ALASKA ENERGY AUTHORITY

Date: October 20, 2021

Project: Nunapitchuk Construction

Solicitation No.: 22012

Addendum No. Six

TO ALL PLANHOLDERS:

The enclosed addendum amends the bid documents for the above referenced Project.

Acknowledgment of this addendum is required on the Proposal Form. Failure to do so may subject the bidder to disqualification.

Sincerely,

DocuSigned by:
Selwin C. Ray
0A1919DCB4834AC...

Selwin C. Ray
Contracting Officer

ADDENDUM TO CONTRACT DOCUMENTS	**Page Number** 1	**No. of Pages** 9
Addendum No. SIX	**Date Addendum Issued:** October 20, 2021	
Issuing Office Selwin Ray Alaska Energy Authority 813 W Northern Lights Blvd Anchorage, AK 99503 Phone: (907) 771-3035 Fax: (907) 771-3044	**Previous Addenda Issued** FIVE	
Project: Nunapitchuk Construction Procurement **Solicitation No.:** 22012	**Date and Hour Bids Due:** October 22, 2021 at 2:00 p.m., prevailing Anchorage time.	

NOTICE TO BIDDERS:

Bidders must acknowledge receipt of this addendum prior to the hour and date set for the bid due date by one of the following methods:

(a) By acknowledging receipt of this addendum on the proposal form submitted.
(b) By email or telefacsimile which includes a reference to the project and addendum number.

The bid documents require acknowledgment individually of all addenda to the drawings and/or specifications. This is a mandatory requirement and any bid received without acknowledgment of receipt of addenda may be classified as not being a responsive bid. If, by virtue of this addendum it is desired to modify a bid already submitted, such modification may be made by email or telefacsimile provided such an email or telefacsimile makes reference to this addendum and is received prior to the opening hour and date specified above.

****

The Bid documents for the above project are amended as follows (All other terms and conditions remain unchanged):

Revised Electrical Design Drawings see attached; (updated info regarding electrical service, added additional heaters to connex)**:**

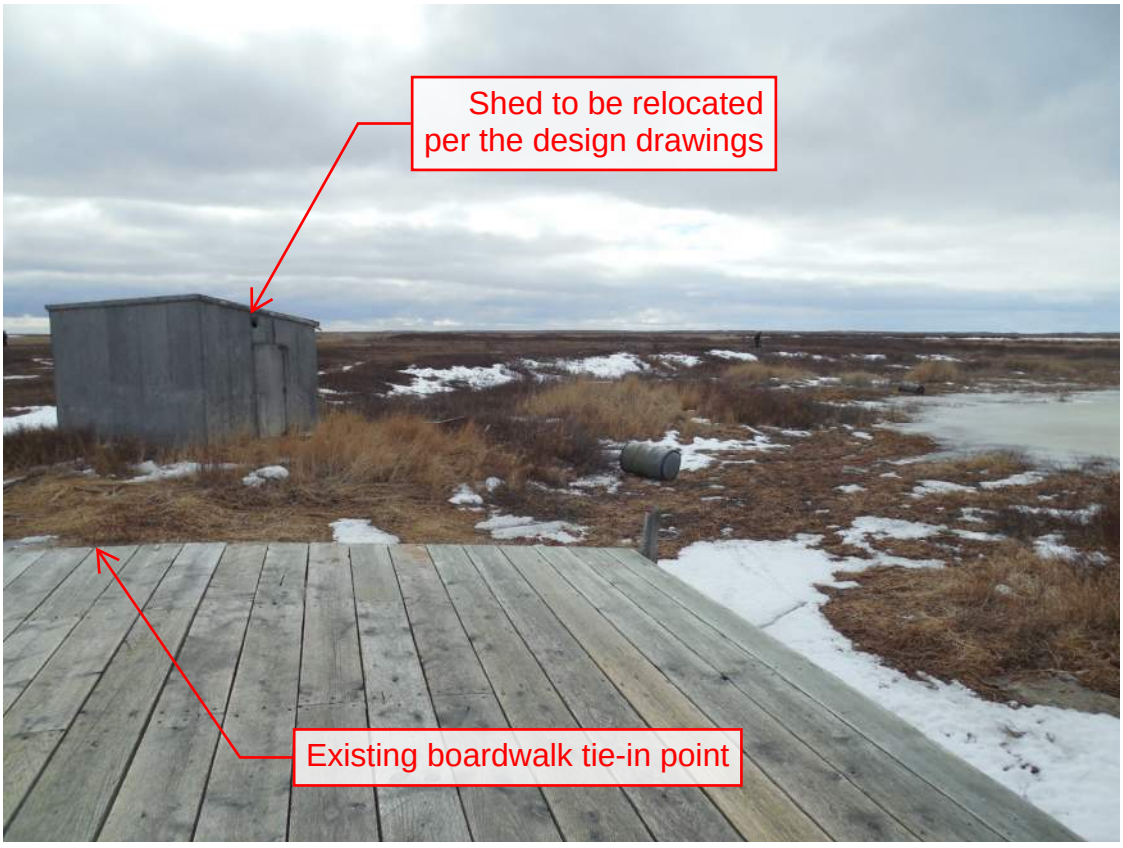
- *E-2 Revised panel schedule and load calculations. Updated service notes and added an intermediate stub pole. Clarified the pole heights to be provided with this project. Poles shall be CLASS 4*
- *E-3 Added the Heater circuits*
- *E-4 Revised conduit schedule.*
- *E-5 Updated Conex heating*

