PORT OF JUNEAU
(DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

15% Schematic Design
January 12, 2025

VICINITY MAP

LEGEND

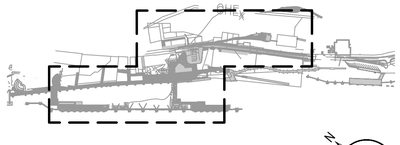
PROJECT LOCATION

N

SITE MAP

LEGEND

PROJECT LOCATION



N

SHEET INDEX

SHEET	DESCRIPTION
T0.1	TITLE SHEET
C0.1	VICINITY MAPS, TIDAL DATA AND DRAWING INDEX
C0.2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
C1.1	PARTIAL EXISTING CONDITIONS AND SURVEY CONTROL PLAN
C1.2	PARTIAL EXISTING CONDITIONS AND SURVEY CONTROL PLAN
C1.3	PARTIAL DEMOLITION PLAN
C1.4	PARTIAL DEMOLITION PLAN
C1.5	PARTIAL OVERALL SITE PLAN
C1.6	PARTIAL OVERALL SITE PLAN
C2.1	PARTIAL GRADING PLAN - SUBSTATION PAD
C2.2	PARTIAL GRADING PLAN AND PROFILE - SUBSTATION ACCESS ROAD
C2.3	PARTIAL GRADING PLAN - SIDEWALK REPLACEMENT
C2.4	CIVIL DETAILS
C3.1	CRUISE TERMINAL DOCK PLAN
C3.2	CRUISE TERMINAL DOCK DETAILS
C3.3	ALASKA STEAMSHIP DOCK PLAN
C3.4	ALASKA STEAMSHIP DOCK DETAILS

SHEET	DESCRIPTION - CONTINUED
E0.1	ELECTRICAL GENERAL NOTES, SYMBOLS AND ABBREVIATIONS
E1.1	MEDIUM VOLTAGE OVERALL BLOCK DIAGRAM
E2.1	OVERALL ELECTRICAL KEY PLAN
E2.2	PARTIAL ELECTRICAL SITE PLAN
E2.3	PARTIAL ELECTRICAL SITE PLAN
E2.4	PARTIAL ELECTRICAL SITE PLAN
E2.5	PARTIAL ELECTRICAL SITE PLAN
E3.1	ENLARGED POWER PLAN - UTILITY SUBSTATION
E3.11	ENLARGED POWER PLAN - DOCK 'AS'
E3.21	ENLARGED POWER PLAN - DOCK 'CT'
E4.1	SHORE POWER INTERFACE 'IMSPO' ELEVATIONS
E5.1	FEEDER SCHEDULES
U0.1	AEL&P DRAWINGS INDEX
U1.1	66KV SIMPLIFIED SINGLE LINE DIAGRAM
U5.1	66KV GENERAL ARRANGEMENT
U7.1	AEL&P SHORE POWER OVERHEAD ROUTING
U7.2	AEL&P SHORE POWER OVERHEAD ROUTING
U7.3	AEL&P SHORE POWER LINE #2 TAP 69KV TRANSMISSION LINE
U7.4	AEL&P SHORE POWER LINE #2 TAP 69-11/6.6KV SUBSTATION
U7.5	AEL&P DETAILS
U7.6	AEL&P DETAILS

SCOPE OF PROJECT

THE PORT OF JUNEAU INTENDS TO:

1. INSTALL SHORE POWER SYSTEM AT ALASKA STEAMSHIP (AS) AND CRUISE TERMINAL (CT) DOCKS.
2. PROVIDE SHORE POWER ELECTRICAL SERVICE ENTRANCE SUBSTATION WITH TAP FROM EXISTING 66KV AEL&P OVERHEAD LINE.
3. PROVIDE (2) SHORE POWER OIL FILLED TRANSFORMERS, 66KV PRIMARY, 11/6.6KV DUAL SECONDARY WITH AUTOMATIC LOAD TAP CHANGING SYSTEM AND ASSOCIATED NEUTRAL GROUNDING RESISTORS.
4. PROVIDE 11KV AND 6.6KV METAL CLAD MAIN SWITCHGEAR WITH MAIN AND FEEDER CIRCUIT BREAKERS, AND HUMAN MACHINE INTERFACE (HMI) SECTIONS.
5. PROVIDE 11KV AND 6.6KV METAL ENCLOSED EARTHING SWITCHGEARS WITH POWER SWITCHES AND EARTHING SWITCHES, AND HUMAN MACHINE INTERFACE (HMI) SECTIONS).
6. PROVIDE UNDERGROUND DUCTBANKS WITH CONDUIT AND CONDUCTORS REQUIRED FOR THE POWER DISTRIBUTION, AND COMMUNICATION, CONTROL SYSTEMS.
7. PROVIDE NEW EXTENDED DECKING TO HOUSE MOVEABLE TRENCH-MOUNTED SHORE POWER CONNECTION INTERFACE AND PROVIDE CABLE MANAGEMENT SYSTEM (CMS) AND SHELTER FOR CMS AT EACH DOCK ('AS' AND 'CT').
8. PROVIDE TWO 480V SERVICES, ONE FOR EACH DOCK ('AS' AND 'CT' FROM NEAREST LOCAL AEL&P SOURCE.

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

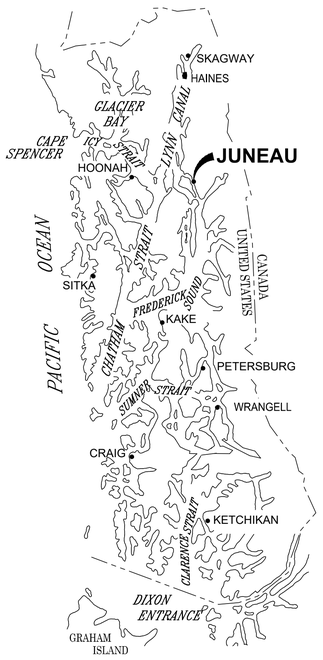
SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER
SHEET: **TITLE SHEET**
ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801
DATE: 01/12/2026
DRAWING NUMBER: **T0.1**

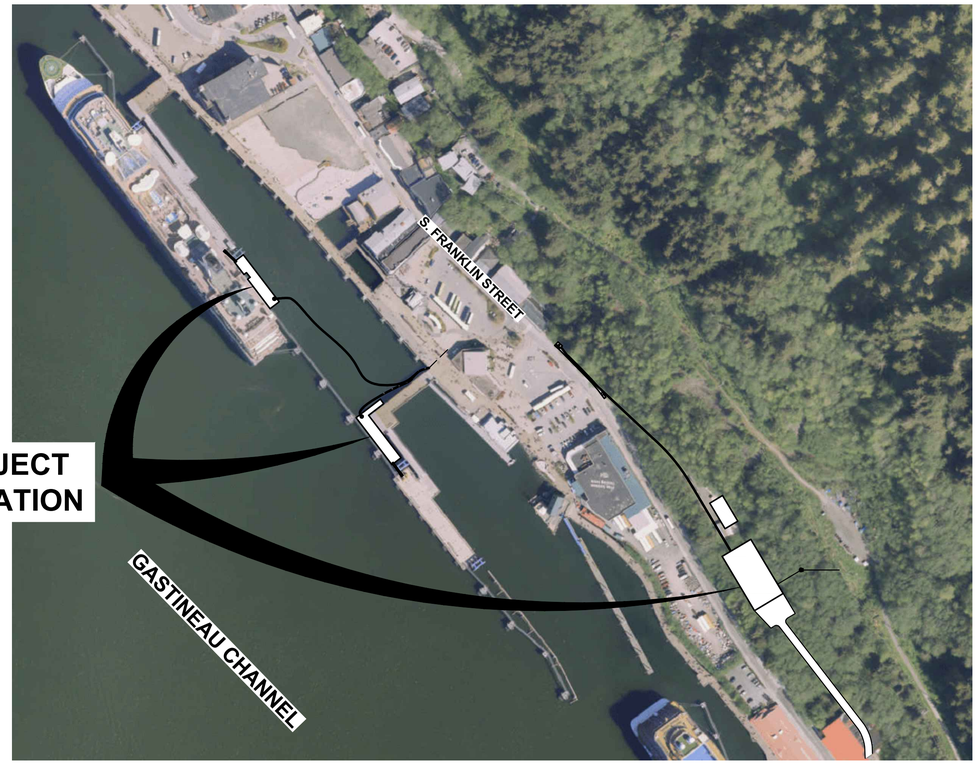
J036



VICINITY



SOUTHEAST ALASKA



VICINITY MAP

AERIAL PHOTO FROM:
CITY AND BOROUGH OF JUNEAU, 2025

DRAWING INDEX

DWG. NO.	TITLE
	GENERAL
C0.1	VICINITY MAPS, TIDAL DATA AND DRAWING INDEX
C0.2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
C1.1	PARTIAL EXISTING CONDITIONS AND SURVEY CONTROL PLAN
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C2.4	CIVIL DETAILS
	APPROACH DOCK
C3.1	CRUISE TERMINAL DOCK PLAN
C3.2	CRUISE TERMINAL DOCK DETAILS
C3.3	ALASKA STEAMSHIP DOCK PLAN
C3.4	ALASKA STEAMSHIP DOCK DETAILS

TIDAL DATA

SOURCE: NOAA NOS/CO-OPS STATION ID:
9452210 JUNEAU, ALASKA 2/6/18

DESCRIPTION	ELEV. (FT.)
HIGHEST OBSERVED WATER LEVEL	+24.58
HIGH TIDE LINE (HTL)	+20.59
MEAN HIGHER HIGH WATER (MHHW)	+16.30
MEAN HIGH WATER (MHW)	+15.34
MEAN SEA LEVEL (MSL)	+8.58
MEAN TIDE LEVEL (MTL)	+8.47
MEAN LOW WATER (MLW)	+1.60
MEAN LOWER LOW WATER (MLLW)	0.00
LOWEST OBSERVED WATER LEVEL	−6.12

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DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/07/2026

SUB CONSULTANT:
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Juneau, Alaska 99801
Phone: 907-586-2093
AK. LIC# AECC250

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: VICINITY MAPS, TIDAL DATA AND DRAWING INDEX

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: C0.1

J036

GENERAL NOTES

LEGEND

EXISTING	THIS PROJECT	
x x		FENCE
Eux		ELECTRICAL (UNDERGROUND)
OHEx		ELECTRICAL (OVERHEAD)
Wx		WATER
SSx		SANITARY SEWER
Cux		COMMUNICATION (CABLE/TEL)
SDx		STORM DRAIN
FMx		FORCE MAIN
		PROPERTY LINE
		GUY WIRE ANCHOR
		BOLLARD
		POWER POLE
		LUMINAIRE
		METAL PILING
EM		ELECTRICAL METER
		FIRE HYDRANT
	5	LAYOUT POINT
		LIGHT POLE
SDMH		STORM DRAIN MANHOLE
SSMH		SANITARY SEWER MANHOLE
		WATER VALVE
UP		UTILITY POLE
		SIGN
SCP		SURVEY CONTROL
###		POINT NUMBER IDENTIFIER
100		EXISTING CONTOUR & ELEVATION
		PAVEMENT/BLACKTOP
		CONCRETE/SIDEWALK
		BUILDING

A / 1.02 — SECTION OR DETAIL CALLOUT; LOCATION OF DETAIL OR REFERENCE DRAWING

ABBREVIATIONS

A	
@	AT
AC	ASBESTOS CEMENT PIPE
ACP	ASPHALT CONCRETE PAVEMENT
ADD	ADDITIVE
ADJ	ADJUSTABLE
AKDOT&PF	ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ALT	ALTERNATE
APPROX.	APPROXIMATE
ATS	ALASKA TIDELANDS SURVEY
AWS	AMERICAN WELDING SOCIETY
B	
BLDG	BUILDING
BTM, BOT	BOTTOM
C	
C&G	CURB & GUTTER
CB	CATCH BASIN
CBJ	CITY AND BOROUGH OF JUNEAU
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
℄	CENTER LINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CP	COMPLETE PENETRATION
CPP	CORRUGATED POLYETHYLENE PIPE
COR	CORNER
CSC	COUNTERSINK
CY	CUBIC YARD
D	
D/DIA	DIAMETER
DBL	DOUBLE
DIP	DUCTILE IRON PIPE
DIM	DIMENSION
DN	DOWN
DTL	DETAIL
E	
E	EAST
EA.	EACH
EG	EXISTING GROUND
EJ	EXPANSION JOINT
EL/ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
F	
FC	FACE OF CURB
FD	FLOOR DRAIN
FG	FINISH GRADE
FH	FIRE HYDRANT, FLAT HEAD
FIN	FINISH (ED)
FM	FORCE MAIN SEWER
FT	FOOT
FTG	FOOTING
FL	FLOWLINE
G	
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BREAK
GV	GATE VALVE
H	
H&T	HUB & TACK
HD	HEAVY DUTY
HDG	HOT-DIPPED GALVANIZED
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HSE	HOUSE
HT	HEIGHT
HWY.	HIGHWAY
I	
IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
IP	IRON PIPE
INV	INVERT
J	
JB	JUNCTION BOX
L	
LBS	POUNDS
LF	LINEAR FEET
LL	LIVE LOAD
LOC	LOCATION
LS	LUMP SUM
M	
MAX	MAXIMUM
ME	MATCH EXISTING
MECH	MECHANICAL
MFR	MANUFACTURE (R)
MH	MANHOLE
MJ	MECHANICAL JOINT
MIN	MINIMUM
MLLW	MEAN LOWER LOW WATER
MSE	MECHANICALLY STABILIZED EARTH
MTL	MATERIAL (S)
N	
N	NORTH
NFS	NON FROST SUSCEPTIBLE
NO	NUMBER
NTS	NOT TO SCALE
O	
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHE	OVERHEAD ELECTRICAL
OWS	OIL-WATER SEPARATOR
P	
P	PIPE
PC	POINT OF CURVATURE, PIECE
PCC	PRECAST CONCRETE
PED	PEDESTAL
PI	POINT OF INTERSECTION
PL	PROPERTY LINE, PLATE
PRV	PRESSURE REDUCING VALVE
PSI	POUND PER SQUARE INCH
PT	POINT, PRESSURE TREATED, POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE, POLY VINYL CHLORIDE
Q	
QTY	QUANTITY
R	
RAD	RADIUS
RE	RIM ELEVATION
REF	REFERENCE
REINF	REINFORCEMENT
REQD	REQUIRED
RET	RETAINING
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	
S	SOUTH
SCHED	SCHEDULE
SD	STORM DRAIN
SDI	STORM DRAIN INLET STRUCTURE
SDO	STORM DRAIN OUTLET STRUCTURE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT
SHLDR	SHOULDER
SI	STREET INTERSECTION
SPEC	SPECIFICATION (S)
SQ	SQUARE
SRB	SHOT ROCK BORROW
SSC	SANITARY SEWER CONNECTION
SS	STAINLESS STEEL, SANITARY SEWER
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
STL	STEEL
STRG	STRONG
SW	SIDEWALK
SWR	SEWER
SY	SQUARE YARD
SYM	SYMMETRICAL
T	
t.	THICK
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TBC	TOP BACK OF CURB
TBD	TO BE DETERMINED
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TYP	TYPICAL
U	
UON	UNLESS OTHERWISE NOTED
UPC	UNIFORM PLUMBING CODE
USCG	UNITED STATES COAST GUARD
V	
VB	VALVE BOX
VERT	VERTICAL
W	
W	WEST
w/	WITH
WD	WOOD
WL	WATERLINE
WV	WATER VALVE
W/O	WITHOUT
<PT	ANGLE POINT

NO.	REVISION:	DATE:

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ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

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CRUISE TERMINAL SHORE POWER

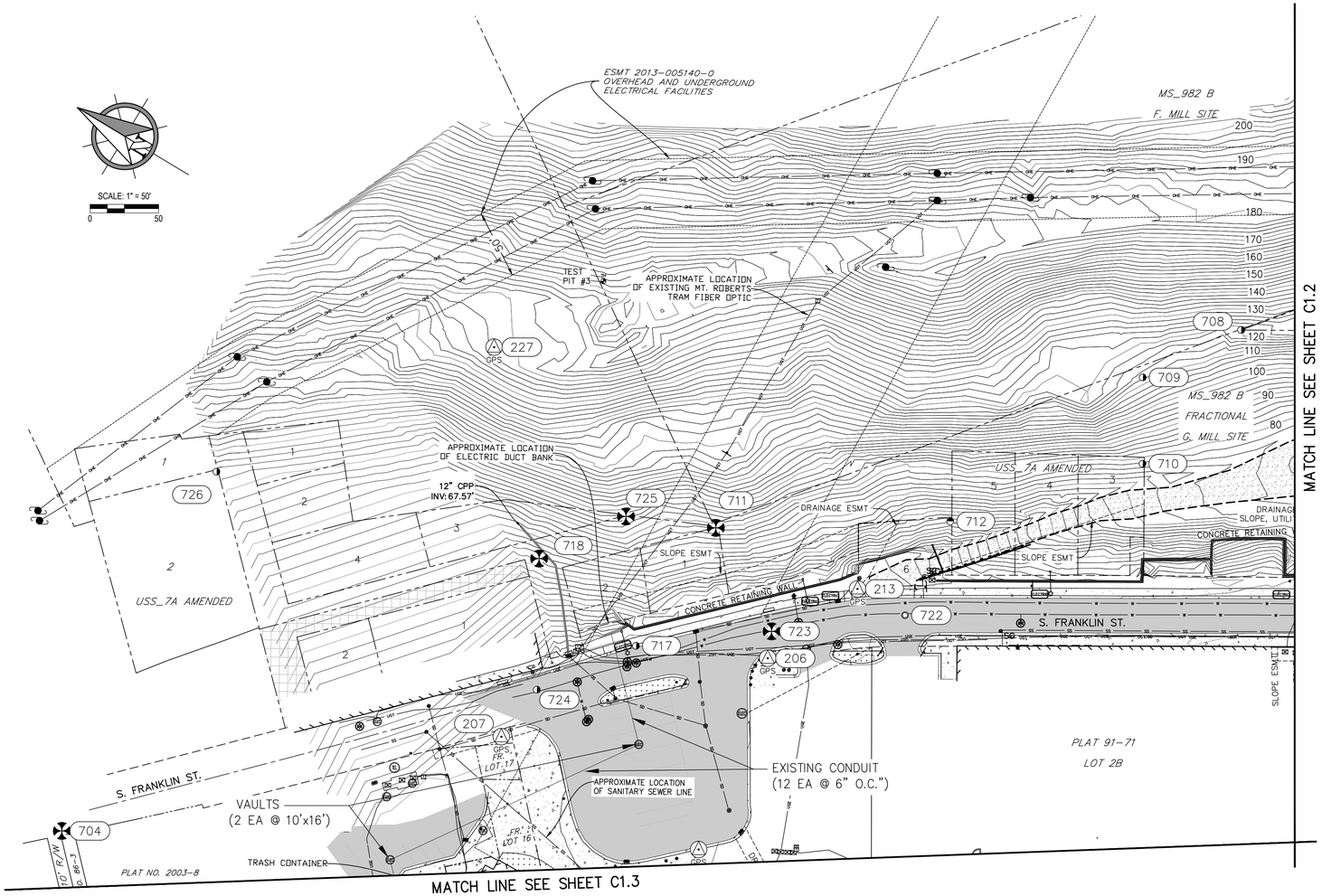
SHEET: GENERAL NOTES, LEGEND AND ABBREVIATIONS

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: C0.2

J036



MATCH LINE SEE SHEET C1.2

NOTES

1. BASIS OF COORDINATES FOR THIS SURVEY ARE NAD83(2011), ALASKA STATE PLANE ZONE 1 IN U.S. SURVEY FEET, DERIVED FROM AND HOLDING VALUES PUBLISHED ON UNITED STATES ARMY CORP OF ENGINEERS (USACE) 020960 – AURORA HARBOR PCS, PROJECT CONDITIONS SURVEY, MARCH 18 – MARCH 24, 2018 FOR POINT NUMBER 509. POINT NUMBER 509 (JNU TIDAL GPS), HAS THE FOLLOWING PUBLISHED VALUES:
   N: 2362232.94
   E: 2541120.78
2. THE VERTICAL CONTROL FOR THIS SURVEY IS MEAN LOWER LOW WATER (MLLW=0.0') DERIVED FROM AND HOLDING VALUES PUBLISHED ON USACE 020960 – AURORA HARBOR PCS, PROJECT CONDITIONS SURVEY, MARCH 18 – MARCH 24, 2018 FOR POINT NUMBER 509. POINT NUMBER 509 (JNU TIDAL GPS), HAS THE FOLLOWING PUBLISHED ELEVATION:
   EL: 29.57
3. THE FIELD SURVEY WAS PERFORMED NOVEMBER 11–15, 2024, BY PND ENGINEERS.
4. ALL DIMENSIONS AND COORDINATES ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
5. THIS SURVEY WAS COMPLETED USING GNSS SURVEY TECHNIQUES. REAL TIME KINEMATICS (RTK) OBSERVATIONS WERE STORED USING TRIMBLE R12i, GNSS RECEIVERS ALONG WITH CONVENTIONAL SURVEY TECHNIQUES USING A TRIMBLE S6 TOTAL STATION.
6. UTILITY LOCATES WERE LOCATED AS MARKED BY OTHER FOR THIS SURVEY.
7. CONTOURS ARE SHOWN IN FEET, WITH ONE FOOT INTERVALS.
8. TEST PITS SHOWN HEREON ARE APPROXIMATE.
9. NO TITLE SEARCH WAS PREPARED FOR THIS SURVEY. EASEMENTS AND ENCUMBRANCES SHOWN HEREON ARE FROM PLATS OF RECORD. OTHER EASEMENTS AND ENCUMBRANCES MAY EXIST.
10. PROPERTY BOUNDARIES SHOWN HEREON ARE FOR GRAPHICAL REPRESENTATION ONLY.
11. BATHYMETRY SHOWN HERON IS COMPILATION OF PREVIOUS SURVEYS BY PND ENGINEERS AND OTHERS, 2010–2018, NOT COLLECTED THIS SURVEY.

