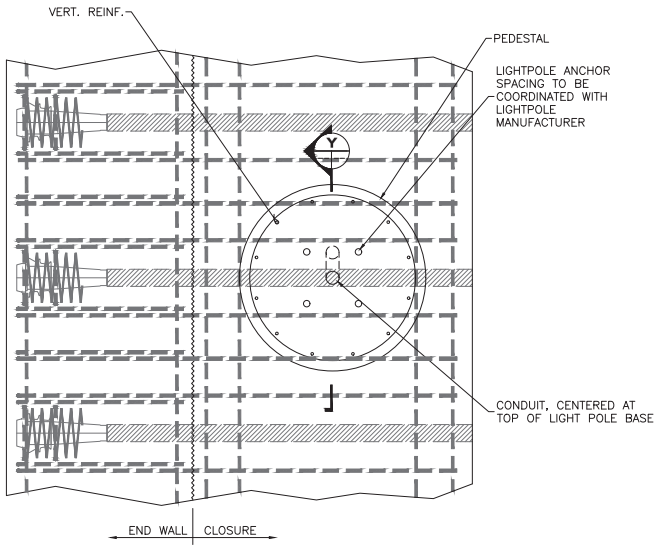
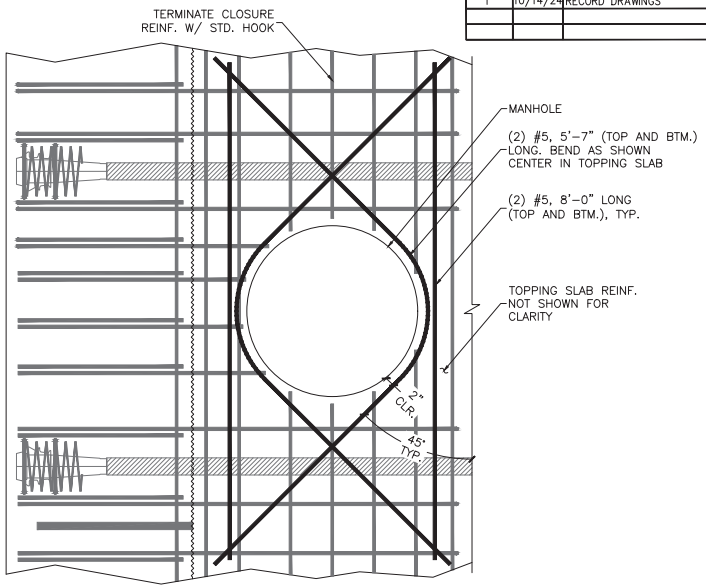
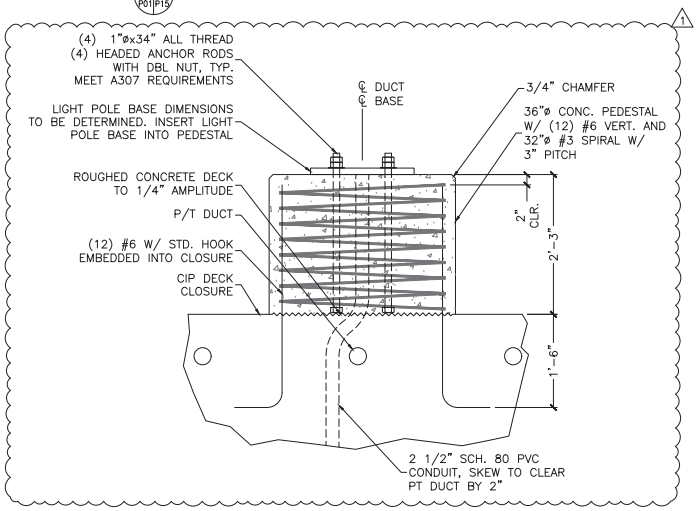


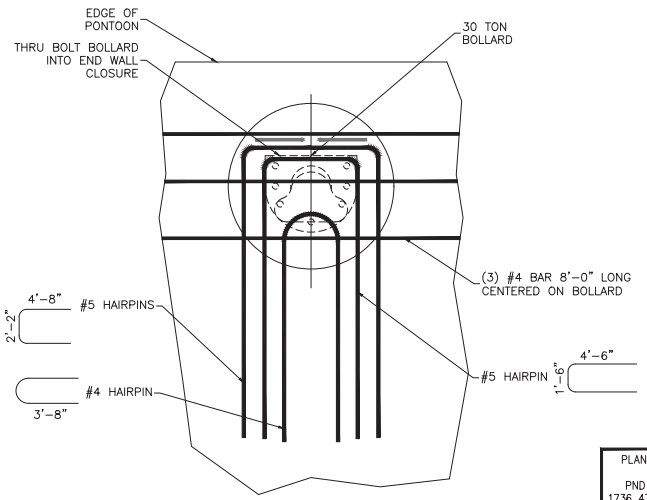
8 END LIGHT POLE BASE PLAN
P01 P15



9 MANHOLE REINFORCEMENT PLAN
P01 P15



Y LIGHT POLE BASE SECTION



10 END WALL MOORING BOLLARD
P01 P15

DETAILS NOT SHOWN SIMILAR TO TYPICAL BOLLARD

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

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PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

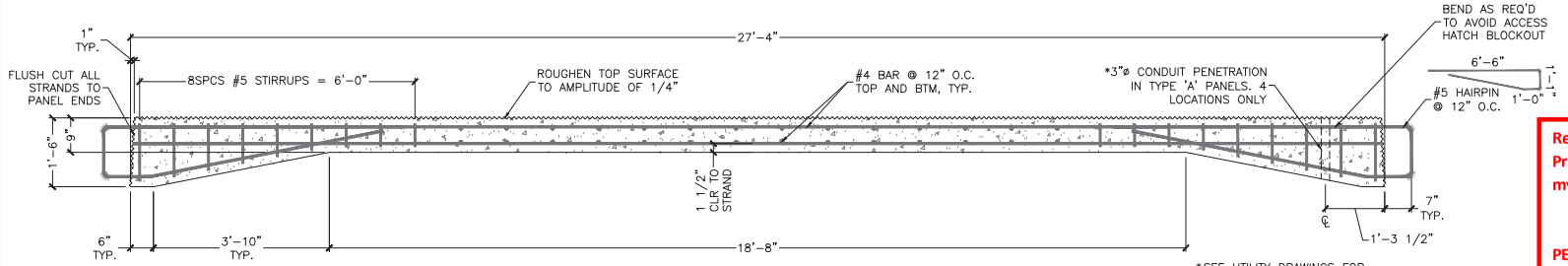
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
BOLLARD AND LIGHT POLE DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P15.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P15 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P16	89

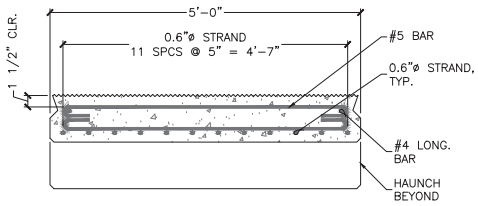


DECK PANEL TYPE A, B AND C-SECTION VIEW

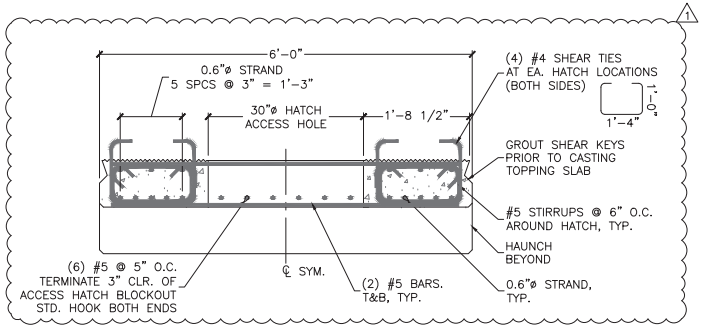
*SEE UTILITY DRAWINGS FOR CONDUIT PENETRATION LOCATIONS AND DETAILS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

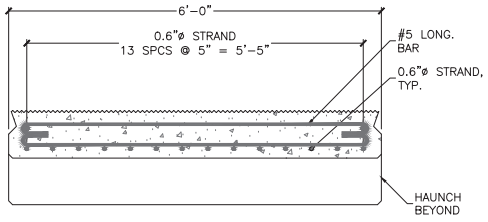
PE Patty Lont 7/7/25



MID SPAN SECTION TYPE A



MID SPAN SECTION TYPE B
THRU HATCH



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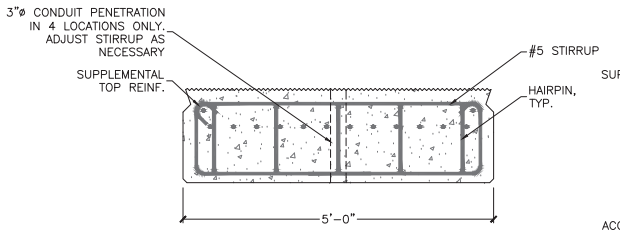

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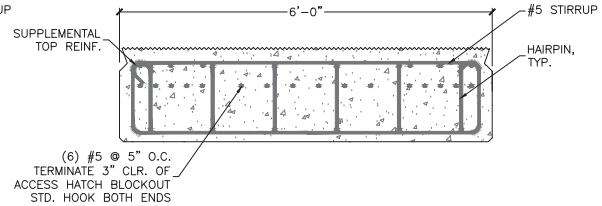
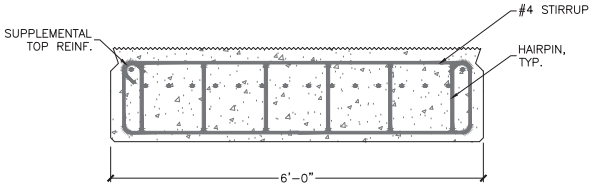


END SECTION TYPE B



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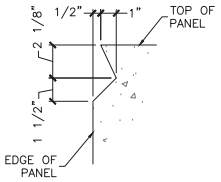
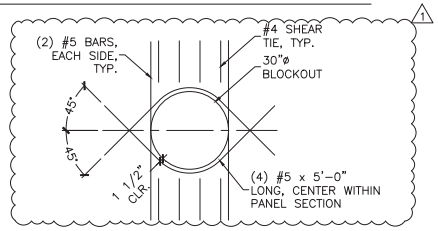


SHEAR KEY DETAIL



PRECAST MANHOLE BLOCKOUT DETAIL

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
PRECAST DECK PANEL DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P16.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P16 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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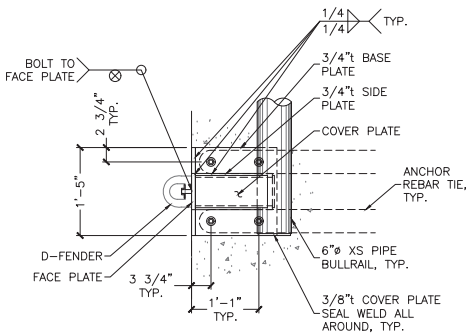

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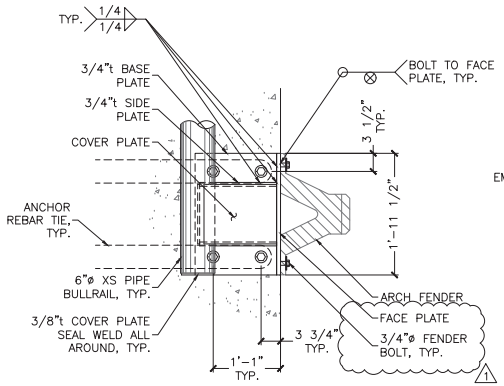

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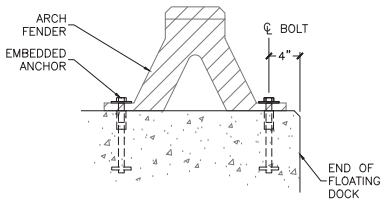

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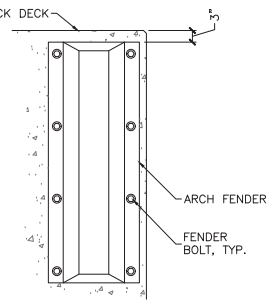
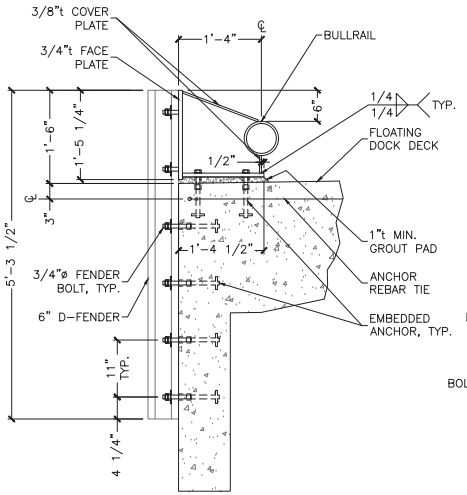


ELEVATION

11 P01 P17 SHORE SIDE CORNER FENDER

ALL OTHER DETAILS NOT SHOWN SIMILAR TO SHORE SIDE FENDER



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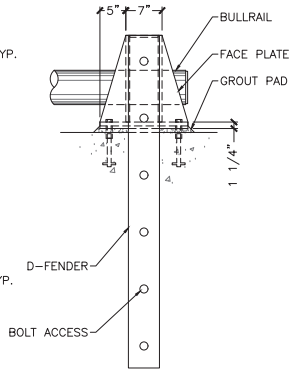
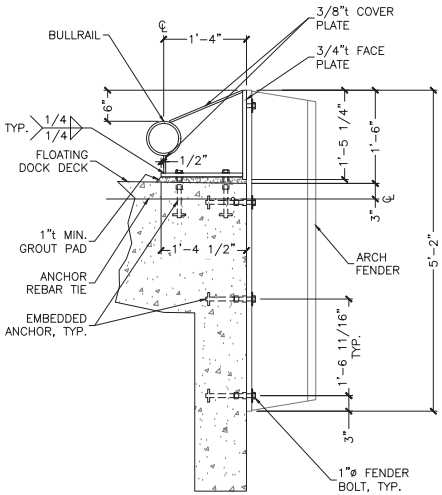


ELEVATION

D P01 P17 WATER SIDE FENDER



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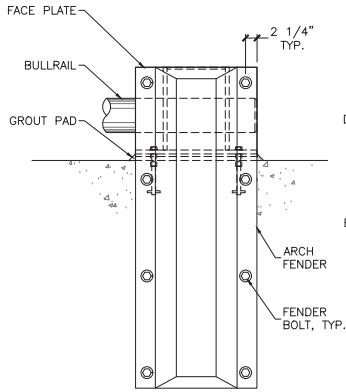
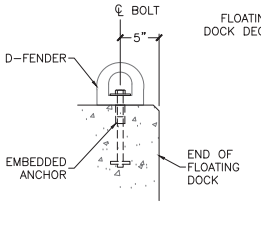
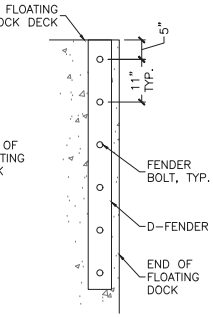


ELEVATION

E P01 P17 SHORE SIDE FENDER



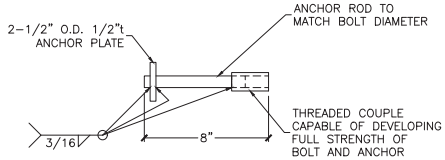
PLAN



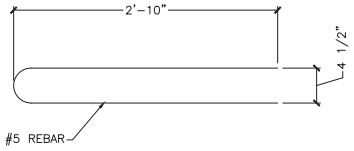
ELEVATION

12 P01 P17 WATER SIDE CORNER FENDER

ALL OTHER DETAILS NOT SHOWN SIMILAR TO WATER SIDE FENDER



EMBEDDED ANCHOR



ANCHOR REBAR TIE

WELD NOTE:
ALL WELDS SHALL BE 5/16" FILLET, ALL AROUND, OR EQUIVALENT BEVEL UNLESS OTHERWISE NOTED.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

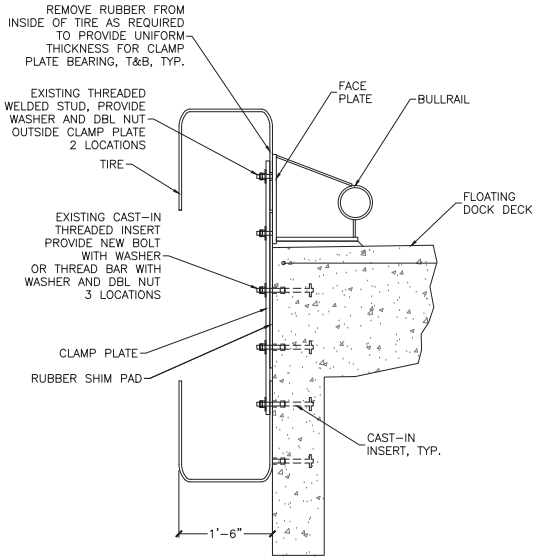
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
FENDER DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P17.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P17 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00152/0952018	2019	P17A	88

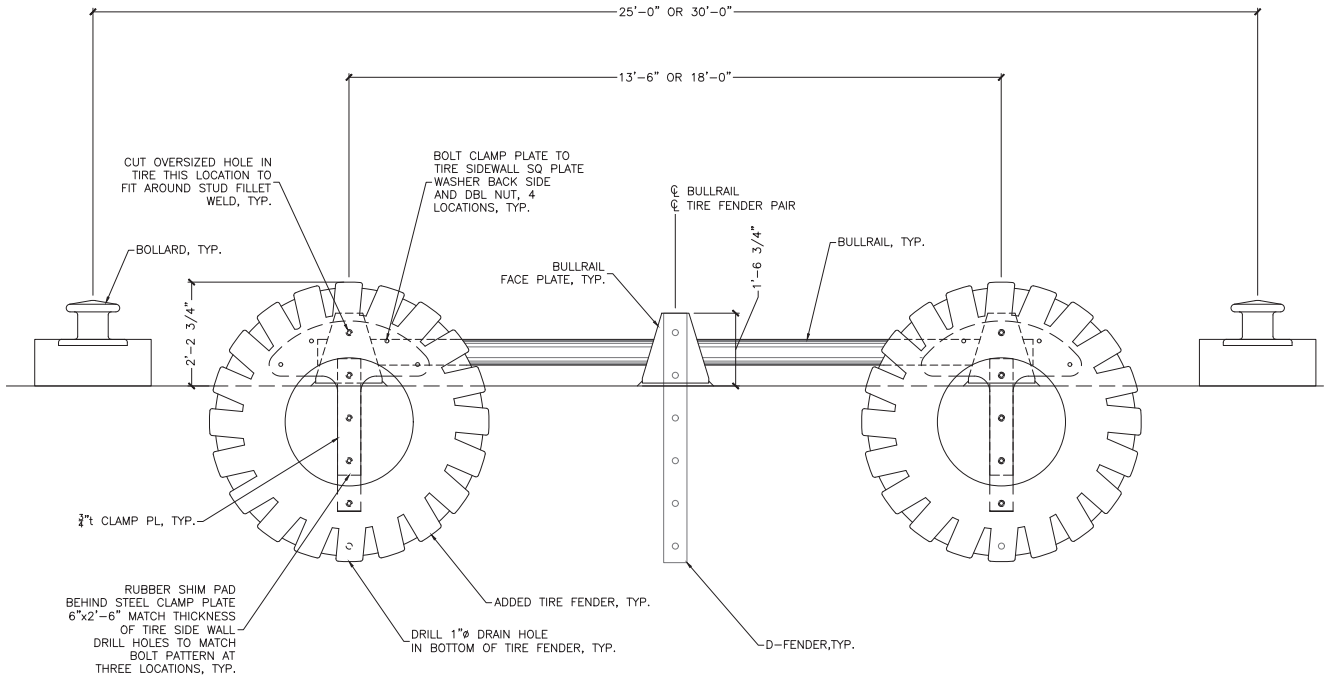
CO21



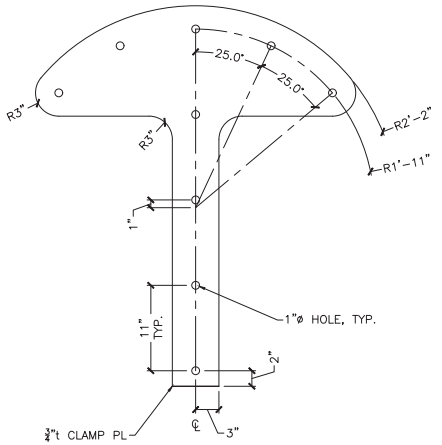
SECTION

A P01 P17

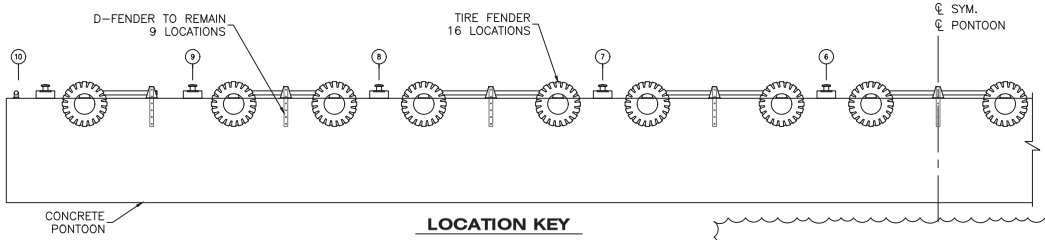
WATER SIDE FENDER



TYPICAL ELEVATION



CLAMP PLATE DETAIL



LOCATION KEY

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

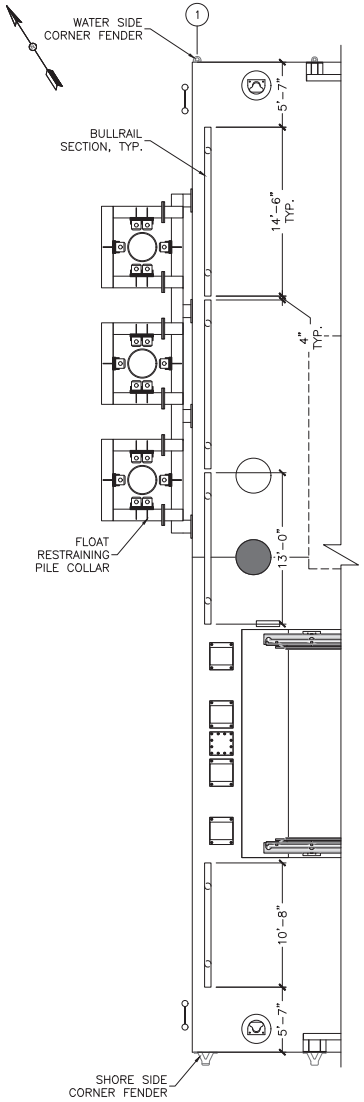
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TIRE FENDER DETAILS

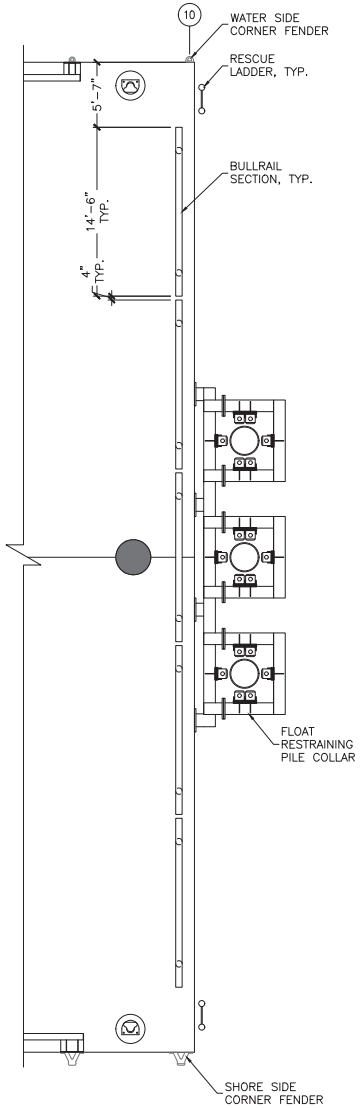
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P17A.dwg | DATE | 5/20/2024 14:46 | LAYOUT | P17 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

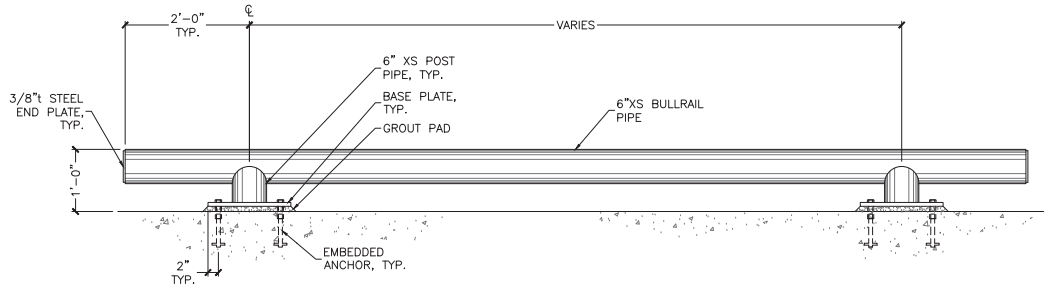
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P18	89



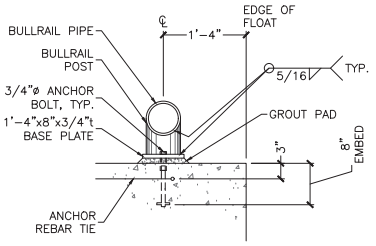
13 P01 P18 **NORTH END**



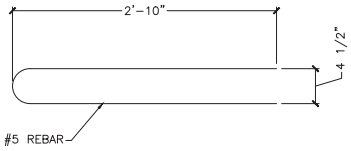
14 P01 P18 **SOUTH END**



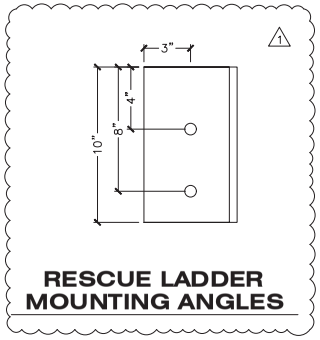
BULLRAIL ELEVATION



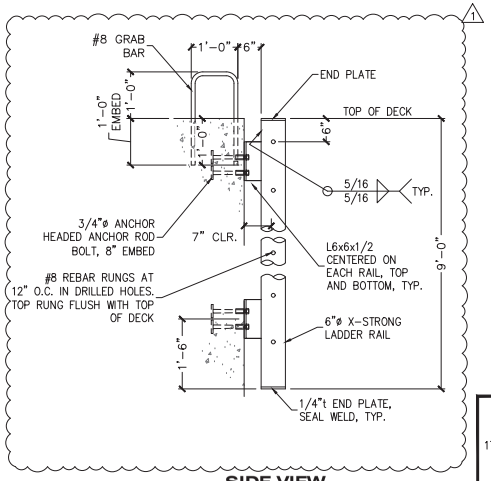
BULLRAIL SECTION



ANCHOR REBAR TIE

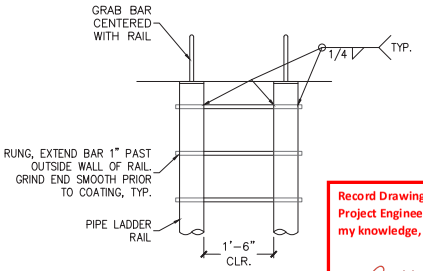


RESCUE LADDER MOUNTING ANGLES



SIDE VIEW

15 P01 P18 **RESCUE LADDER**



ELEVATION VIEW

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lent 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
END BULLRAIL AND LADDER DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P18.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P18 | DESIGNED | PND | CHECKED | | DRAFTED | | GRD |

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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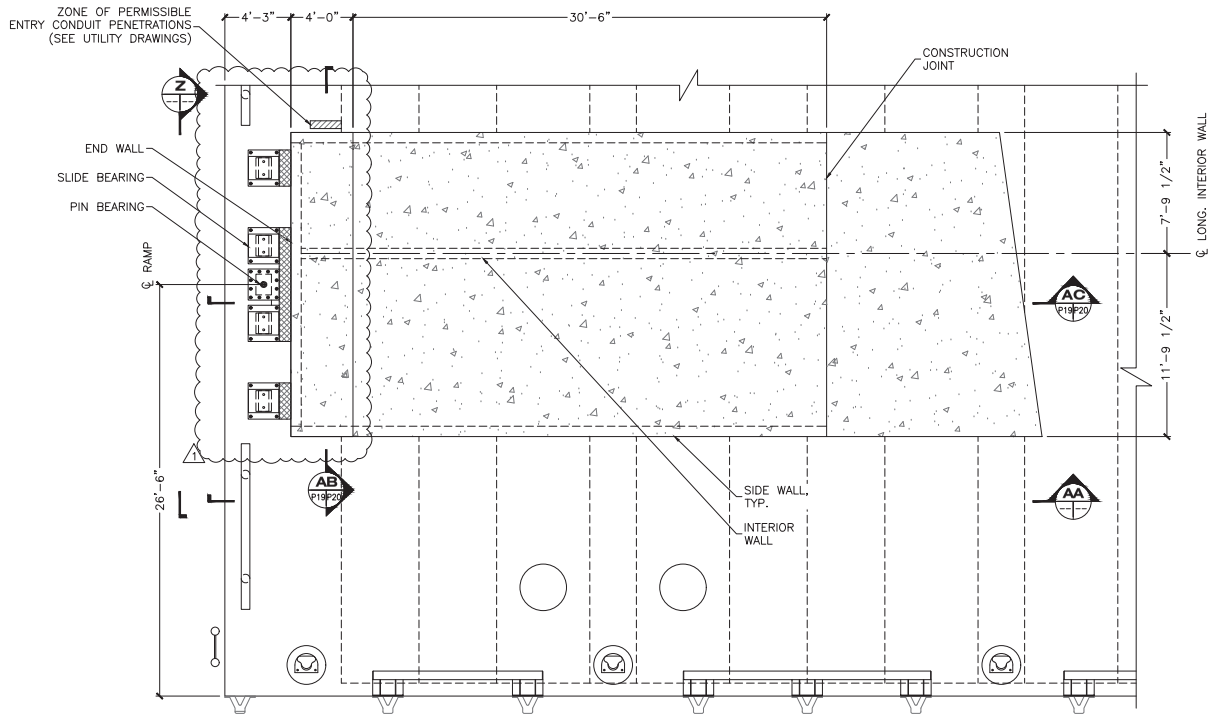
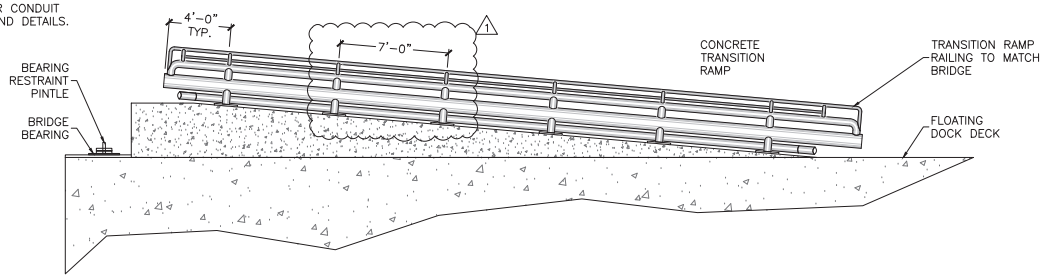
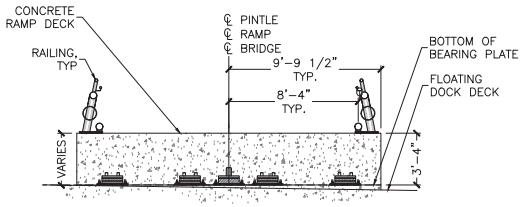


NOTES:
1. FLOATING DOCK FABRICATOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR COORDINATION OF CONDUIT SIZE AND LOCATION.
2. SEE SHEET T11 FOR TRANSFER BRIDGE BEARING, CONNECTIONS AND LOCATIONS.
3. SEE UTILITY DRAWINGS FOR CONDUIT PENETRATION LOCATIONS AND DETAILS.

TRANSITION RAMP



AA TRANSITION RAMP ELEVATION



Z SECTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
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AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

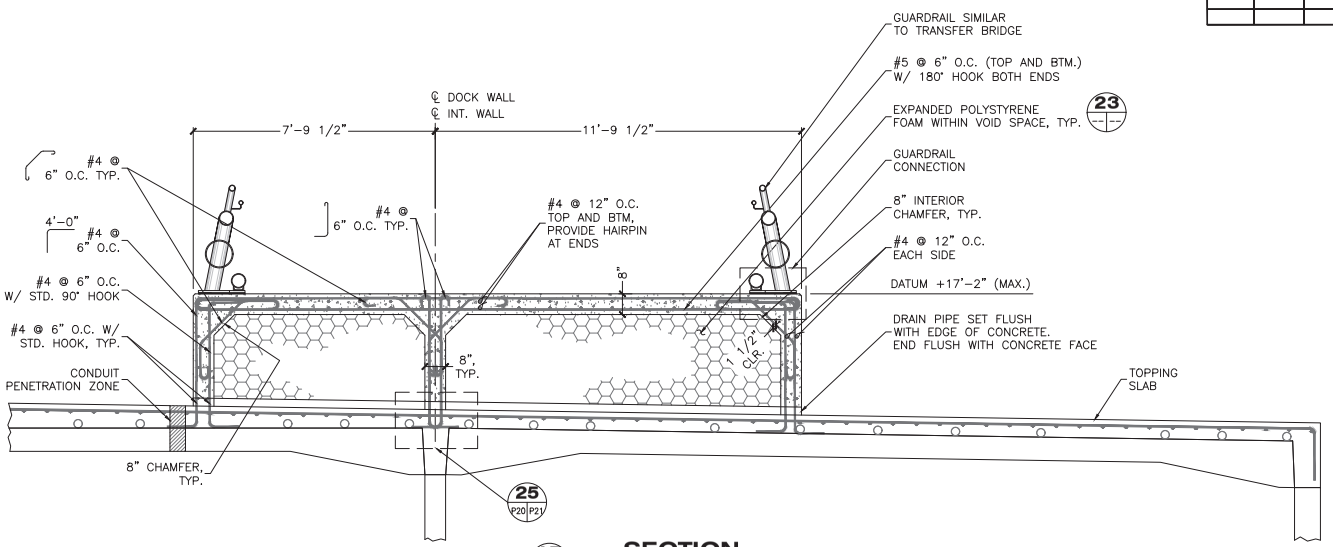
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY
FLOATING DOCK
TRANSITION RAMP PLAN, ELEVATION AND SECTION

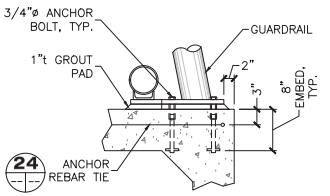
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P19.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P19 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

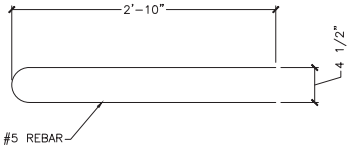
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	P20	89



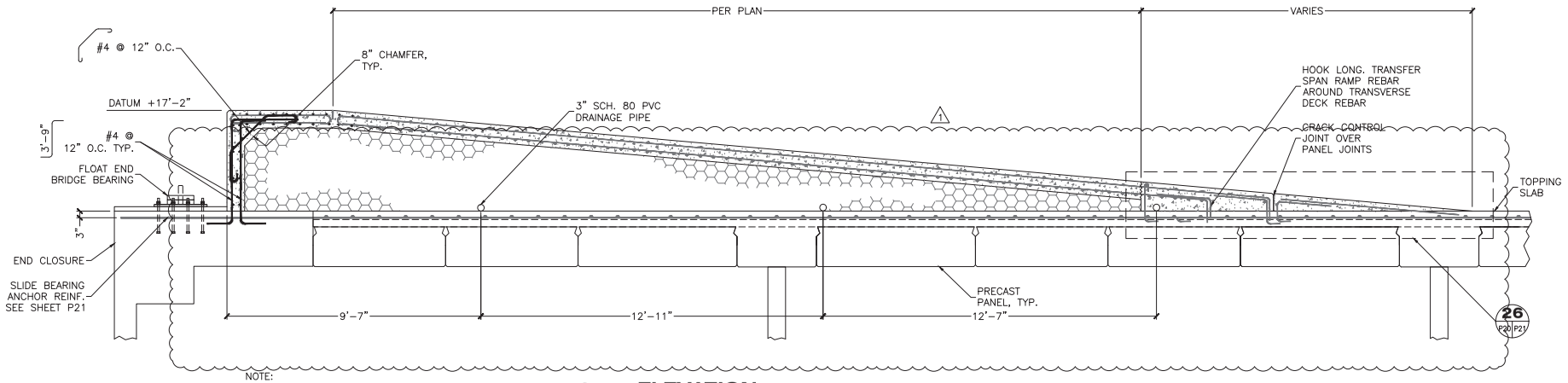
AB P19 P20 **SECTION**



23 **GUARDRAIL CONNECTION DETAIL**



24 **ANCHOR REBAR TIE**



NOTE:
CABLE TRAY NOT SHOWN FOR CLARITY. SEE UTILITY DRAWINGS FOR CABLE TRAY DETAILS.