- Attached PDF "…AVEC OVH-on-Consumer-Pole" provides clarification on AVECs standard service pole requirements.
- Attached PDF "Electrical Service & Shed Photos" show the existing AVEC OHE and the shed that needs to be relocated (provided for bidder reference).

END OF ADDENDUM

Existing Electrical & Shed Photos

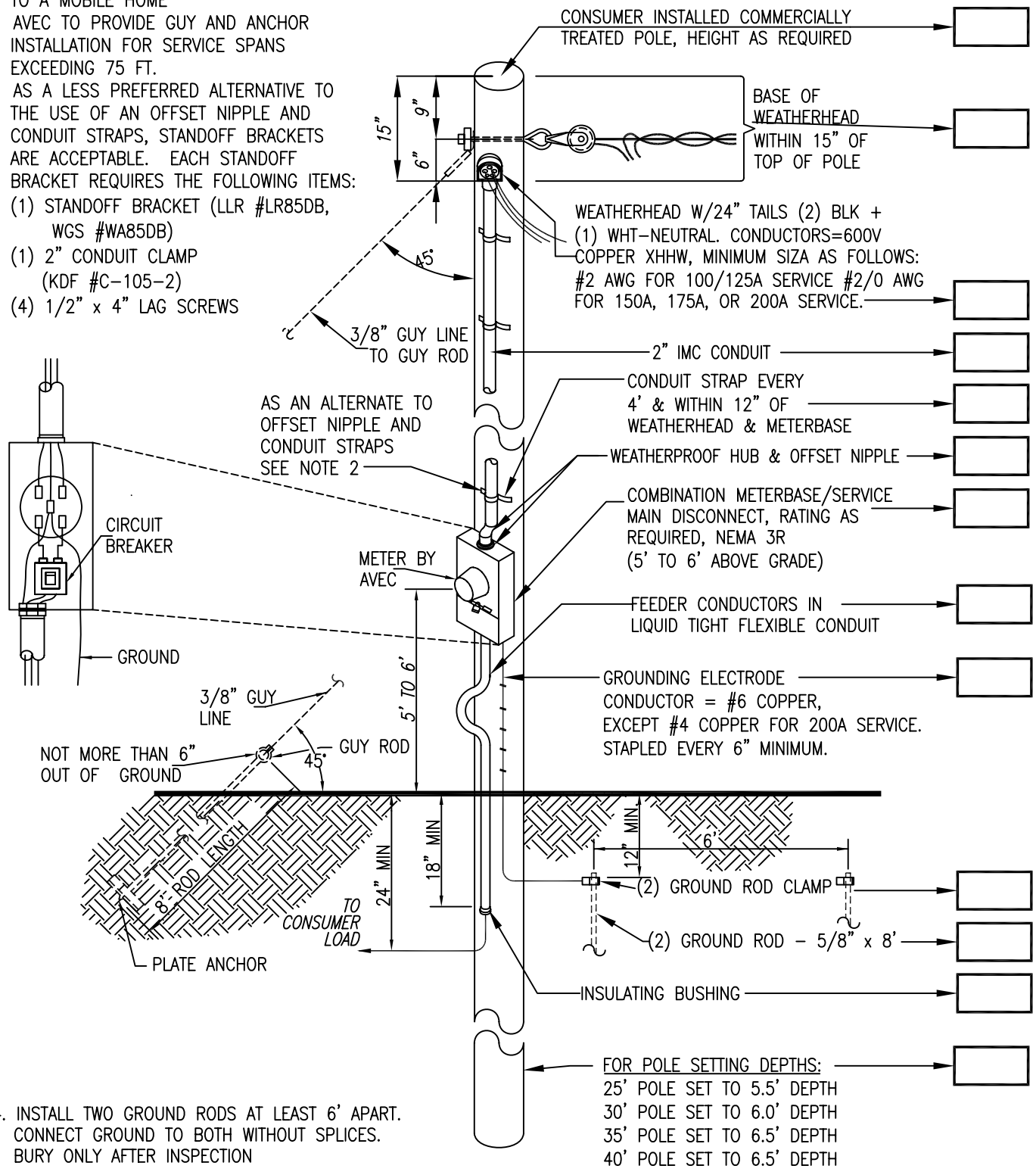

Existing power/utility pole


Shed to be relocated
per the design drawings
Existing boardwalk tie-in point

NOTES:

1. THIS INSTALLATION REQUIRED FOR SERVICE TO A MOBILE HOME
2. AVEC TO PROVIDE GUY AND ANCHOR INSTALLATION FOR SERVICE SPANS EXCEEDING 75 FT.
3. AS A LESS PREFERRED ALTERNATIVE TO THE USE OF AN OFFSET NIPPLE AND CONDUIT STRAPS, STANDOFF BRACKETS ARE ACCEPTABLE. EACH STANDOFF BRACKET REQUIRES THE FOLLOWING ITEMS:
   (1) STANDOFF BRACKET (LLR #LR85DB, WGS #WA85DB)
   (1) 2" CONDUIT CLAMP (KDF #C-105-2)
   (4) 1/2" x 4" LAG SCREWS

CHECK BOX WHEN COMPLETE



4. INSTALL TWO GROUND RODS AT LEAST 6' APART. CONNECT GROUND TO BOTH WITHOUT SPLICES. BURY ONLY AFTER INSPECTION

ALASKA VILLAGE ELECTRIC CO-OP

DISTRIBUTION ASSEMBLY GUIDE DRAWING

DATE 3-12-04

REV. 7

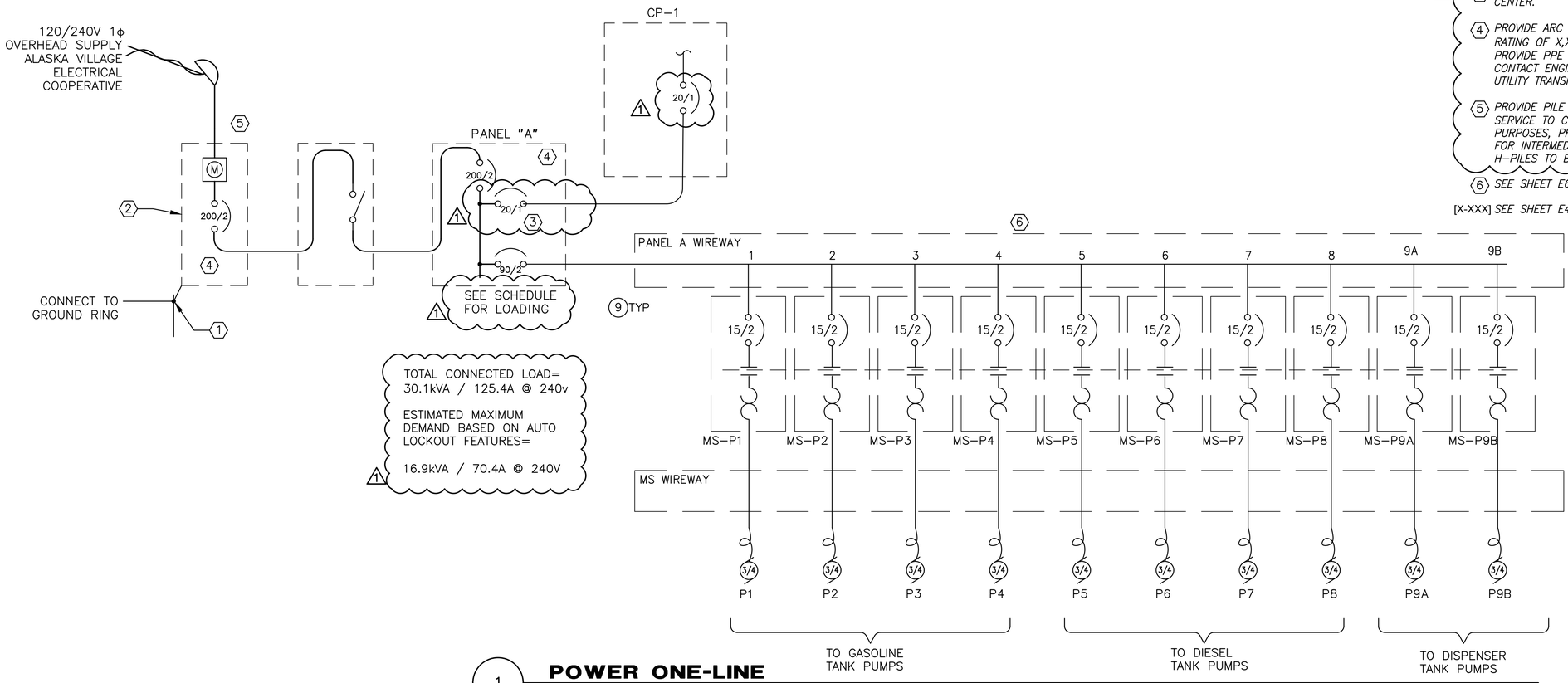
SERVICE TO CONSUMER OWNED METER POLE

APPLICATION	DWG.	ACCT. NO.	SPEC. NO.	CAD#	SHT
240VAC 1ø SERVICE	R. MONAHAN			93-3A	1 OF 1
	ENGR. W.A.S.				

NOTES

1. 3/4"X10' COOPER CLAD STEEL GROUND RODS CONNECTED WITH #2 BCU.
2. MILBANK METER MAIN, 120/240V, 100A. SINGLE-PHASE, NEMA 4X, SUPPLY AND INSTALL IN COMPLIANCE WITH AVEC SPECIFICATIONS. PROVIDE PLACARDS FOR SHORT CIRCUIT CURRENT. CONTACT ENGINEER AFTER AVEC INSTALLATION COMPLETED FOR VALUES.
3. 200A, 120/240V, 1ϕ, 3 WIRE, 18 SPACE, NEMA 12 LOAD CENTER.
4. PROVIDE ARC FLASH WARNING PLACARD TO READ "AIC RATING OF X,XXX A CALCULATED ON X/X/2020." PROVIDE PPE LABLE FOR LEVEL 1 PER NFPA 70E. FOR CONTACT ENGINEER FOR CALCULATION AFTER CONFIRMING UTILITY TRANSFORMER SIZE.