LEGEND

- PRIMARY GPS CONTROL
- FOUND BRASS CAP
- ALUMINUM CAP FOUND
- 5/8" REBAR CAP FOUND
- ### POINT NUMBER IDENTIFIER
- EASEMENT
- RECORD STATUS
- ADOT RIGHT-OF-WAY
- 100 EXISTING CONTOUR & ELEVATION
- ELECTRIC VAULT
- ELECTRIC PEDESTAL
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM DRAIN CATCH BASIN
- FIRE HYDRANT
- WATER VALVE
- BOLLARD
- ELECTRIC TRANSFORMER
- LUMINAIRE
- STREET LIGHT
- SIGN (TYP)
- POWER POLE
- GUY ANCHOR
- W_x WATER LINE
- T_x UNDERGROUND COMMUNICATIONS LINE
- OHE_x OVERHEAD ELECTRIC
- E_x UNDERGROUND ELECTRIC
- SD_x STORMDRAIN
- SS_x SANITARY SEWER
- PAVEMENT/BLACKTOP
- CONCRETE/SIDEWALK
- BUILDING
- LANDSCAPING
- LANDSCAPING
- DOCK

SURVEY CONTROL

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
201	2361078.632	2544786.229	27.29	MAG PND WASHER
202	2361053.867	2544685.766	28.55	MAG PND WASHER
204	2361226.242	2544554.613	28.35	MAG PND WASHER
205	2361228.092	2544474.948	28.15	MAG PND WASHER
206	2361106.703	2544931.964	29.97	MAG FOUND MAG
207	2361244.411	2544783.289	28.61	MAG FOUND MAG
208	2361444.677	2544290.041	28.08	MAG PND WASHER
209	2361118.330	2544547.995	27.99	MAG PND WASHER
210	2360886.624	2544854.327	26.54	MAG PND WASHER
211	2360686.867	2545196.724	29.25	MAG MAG NAIL
212	2359844.504	2545766.401	30.76	FAC ADOT CONTROL #97
213	2361076.258	2545008.943	31.07	SPIKE FND SPIKE & WASHER
226	2360606.565	2545692.855	164.01	RBR SET 5/8" PND CONTOL
227	2361394.445	2545024.831	138.33	RBR SET 5/8" PND CONTOL

RECOVERED MONUMENTATION

POINT #	NORTHING	EASTING	DESCRIPTION
* 701	2361748.29	2544358.94	RBR [FND 5/8" NO CAP,]
* 702	2361901.38	2544265.18	FAC [FAC LS 107701,]
* 703	2361845.95	2544157.08	FAC [PND LS 107701,]
704	2361484.84	2544560.10	FBC [DOT 93 2020,]
705	2360390.92	2545361.11	FAC [3.25" ADOT&PF 7331S, ROW/L2/L18 RESET 2001]
706	2360750.82	2545415.89	RBR [NO CAP,]
707	2360813.93	2545462.04	RBR [5/8" YPC, T-N 62625]
708	2360932.48	2545314.56	FAC [3.25" TONER-NORDING PLS 6262S, F/FR G/ LOT 1 1988]
709	2360976.43	2545248.08	FAC [2" JM BEAN LS877,]
710	2360944.37	2545193.88	FAC [2" BEEAN LS877,]
711	2361187.90	2544994.31	FBC [3.25" BLM AMD S7A C10 BLK6, MS982B G C14 1961]
712	2361043.27	2545085.86	RBR [5/8" ILLEGIBLE BENT,]
713	2361168.09	2544535.08	MAG [CHILKAT PLS 12314,]

* NOT SHOWN HEREON

RECOVERED MONUMENTATION

POINT #	NORTHING	EASTING	DESCRIPTION
716	2360705.57	2545222.98	FBC [3.25" ADOT&PF LS7331, MS 982R G C5 2001]
717	2361193.94	2544890.56	FAC [2" LS54535 2001, TH-2]
718	2361287.25	2544909.10	FBC [3.25" BLM 1961, BENT POE]
719	2360365.24	2545405.98	FBC [2" ADOT,]
720	2360464.20	2545341.85	FBC [2" ADOT,]
721	2360755.77	2545176.48	FAC [3.25" ADOT LS13161-S, 2023 RESET]
722	2361036.64	2545010.26	FMON [BROKEN,]
723	2361114.29	2544950.24	FBC [2" ADOT,]
724	2361239.80	2544825.98	FAC [3.25" ADOT, RESET 2021]
725	2361248.51	2544967.92	FBC [1.5" ON BRASS ROD, L3 BLK4]
726	2361522.06	2544843.05	FAC [1.5" LS13321,]
727	2360432.39	2545426.32	FAC [ADOT 7331S RESET 2001, ROW/FR G/ LOT 2]

NO.	REVISION:	DATE:

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CRUISE TERMINAL SHORE POWER

SHEET: **PARTIAL EXISTING CONDITIONS AND SURVEY CONTROL PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

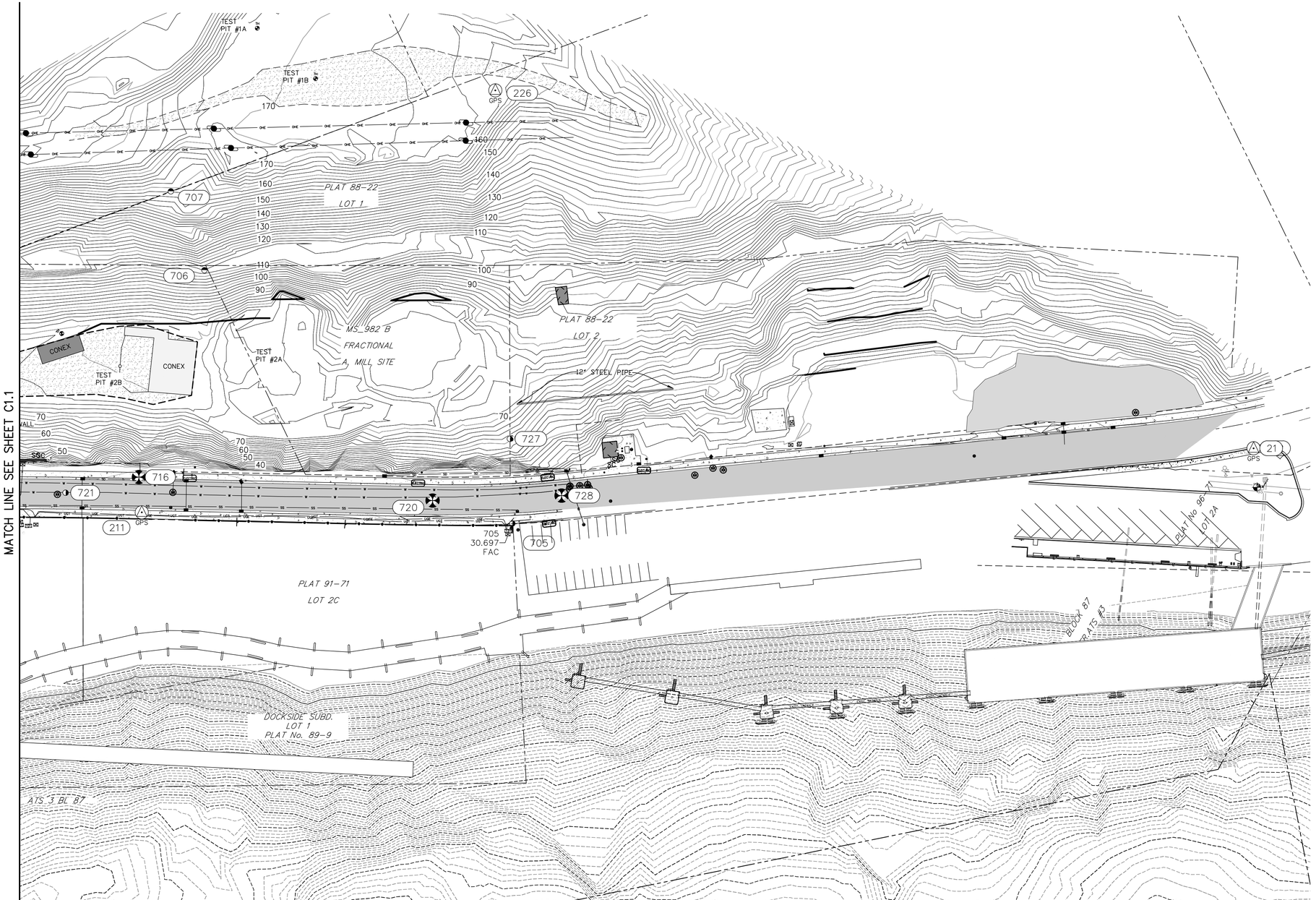
DATE: 01/07/2026

DRAWING NUMBER: **C1.1**

J036

SCALE: 1" = 50'
0 50

MATCH LINE SEE SHEET C1.1



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AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

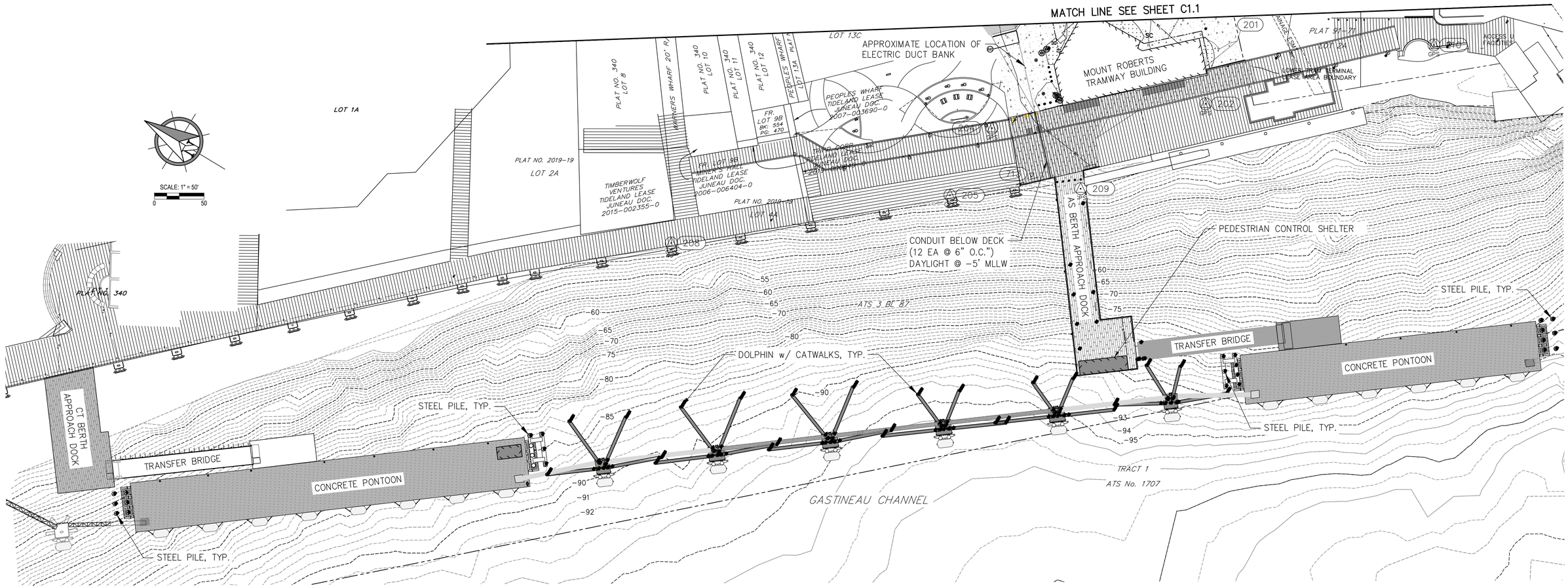
SHEET: **PARTIAL EXISTING CONDITIONS AND SURVEY CONTROL PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C1.2**

J036



NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

SUB CONSULTANT:
PND ENGINEERS, INC.
9360 Glacier Highway Suite 100
Juneau, Alaska 99801
Phone: 907-586-2093
AK LIC# AECC250

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

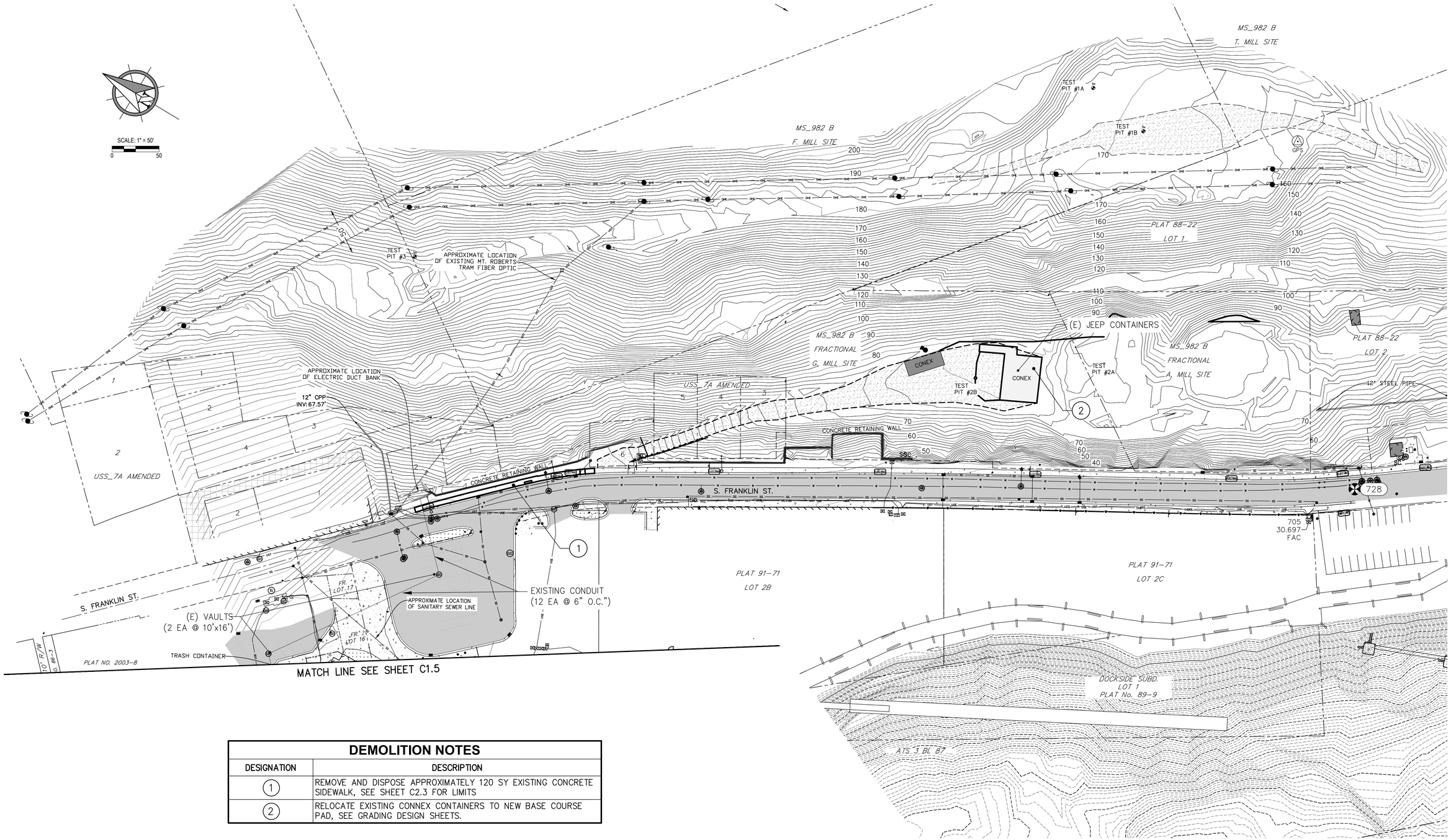
SHEET: **PARTIAL EXISTING CONDITIONS AND SURVEY CONTROL PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C1.3**

J036



DEMOLITION NOTES

DESIGNATION	DESCRIPTION
1	REMOVE AND DISPOSE APPROXIMATELY 120 SY EXISTING CONCRETE SIDEWALK, SEE SHEET C2.3 FOR LIMITS
2	RELOCATE EXISTING CONNEX CONTAINERS TO NEW BASE COURSE PAD, SEE GRADING DESIGN SHEETS.

NO.	REVISION:	DATE:

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DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

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9360 Glacier Highway Suite 100
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Phone: 907-586-2093
AK. LIC# AECC250

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

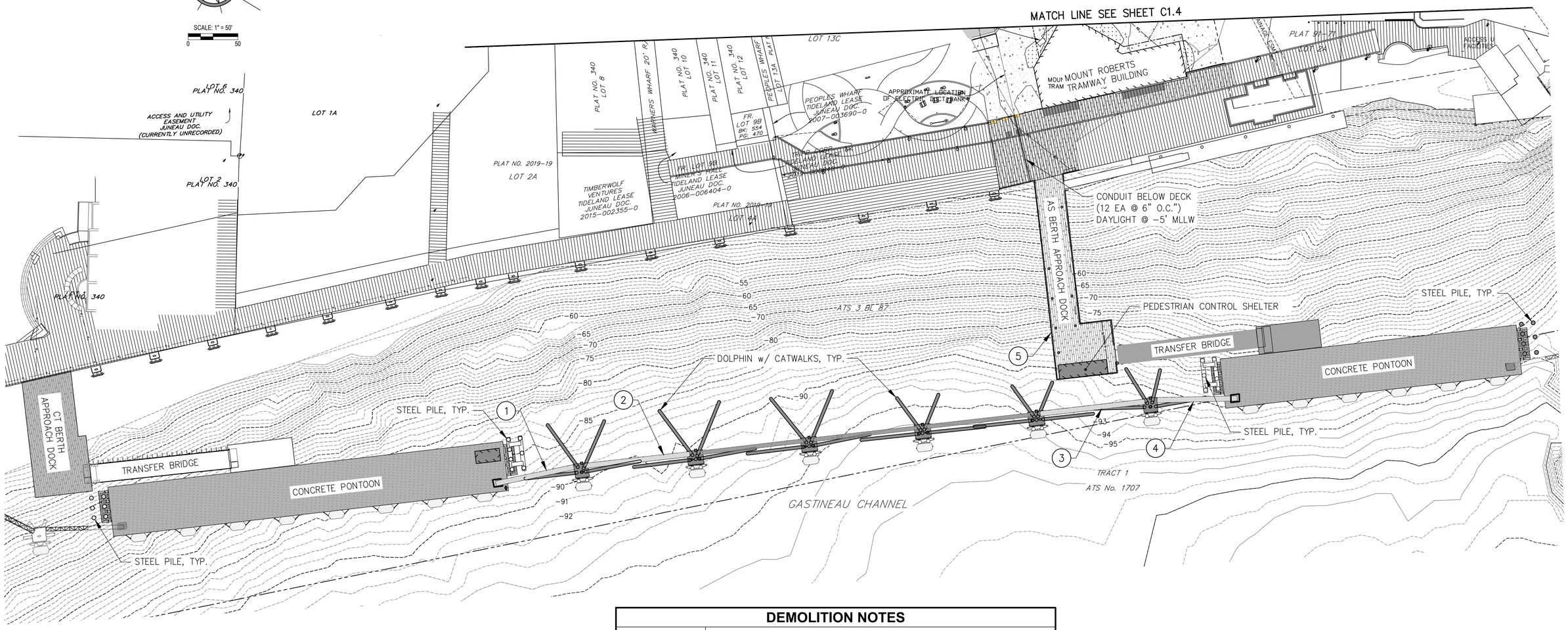
SHEET: **PARTIAL DEMOLITION PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C1.4**

J036



DEMOLITION NOTES

DESIGNATION	DESCRIPTION
1	REMOVE AND SALVAGE EXISTING 80' GANGWAY INCLUDING (2) 6" WASTEWATER UTILITY LINES
2	REMOVE AND SALVAGE EXISTING 105' CATWALK INCLUDING (2) 6" WASTEWATER UTILITY LINES
3	REMOVE AND SALVAGE EXISTING 105' CATWALK INCLUDING (1) 6" WASTEWATER UTILITY LINES
4	REMOVE AND SALVAGE EXISTING 80' GANGWAY INCLUDING (1) 6" WASTEWATER UTILITY LINES
5	REMOVE AND DISPOSE APPROXIMATE 56' OF EXISTING APPROACH DOCK HANDRAIL AND BULLRAIL

NO.	REVISION:	DATE:

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DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

SUB CONSULTANT:
PND ENGINEERS, INC.
9360 Glacier Highway Suite 100
Juneau, Alaska 99801
Phone: 907-586-2093
AK. LIC# AECC250

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

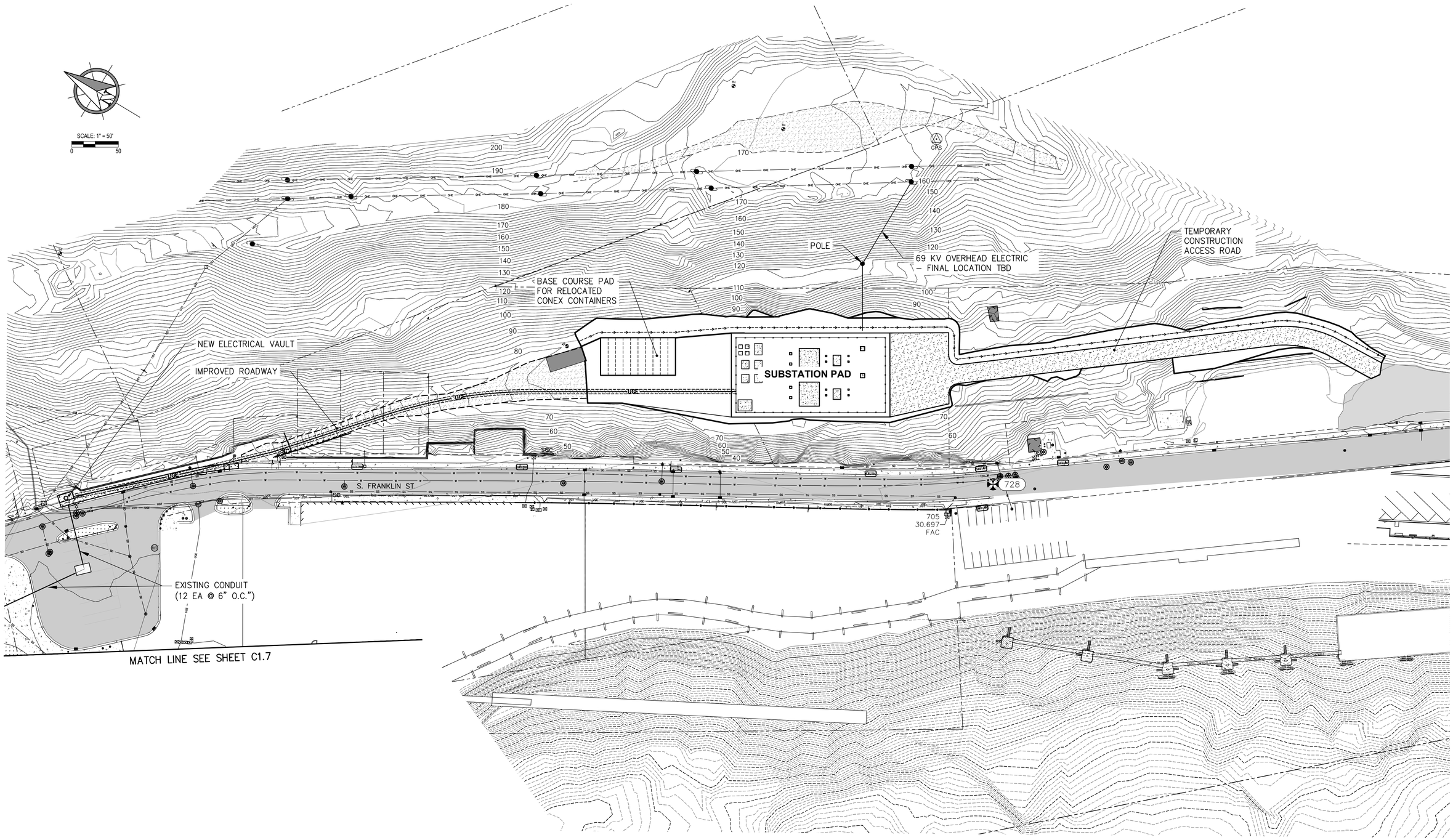
SHEET: **PARTIAL DEMOLITION PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C1.5**

J036



NO.	REVISION:	DATE:

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(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

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Juneau, Alaska 99801
Phone: 907-586-2093
AK. LIC# AECC250

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

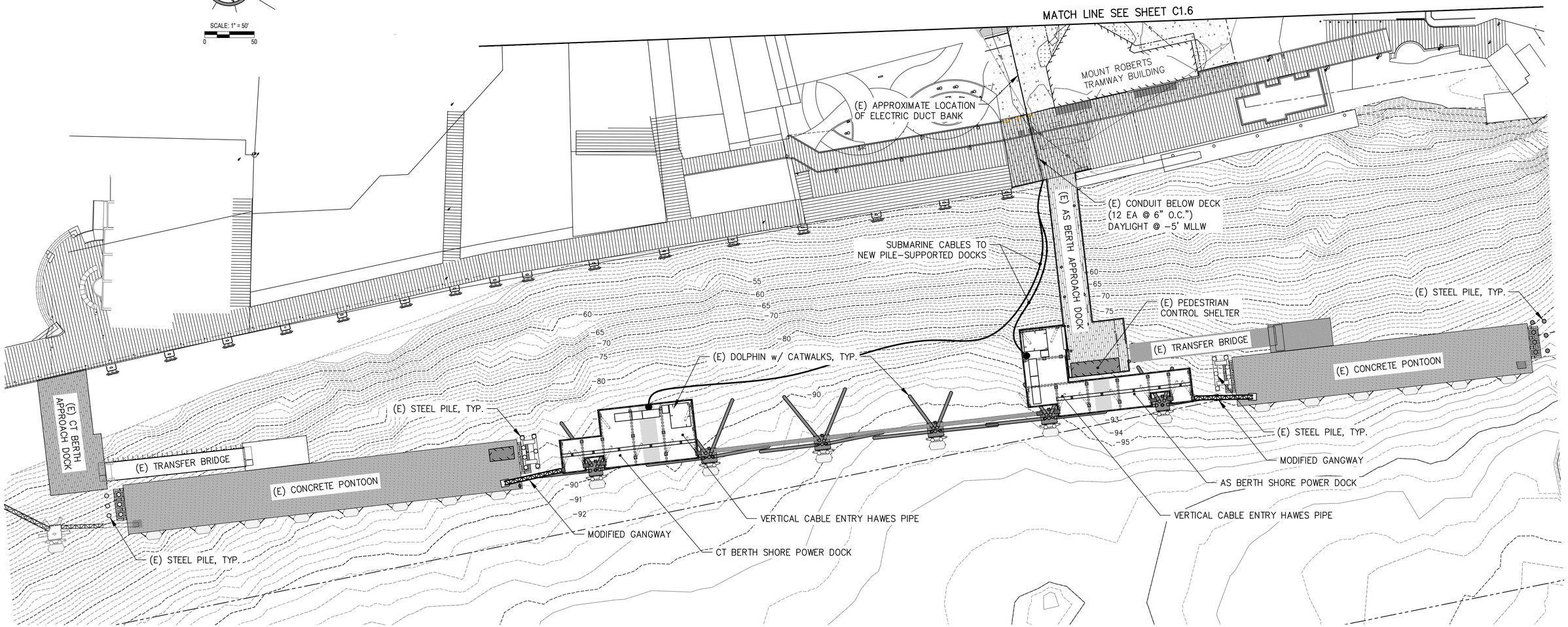
SHEET: **PARTIAL OVERALL SITE PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C1.6**

J036



NO.	REVISION:	DATE:

PRIME CONSULTANT:
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(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

SUB CONSULTANT:
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AK. LIC# AECC250