AC P19 P20 **ELEVATION**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
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STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TRANSITION RAMP SECTIONS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P20.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P20 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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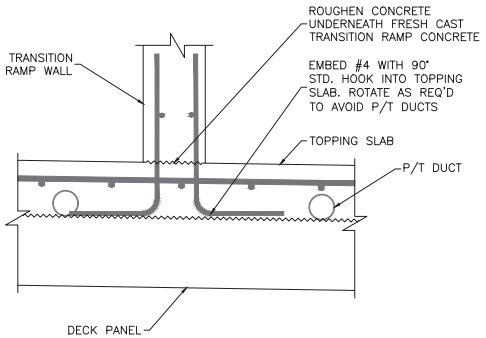
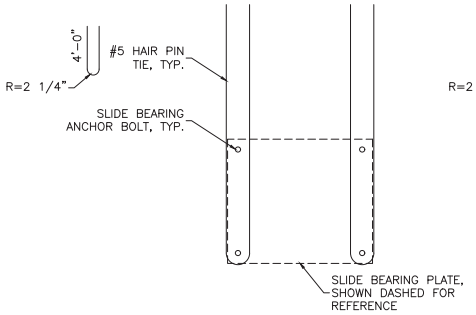
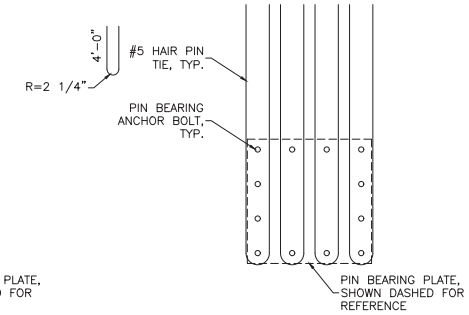


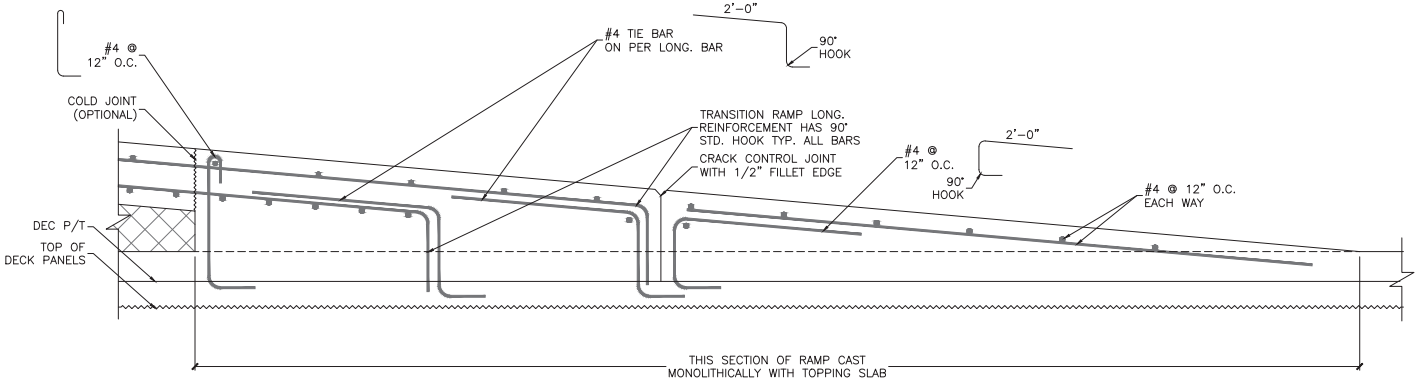
25 TRANSITION RAMP/DECK CONNECTION
P20 P21



ANCHOR REINFORCEMENT
SLIDE BEARING



ANCHOR REINFORCEMENT
PIN BEARING



26 TRANSITION RAMP TERMINATION DETAIL
P20 P21

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK
TRANSITION RAMP DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P21.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P21 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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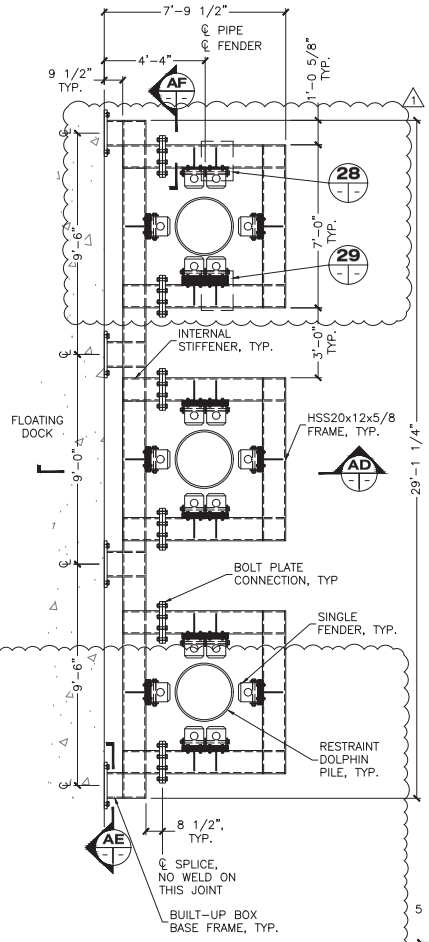
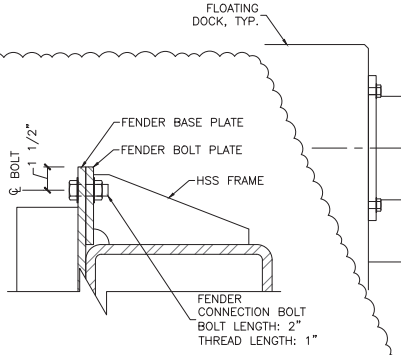
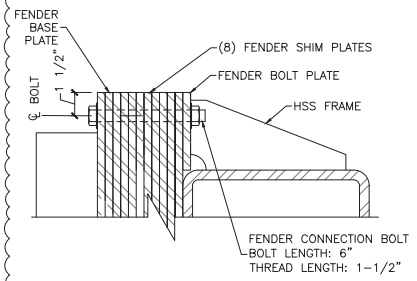


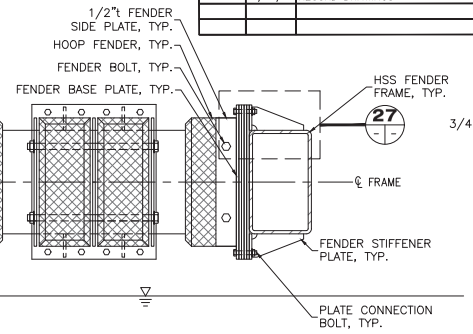
NORTH RESTRAINT COLLAR PLAN



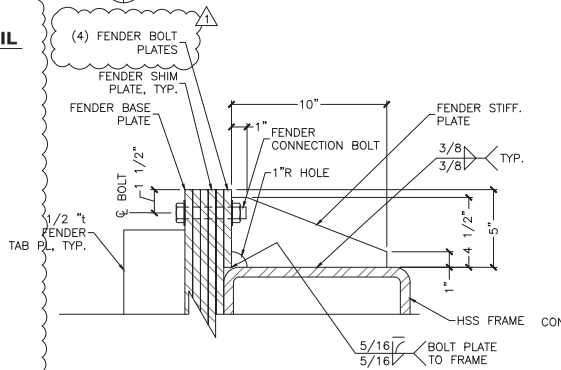
28 NORTHERN FENDER SHIM PLATE ARRANGEMENT, OFFSIDE DETAIL



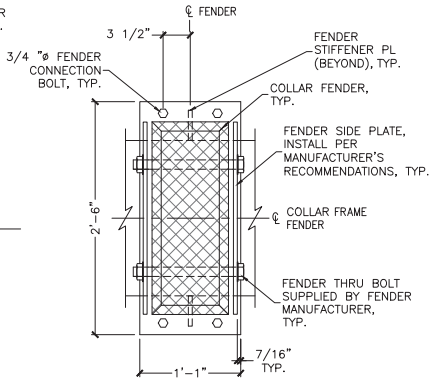
29 NORTHERN FENDER SHIM PLATE ARRANGEMENT , SHORESIDE DETAIL



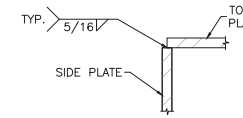
AD SECTION



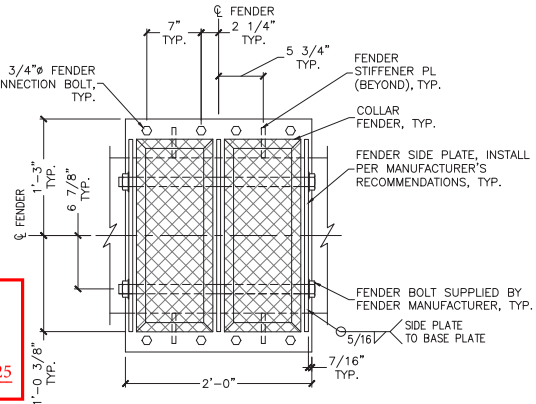
27 SHIM PLATE ARRANGMENT DETAIL, TYP.



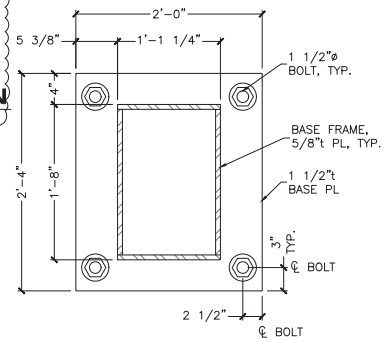
SINGLE FENDER DETAIL



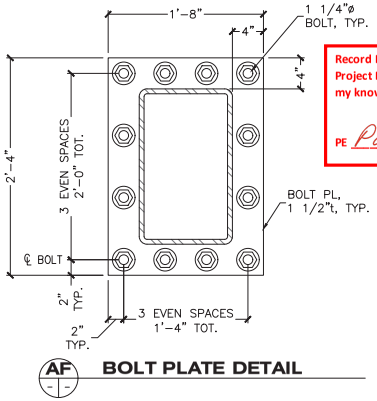
BASE FRAME WELD



DBL FENDER DETAIL



AE BASE PLATE DETAIL



AF BOLT PLATE DETAIL

SHEET NOTES:
1. ALL JOINTS IN PILE COLLAR SHALL BE WELDED WITH A 3/8" FILLET ONE SIDE, 5/16" FILLET BOTH SIDES, OR EQUIVALENT BEVEL.
2. IN ALL CASES THE EXTERIOR OF THE CAP IS WELDED. WELDMENTS ARE TOTALLY SEALED, (NO RAT HOLES OR DRAIN HOLES EXCEPT AS SHOWN).
3. ALL JOINTS SHALL BE WELDED CONTINUOUSLY.
4. ALL BUTT JOINTS SHALL BE CJP.
5. ANCHOR BOLT LOCATIONS TO BE COORDINATED BY CONTRACTOR BETWEEN FLOATING DOCK AND PILE COLLAR FABRICATOR.
6. ALL SHIM PLATE ARRANGEMENTS FOR NORTH AND SOUTH RESTRAINT COLLARS PER DETAIL 27 UNLESS OTHERWISE SPECIFIED

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

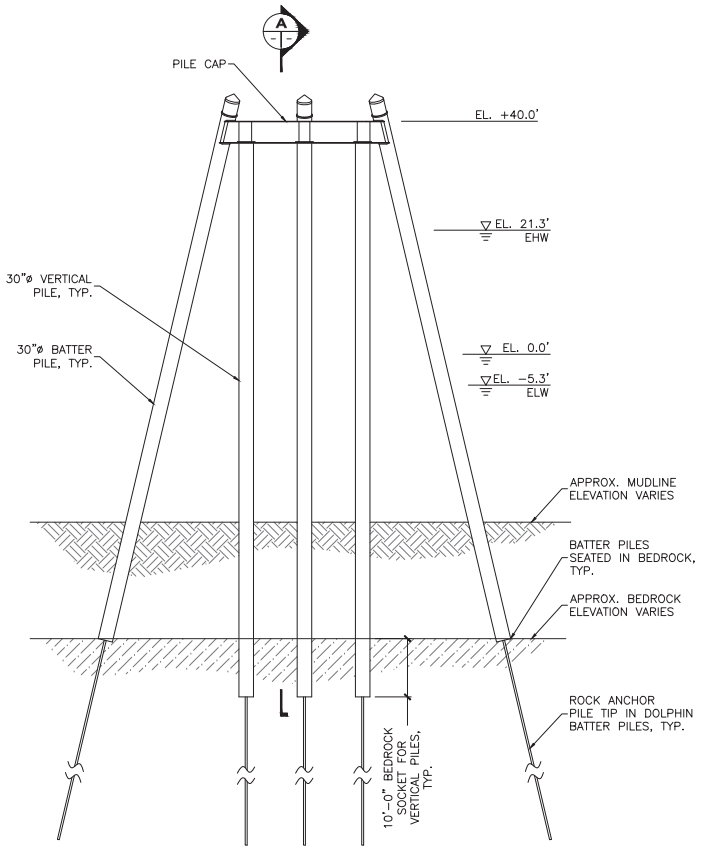
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

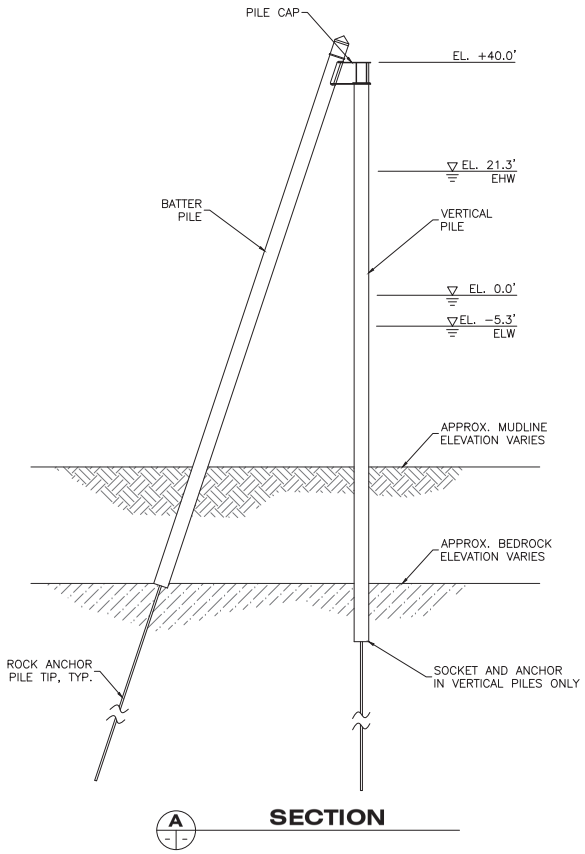
FLOATING DOCK
FLOAT RESTRAINT PILE COLLAR

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-P22.dwg | DATE | 10/14/2024 5:00 | LAYOUT | P22 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	D01	89



ELEVATION



A **SECTION**

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

SHEET NOTES:
1) MUDLINE AND BEDROCK SURFACES ARE APPROXIMATE AND SHOWN FOR REFERENCE ONLY.
2) BEDROCK ELEVATION SHOWN SHALL NOT BE CONSTRUED TO REPRESENT ACTUAL BEDROCK ELEVATIONS. CONTRACTOR SHALL REFER TO PROJECT GEOTECHNICAL REPORT AND IS RESPONSIBLE FOR MAKING OWN DETERMINATION OF ACTUAL BEDROCK ELEVATIONS.

PLANS DEVELOPED BY:

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SEATTLE, WA 98134
(206) 624-1387

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AECC 250

STATE OF ALASKA · 49TH · Alan M. Johnson SE 141129 · REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

RESTRAINT DOLPHIN
PLAN, ELEVATION, AND SECTION

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-D01.dwg | DATE | 10/14/2024 5:00 | LAYOUT | D01 | DESIGNED | PND | CHECKED | | DRAFTED | | GRD |

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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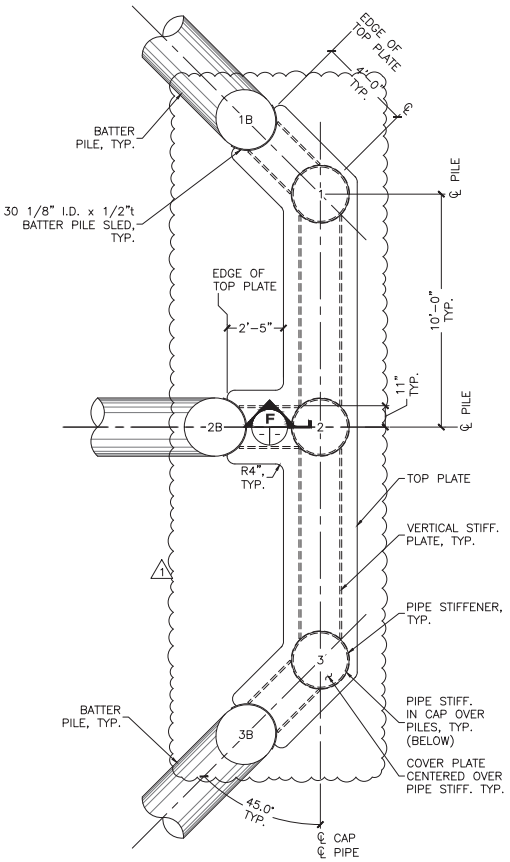
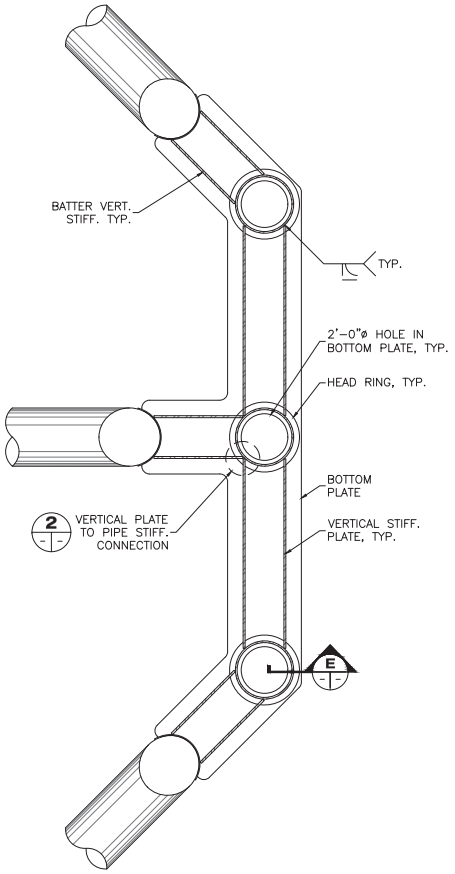


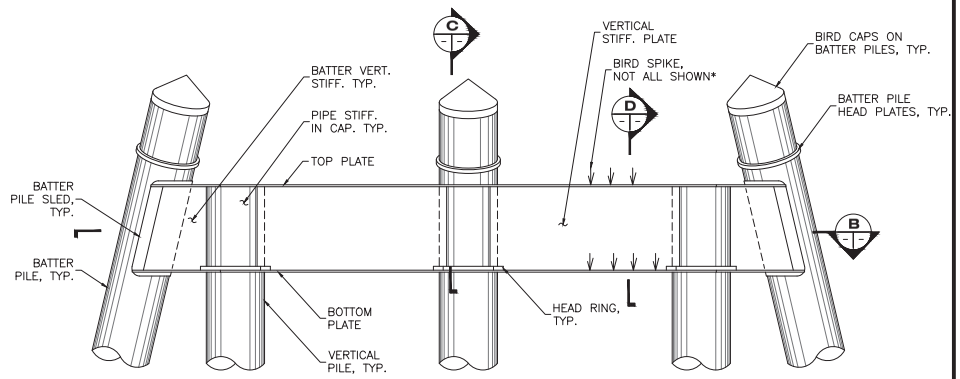
TOP - PLAN

NORTH FLOAT RESTRAINT DOLPHIN SHOWN.
SOUTH FLOAT RESTRAINT DOLPHIN MIRRORED



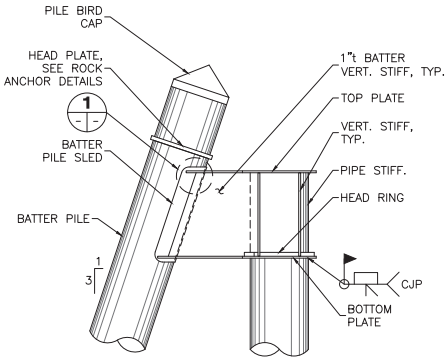
B SECTION

DETAILS NOT SHOWN SIMILAR TO TOP PLAN



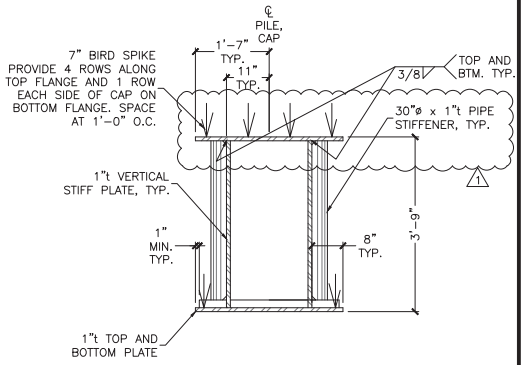
ELEVATION

*BIRD SPIKE SHALL BE POLYCORBONATE SPIKES. INSTALL IN THE FIELD IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

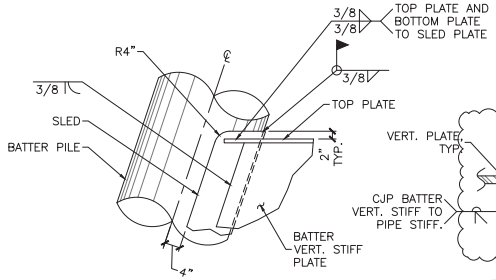


C SECTION

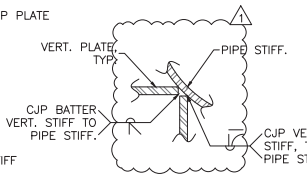
NOTES:
1. FOR DETAILS NOT SHOWN, SEE TYPICAL PILE CAP SECTION.
2. SECTION AT PILE 2/2B SHOWN. SECTION AT 1/1A AND 3/3A SIMILAR.



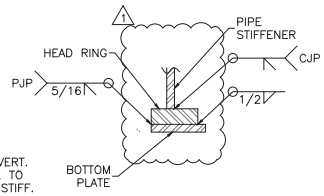
D SECTION



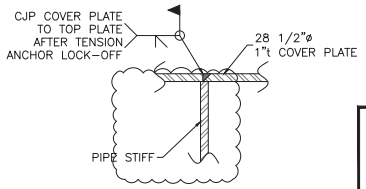
1 DETAIL



2 DETAIL



E SECTION



F SECTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

RESTRAINT DOLPHIN PILE CAP DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-D02.dwg | DATE | 10/14/2024 5:00 | LAYOUT | D02 | DESIGNED | PND | CHECKED | DRAFTED | GRD

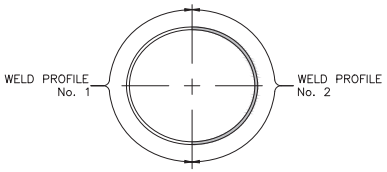
NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	D03	89

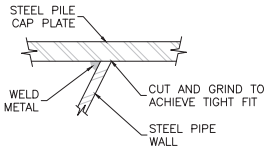
PILE SCHEDULE

LOCATION	PILE DESIGNATION	ORIENTATION	SIZE	PILE TIP	INSTALLATION LENGTH	DESIGN LOADS (kips)	
						TENSION	COMPRESSION
BRIDGE ABUTMENT	1	VERTICAL	30"–DIA X 3/4" WALL	SOCKET	55	--	250
	2	VERTICAL	30"–DIA X 3/4" WALL	SOCKET	54	--	250
NORTH FLOAT RESTRAINT DOLPHIN	1	VERTICAL	30"–DIA X 7/8" WALL	SOCKET AND ANCHOR	86	200	400
	1B	3V:1H BATTER	30"–DIA X 7/8" WALL	ROCK ANCHOR	104	300	200
	2	VERTICAL	30"–DIA X 7/8" WALL	SOCKET AND ANCHOR	91	200	400
	2B	3V:1H BATTER	30"–DIA X 7/8" WALL	ROCK ANCHOR	99	300	200
	3	VERTICAL	30"–DIA X 7/8" WALL	SOCKET AND ANCHOR	88	200	400
	3B	3V:1H BATTER	30"–DIA X 7/8" WALL	ROCK ANCHOR	91	300	200
SOUTH FLOAT RESTRAINT DOLPHIN	1	VERTICAL	30"–DIA X 7/8" WALL	SOCKET AND ANCHOR	92	200	400
	1B	3V:1H BATTER	30"–DIA X 7/8" WALL	ROCK ANCHOR	89	300	200
	2	VERTICAL	30"–DIA X 7/8" WALL	SOCKET AND ANCHOR	93	200	400
	2B	3V:1H BATTER	30"–DIA X 7/8" WALL	ROCK ANCHOR	93	300	200
	3	VERTICAL	30"–DIA X 7/8" WALL	SOCKET AND ANCHOR	93	200	400
	3B	3V:1H BATTER	30"–DIA X 7/8" WALL	ROCK ANCHOR	99	300	200

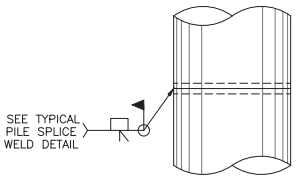
NOTES:
1. TEST (PROOF) LOAD = 1.33 X DESIGN TENSION LOAD.
2. LOCK–OFF LOAD = 1.00 X DESIGN TENSION LOAD
3. TEST AND LOCK–OFF LOADS TO BE FIELD VERIFIED BY ENGINEER. REFER TO PROJECT SPECIFICATIONS SECTIONS 505 AND 518 FOR PILE DRIVING AND TENSION PILE ANCHOR INSTALLATION AND TESTING REQUIREMENTS, RESPECTIVELY.
4. DESIGN LOADS BASED ON THE MAXIMUM SERVICE–LEVEL DEMANDS.
5. EACH BATTER PILE TIP SHALL BE EQUIPPED WITH OUTSIDE FLANGE CUTTING SHOE.
6. ALL PILES SHALL BE GALVANIZED FULL LENGTH.
7. EIGHT (8) TEMPORARY PILES UP TO 20" DIA. HAVE BEEN PERMITTED FOR USE ON THIS PROJECT TO AID IN THE CONSTRUCTION OF NEW WORK AS NEEDED. REFERENCE SPECIAL PROVISIONS, APPENDIX B.



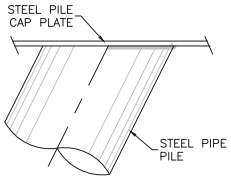
PLAN



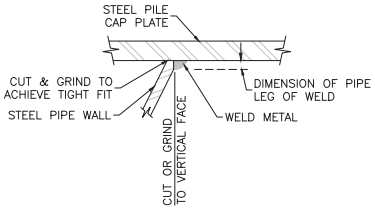
NO. 1 WELD PROFILE



SPLICE

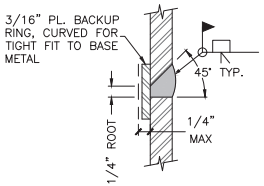


ELEVATION



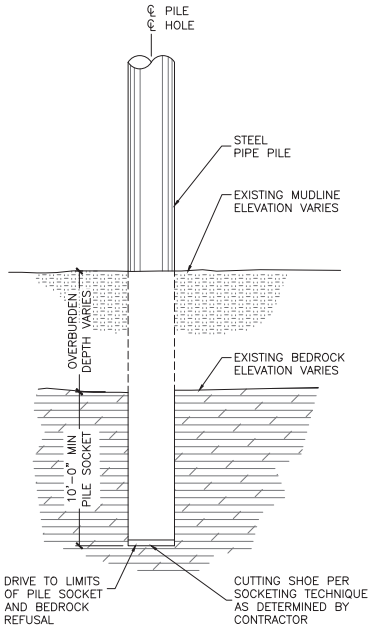
NO. 2 WELD PROFILE

TYPICAL BATTER PILE WELD



TYPICAL SPLICE WELD

TYPICAL FOR ALL FIELD PIPE PILE SPLICES (SHOP WELDS, IF REQ'D. SIMILAR)



SOCKET PILE TIP DETAIL

(2 TOTAL)

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624–1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

RESTRAINT DOLPHIN
PILE DETAILS AND SCHEDULE

FILE | K:\2018\184024 – KTN GRAVINA AIRPORT\REV1\184024–D03.dwg | LAYOUT | D03 | DATE | 10/14/2024 5:00 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
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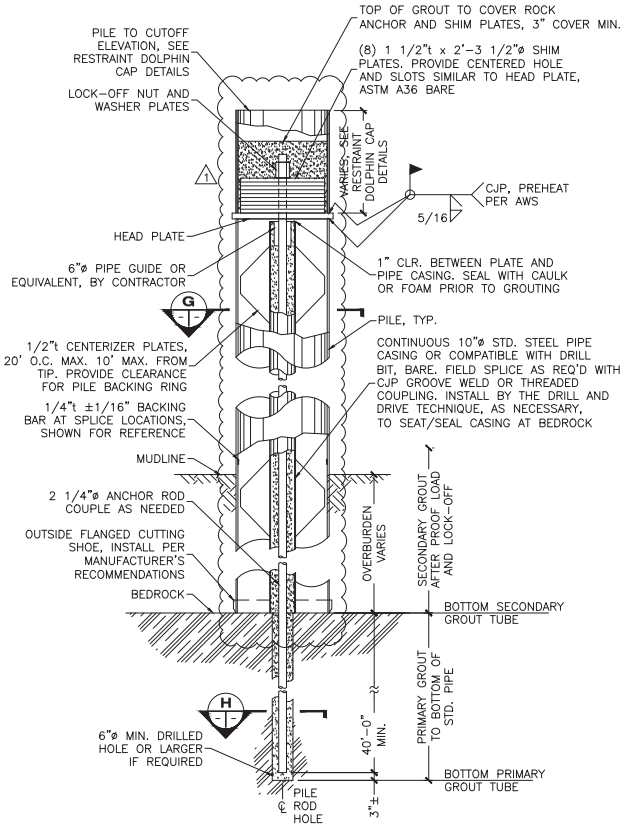
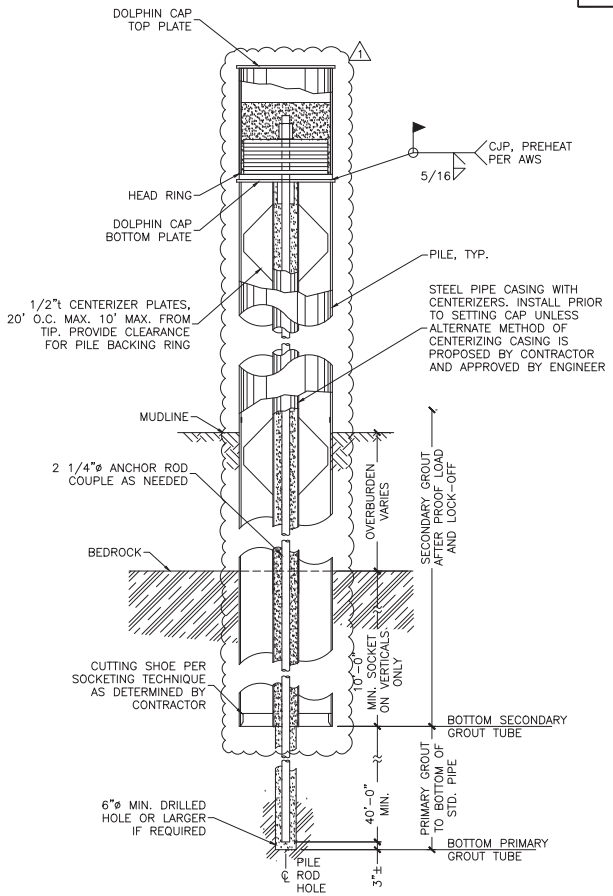
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	D04	89



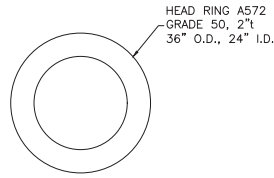
ROCK ANCHOR PILE TIP DETAIL

GROUT TUBES NOT SHOWN FOR CLARITY PILE SHOWN VERTICAL FOR CLARITY.
PILES SHALL BE DRIVEN AND WELL-SEATED INTO BEDROCK.
(6 TOTAL)



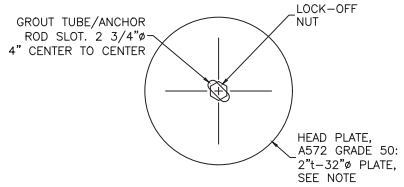
SOCKET AND ANCHOR PILE TIP DETAIL

GROUT TUBES NOT SHOWN FOR CLARITY PILE SHOWN VERTICAL FOR CLARITY.
VERTICAL PILES SHALL BE DRIVEN AND WELL-SEATED INTO SOCKET BOTTOM.
DETAILS NOT SHOWN ARE SIMILAR TO ROCK ANCHOR PILE TIP.
(6 TOTAL)

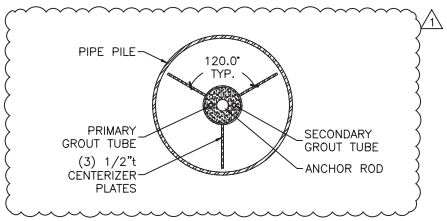


VERTICAL PILE HEAD RING

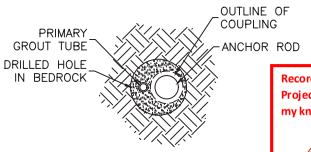
INCORPORATED INTO RESTRAINT DOLPHIN PILE CAP.



BATTER PILE HEAD PLATE



G SECTION



H SECTION

ROCK ANCHOR AND SOCKET AND ANCHOR PILE TIP NOTES:

1. THE INTENT OF THE ROCK ANCHOR IS TO PROVIDE TENSION/COMPRESSION AND SHEAR CAPACITY TO A PILE WHERE THERE IS INSUFFICIENT OR LOOSE OVERBURDEN. THE INTENT OF THE SOCKET AND ANCHOR PILE TIP IS TO PROVIDE TENSION/COMPRESSION, SHEAR, AND FLEXURE CAPACITY.
2. ALL VERTICAL PILES SHALL INITIALLY BE SOCKETED THE MINIMUM DISTANCE SHOWN ON THE SOCKET AND ANCHOR PILE TIP DETAIL.
3. GROUT CEMENT SHALL BE TYPE II AND HAVE A MINIMUM 28-DAY UNCONFINED COMPRESSION STRENGTH OF 6,000 PSI. GROUT MAY BE NEAT OR HAVE AGGREGATE.
4. PRIMARY GROUT SHALL HAVE REQUIRED COMPRESSIVE CAPACITY OF 4,000 PSI MIN. PRIOR TO STRESSING ANCHOR ROD.
5. PRIOR TO SECONDARY GROUT PLACEMENT THE ANCHOR ROD SHALL BE PROOF LOADED PER TENSION PILE ANCHOR SPECIFICATIONS. REMOVE LOAD. RELOAD TO DESIGN LOAD AND LOCK OFF. PLACE SECONDARY GROUT.
6. ALL HEAD PLATES SHALL BE 100% UT TESTED BY STRAIGHT METHOD PER AWS D1.1. ANY DISCONTINUITY FOUND SHALL BE CONSIDERED REJECTABLE AND THAT PORTION OF PLATE SHALL NOT BE USED IN HEAD PLATES.
7. HEAD PLATES MAY BE BARE FIELD COATED AFTER INSTALLATION IN ACCORDANCE WITH THE PAINT AND METALIZED COATING SPECIFICATION.
8. WITH ENGINEERS APPROVAL, CONTRACTOR MAY PROVIDE ALTERNATE METHOD FOR CENTRALIZING PIPE CASING.

NOTE:
SOIL CONFIGURATION IS FOR ILLUSTRATION AND MAY NOT REPRESENT ACTUAL CONDITIONS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

RESTRAINT DOLPHIN
PILE TIP DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-D04.dwg | DATE | 10/14/2024 5:00 | LAYOUT | D04 | DESIGNED | PND | CHECKED | DRAFTED | GRD

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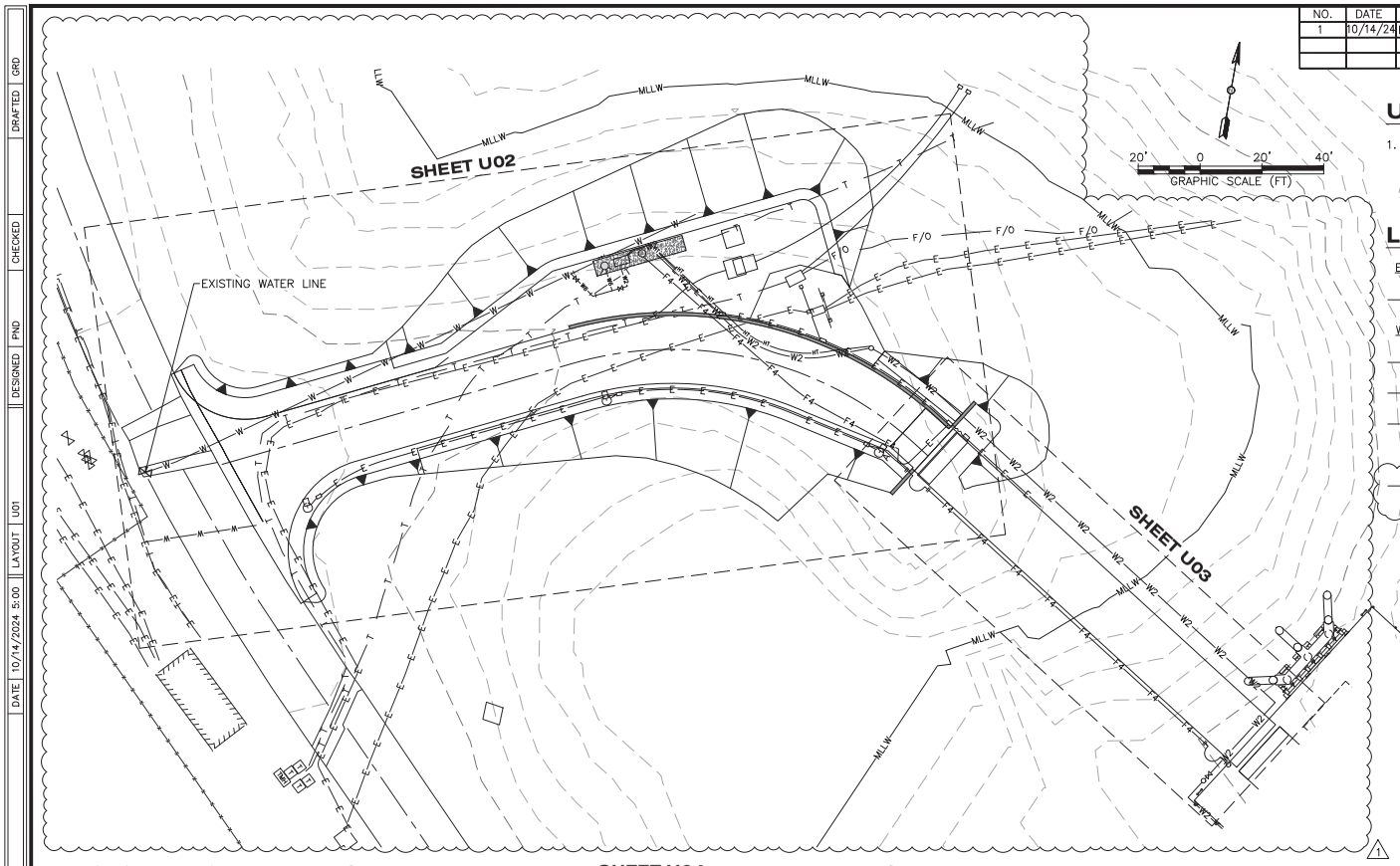
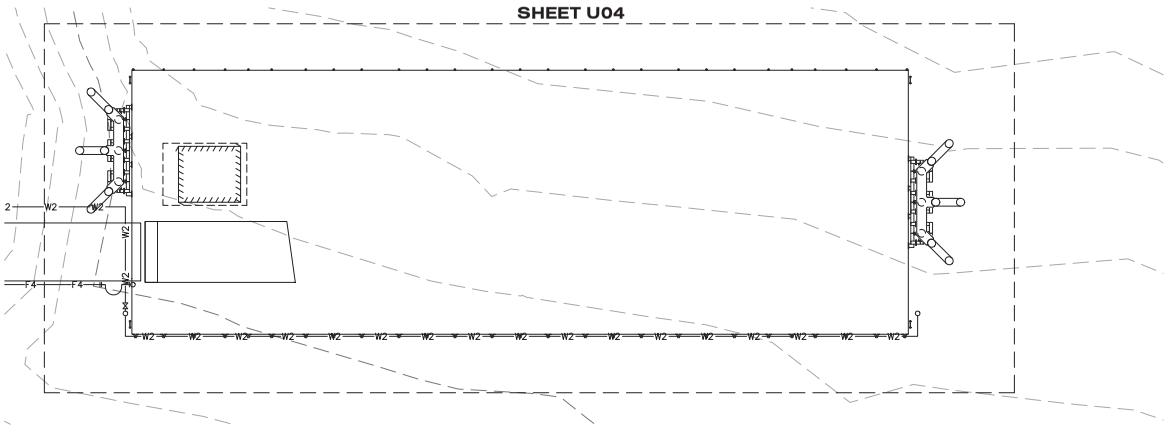
ALASKA	SFHWY00152/0952018	2019	U01	89





UTILITY NOTES

1. EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CONTACT THE RESPECTIVE LOCAL UTILITY OFFICE FOR FIELD LOCATES PRIOR TO EXCAVATION WORK PER SECTION 105.