5. PROVIDE PILE SUPPORTED, 40" POLE SERVICE PER AVEC SERVICE TO CONSUMER STANDARD 93-3A. FOR BID PURPOSES, PROVIDE ADDITIONAL PILE SUPPORTED POLE FOR INTERMEDIATE SERVICE CONDUCTORS PER AVEC. H-PILES TO BE FURNISHED BY OWNER.
6. SEE SHEET E6 FOR CONDUIT DEVELOPMENT PLAN

[X-XXX] SEE SHEET E4 FOR CONDUIT SCHEDULE



1 **POWER ONE-LINE**

PANEL "A" SCHEDULE

Location: Spill Response Equipment Kiosk			240/120V				1ϕ , 3 Wire		
Served from: Disconnect			200A MAINS					NEMA 12	
POLE #	AMP TRIP	LOAD DESCRIPTION	POLE Kva	MCB L1	MCB L2	POLE Kva	LOAD DESCRIPTION	AMP TRIP	POLE #
1	30/2	CONVECTION HEATER, CH-1	2.5	2.9		0.4	TANK FARM LIGHTING	20/1	2
3			2.5		2.9	0.4	PLATFORM LIGHTING	20/1	4
5	20/1	KIOSK LIGHTING	0.2	0.4		0.2	CONEX EXTERIOR LIGHTING	20/1	6
7	20/1	HOSE REEL LIGHTING	0.2		0.7	0.5	CONEX RECEPTACLES	20/1	8
9	20/1	CP-1	0.5	8.8		8.3	PUMPS	90/2	10
11	20/1	SPILL RESPONSE CONNEX LIGHTING	0.2		8.5	8.3			12
13	20/1	HOSE REEL WINDING MOTOR	0.9	0.9		0.0	SPARE	20/1	14
15	30/2	5KW HEATER, UH-1	2.5		2.5	0.0	SPARE	20/1	16
17			2.5	2.5		0.0	SPARE	20/1	18
				15.5	14.6		Total kVA =	30.1 kVA	
* = GFCI Circuit Breaker							Total Amps @ 240V =	125.4 A	

ALASKA ENERGY AUTHORITY

STATE OF ALASKA 49TH WILLIAM M. MCDONELL EE-7879 REGISTERED PROFESSIONAL ENGINEER 12/7/21

CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD, SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL682-AK