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

SHEET: **PARTIAL OVERALL SITE PLAN**

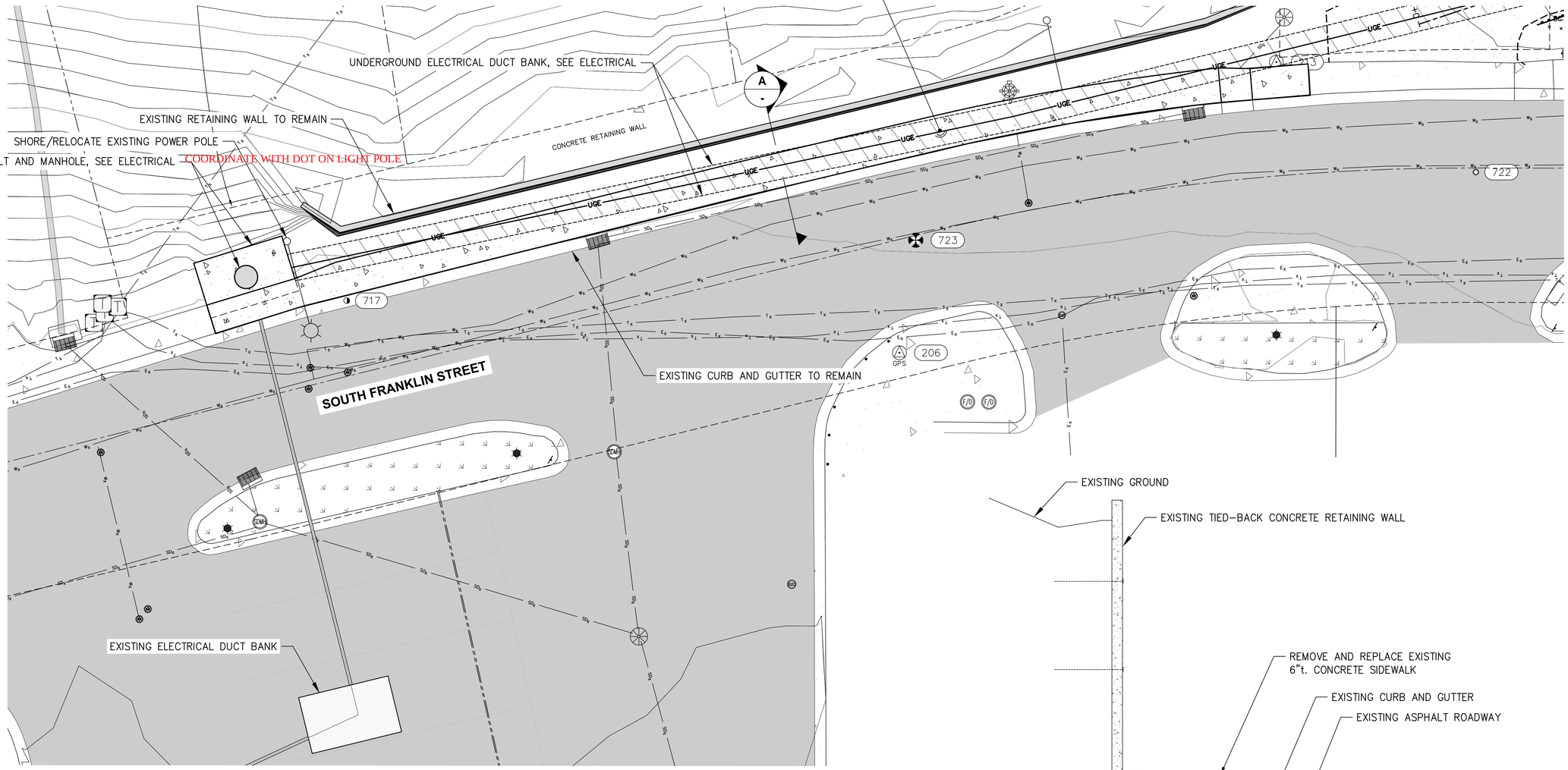
ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C1.7**

J036

SCALE: 1" = 10'
0 10



A
-
SECTION AT NEW ELECTRICAL DUCT BANK

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

SUB CONSULTANT:
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AK LIC# AECC250

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

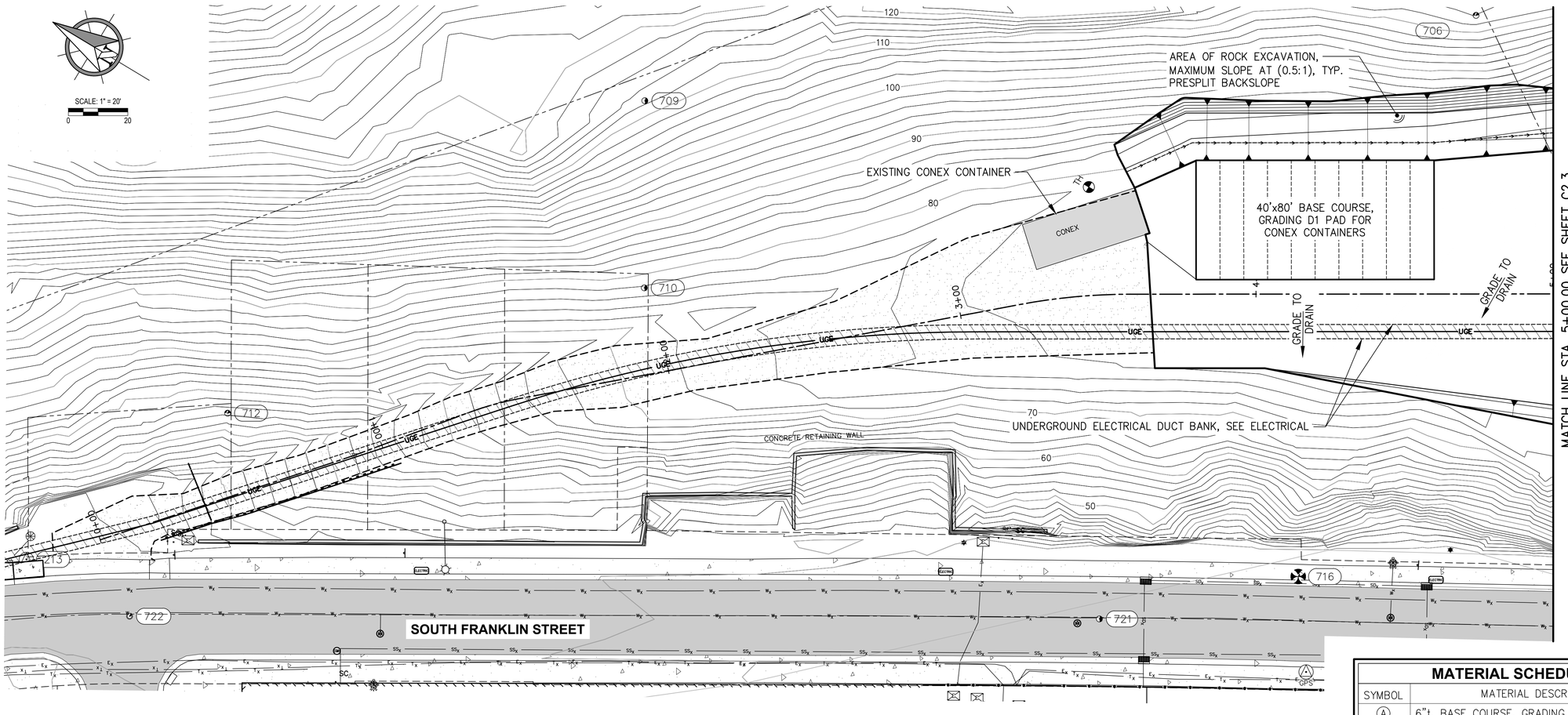
SHEET: **PARTIAL GRADING PLAN - SIDEWALK REPLACEMENT**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

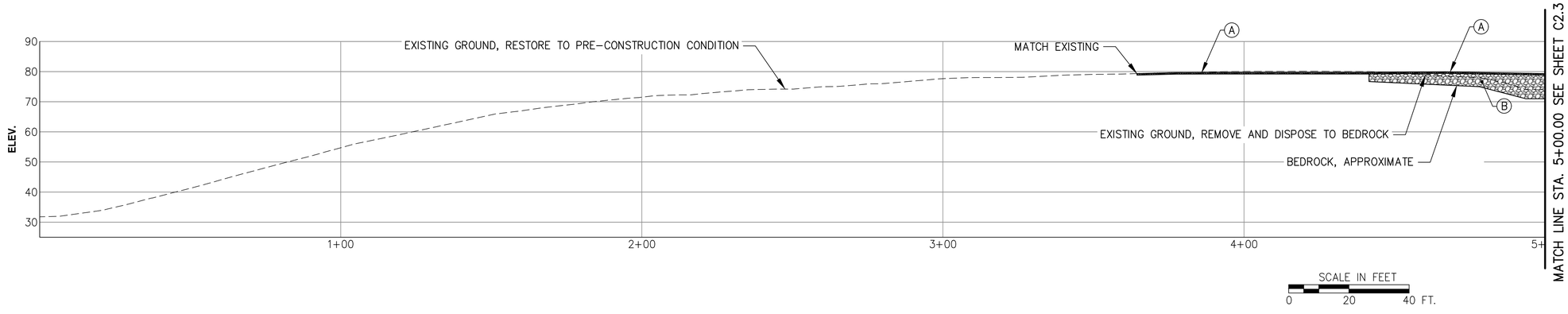
DATE: 01/07/2026

DRAWING NUMBER: **C2.1**

J036



MATERIAL SCHEDULE	
SYMBOL	MATERIAL DESCRIPTION
(A)	6"t. BASE COURSE, GRADING D1
(B)	SHOT ROCK BORROW, CLASS A



NO.	REVISION:	DATE:

PRIME CONSULTANT:
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DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

SUB CONSULTANT:
PND ENGINEERS, INC.
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Juneau, Alaska 99801
Phone: 907-586-2093
AK. LIC# AECC250

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

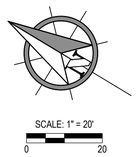
SHEET: **PARTIAL GRADING PLAN AND PROFILE - SUBSTATION ACCESS ROAD**

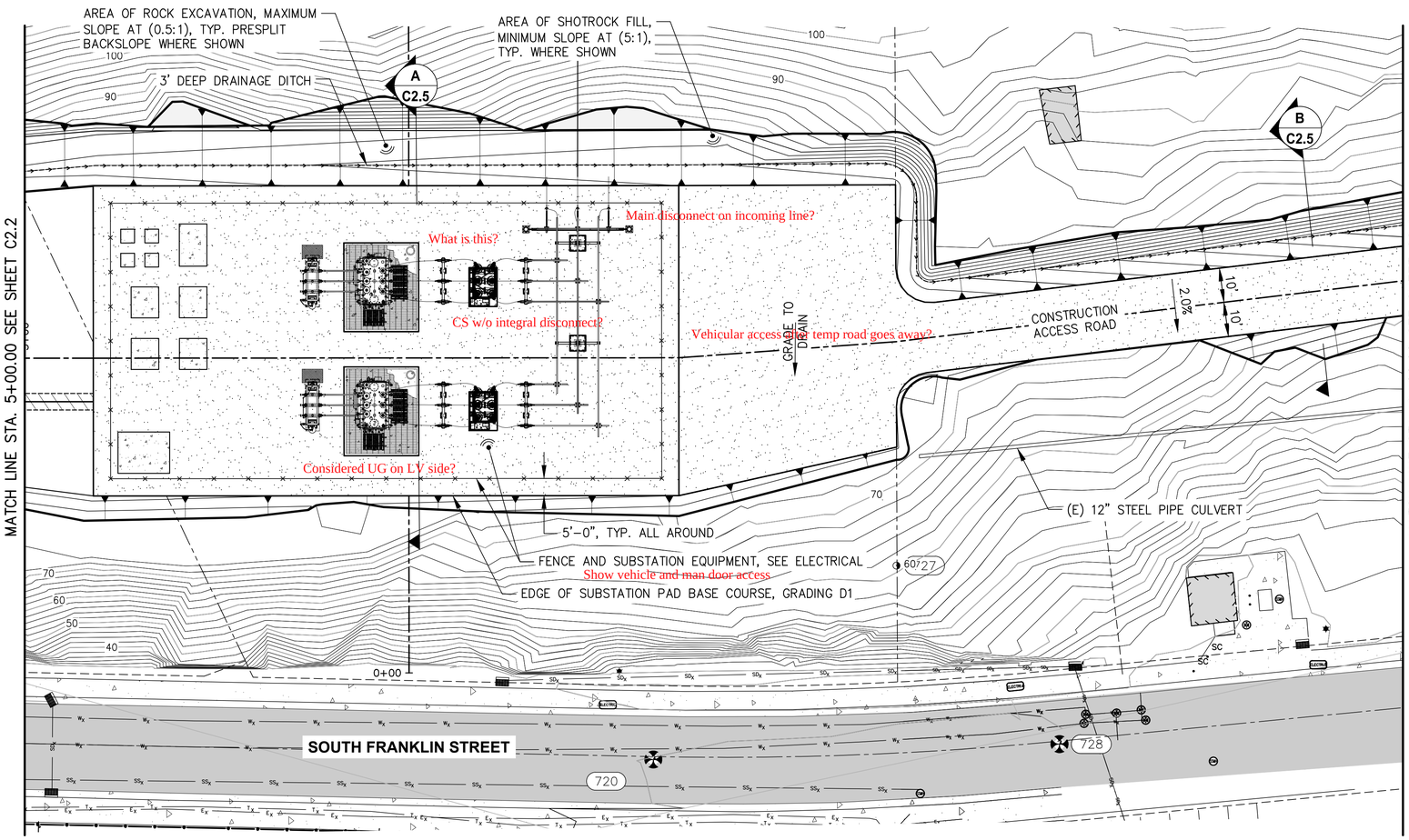
ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

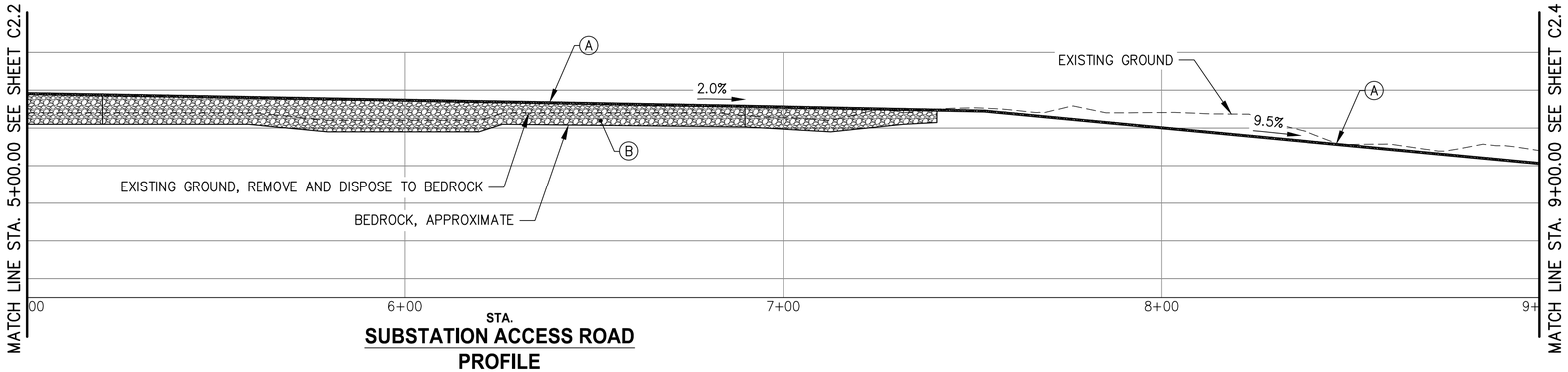
DRAWING NUMBER: **C2.2**

J036





MATERIAL SCHEDULE	
SYMBOL	MATERIAL DESCRIPTION
(A)	6"t. BASE COURSE, GRADING D1
(B)	SHOT ROCK BORROW, CLASS A



SUBSTATION ACCESS ROAD PROFILE

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

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Phone: 907-586-2093
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CITY & BOROUGH OF JUNEAU — DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

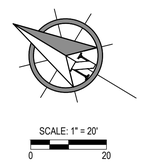
SHEET: **PARTIAL GRADING PLAN - SUBSTATION PAD**

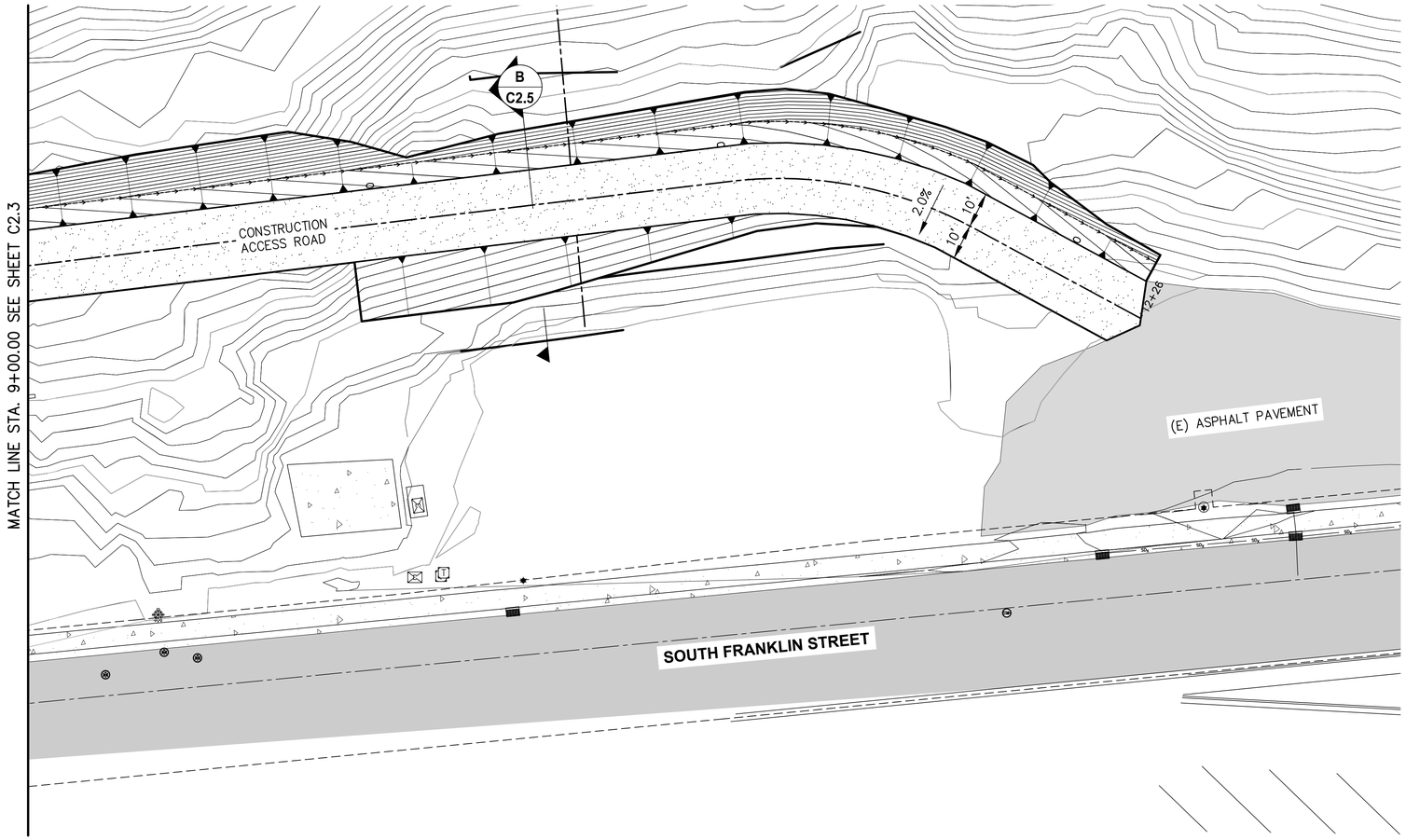
ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

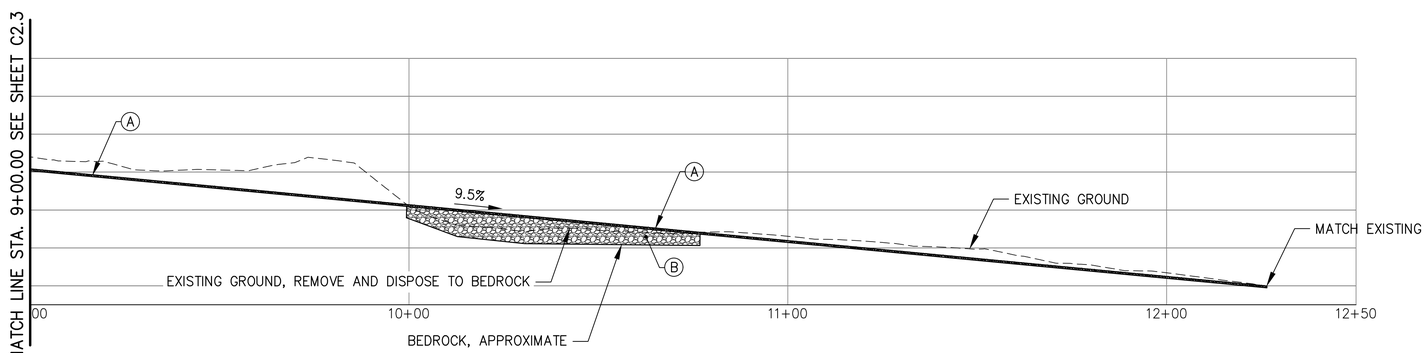
DRAWING NUMBER: **C2.3**

J036





MATERIAL SCHEDULE	
SYMBOL	MATERIAL DESCRIPTION
Ⓐ	6"t. BASE COURSE, GRADING D1
Ⓑ	SHOT ROCK BORROW, CLASS A



NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/07/2026

SUB CONSULTANT:
PND ENGINEERS, INC.
9360 Glacier Highway Suite 100
Juneau, Alaska 99801
Phone: 907-586-2093
AK. LIC# AECC250

AEL&P since 1893 — ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU — DOCKS & HARBORS

PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

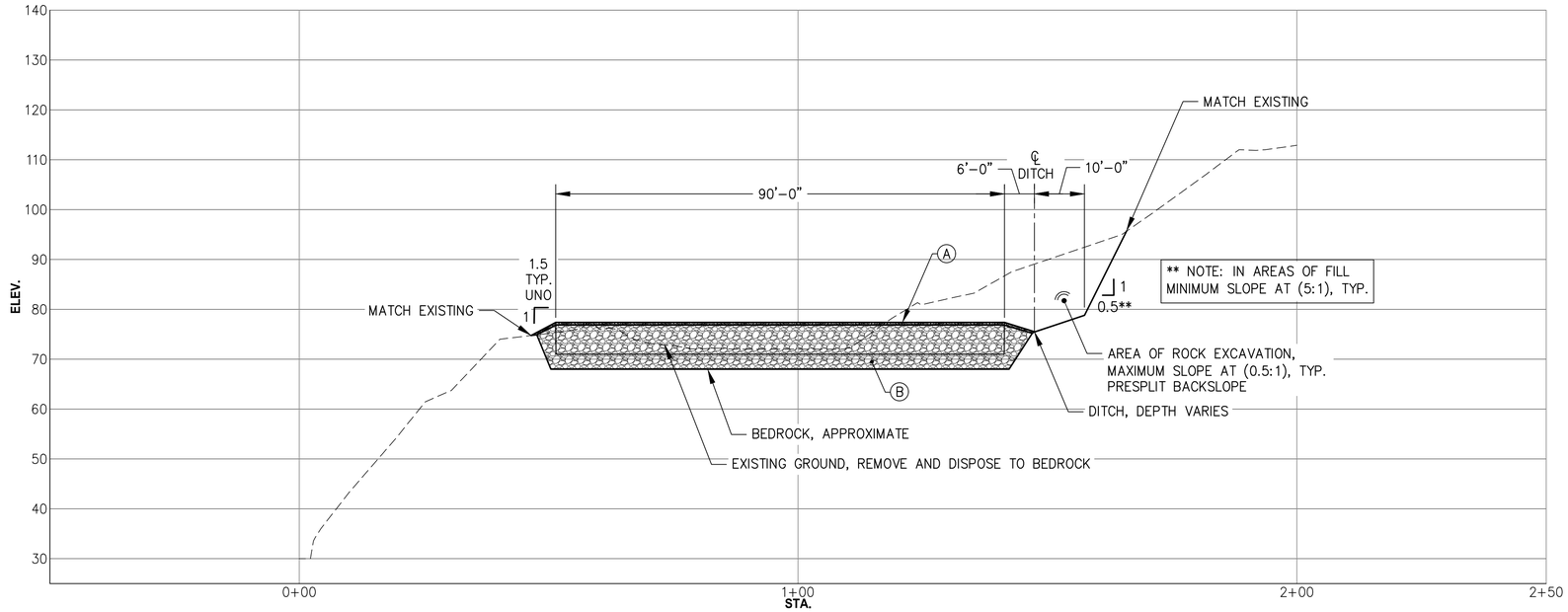
SHEET:
PARTIAL GRADING PLAN AND PROFILE - SUBSTATION ACCESS ROAD

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

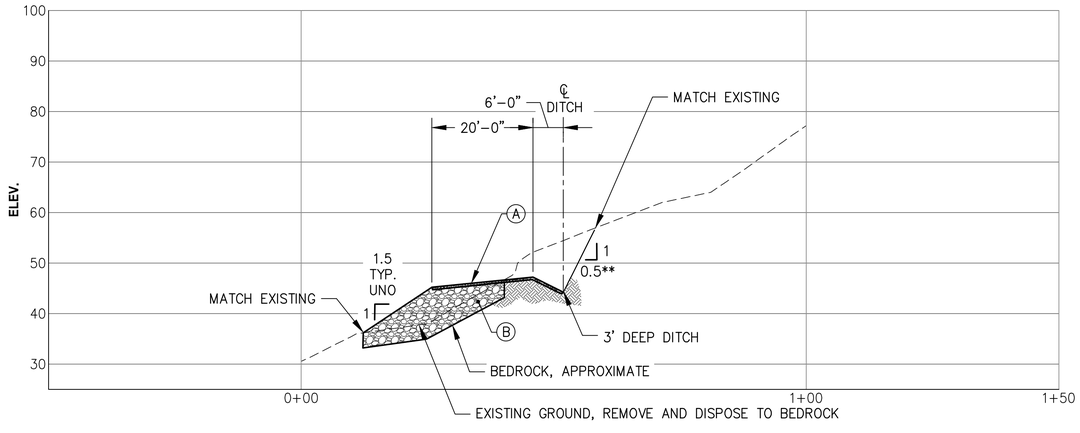
DATE: 01/07/2026

DRAWING NUMBER: **C2.4**

J036



A - **SUBSTATION PAD SECTION**



B - **SUBSTATION ACCESS ROAD SECTION**

MATERIAL SCHEDULE	
SYMBOL	MATERIAL DESCRIPTION
Ⓐ	6"t. BASE COURSE, GRADING D1
Ⓑ	SHOT ROCK BORROW, CLASS A

SCALE IN FEET
0 15 30 FT.

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

ISSUED FOR: 15% SCHEMATIC DESIGN DATE: 01/07/2026

SUB CONSULTANT:
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Juneau, Alaska 99801
Phone: 907-586-2093
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AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **CIVIL DETAILS**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C2.5**

J036

SCALE: 1" = 10'
0 10

Not a lot of options, concerns with the genie being islanded on the platform?

-75
-80
-90
-91
-92
-93

STEEL PIPE PILE, TYP.
STEEL PILE CAP, TYP.
CABLE UTILITY TRENCH, TYP.
STEEL PIPE BATTER PILE, TYP.
DOLPHIN TRANSITION RAMP, TYP.
TIMBER BULLRAIL, TYP.