LEGEND

ELECTRICAL
- E—E ELECTRICAL POWER LINE

WATER
- W10 WATER LINE (EXISTING)
- W6 6" WATER LINE
- W2 2" WATER LINE
- FIRE HYDRANT ASSEMBLY
- HT HEAT TRACE WIRE. ABANDONED IN PLACE

FIRE
- F4 4" FIRE LINE
- (H) FIRE HOSE CONNECTION

OTHER
- GATE VALVE
- FLEX HOSE

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PE Patty Lent 7/7/25

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SEATTLE, WA 98134
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SE 14129
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PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

UTILITY KEY PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U01.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U01 | DESIGNED | PND | CHECKED | DRAFTED | GRD

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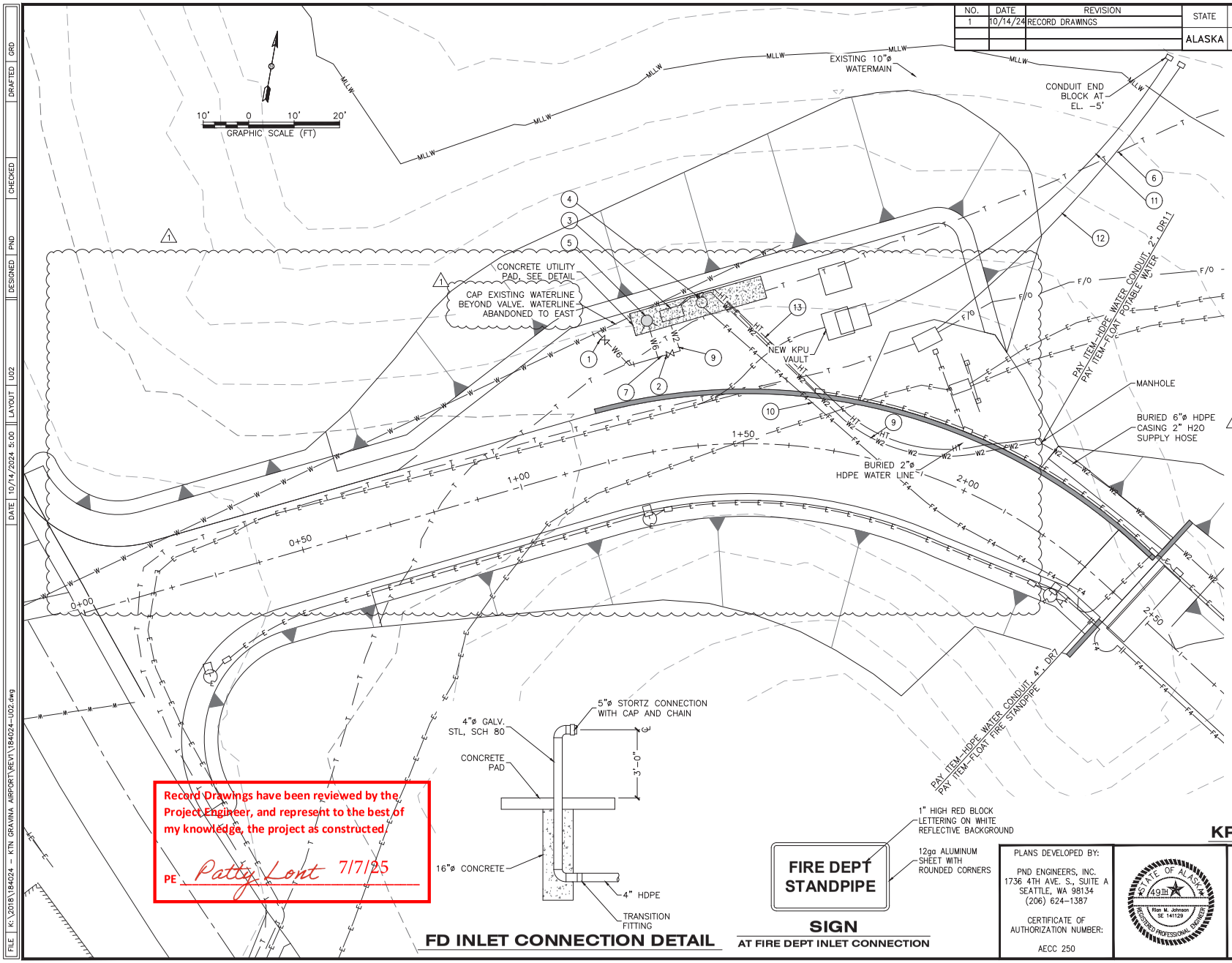
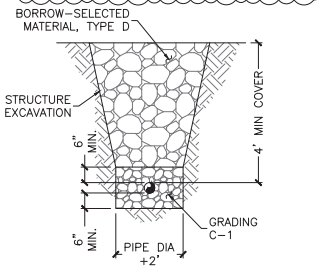
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	U02	89

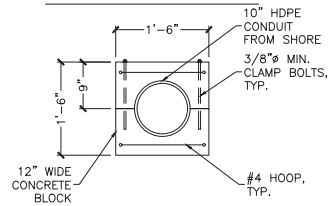


LEGEND

1. 6" GATE VALVE AND VALVE BOX W/ 10"x6" TAPPING TEE
2. 4" GATE VALVE AND VALVE BOX W/ 4"x2" REDUCING FLANGE
3. 2"ø DOUBLE CHECK VALVE ASSEMBLY WITH HOT BOX
4. 4"ø FIRE DEPARTMENT INLET CONNECTION (SEE DETAIL)
5. FIRE HYDRANT
6. EXISTING COMMUNICATIONS CABLE
7. 6"x4" HDPE TEE
8. HDPE WATER CONDUIT, 6", DR7
9. HDPE WATER CONDUIT, 2", DR 11
10. HDPE WATER CONDUIT, 4", DR 7
11. NEW KPU POWER UTILITY SUBMARINE CABLE. PROVIDE CONDUIT FROM VAULT TO EL. −5' MLLW. PROVIDE END BLOCK AT TERMINATION. SEE ELECTRICAL DRAWINGS FOR DETAILS
12. NEW KPU UTILITY FOR FUTURE SUBMARINE CABLE. PROVIDE CONDUIT FROM VAULT TO EL. −5' MLLW SEE ELECTRICAL DRAWINGS FOR DETAILS
13. HEAT TRACE WIRE. ABANDONED IN PLACE



TRENCH DETAIL



KPU CONDUIT END BLOCK

FD INLET CONNECTION DETAIL

SIGN
AT FIRE DEPT INLET CONNECTION

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PE Patty Lont 7/7/25

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1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Ron M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

UPLAND UTILITY PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U02.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U02 | DESIGNED | PND | CHECKED | DRAFTED | GRD

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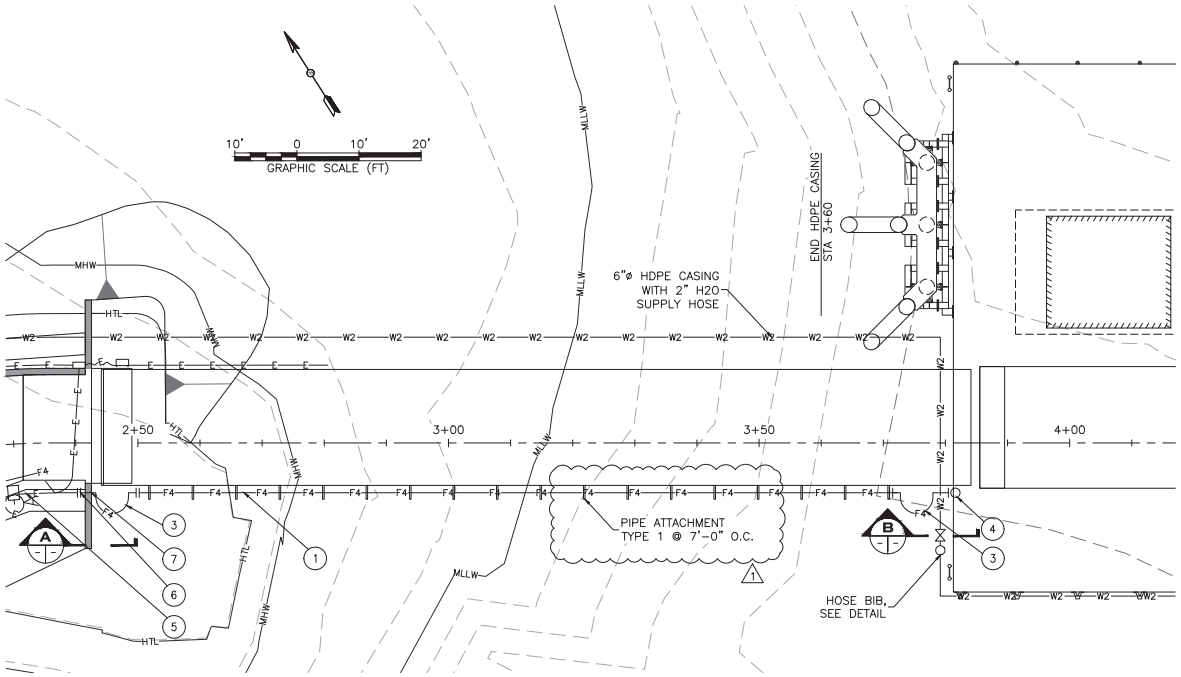
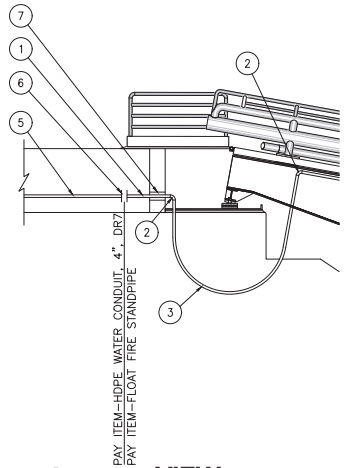
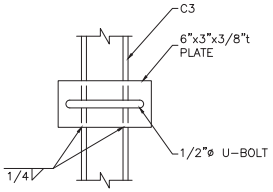


PLAN

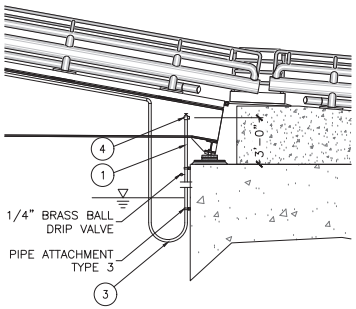
LEGEND

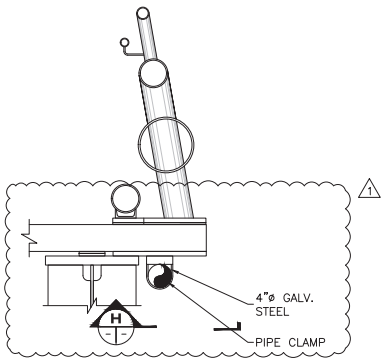
1. 4"ø GALV. STEEL SCH. 80
2. 4"ø 90° EL, STEEL, SCH 80
3. 4"ø EXTRA HEAVY HOSE WITH TRANSITION FITTINGS
4. 4"ø STEEL, SCH 80 STANDPIPE WITH BRASS 2 1/2"ø HOSE FITTING AND BRASS CAP
5. UNDERGROUND 4" HDPE
6. HDPE TO GALV. STEEL TRANSITION FITTING
7. 6"ø PVC SLEEVE FOR WATER CONDUIT PENETRATION



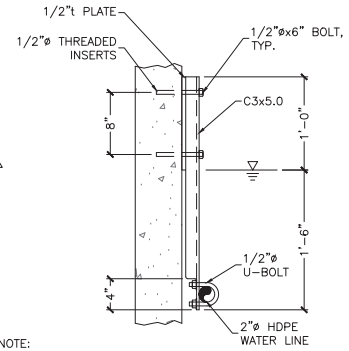


U-BOLT ATTACHEMENT



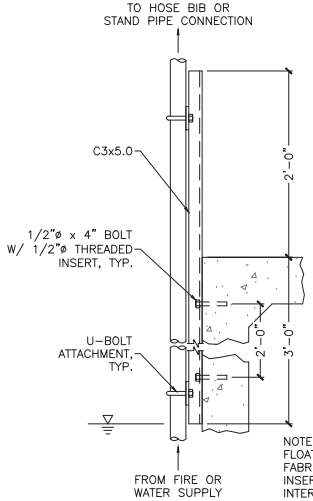


PIPE ATTACHMENT TYPE 1



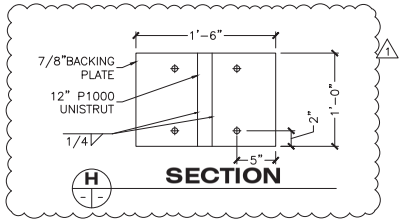
NOTE:
FLOATING DOCK FABRICATOR TO VERIFY INSERTS ARE FREE OF INTERFERENCES.

PIPE ATTACHMENT TYPE 2



NOTE:
FLOATING DOCK FABRICATOR TO VERIFY INSERTS ARE FREE OF INTERFERENCES.

PIPE ATTACHMENT TYPE 3



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Ron M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

TRANSFER BRIDGE UTILITY PLAN

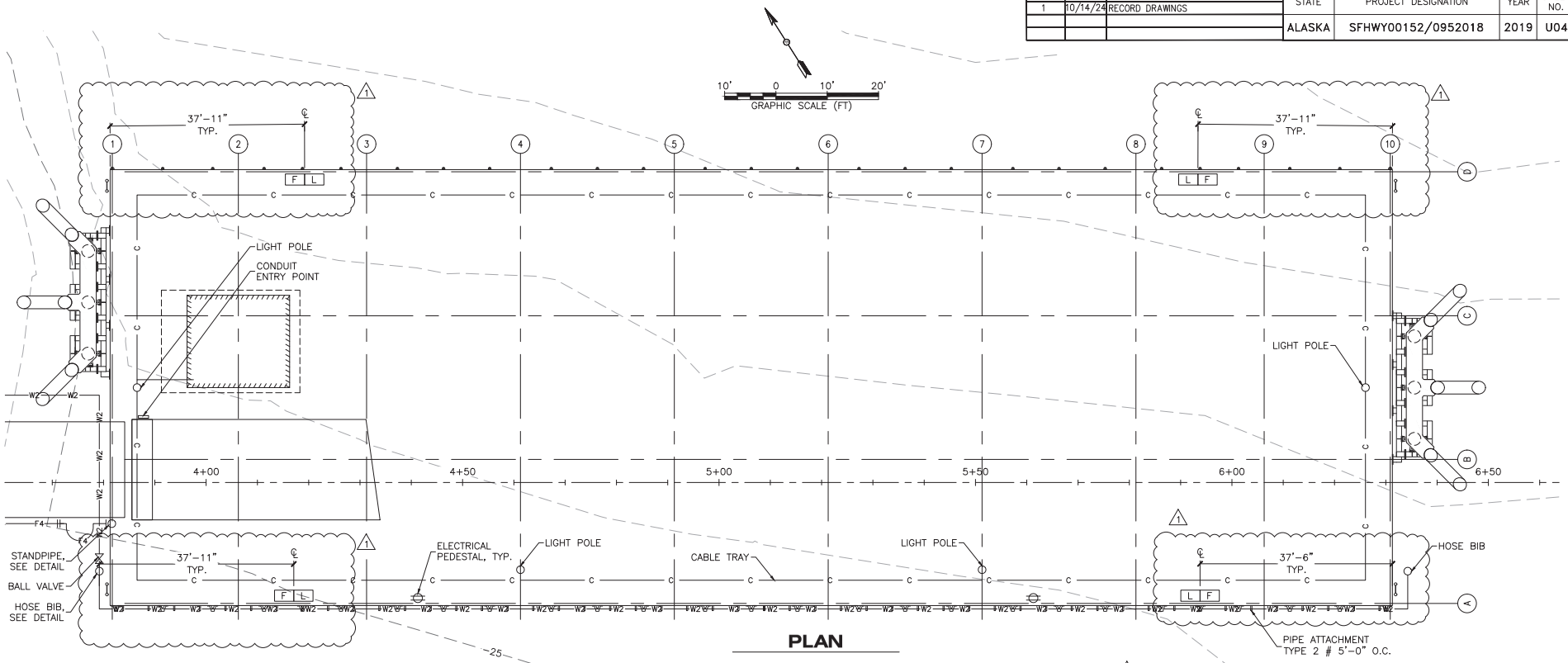
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U03.dwg | LAYOUT | U03 | DATE | 10/14/2024 5:00 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

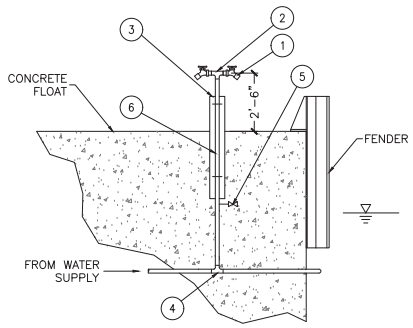
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	U04	89

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U04.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U04 | DESIGNED | PND | DRAFTED | CHECKED | GRD

10' 0 10' 20'
GRAPHIC SCALE (FT)



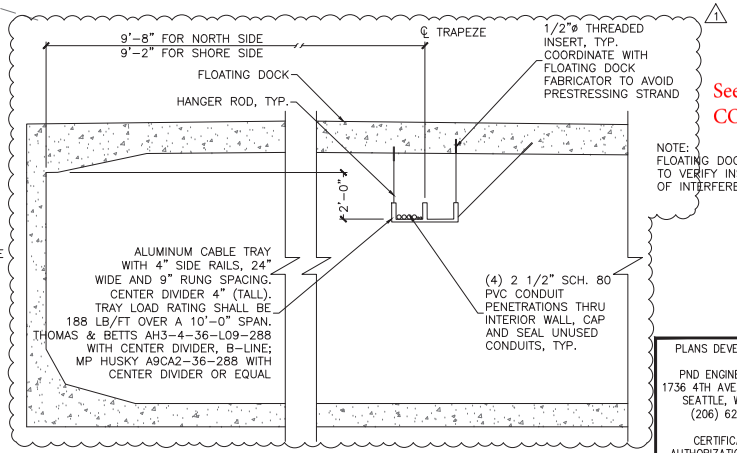
PLAN



HOSE BIB DETAIL

LEGEND

1. 3/4" HOSE BIB WITH VACUUM BREAKER
2. 2" BRASS TEE/TRANSITION FITTINGS TO HDPE
3. TYPE 3 PIPE ATTACHMENT, SEE DETAIL
4. 2" x 3/4" HDPE TEE
5. 1/4" BRASS BALL DRIP VALVE
6. 2" HDPE



NOTE: FLOATING DOCK FABRICATOR TO VERIFY INSERTS ARE FREE OF INTERFERENCES

FLOATING DOCK CABLE TRAY DETAIL

See next sheet for signs
CO 16

LEGEND

- W2 — 2" POTABLE WATER
- C — CABLE TRAY
- L — LIFE RING CABINET
- F — FIRE EXTINGUISHER CABINET

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:
PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387
CERTIFICATE OF AUTHORIZATION NUMBER:
AECC 250

STATE OF ALASKA 49TH Alan M. Johnson SE 141129 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

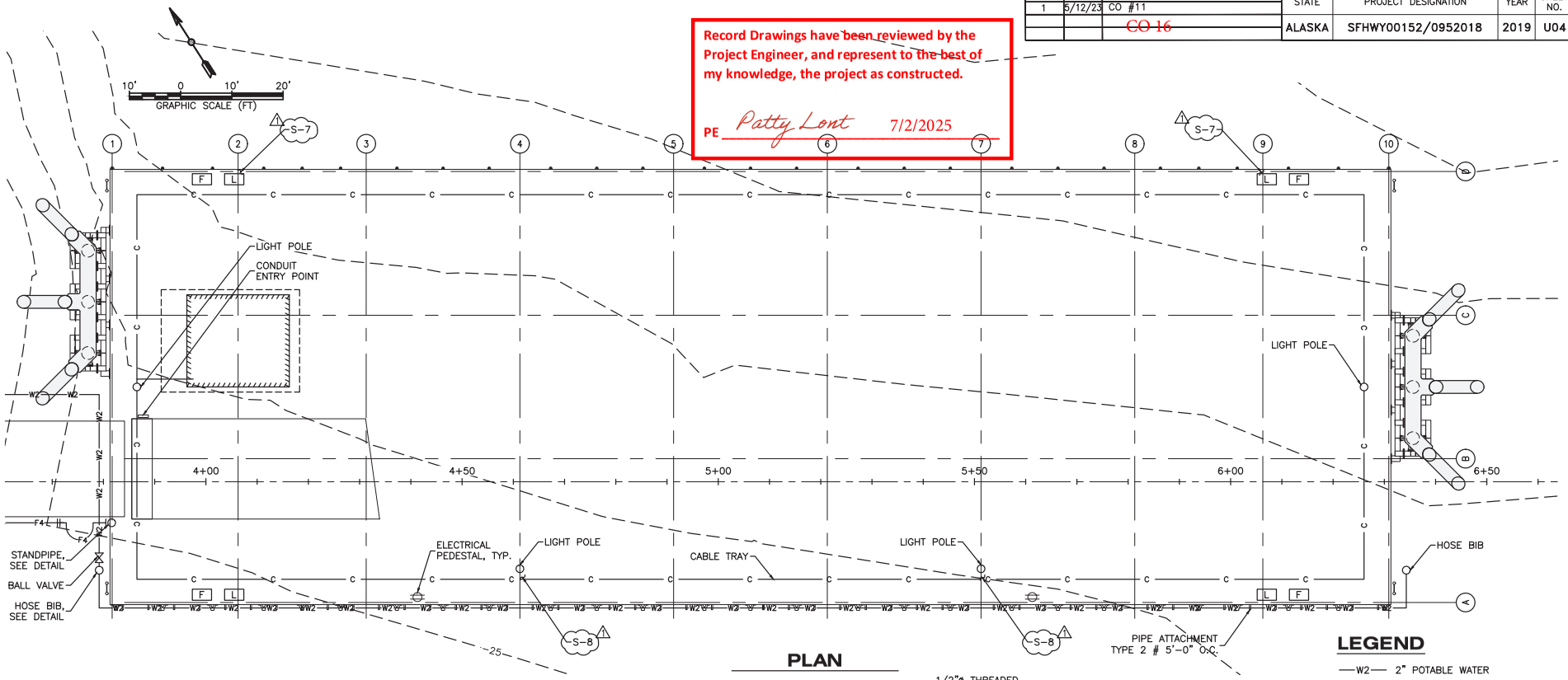
FLOATING DOCK UTILITY PLAN

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/12/23	CO #11					
		~~CO 16~~	ALASKA	SFHWY00152/0952018	2019	U04	88

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

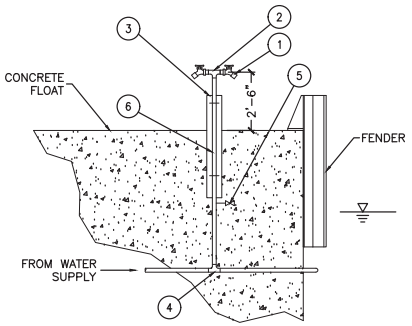
PE Patty Lont 7/2/2025

10' 0 10' 20'
GRAPHIC SCALE (FT)



LEGEND

- W2 — 2" POTABLE WATER
- C — CABLE TRAY
- L — LIFE RING CABINET
- F — FIRE EXTINGUISHER CABINET

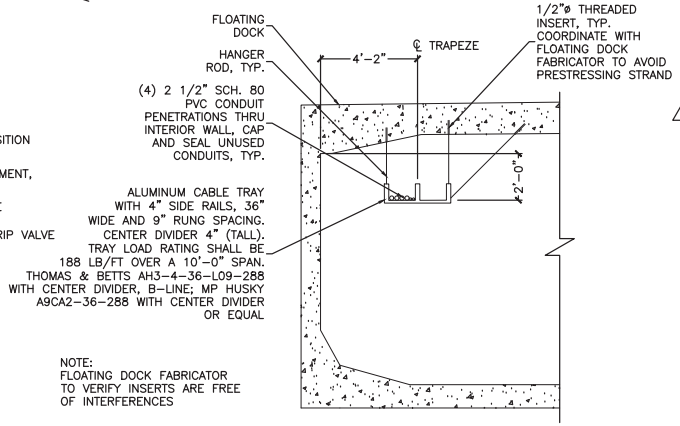


HOSE BIB DETAIL

LEGEND

1. 3/4" HOSE BIB WITH VACUUM BREAKER
2. 2" BRASS TEE/TRANSITION FITTINGS TO HDPE
3. TYPE 3 PIPE ATTACHMENT, SEE DETAIL
4. 2" x 3/4" HDPE TEE
5. 1/4" BRASS BALL DRIP VALVE
6. 2" HDPE

PLAN



NOTE:
FLOATING DOCK FABRICATOR TO VERIFY INSERTS ARE FREE OF INTERFERENCES

FLOATING DOCK CABLE TRAY DETAIL

CO 16

SIGN TABLE

Sign No.	Size (WxH)	Text	Text Size	MUTCD	Notes
S-7	2.0'x2.0'	MAX 4 HR VESSEL MOORING NO OVERNIGHT MOORAGE	2"	N/A	NEW SIGN – INSTALL TWO ON BACK OF LIFE RING MOUNTS AND PROVIDE ONE SPARE
S-8	2.0'x2.0'	NO PUBLIC MOORAGE RESERVED FOR FERRIES	2"	N/A	NEW SIGN– TWO LOCATIONS MOUNT TO LIGHT POLES AND PROVIDE ONE SPARE

PLANS DEVELOPED BY:
PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387
CERTIFICATE OF AUTHORIZATION NUMBER:
AECC 250

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

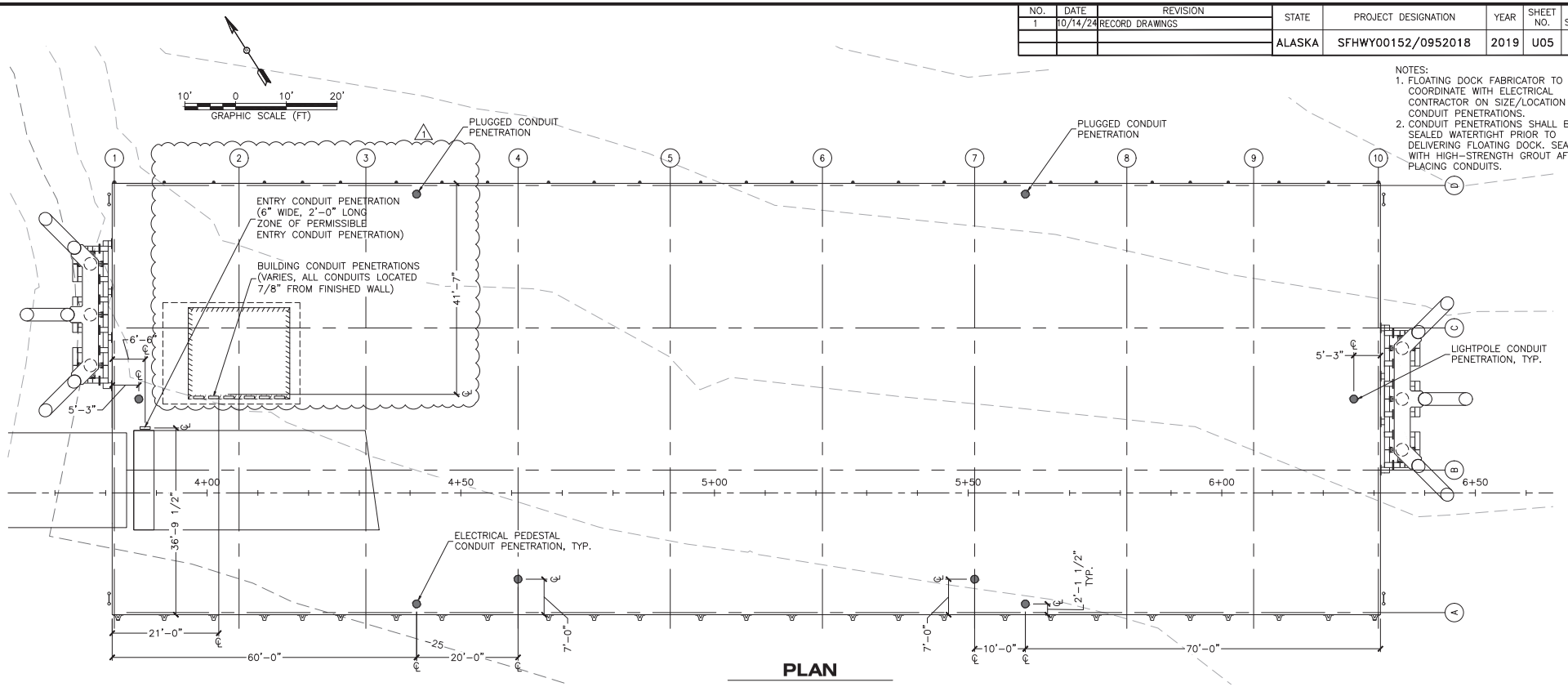
FLOATING DOCK UTILITY PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\Change Order 11\184024-U04.dwg | DATE | 5/16/2023 11:31 | LAYOUT | U04 | DESIGNED | PND | CHECKED | DRAFTED | GRD

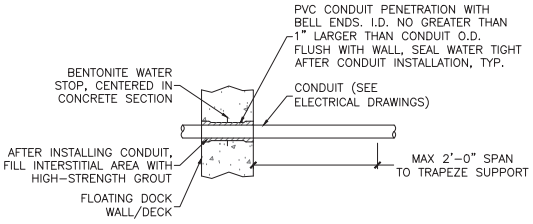
NO.	DATE	REVISION
1	10/14/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	U05	89

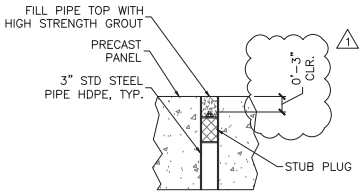
NOTES:
1. FLOATING DOCK FABRICATOR TO COORDINATE WITH ELECTRICAL CONTRACTOR ON SIZE/LOCATION OF CONDUIT PENETRATIONS.
2. CONDUIT PENETRATIONS SHALL BE SEALED WATERTIGHT PRIOR TO DELIVERING FLOATING DOCK. SEAL WITH HIGH-STRENGTH GROUT AFTER PLACING CONDUITS.



PLAN



1 **DETAIL**
TYPICAL FLOATING DOCK WALL/DECK CONDUIT PENETRATION



PLUGGED CONDUIT DETAIL

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

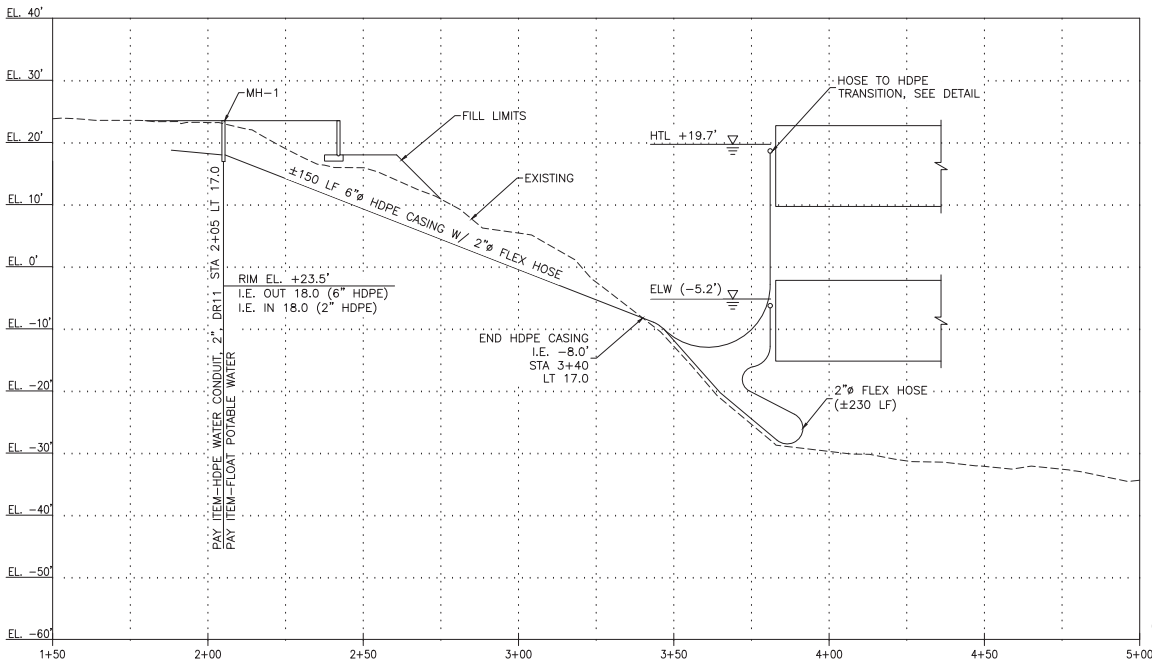
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

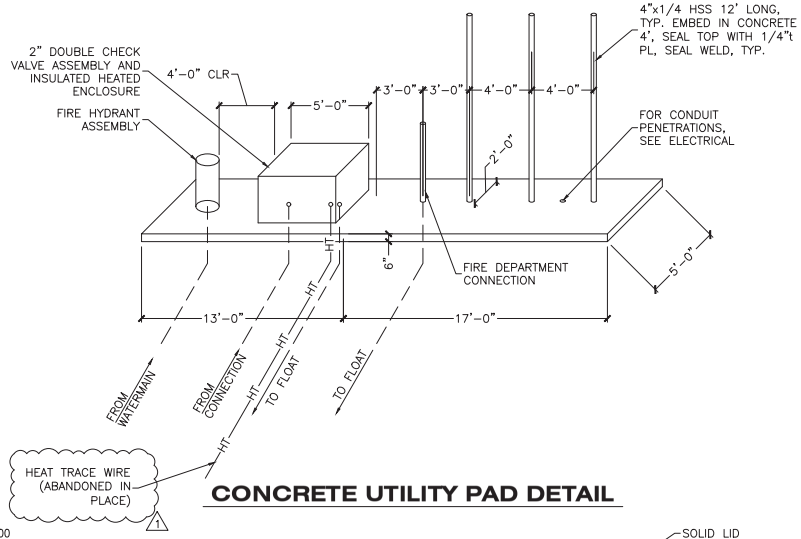
FLOATING DOCK UTILITY PENETRATIONS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U05.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U05 | DESIGNED | PND | CHECKED | DRAFTED | GRD

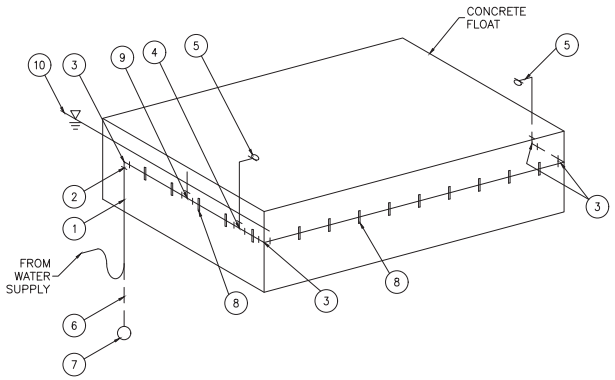
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS					
			ALASKA	SFHWY00152/0952018	2019	U06	89



PROFILE-FLOAT POTABLE WATER
(17.0LT PROJECT BASELINE)



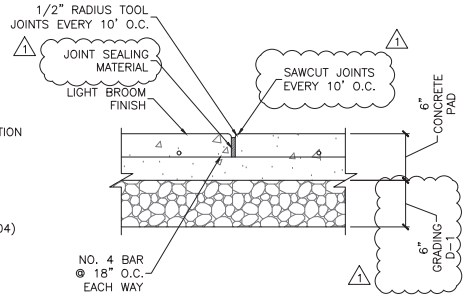
CONCRETE UTILITY PAD DETAIL



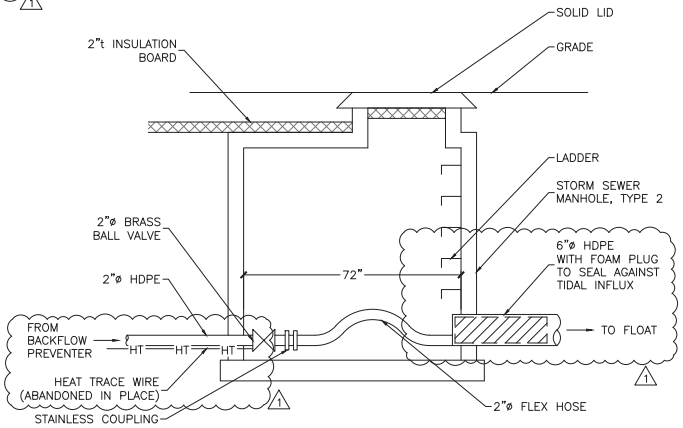
DETAIL-FLOAT POTABLE WATER
(FENDERS ALONG FLOAT NOT SHOWN FOR CLARITY)

LEGEND

1. 2"ø FLEX HOSE
2. STAINLESS FLANGE TRANSITION HDPE AND HOSE
3. 2"ø HDPE 90° ELL
4. 2"øx3/4" HDPE TEE
5. HOSE BIB (SEE DETAIL, U04)
6. 1/4" STAINLESS CABLE
7. 10 LBS WEIGHT
8. PIPE ATTACHMENT TYPE 2
9. HDPE BALL VALVE W/ 12" RISER
10. ALL PIPING TO BE INSTALLED MINIMUM 6" BELOW WATER LINE



CONCRETE UTILITY PAD SECTION



MANHOLE DETAIL-POTABLE WATER

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

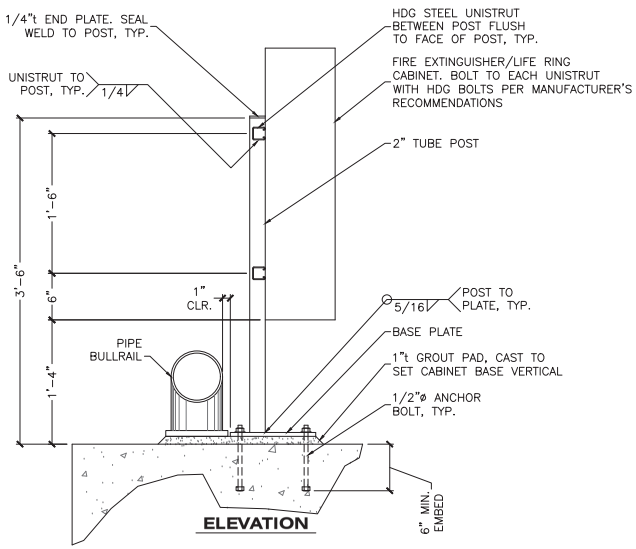
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

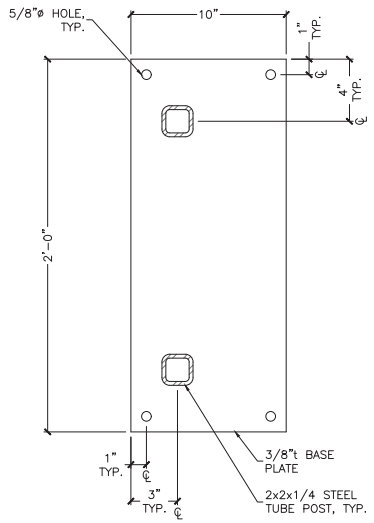
UTILITY DETAILS

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U06.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U06 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS					
			ALASKA	SFHWY00152/0952018	2019	U07	89



FIRE EXTINGUISHER/LIFE RING CABINET BASE



FIRE EXTINGUISHER/LIFE RING BASE

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

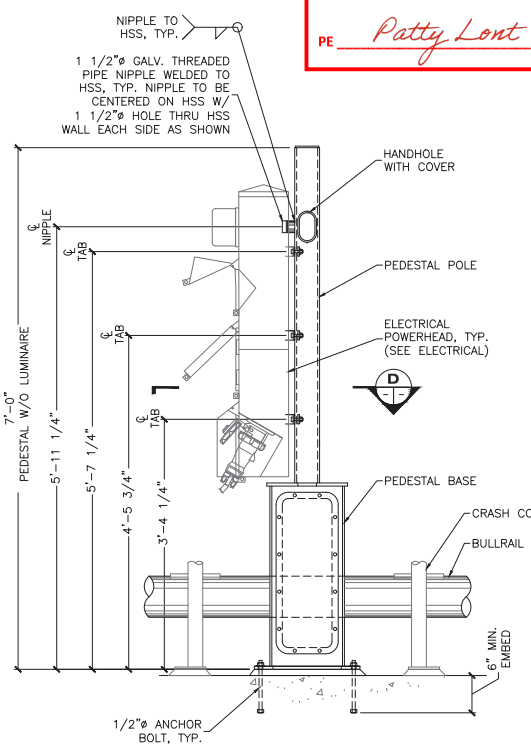
FLOATING DOCK UTILITY DETAILS – SHEET 1

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U07.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U07 | DESIGNED | PND | CHECKED | DRAFTED | GRD

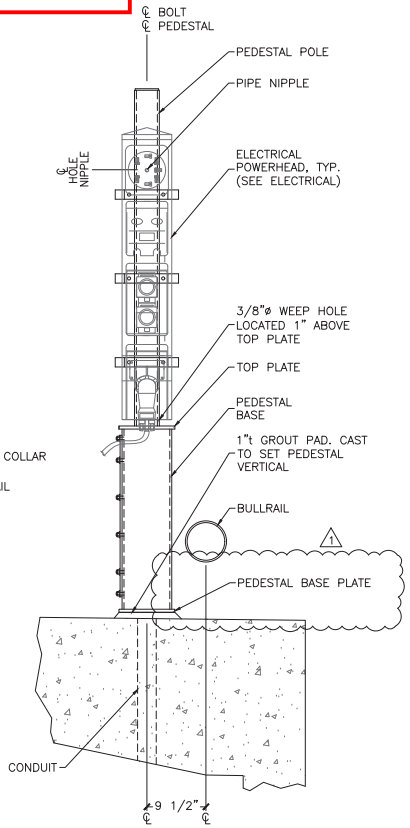
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	U08	89

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

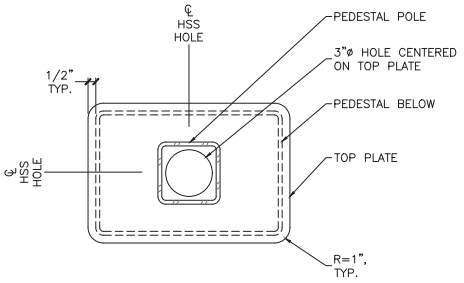


FRONT ELEVATION

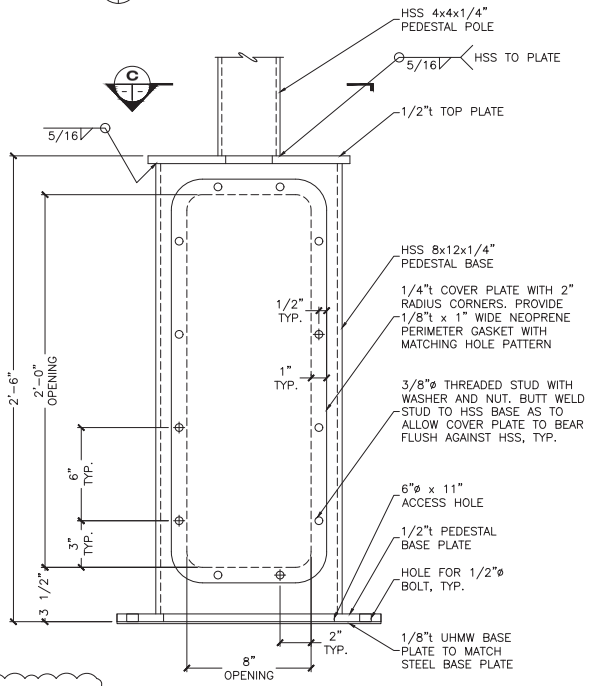


SIDE ELEVATION

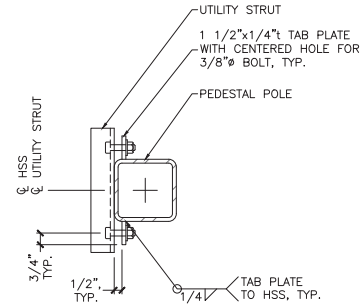
ELECTRICAL PEDESTAL BASE



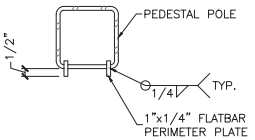
SECTION



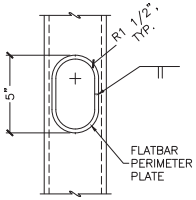
PEDESTAL DETAIL



SECTION



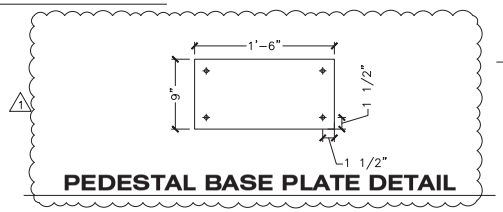
SECTION



ELEVATION

PEDESTAL POLE HANDHOLE

NOTES:
1. LOCATION/SPACING OF TABS AND PIPE NIPPLE LENGTH SHALL BE COORDINATED W/ ELECTRICAL AND INCLUDED IN SHOP DRAWINGS TO BE REVIEWED BY ENGINEER.
2. ELECTRICAL CONTRACTOR SHALL SHIM BASE AS REQUIRED TO BE PERPENDICULAR TO DECK.