BULK FUEL UPGRADES
ONE-LINE DIAGRAM AND PANEL SCHEDULE
NUNAPITCHUK, ALASKA

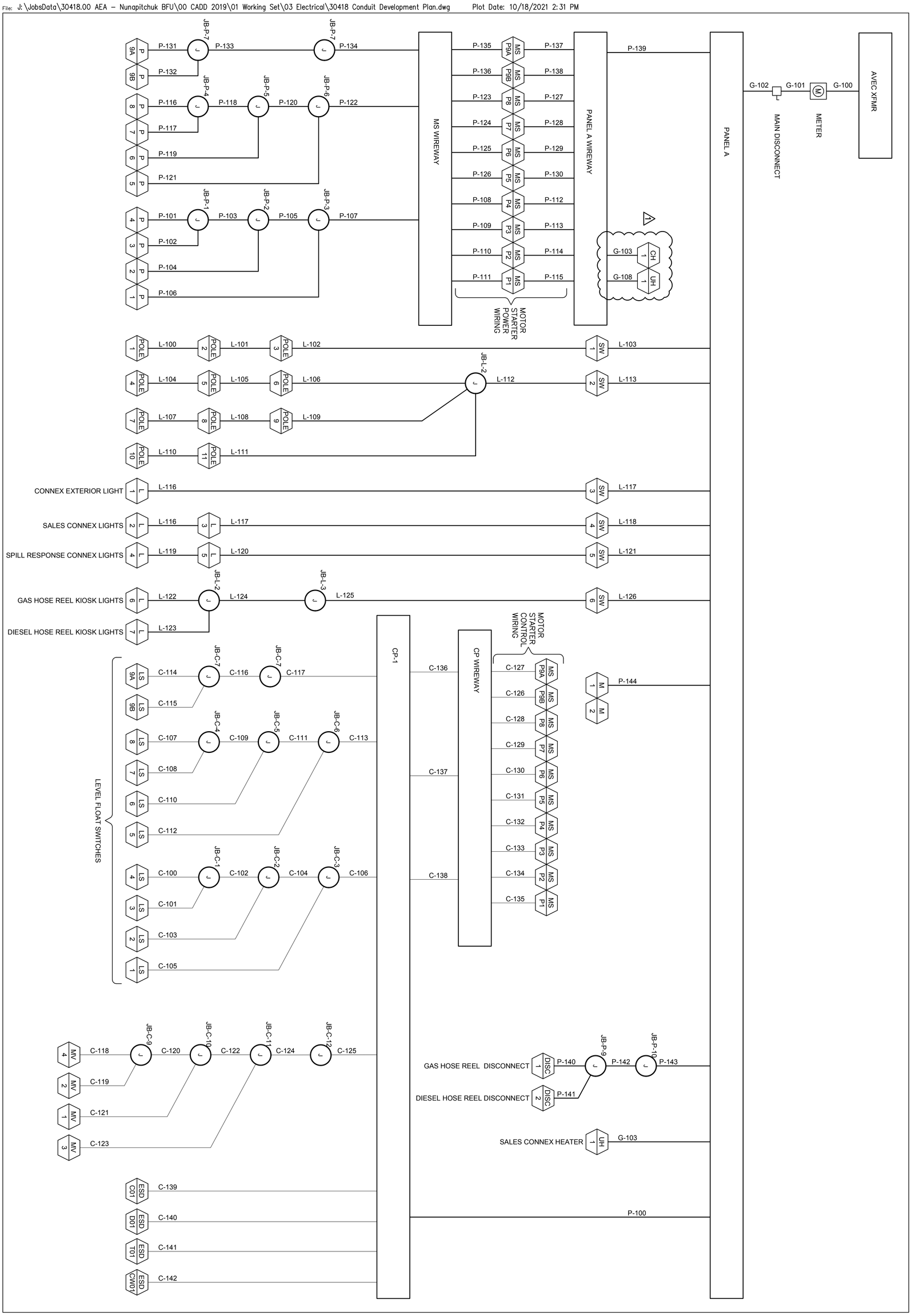
NO.	REVISION	BY	DATE
1	REVISED PANEL SCHEDULE	WM	10/18/21

Plot Date 10/18/21
Designed WM
Drawn DJ
Approved WM

Sheet No. E2

File: J:\JobsData\30418.00 AEA - Nunapitchuk BFU\00 CADD 2019\01 Working Set\03 Electrical\30418 P1L-PANEL SCHEDULE.dwg Plot Date: 10/18/2021 2:30 PM

File: J:\JobsData\30418.00 AEA - Nunapitchuk BFU\00 CADD 2019\01 Working Set\03 Electrical\30418 Conduit Development Plan.dwg Plot Date: 10/18/2021 2:31 PM