A
C3.2

TIMBER DECKING, TYP.

20,000 LBS | 5,000 LBS | 20,000 LBS | 5,000 LBS

What are these weights depicting?

20'x24'-4" GARAGE

EXISTING MOORING DOLPHIN, TYP.
EXISTING CATWALK
EXISTING STEEL PIPE PILE, TYP.

26'-0"
34'-0"

WW
WWx

This space?

CONNECT TO EXISTING 6" HDPE WASTE WATER LINE (2 TOTAL) ON PONTOON FLOAT.

MODIFIED GANGWAY, 58' LONG

21'-0" | 21'-0" | 31'-0" | 31'-0" | 31'-0"

℄ PILE CAP

INSTALL APPROX. 185 LF OF 6" HDPE WASTE WATER LINE BENEATH DOCK. CONNECT TO EXISTING AT CATWALK

Do we have anything depicting the berthing study yet? (distribution of access ports and ~~which~~ ships fall outside)

NO.	REVISION:	DATE:

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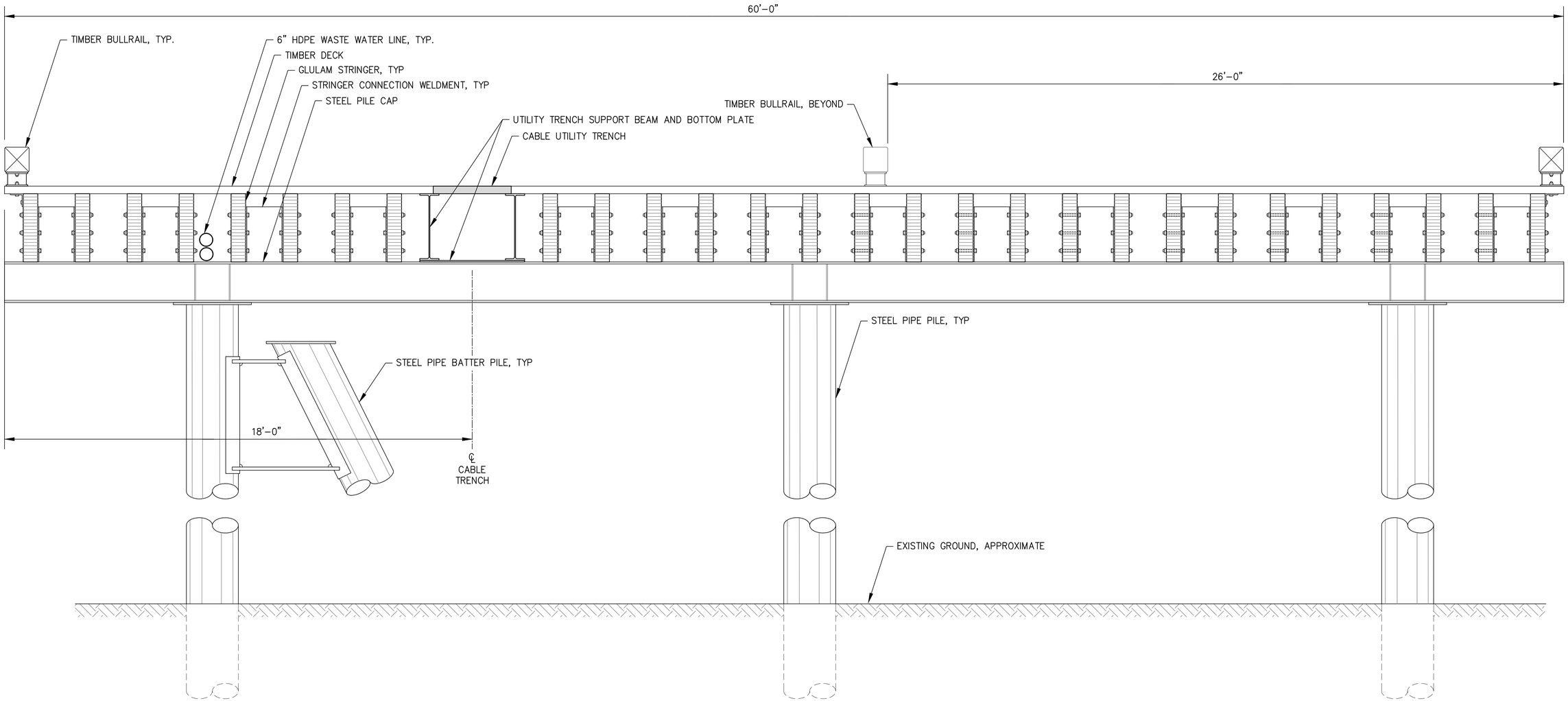
SHEET: **CRUISE TERMINAL DOCK PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C3.1**

J036



A - TYPICAL SECTION

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
REVIEWED BY: DICK SOMERVILLE, PE

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CITY & BOROUGH OF JUNEAU — DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
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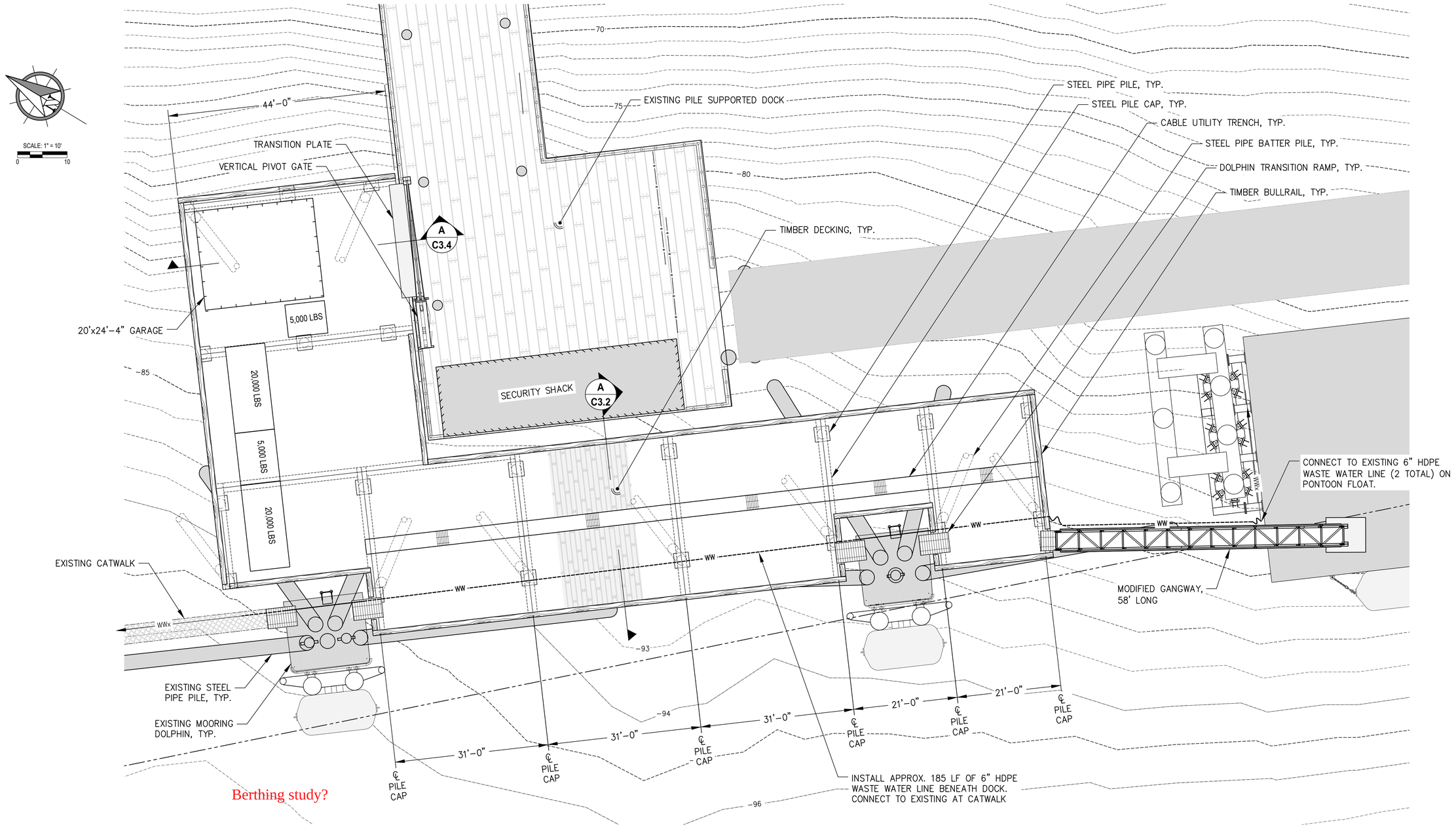
SHEET: **CRUISE TERMINAL DOCK DETAILS**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C3.2**

J036



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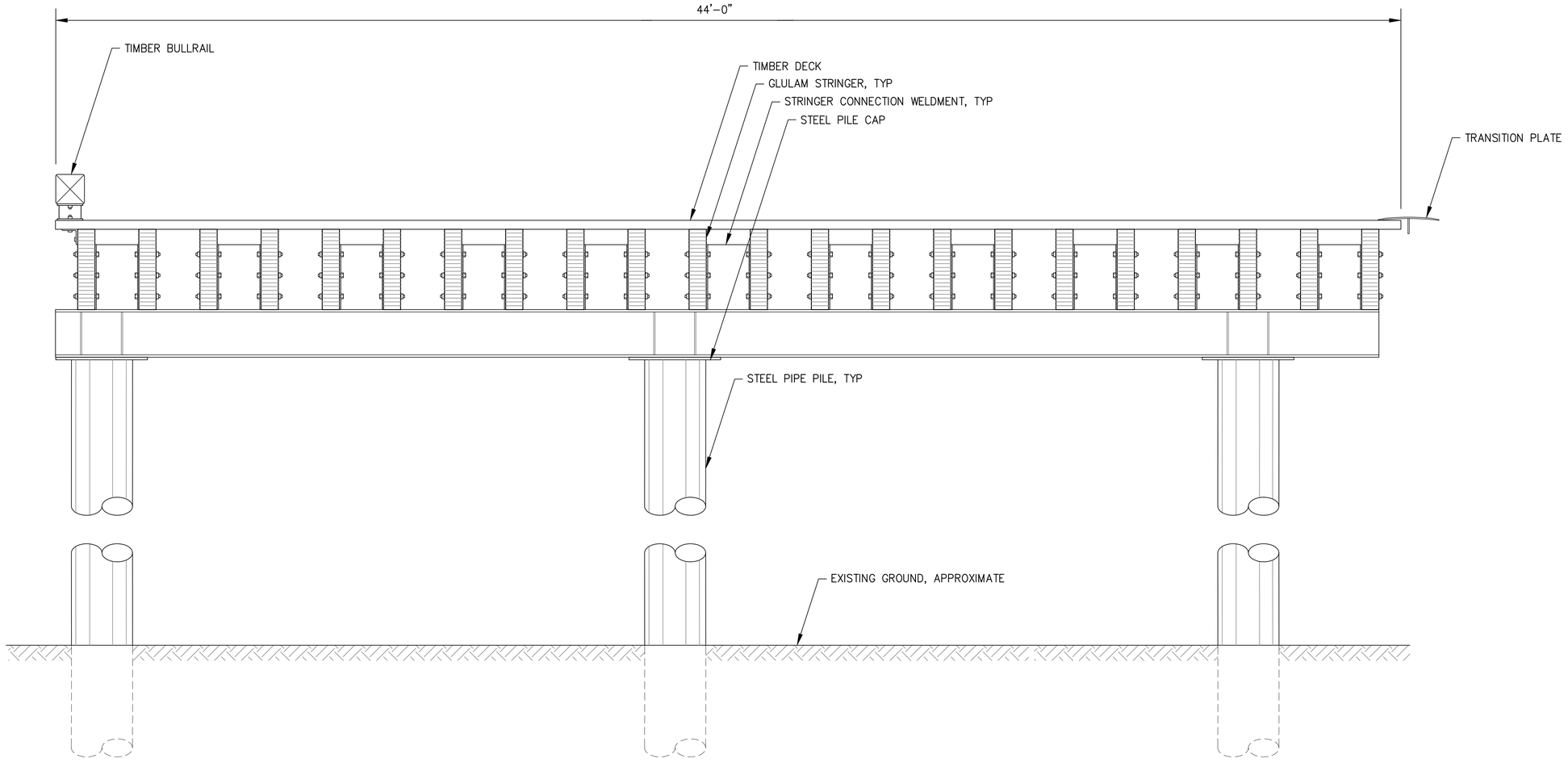
SHEET: **ALASKA STEAMSHIP DOCK PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C3.3**

J036



A
-
TYPICAL SECTION

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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(626) 319-3476

DESIGNED BY: BRANDON IVANOWICZ
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AK. LIC# AECC250

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **ALASKA STEAMSHIP DOCK DETAILS**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/07/2026

DRAWING NUMBER: **C3.4**

J036

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ALL OTHER APPLICABLE FEDERAL AND STATE. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.
2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, UL LISTED OR UL FIELD CERTIFIED OR APPROVED BY THE CITY OF LOS ANGELES TEST LABORATORY. ALL UL LISTED OR FIELD CERTIFIED EQUIPMENT SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.
3. THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT OR STRUCTURAL ENGINEER.
4. MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT ANCHORAGE NOTES:

   ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCES AND DISPLACEMENT REQUIREMENTS.

   A. ALL PERMANENT EQUIPMENT AND COMPONENTS.

   B. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (EG HARD WIRED) TO THE UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.

   C. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

   THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENT SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

   A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORTS THE COMPONENT.

   B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

   FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.
5. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES:

   PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN LATEST SECTIONS OF CBC AND ASCE.

   THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

   COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

   THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.
6. ELECTRICAL EQUIPMENT AND DEVICES INSTALLED OUTDOORS SHALL BE ENCLOSED IN WEATHERPROOF, CORROSION RESISTANT, HOT DIPPED GALVANIZED NEMA 3R ENCLOSURES. HARDWARE SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL.
7. UNDERGROUND AND UNDER-WHARF CONDUIT SHALL BE NON-METALLIC FIBERGLASS CONDUIT, MADE BY CHAMPION, UNLESS OTHERWISE NOTED.
8. EXPOSED CONDUITS, EXCEPT CONDUITS UNDER THE WHARF, SHALL BE PVC COATED GALVANIZED STEEL, UNLESS OTHERWISE NOTED.
9. EMPTY CONDUITS SHALL BE PROVIDED WITH 1/8" DIAMETER NYLON PULL CORD RATED 1,250 POUNDS TENSILE STRENGTH. TAG CONDUITS AT EACH END IDENTIFYING THE PURPOSE OF THE CONDUIT AND THE LOCATION OF THE OTHER END. WHEN EMPTY CONDUITS TERMINATE AT PULL BOXES, TIE THE NYLON PULL CORD TO THE PULL BOX PULLING IRON, CONDUITS SHALL BE SUCCESSFULLY MANDRELLED WITH A 12" LONG MANDREL
10. CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 6" FROM CONDUIT WHEN CROSSING ANY SUBSTRUCTURES.
11. UNDERGROUND CONDUIT BURIED STUB-OUTS SHALL BE FURNISHED WITH CONCRETE MONUMENTS, 6" X 6" X 15" DEEP BURIED FLUSH WITH GRADE OVER THE CAPPED ENDS AND A 3" SQ. BRASS PLATE IDENTIFYING THE NUMBER AND SIZE OF CONDUITS.
12. WHERE CROSSING ANY SUBSTRUCTURES WHICH ALL ARE UNKNOWN IN DEPTH, OR WHERE NEW CONDUITS CROSS EACH OTHER, OR CROSS PIPES,THE ELECTRICAL CONTRACTOR SHALL TRENCH CAREFULLY TO LOCATE ALL SUBSTRUCTURES AT THE CROSSINGS. NEW CONDUITS DEPTH AND INSTALLATIONS SHALL BE PER PLANS AT THESE CROSSINGS EXCEPT WHERE SUBSTRUCTURES OR NEW CONDUITS CROSSING MAKE THIS IMPOSSIBLE. THE ELECTRICAL CONTRACTOR SHALL REROUTE CONDUITS, OVER OR UNDER SUBSTRUCTURES TO AVOID INTERFERENCES WITH SUBSTRUCTURES AND NEW INTERFERED CONDUITS AND PIPES,WITH A MINIMUM 6" CLEARANCE IN ACCORDANCE WITH THE ELECTRICAL CODE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ALL CONDUITS AND WIRES DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE PORT. ELECTRICAL CONTRACTOR SHALL PROVIDE POTHOLES EVERY 20 FT AND HAND DIG TO MAKE SURE THE NEW INFRASTRUCTURE WILL NOT INTERFERE OR DAMAGE THE EXISTING INFRASTRUCTURE. CALL UNITED SERVICE ALERT (USA) AT 1-800-422-4133 FOR FURTHER INFORMATION REGARDING EXISTING SUBSTRUCTURES, TEN WORKING DAYS PRIOR TO COMMENCING WORK.
13. UNLESS OTHERWISE NOTED, ALL WIRES RATED FOR 1000V OR LESS SHALL BE COPPER, U.L. LISTED AND LABELED, TYPE THHN/THWN-2 WITH 12 AWG MINIMUM SIZE. CONDUCTORS LARGER THAN #10 AWG, CONTROL, INSTRUMENTATIONS, AND COMMUNICATION CONDUCTORS SHALL BE STRANDED.
14. FURNISH AND INSTALL ALL MATERIALS NECESSARY AND REQUIRED INCLUDING BUT NOT LIMITED TO CONDUITS, WIRES, BOXES, SWITCHES, LIGHT FIXTURES (WITH LAMPS), POLE FOUNDATIONS, RECEPTACLES, DEVICES, PANEL BOARDS, SWITCHGEARS AND ALL OTHER WORK SHOWN, NECESSARY, AND REQUIRED INCLUDING BUT NOT LIMITED TO WORK SHOWN ON THESE DRAWINGS AND ASSOCIATED SPECIFICATIONS, AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM AS INTENDED BY THESE DRAWINGS.
15. IN THE EVENT OF CONFLICT OR INCONSISTENCY BETWEEN ITEMS SHOWN IN THE PLANS WITH CODE REQUIREMENTS, THE NOTE OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE WORK OR HIGHER STANDARD SHALL PREVAIL.
16. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND AND ALL FEES, UNLESS OTHERWISE NOTED.
17. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS, FITTINGS, JUNCTION BOXES, PULL BOXES AND EXPANSION FITTINGS REQUIRED TO MEET FIELD CONDITIONS. CONTRACTOR SHALL DETERMINE ACTUAL MATERIAL AND HARDWARE REQUIREMENTS AND SHALL VERIFY ALL DIMENSIONS, EXISTING EQUIPMENT, REFERENCE AND EXISTING INFRASTRUCTURE, LOCATION OF EXISTING OBSTRUCTIONS, STRUCTURAL MEMBER LOCATIONS, BY FIELD INSPECTION, AND SHALL INCLUDE ALL HARDWARE NECESSARY IN THE BID.

GENERAL NOTES (CONTINUED):

18. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING SITE CONDITIONS, REQUIREMENTS, AND EXACT LOCATION OF UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT EACH UTILITY OWNER TO NOTIFY AND TO COORDINATE WORK WITH THE UTILITY IN SUCH A MANNER AS TO NOT DAMAGE THE EXISTING INFRASTRUCTURE. CONTRACTOR SHALL BE RESPONSIBLE TO FULLY REPAIR ANY DAMAGE OF EXISTING INFRASTRUCTURE AND SUPERSTRUCTURES CAUSED BY CONTRACTOR OR SUBCONTRACTORS.
19. REFER TO SPECIFICATIONS FOR EQUIPMENT SUBMITTAL REQUIREMENTS.
20. CONTRACTOR SHALL PROVIDE A SET OF AS-BUILT DRAWINGS SHOWING THE LOCATIONS OF ALL UNDERGROUND CONDUITS AND EQUIPMENT INDICATING ALL CHANGES MADE DURING CONSTRUCTION AND ANY DEVIATIONS FROM THE AS BID PLANS.
21. ELECTRIC MATERIALS AND EQUIPMENT SHALL BE U.L. LISTED AND LABELED AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
22. CIRCUIT BREAKERS, FUSES, AND ELECTRICAL EQUIPMENT SHALL HAVE INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT, TO WHICH THEY MAY BE SUBJECTED.
23. THERE ARE EXISTING SCE UNDERGROUND SUBSTRUCTURE NETWORK AND OTHER EXISTING INFRASTRUCTURE IN THE VICINITY OF WORK AREA THAT MAY NOT BE SHOWN IN THESE DRAWINGS OR MAY BE UNKNOWN TO THE PORT AND TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY SCE AND THE PORT TO COORDINATE FOR ALL WORK WITH SCE TO AVOID DAMAGING EXISTING SUBSTRUCTURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ARISING OF SUCH DAMAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION AND REPAIR OF ALL DAMAGED EXISTING INFRASTRUCTURE THAT HAVE BEEN DAMAGED BY THE CONTRACTOR, ITS EMPLOYEES, SUBCONTRACTORS, AGENTS, REPRESENTATIVES, OR LABORERS AT CONTRACTOR'S COST AND TIME.
24. CONDUIT FEEDERS SHALL INCLUDE GROUNDING CONDUCTOR. CONTRACTOR SHALL NOT UTILIZE CONDUIT AS GROUNDING CONDUCTOR.
25. CONDUCTORS AND CURRENT CARRYING PARTS SHALL BE COPPER.
26. 8 KV SHIELDED POWER CONDUCTORS SHALL BE OKONITE OKOGUARD COMPACT STRANDED COPPER WITH 5 MIL BARE COPPER TAPE 25% OVERLAP, U.L. LISTED MV-105 WITH 133% INSULATION
27. INSTRUMENTATION AND CONTROL WIRES SHALL CONNECT THE ORIGINATION POINT TO THE INTENDED COMPONENT WITHOUT SPLICING.
28. WIRES SHALL BE IDENTIFIED AT EACH PULL BOX AND AT BOTH ENDS OF TERMINATION WITH PERMANENT APPROVED WIRE MARKING LABELS.
29. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY POWER, LIGHTING AND COMMUNICATION SERVICE FOR CONSTRUCTION TEAM USE AT CONTRACTOR'S EXPENSE.
30. INSTALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEAD ROOM, AND KEEP OPENINGS AND PASSAGE WAYS CLEAR AND MEET ALL STRUCTURAL AND ELECTRICAL CODE REQUIREMENTS.
31. CONTRACTOR SHALL BE CALL UNITED SERVICE ALERT (USA) AT 1-800-422-4133 FOR FURTHER INFORMATION REGARDING EXISTING SUBSTRUCTURES TEN (10) WORKING DAYS PRIOR TO COMMENCING WORK.
32. POWER AND COMMUNICATION CONDUCTORS SHALL BE ONE PEICE FROM THE FIRST POINT OF TERMINATION TO THE LAST POINT OF TERMINATION WITHOUT ANY SPLICES. THE TERMINATION ENDS OF ALL CONTROL WIRES SHALL EMPLOY TERMINAL BLOCKS. NO WIRE NUTS OR SPLICES SHALL BE ALLOWED.
33. IN THE EVENT OF ENCOUNTERING GROUNDWATER, CONTRACTOR SHALL SUBMIT A DE-WATERING PLAN FOR REVIEW AND APPROVAL BY THE PORT AND THE CITY. CONTRACTOR SHALL INSTALL DE-WATERING EQUIPMENT TO REMOVE GROUNDWATER FROM AFFECTED AREAS AND SHALL PROVIDE APPROPRIATE SHORING. CONTRACTOR SHALL COLLECT THE WATER FROM DE-WATERING ACTIVITIES AND SHALL HAUL OFF TO DISPOSE OF IT. CONTRACTOR SHALL BE PAID ON A COST PER UNIT BASIS FOR SHORING, DE-WATERING AND DISPOSAL.
34. DISTANCES SHOWN ON PLANS ARE FOR CALCULATIONS PURPOSES ONLY AND NOT FOR BIDDING PURPOSES.