PEDESTAL BASE PLATE DETAIL

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

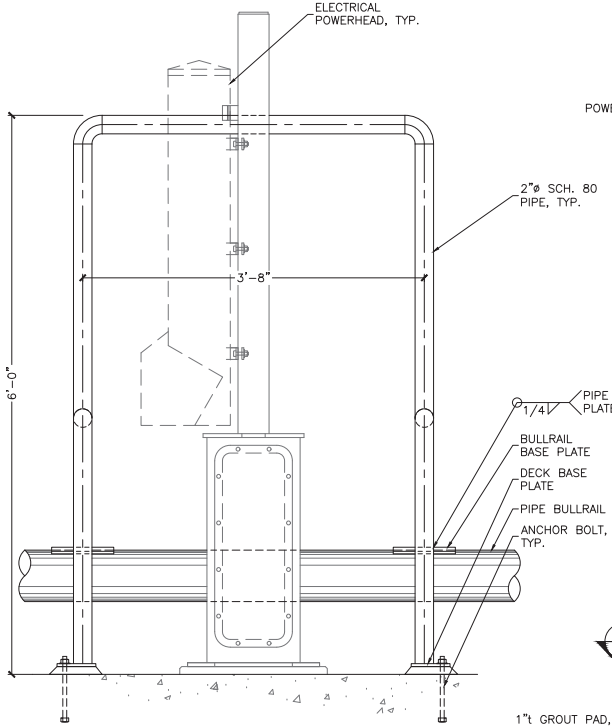
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

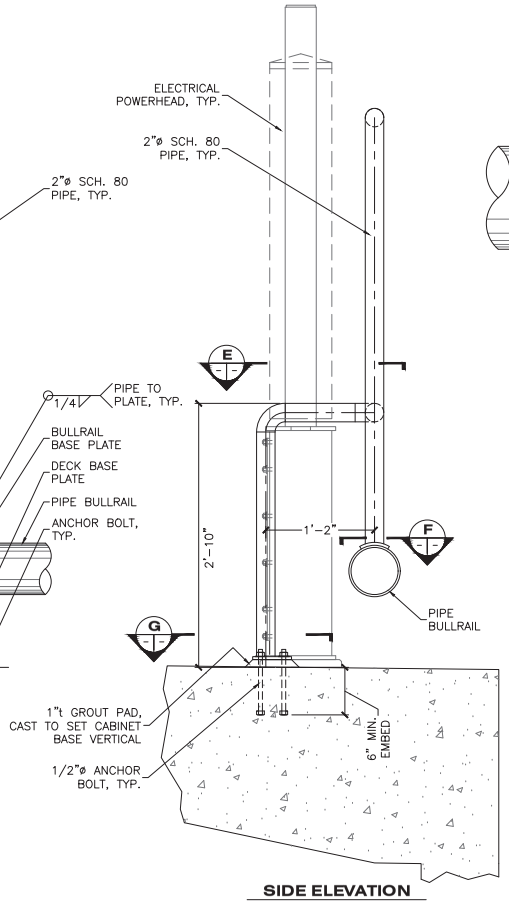
FLOATING DOCK UTILITY DETAILS – SHEET 2

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U08.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U08 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	10/14/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	U09	89



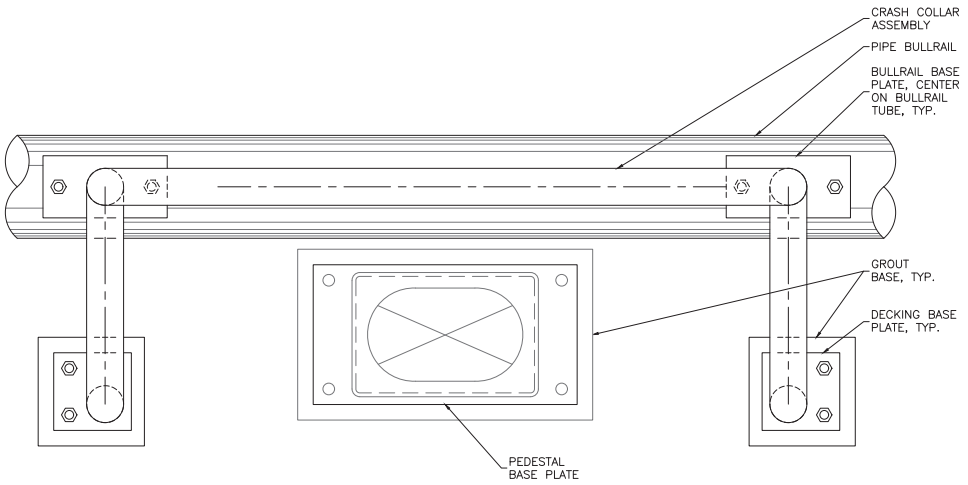
FRONT ELEVATION



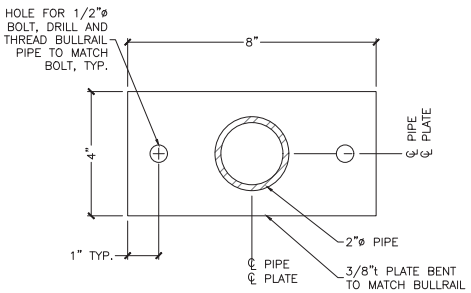
SIDE ELEVATION

NOTE:
CONTRACTOR TO COORDINATE CRASH COLLAR WITH PEDESTAL FABRICATOR.

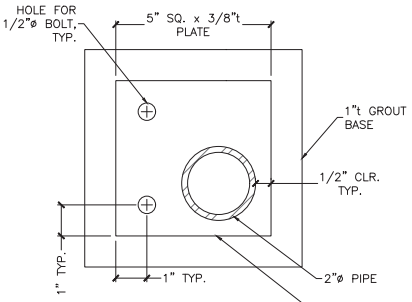
CRASH COLLAR - ELEVATION



E CRASH COLLAR



F SECTION
BULLRAIL BASE PLATE



G SECTION
DECKING BASE PLATE

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

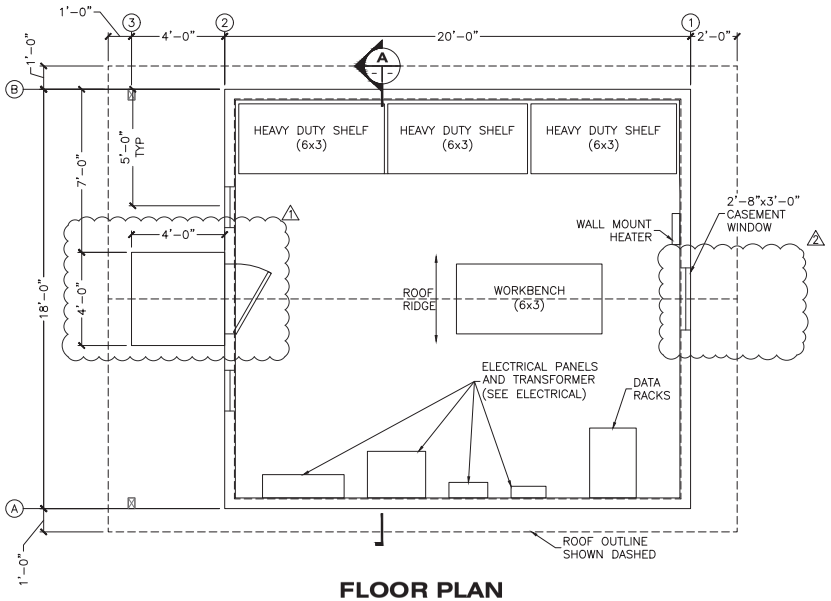
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK UTILITY DETAILS – SHEET 3

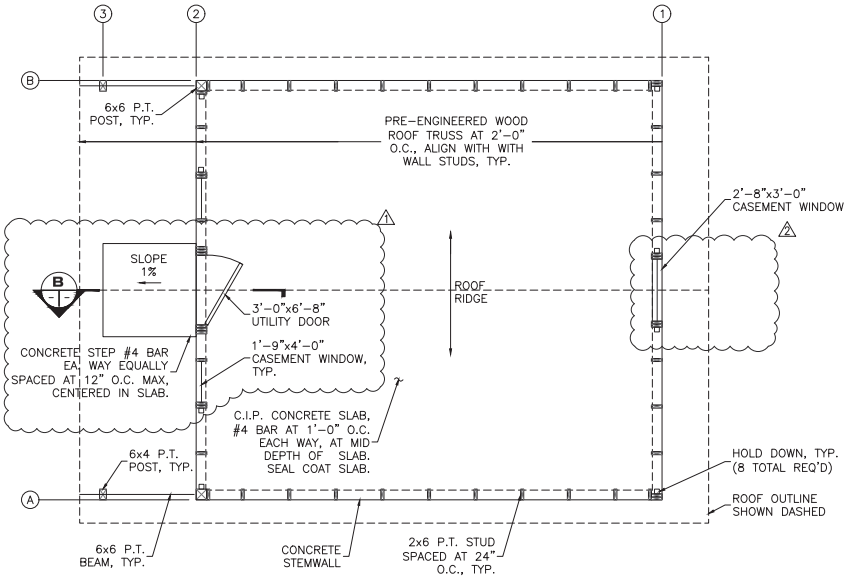
FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-U09.dwg | DATE | 10/14/2024 5:00 | LAYOUT | U09 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION
1	11/30/23	BUILDING REORIENTATION
2	4/18/23	CONCRETE STEP REMOVED
3	5/20/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	B01	89

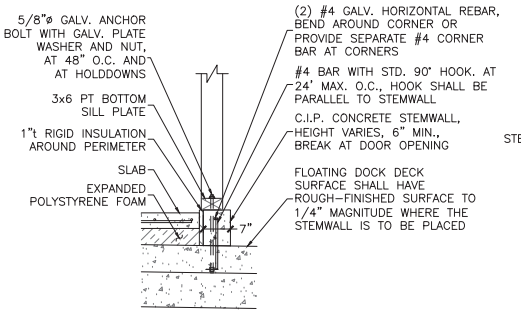


FLOOR PLAN



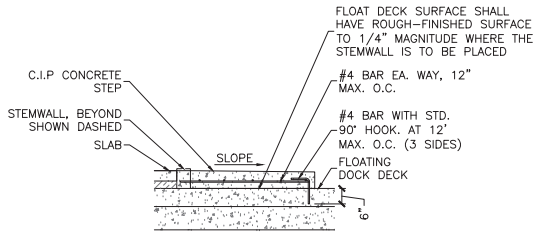
FOUNDATION/FRAMING PLAN

See CO 23

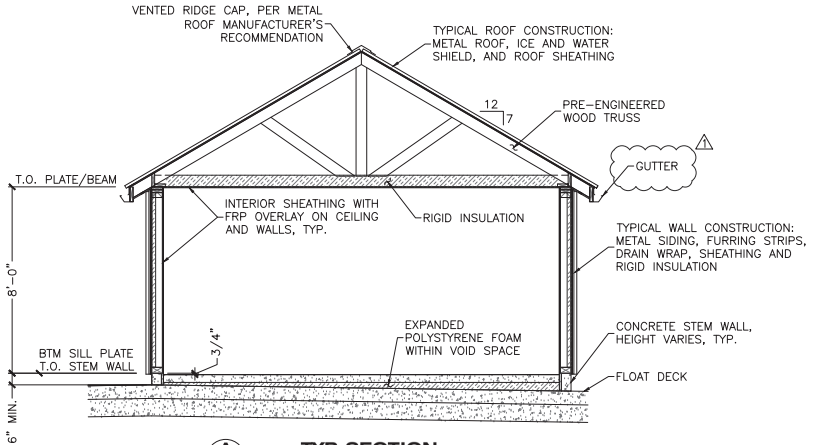


STEM WALL/SLAB DETAIL

COORDINATE WITH FLOATING DOCK FABRICATOR ON BUILDING TIE-DOWN INSERTS



B SECTION



A TYP SECTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

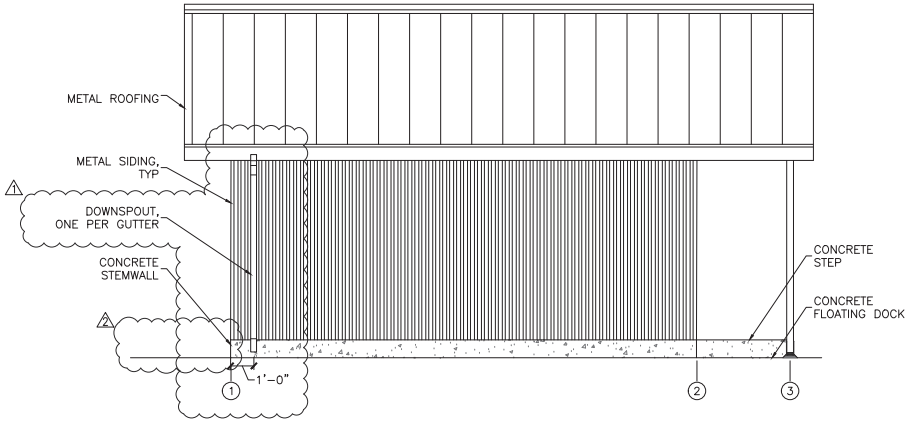
STORAGE BUILDING PLAN

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-B01.dwg | DATE | 11/29/2024 15:03 | LAYOUT | B01 | DESIGNED | PND | CHECKED | DRAFTED | GRD

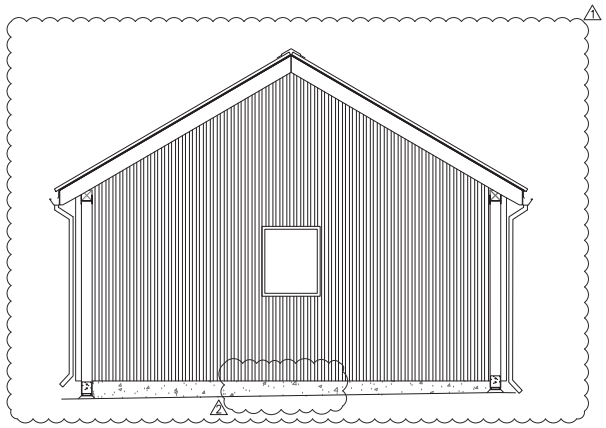
NO.	DATE	REVISION
1	11/30/23	BUILDING REORIENTATION
2	4/18/23	CONCRETE STEP REMOVED
3	5/20/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	B02	89

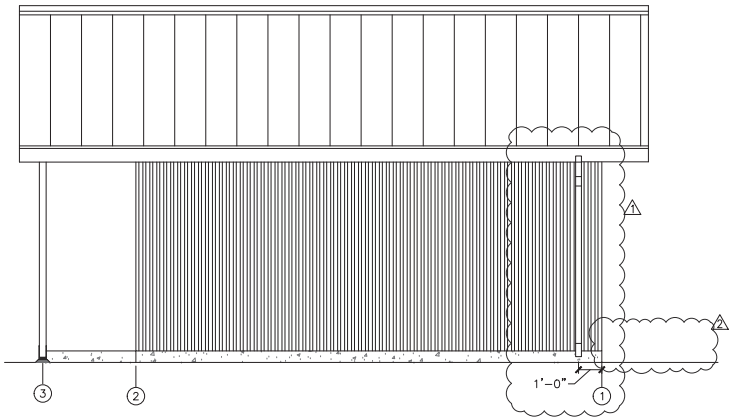
CO 23



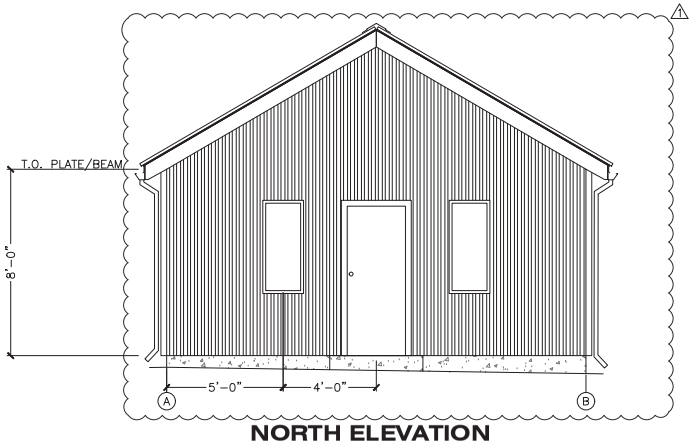
EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rian M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

STORAGE BUILDING ELEVATIONS

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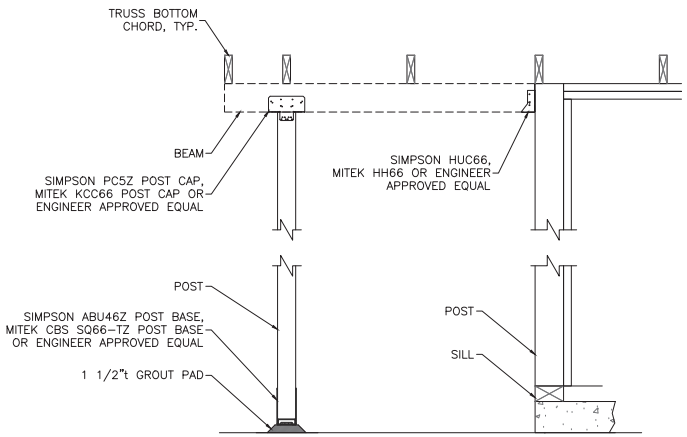
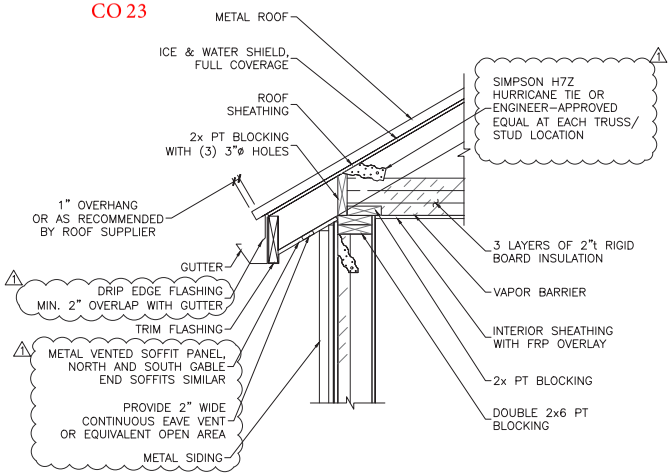
NO.	DATE	REVISION
1	11/30/23	BUILDING REORIENTATION
2	4/18/23	CONCRETE STEP REMOVED
3	5/20/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	B03	89

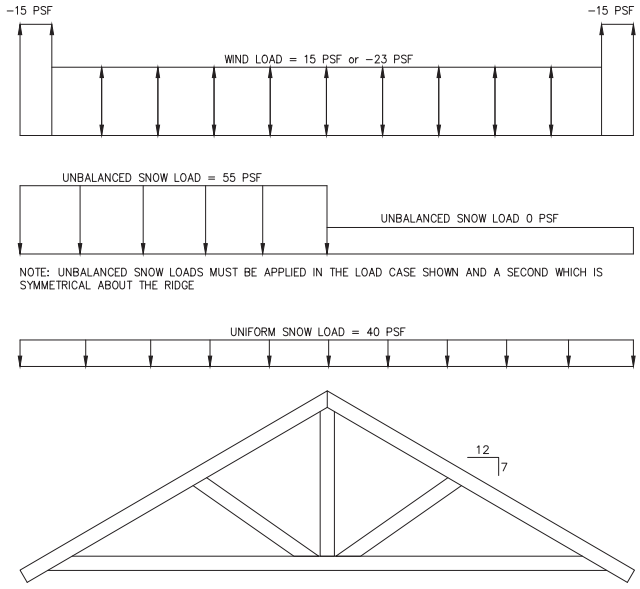


TYP OVERHANGING ROOF DETAIL

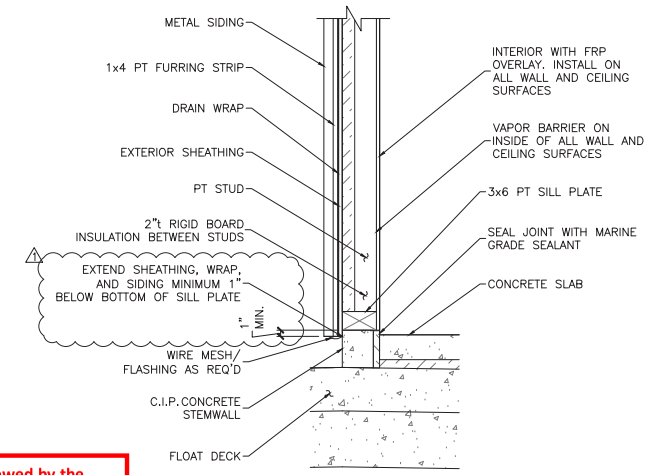
CO 23



TYP EAVE SECTION



TYP PRE-ENGINEERED TRUSS SECTION



TYP WALL SECTION

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

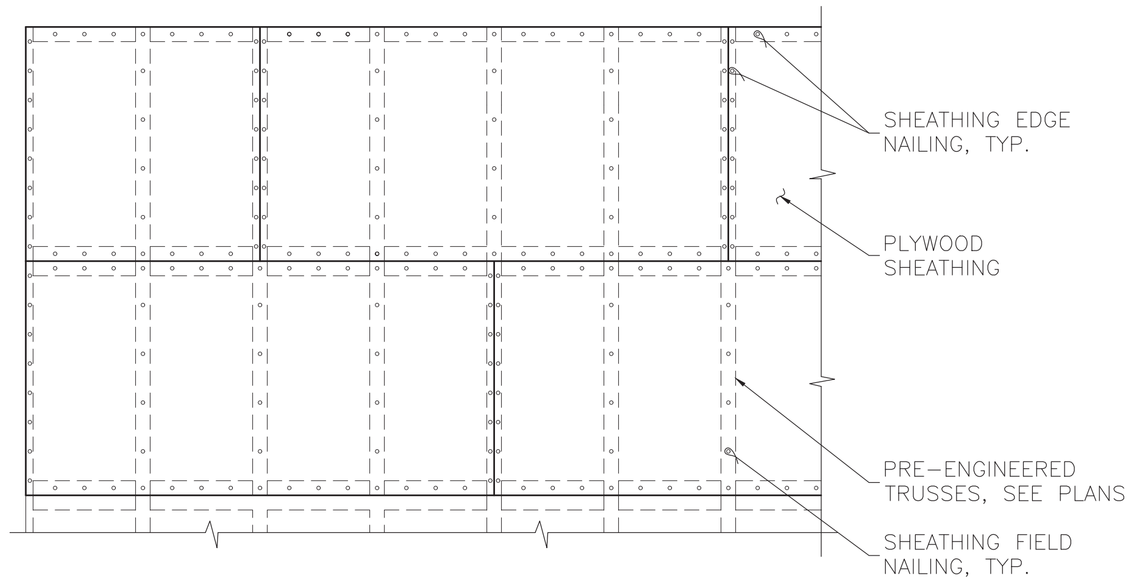
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

STORAGE BUILDING
DETAILS – SHEET 1

FILE | K:\2018\184024 - KTN GRAVINA AIRPORT\REV1\184024-B03.dwg | DATE | 04/16/2024 14:40 | LAYOUT | B03 | DESIGNED | PND | CHECKED | DRAFTED | GRD

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	11/30/23	BUILDING REORIENTATION	ALASKA	SFHWY00152/0952018	2019	B04	89
2	4/18/23	CONCRETE STEP REMOVED					
3	5/20/24	RECORD DRAWINGS					

CO 23



PLAN

TYPICAL ROOF DIAPHRAGM DETAIL

NOTES:
1. STAGGER SHEATHING JOINTS A MINIMUM OF TWO TRUSS JOIST SPACES.
2. NAILS AT ABUTTING SHEATHING EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.

HOLDOWN SCHEDULE

MODEL NO.	ANCHOR ROD DIA.	BOUNDARY STUD / POST (ATTACHED TO HOLDOWN)	STUD FASTENERS	ASD ALLOWABLE LOADS (LBS)
HDU4-SDS2.5/ TDX2-TZ	5/8ø F1554, GR. 55	(2) 2x6 DF	(10)-SDS 1/4"x2-1/2"	4565 (DF)

NOTES:
1. ALL HOLDOWNS SHALL BE SIMPSON STRONGTIE, MITEK OR ENGINEER APPROVED EQUAL.
2. ANCHOR RODS SHALL BE GALVANIZED ASTM A307 HEADED BOLTS OR GALVANIZED ALL THREAD WITH NUT AND PLATE WASHER
3. DF = DOUG FIR

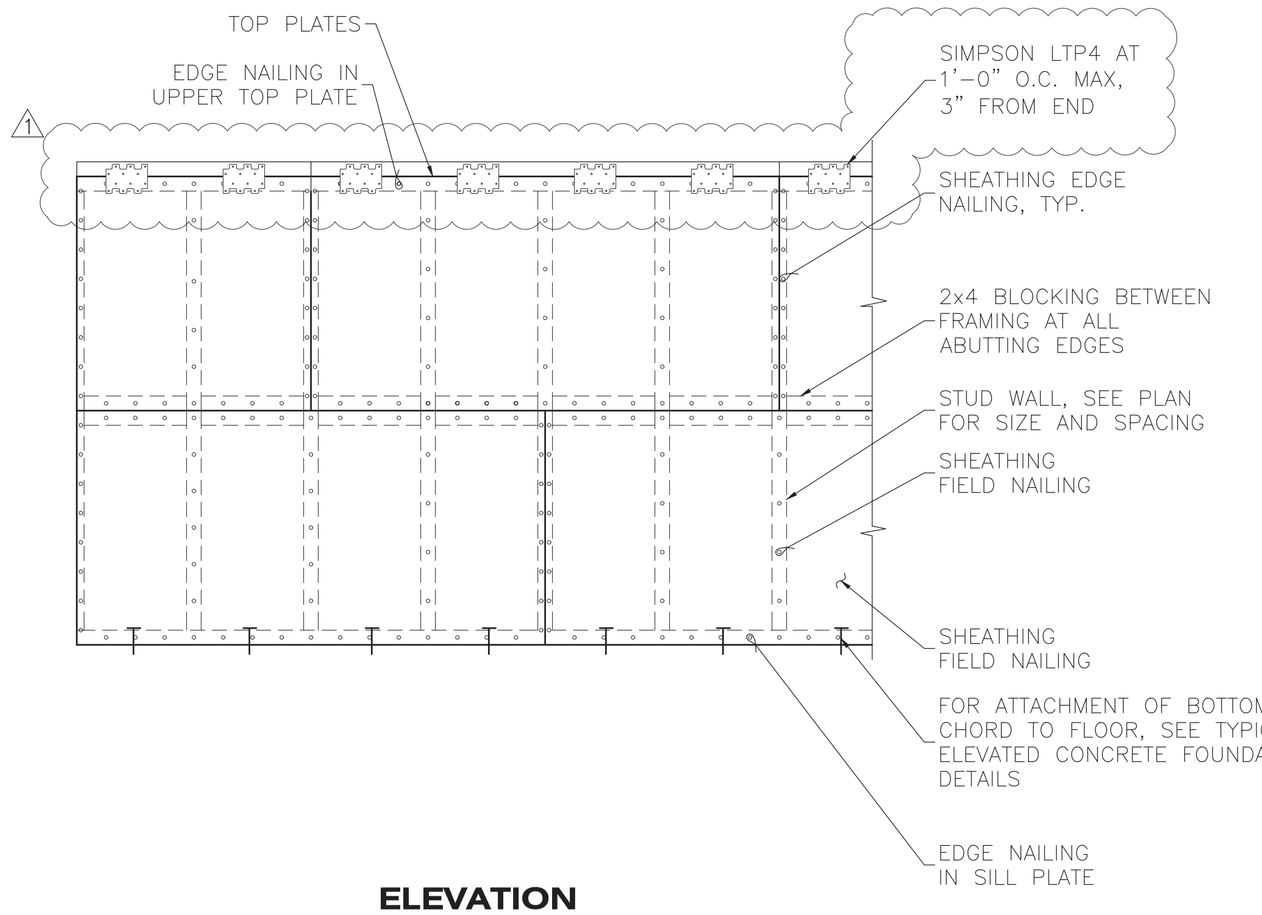
SHEARWALL SCHEDULE

NO. OF SIDES	SHEATHING GRADE	SHEATHING THICKNESS	NAIL SIZE	NAIL SPACING		MIN. STUD THICKNESS AT PANEL JOINT	MIN. NOMINAL SILL THICKNESS	MUDSILL TO CONCRETE
				EDGES	FIELD			
1	APA RATED STRUC-1	19/32"	10d	6"	12"	2x	2x	5/8"ø ANCHOR BOLT AT 24" O.C. MAX.

NOTES:
1. MUDSILL SHALL HAVE A MINIMUM OF (2) ANCHOR BOLTS WITH (1) BOLT LOCATED NOT MORE THAN 12 INCHES OR LESS THAN 6 INCHES FROM EACH END.
2. ALL SILL PLATE ANCHOR RODS SHALL BE ASTM A307 GALVANIZED HEADED BOLTS OR ASTM A 36 GALVANIZED THREADED ROD WITH END NUT. HOLDOWN ANCHOR RODS SHALL BE ASTM A36 GALVANIZED THREADED ROD WITH END NUT OR ENGINEER APPROVED EQUAL.
3. WALL FRAMING TO BE 2X DF (U.N.O.) STUDS AT 24" O.C. ALL PANEL EDGES SHALL BE LOCATED ON STUDS, 2x BLOCKING LAID FLAT AGAINST THE SHEATHING OR PLATES. ALL STUDS ATTACHED TO STRAPS OR HOLD DOWNS SHALL BE PANEL EDGE NAILED.
4. APPLY SHEATHING TO SIDE OF SHEARWALL INDICATED BY SYMBOL.
5. ALL HOLDOWNS SHALL BE SIMPSON STRONG-TIE, MITEK OR ENGINEER APPROVED EQUAL.

PANEL DIAPHRAGM SCHEDULE

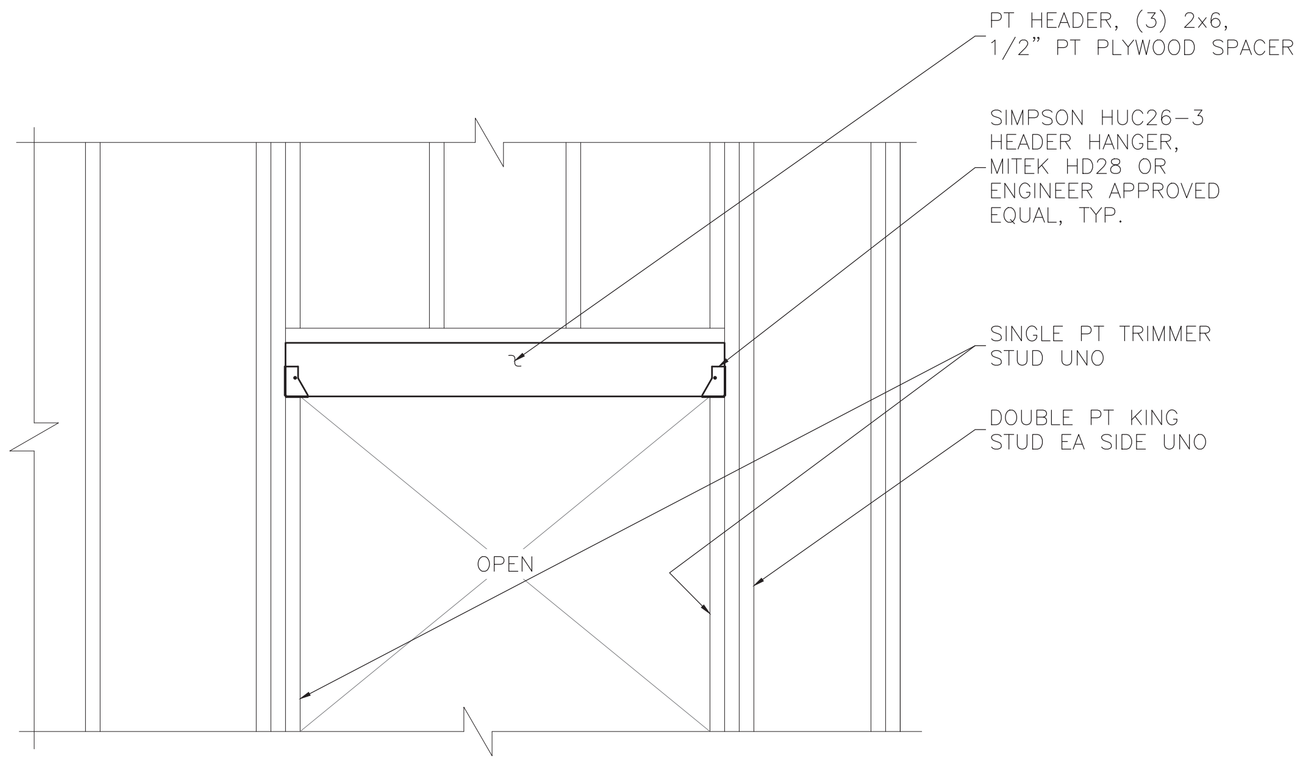
PANEL LOCATION	SHEATHING GRADE	MIN. PANEL THICKNESS	NAIL SIZE	NAIL SPACING			NOMINAL WIDTH OF FRAMING MEMBER	PANEL EDGE BLOCKING
				BOUNDARIES	ALL OTHER EDGES	FIELD		
ROOF	APA RATED STRUC-1	19/32"	10d	6"	6"	12"	2x MIN.	2x4



ELEVATION

TYPICAL SHEARWALL DETAIL

NOTES:
1. SHEATHING IS SHOWN HORIZONTAL, IT MAY ALSO BE POSITIONED VERTICAL.
2. STAGGER SHEATHING JOINTS A MINIMUM OF TWO STUD SPACES.
3. NAILS AT ABUTTING SHEATHING EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.
4. SEE PLANS FOR HOLD DOWN LOCATIONS AND ADDITIONAL BLOCKING.
5. ALL SHEATHING EDGES MUST BE SUPPORTED BY AND NAILED TO FRAMING OR BLOCKING.