Sheet No.	Plot Date	Designed	Drawn	Approved
E3	10/18/21	WM	DJ	WM

NO.	REVISION	BY	DATE
1	REV. CONDUIT DEVELOPMENT PLAN	WM	10/18/21

BULK FUEL UPGRADES

CONDUIT DEVELOPMENT PLAN

NUNAPITCHUK, ALASKA

CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD. SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL882-AK

STATE OF ALASKA 49 TH
William M. McDonald
EE-7879
1/27/21
REGISTERED PROFESSIONAL ENGINEER

ALASKA ENERGY AUTHORITY

CONDUIT		CONDUCTORS		FROM	TO	REMARKS
NO.	SIZE	POWER	SPARES*			
P-100	1	3#8, 1#8GND		A-9 1	CP-1	
P-101	3/4	2#12, 1#12GND		P4	JB-P-1	
P-102	3/4	2#12, 1#12GND		P3	JB-P-1	
P-103	3/4	4#12, 1#12GND		JB-P-1	JB-P-2	
P-104	3/4	2#12, 1#12GND		P-2	JB-P-2	
P-105	3/4	6#12, 1#12GND		JB-P-2	JB-P-3	
P-106	3/4	2#12, 1#12GND		P1	JB-P-3	
P-107	3/4	8#12, 1#12GND		JB-P-3	MS WIREWAY	
P-108	3/4	2#12, 1#12GND		MS WIREWAY	MS-P4	P-4 TO MS-P4
P-109	3/4	2#12, 1#12GND		MS WIREWAY	MS-P3	P-3 TO MS-P3
P-110	3/4	2#12, 1#12GND		MS WIREWAY	MS-P2	P-2 TO MS-P2
P-111	3/4	2#12, 1#12GND		MS WIREWAY	MS-P	P-1 TO MS-P1
P-112	3/4	2#12, 1#12GND		MS-P4	PANEL A WIREWAY	
P-113	3/4	2#12, 1#12GND		MS-P3	PANEL A WIREWAY	
P-114	3/4	2#12, 1#12GND		MS-P2	PANEL A WIREWAY	
P-115	3/4	2#12, 1#12GND		MS-P1	PANEL A WIREWAY	
P-116	3/4	2#12, 1#12GND		P8	JB-P-4	
P-117	3/4	2#12, 1#12GND		P7	JB-P-4	
P-118	3/4	4#12, 1#12GND		JB-P-4	JB-P-5	
P-119	3/4	2#12, 1#12GND		P-6	JB-P-5	
P-120	3/4	6#12, 1#12GND		JB-P-5	JB-P-6	
P-121	3/4	2#12, 1#12GND		P5	JB-P-6	
P-122	3/4	8#12, 1#12GND		JB-P-6	MS WIREWAY	
P-123	3/4	2#12, 1#12GND		MS WIREWAY	MS-P8	P-8 TO MS-P8
P-124	3/4	2#12, 1#12GND		MS WIREWAY	MS-P7	P-7 TO MS-P7
P-125	3/4	2#12, 1#12GND		MS WIREWAY	MS-P6	P-6 TP MS-P6
P-126	3/4	2#12, 1#12GND		MS WIREWAY	MS-P5	P-5 TO MS-P5
P-127	3/4	2#12, 1#12GND		MS-P8	PANEL A WIREWAY	
P-128	3/4	2#12, 1#12GND		MS-P7	PANEL A WIREWAY	
P-129	3/4	2#12, 1#12GND		MS-P6	PANEL A WIREWAY	
P-130	3/4	2#12, 1#12GND		MS-P5	PANEL A WIREWAY	
P-131	3/4	2#12, 1#12GND		P-9A	JB-P-7	
P-132	3/4	2#12, 1#12GND		P-9B	JB-P-7	
P-133	3/4	4#12, 1#12GND		JB-P-7	JB-P-8	
P-134	3/4	4#12, 1#12GND		JB-P-8	MS WIREWAY	
P-135	3/4	2#12, 1#12GND		MS WIREWAY	MS-P9A	P-9A TO MS-P9A
P-136	3/4	2#12, 1#12GND		MS WIREWAY	MS-P9B	P-9B TO MS-P9B
P-137	3/4	2#12, 1#12GND		MS-P9A	PANEL A WIREWAY	
P-138	3/4	2#12, 1#12GND		MS-P9B	PANEL A WIREWAY	
P-139	3/4	2#6, 1#6GND 1		PANEL A WIREWAY	A-10,12 1	
P-140	3/4	2#12, 1#12GND		DISC-1	JB-P-9	GAS HOSE REEL
P-141	3/4	2#12, 1#12GND		DISC-2	JB-P-9	DIESEL HOSE REEL
P-142	3/4	2#12, 1#12GND		JB-P-9	JB-P-10	
P-143	3/4	2#12, 1#12GND		JB-P-10	M1/M2	
P-144	3/4	2#12, 1#12GND		M-1/M-2	A-13 1	HOSE REEL MOTORS