SYMBOLS & LEGEND (CONTINUED)

RECESSED ON WALL SURFACE FLOOR OR CEILING	G=GFCI, WP=WEATHER PROOF G=GFCI, WP=WEATHER PROOF C=CEILING
	20A, 125V DUPLEX RECEPTACLE MOUNTED +15" AFF, UNLESS OTHERWISE NOTED
	20A, 125V QUAD RECEPTACLE MOUNTED +15" AFF, UNLESS OTHERWISE NOTED
	20A, 125V DUPLEX RECEPTACLE RECEPTACLE ON DEDICATED CIRCUIT
	20A, 125V CONTROLLED DUPLEX RECEPTACLE
	20A, 125V QUAD RECEPTACLE (HALF) CONTROLLED RECEPTACLE
	SPECIAL RECEPTACLE REFER TO DRAWINGS FOR NEMA CONFIGURATION
	JUNCTION BOX

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
1/C	SINGLE CONDUCTOR
&	AND
@	AT
Ω	OHM
A/AMP	AMPERES
AF	AMPERE FUSE RATING
AFC	AVAILABLE FAULT CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
APPROX.	APPROXIMATLY
ARCH.	ARCHITECT, ARCHITECTURAL
AS	AMPERE SWITCH RATING
ASCC	AVAILABLE SHORT CIRCUIT CURRENT
AT	AMPERE TRIP SETTING
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
B.S.	BARE STRANDED
C	CONDUIT
CB	CIRCUIT BREAKER
CC	CONSTANT CURRENT
CEC	CALIFORNIA ELECTRICAL CODE
CF	CUBIC FEET
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CLR	CLEARANCE
CO	CONDUIT ONLY WITH PULL NYLON PULL STRING
CT	CURRENT TRANSFORMER
CU	COPPER
DIST.	DISTANCE
DM	DIGITAL METER
DMM	DIGITAL METER MODULE
DP	DISTRIBUTION PANEL
DIST.	DISTANCE
DWG	DRAWING
DWP	DEPARTMENT OF WATER & POWER
EA	EACH
ECM	ELECTRONIC CIRCUIT MONITOR
ELEC.	ELECTRICAL
EM	EMERGENCY
EMH	ELECTRICAL MANHOLE
EMT	ELECTRICAL METALLIC TUBING
EPB	EMERGENCY PUSH BUTTON
EPO	EMERGENCY POWER OFF
EPR	ETHYLENE PROPYLENE RUBBER
EQUIP	EQUIPMENT
ER	EXISTING TO BE REMOVED
ERR	EXISTING TO BE RELOCATED AND RECONNECTED
EXIST/(E)	EXISTING
EXP	EXPLOSION PROOF
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLP	FLOOD LIGHT POLE
FT	FEET
FMC	FLEXIBLE METAL CONDUIT
FO	FIBER OBTIC
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GFP	GROUND FAULT PROTECTION
GG	GREEN GROUND
GND	GROUND
HP	HORSEPOWER
HMI	HUMAN MACHINE INTERFACE
HMLP	HIGH MAST LIGHT POLE
HT	HEIGHT
HV	HIGH VOLTAGE
HZ	HERTZ
IMSPO	IGUS MOVABLE SHORE POWER OUTLET
ISC	SHORT CIRCUIT CURRENT
ISN	ISOLATED, INSULATED, NEUTRAL CONDUCTOR
J, JB, J-BOX	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERES
KW	KILOWATT
LF	LINEAR FEET
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LIS	LOAD INTERRUPTER SWITCH
LIS	LOAD INTERRUPTER SWITCH
LTG	LIGHTING
LV	LOW VOLTAGE
M	METER
MAX	MAXIMUM
MCA	MAXIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MFGR, MFR	MANUFACTURER
MH	MANHOLE
MI.	MECHANICAL INTERLOCK
MRCT	MULTI-RATIO CURRENT TRANSFORMER
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
MTG	MOUNTING
MTR	MOTOR
MV	MEDIUM VOLTAGE
N	NORTH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO.	NUMBER
OCPD	OVERCURRENT PROTECTIVE DEVICE
OD	OUTSIDE DIAMETER
P	POLE
PAC	PROGRAMMABLE AUTOMATION CONTROLLER
PB	PULL BOX
PC	PHOTOCELL
PF	POWER FACTOR
PH OR Ø	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
POC	POINT OF CONNECTION
PRI.	PRIMARY
PVC	POLY-VINYL CHLORIDE
PWR	POWER
REC/RECEPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RMC	RIGID METAL CONDUIT
RM	ROOM
SCCR	SHORT CIRCUIT CURRENT RATING
SCE	SOUTHERN CALIFORNIA EDISON
SF	SQUARE FEET
SHT	SHEET
SPECS	SPECIFICATIONS
SPO	SHORE POWER OUTLET
SPV	SHORE POWER VAULT
ST	STREET
STD	STANDARD
STP	SHIELDED TWISTED PAIR
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEL./TELE	TELEPHONE
TMH	TELEPHONE MANHOLE
T.O.D.	TOP OF DUCTBANK
T.O.M.	TOP OF MANHOLE
TPS	TWISTED SHIELDED PAIR
TRANSF,XFMR	TRANSFORMER
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
Z	IMPEDANCE

IF ABBREVIATIONS ARE NOT MENTIONED IN THIS TABLE AND ARE USED, REFER TO ANSI Y1.1, MILITARY STANDARD ABBREVIATIONS, AND OTHER STANDARD INDUSTRY CONVENTIONS.

SYMBOLS & LEGEND (CONTINUED)

	VOLTAGE TRANSFORMER (DRAW OUT TYPE)	52	DRAWOUT BREAKER
K1	KIRK KEY/INTERLOCK ASSEMBLY		
	MULTI-RATIO HIGH ACCURACY BUSHING MOUNTED CURRENT TRANSFORMER	86	86 LOCK OUT RELAY
	SHORE POWER OUTLET (S.P.O.) SOCKET	86G	FAIL SAFE RELAY FOR HEALTH CHECK
NGR	NEUTRAL GROUNDING RESISTOR BANK	R	RELAY
ES	ETHERNET SWITCH	CC	CONTINUITY CHECK RELAY
EPB	EMERGENCY PUSH BUTTON	GR	GROUND RELAY
PLC	PROGRAMMABLE LOGIC CONTROLLER	EASERGY P3M32	SHNEIDER ELECTRIC PROTECTION AND MONITORING RELAY
		POWER LOGIC	SCHNEIDER ELECTRIC ENERGY AND POWER MONITORING & MANAGEMENT SYSTEMS

SYMBOLS & LEGEND

SYMBOL	DESCRIPTION
	NEW LINEWORK THICKNESS
	EXISTING LINEWORK THICKNESS
	DEMOLISHED LINEWORK
	EXPOSED CONDUIT
	UNDERGROUND BARE COPPER GROUND WIRE
	UNDERGROUND CONDUIT OR BELOW WHARF
P	UTILITY UNDERGROUND CONDUIT (OR BELOW WHARF)
	3/4" CONDUIT, TICK MARKS INDICATE QUANTITY OF #12 AWG WIRES (UNLESS NOTED OTHERWISE, NO MARKS INDICATES 2#12 & 1#12 GND WIRES) - SMALL MARK DENOTES HOT WIRE - LARGE MARK DENOTES NEUTRAL WIRE - DIAGONAL DENOTES GROUND WIRE
A-1	BRANCH CIRCUIT HOME RUN TO PANELBOARD - CIRCUITS AT INDICATED
-	NOTE CALLOUT
- -	DETAIL CALLOUT - TOP DENOTES DETAIL NUMBER - BOTTOM DENOTES SHEET NUMBER FOR DETAIL SHOWN
- -	EQUIPMENT CALLOUT
- -	SECTION CALLOUT
-	FEEDER CALLOUT (NEW CONDUIT & NEW CONDUCTORS)
-	FEEDER CALLOUT (EXISTING CONDUIT & EXISTING CONDUCTORS)
-	FEEDER CALLOUT (EXISTING CONDUIT & NEW CONDUCTORS)
-	REVISION CALLOUT
	SWITCH
	FUSE
	TRANSFORMER
T	CONNECTION TO GROUND TRIANGLE PER PLANS
R	CONNECTION TO GROUND RING PER PLANS
	CIRCUIT BREAKER
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
X y	WALL MOUNTED LIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	WALL MOUNTED LIGHT FIXTURE - WITH EMERGENCY BATTERY BACKUP
	SINGLE POLE SWITCH, DEVICE SHALL BE MOUNTED +48" MAX AND +36" MIN FROM THE CENTER OF DEVICE:
M	SWITCH MOTOR RATED
	JUNCTION BOX

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

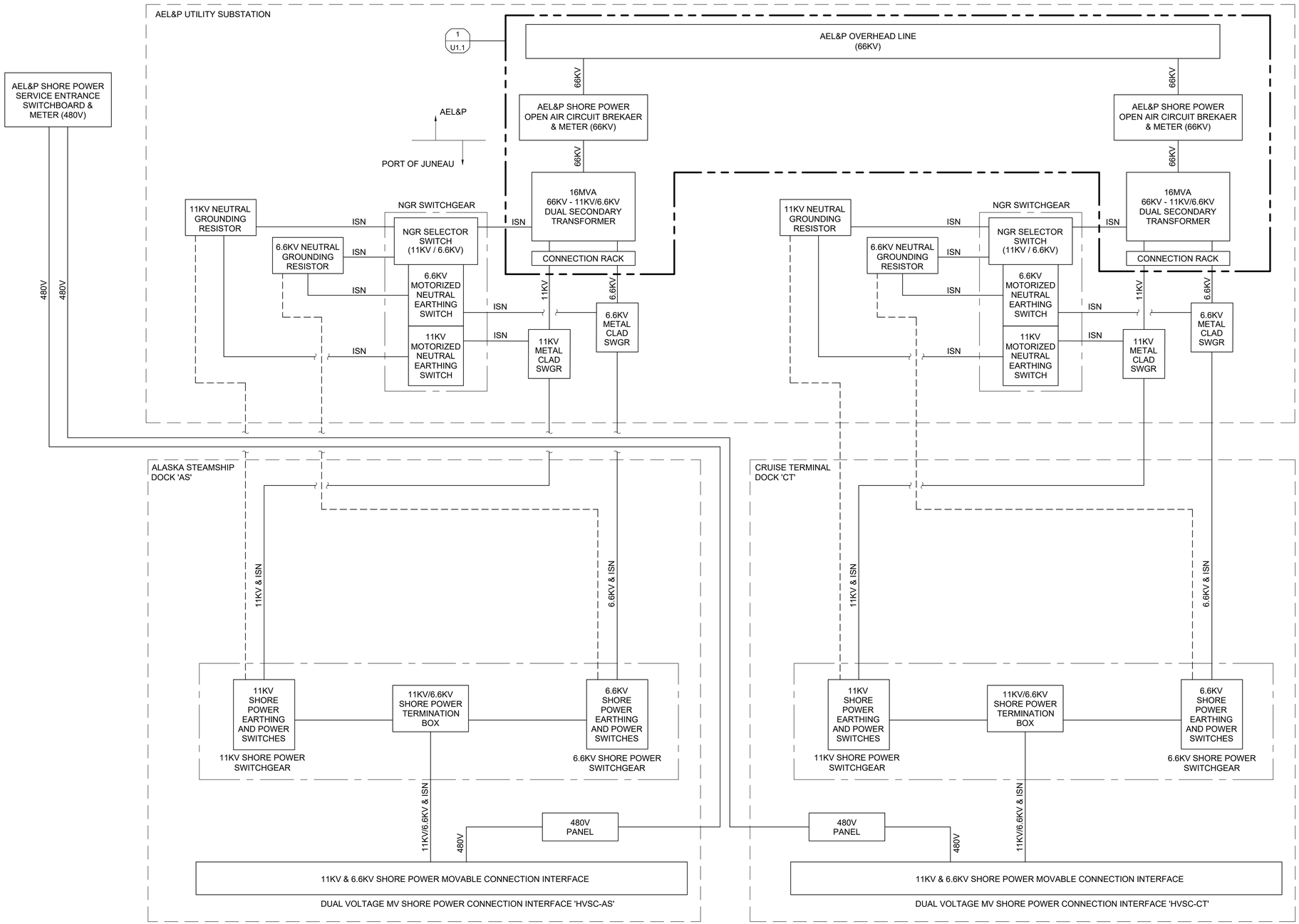
SHEET: **ELECTRICAL GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER: **E0.1**

J036



66KV LOAD SCHEDULE

LOAD DESCRIPTION	CONNECTED LOAD
HVSC-AS (11/6.6KV SHORE POWER)	16 MVA
HVSC-CT (11/6.6KV SHORE POWER)	16 MVA
TOTAL LOAD	**32 MVA**
TOTAL CURRENT @66KV, 3PH	**280 A**

480KV LOAD SCHEDULE

LOAD DESCRIPTION	CONNECTED LOAD
DOCK-AS (480V PANEL)	100 KVA
DOCK-CT (480V PANEL)	100 KVA
TOTAL LOAD	**200 KVA**
TOTAL CURRENT @66KV, 3PH	**240 A**

1 SHORE POWER BLOCK DIAGRAM AND LOAD SCHEDULE

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PRIME CONSULTANT:
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SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

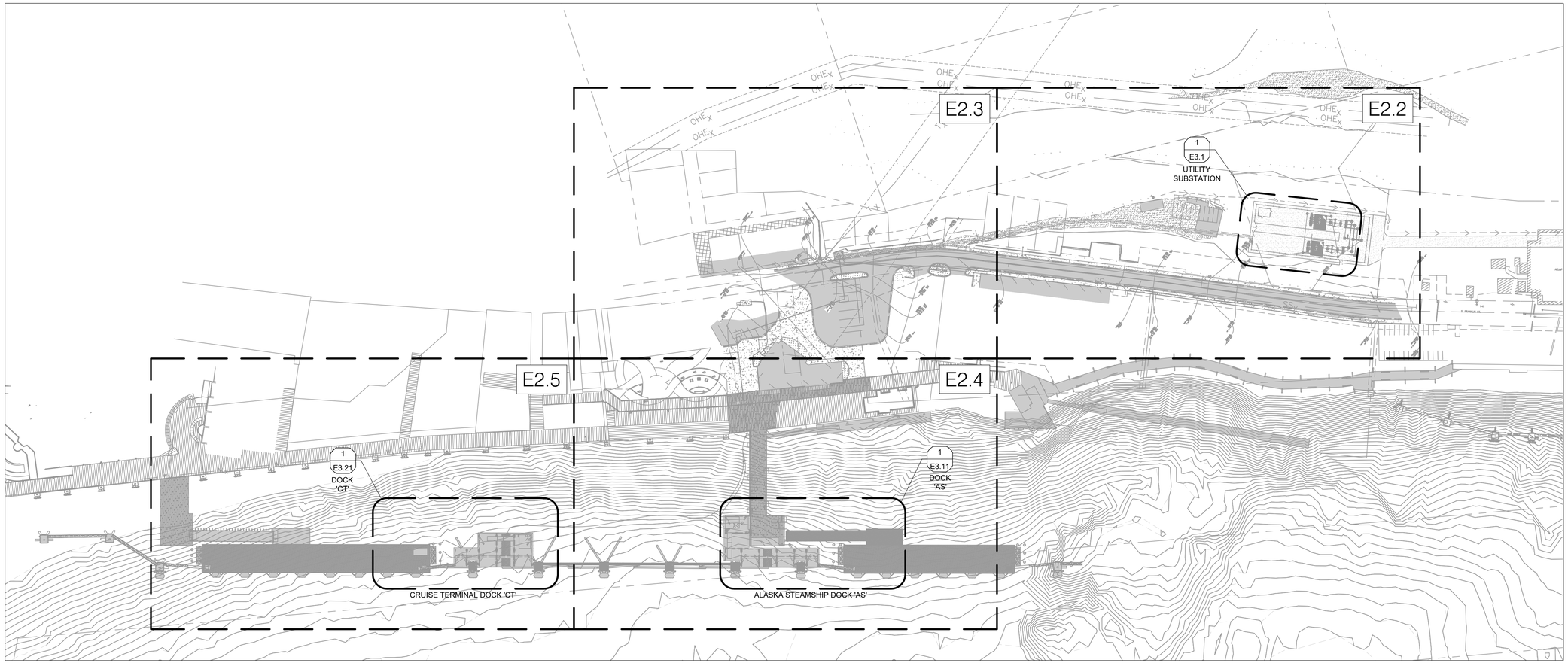
SHEET: **SHORE POWER BLOCK DIAGRAM AND LOAD SCHEDULE**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER: **E1.1**

J036



1 OVERALL ELECTRICAL KEY PLAN

SCALE: 1" = 100'

SCALE: 1" = 100'
0 100

NO.	REVISION:	DATE:

PRIME CONSULTANT:

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DESIGNED BY: TIMOTHY HADDADIAN, PE

REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

AEL&P since 1893 — ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU — DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **OVERALL ELECTRICAL KEY PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

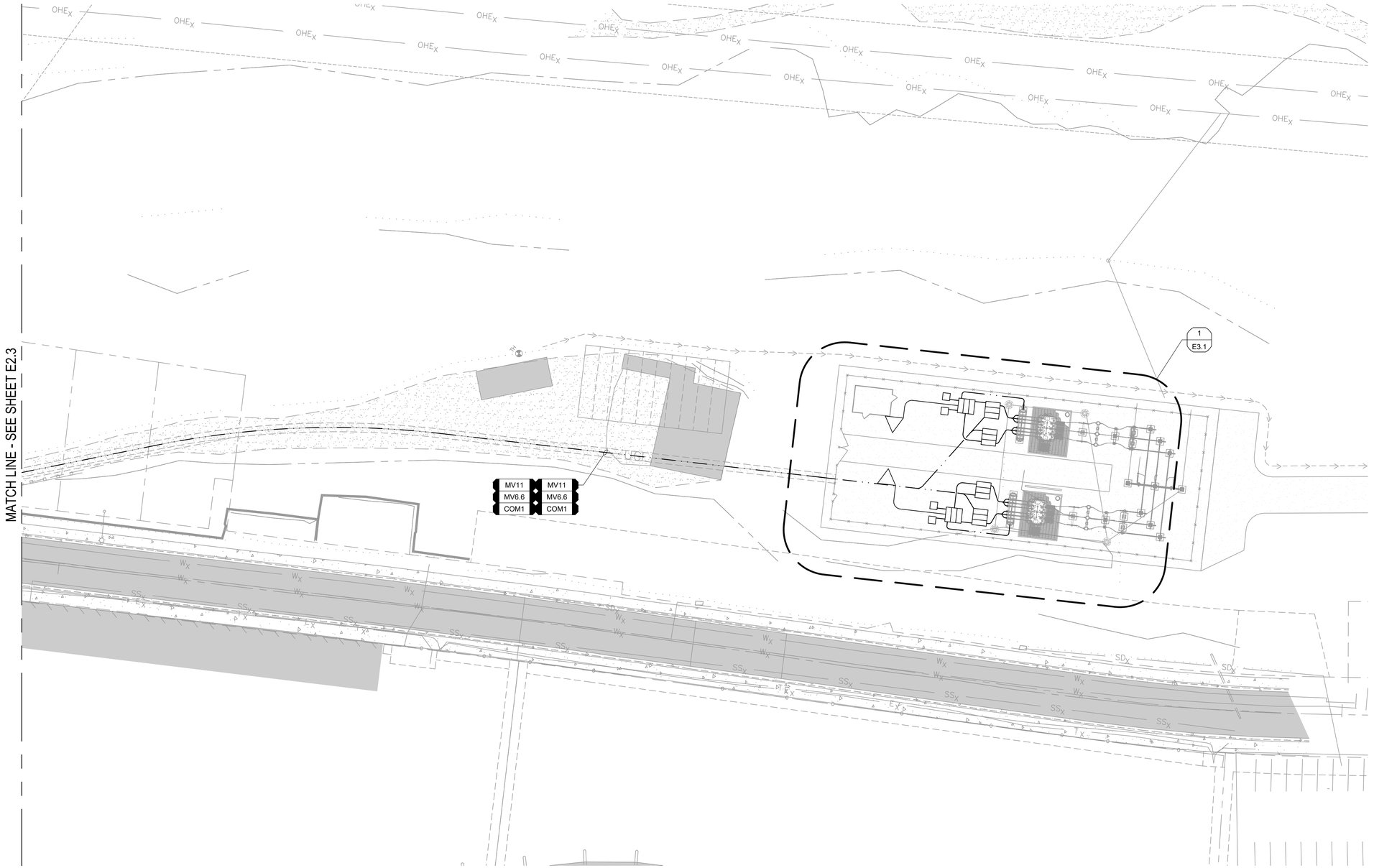
DATE: 01/12/2026

DRAWING NUMBER: **E2.1**

J036

GENERAL NOTES

1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.



1 PARTIAL ELECTRICAL SITE PLAN

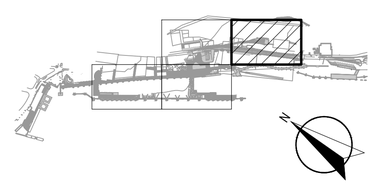
SCALE: 1" = 30'

SCALE: 1" = 30'
0 30

KEYPLAN

LEGEND

AREA



NO.	REVISION:	DATE:

PRIME CONSULTANT:
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DESIGNED BY: TIMOTHY HADDADIAN, PE

REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR:	DATE:
15% SCHEMATIC DESIGN	01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **PARTIAL ELECTRICAL SITE PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

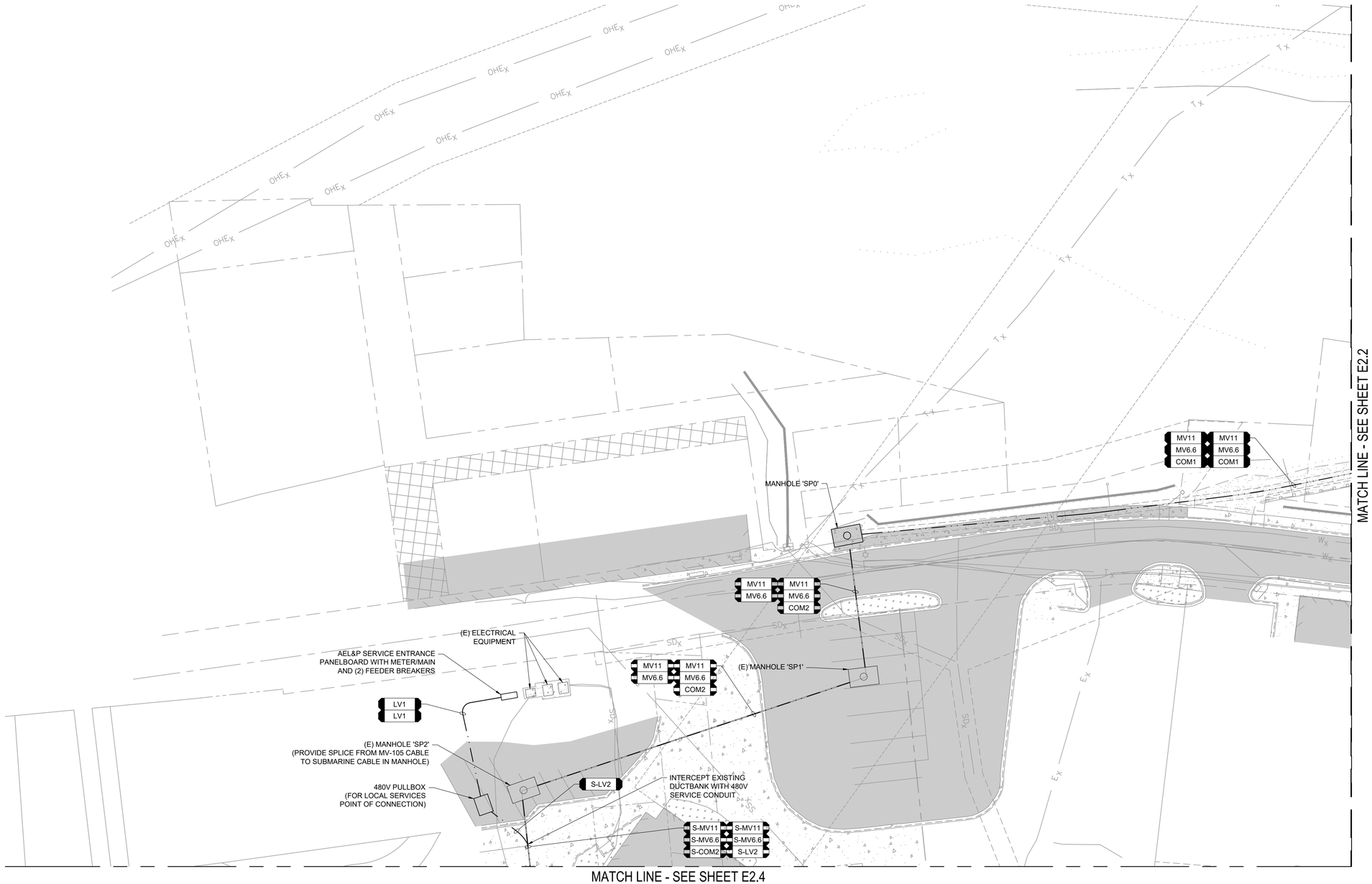
DATE: 01/12/2026

DRAWING NUMBER: **E2.2**

J036

GENERAL NOTES

1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.



1 PARTIAL ELECTRICAL SITE PLAN

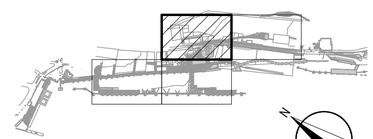
SCALE: 1" = 30'

SCALE: 1" = 30'
0 30

KEYPLAN

LEGEND

AREA



NO.	REVISION:	DATE:

PRIME CONSULTANT:
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DESIGNED BY: TIMOTHY HADDADIAN, PE

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ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **PARTIAL ELECTRICAL SITE PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER: **E2.3**

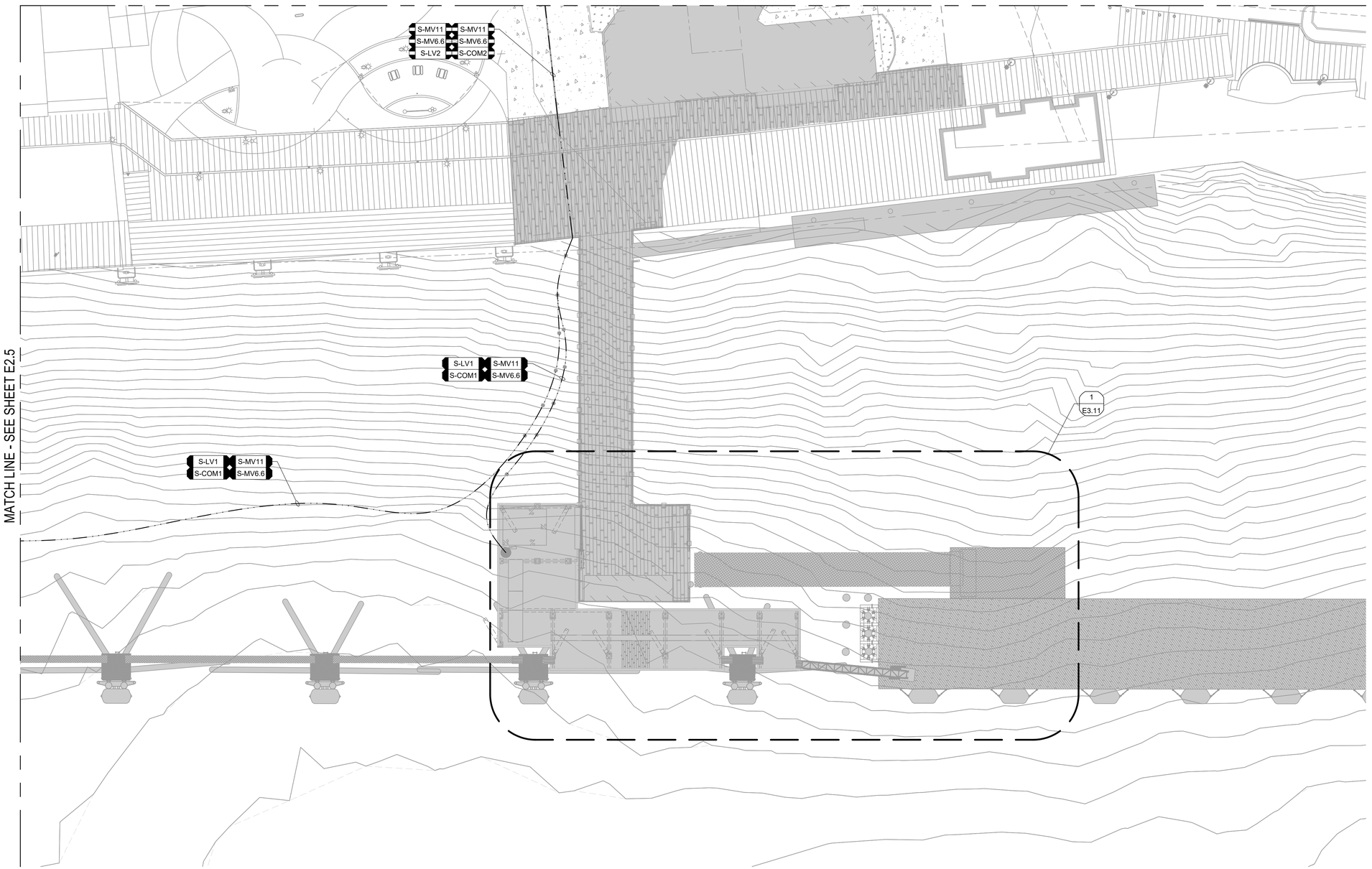
J036

GENERAL NOTES

1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.