TYPICAL HEADER DETAIL

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Rion M. Johnson
SE 141129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

STORAGE BUILDING
DETAILS – SHEET 2

NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E1	88

KETCHIKAN, ALASKA

KETCHIKAN GRAVINA AIRPORT LAYUP FACILITY

ELECTRICAL

LEGEND

AFF	ABOVE FINISHED FLOOR	▽	GROUND BUSS	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
	CAMERA	GFI	GROUND FAULT INTERRUPTER	NM	NON METALLIC
20/3	CIRCUIT BREAKER (AMPS/POLES)	HOA	HAND–OFF–AUTO	(PE)	PHOTOELECTRIC CELL
C/B	CIRCUIT BREAKER	HDG	HOT DIPPED GALVANIZE		POLE MOUNTED LUMINAIRE. LABEL DESIGNATES POLE NUMBER
CKT	CIRCUIT	HT	HEAT TRACE	POE	POWER OF ETHERNET
CIVIL	CIVIL PROJECT DRAWINGS		HEAVY DUTY DISCONNECT (AMPS/POLES AS SHOWN)		RECEPTACLE, 120V, 20A INDUSTRIAL SPEC GRADE, WHITE WITH STAINLESS STEEL COVER PLATE
C	CONDUIT		HOME RUN	REC	RECETPTACLE
	CONTACTOR		HUMIDISTAT	(R)	RELAY
CU	COPPER	KGB	KETCHIKAN GATEWAY BOROUGH	RMC	RIGID METAL CONDUIT (HOT DIPPED GALVANIZED RIGID STEEL)
	CT BASE	KPU	KETCHIKAN PUBLIC UTILITY	SS	316 STAINLESS STEEL
CT	CURRENT TRANSFORMER	LFMC	LIQUID TIGHT FLEXIBLE METALLIC CONDUIT (WITH STAINLESS STEEL INTERNAL SPIRAL)	STA	STATION LINE
	DISCONNECT	LTG	LIGHTING	STRUCTURAL	STRUCTURAL PROJECT DRAWINGS & SPECIFICATIONS
EMT	ELECTRICAL METALLIC TUBING	(LC)	LIGHTING CONTACTOR	S	SWITCH, 120V, 20A INDUSTRIAL SPEC GRADE, WHITE WITH STAINLESS COVER PLATE
ϕ	ELECTRICAL PHASE	MTG HT	MOUNTING HEIGHT	TTB	TELEPHONE TERMINAL BOARD
GALV.	GALVANIZED	MDP	MAIN DISTRIBUTION PANEL	(TYP)	TYPICAL
GRS	GALVANIZED RIGID STEEL	NEC	NATIONAL ELECTRICAL CODE	UHMW	ULTRA HIGH DENSITY MOLECULAR WEIGHT
GND	GROUND			(M)	UTILITY METER

SHEET LIST TABLE

GENERAL NOTES (APPLICABLE ALL SHEETS):

1. ALL WORK ON ALL SHEETS IS NEW UNLESS OTHERWISE NOTED.
2. PERFORM ALL WORK PER THE 2017 NATIONAL ELECTRIC CODE (NEC) AND OTHER APPLICABLE NATIONAL, STATE, AND LOCAL CODES AND STANDARDS. PROVIDE EQUIPMENT AND AN INSTALLATION THAT COMPLIES WITH ARTICLE 555 OF THE NEC.
3. MOUNT ALL OF THE ELECTRICAL EQUIPMENT IN THE LOCATIONS SHOWN ON THE CIVIL DRAWINGS. LOCATIONS SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE.
4. SEE CIVIL DRAWINGS FOR MOUNTING ALL ELECTRICAL EQUIPMENT AS WELL AS ELECTRICAL DRAWINGS. MOUNTING POSTS, LIGHT POLE BASE DETAILS, CABLE TRAY, PEDESTAL FRAMES, ETC. ARE DETAILED ON THE CIVIL DRAWINGS. MOUNT ELECTRICAL EQUIPMENT AS SHOWN ON BOTH ELECTRICAL AND CIVIL DRAWINGS. SIZE MOUNTING BOLTS, BRACKETS, HARDWARE, ETC. FOR A SAFETY FACTOR OF 5 MINIMUM. ALL EQUIPMENT AND MATERIALS SHALL NOT MOVE WHEN PULLED OR PUSHED BY HAND (EXCEPT CABLES AND FLEXIBLE CONDUIT). SECURE ALL CONDUIT WITHIN 12 INCHES OF END OF CONDUIT AND AS REQUIRED PER NEC.
5. FIELD TREAT ALL HOT DIPPED GALVANIZED (HDG) MATERIALS THAT ARE CUT, DRILLED, SCRATCHED OR DAMAGED. SEE CIVIL FOR FIELD TREATMENT.
6. ALL CONDUCTORS SHALL BE COPPER, ALL INSULATION SHALL BE 600V RATED. TYPE XHHW FOR CONDUCTORS NOT IN A CABLE. ALL CABLES SHALL BE THE TYPE SPECIFIED, NO SUBSTITUTIONS. USE BARE COPPER FOR GROUND CONDUCTORS BURIED IN CONCRETE.
7. IF GALVANIZED THREADS ARE CHASED IN ORDER TO BE USABLE, TREAT CHASED THREADS WITH BRAKE CLEANER, THEN COAT WITH MARINE TRAILER WHEEL BEARING GREASE BEFORE APPLYING A STAINLESS STEEL WASHER AND NUT.
8. USE 316 STAINLESS STEEL BOLTS, WASHERS, ETC. TO MOUNT ELECTRICAL EQUIPMENT AND STRUT CHANNEL. ALL FASTENERS AND OTHER EXPOSED HARDWARE SHALL BE 316 STAINLESS STEEL. ALL STAINLESS STEEL FOR ALL EQUIPMENT, ENCLOSURES, BOXES, HARDWARE, ETC. SHALL BE 316 STAINLESS STEEL.
9. SEAL ALL PENETRATIONS IN ELECTRICAL EQUIPMENT WITH UL LISTED HARDWARE FOR SUCH USE. USE RUBBER OR SILICONE WASHERS IN ADDITION TO STAINLESS STEEL WASHERS.
10. USE 316 STAINLESS STEEL SUPPORT CHANNEL (UNISTRUT) TO SUPPORT CABLES, PANELS, CONTACTORS, POWER HEADS, AND ALL OTHER ELECTRICAL EQUIPMENT. TRIM SUPPORT CHANNEL 1/4" SHORT OF EDGE OF EQUIPMENT AND POSTS. SAND END OF SUPPORT CHANNEL SMOOTH. USE CABLE SUPPORTS THAT COMPLY WITH 555.13(4). USE CUSHION STRAPS WHEN SUPPORTING CABLE TO SUPPORT CHANNEL. HDG SUPPORT CHANNEL MOUNTED TO BRIDGE IS INCLUDED IN CIVIL WORK, BUT LOCATIONS AND SIZE SHALL BE IDENTIFIED BY ELECTRICAL.
11. ROUTE CABLES IN CABLE TRAY IN FLOAT UNDER DECK. SECURE CABLE TO CABLE TRAY WITH NM CABLE TIES (MIN 500 LB TENSILE STRENGTH) WHERE CABLE ENTERS AND LEAVES TRAY. DO NOT EXCEED 8 TIMES CABLE DIAMETER FOR BENDING RADIUS. USE STAINLESS STEEL CABLE GRIP CONNECTORS FOR ALL CABLE ENTERING AND LEAVING CONDUIT, USE INTEGRAL STAINLESS STEEL CORD GRIP CONNECTORS WITH FLEXIBLE CONDUIT.
12. ALL CABLE TERMINATIONS AND ALL ELECTRICAL CONNECTIONS SHALL BE A MINIMUM OF 12 INCHES ABOVE THE FLOAT DECKING INCLUDING WIRING TERMINATIONS, RECEPTACLES, ETC.
13. PROVIDE OXIDE INHIBITING COMPOUND ON ALL ELECTRICAL CONNECTIONS. BURNDY PENETROX TYPE A OR E OR ILSCO DEOX AS REQUIRED.
14. POWER DISTRIBUTION BLOCKS SHALL HAVE COPPER PLATED BAR WITH STUDS. TERMINATE CONDUCTORS ON STUDS WITH PLATED OR COATED COPPER SPADE CONNECTORS WITH A HOLE FOR THE STUD. USE COPPER BRASS, OR BRONZE NUTS AND WASHERS, NOT STAINLESS STEEL. ALL LUGS AND ELECTRICAL TERMINALS SHALL BE COPPER OR TIN PLATED HIGH CONDUCTIVE ALUMINUM.
15. THE PART NUMBERS SHOWN ON THE DRAWINGS ARE NOT TO BE USED AS A BILL OF MATERIALS. VERIFY ALL PART NUMBERS ARE CORRECT PRIOR TO ORDERING, VERIFY ALL REQUIRED OR NECESSARY ACCESSORIES, FEATURES, MATERIAL TYPE, ETC. ARE INCLUDED.
16. FLEXIBLE CONDUIT ROUTING AT ALL TRANSITIONS BETWEEN UPLANDS, BRIDGE, AND FLOAT SHALL BE INSTALLED SO THAT IT WILL NOT BE DAMAGED AT THE MINIMUM AND MAXIMUM TIDAL LEVELS.
17. BUILD THE PROJECT AS DESIGNED. DO NOT ASSUME THE DESIGN WILL BE CHANGED AT THE CONTRACTOR'S REQUEST.
18. ALL CONDUIT EXTERIOR SHALL BE SCHEDULE 80 PVC EXCEPT ON BRIDGE USE RMC. ALL CONDUIT IN BUILDING ON FLOAT SHALL BE SCHEDULE 40 PVC OR EMT IF CONCEALED.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/9/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907–789–3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

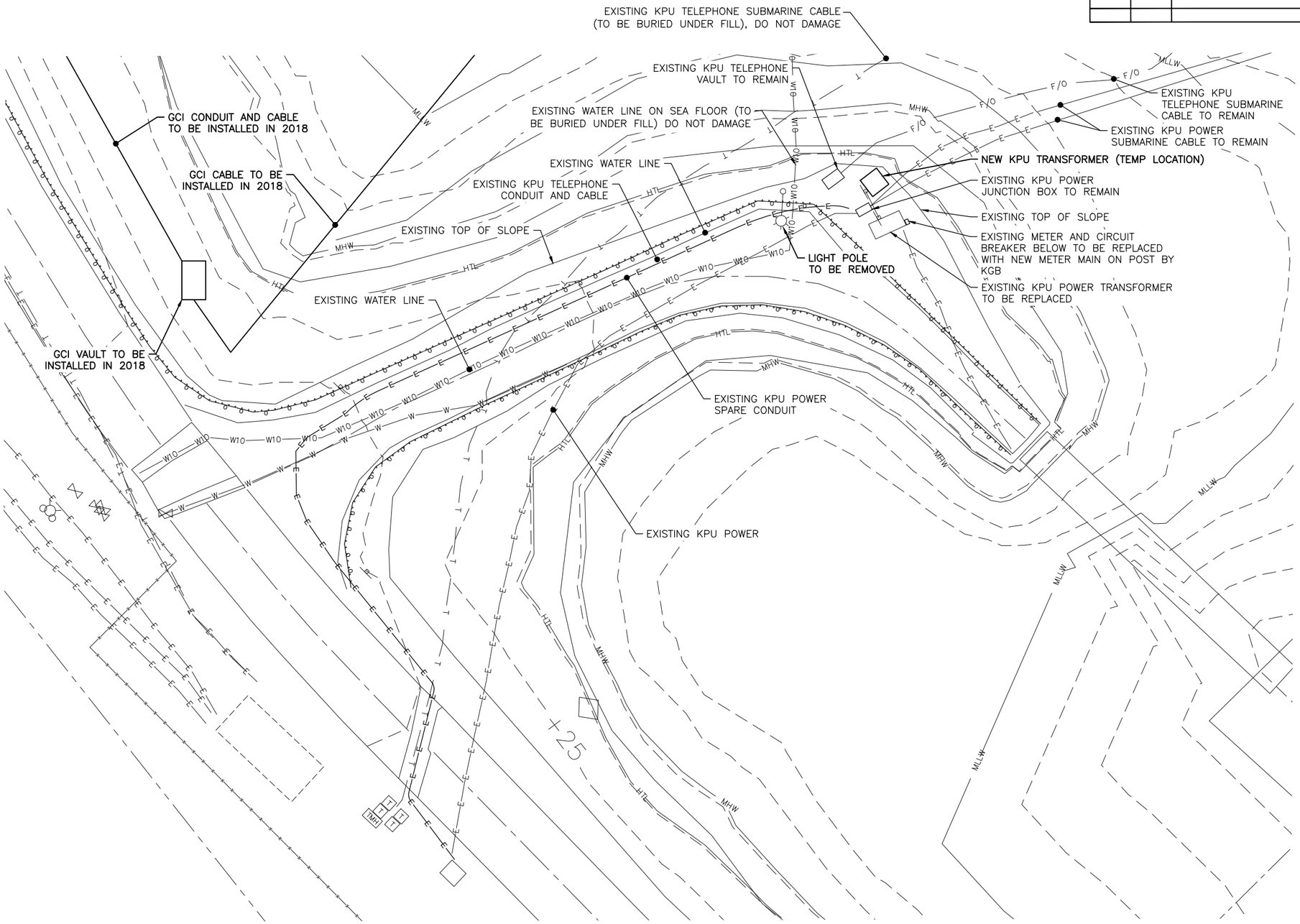
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

GENERAL NOTES & LEGEND

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\GENERAL NOTES & LEGEND.dwg | DATE | 6/24/2024 17:32 | LAYOUT | E1 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E2	88



① EXISTING SITE PLAN - ELECTRICAL

(WITH GCI'S NEW FACILITIES TO BE INSTALLED IN 2018)

20' 0 20' 40'
GRAPHIC SCALE (FT)

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

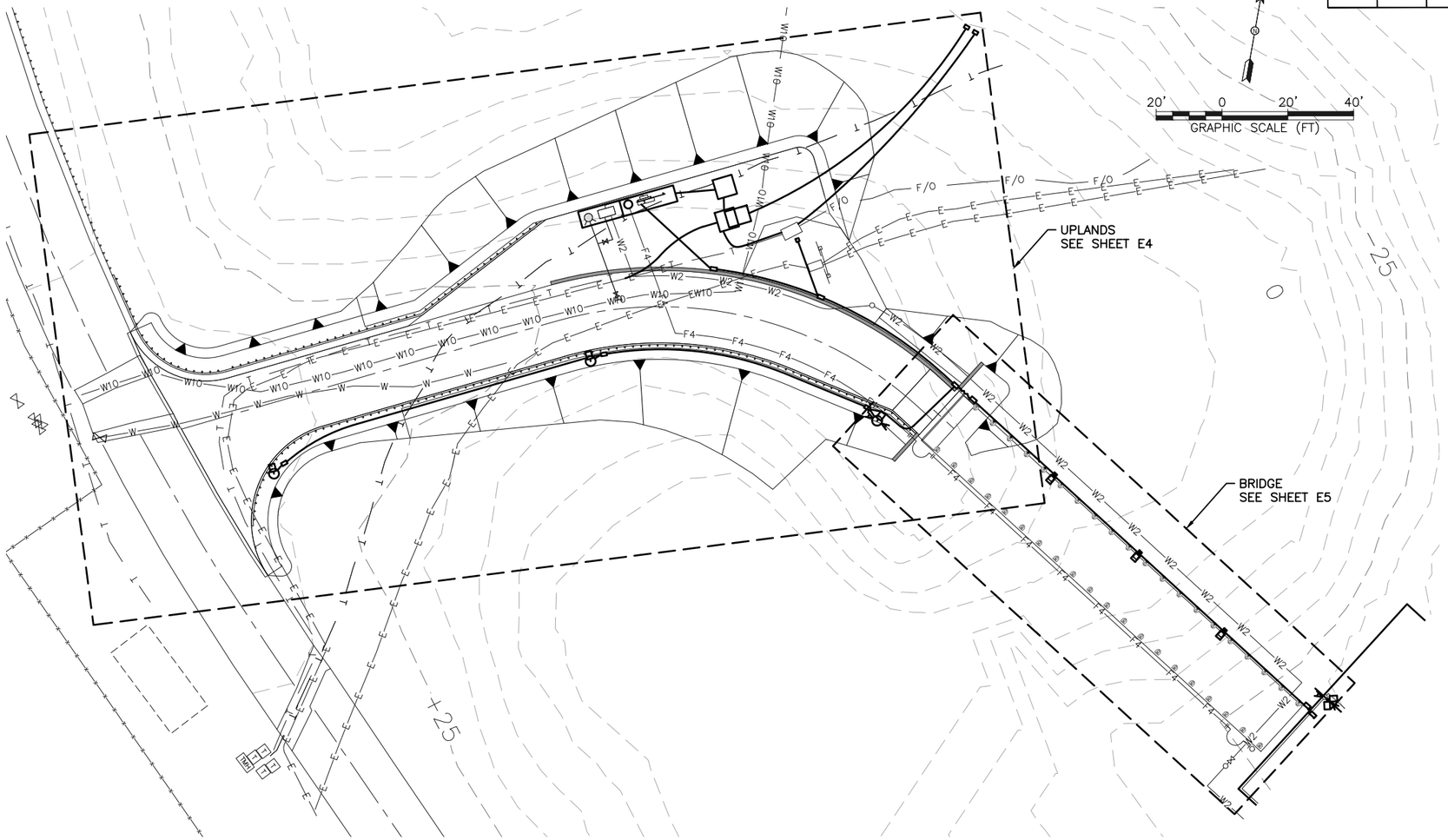
PE Patty Lont 7/11/2025

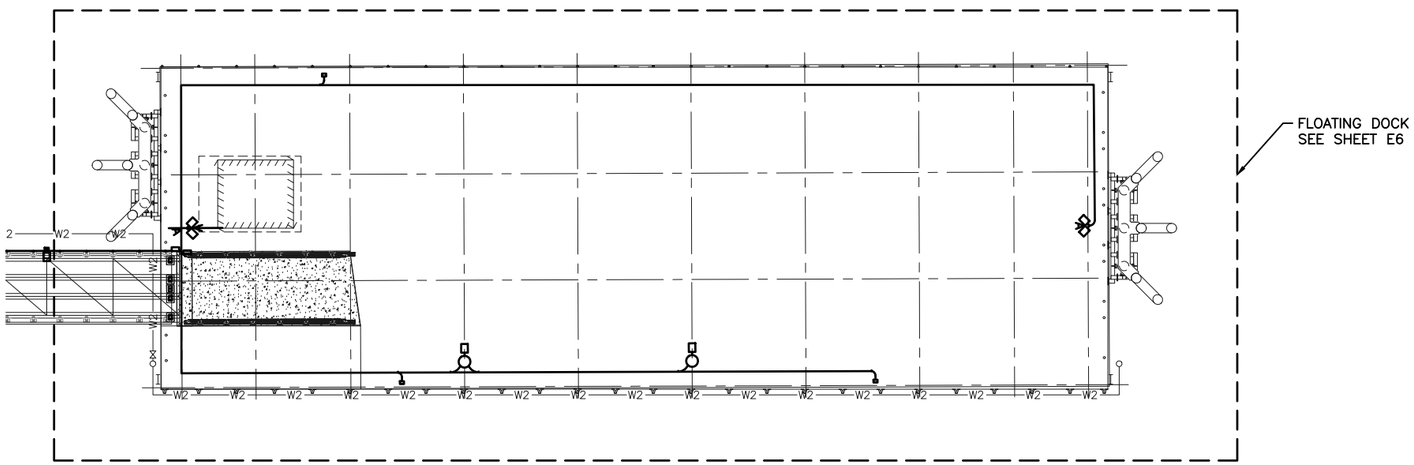
PLANS DEVELOPED BY:		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
MORRIS ENGINEERING GROUP, INC 2375 JORDAN AVE#7 JUNEAU, AK 99801 907-789-3350 CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010		PLAN SET A KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY EXISTING AND INTERIM ELECTRICAL PLAN

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\EXISTING UTILITY PLAN.dwg | DATE | 6/20/2024 9:40 | LAYOUT | E2 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E3	88





① OVERALL SITE PLAN - ELECTRICAL

10' 20' 40'

NOTES:

1. EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CONTACT THE RESPECTIVE LOCAL UTILITY OFFICE FOR FIELD LOCATES PRIOR TO EXCAVATION WORK PER SECTION 105.
2. SEE CIVIL FOR UTILITY REFERENCE.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/9/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A

KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

OVERALL SITE PLAN - ELECTRICAL

DATE | 6/24/2024 17:07 | LAYOUT | E3 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

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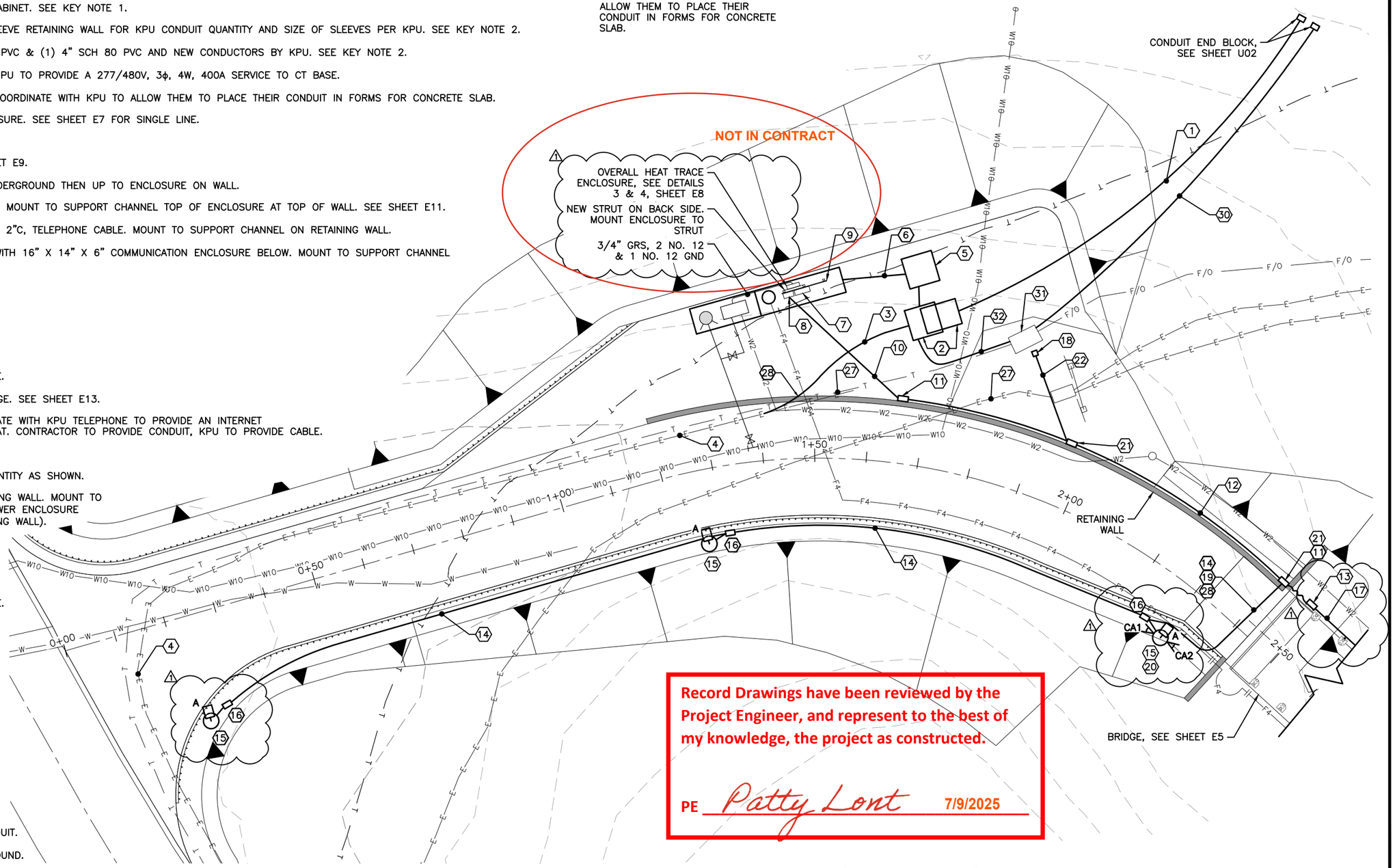
NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E4	88

NOTES: (KEY NOTES REFER TO SHEETS E4–E6)

1. NEW KPU POWER/FIBER UTILITY SUBMARINE CABLE. COORDINATE WITH KPU TO ALLOW THEM TO PERFORM THEIR WORK. LOCATION SHOWN IS APPROXIMATE. PLACE (1) 10" HDPE CONDUIT (WATER PIPE) UNDERGROUND (3' MINIMUM BURY) FROM THEIR VAULT TO OUTSIDE OF NEW FILL THEN EXPOSED ON SEA FLOOR TO –5' MLLW. WHERE ON SEA FLOOR, WEIGHT CONDUIT WITH CONCRETE COLLARS MINIMUM 2 LBS/LINEAR FOOT OF CONDUIT. KPU WILL ROUTE THEIR CABLE THROUGH CONDUIT INTO VAULT. COORDINATE WITH KPU TO ALLOW THEM TO INSTALL THEIR FACILITIES.
2. NEW KPU VAULT AND SECTIONALIZING CABINET. SEE KEY NOTE 1.
3. NEW KPU CONDUIT & CONDUCTORS. SLEEVE RETAINING WALL FOR KPU CONDUIT QUANTITY AND SIZE OF SLEEVES PER KPU. SEE KEY NOTE 2.
4. EXISTING KPU CONDUIT (1) 6" SCH 80 PVC & (1) 4" SCH 80 PVC AND NEW CONDUCTORS BY KPU. SEE KEY NOTE 2.
5. KPU TRANSFORMER. COORDINATE WITH KPU TO PROVIDE A 277/480V, 3ϕ, 4W, 400A SERVICE TO CT BASE.
6. (2) 2–1/2"C, CONDUCTORS, BY KPU. COORDINATE WITH KPU TO ALLOW THEM TO PLACE THEIR CONDUIT IN FORMS FOR CONCRETE SLAB.
7. CT BASE WITH METER BASE AND ENCLOSURE. SEE SHEET E7 FOR SINGLE LINE.
8. MAIN CIRCUIT BREAKER.
9. ELECTRICAL EQUIPMENT RACK. SEE SHEET E9.
10. (2) 2–1/2"C, CONDUCTORS. ROUTE UNDERGROUND THEN UP TO ENCLOSURE ON WALL.
11. POWER ENCLOSURE ON RETAINING WALL. MOUNT TO SUPPORT CHANNEL TOP OF ENCLOSURE AT TOP OF WALL. SEE SHEET E11.
12. (2) 2–1/2"C, POWER CONDUCTORS. (1) 2"C, TELEPHONE CABLE. MOUNT TO SUPPORT CHANNEL ON RETAINING WALL.
13. 24" X 24" X 12" POWER ENCLOSURE WITH 16" X 14" X 6" COMMUNICATION ENCLOSURE BELOW. MOUNT TO SUPPORT CHANNEL ON BRIDGE. SEE SHEET E13.
14. 2"C, UPLANDS LIGHTING, SEE SHEET E8.
15. LIGHT POLE, SEE SHEET E10.
16. HANDHOLE, SEE SHEET E10.
17. (2) 2–1/2"C, POWER CONDUCTORS.
    (1) 1"C, UPLAND LIGHTING.
    (1) 1–1/2"C, TELEPHONE UTILITY CABLE.
    (1) 1–1/2"C, CAMERA CABLE.
    MOUNT TO SUPPORT CHANNEL ON BRIDGE. SEE SHEET E13.
18. TELEPHONE UTILITY PEDESTAL. COORDINATE WITH KPU TELEPHONE TO PROVIDE AN INTERNET SERVICE TO THE BUILDING ON THE FLOAT. CONTRACTOR TO PROVIDE CONDUIT, KPU TO PROVIDE CABLE.
19. 2"C, CAMERA CABLE.
20. VIDEO CAMERA MOUNTED TO POLE. QUANTITY AS SHOWN.
21. COMMUNICATION ENCLOSURE ON RETAINING WALL. MOUNT TO SUPPORT CHANNEL 9" BELOW 24"H POWER ENCLOSURE ELEVATION (33" BELOW TOP OF RETAINING WALL).
22. 2"C. TELEPHONE UTILITY CABLE.
23. (2) 2–1/2"C, POWER CONDUCTORS.
    (1) 1"C, UPLANDS LIGHTING.
    (1) 1"C, BRIDGE LIGHTING.
    (1) 1–1/2"C, TELEPHONE UTILITY CABLE.
    (1) 1–1/2"C, CAMERA CABLE.
24. 24" WIDE CABLE TRAY.
    (2) FLOAT LIGHTING CABLES.
    (2) PEDESTAL CABLES.
    (2) POWER CABLES.
    (1) UPLANDS LIGHT CABLE.
    (1) BRIDGE LIGHT CABLE.
25. 9" WIDE CABLE TRAY.
    (1) TELEPHONE UTILITY CABLE.
    (5) CAMERA CABLE.
26. PROVIDE (2) CAMERAS ON FLOAT LIGHT POLE ADJACENT STORAGE BUILDING.
27. SLEEVE RETAINING WALL FOR ALL EXISTING UTILITY CONDUIT AND CABLES.
28. SLEEVE RETAINING WALL FOR NEW CONDUIT.
29. (2) PANEL HD POWER CABLES AND GROUND.
    (1) BRIDGE LIGHTING CABLE.
    (2) PEDESTAL POWER CABLES.
    (1) UPLANDS LIGHTING CABLE.
    (1) TELEPHONE UTILITY CABLE.
    (2) CAMERA CABLE.
30. NEW KPU TELEPHONE UTILITY CONDUIT FOR FUTURE SUBMARINE CABLE. PLACE (1) 10" HDPE CONDUIT (WATER PIPE) UNDERGROUND (3' MINIMUM BURY) FROM THEIR VAULT TO OUTSIDE OF NEW FILL THEN EXPOSED ON SEA FLOOR TO –5' MLLW. WHERE ON SEA FLOOR, WEIGHT CONDUIT WITH CONCRETE COLLARS MINIMUM 2 LBS/LINEAR FOOT OF CONDUIT. COORDINATE WITH KPU TELEPHONE TO PENETRATE THEIR VAULT. SEAL BETWEEN THE CONDUIT AND VAULT.
31. EXISTING KPU TELEPHONE VAULT.
32. (2) 4"C, WITH CABLE BETWEEN KPU TELEPHONE AND POWER VAULTS, BY KPU. COORDINATE WITH KPU TO ALLOW THEM TO PLACE THEIR CONDUIT IN FORMS FOR CONCRETE SLAB.



Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/9/2025

1 UPLANDS SITE PLAN - ELECTRICAL

10' 0 10' 20'
GRAPHIC SCALE (FT)

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907–789–3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

UPLANDS SITE PLAN - ELECTRICAL

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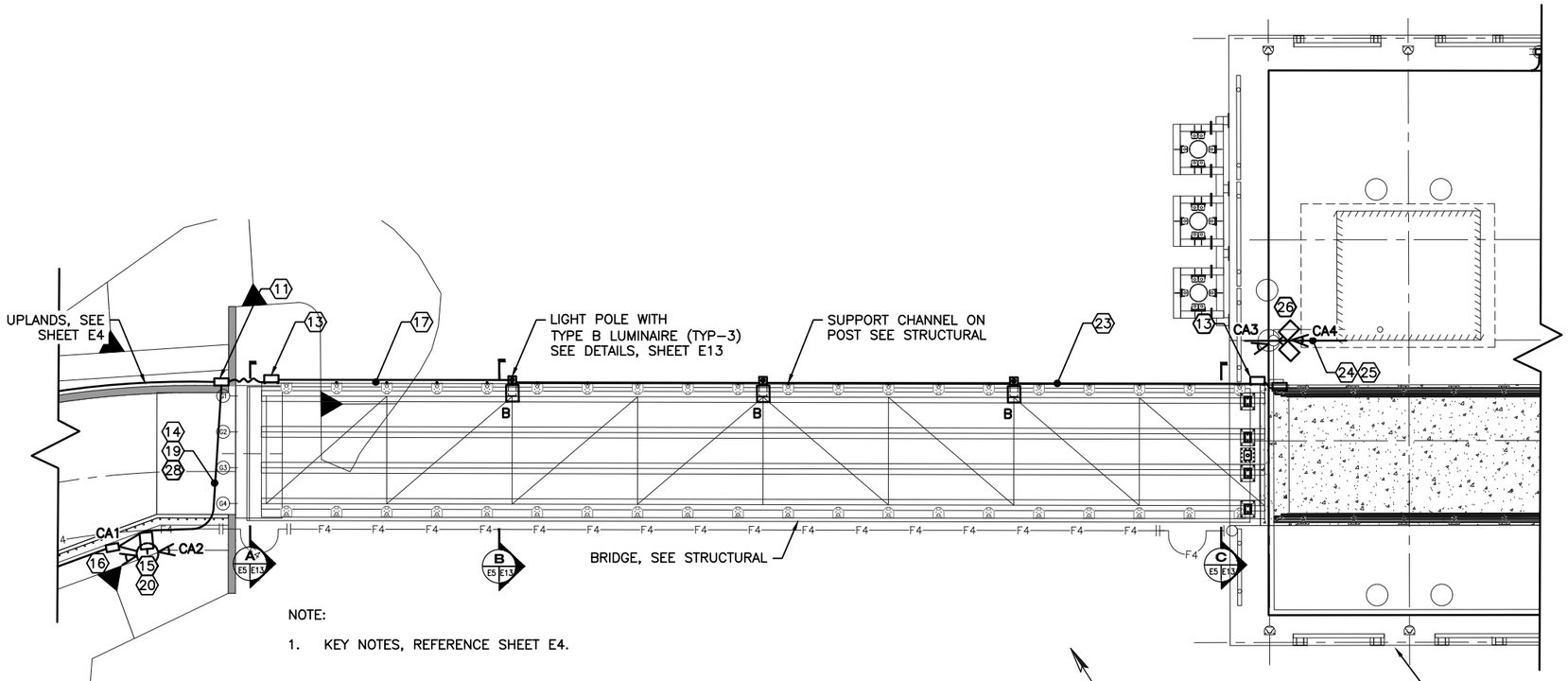
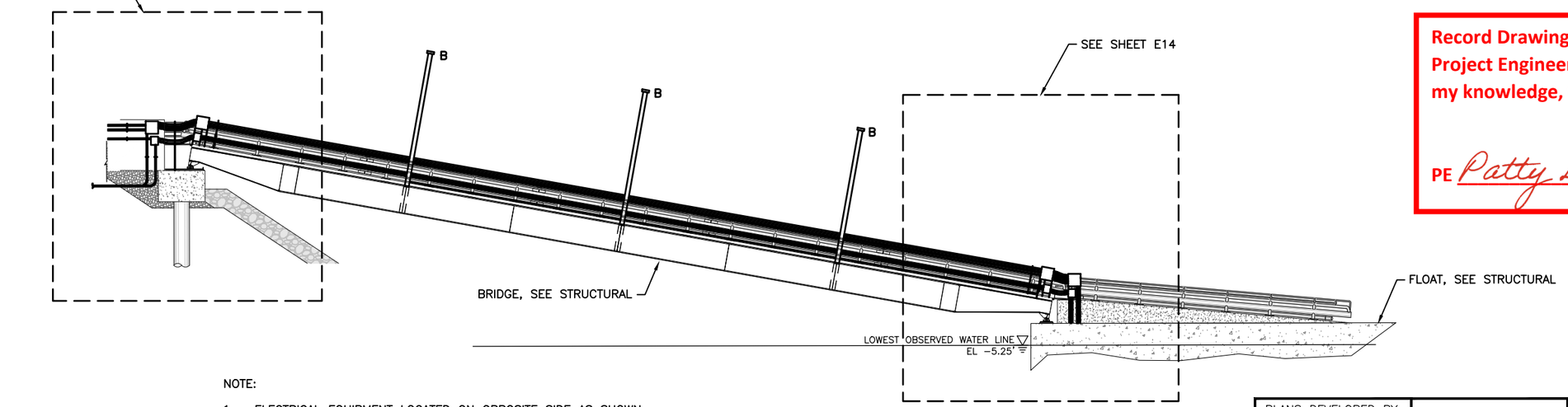


NOTE:

1. KEY NOTES, REFERENCE SHEET E4.

① BRIDGE PLAN - ELECTRICAL

10' 0 10' 20'
GRAPHIC SCALE (FT)



NOTE:

1. ELECTRICAL EQUIPMENT LOCATED ON OPPOSITE SIDE AS SHOWN. SEE BRIDGE PLAN DETAIL, THIS SHEET.

② BRIDGE PROFILE - ELECTRICAL

NO SCALE

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/11/2025

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FERRY LAYUP FACILITY

BRIDGE PLAN & PLOT - ELECTRICAL

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E6	88

CO15

CO 18

(1) PEDESTAL POWER CABLE

POWER PEDESTAL NO. 3, SEE SHEETS E18–E21

FLOAT LIGHTING CABLE & CAMERA CABLE TO BE RAN THROUGH 3/4" LFNC IN TRAY TO MAINTAIN SEPARATION FROM POWER CABLES

Power Pedestal No. 3 location, refer to sheet U05 for plugged conduit location

FLOAT LIGHT POLE (WEST END), SEE DETAILS SHEETS E17

BRIDGE, SEE SHEET E5

STORAGE BUILDING, SEE SHEET E15

FLOAT LIGHT POLE (EAST END), SEE DETAILS SHEETS E17

26 C3 CA4 CA3 C3 29 24 25

20 CA5 C4 C4

POWER ENCLOSURE WITH COMMUNICATION ENCLOSURE BELOW

(2) PEDESTAL CABLE IN 9" WIDE CABLE TRAY

FLOAT LIGHT POLE (SOUTH), SEE DETAILS SHEETS E17

SPLICE LIGHTING CABLE IN BASE OF POLE BEHIND HANDHOLE ON POLE

C4 C4

1 24" CABLE TRAY ROUTED INSIDE FLOAT. ROUTE ALL CABLE UNDER DECK IN TRAY. CABLE TRAY HAS A DIVIDER FOR LOW VOLTAGE CABLES TO BE SEPARATED FROM 600V RATED WIRING, SEE STRUCTURAL

(2) PEDESTAL POWER CABLES
(1) FLOAT LIGHTING CABLE

POWER PEDESTAL NO. 1, SEE SHEETS E18–E21

(1) PEDESTAL POWER CABLES
(1) FLOAT LIGHTING CABLE

(1) PEDESTAL POWER CABLE

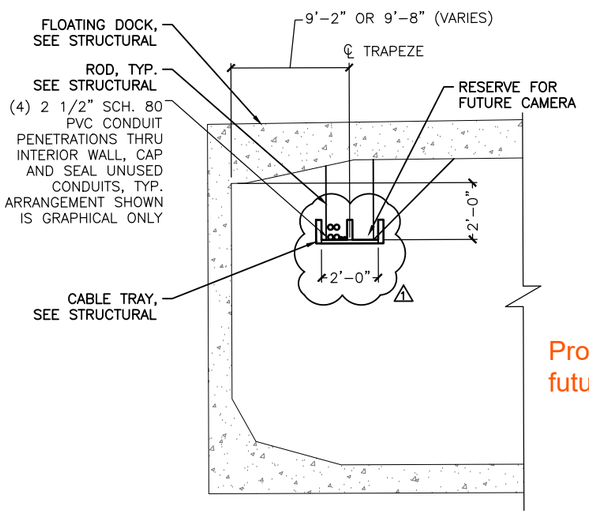
POWER PEDESTAL NO. 2, SEE SHEETS E18–E21

1 BRIDGE PLAN & PROFILE - ELECTRICAL

10' 0 10' 20'
GRAPHIC SCALE (FT)

NOTE:

1. KEY NOTES, REFERENCE SHEET E4.



2 FLOATING DOCK CABLE TRAY DETAIL

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/9/2025

Provide 24" width cable tray with two Ñ2-inch sections and a center divider. One side should be left empty to allow for future use. Supply new 24" tray and suspend using support strut to fit supplied threaded concrete inserts. CO 18

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK PLAN - ELECTRICAL

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1	5/06/24	RECORD DRAWINGS

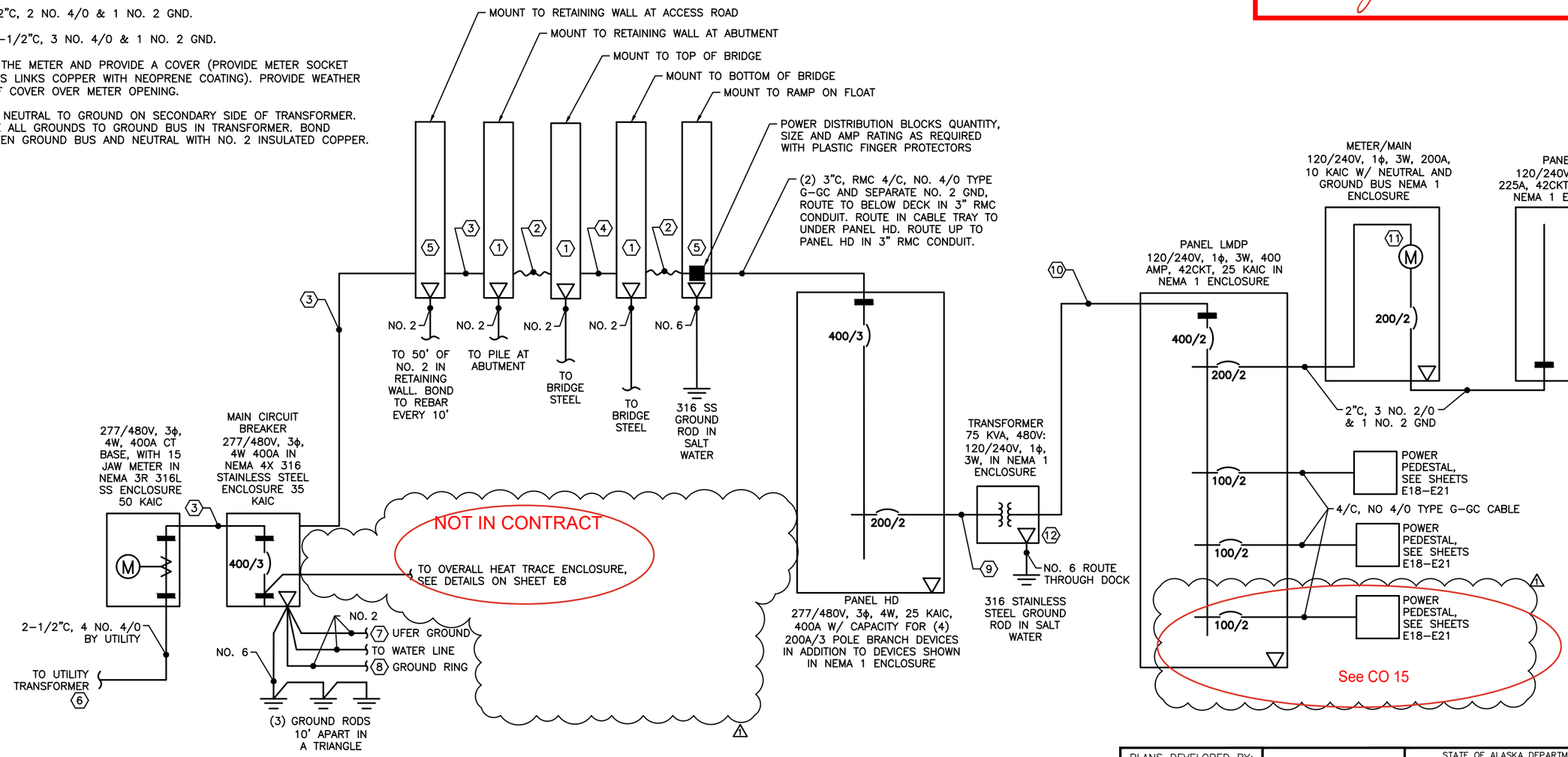
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E7	88

NOTES:

1. 24"H X 24"W X 12"D NEMA 4X 316 STAINLESS STEEL ENCLOSURE.
2. (2) 2–1/2"C, LFMC WITH STAINLESS STEEL INTERNAL SPIRAL. 4 NO. 4/0 & 1 NO. 2 GND.
3. (2) 2–1/2"C, SCHEDULE 80 PVC 4 NO. 4/0 & 1 NO. 2 GND.
4. (2) 2–1/2"C, RMC 4 NO. 4/0 & 1 NO. 2 GND.
5. 30"H X 24"W X 12"D NEMA 4X 316 STAINLESS STEEL ENCLOSURE.
6. KPU TO PROVIDE A 400A, 277/480V, 3ϕ, 4W SERVICE. SEE NOTE 5 ON SHEET E4. COORDINATE PER 105–1.06 UTILITIES.
7. 50' OF NO. 2 (BARE) IN SLAB FOR WATER SERVICE AND ELECTRICAL RACK BOND TO REBAR WITH IRREVERSIBLE HIGH COMPRESSION CONNECTIONS EVERY 10'.
8. RING OF NO. 2 (BARE) BURIED AROUND SLAB 30" BELOW GRADE.
9. 2–1/2"C, 2 NO. 4/0 & 1 NO. 2 GND.
10. (2) 2–1/2"C, 3 NO. 4/0 & 1 NO. 2 GND.
11. SLUG THE METER AND PROVIDE A COVER (PROVIDE METER SOCKET BYPASS LINKS COPPER WITH NEOPRENE COATING). PROVIDE WEATHER PROOF COVER OVER METER OPENING.
12. BOND NEUTRAL TO GROUND ON SECONDARY SIDE OF TRANSFORMER. ROUTE ALL GROUNDS TO GROUND BUS IN TRANSFORMER. BOND BETWEEN GROUND BUS AND NEUTRAL WITH NO. 2 INSULATED COPPER.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/11/2025