CONDUIT		CONDUCTORS		FROM	TO	REMARKS
NO.	SIZE	GENERAL	SPARES*			
G-100	1 1/2	2#3/0, 1#3/0GND		AVEC XFMR	METER	
G-101	1 1/2	2#3/0, 1#3/0GND		METER	MAIN DISCONNECT	
G-102	1 1/2	2#3/0, 1#3/0GND		MAIN DISCONNECT	PANEL A	
G-103	3/4	2#10, 1#10GND 1		CH-1 HEATER 1	A-1,3	
G-104	3/4	2#12, 1#12GND		RECEPTACLE 1	RECEPTACLE 2	
G-105	3/4	2#12, 1#12GND		RECEPTACLE 2	RECEPTACLE 3	
G-106	3/4	2#12, 1#12GND		RECEPTACLE 3	RECEPTACLE 3	
G-107	3/4	2#12, 1#12GND		RECEPTACLE 3	A-8	
G-108	3/4	2#10, 1#10GND		UH-1 HEATER	A-15,17	

1

CONDUIT		CONDUCTORS		FROM	TO	REMARKS
NO.	SIZE	CONTROL	SPARES*			
C-100	3/4	3#14, 1#14GND		LS-4	JB-C-1	FLOATS FOR TANK 4
C-101	3/4	3#14, 1#14GND		LS-3	JB-C-1	FLOATS FOR TANK 3
C-102	3/4	6#14, 1#14GND		JB-C-1	JB-C-2	
C-103	3/4	3#14, 1#14GND		LS-2	JB-C-2	FLOATS FOR TANK 2
C-104	3/4	9#14, 1#14GND		JB-C-2	JB-C-3	
C-105	3/4	3#14, 1#14GND		LS-1	JB-C-3	FLOATS FOR TANK 1
C-106	3/4	12#14, 1#14GND		JB-C-3	CP-1	
C-107	3/4	3#14, 1#14GND		LS-8	JB-C-4	FLOATS FOR TANK 8
C-108	3/4	3#14, 1#14GND		LS-7	JB-C-4	FLOATS FOR TANK 7
C-109	3/4	6#14, 1#14GND		JB-C-4	JB-C-5	
C-110	3/4	3#14, 1#14GND		LS-6	JB-C-5	FLOATS FOR TANK 6
C-111	3/4	9#14, 1#14GND		JB-C-5	JB-C-6	
C-112	3/4	3#14, 1#14GND		LS-5	JB-C-6	FLOATS FOR TANK 5
C-113	3/4	12#14, 1#14GND		JB-C-6	CP-1	
C-114	3/4	4#14, 1#14GND		LS-9A	JB-C-7	FLOATS FOR TANK 9A
C-115	3/4	4#14, 1#14GND		LS-9B	JB-C-7	FLOATS FOR TANK 9B
C-116	3/4	8#14, 1#14GND		JB-C-7	JB-C-8	
C-117	3/4	8#14, 1#14GND		JB-C-8	CP-1	
C-118	3/4	6#14, 1#14GND		MV-4	JB-C-9	
C-119	3/4	6#14, 1#14GND		MV-2	JB-C-9	
C-120	3/4	12#14, 1#14GND		JB-C-9	JB-C-10	
C-121	3/4	6#14, 1#14GND		MV-1	JB-C-10	
C-122	1	18#14, 1#14GND		JB-C-10	JB-C-11	
C-123	3/4	6#14, 1#14GND		MV-3	JB-C-11	
C-124	1 1/4	24#14, 1#14GND		JB-C-11	JB-C-12	
C-125	1 1/4	24#14, 1#14GND		JB-C-12	CP-1	
C-126	3/4	6#14, 1#14GND		MS-P9B	CP WIREWAY	
C-127	3/4	6#14, 1#14GND		MS-P9A	CP WIREWAY	
C-128	3/4	6#14, 1#14GND		MS-P8	CP WIREWAY	
C-129	3/4	6#14, 1#14GND		MS-P7	CP WIREWAY	
C-130	3/4	6#14, 1#14GND		MS-P6	CP WIREWAY	
C-131	3/4	6#14, 1#14GND		MS-P5	CP WIREWAY	
C-132	3/4	6#14, 1#14GND		MS-P4	CP WIREWAY	
C-133	3/4	6#14, 1#14GND		MS-P3	CP WIREWAY	
C-134	3/4	6#14, 1#14GND		MS-P2	CP WIREWAY	
C-135	3/4	6#14, 1#14GND		MS-P1	CP WIREWAY	
C-136	1	24#14, 1#14GND		CP WIREWAY	CP-1	MS-P8,7,6,5
C-137	1	24#14, 1#14GND		CP WIREWAY	CP-1	MS-P4,3,2,1
C-138	3/4	12#14, 1#14GND		CP WIREWAY	CP-1	MS-P9A,9B
C-139	3/4	1#12, 1#12GND		ESD-C01	CP-1	CONNEX ESD
C-140	3/4	1#12, 1#12GND		ESD-D01	CP-1	DISPENSER ESD
C-141	3/4	1#12, 1#12GND		ESD-T01	CP-1	TANK FARM ESD
C-142	3/4	1#12, 1#12GND		ESD-CW01	CP-1	CATWALK ESD