MATCH LINE - SEE SHEET E2.3

MATCH LINE - SEE SHEET E2.5



1 PARTIAL ELECTRICAL SITE PLAN

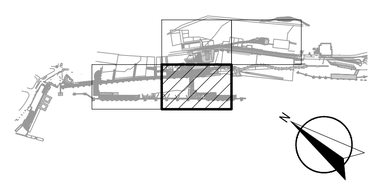
SCALE: 1" = 30'

SCALE: 1" = 30'
0 30

KEYPLAN

LEGEND

AREA



NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **PARTIAL ELECTRICAL SITE PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

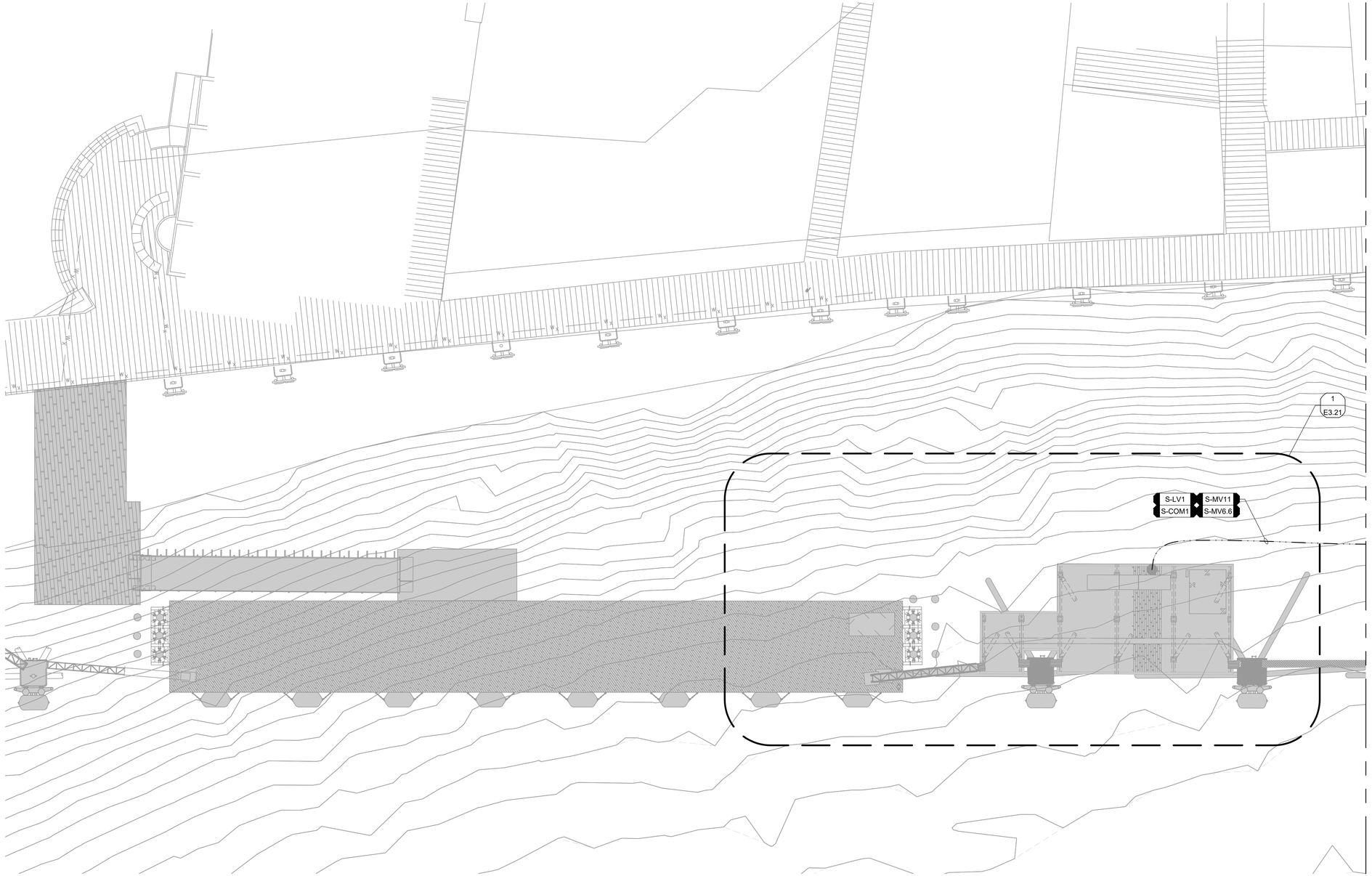
DATE: 01/12/2026

DRAWING NUMBER: **E2.4**

J036

GENERAL NOTES

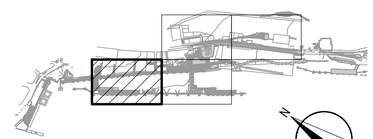
1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.



KEYPLAN

LEGEND

AREA



1 PARTIAL ELECTRICAL SITE PLAN

SCALE: 1" = 30'

SCALE: 1" = 30'
0 30

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **PARTIAL ELECTRICAL SITE PLAN**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

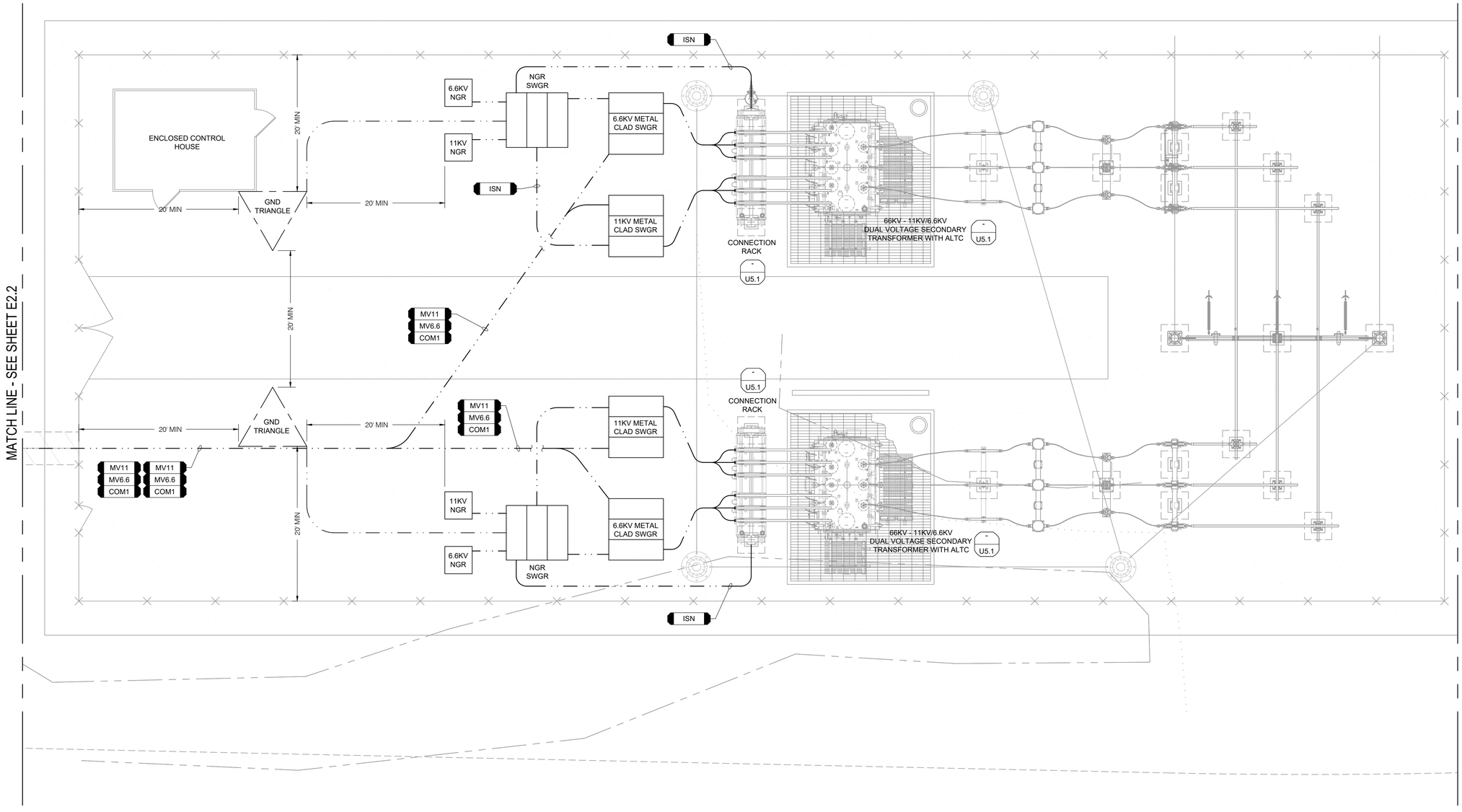
DATE: 01/12/2026

DRAWING NUMBER: **E2.5**

J036

GENERAL NOTES

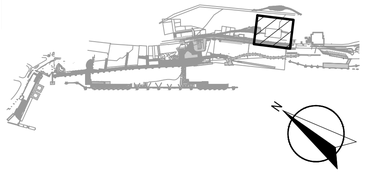
1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.
2. REFER TO SHEETS U1.1 AND U5.1 FOR 66KV ELECTRICAL EQUIPMENT AND TRANSMISSION LINES.



KEYPLAN

LEGEND

AREA



1 ENLARGED POWER PLAN - UTILITY SUBSTATION

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
0 8

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

SHEET: **ENLARGED POWER PLAN - UTILITY SUBSTATION**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

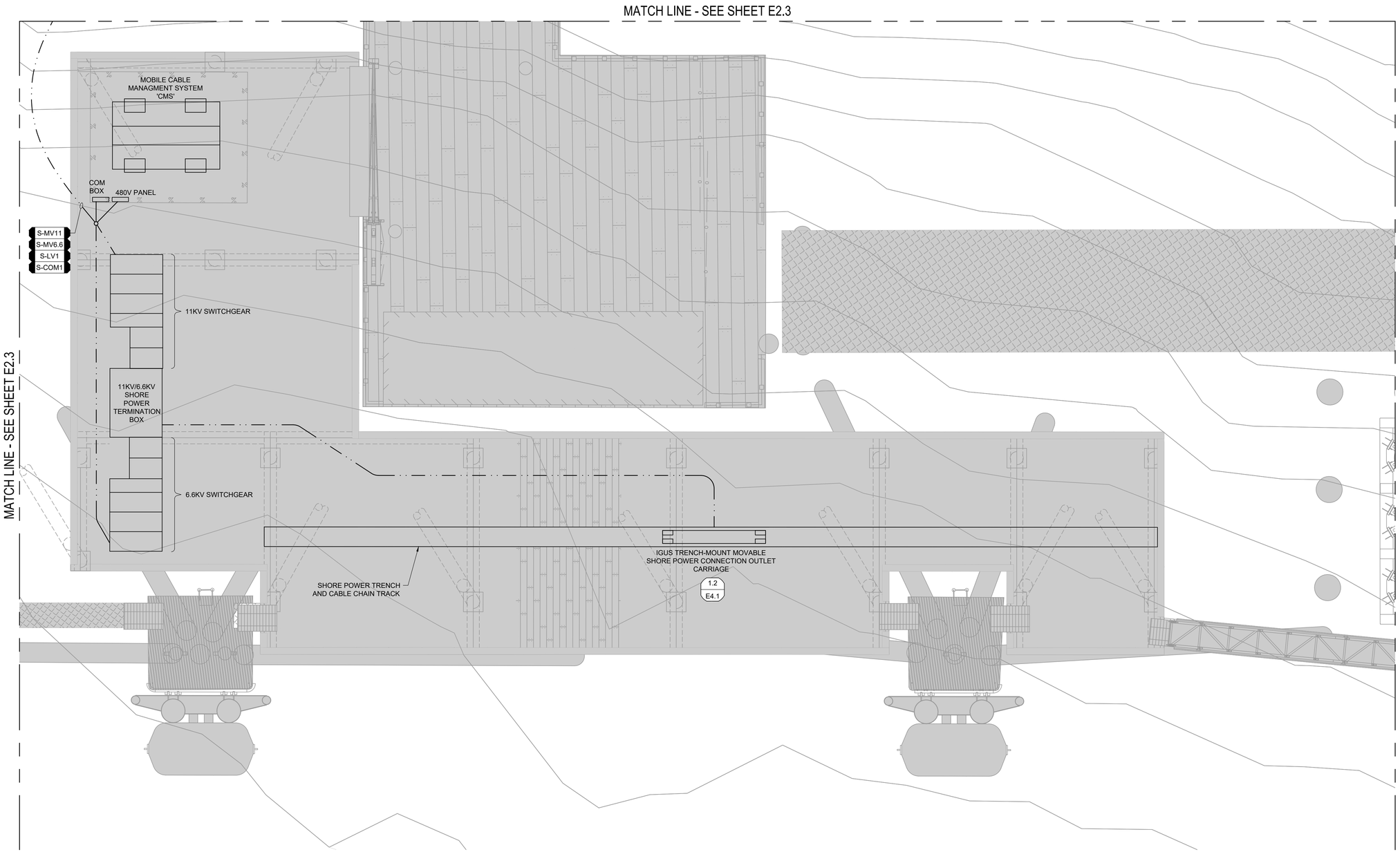
DATE: 01/12/2026

DRAWING NUMBER: **E3.1**

J036

GENERAL NOTES

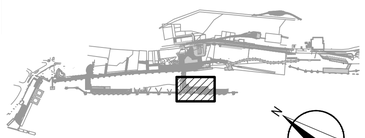
1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.



KEYPLAN

LEGEND

AREA



1 ENLARGED POWER PLAN - DOCK 'AS'

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

0 8

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE

REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR:	DATE:
15% SCHEMATIC DESIGN	01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

SHEET: **ENLARGED POWER PLAN - DOCK 'AS'**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

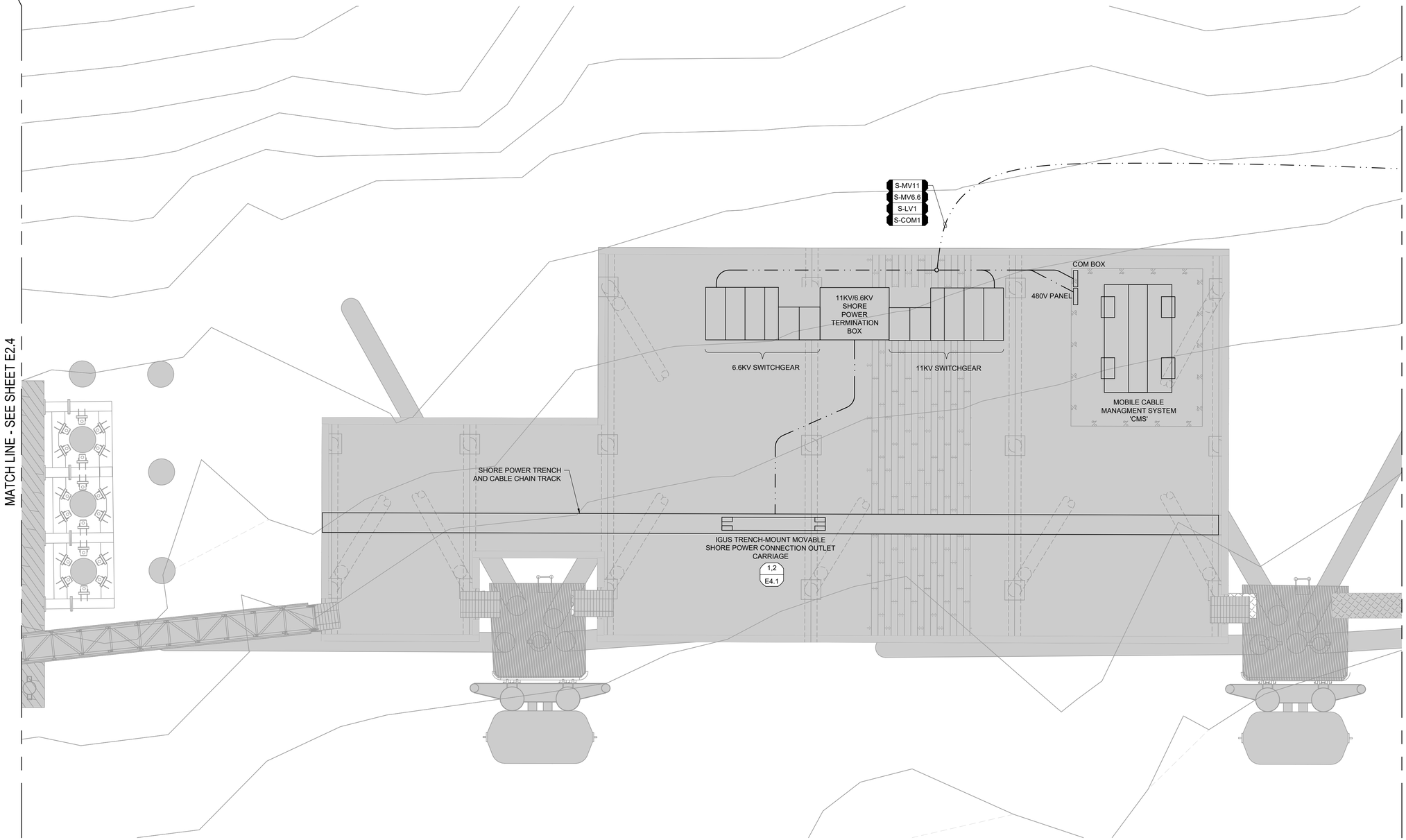
DATE: 01/12/2026

DRAWING NUMBER: **E3.11**

J036

GENERAL NOTES

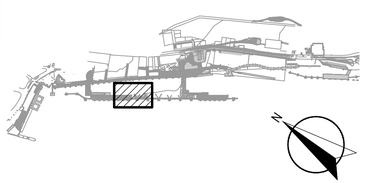
1. SEE SHEET E5.1 FOR FEEDER SCHEDULE.



KEYPLAN

LEGEND

AREA



1 ENLARGED POWER PLAN - DOCK 'CT'

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
0 8

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

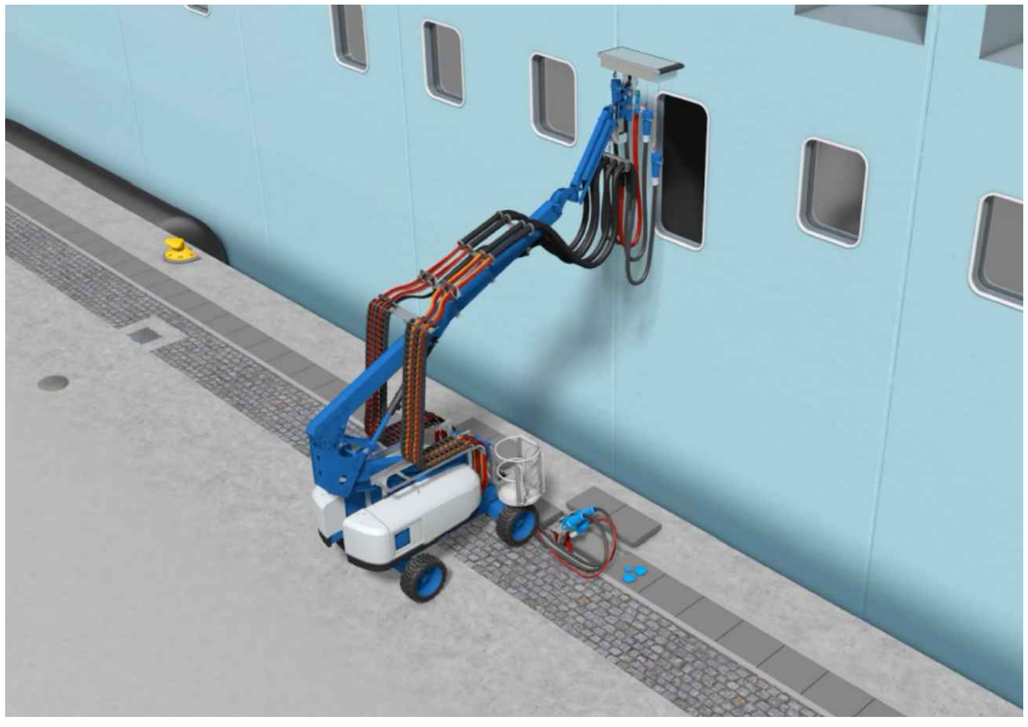
SHEET: **ENLARGED POWER PLAN - DOCK 'CT'**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

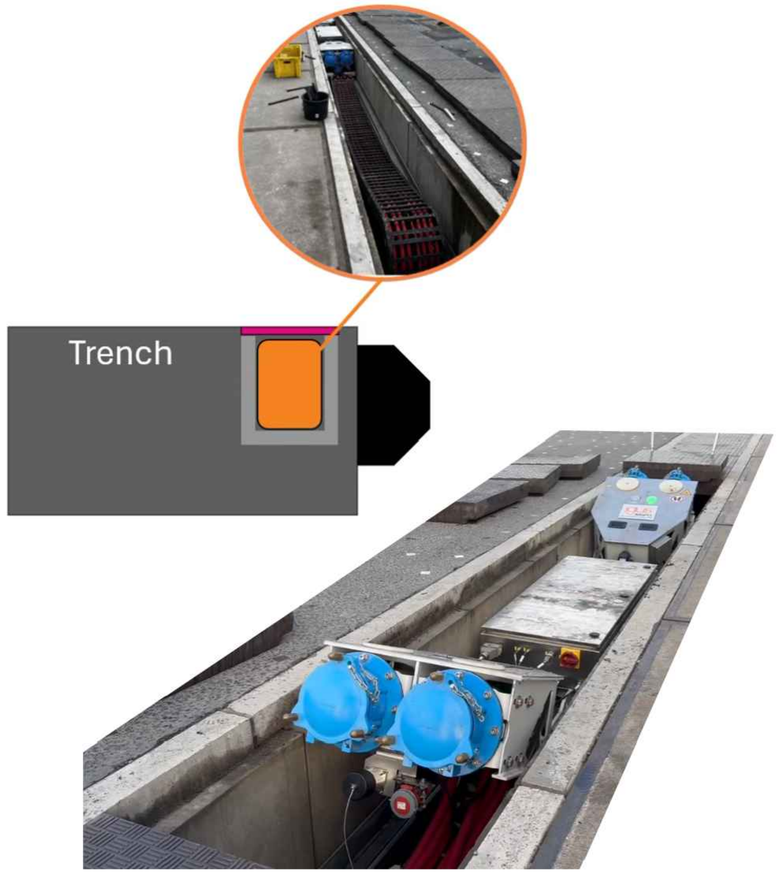
DATE: 01/12/2026

DRAWING NUMBER: **E3.3**

J036



2 SHORE POWER CONNECTION TO SHIP WITH CMS



1 MOVEABLE SHORE POWER OUTLET IN TRENCH

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: SHORE POWER INTERFACE 'IMSPO' ELEVATIONS

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER: E4.1

J036

FEEDER SCHEDULE (NEW CONDUIT & NEW CONDUCTORS)

SYMBOLS	VOLTAGE	RATING	CONDUIT	SETS OF CONDUCTORS PER CONDUIT	NOTES
ISN	15KV	15KV, TYPE MV-105, 133% INSULATION	(1) 2"C	1#500KCMIL	ISOLATED & INSULATED NEUTRAL CONDUCTOR
MV11	11KV	15KV, TYPE MV-105, 133% INSULATION	(2) 5"C	4#500KCMIL & 1#2/0GND	-
S-MV11	11KV	15KV, TYPE MV-105, 133% INSULATION	(2) SETS	4#500KCMIL & 1#2/0GND	SUBMARINE CABLE
MV6.6	6.6KV	5/8KV, TYPE MV-105, 133/100% INSULATION	(3) 5"C	4#500KCMIL & 1#4/0GND	-
S-MV6.6	6.6KV	5/8KV, TYPE MV-105, 133/100% INSULATION	(2) SETS	4#500KCMIL & 1#4/0GND	SUBMARINE CABLE
LV1	480V	1000V	6"C	4#6 & 2#10GND	-
S-LV1	480V	1000V	-	4#6 & 1#10GND	SUBMARINE CABLE
S-LV2	480V	1000V	6"C	8#6 & 2#10GND	SUBMARINE CABLE
COM1	-	-	5"C	-	FIBER AND COM
COM2	-	-	5"C	-	FIBER AND COM
S-COM1	-	-	-	-	SUBMARINE CABLE