1 GRAVINA LAYUP BERTH - ELECTRICAL

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907–789–3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

SINGLE LINE DIAGRAM

DATE | 6/24/2024 13:29 | LAYOUT | E7 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

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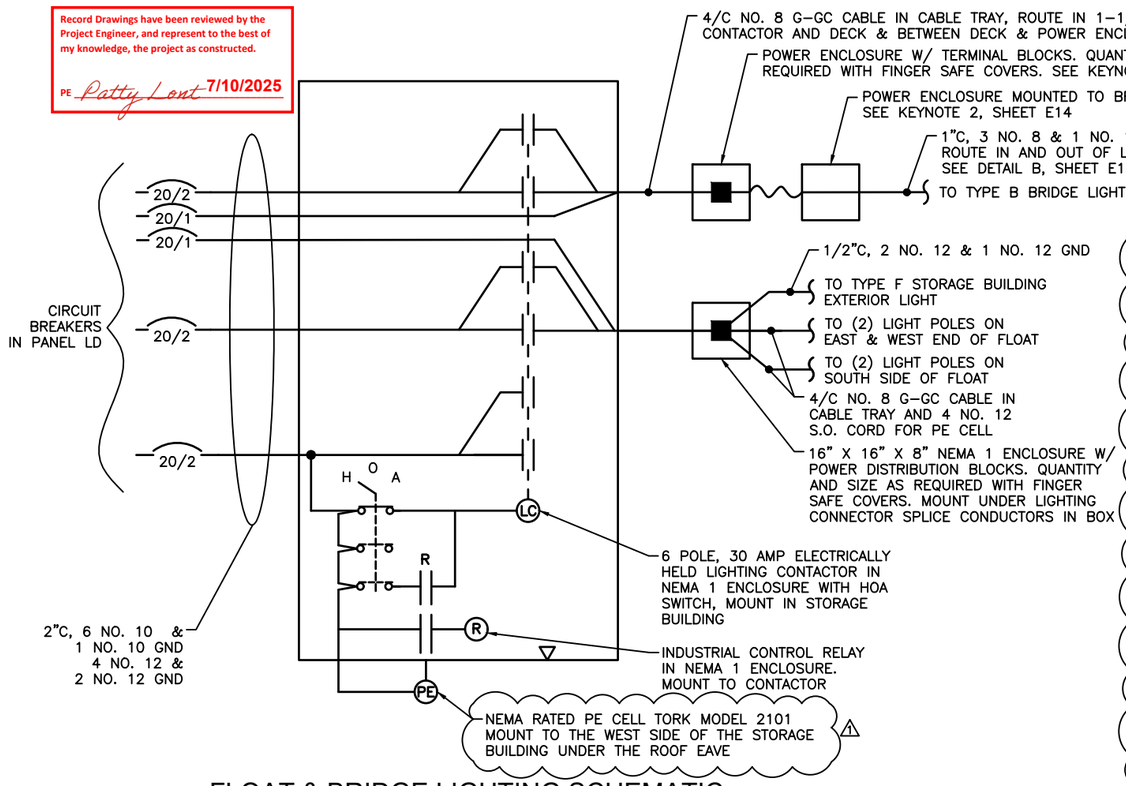
ALASKA	SFHWY00152/0952018	2019	E8	88

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/10/2025



2 FLOAT & BRIDGE LIGHTING SCHEMATIC

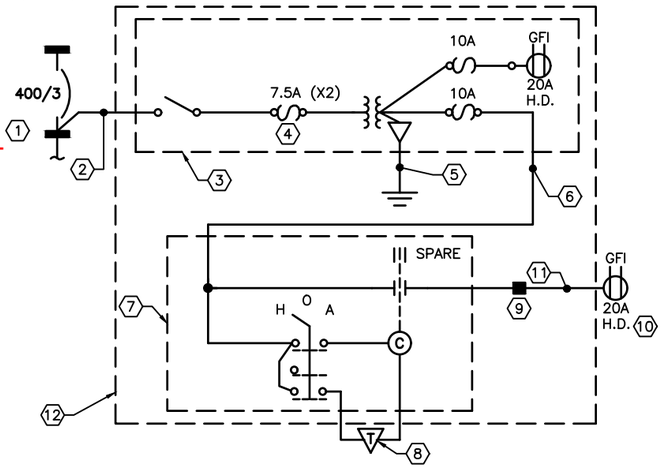
NO SCALE

PANEL LMDP		SIZE	VOLTS, PHASE			MOUNTING	MAIN	LOCATION	
		400A	120/240V, 1φ, 3W			SURFACE	400A	STORAGE BUIDLING	
CKT NO.	DESCRIPTION	C/B SIZE	KVA				C/B SIZE	DESCRIPTION	CKT NO.
			CKT	Aφ	Bφ	CKT			
1	SPARE	100/2	0.0	9.6		9.6	100/2	POWER PEDESTAL NO. 1	2
3	–	–	0.0		9.6	9.6	–	–	4
5	SPARE	100/2	0.0	9.6		9.6	100/2	POWER PEDESTAL NO. 2	6
1 7	–	–	0.0		9.6	9.6	–	–	8
CO 15 9	POWER PEDESTAL NO. 3	100/2	9.6	15.7		6.1	200/2	PANEL LD VIA TRANSFORMER	10
11	–	–	9.6		14.9	5.3	–	–	12
13			0.0	0.0		0.0	20/1		14
15			0.0		0.0	0.0	20/2		16
17			0.0	0.0		0.0	–		18
19			0.0		0.0	0.0	20/2		20
21			0.0	0.0		0.0	–		22
23			0.0		0.0	0.0	20/2		24
25			0.0	0.0		0.0	–		26
27			0.0		0.0	0.0	20/1		28
29			0.0	0.0		0.0	20/1		30
31			0.0		0.0	0.0	20/1		32
33			0.0	0.0		0.0	30/2		34
35			0.0		0.0	0.0	–		36
37			0.0	0.0		0.0			38
39			0.0		0.0	0.0			40
41			0.0	0.0		0.0			42
TOTAL CONNECTED LOAD = 69.0 KVA/ 288 AMPS 1				34.9	34.1				

Heat Trace
NOT IN CONTRACT

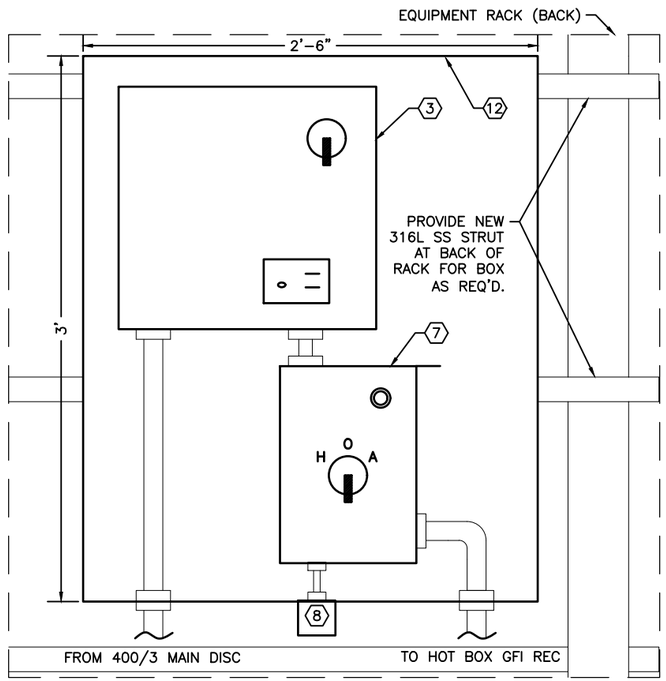
KEYNOTES:

1. TAP THE MAIN DISCONNECT SECONDARY SIDE TO POWER HEAT TRACE CIRCUIT. IF DISCONNECT LUGS WILL NOT ACCOMMODATE ADDITIONAL CONDUCTORS, PROVIDE INSULATION PIERCING TAP CONNECTORS DOWNSTREAM OF THE SECONDARY LUGS WITHIN THE OVERALL MAIN DISCONNECT. CORRISON & WATER RESISTANCE CONNECTORS. NOTE: UPSIZE TAP CONDUCTORS TO HEAT TRACE TRANSFORMER IF REQUIRED TO MEET THE MINIMUM WIRE GAUGE REQUIRED OF THE TAP CONNECTORS.
2. 3/4"GRS, 2 NO. 12 & 1 NO. 12 GND. PROVIDE CONDUIT AND LB'S AS NECESSARY TO ROUTE CIRCUIT FROM THE MAIN DISCONNECT TO THE HEAT TRACE ENCLOSURE MOUNTED BACK-TO-BACK TO THE MAIN DISCONNECT.
3. 1500VA, 480V:120V, 1-PHASE TRANSFORMER IN NEMA 3R ENCLOSURE. INCLUDES INTEGRAL GFI RECEPTACLE, MAIN DISCONNECT, INTERNAL PRIMARY & SECONDARY FUSING, PILOT LIGHT, DOOR GROUND, AND 2ND SECONDARY FUSE BLOCK. SQD #9070SK1500 SERIES WITH FORMS: A3, D1, F11, GRD, G14, N3, P1. MOUNT TO BACK PANEL OF OVERALL HEAT TRACE ENCLOSURE.
4. PROVIDE CLASS CC, REJECTION-TYPE FUSES AT TRANSFORMER FUSE BLOCKS. BUSSMAN FNQ-R SERIES OR EQUAL, SIZED AS SHOWN.
5. GROUND SECONDARY OF TRANSFORMER VIA A 3/4" X 10" GROUND ROD CONNECTED WITH 1 NO. 6 BARE CU STRANDED GEC. BOND THE TRANSFORMER GROUND TO THE RACK WITH AN ADDITIONAL 1 NO. 6 GND.
6. 3/4" LFNC, 2 NO. 12 & 1 NO. 12 GND.
7. HEAT TRACE CONTACTOR, ELECTRICALLY HELD, TYPE S, 30 AMP, 2-POLE WITH 120V COIL IN NEMA 3R ENCLOSURE. INCLUDE HOA SWITCH, PUSH-TO-TEST PILOT LIGHT, INTERNAL FUSING. SQD # 8903SMH1V02 OR EQUAL WITH #9999SC8 HOA SWITCH. MOUNT TO BACK PANEL OF OVERALL HEAT TRACE ENCLOSURE.
8. TEMPERATURE SWITCH, 120V, NEMA 4X, OPEN ON RISE, -50 DEG RATED. MOUNT TO OUTSIDE OF OVERALL HEAT ENCLOSURE. CIRCUIT TO CONTROL THE AUTO-LEG OF THE HEAT TRACE CONTACTOR.
9. PROVIDE POWER DISTRIBUTION BLOCKS, SQD 9080 SERIES, WITH FINGER SAFE COVERS. PROVIDE CONFIGURATION FOR A MINIMUM OF 4#12 INPUT, 4#12 OUTPUT. PROVIDE A DUPLICATE UNIT FOR GROUNDS.
10. PROVIDE A SURFACE MOUNTED 20A, 120V, H.D. SERVICE RECEPTACLE INSIDE THE ABOVEGROUND HOT BOX ADJACENT TO THE MAIN DISCONNECT EQUIPMENT RACK. MOUNT IN NEMA 4X BACKBOX ON BACK WALL OF BOX. POWER THE HEAT TRACE CORD & PLUG KIT (PROVIDED WITH THE HOT BOX) FROM THE RECEPTACLE.
11. 3/4"GRS, 2 NO. 12 & 1 NO. 12 GND. ROUTE CONDUIT W/CONDS. FROM OVERALL HEAT TRACE ENCLOSURE DOWN RACK AND ALONG THE GROUND TO THE BACK OF THE HOT BOX. SECURE TO RACK, CONCRETE PAD, AND TO BACK OF HOT BOX AS REQUIRED WITH SS HARDWARE.
12. OVERALL HEAT TRACE ENCLOSURE. NEMA 4X WITH LATCH HELD COVER. 36"H X 30"W X 12"D, NOMINAL. HOFFMAN #A36H3012SSLP OR EQUAL. PROVIDE WITH CONDUCTIVE SS BACK PLANE FOR MOUNTING DEVICES AND GROUND LUG. BOND GROUND LUG TO RACK AND TO GROUND OFF OF THE ENCLOSED TRANSFORMER.



3 HEAT TRACE SCHEMATIC

NO SCALE



4 HEAT TRACE ENCLOSURE ELEVATION

NOT TO SCALE

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A

KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

LIGHTING SCHEMATICS

DATE | 6/24/2024 14:25 | LAYOUT | E8 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

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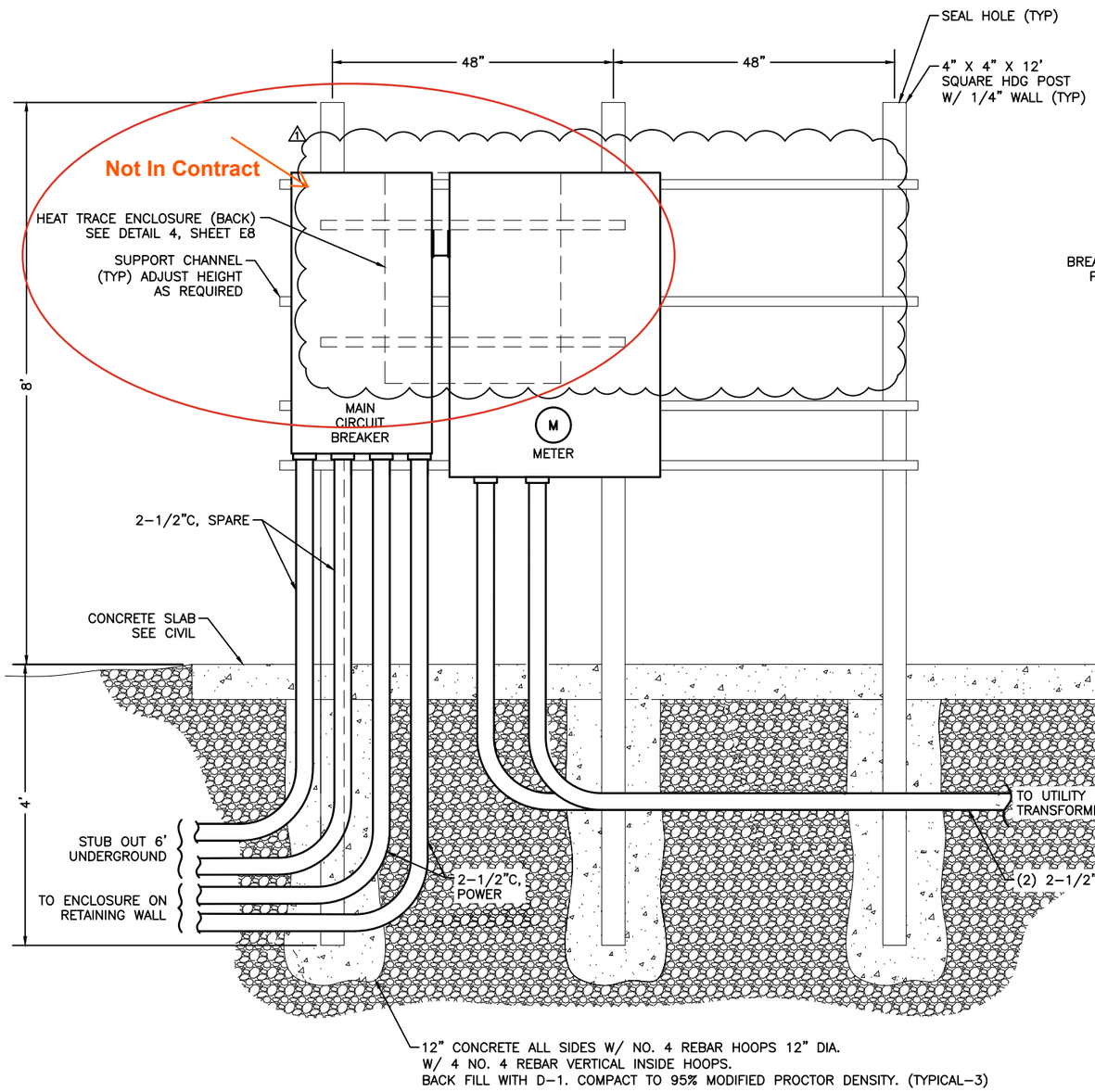
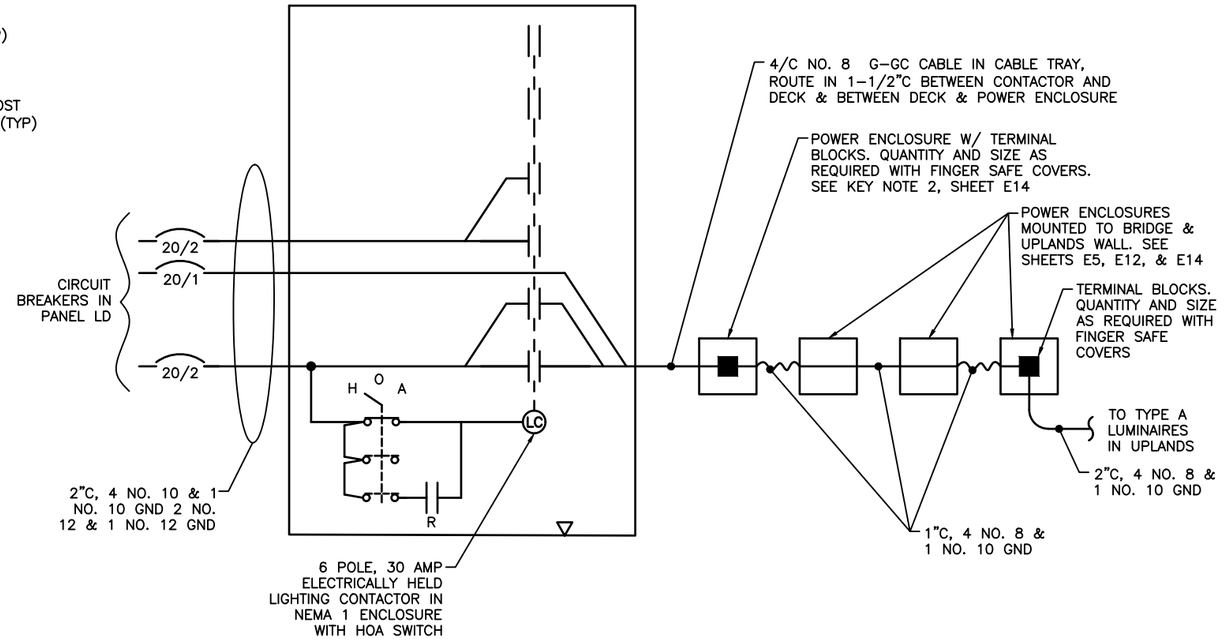


1 UPLANDS ELECTRICAL RACK ELEVATION

3" 6" 1' 2'



2 UPLANDS LIGHTING SCHEMATIC

NO SCALE

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PE Patty Lont 7/11/2025

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2375 JORDAN AVE#7
JUNEAU, AK 99801
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

UPLANDS ELECTRICAL RACK ELEVATION & LIGHTING SCHEMATIC

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\UPLANDS ELECTRICAL RACK ELEVATION.dwg | DATE | 6/24/2024 13:38 | LAYOUT | E9 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

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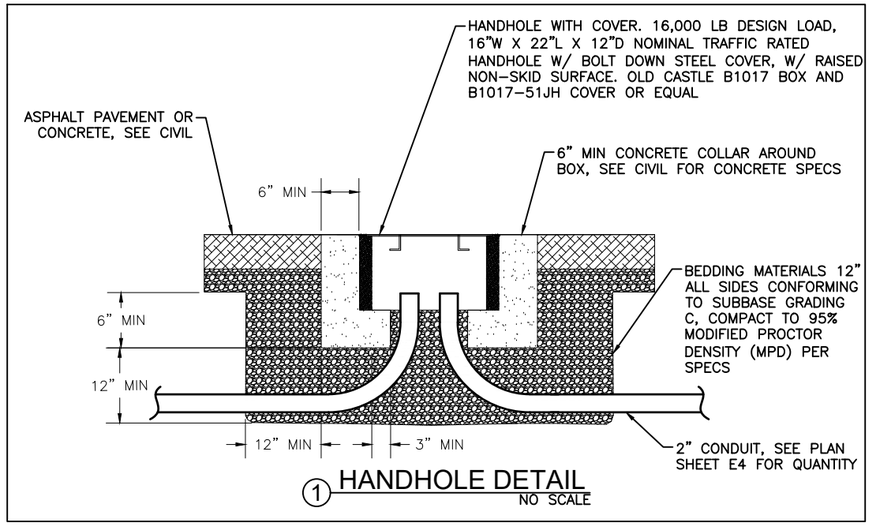
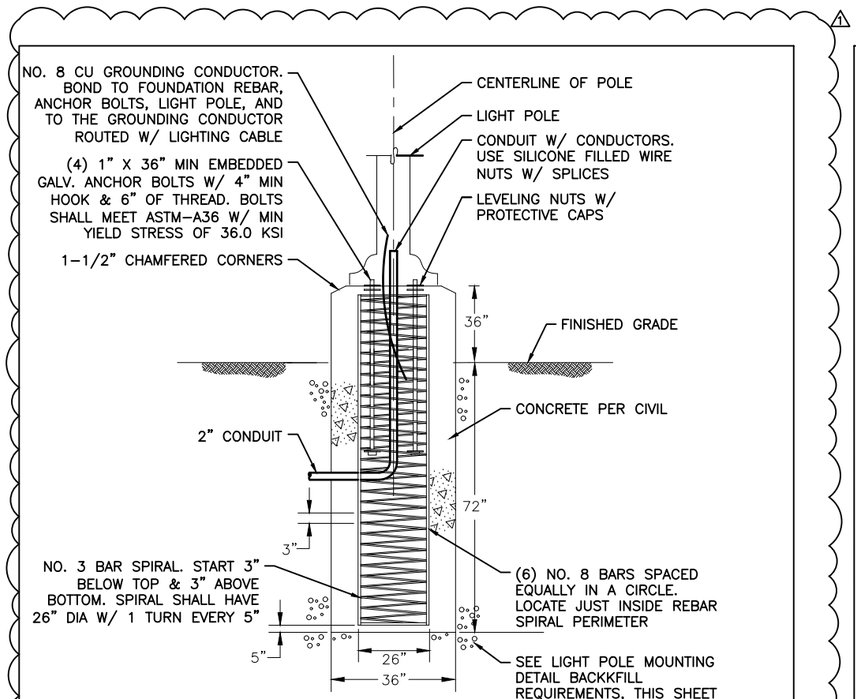
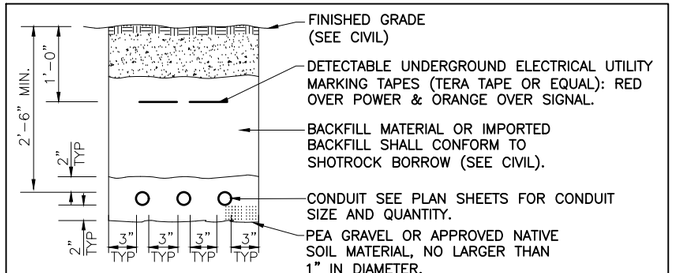


1 HANDHOLE DETAIL
NO SCALE



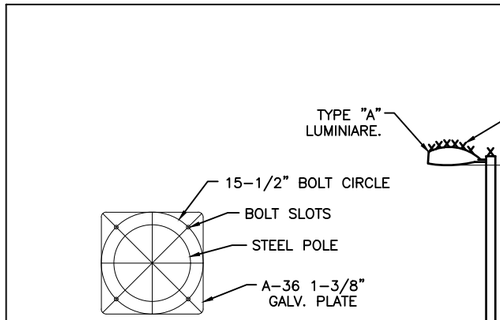
2 UPLANDS LIGHT POLE BASE DETAIL
NO SCALE



3 TRENCH DETAIL
NO SCALE

NOTES:

1. ALL DIMENSIONS ARE MINIMUM.
2. THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN UTILITY LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
3. MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, CONCRETE STRUCTURE, VAULTS, ETC.
4. CUT & REPLACE EXISTING ASPHALT, CONCRETE, CONCRETE CURB, GUTTER, SIDEWALK, ETC. AS NECESSARY.
5. ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL PER CIVIL. TOP 6" OF MATERIAL PER CIVIL.
6. POWER UTILITY CONDUIT SHALL BE BURIED AT A MINIMUM OF 3'.
7. MODIFY CONDUIT BURIAL DEPTH WHERE SHOWN ON DRAWINGS.
8. MAINTAIN 36" MINIMUM LATERAL SEPARATION FROM WATER AND SEWER LINES. MAINTAIN 12" SEPARATION BETWEEN ELECTRICAL UTILITY CONDUITS.



5 BOLT CIRCLE DETAIL
NO SCALE

4 UPLAND LIGHT POLE MOUNTING DETAIL
NO SCALE

NOTES:

1. UNLESS NOTED ELSEWHERE, ALL SPLICES SHALL BE IN BASE OF POLE.
2. PROVIDE GROUNDING BUSHINGS ON CONDUIT.
3. PROVIDE DOUBLE FUSED CONNECTOR KITS IN BASE OF POLE. SEC NO. 1791-DF OR EQUAL.
4. LOCATE THE CENTER OF THE LIGHT POLE WHERE SHOWN ON PLAN SHEET E4.
5. SIZE POLE WITH MAST ARM AND LUMINAIRE FOR 100 MPH BASIC WIND SPEED WITH GUST EFFECTS PER AASHTO LT6. POLE DIMENSIONS SHOWN ARE THE MINIMUM.
6. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING CONSTRUCTION.
7. PROVIDE POLE MOUNTED CAMERAS WHERE SHOWN ON SITE PLANS. SEE CAMERA DETAILS ON SHEET E23

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/11/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

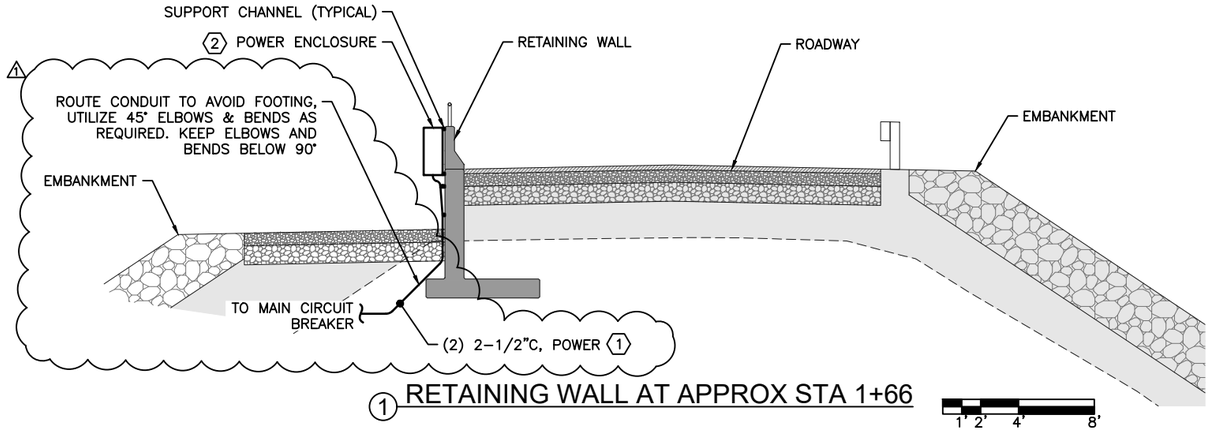
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

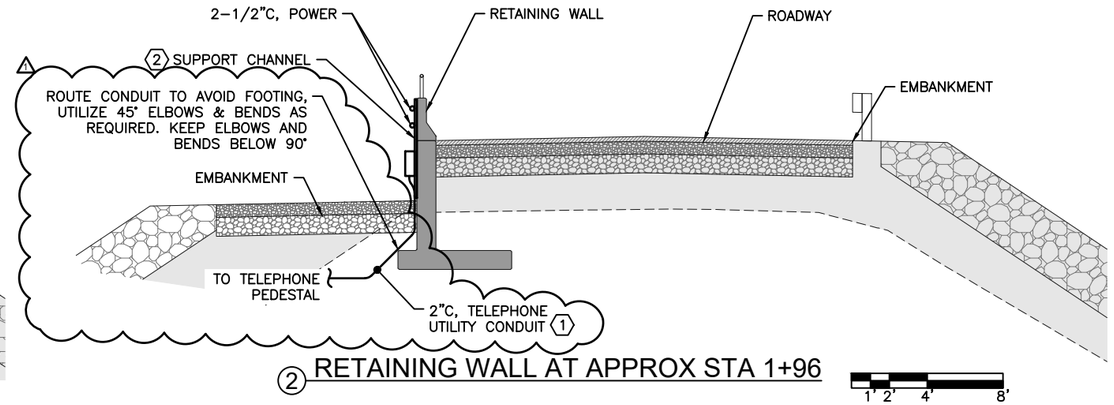
LIGHT POLE, HANDHOLE, & TRENCH DETAILS

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\LIGHT POLE, HANDHOLE, & TRENCH DETAILS.dwg | DATE | 6/24/2024 14:25 | LAYOUT | E10 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

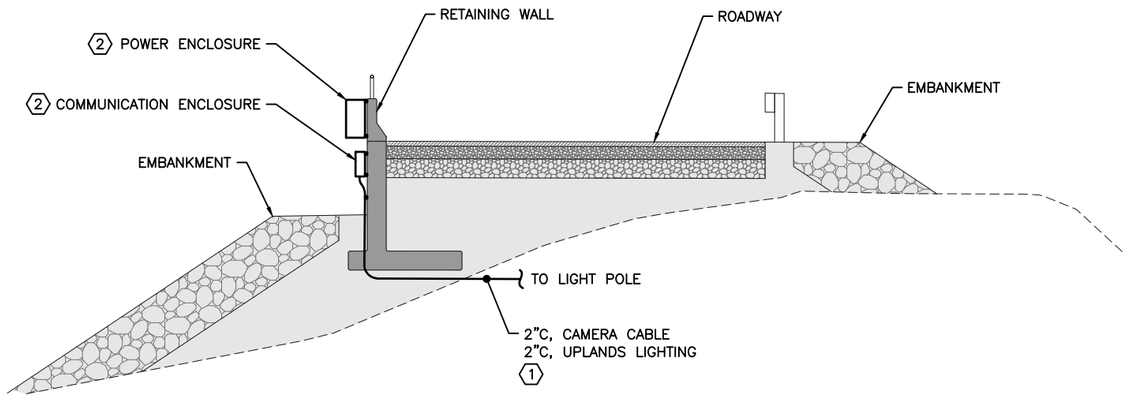
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E11	88



1 RETAINING WALL AT APPROX STA 1+66



2 RETAINING WALL AT APPROX STA 1+96



3 RETAINING WALL AT APPROX STA 2+40

SHEET NOTES:

1. COORDINATE TO SLEEVE FOOTING. BURY CONDUIT DEEPER TO COME VERTICALLY UP THROUGH FOOTING.
2. MOUNT ENCLOSURES AND CONDUIT TO UNISTRUT. MOUNT TO WALL. QUANTITY AND SIZE AS REQIRED.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/9/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A

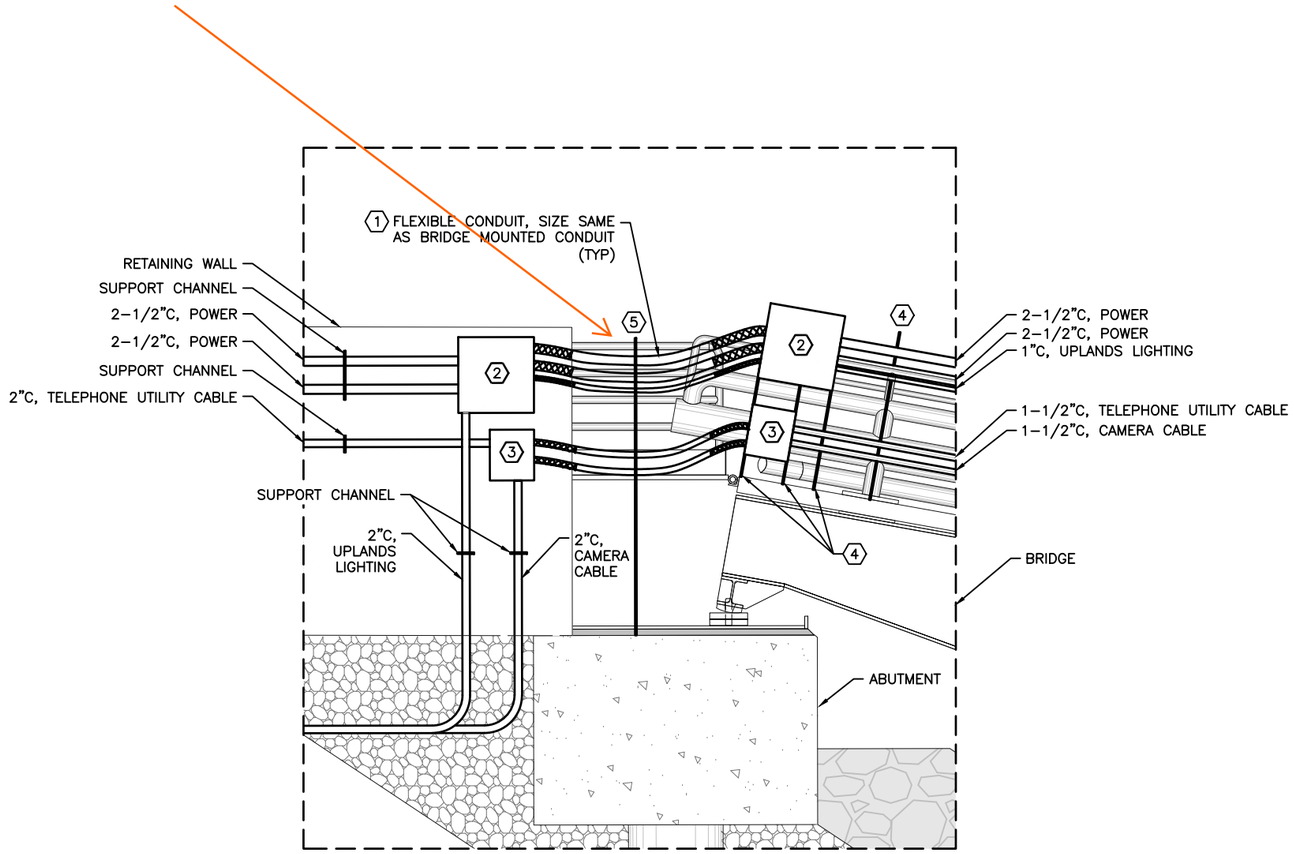
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

RETAINING WALL SECTION - CONDUIT SUPPORT DETAIL

FILE y:\118 PN&D\60 ktn gravina layup facility\working drawings\RETAINING WALL SECTION - CONDUIT SUPPORT DETAILS.dgn | LAYOUT E11 | 6/24/2024 13:40 | DESIGNED MGM | DRAWN MGM | CHECKED MGM | DRAFTED JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E12	88

Install a HD unistrut rectangular extension to shift these PVC
pipe sleeves 12" upland so that the tension given to the supports is not as heavy.
POSITION THE PVC SLEEVES AND
NEW HDG BRACKETING SO AS TO MINIMIZE PVC 'TWISTING & TURNING', PLACEMENT
INLINE WITH THE END OF THE ADJACENT BOX. See CO 12



ELECTRICAL EQUIPMENT LOCATED ON OPPOSITE SIDE AS SHOWN.
SEE BRIDGE PLAN DETAIL, SHEET E5.

NOTES:

1. PROVIDE 316 STAINLESS STEEL CONNECTIONS WITH INTEGRAL STAINLESS SUPPORT GRIP ON BOTH ENDS OF ALL FLEXIBLE CONDUIT.
2. POWER ENCLOSURE, MOUNT TO SUPPORT CHANNEL.
3. COMMUNICATION ENCLOSURE, MOUNT TO SUPPORT CHANNEL.
4. SUPPORT CHANNEL (TYPICAL). COORDINATE WITH BRIDGE AND FLOAT FABRICATOR TO LOCATE SUPPORT CHANNEL WHERE SHOWN AND WHERE NEEDED. FABRICATOR TO PROVIDE SUPPORT STEEL FULL LENGTH OF STRUT TO MOUNT SUPPORT CHANNEL TO.
5. SUPPORT CHANNEL WITH SCHEDULE 80 PVC CONDUIT SLEEVES (APPROXIMATELY 4" LONG WITH BELL ENDS). ROUTE FLEX CONDUIT THROUGH SLEEVE FOR SUPPORT. SIZE SLEEVE 1" ABOVE SIZE OF FLEX CONDUIT. CONTRACTOR TO COORDINATE TO WELD SUPPORT CHANNEL TO UTILITY SUPPORT POST. SEE SHEET T09.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

1 ABUTMENT - BRIDGE CONNECTION - ELECTRICAL

6" 1' 2' 4'

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

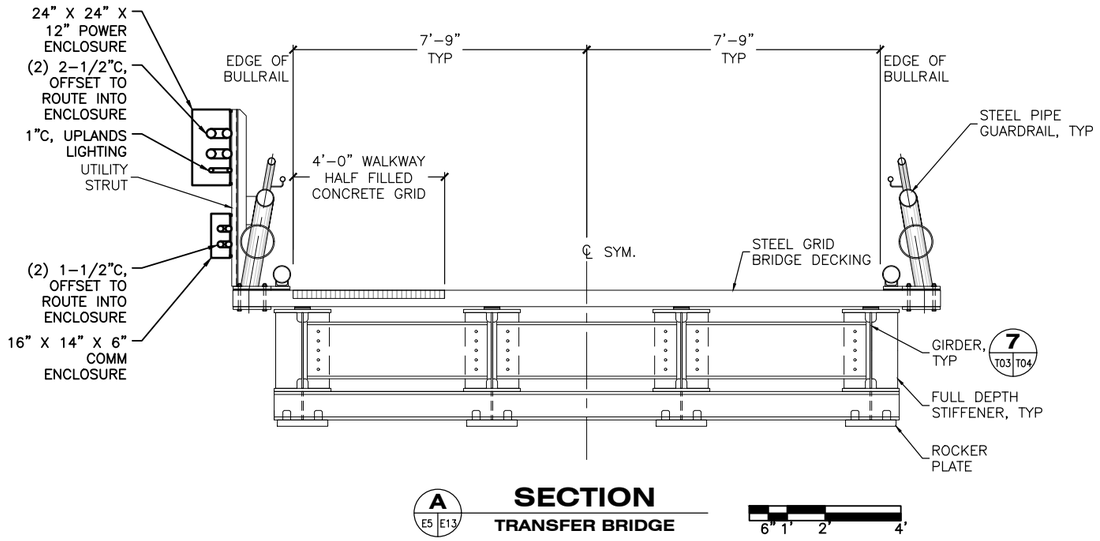
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

ABUTMENT-BRIDGE CONNECTION - ELECTRICAL

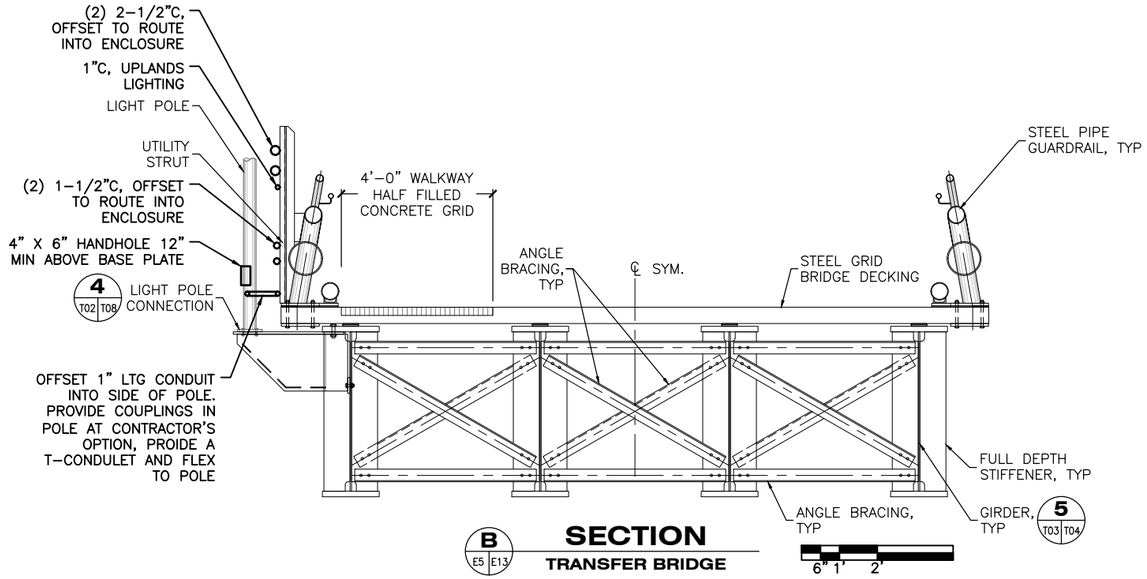
NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E13	88



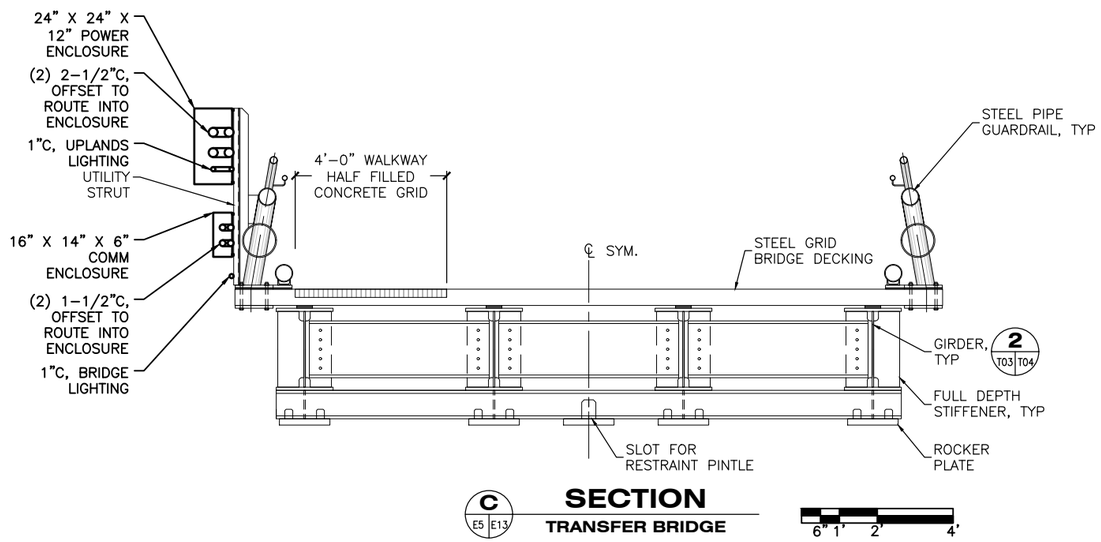
A E5 E13 **SECTION**
TRANSFER BRIDGE

6" 1' 2' 4'



B E5 E13 **SECTION**
TRANSFER BRIDGE

6" 1' 2'



C E5 E13 **SECTION**
TRANSFER BRIDGE

6" 1' 2' 4'

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER:
AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A

KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

BRIDGE SECTION - ELECTRICAL

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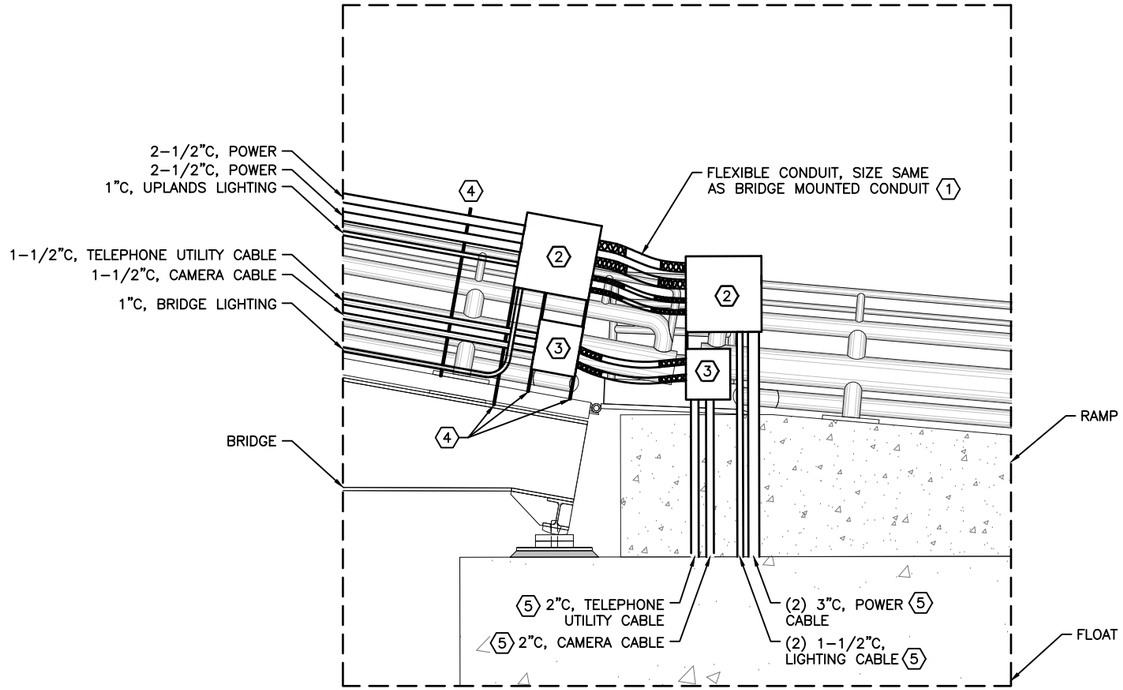
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E14	88



ELECTRICAL EQUIPMENT LOCATED ON OPPOSITE SIDE AS SHOWN.
SEE BRIDGE PLAN DETAIL, SHEET E5.

NOTES:

1. PROVIDE 316 STAINLESS STEEL CONNECTIONS WITH INTEGRAL STAINLESS SUPPORT GRIP ON BOTH ENDS OF ALL FLEXIBLE CONDUIT.
2. POWER ENCLOSURE, MOUNT TO SUPPORT CHANNEL.
3. COMMUNICATION ENCLOSURE, MOUNT TO SUPPORT CHANNEL.
4. SUPPORT CHANNEL (TYPICAL). COORDINATE WITH BRIDGE AND FLOAT FABRICATOR TO LOCATE SUPPORT CHANNEL WHERE SHOWN AND WHERE NEEDED. FABRICATOR TO PROVIDE SUPPORT STEEL FULL LENGTH OF STRUT TO MOUNT SUPPORT CHANNEL TO.
5. ROUTE CONDUIT TO BELOW FLOAT DECK. SEAL AROUND CONDUIT AND DECK WITH 3M MARINE 5200 OR EQUIVALENT. INSTALL BELL ENDS ON CONDUIT. ROUTE CABLE OUT OF CONDUIT AND INTO CABLE TRAY BELOW. SEE DETAIL 2, SHEET E6. SEE STRUCTURAL.
6. SUPPORT CHANNEL NOT SHOWN ON RAMP MOUNTED ENCLOSURES FOR CLARITY. PROVIDE QUANTITY AND SIZE AS REQUIRED. MOUNT TO CONCRETE WITH HILTI ANCHORS.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

1 BRIDGE - FLOAT CONNECTION - ELECTRICAL

6" 1' 2' 4'

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907–789–3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

BRIDGE-FLOAT CONNECTION - ELECTRICAL

DATE | 6/24/2024 17:07 | LAYOUT | E14 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

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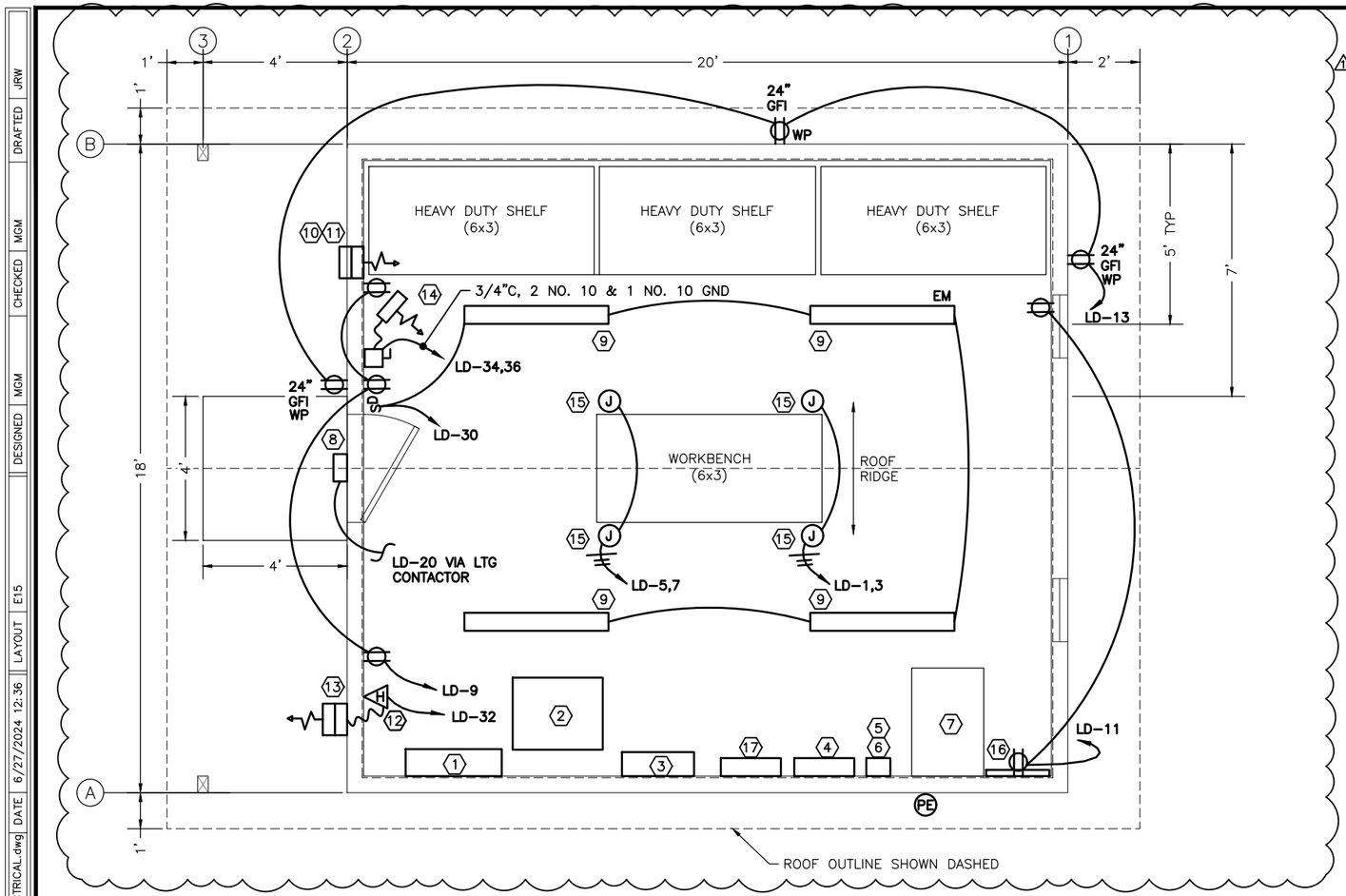

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E15	88

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

NOTES:

1. PANEL HD, MOUNT TOP AT 81" AFF.
2. 75 KVA TRANSFORMER.
3. PANEL LMDP, MOUNT TOP AT 72" AFF.
4. PANEL LD, MOUNT TOP AT 72" AFF.
5. UPLANDS LIGHTING CONTACTOR MOUNT TOP AT 72" AFF.
6. FLOAT AND BRIDGE LIGHTING CONTACTOR. MOUNT BELOW UPLANDS LIGHTING CONTACTOR.
7. CAMERA SYSTEM WALL MOUNT RACK. MOUNT TOP AT 72" AFF.
8. LED CUTOFF, TYPE F. SEE LUMINAIRE SCHEDULE, SHEET E16.
9. LED, TYPE D, SEE LUMINAIRE SCHEDULE, SHEET E16.
10. 6"W X 8"H COUNTER BALANCED BAROMETRIC RELIEF AIR DAMPER WITH BALL BEARINGS 316 STAINLESS STEEL FRAME, BLADES, AND BEARINGS. GREEN HECK SEBR–32 SERIES. FLANGE ON INTAKE. TRIM AROUND DAMPER WITH 3/18" X 3" FIR WITH WATCO OIL FINISH. ADJUST LOUVER TO OPEN WHEN VENTILATION FAN RUNS. MOUNT TOP 6" BELOW CEILING.
11. 316 STAINLESS STEEL INTAKE HOOD. SIZED TO FIT OVER RELIEF AIR DAMPER FULL WIDTH AND HEIGHT OF DAMPER. BOTTOM OF HOOD SHALL EXTEND MIN. 8" OFF WALL, PROVIDE WITH 316 STAINLESS STEEL BIRD SCREEN.
12. HUMIDISTAT 120V, 7AMP, 20–80 PERCENT HUMIDITY SWITCH CLOSES AND ENERGIZES THE FAN ON AN INCREASE IN RELATIVE HUMIDITY. A DECREASE IN HUMIDITY TO THE SET POINT MINUS THE DIFFERENTIAL, BREAKS THE SWITCH TO STOP THE FAN.
13. THROUGH THE WALL VENTILATION FAN (70CFM, 120V) WITH EXTERIOR HOOD. PANASONIC FV–08WQI. MOUNT TOP 6" BELOW TOP OF CEILING.
14. 5,000W, 240V, 1ϕ, UNIT HEATER, CEILING MOUNT BRACKET ADJUSTABLE BOTH DIRECTIONS, BUILT IN THERMOSTAT.
15. CEILING MOUNTED JUNCTION BOX WITH DEDICATED CIRCUIT INDICATED. SPARE FOR FUTURE WORK BENCH DROP CORDS.
16. TELEPHONE TERMINAL BOARD (TTB) 2'W X 4'H WITH SHELF FOR INTERNET CONNECTION EQUIPMENT. COORDINATE WITH UTILITY TO PROVIDE THEIR NETWORK INTERFACE DEVICE AND INTERNET CONNECTION EQUIPMENT ON TTB. CONNECT CAMERA SYSTEM NETWORK TO INTERNET.
17. METER/MAIN.
18. MOUNT ALL RECEPTACLES AT 36" UNLESS OTHERWISE NOTED. ALL RECEPTACLES SHALL BE 20A, 120V, INDUSTRIAL SPEC GRADE. NO WIRING BELOW 15" AFF.
19. FOR ALL PORTIONS OF CIRCUITS OUTSIDE OF BUILDING, ROUTE CONDUIT THROUGH FLOOR, SEAL CONDUIT AROUND FLOOR WITH WATER PROOF SEALANT. PROVIDE BELL ENDS ON CONDUIT.

PANEL LD		SIZE	VOLTS, PHASE			MOUNTING	MAIN	LOCATION	
		225A	120/240V, 1ϕ, 3W			SURFACE	LUGS	STORAGE BUIDLING	
CKT NO.	DESCRIPTION	C/B SIZE	KVA				C/B SIZE	DESCRIPTION	CKT NO.
			CKT	Aϕ	Bϕ	CKT			
1	WORK BENCH RECEPTACLE	20/1	0.4	0.4		0.0	20/1	SPARE	2
3	WORK BENCH RECEPTACLE	20/1	0.4		0.4	0.0	20/1		4
5	WORK BENCH RECEPTACLE	20/1	0.4	0.4		0.0	20/1		6
7	WORK BENCH RECEPTACLE	20/1	0.4		0.4	0.0	20/1		8
9	WEST WALL RECEPTACLE	20/1	0.6	0.6		0.0	20/2	SPARE TO UPLANDS LIGHTING CONTACTOR	10
11	EAST WALL RECEPTACLE	20/1	0.4		0.4	0.0	–	–	12
13	EXTERIOR RECEPTACLE	20/1	0.6	0.6		0.0	20/1	SPARE NON–SW TO UPLANDS LIGHTING	14
15	SPARE	20/1	0.0		0.4	0.4	20/2	UPLANDS LIGHTING VIA CONTACTOR	16
17			0.0	0.4		0.4	–	–	18
19			0.0		0.9	0.9	20/2	FLOAT AND BUILDING EXTERIOR LIGHTING	20
21			0.0	0.9		0.9	–	–	22
23			0.0		0.1	0.1	20/2	BRIDGE LIGHTING VIA CONTACTOR	24
25			0.0	0.1		0.1	–	–	26
27			0.0		0.0	0.0	20/1	FLOAT NON–SW TO BRIDGE LIGHTING	28
29			0.0	0.2		0.2	20/1	INTERIOR LIGHTING	30
31			0.0		0.2	0.2	20/1	EXHAUST FAN	32
33			0.0	2.5		2.5	30/2	UNIT HEATER	34
35			0.0		2.5	2.5	–	–	36
37			0.0	0.0		0.0	20/1	FLOAT NON–SW TO FLOAT LIGHTING	38
39			0.0		0.0	0.0	20/2	SPARE TO FLOAT LIGHTING CONTACTOR	40
41			0.0	0.0		0.0	–	–	42
TOTAL CONNECTED LOAD = 11.4 KVA/ 48 AMPS				6.1	5.3				

1 STORAGE BUILDING FLOOR PLAN

6" 1' 2' 4'

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907–789–3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY
STORAGE BUILDING FLOOR PLAN - ELECTRICAL

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NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E16	88

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	OPTICAL PERFORMANCE	MANUFACTURER	
		LED	BRAND	PART NO.
A	UPLANDS LUMINAIRE. CUTOFF, TYPE 3 DISTRIBUTION IP 66 RATED FLAT BLACK UPSWEPT ARM TO MOUNT TO 30' POLE.	LED, TYPE 3 DISTRIBUTION, 250W, 500mA, 120–277V DRIVER, 3,000K, 22,900 LUMENS	KIM	ISAARX2533K50UVBLUS3–4RD
			LITHONIA	DSX2LEDP330KT3MMVOLTRPABSDBLXD
B	BRIDGE LUMINAIRE. CUTOFF, TYPE 3 DISTRIBUTION IP 66 RATED FLAT BLACK, UPSWEPT ARM TO MOUNT TO 22' POLE.	LED, TYPE 3 DISTRIBUTION, 62W, 350mA, 120–277V DRIVER, 3,000K, 6,900 LUMENS	KIM	ISAARX0933K35UVBLUS3–4RD
			LITHONIA	DSX1LEDP230KT3MMVOLTRPABSDBLXD
C3	FLOAT LUMINAIRE (WEST END). CUTOFF, TYPE 3 DISTRIBUTION IP 66 RATED FLAT BLACK UPSWEPT ARM TO MOUNT TO 35' POLE. NO LIGHT ABOVE 65° ABOVE NADIR.	LED, TYPE 3 DISTRIBUTION, 250W, 500mA, 120–277V DRIVER, 3,000K, 22,900 LUMENS	KIM	2SLARX2533K50UVBLUS3–4RD
			LITHONIA	DSX2LEDP330KT3MMVOLTRPABSDBLXD
C4	FLOAT LUMINAIRE (EAST END & SOUTH). CUTOFF, TYPE 4 FORWARD THROW (FT) DISTRIBUTION IP 66 RATED FLAT BLACK UPSWEPT ARM TO MOUNT TO 35' POLE. NO LIGHT ABOVE 65° ABOVE NADIR.	LED, TYPE 4FT DISTRIBUTION, 300W, 600mA, 120–277V DRIVER, 3,000K, 25,700 LUMENS	KIM	2SLARX2543K60UVBLUS3–4RD
			LITHONIA	DSX2LEDP330KTFTMMVOLTRPAPERBSDBLXD
D	STORAGE BUILDING INTERIOR LUMINAIRE. LED, IP65 ENCLOSED & GASKETED, RIBBED FROSTED ACRYLIC. PROVIDE WITH BATTERY PACK WHERE SHOWN WITH EM.	47W, 120–277V DRIVER, 3,000K, 6,000 LUMENS, 0–10V DIMMING, 70 CRI	LITHONIA	FEML486000LMIMAFLMDMVOLTGZ1030K80CRI
			COLUMBIA	LXEM4–30HL–RFA–EDU–ELL14
F	STORAGE BUILDING EXTERIOR LIGHT. LED, IP65, SEALED LEDS & DRIVER, MOUNT ABOVE DOOR. ZERO UPLIGHT.	20W, 120–277V DRIVER, 4,000K, 2,000 LUMENS	HUBBEL	SG1–20–4K–PCU
			LITHONIA	OLWX1LED20W40K

NOTES:

1. THE PART NUMBERS IN THE LUMINAIRE SCHEDULE MAY NOT BE COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL PARTS AND ACCESSORIES NECESSARY TO COMPLY WITH THE FEATURES SHOWN IN THE LUMINAIRE SCHEDULE (INCLUDING THE MOUNTING) AND AS SHOWN ON THE OTHER PLAN SHEETS, AND IN THE SPECIFICATIONS.
2. SEE UPLANDS LIGHT POLE DETAIL SHEET E10, LUMINAIRES SHALL BE FLAT BLACK AND SHALL MATCH POLE.
3. SEE MARINE LIGHT POLE DETAIL & POLE SCHEDULE, SHEET E17 FOR LIGHT POLES ON BRIDGE AND FLOAT. LUMINAIRES SHALL BE FLAT BLACK AND SHALL MATCH POLE.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

① LUMINAIRE SCHEDULE

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
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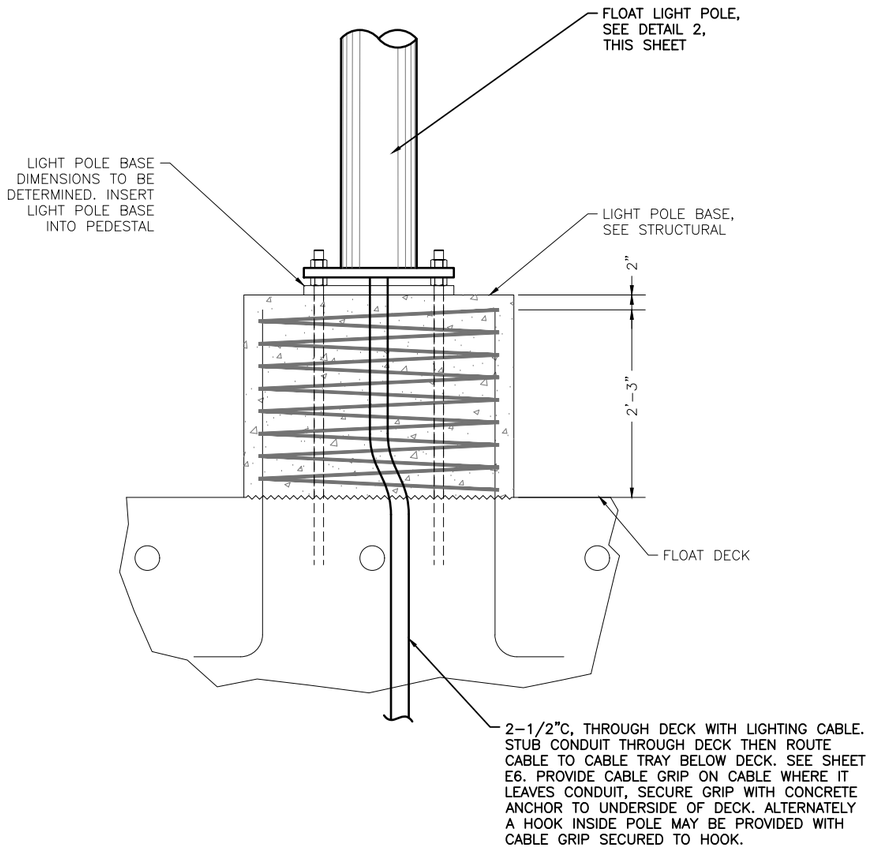
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

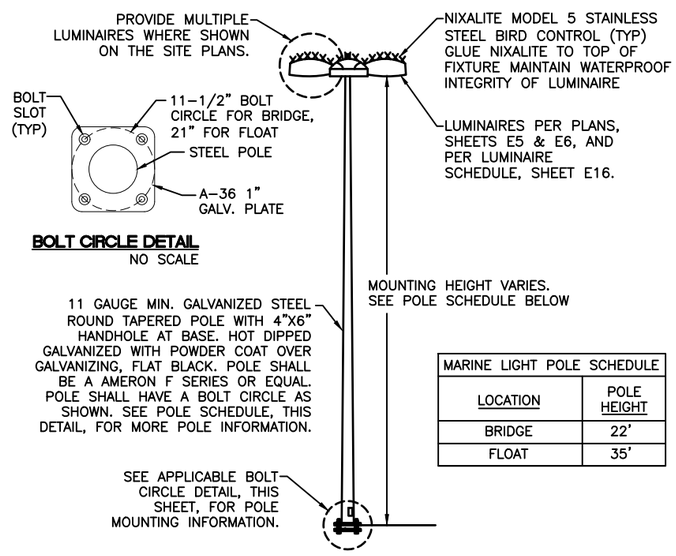
PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

LUMINAIRE SCHEDULE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E17	88



① FLOATING DOCK LIGHT POLE BASE DETAIL - ELECTRICAL



MARINE LIGHT POLE SCHEDULE	
LOCATION	POLE HEIGHT
BRIDGE	22'
FLOAT	35'

② MARINE LIGHT POLE DETAIL (TYP)
NO SCALE

NOTES:

1. THIS DETAIL APPLIES TO ALL, TRANSFER BRIDGE AND FLOAT LIGHT POLES.
2. ALL SPLICES SHALL BE IN BASE OF POLE.
3. PROVIDE GROUNDING BUSHINGS ON CONDUIT.
4. PROVIDE DOUBLE FUSED CONNECTOR KITS IN BASE OF POLE. SEC NO. 1791-DF OR EQUAL.
5. LOCATE LIGHT POLE WHERE SHOWN ON THE PLAN SHEETS E5 & E6.
6. SIZE POLE WITH MAST ARM AND LUMINAIRE FOR 100 MPH. BASIC WIND SPEED WITH GUST EFFECTS PER AASHTO LTS 6. POLE DIMENSIONS SHOWN ARE THE MINIMUM.
7. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING CONSTRUCTION.
8. COORDINATE LIGHT BASE DIMENSIONS WITH CIVIL IF A LIGHT POLE OTHER THAN THE ONE SPECIFIED IS SUBSTITUTED.
9. PROVIDE COUPLINGS TO ROUTE CONDUIT IN AND OUT OF POLE.
10. PROVIDE POLE MOUNTED CAMERAS WHERE SHOWN ON SITE PLANS. SEE CAMERA DETAILS ON SHEET E23

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY
FLOATING DOCK & MARINE LIGHT POLE DETAILS

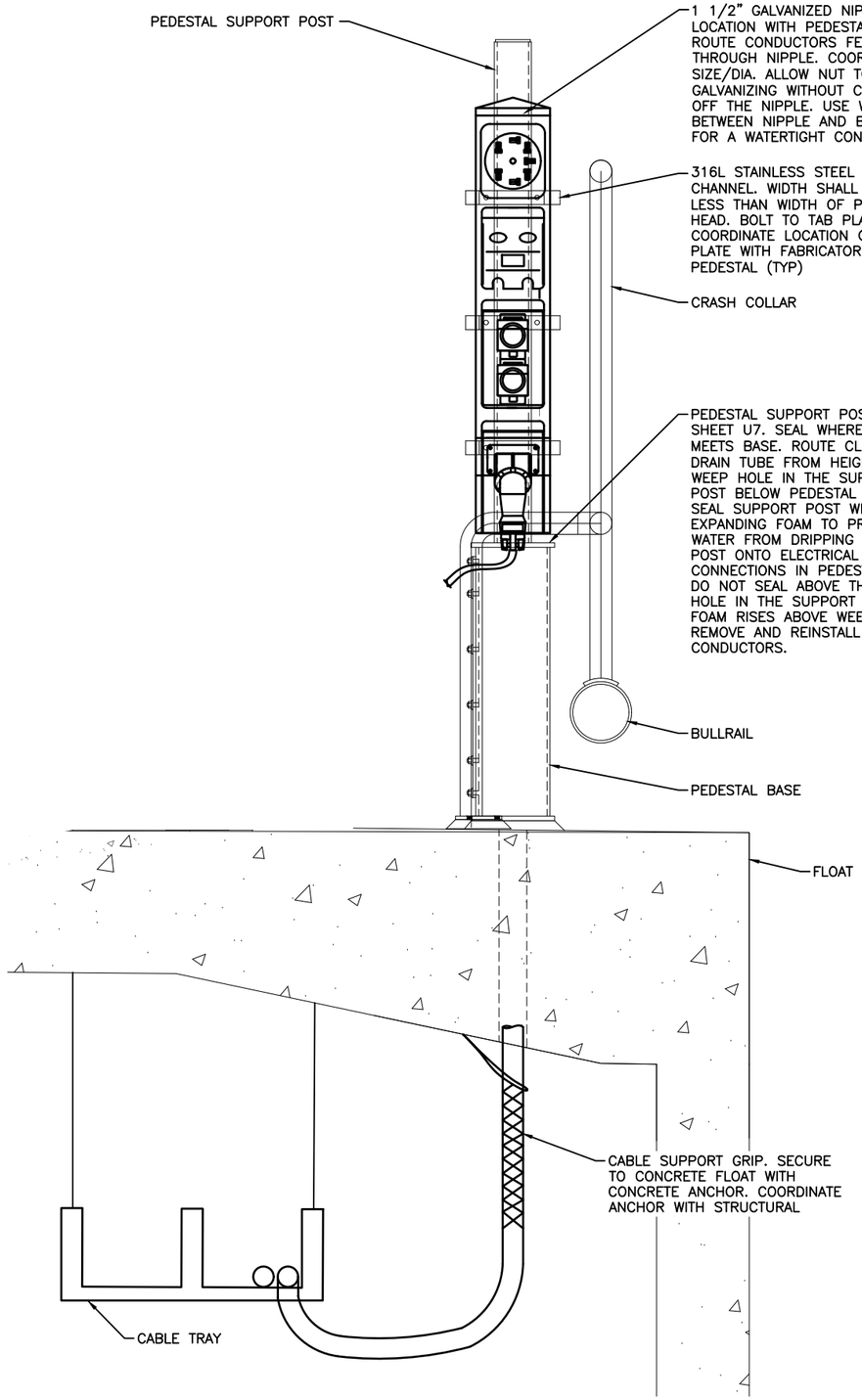
FILE	y:\118 PN&D\60 ktn gravina layup facility\working drawings\FLOATING DOCK LIGHT POLE BASE DETAIL.dwg
DATE	6/24/2024 14:12
LAYOUT	E17
DESIGNED	MGM
CHECKED	MGM
DRAFTED	JRW

NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E18	88

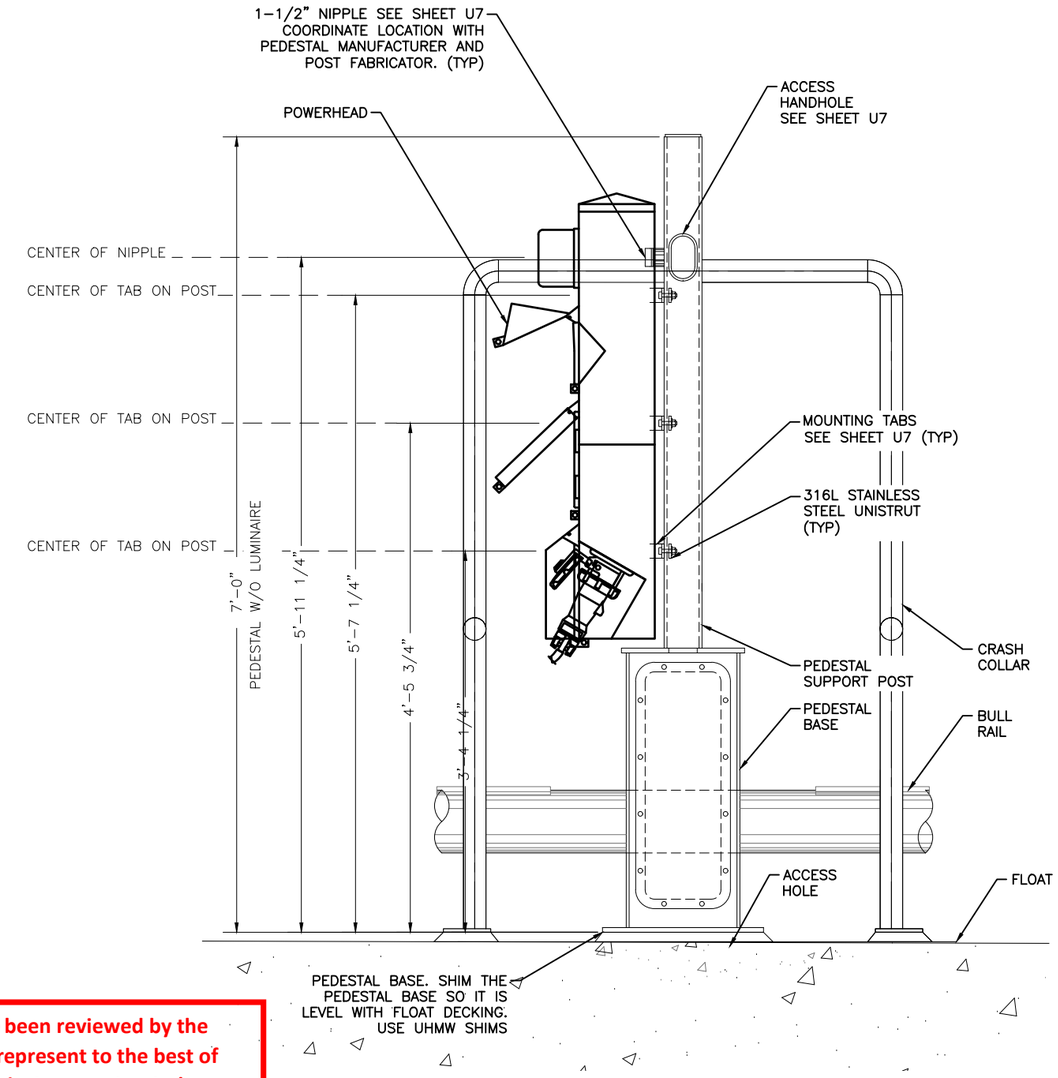
DATE	6/24/2024 14:13	LAYOUT	E18	DESIGNED	MGM	CHECKED	MGM	DRAFTED	JRW

FILE y:\118 PN&D\60 ktn gravina layup facility\working drawings\FLOATING DOCK POST MOUNTED DETAILS.dwg



① POST MOUNTED PEDESTAL
FRONT VIEW INSTALLATION

2" 4" 8" 16"



② POST MOUNTED PEDESTAL
SIDE VIEW INSTALLATION

2" 4" 8" 16"

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

SHEET NOTE:

1. SEE STRUCTURAL FOR CRASH COLLAR, PEDESTAL BASE, PEDESTAL SUPPORT POST, BULLRAIL, CABLE TRAY, AND FLOAT.

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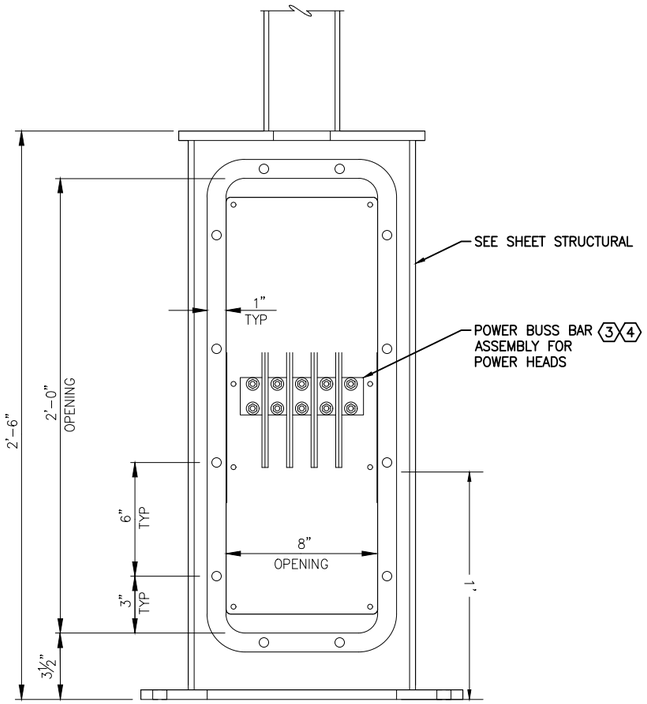
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A

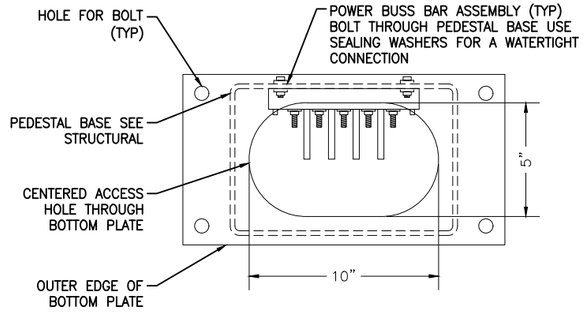
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

FLOATING DOCK POST MOUNTED DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E19	88



1 PEDESTAL BASE - FRONT VIEW
NO SCALE



2 PEDESTAL BASE - TOP VIEW
NO SCALE

SHEET NOTES:

1. PROVIDE SIZE AND QUANTITY OF POWER DISTRIBUTION BLOCKS AS REQUIRED.
2. MOUNT POWER BUSS BAR ASSEMBLY IN PEDESTAL BASE BY USING STAINLESS BOLTS, RUBBER WASHERS, STAINLESS WASHERS AND SEALANT FOR A WATERTIGHT INSTALLATION.

3 LOCATE BLOCKS MINIMUM 12" ABOVE DECK PER NEC.

4 PROVIDE COPPER BUSS BARS FOR POWERHEADS RATED AT 250 AMPS, 600V. PROVIDE (2) COPPER OR BRONZE STUDS PER POLE SIZED FOR NO. 4/0 LOOP FEED. USE COMPRESSION RING TERMINALS (BURNDY OR EQUAL) TO SECURE CABLE TO STUDS. USE ANTI-OXIDATION COMPOUND, BRONZE WASHERS AND NUTS. APPLY COLORED HEAT SHRINK OVER COMPRESSION CONNECTION 2" LONG MINIMUM. COLOR PER VOLTAGE AND CONDUCTOR TYPE (BLACK, RED, BLUE FOR A,B,C PHASE, WHITE FOR NEUTRAL, GREEN FOR GROUND). SIZE AND CONFIGURATION AS REQUIRED. LABEL CONDUCTORS FEEDING POWERHEAD ON LEFT SIDE OF POST WITH "L", RIGHT SIDE WITH "R". CONDUCTORS SHALL BE TINNED COPPER WITH XHHW INSULATION (TYPICAL). COAT CONDUCTORS WITH ANTI-OXIDATION COMPOUND. TORQUE PER MANUFACTURER'S RECOMMENDATION. USE SAME METHOD FOR CONDUCTORS FEEDING POWERHEADS. NO ALUMINUM LUGS, NO STAINLESS STUDS, WASHERS, NUTS, OR BOLTS MAY BE USED WITH THE BUS BARS AND THE TERMINATION OF THE CONDUCTORS.