FEEDER SCHEDULE (EXISTING CONDUIT & NEW CONDUCTORS)

SYMBOLS	VOLTAGE	RATING	CONDUIT	SETS OF CONDUCTORS PER CONDUIT	NOTES
MV11	11KV	15KV, TYPE MV-105, 133% INSULATION	(E) (2) 6"C	4#500KCMIL & 1#2/0GND	-
S-MV11	11KV	15KV, TYPE MV-105, 133% INSULATION	(E) (2) 6"C	4#500KCMIL & 1#2/0GND	SUBMARINE CABLE
MV6.6	6.6KV	5/8KV, TYPE MV-105, 133/100% INSULATION	(E) (3) 6"C	4#500KCMIL & 1#4/0GND	-
S-MV6.6	6.6KV	5/8KV, TYPE MV-105, 133/100% INSULATION	(E) (3) 6"C	4#500KCMIL & 1#4/0GND	SUBMARINE CABLE
S-LV2	480V	1000V	(E) 6"C	8#6 & 2#10GND	SUBMARINE CABLE
COM2	-	-	(E) 6"C	-	FIBER AND COM
S-COM2	-	-	(E) 6"C	-	SUBMARINE CABLE

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE

REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:

PROJECT: PORT OF JUNEAU (DOCKS AS & CT) CRUISE TERMINAL SHORE POWER

SHEET: **FEEDER SCHEDULES**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER: **E5.1**

J036

SHEET	DRAWING INDEX		DESCRIPTION	REV	DATE	REVISION PURPOSE
U0.1	AELP-D-T000-1		DRAWING INDEX	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	OVERVIEW MAP		**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
(NOT ISSUED)	AELP-D-T001-1		ROUTE VICINITY MAP	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	STRUCTURE DRAWINGS	**TYPE**	**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
U7.5	TP-69B	TP-69B	69 kV TRANSMISSION POST SUSPENSION STRUCTURE 0°-10°	A	xx/xx/xx	ISSUED FOR 35% REVIEW
U7.3	TP-69-2D	TP-69-2D	69 kV 2-WAY SWITCH INLINE VERTICAL DEADEND/TAP STRUCTURE 0°	A	xx/xx/xx	ISSUED FOR 35% REVIEW
U7.5	TP-69-3B	TP-69-3B	69 kV VERTICAL DOUBLE DEADEND ANGLE STRUCTURE 90°	A	xx/xx/xx	ISSUED FOR 35% REVIEW
U7.4	TH-7A-MF1	TH-7A-MF1	69 kV SUBSTATION DEADEND H-FRAME (OPTIONAL)	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	ANCILLARY DRAWINGS	**TYPE**	**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
U7.6	TG-1	TG-1	SINGLE DOWNGUY WITH GUY STRAIN INSULATOR	A	xx/xx/xx	ISSUED FOR 35% REVIEW
U7.6	TA-1P	TA-1P	SINGLE CROSS PLATE ANCHOR	A	xx/xx/xx	ISSUED FOR 35% REVIEW
(NOT ISSUED)	AELP-D-T003-1	TM-DEA	SUBSTATION DEADEND ASSEMBLIES	A	xx/xx/xx	ISSUED FOR 35% REVIEW
(NOT ISSUED)	AELP-D-T003-2	TM-SIGN	STRUCTURE NUMBERING DETAIL	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	PLAN & PROFILE DRAWINGS	**TYPE**	**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
U7.1	AELP-D-T004-1	STA X+XX TO STA XX+XX	PLAN AND PROFILE	A	xx/xx/xx	ISSUED FOR 35% REVIEW
U7.2	AELP-D-T004-2	STA XX+XX TO STA XX+XX	PLAN AND PROFILE	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	STAKING SHEETS		**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
(NOT ISSUED)	AELP-D-T005-1		STAKING SHEET	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	PHASING AND SAG CHART DRAWINGS		**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
(NOT ISSUED)	AELP-D-T006-1		PHASING DIAGRAM	A	xx/xx/xx	ISSUED FOR 35% REVIEW
(NOT ISSUED)	AELP-D-T006-2		SAG CHART 652.4 kcmil 19 str AAAC "ELGIN"	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	FOUNDATION DRAWINGS	**TYPE**	**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
(NOT ISSUED)	AELP-D-T008-1	TM-101	FOUNDATION DETAIL- DIRECT EMBEDDED WOOD POLE	A	xx/xx/xx	ISSUED FOR 35% REVIEW
(NOT ISSUED)	AELP-D-T008-2	TM-PAO	FOUNDATION DETAIL - POLE AND ANCHOR ORIENTATION	A	xx/xx/xx	ISSUED FOR 35% REVIEW
(NOT ISSUED)	AELP-D-T008-3	TM-PAS	FOUNDATION DETAIL - POLE AND ANCHOR STAKING	A	xx/xx/xx	ISSUED FOR 35% REVIEW
	MATERIAL LIST		**DESCRIPTION**	**REV**	**DATE**	**REVISION PURPOSE**
(NOT ISSUED)	AELP-D-ZT01-1		MATERIAL LIST	A	xx/xx/xx	ISSUED FOR 35% REVIEW
(NOT ISSUED)	AELP-D-ZT01-1A		MATERIAL LIST	A	xx/xx/xx	ISSUED FOR 35% REVIEW

"Engineering with Distinction"
ECI ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

DRAWING INDEX

DESCRIPTION
PORT OF JUNEAU SHORE POWER LINE #2 TAP
69 kV TRANSMISSION LINE

REV	DESCRIPTION	AUTH	REV BY	DATE
A	ISSUED FOR PRELIMINARY DISCUSSION ONLY	WDZ	PJW	12/23/25

THIS DRAWING IS THE PROPERTY OF ALASKA ELECTRIC LIGHT & POWER COMPANY
5601 TONGSGARD COURT
JUNEAU, ALASKA 99801

SCALE: NTS
APPROVED BY: WDZ
DRAWN BY: PJW
DATE: 12/23/25

SIZE: D

AEL&P
ALASKA ELECTRIC LIGHT AND POWER COMPANY

THIS DOCUMENT CONTAINS PROPRIETARY DATA AND MAY NOT BE REPRODUCED OR DISCLOSED WITHOUT WRITTEN PERMISSION OF ALASKA ELECTRIC L&P.

DRAWING TYPE: SCHEMATIC DIAGRAM
SHEET NO.: 1
REV. NO.: A

FILE NO. C:\AutoCAD R14\Southeast\AEL&P\SCADA-sys.dwg

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY: TIMOTHY HADDADIAN, PE
REVIEWED BY: VAHIK HADDADIAN, PE

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction"
ECI ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: AEL&P DRAWING INDEX

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

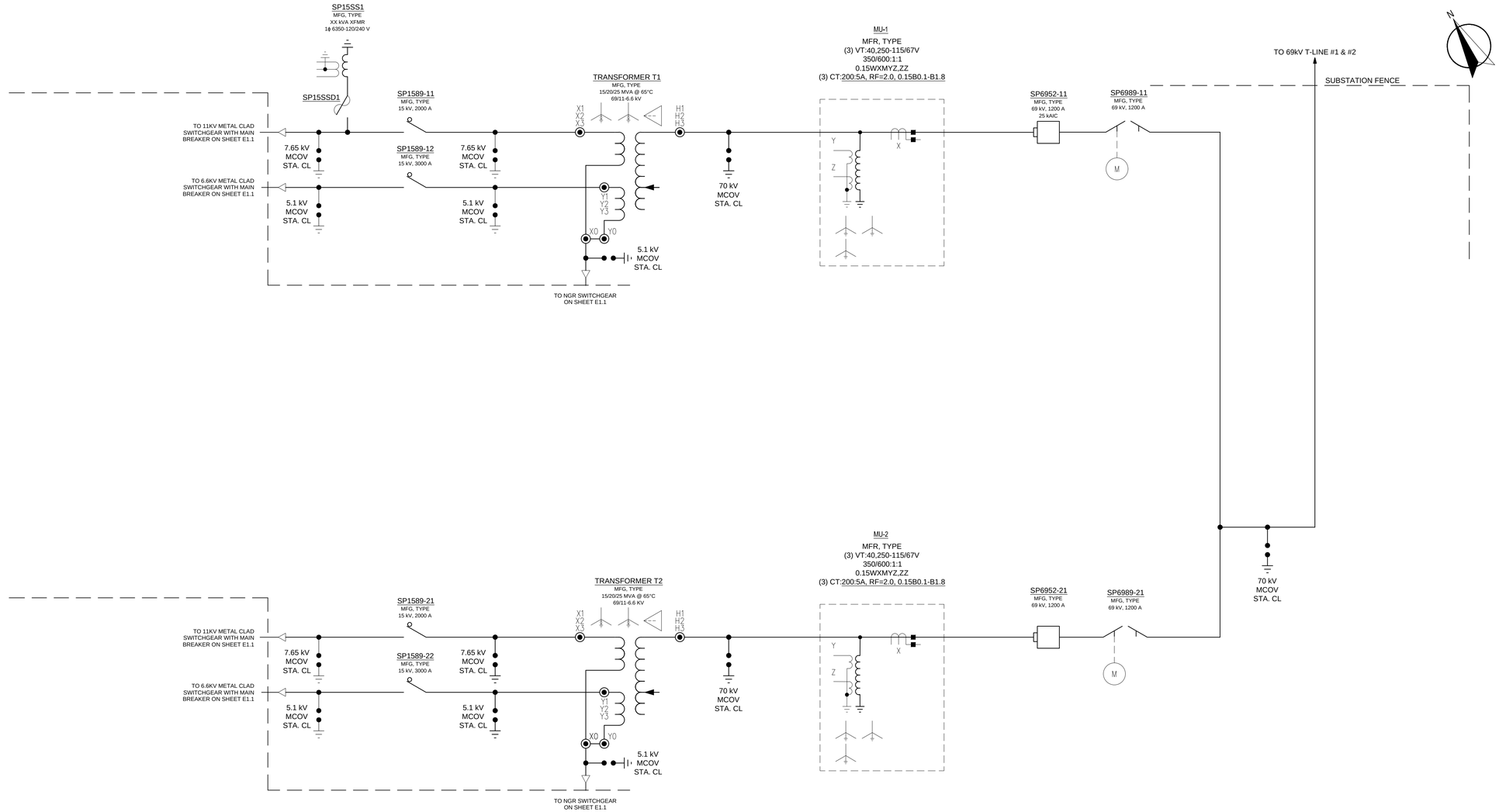
DATE: 01/12/2026

DRAWING NUMBER: U0.1

J036

1 2 3 4 5 6 7 8 9 10 11 12 13 14

K J H G F E D C B A



NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:

REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction" ECI ELECTRICAL CONSULTANTS, INC. BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

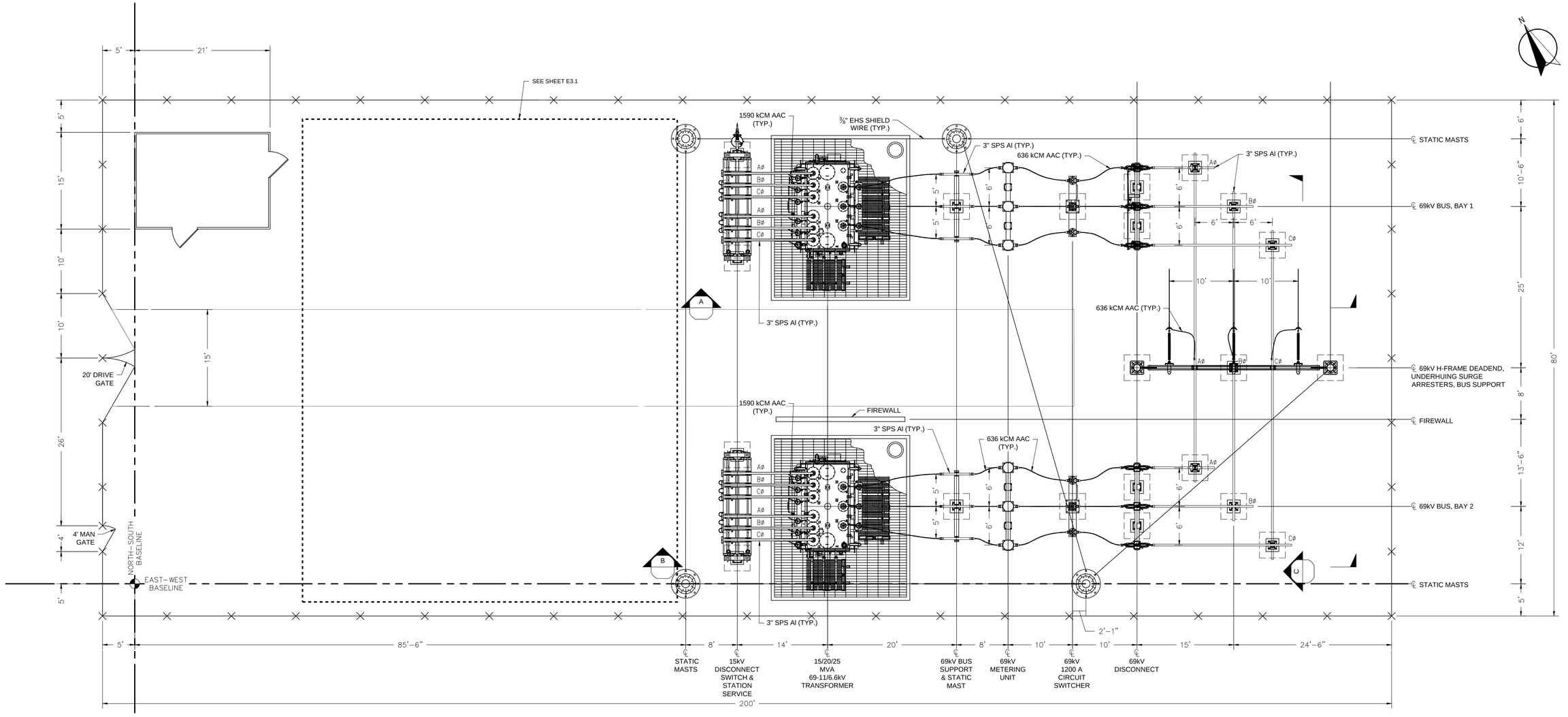
SHEET: **SIMPLIFIED SINGLE LINE DIAGRAM**

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 12/12/2025

DRAWING NUMBER: U1.1

J036



ELECTRICAL DESIGN CRITERIA

69 kV CLEARANCE: (350 kV BIL)

LIVE PARTS: MIN ø–G=25"
MIN ø–ø=31"

TO GRADE: 11'–0" (BUS)
23'–0" (DRIVEWAY)

15 kV CLEARANCE: (110 kV BIL)

LIVE PARTS: MIN ø–G=7"
MIN ø–ø=12"

TO GRADE: 9'–0" (BUS)
21'–0" (DRIVEWAY)

SCALE: 1/8" = 1'-0"
0 8

NO.	REVISION:	DATE:

PRIME CONSULTANT:
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(626) 319-3476

DESIGNED BY:

REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:
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ECI ELECTRICAL CONSULTANTS, INC. BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT: PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET: **GENERAL ARRANGEMENT**

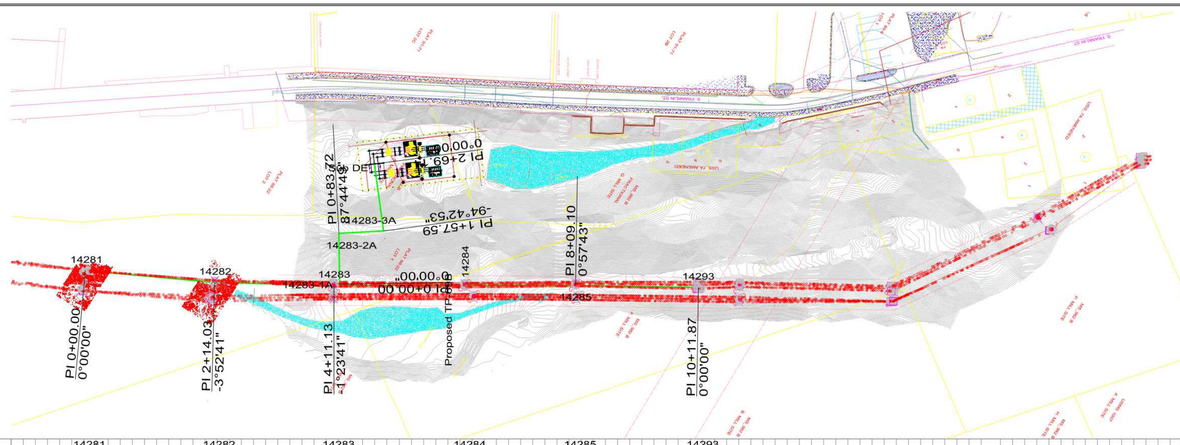
ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 12/12/2025

DRAWING NUMBER: U5.1

J036

PLS-CADD Drawing



NOTE:

1. 69 KV CLEARANCE LINE DISPLAYED AT 21.7 FT.
2. 69 KV CONDUCTOR DISPLAYED AT 212°F
3. EXISTING UNDERBUILD COMM WIRES NOT SHOWN FOR 15% DESIGN
4. MAXIMUM WIRE TENSION AT NESC HEAVY INITIAL CONDITION IS 850 LBS UNDER REDUCED TENSION FOR PROPOSED SHORE POWER LINE TAP.
5. MAXIMUM WIRE TENSION FOR EXISTING 652.4 AAAC "ELGIN" USING LIDAR TEMPERATURE OF 65° AND 26 MW LOADING, NO WIND FOR LINE CIRCUIT # 2 IS 3125 LBS AT NESC HEAVY, INITIAL PRELIMINARILY SUBJECT TO LIDAR VERIFICATION.
6. GROUND PROFILE IS BASED ON PND ENGINEERING NOVEMBER 2024 SURVEY AND ADOT LIDAR MERGE. ADOT FREE LIDAR WAS USED FOR EXISTING WIRE SURVEY. ECI RECOMMENDS A FULL LIDAR OF THE EXISTING LINE BE PERFORMED PRIOR TO MATERIAL ORDERING AND FINAL DESIGN TO CORRECT REGISTRATION ERRORS FOUND IN THE LIDAR SURVEY AND TO ENSURE AN ACCURATE SURVEY IS ACHIEVED.

14281
sta=0+00.00
X=2545840.15
Y=2360247.15
Exist CLH1-70 DF
TS-5-B2
2-way switch DDE

14282
sta=2+14.03
X=2545741.91
Y=2360437.31
Exist CL2-60 DF
TP-69-2B

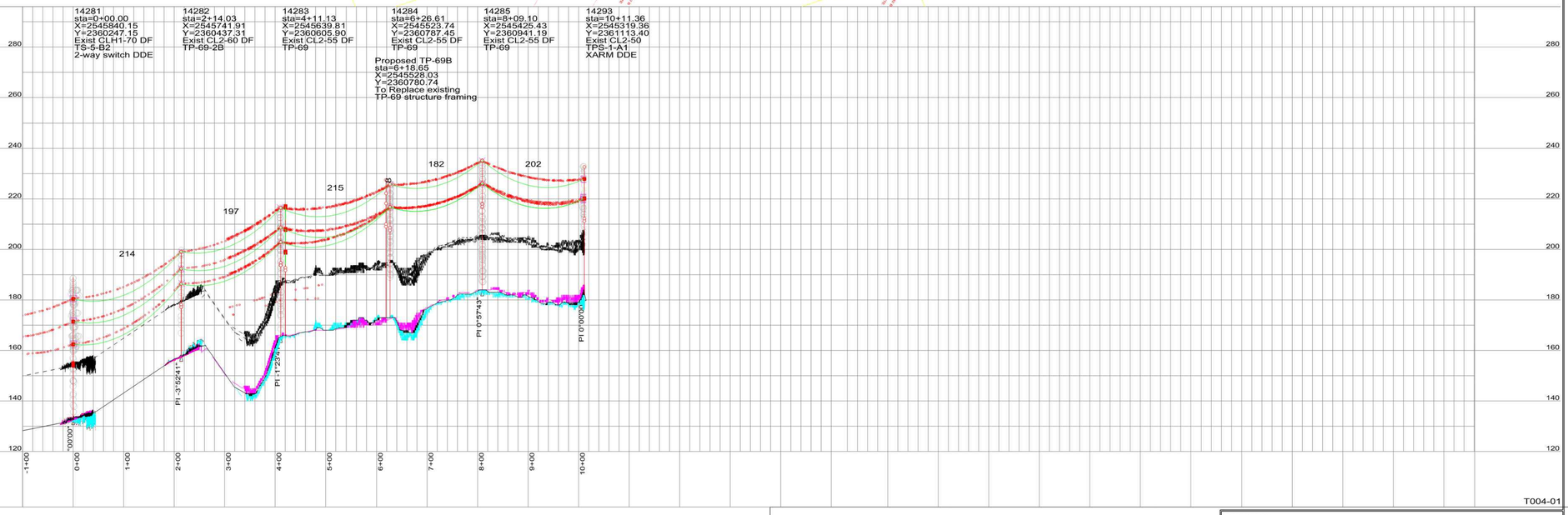
14283
sta=4+11.13
X=2545639.81
Y=2360605.90
Exist CL2-55 DF
TP-69

14284
sta=6+26.61
X=2545523.74
Y=2360787.45
Exist CL2-55 DF
TP-69

Proposed TP-69B
sta=6+18.65
X=2545528.03
Y=2360780.74
To Replace existing
TP-69 structure framing

14285
sta=8+09.10
X=2545425.43
Y=2360941.19
Exist CL2-55 DF
TP-69

14293
sta=10+11.36
X=2545319.36
Y=2361113.40
Exist CL2-50
TPS-1-A1
XARM DDE



T004-01

"Engineering with Distinction"
ELECTRICAL CONSULTANTS, INC.

DESCRIPTION
PORT OF JUNEAU SHORE POWER LINE # 2 TAP
69 KV TRANSMISSION LINE

NO.	DESCRIPTION	AUTH	REV BY	DATE
A	ISSUED FOR PRELIMINARY DISCUSSION PURPOSE ONLY	WDZ	WDZ	12/3/25

THIS DRAWING IS THE PROPERTY OF
ALASKA ELECTRIC LIGHT & POWER COMPANY
5601 TONGSGARD COURT
JUNEAU, ALASKA 99801

SCALE: AS NOTED
APPROVED BY: WDZ
DRAWN BY: WDZ
DATE: 12/3/25

SIZE: D

AEL&P
ALASKA ELECTRIC LIGHT AND POWER COMPANY

THIS DOCUMENT CONTAINS PROPRIETARY DATA AND MAY NOT BE REPRODUCED OR DISCLOSED WITHOUT WRITTEN PERMISSION OF ALASKA ELECTRIC L&P.

DRAWING TYPE: PLAN AND PROFILE
SHEET NO.: 1 OF 1
REV. NO.: A

FILE NO.

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:
REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction" ECI ELECTRICAL CONSULTANTS, INC. BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET:
AEL&P SHORE POWER OVERHEAD ROUTING

ADDRESS:
510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER: U7.1

J036

PLS-CADD Drawing



100.0 ft. Horiz. Scale

20.0 ft. Vert. Scale

NOTE:

1. 69 KV CLEARANCE LINE DISPLAYED AT 21.7 FT.
2. 69 KV CONDUCTOR DISPLAYED AT 212°F
3. EXISTING UNDERBUILD COMM WIRES NOT SHOWN FOR 15% DESIGN
4. MAXIMUM WIRE TENSION AT NESC HEAVY INITIAL CONDITION IS 850 LBS UNDER REDUCED TENSION FOR PROPOSED SHORE POWER LINE TAP.
5. MAXIMUM WIRE TENSION FOR EXISTING 652.4 AAAC "ELGIN" USING LIDAR TEMPERATURE OF 65° AND 26 MW LOADING, NO WIND FOR LINE CIRCUIT # 2 IS 3125 LBS AT NESC HEAVY, INITIAL PRELIMINARILY SUBJECT TO LIDAR VERIFICATION.
6. GROUND PROFILE IS BASED ON PND ENGINEERING NOVEMBER 2024 SURVEY AND ADOT LIDAR MERGE. ADOT FREE LIDAR WAS USED FOR EXISTING WIRE SURVEY. ECI RECOMMENDS A FULL LIDAR OF THE EXISTING LINE BE PERFORMED PRIOR TO MATERIAL ORDERING AND FINAL DESIGN TO CORRECT REGISTRATION ERRORS FOUND IN THE LIDAR SURVEY AND TO ENSURE AN ACCURATE SURVEY IS ACHIEVED.



T004-02

ELECTRICAL CONSULTANTS, INC. "Engineering with Distinction"

NO.	DESCRIPTION	AUTH	REV BY	DATE
A	ISSUED FOR PRELIMINARY DISCUSSION PURPOSE ONLY	WDZ	WDZ	12/23/25

DESCRIPTION
PORT OF JUNEAU SHORE POWER LINE # 2 TAP
69 KV TRANSMISSION LINE

THIS DRAWING IS THE PROPERTY OF
ALASKA ELECTRIC LIGHT & POWER COMPANY
5601 TONGSGARD COURT
JUNEAU, ALASKA 99801

SCALE: AS NOTED
APPROVED BY: WDZ
DRAWN BY: WDZ
DATE: 12/23/225

SIZE D

AEL&P
ALASKA ELECTRIC LIGHT AND POWER COMPANY

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DRAWING TYPE: PLAN AND PROFILE | SHEET NO.: 1 OF 1 | REV. NO.: A

FILE NO.