5. ALL PEDESTALS SHALL HAVE 30 MILLI-AMP GFI PROTECTION BUILT INTO EACH CIRCUIT BREAKER IN THE PEDESTALS (POWERHEAD).

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

PLANS DEVELOPED BY:

MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE#7
JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER: AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

PEDESTAL BASE DETAILS

FILE	DATE	DESIGNED	DRAFTED	CHECKED	LAYOUT
y:\118 PN&D\60 ktn gravina layup facility\working drawings\PEDESTAL BASE DETAILS.dwg	6/24/2024 14:13	MGM	JRW	MGM	E19

NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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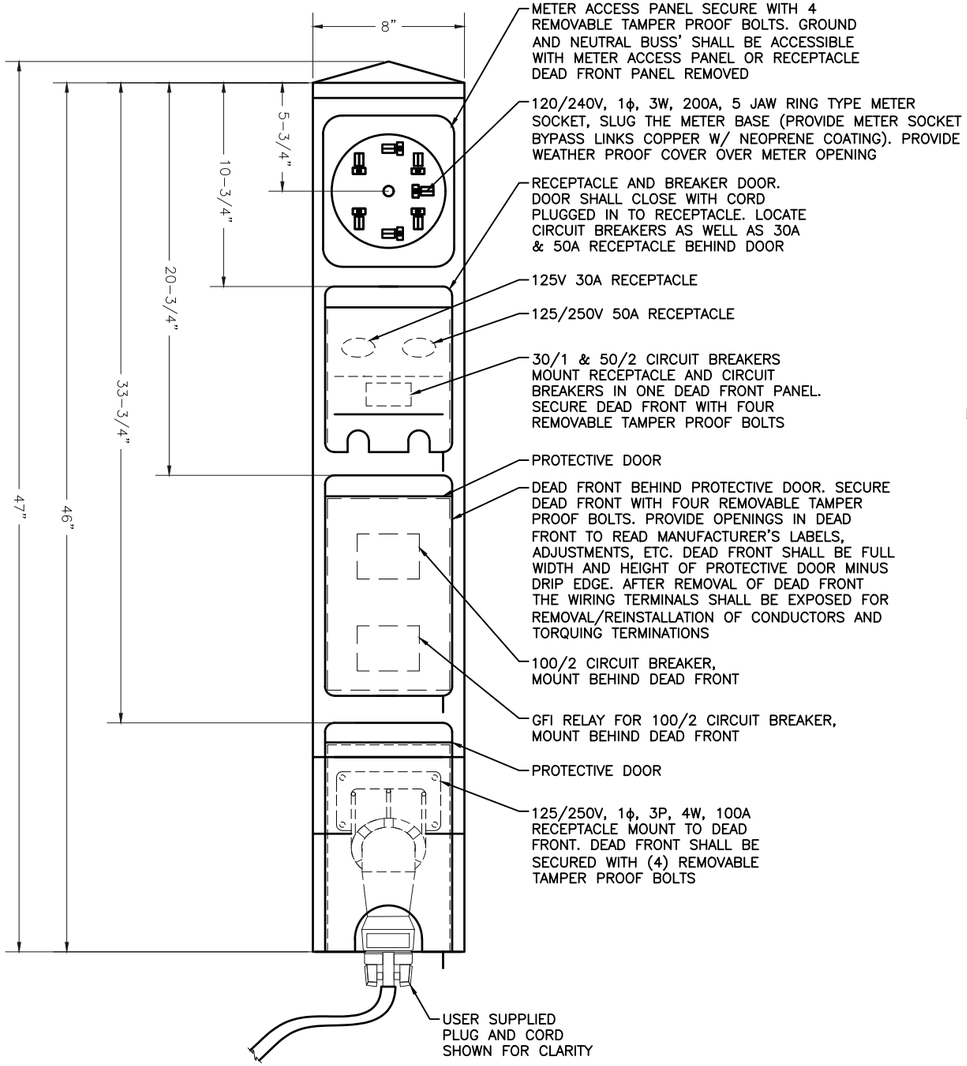
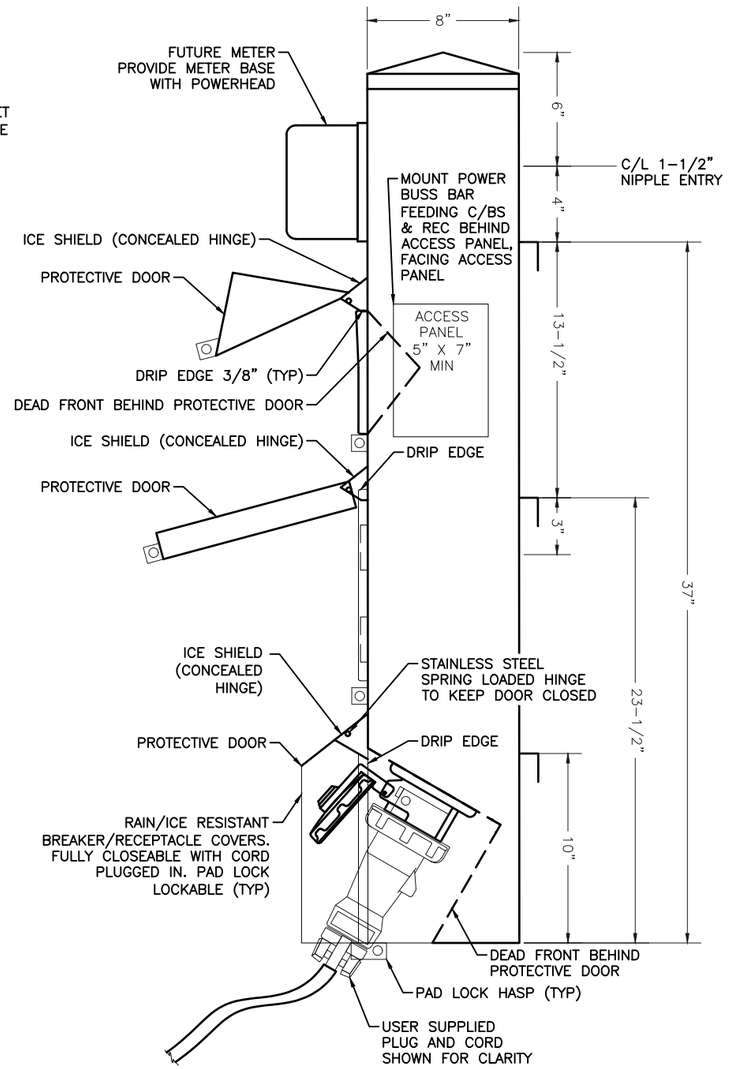


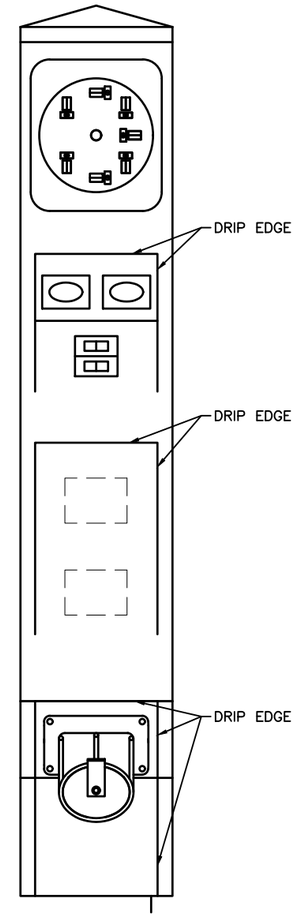
① POWERHEAD (FRONT)

1" 2" 4" 8"



② POWERHEAD (SIDE)

1" 2" 4" 8"



③ POWERHEAD (PROTECTIVE DOORS REMOVED)

1" 2" 4" 8"

NOTES:

1. POWERHEAD SHALL BE MADE FROM 12 GAUGE (MIN) 316L STAINLESS STEEL. THIS INCLUDES DOORS, ACCESS PANELS, INTERNAL PARTITIONS, ETC. PROVIDE A UL LISTED ASSEMBLY. USE TINNED COPPER WIRES WITH XHHW INSULATION, ALUMINUM LUGS, ANTI-OXIDATION GREASE ON ALL CONNECTIONS, CONCEALED HINGES, ALL DOORS SHALL HAVE A PADLOCKABLE CATCH THAT HOLDS THE DOOR CLOSED. POWDER COAT WHITE WITH CLEAR COAT FINISH. SEE WIRING DIAGRAMS.
2. ALL FASTENERS, BOLTS, WASHERS, HINGES, ETC. SHALL BE 316 STAINLESS STEEL.
3. MOUNT POWER BUSS BAR ASSEMBLY BEHIND ACCESS DOOR FACING DOOR.
4. THIS POWER HEAD IS CUSTOM DESIGNED. ONLY TRUE EQUALS WITH ALL THE SAME FEATURES, DIMENSIONS, EQUIPMENT AND FUNCTION WILL BE ACCEPTED.
5. USE NON-METALLIC BUSHINGS AND OTHER METHODS TO PREVENT DIS-SIMILIAR METALS FROM CONTACTING ONE ANOTHER. USE COPPER BUSS BARS. ALL WIRING SHALL BE TINNED COPPER, XHHW.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

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JUNEAU, AK 99801
907-789-3350

CERTIFICATE OF AUTHORIZATION NUMBER:
AECL 1010

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

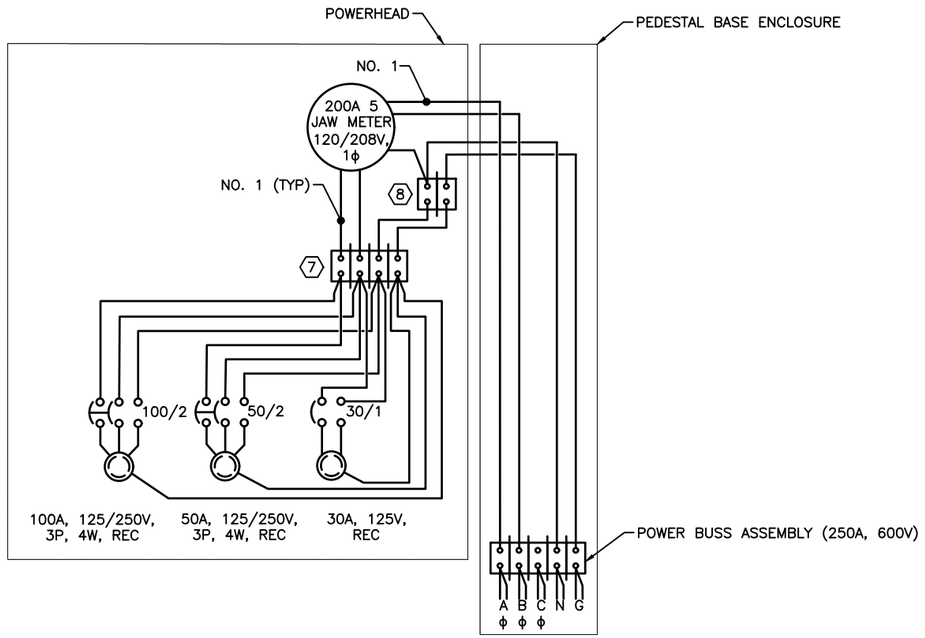
PLAN SET A

KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

PEDESTAL POWERHEAD DETAILS

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\PEDESTAL POWERHEAD DETAILS.dwg | DATE | 6/24/2024 14:13 | LAYOUT | E20 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E21	88



1 WIRING DIAGRAM - 100A/50A/30A POST MOUNTED PEDESTAL
NO SCALE

NOTES:

1. USE NO. 6 AWG FOR 50A AND 60A DEVICES, NO. 10 FOR 30A DEVICES AND 1 NO. 10 GROUNDS.
2. EACH CIRCUIT BREAKER IN EACH POWERHEAD SHALL HAVE 30 MILLI–AMP GROUND FAULT PROTECTION BUILT INTO THE CIRCUIT BREAKER.
3. PROVIDE THE QUANTITY AND CONFIGURATION OF POWERHEADS REQUIRED BY THE PROJECT.
4. PROVIDE ALL BUSS BARS PER NOTE 4 ON SHEET E19.
5. DO NO BOND THE GROUND TO THE NEUTRAL IN THE POWERHEAD AND/OR METER.
6. USE TINNED COPPER CONDUCTORS WITH XHHW INSULATION. USE DEOX ON ALL TERMINATIONS.

⟨7⟩ ALL WIRING TERMINATED ON POWER BUSS BAR ASSEMBLY ON THE LOAD SIDE OF THE METER (BETWEEN THE METER AND THE CIRCUIT BREAKERS/RECEPTACLES) SHALL BE PER NOTE 4 ON E19. (RING TERMINALS, HEAT TRACE, ETC). THIS INCLUDES NEUTRALS AND GROUNDS. THE POWER BUSS BAR ASSEMBLY SHALL BE EASILY ACCESSIBLE FROM THE ACCESS PANEL.

⟨8⟩ PROVIDE A BUSS BAR ASSEMBLY FOR GROUND AND NEUTRAL NEXT TO METER BASE. PROVIDE JUMPERS TO BUSS BAR ON LOAD SIDE OF METER. MEET SAME REQUIREMENTS OF BUSS BAR AND WIRE ON LOAD SIDE OF METER (TYPICAL ALL POWER HEADS).

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont **7/14/2025**

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907–789–3350

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

PEDESTAL POWERHEAD WIRING DIAGRAM

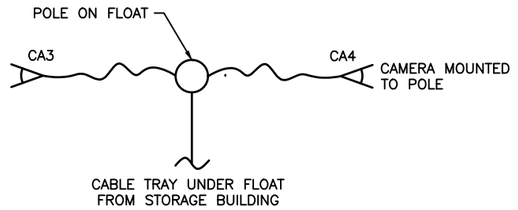
FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\E20 PEDESTAL POWERHEAD WIRING DIAGRAM.dwg | DATE | 6/24/2024 13:10 | LAYOUT | E21 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

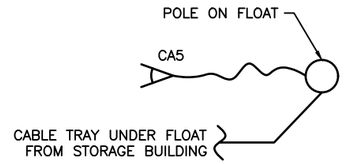
NO.	DATE	REVISION
1	5/06/24	RECORD DRAWINGS

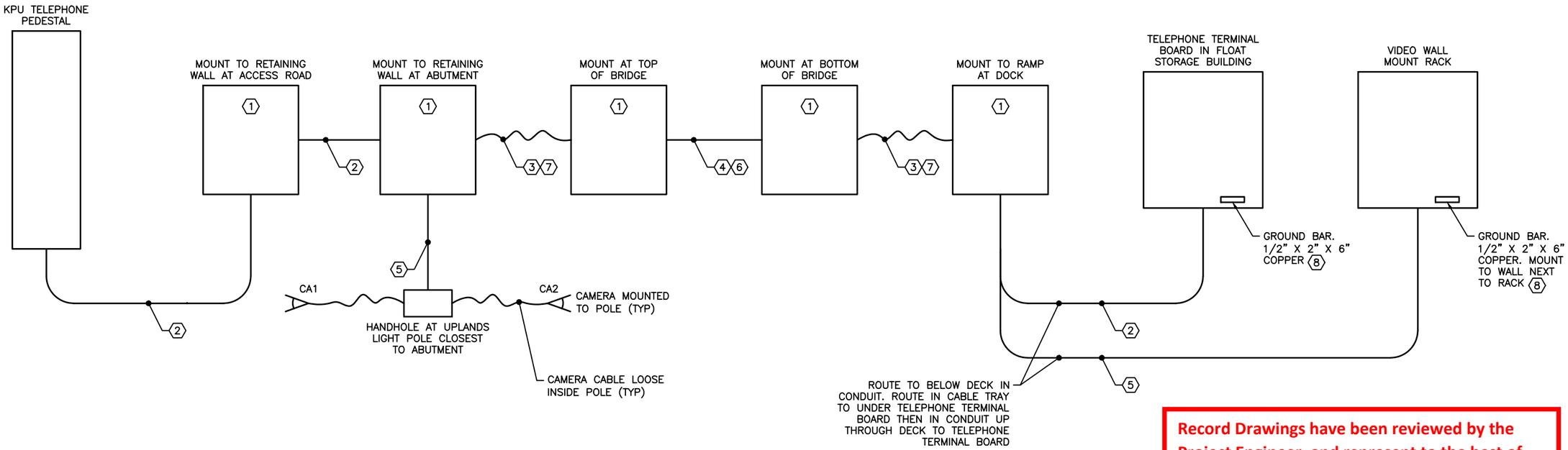
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	E22	88

NOTES:

1. 16"H X 14"W X 6"D NEMA 4X 316 STAINLESS STEEL.
2. 2"C, TELEPHONE UTILITY CABLE, SCHEDULE 80 PVC.
3. 1-1/2"C, TELEPHONE CABLE, LFMC WITH STAINLESS STEEL INTERNAL SPIRAL.
4. 1-1/2"C, TELEPHONE UTILITY CABLE, RMC.
5. 2"C, CAMERA CABLES, SCHEDULE 80 PVC.
6. 1-1/2"C, CAMERA CABLES, RMC.
7. 1-1/2"C, CAMERA CABLES, LFMC WITH STAINLESS STEEL INTERNAL SPIRAL.
8. ROUTE NO. 4 GND FROM PANEL HD TO GROUND BAR.







1 TELEPHONE & VIDEO SCHEMATIC

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

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2375 JORDAN AVE#7
JUNEAU, AK 99801
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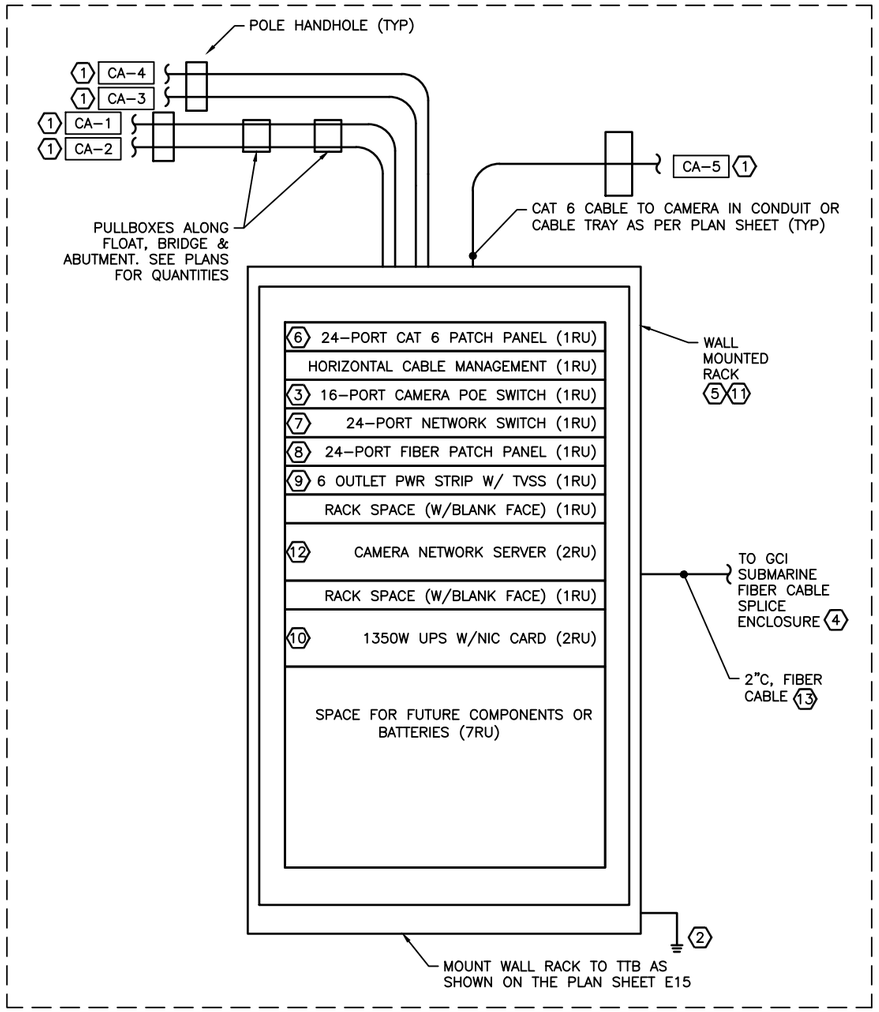
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

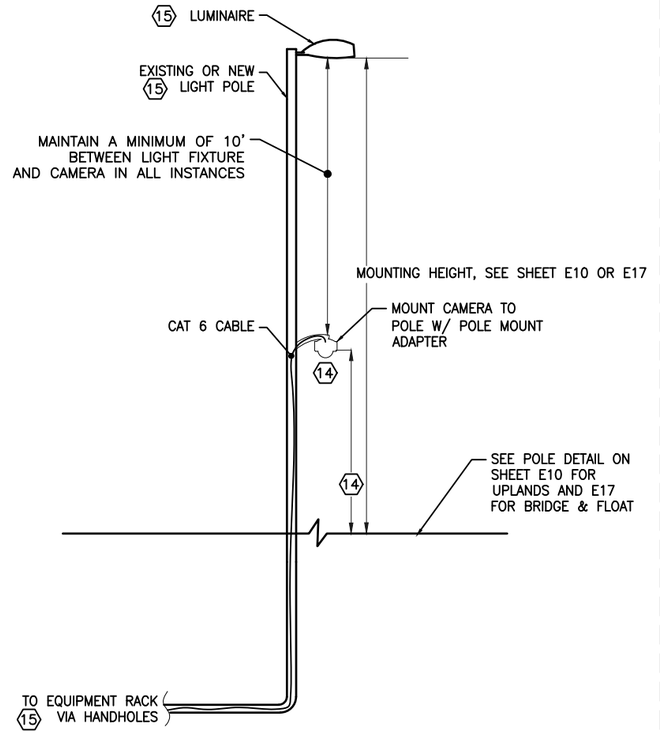
TELEPHONE & VIDEO SCHEMATIC

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\TELEPHONE & VIDEO SCHEMATIC.dwg | DATE | 8/1/2019 11:31 | LAYOUT | E22 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	5/06/24	RECORD DRAWINGS	ALASKA	SFHWY00152/0952018	2019	E23	88



1 FLOAT STORAGE BUILDING CAMERA & IT SCHEMATIC



2 CAMERA POLE MOUNTING DETAIL
NO SCALE

GRAVINA LAYUP FACILITY - CAMERA SCHEDULE

CAMERA NO.	CAMERA PART NO.	CAMERA TYPE	MOUNT TYPE	MOUNT PART NO.	VIEWING DIRECTION	PRIMARY VIEWING OBJECTIVE
CA1	KEY NOTE 1	OUTDOOR	POLE MOUNT	KEY NOTE 1	WEST	UPLANDS
CA2	KEY NOTE 1	OUTDOOR	POLE MOUNT	KEY NOTE 1	EAST	BRIDGE EAST
CA3	KEY NOTE 1	OUTDOOR	POLE MOUNT	KEY NOTE 1	WEST	BRIDGE WEST
CA4	KEY NOTE 1	OUTDOOR	POLE MOUNT	KEY NOTE 1	EAST	FLOAT EAST
CA5	KEY NOTE 1	OUTDOOR	POLE MOUNT	KEY NOTE 1	WEST	FLOAT WEST

3 CAMERA SCHEDULE

NOTE:

1. OUTDOOR DAY/NIGHT FIXED MINI-DOME. POE WITH 5MPX, WDR, IR, IP66 AND IK10 RATED. AXIS P3227-LVE (CAM), T94T01D (PENDANT KIT), P32-VE (DOME) OR EQUAL
2. GROUND THE RACK TO THE TMGB IN THE ROOM AND GROUND ALL RACK EQUIPMENT TO THE RACK PER TIA/EIA STANDARDS.
3. DEDICATED CAMERA NETWORK SWITCH WITH POE TO SERVE EACH CAMERA. CONNECT TO FIBER PATCH PANEL AND PROVIDE WITH CORD AND PLUG POWERED FROM RACK POWER STRIP. GIGABIT SWITCH, 16-PORTS, EACH WITH 30W OUTPUT AVAILABLE (POE+). PROVIDE WITH RACK MOUNT KIT. AXIS T8516 POE+ OR EQUAL.
4. GCI SUBMARINE FIBER CABLE SHALL CONNECT THE STORAGE BUILDING WALL MOUNTED RACK TO THE EXISTING KETCHIKAN AIRPORT NETWORK. COORDINATE WITH AIRPORT IT STAFF ON SPECIFICS.
5. TIA/EIA STANDARD 19" WIDE, 24" OVERALL WIDTH, 24" USEABLE DEPTH, SWING OUT EQUIPMENT RACK. FULLY ENCLOSED ON ALL SIDES, TOP AND BOTTOM, WITH LOCKABLE DOOR. PROVIDE WITH VENTED FRONT DOOR AND TOP DUST COVER. INCLUDES TOP AND BOTTOM CONDUIT KNOCKOUT PROVISIONS (1/2", 3/4", 1", 1-1/2") WITH MINIMUM 19 RACK UNITS (19 RU) OF CAPACITY. CHATSWORTH 11840-X36 CUBE-IT WITH 40975-001 DUAL FAN AND FILTER KIT. INCLUDE WITH (1) 40973-001 5-PACK FILTER REPLACEMENT KIT, 12787-536 EQUIPMENT MOUNTING RAIL KIT, AND WITH (1) 40974-X19 RACK MOUNT SELF. RACK REQUIRES A MINIMUM OF 42" OF WALL SPACE TO ALLOW FOR FULL SWING OUT.
6. 24 PORT CAT 6 STANDARD DENSITY PATCH PANEL WITH FRONT FACING JACKS. PROVIDE COMPLETE WITH 18 PRE-POPULATED PORT POSITIONS WITH RJ45 JACKS AND 6 SPACES WITH BLANK FILLERS. LEVITON 69586-U24 OR EQUAL.
7. INDUSTRIAL GRADE GIGABIT SWITCH WITH (24) 10/100/1000 POE+ PORTS, (4) 100/1000 DUAL SPEED FIBER PORTS AND 240 WATT POWER SUPPLY. MANAGED SWITCH WITH NETWORK INTERFACE CARD AND RELAY OUTPUTS FOR ALARMS AND EXTERNAL NOTIFICATION TRANSITION NETWORKS ISPM1040-L3248-L WITH 25104 POWER SUPPLY OR EQUAL. INCLUDE WITH CORD AND PLUG POWERED FROM RACK POWER STRIP.
8. FIBER CASSETTE TRAY COMPLETE WITH PROVISIONS FOR UP TO THREE (3) CASSETTES OR FIBER SPLICE TRAYS ACCOMMODATING UP TO 72 STRAND FIBER. LEVITON 5R1UM-S03 3-SLOT TRAY WITH TWO (2) 5F100-2QC 12 FIBER OM3 SC ADAPTER PLATES AND ONE (1) 5F100-PLT BLANK PLATE OR EQUAL.
9. COMMERCIAL GRADE 120V POWER STRIP WITH ON INDICATOR LIGHT, BUILT IN SURGE PROTECTION, AND MINIMUM SIX (6) RECEPTACLES. REAR FACING RECEPTACLES. TRIPP-LITE #PS1916D1U OR EQUAL. POWER FROM UPS OUTPUT RECEPTACLE.
10. 1500VA/1350W, 120V:120V RACK MOUNTED UPS WITH INPUT CORD AND PLUG. INCLUDES FRONT LCD INDICATOR SCREEN, MINIMUM (5) OUTPUT RECEPTACLES, NIC CARD WITH RJ45 JACK, AND EXTENDED BATTERY MODULE OPTION CONNECTION. POWERWARE 9PX1500RTN OR EQUAL. POWER FROM DEDICATED WALL OUTLET AND POWER RACK SURGE STRIP FROM UPS RECEPTACLE.
11. ALL NETWORK CABLES ENTERING THE RACK SHALL BE IN CONDUIT CONNECTED AT RACK KNOCKOUTS. CONDUIT NOT SHOWN HERE.
12. 48-CHANNEL NETWORK VIDEO RECORDER RACK MOUNTED, WITH REDUNDANT POWER SUPPLIES, AND SSD TYPE HARD DRIVES EXPANDABLE TO 140TB MINIMUM. PROVIDE WITH 64TB AS PART OF THIS PROJECT. AXIS S1148 64TB OR EQUAL.
13. FIBER CABLE SHALL BE 24 STRAND, 50 MICRO, MULTI-MODE CABLE. OM3 RATED, TIGHT BUFFERED WITH AQUA OUTER JACKET. BERK-TEK PDP024EB2010/25-I/O-C4(AQU) OR EQUAL.
14. PROVIDE POLE MOUNTED CAMERAS WHERE SHOWN ON THE PLANS. MOUNT CAMERA TO POLE AT 22' AFG USING POLE MOUNT BRACKET WITH STAINLESS STEEL BANDING. PROVIDE 3" X 5" HANDHOLE WITH GASKETED COVER AT 19' ABOVE BASE. FOR UPLAND POLES, PLACE HANDHOLE AT 90° TO CAMERA LOCATIONS. FOR FLOAT POLES, PLACE HANDHOLE DIRECTLY BELOW CAMERA. PROVIDE GROMMETTED OPENING IN POLE TO FEED CAMERA. ROUTE CABLES UP THROUGH POLE TO CAMERA. PROVIDE CAMERA(S) TO POLE(S) WHERE SHOWN. PROVIDE STAINLESS STEEL STRAIN RELIEF INSIDE POLE ACCESSIBLE FROM THE HANDHOLE TO SUPPORT CABLE PRIOR TO CONNECTION. (1)
15. SEE POLE ELEVATION ON SHEET E10 OR E17 FOR POLE, LIGHT, AND POLE BASE DETAILS.
16. FINAL PHYSICAL ORIENTATION AND MOUNTING HEIGHTS OF CAMERAS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO INSTALLATION. OBSTACLES MAY EXIST ON SITE THAT REQUIRE ADJUSTMENTS NOT FORESEEABLE IN THESE PLANS.
17. OTHER ACCEPTABLE MANUFACTURERS FOR IT EQUIPMENT ARE AXIS, LEVITON, LINKSYS, NETGEAR, NETWORX, POWERWARE, AND TRIPP-LITE.

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/14/2025

PLANS DEVELOPED BY:

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A

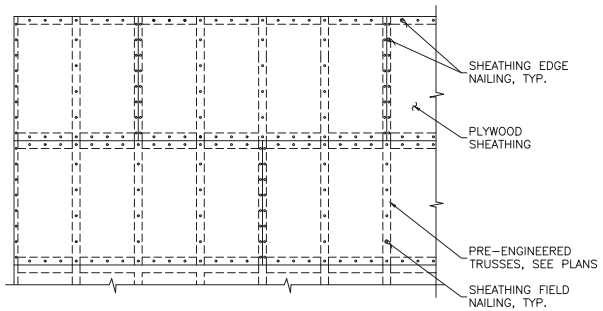
KETCHIKAN GRAVINA AIRPORT FERRY LAYUP FACILITY

CAMERA SCHEMATIC, MOUNTING DETAILS & SCHEDULE

FILE | y:\118 PN&D\60 ktn gravina layup facility\working drawings\CAMERA & IT SCHEMATIC.dwg | LAYOUT | E23 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW | DATE | 6/24/2024 14:23

NO.	DATE	REVISION
1	11/30/23	BUILDING REORIENTATION
2	4/18/23	CONCRETE STEP REMOVED
3	5/20/24	RECORD DRAWINGS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00152/0952018	2019	B04	89



PLAN

TYPICAL ROOF DIAPHRAGM DETAIL

NOTES:
1. STAGGER SHEATHING JOINTS A MINIMUM OF TWO TRUSS JOIST SPACES.
2. NAILS AT ABUTTING SHEATHING EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.

CO 23

HOLDOWN SCHEDULE

MODEL NO.	ANCHOR ROD DIA.	BOUNDARY STUD / POST (ATTACHED TO HOLDOWN)	STUD FASTENERS	ASD ALLOWABLE LOADS (LBS)
HDU4-SDS2.5/ TDX2-TZ	5/8ø F1554, GR. 55	(2) 2x6 DF	(10)-SDS 1/4"x2-1/2"	4565 (DF)

NOTES:
1. ALL HOLDOWNS SHALL BE SIMPSON STRONGTIE, MITEK OR ENGINEER APPROVED EQUAL.
2. ANCHOR RODS SHALL BE GALVANIZED ASTM A307 HEADED BOLTS OR GALVANIZED ALL THREAD WITH NUT AND PLATE WASHER
3. DF = DOUG FIR

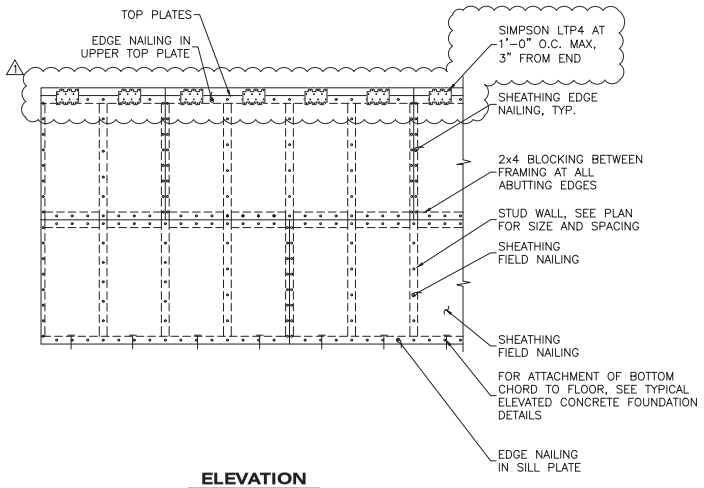
SHEARWALL SCHEDULE

NO. OF SIDES	SHEATHING GRADE	SHEATHING THICKNESS	NAIL SIZE	NAIL SPACING		MIN. STUD THICKNESS AT PANEL JOINT	MIN. NOMINAL SILL THICKNESS	MUDSILL TO CONCRETE
				EDGES	FIELD			
1	APA RATED STRUC-1	19/32"	10d	6"	12"	2x	2x	5/8"ø ANCHOR BOLT AT 24" O.C. MAX.

NOTES:
1. MUDSILL SHALL HAVE A MINIMUM OF (2) ANCHOR BOLTS WITH (1) BOLT LOCATED NOT MORE THAN 12 INCHES OR LESS THAN 6 INCHES FROM EACH END.
2. ALL SILL PLATE ANCHOR RODS SHALL BE ASTM A307 GALVANIZED HEADED BOLTS OR ASTM A 36 GALVANIZED THREADED ROD WITH END NUT. HOLDOWN ANCHOR RODS SHALL BE ASTM A36 GALVANIZED THREADED ROD WITH END NUT OR ENGINEER APPROVED EQUAL.
3. WALL FRAMING TO BE 2X DF (U.N.O.) STUDS AT 24" O.C. ALL PANEL EDGES SHALL BE LOCATED ON STUDS, 2x BLOCKING LAID FLAT AGAINST THE SHEATHING OR PLATES. ALL STUDS ATTACHED TO STRAPS OR HOLD DOWNS SHALL BE PANEL EDGE NAILED.
4. APPLY SHEATHING TO SIDE OF SHEARWALL INDICATED BY SYMBOL.
5. ALL HOLDOWNS SHALL BE SIMPSON STRONG-TIE, MITEK OR ENGINEER APPROVED EQUAL.

PANEL DIAPHRAGM SCHEDULE

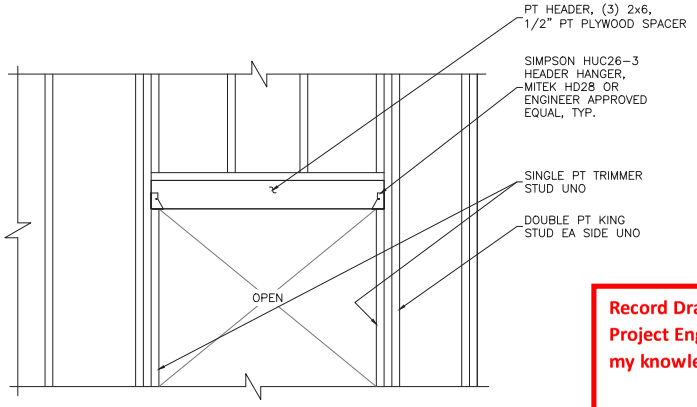
PANEL LOCATION	SHEATHING GRADE	MIN. PANEL THICKNESS	NAIL SIZE	NAIL SPACING			NOMINAL WIDTH OF FRAMING MEMBER	PANEL EDGE BLOCKING
				BOUNDARIES	ALL OTHER EDGES	FIELD		
ROOF	APA RATED STRUC-1	19/32"	10d	6"	6"	12"	2x MIN.	2x4



ELEVATION

TYPICAL SHEARWALL DETAIL

NOTES:
1. SHEATHING IS SHOWN HORIZONTAL, IT MAY ALSO BE POSITIONED VERTICAL.
2. STAGGER SHEATHING JOINTS A MINIMUM OF TWO STUD SPACES.
3. NAILS AT ABUTTING SHEATHING EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.
4. SEE PLANS FOR HOLD DOWN LOCATIONS AND ADDITIONAL BLOCKING.
5. ALL SHEATHING EDGES MUST BE SUPPORTED BY AND NAILED TO FRAMING OR BLOCKING.



TYPICAL HEADER DETAIL

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/8/25

PLANS DEVELOPED BY:

PND ENGINEERS, INC.
1736 4TH AVE. S., SUITE A
SEATTLE, WA 98134
(206) 624-1387

CERTIFICATE OF AUTHORIZATION NUMBER:

AECC 250

STATE OF ALASKA
49TH
Alan M. Johnson
SE 14129
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

STORAGE BUILDING
DETAILS – SHEET 2

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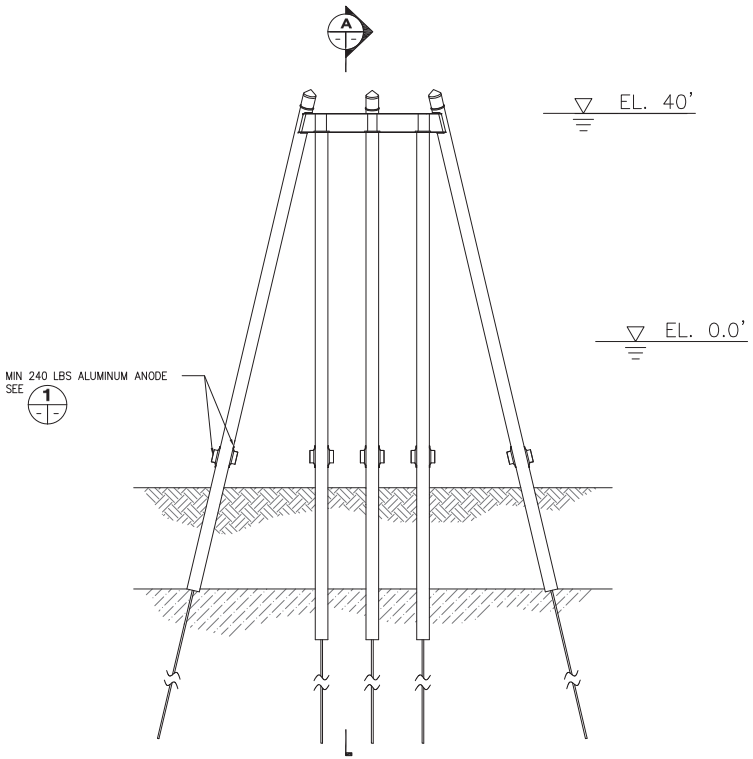
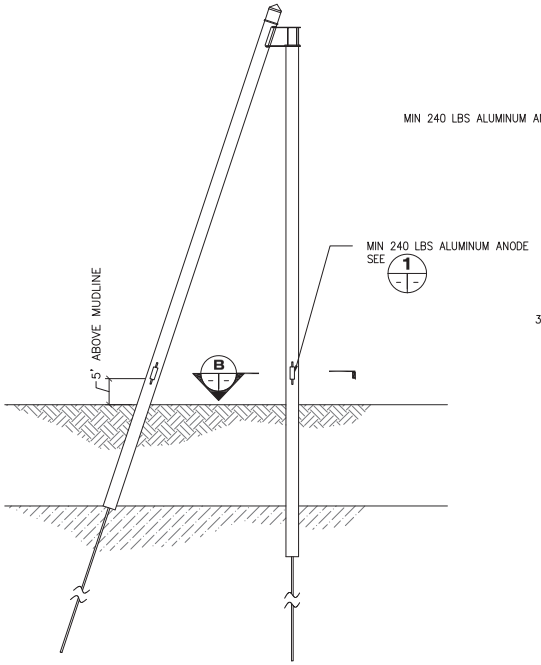
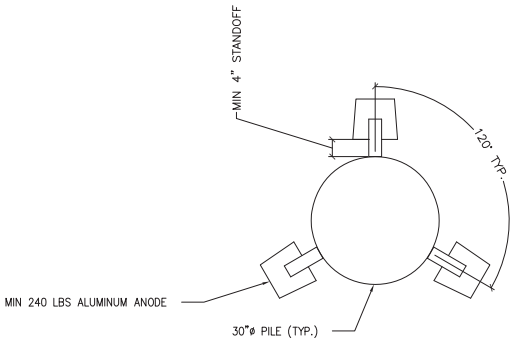
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00152/0952018	2019	CP01	88



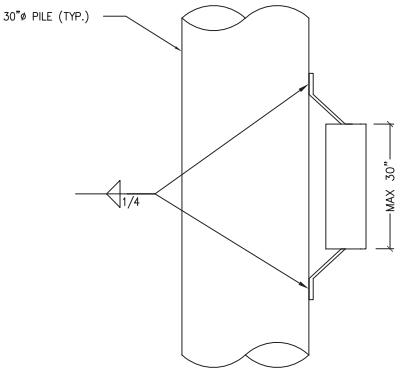
ELEVATION
PILE-MOUNTED ANODES



A SECTION
PILE-MOUNTED ANODES



B SECTION
ALUMINUM ANODES



1 DETAIL
ALUMINUM ANODES

Record Drawings have been reviewed by the Project Engineer, and represent to the best of my knowledge, the project as constructed.

PE Patty Lont 7/7/2025

PLANS DEVELOPED BY:

TINNEA & ASSOCIATES, LLC
35320 SE CENTER ST
SNOQUALMIE, WA 98065
(206) 328-7872

CERTIFICATE OF AUTHORIZATION NUMBER:

731946

STATE OF ALASKA
49TH
JEREMY HARLEY
CE-10208
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PLAN SET A
KETCHIKAN GRAVINA AIRPORT
FERRY LAYUP FACILITY

CATHODIC PROTECTION SECTION

FILE | C:\Users\MadelineLee\Desktop\Work\PND\Gravina Lay-up PSE\2020-01-21 - Gravina Updated PS&E Submittal.dwg | DATE: Jan 27, 2020 11:55 | LAYOUT | CP01 | DESIGNED | J. HAILEY | CHECKED | R. TINNEA | DRAFTED | M. LEE