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:

REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN | DATE: 01/12/2026

SUB CONSULTANT:
ECI ELECTRICAL CONSULTANTS, INC. "Engineering with Distinction" BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

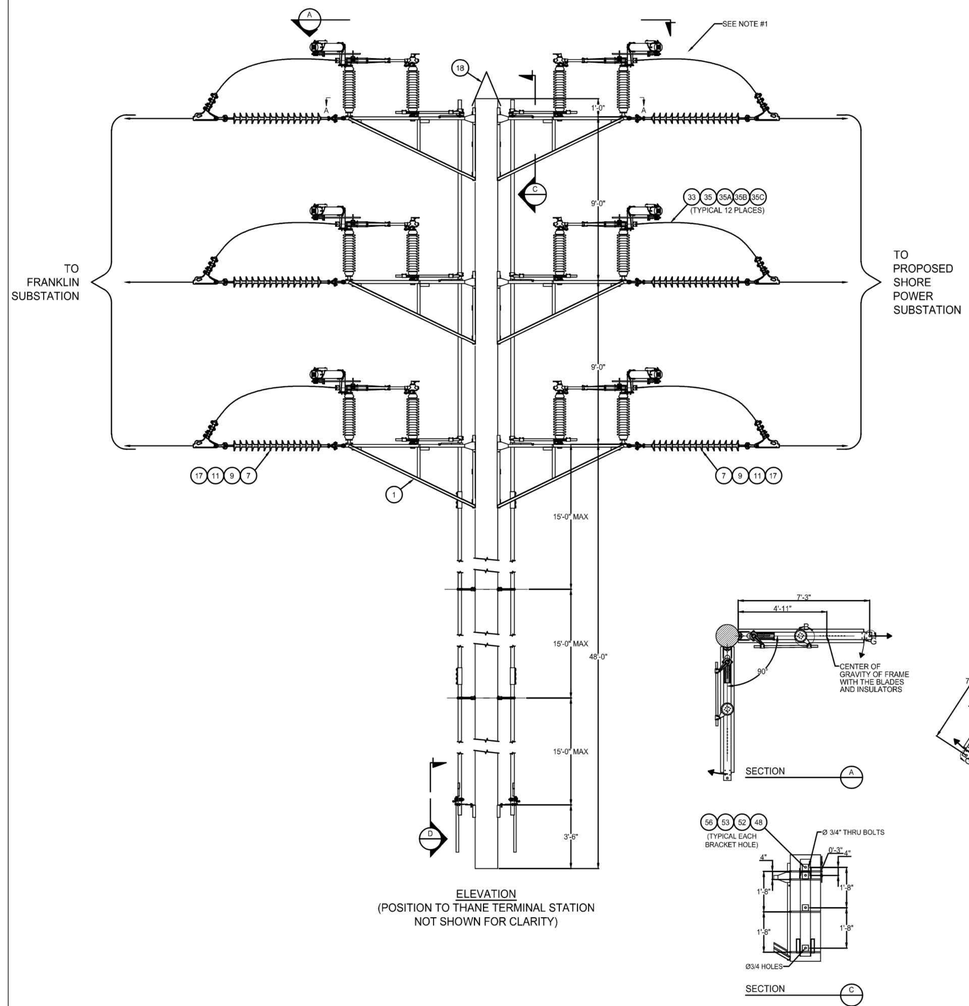
SHEET:
AEL&P SHORE POWER OVERHEAD ROUTING

ADDRESS: 510 S FRANKLIN STREET, JUNEAU, AK 99801

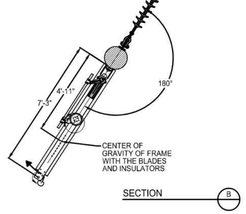
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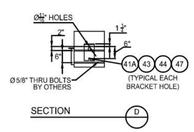
DRAWING NUMBER: U7.2

J036



ELEVATION
(POSITION TO THANE TERMINAL STATION
NOT SHOWN FOR CLARITY)





ELEVATION
(POSITION TO PROPOSED SHORE POWER SUBSTATION
NOT SHOWN FOR CLARITY)

"Engineering with Distinction"
ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

NOTES:
1. REFER TO TURNER ELECTRIC DRAWING SK160604 OR HUBBELL EQUIVALENT. OFFSET SWITCH FRAMES 2" TO ACCOMMODATE THRU BOLTS.
2. SWITCH JUMPERS NOT SHOWN FOR CLARITY
CIRCUIT FROM THANE TO FRANKLIN IS THRU, SHORE POWER SUB IS TAP.

STR. TP-69-2D

DESCRIPTION
PORT OF JUNEAU SHORE POWER LINE #2 TAP
69 kV TRANSMISSION LINE

REV	DESCRIPTION	AUTH	REV BY	DATE
A	ISSUED FOR PRELIMINARY DISCUSSION ONLY	WDZ	PJW	12/23/25

THIS DRAWING IS THE PROPERTY OF
ALASKA ELECTRIC LIGHT & POWER COMPANY
5601 TONGSGARD COURT
JUNEAU, ALASKA 99801

SCALE: NTS
APPROVED BY: WDZ
DRAWN BY: PJW
DATE: 12/23/25
SIZE: D

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AEL&P
ALASKA ELECTRIC LIGHT AND POWER COMPANY

DRAWING TYPE: SCHEMATIC DIAGRAM
SHEET NO.: 1
REV. NO.: A

FILE NO. C:\AutoCAD R14\Southeast\AEL&P\SCADA-sys.dwg

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:
REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction"
ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

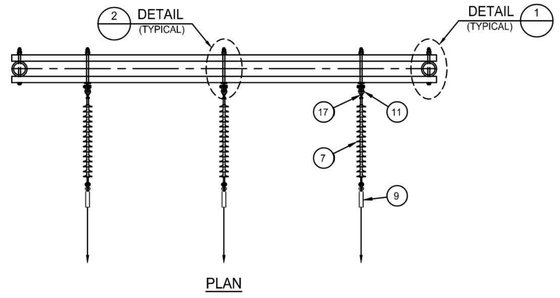
SHEET:
AEL&P SHORE POWER LINE #2 TAP 69KV TRANSMISSION LINE

ADDRESS:
510 S FRANKLIN STREET, JUNEAU, AK 99801

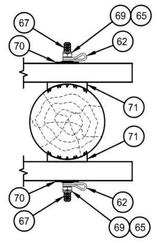
DATE: 01/12/2026

DRAWING NUMBER:
U7.3

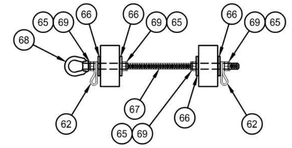
J036



PLAN

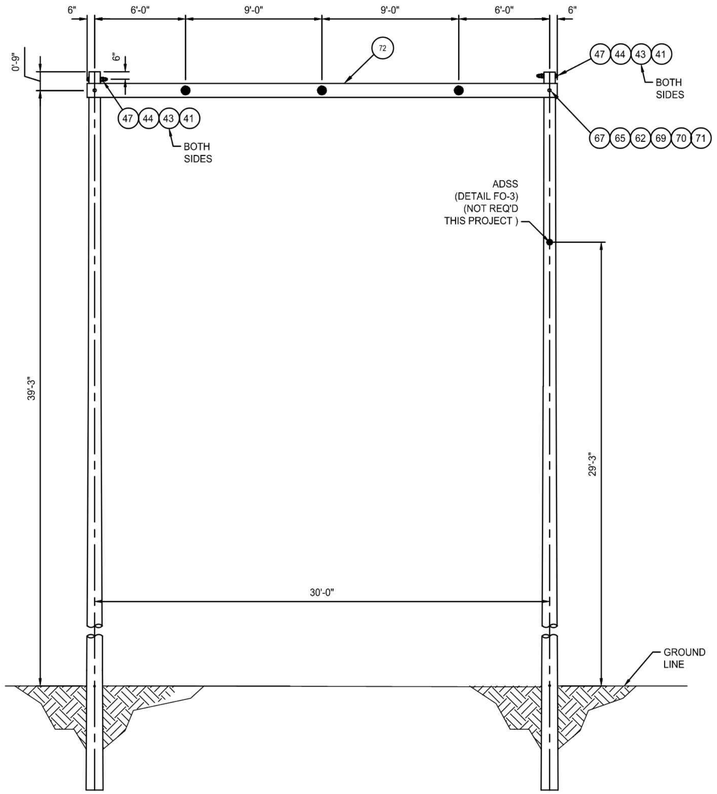


DETAIL 1 (TYPICAL)

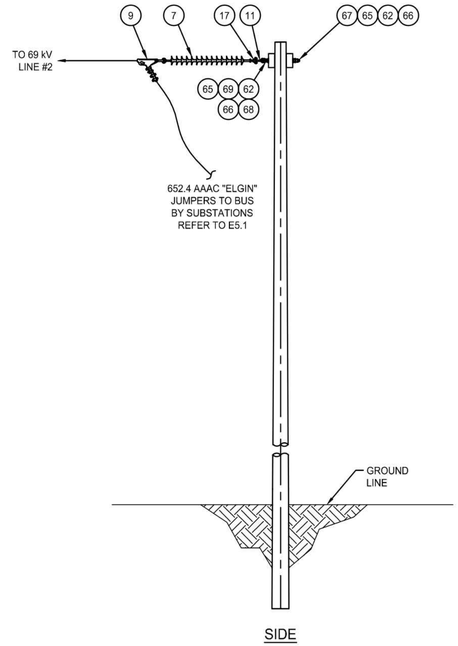


DETAIL 1 (TYPICAL)

STRUCTURE BILL OF MATERIAL			
ITEM	REQ'D	DESCRIPTION	EQUIVALENT PRODUCT
7	3	INSULATOR, SUSPENSION, COMPOSITE, SOCKET-BALL	RELIABLE S178045VX06
9	3	CLAMP, STRAIN DEADEND, SOCKET END	MACLEAN ADE-24-S
11	3	ANCHOR SHACKLE, 30 KIP	MACLEAN ASH-55
17	3	Y-CLEVIS BALL, 35 KIP	MACLEAN YCB-65A
41	2	MACHINE BOLT, 5/8" x REQ'D LENGTH	HB
43	4	SQ CURVED WASHER, 3"x3", FOR 5/8" BOLT, GALVANIZED	HB #SCW3-60
47	2	LOCKNUT FOR 5/8" BOLT, MF TYPE	HB #MF60
44	2	WASHER, SPRING, 11/16" HOLE	HB #2702.6
66	12	WASHER, SQUARE, FLAT, 3"x3"x1/4", 7/8" BOLT	HB #SW3-80
67	5	THREADED ROD, 7/8"	HB TR8**-5
68	3	EYE-NUT, 7/8"	HB #EN-80
65	16	LOCKNUT FOR 7/8" BOLT, MF TYPE	HB #MF80
69	16	NUT FOR 7/8" BOLT	HB #N80
62	10	WASHER, SPRING, 15/16" HOLE	HB #2702.8
70	4	RIBBED TIE PLATE FOR 7/8" BOLT	HB #1005.85
71	4	GRID GAIN FOR 7/8" BOLT	HB #1263-A
72	2	CROSSARM, DF, 3 3/4" X 4 3/4" X 31'-0"	BROOKS



FRONT



SIDE

OPTIONAL
WOOD H-FRAME
DEAD END STRUCTURE
ACTUAL STRUCTURE
DESIGN TO BE
DETERMINED BY SUBSTATION

"Engineering with Distinction"
ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

STR. TH-7A-MF1

DESCRIPTION
PORT OF JUNEAU SHORE POWER LINE #2 TAP
69 – 11/6.6 kV SUBSTATION

REV	DESCRIPTION	AUTH	REV BY	DATE
A	ISSUED FOR PRELIMINARY DISCUSSION ONLY	WDZ	PJW	12/23/25

THIS DRAWING IS THE PROPERTY OF ALASKA ELECTRIC LIGHT & POWER COMPANY
5601 TONGSGARD COURT
JUNEAU, ALASKA 99801

SCALE: NTS
APPROVED BY: WDZ
DRAWN BY: PJW
DATE: 12/23/25
SIZE: D

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AEL&P
ALASKA ELECTRIC LIGHT AND POWER COMPANY

DRAWING TYPE: SCHEMATIC DIAGRAM
SHEET NO.: 1
REV. NO.: A

FILE NO. C:\AutoCAD R14\Southeast\AEL&P\SCADA-sys.dwg

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:
REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction" ELECTRICAL CONSULTANTS, INC. BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET:
AEL&P SHORE POWER LINE #2 TAP 69-11/6.6KV SUBSTATION

ADDRESS:
510 S FRANKLIN STREET, JUNEAU, AK 99801

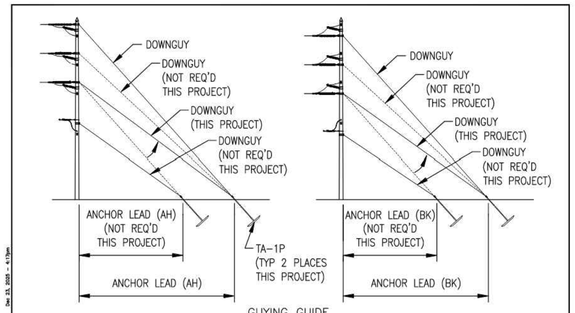
DATE: 01/12/2026

DRAWING NUMBER:
U7.4

J036

1 2 3 4 5 6 7 8 9 10 11 12 13 14

K J H G F E D C B A



GUYING GUIDE

* NOT REQ'D THIS PROJECT

ITEM	REQD.	DESCRIPTION	EQUIVALENT PRODUCT
* 4	3	Armor Rods, Single Support ACSR, "PENGUIN"	Preformed AR-0124
* 6	3	Horizontal Post Insulator, Polymer	Reliable NPKG30XH016S0
7	6	Polymer Insulator, Suspension / Dead End Type	Reliable S178045VX06
* 8	3	Conductor Clamp, Trunion Mount, Aluminum	Maclean ACTS-118
9	6	Conductor DE, Bolted Clamp, w/Socket Eye	Maclean ADE-24-S
10	3	Wedge, Connector	Homac PT-XXXX
11	6	Anchor Shackle, 30 KIP	Maclean ASH-55
12	6	Dead End Tee, 40 KIP	Hughes 2817-A-13
13	6	Pole Eye Plate, 36 KIP	Maclean EPR-77A-7
17	6	Y-Clevis Ball, 35KIP	Maclean YCB-65A
18	1	Pole Top Bird Perch Cone	Kaddas
41	1	Bolt, Machine, 5/8" x Length Required	
43	2	Washer, Curved, 3" x 3" x 1/4" w/11/16" Hole	
44	1	Washer, Spring, w/ 11/16" Hole	
47	1	Locknut, MF, 5/8"	
48	12	Bolt, Machine, 3/4" x Length Required	
* 52	4	Washer, Curved, 4" x 4" x 1/4" w/13/16" Hole	
53	12	Washer, Spring, w/ 13/16" Hole	
56	12	Locknut, MF, 3/4"	
* 57	6	Bolt, Machine, 7/8" x Length Required	
* 61	6	Washer, Curved, 4" x 4" x 1/4" w/15/16" Hole	
* 62	6	Washer, Spring, w/ 15/16" Hole	
* 65	6	Locknut, MF, 7/8"	

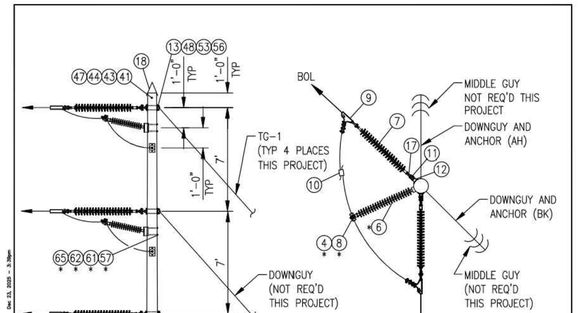
DSGN	WDZ	12/23/25
DRN	PJW	12/23/25
CKD	WDZ	12/23/25

ELECTRICAL CONSULTANTS, INC.

SCALE: NTS
FOR 8.5x11 DWG ONLY

ALASKA ELECTRIC LIGHT and POWER CO.
69kV TRANSMISSION LINE STANDARD
TP-69-3B
DEADEND ANGLE STRUCTURE LAYOUT-90°

DRAWING NO.
AELP
TP-69-3B
SHEET 2 OF 2



NOTES:
1. METAL SHIMS SHOULD BE USED TO ADJUST POST INSULATORS WHEN BRACKETS ARE LOCATED ON UNEVEN POLE SURFACES.
2. THE LOOP END OF THE SPRING WASHER SHALL BE POSITIONED AT THE TOP, WHERE POSSIBLE.
3. NO BOLT SHALL EXTEND MORE THAN 2-1/2" BEYOND LAST NUT OR LOCKNUT.
4. UNLESS OTHERWISE SPECIFIED, ALL BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325. NUTS SHALL CONFORM TO SPECIFICATIONS REFERENCED IN ASTM SPECIFICATION A325

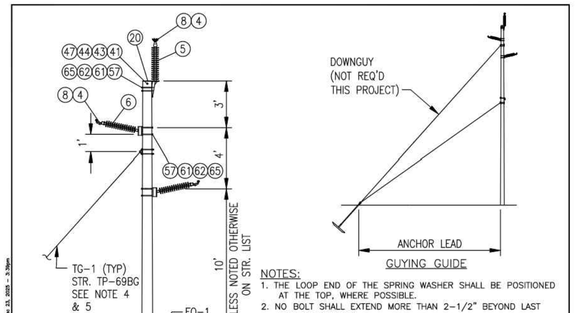
DSGN	WDZ	12/23/25
DRN	PJW	12/23/25
CKD	WDZ	12/23/25

ELECTRICAL CONSULTANTS, INC.

SCALE: NTS
FOR 8.5x11 DWG ONLY

ALASKA ELECTRIC LIGHT and POWER CO.
69kV TRANSMISSION LINE STANDARD
TP-69-3B (MOD)
DEADEND ANGLE STRUCTURE LAYOUT-90°

DRAWING NO.
AELP
TP-69-3B
SHEET 1 OF 2



NOTES:
1. THE LOOP END OF THE SPRING WASHER SHALL BE POSITIONED AT THE TOP, WHERE POSSIBLE.
2. NO BOLT SHALL EXTEND MORE THAN 2-1/2" BEYOND LAST NUT OR LOCKNUT.
3. UNLESS OTHERWISE SPECIFIED, ALL BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325. NUTS SHALL CONFORM TO SPECIFICATIONS REFERENCED IN ASTM SPECIFICATION A325
4. INSTALL GUYS ON TYPE TP-69G FOR LINE ANGLES BETWEEN 1° AND 10°
5. * MATERIAL FOR TYPE TP-69G ONLY

ITEM	REQD.	DESCRIPTION	EQUIVALENT PRODUCT
4	3	Armor Rods, For 652.4, AAAC, "ELGIN"	Preformed AR-0135
5	1	Vertical Post Insulator, Polymer	Reliable NBKG30XH020S0-125
6	2	Horizontal Post Insulator, Polymer	Reliable NPKG30XH016S0
8	3	Conductor Clamp, Trunion Mount, Aluminum	Maclean ACTS-150-SL2
* 13	2	Pole Eye Plate, 36KIP	Maclean EPR-77A-7
* 20	1	Pole Cap	
41	1	Bolt, Machine, 5/8" x Length Required	
43	2	Washer, Curved, 3" x 3" x 1/4" w/11/16" Hole	
44	1	Washer, Spring, w/ 11/16" Hole	
47	1	Locknut, MF, 5/8"	
48	4	Bolt, Machine, 3/4" x Length Required	
* 52	4	Washer, Curved, 4" x 4" x 1/4" w/13/16" Hole	
* 53	4	Washer, Spring, w/ 13/16" Hole	
* 56	4	Locknut, MF, 3/4"	
* 57	6	Bolt, Machine, 7/8" x Length Required	
* 61	6	Washer, Curved, 4" x 4" x 1/4" w/15/16" Hole	
62	6	Washer, Spring, w/ 15/16" Hole	
65	6	Locknut, MF, 7/8"	

DSGN	WDZ	12/23/25
DRN	PJW	12/23/25
CKD	WDZ	12/23/25

ELECTRICAL CONSULTANTS, INC.

SCALE: NTS
FOR 8.5x11 DWG ONLY

ALASKA ELECTRIC LIGHT and POWER CO.
69kV TRANSMISSION LINE STANDARD
TP-69B AND TP-69BG
SUSPENSION STRUCTURE LAYOUT-0°-10°

DRAWING NO.
AELP
TP-69B

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:

REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN
DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction"
ECI ELECTRICAL CONSULTANTS, INC.
BILLINGS, MONTANA

AEL&P since 1893 ALASKA ELECTRIC LIGHT & POWER CO.

CITY & BOROUGH OF JUNEAU DOCKS & HARBORS

PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET:
AEL&P DETAILS

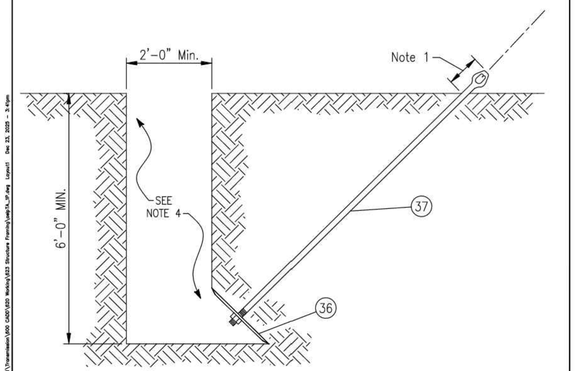
ADDRESS:
510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER:
U7.5

J036

ITEM	REQD.	DESCRIPTION	EQUIVALENT PRODUCT
36	1	Anchor, Cross-Plate, 24", Galv.	Chance X24-3/4
37	1	Anchor Rod, Tripleye Adapter, 3/4" x 8 ft.	Chance 7558



NOTES:
1. MAXIMUM PROJECTION AFTER LOADING IS 8 INCHES.
2. IF SOIL CLASS AT DEPTH OF ANCHOR IS WORSE THAN CLASS 5 OR COMPETENT ROCK, USE OF ANOTHER ANCHOR TYPE MAY BE REQUIRED BY THE ENGINEER.
3. ANCHORS SHALL BE INSTALLED IN LINE WITH THE GUYS.
4. SELECT BACKFILL AS REQUIRED BY THE ENGINEER.

DSGN	WDZ	12/23/25
DRN	PJW	12/23/25
CKD	WDZ	12/23/25

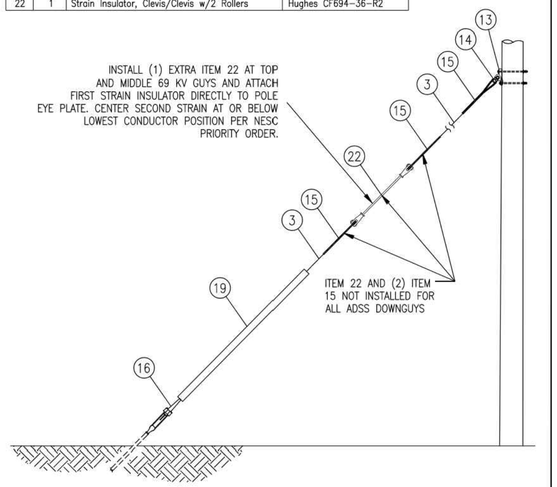
SCALE: NTS
FOR 8.5x11 DWG ONLY

ELECTRICAL CONSULTANTS, INC.

ALASKA ELECTRIC LIGHT and POWER CO.
69kV TRANSMISSION LINE STANDARD
TA-1P
CROSS PLATE ANCHOR

DRAWING NO.
AELP
TA-1P

ITEM	REQD.	DESCRIPTION	EQUIVALENT PRODUCT
3	As Req'd	Guy Wire, 18M" Alumoweld,.417" Dia., 18,000 Lb.	Alumoweld 18M Guy Strand
13	1	Pole Eye Plate, 36KIP	Maclean EPR-77A-7
14	1	Clevis Thimble, 30KIP	Maclean FSA-88A-5
15	3	Guy Grips, 18M, Alumoweld	Preformed AWDE-4124
16	1	Automatic Grips, Alumoweld	Maclean 5203
19	1	Guy Guard, Yellow, 8'	Preformed PG5518
22	1	Strain Insulator, Clevis/Clevis w/2 Rollers	Hughes CF694-36-R2



DSGN	WDZ	12/23/25
DRN	PJW	12/23/25
CKD	WDZ	12/23/25

SCALE: NTS
FOR 8.5x11 DWG ONLY

ELECTRICAL CONSULTANTS, INC.

ALASKA ELECTRIC LIGHT and POWER CO.
69kV TRANSMISSION LINE STANDARD
TG-1
DOWNGUY W/INSULATOR

DRAWING NO.
AELP
TG-1

NO.	REVISION:	DATE:

PRIME CONSULTANT:
H3 ENGINEERING SOLUTIONS, INC.
thaddadian@h3solutions.co
(626) 319-3476

DESIGNED BY:

REVIEWED BY:

ISSUED FOR: 15% SCHEMATIC DESIGN — DATE: 01/12/2026

SUB CONSULTANT:
"Engineering with Distinction"
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PROJECT:
PORT OF JUNEAU (DOCKS AS & CT)
CRUISE TERMINAL SHORE POWER

SHEET:
AEL&P DETAILS

ADDRESS:
510 S FRANKLIN STREET, JUNEAU, AK 99801

DATE: 01/12/2026

DRAWING NUMBER:
U7.6

J036

1 2 3 4 5 6 7 8 9 10 11 12 13 14

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