CONDUIT		CONDUCTORS		FROM	TO	REMARKS
NO.	SIZE	LIGHTING	SPARES*			
L-100	3/4	2#12, 1#12GND		POLE 1	POLE 2	
L-101	3/4	2#12, 1#12GND		POLE 2	POLE 3	
L-102	3/4	2#12, 1#12GND		POLE 3	SW-1	
L-103	3/4	2#12, 1#12GND		SW-1	A-2 1	
L-104	3/4	2#12, 1#12GND		POLE 4	POLE 5	
L-105	3/4	2#12, 1#12GND		POLE 5	POLE 6	
L-106	3/4	2#12, 1#12GND		POLE 6	JB-L-1	
L-107	3/4	2#12, 1#12GND		POLE 11	JB-L-1	
L-108	3/4	2#12, 1#12GND		JB-L-1	POLE 7	
L-109	3/4	2#12, 1#12GND		POLE 7	JB-L-2	
L-110	3/4	2#12, 1#12GND		POLE 10	POLE 9	
L-111	3/4	2#12, 1#12GND		POLE 9	JB-L-3	
L-112	3/4	2#12, 1#12GND		POLE 8	JB-L-3	
L-113	3/4	2#12, 1#12GND		JB-L-3	JB-L-2	
L-114	3/4	2#12, 1#12GND		JB-L-2	SW-2	
L-115	3/4	2#12, 1#12GND		SW-2	A-4 1	
L-116	3/4	2#12, 1#12GND		L-1	SW-3	CONNEXES EXT. LIGHT
L-117	3/4	2#12, 1#12GND		SW-3	A-6 1	
L-118	3/4	2#12, 1#12GND		L-2	KIOSK INT. LIGHT WEST 2	CONNEXES INT LIGHT
L-119	3/4	2#12, 1#12GND		L-3	KIOSK INT. LIGHT EAST 1	CONNEXES INT LIGHT
L-120	3/4	2#12, 1#12GND		L-4	KIOSK INT. LIGHT EAST 2	CONNEXES INT LIGHT
L-121	3/4	2#12, 1#12GND		L-5	SW-4	CONNEXES INT LIGHT
L-122	3/4	2#12, 1#12GND		SW-4	A-11 1	
L-123	3/4	2#12, 1#12GND		L-6	JB-L-4	GAS KIOSK LIGHT
L-124	3/4	2#12, 1#12GND		L-7	JB-L-4	DIESEL KIOSK LIGHT
L-125	3/4	2#12, 1#12GND		JB-L-4	JB-L-5	
L-126	3/4	2#12, 1#12GND		JB-L-5	SW-5	
L-127	3/4	2#12, 1#12GND		SW-5	A-5 1	

ALASKA ENERGY AUTHORITY

STATE OF ALASKA 49TH WILLIAM MACDONALD EE-7879 7/27/21 REGISTERED PROFESSIONAL ENGINEER

CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD, SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL882-AK

BULK FUEL UPGRADES
CONDUIT SCHEDULE
NUNAPITCHUK, ALASKA

NO.	REVISION	BY	DATE
1	ISSUED FOR BIDDING	AH	7/28/21
1	REVISED CONDUIT SCHEDULE	WM	10/18/21

Plot Date 10/18/21
Designed WM
Drawn DJ
Approved WM

Sheet No.
E4

Plot Date: 10/18/2021 2:32 PM

File: J:\JobsData\30418.00 AEA - Nunapitchuk BFU\00 CADD 2019\01 Working Set\03 Electrical\30418 Conduit Schedule.dwg

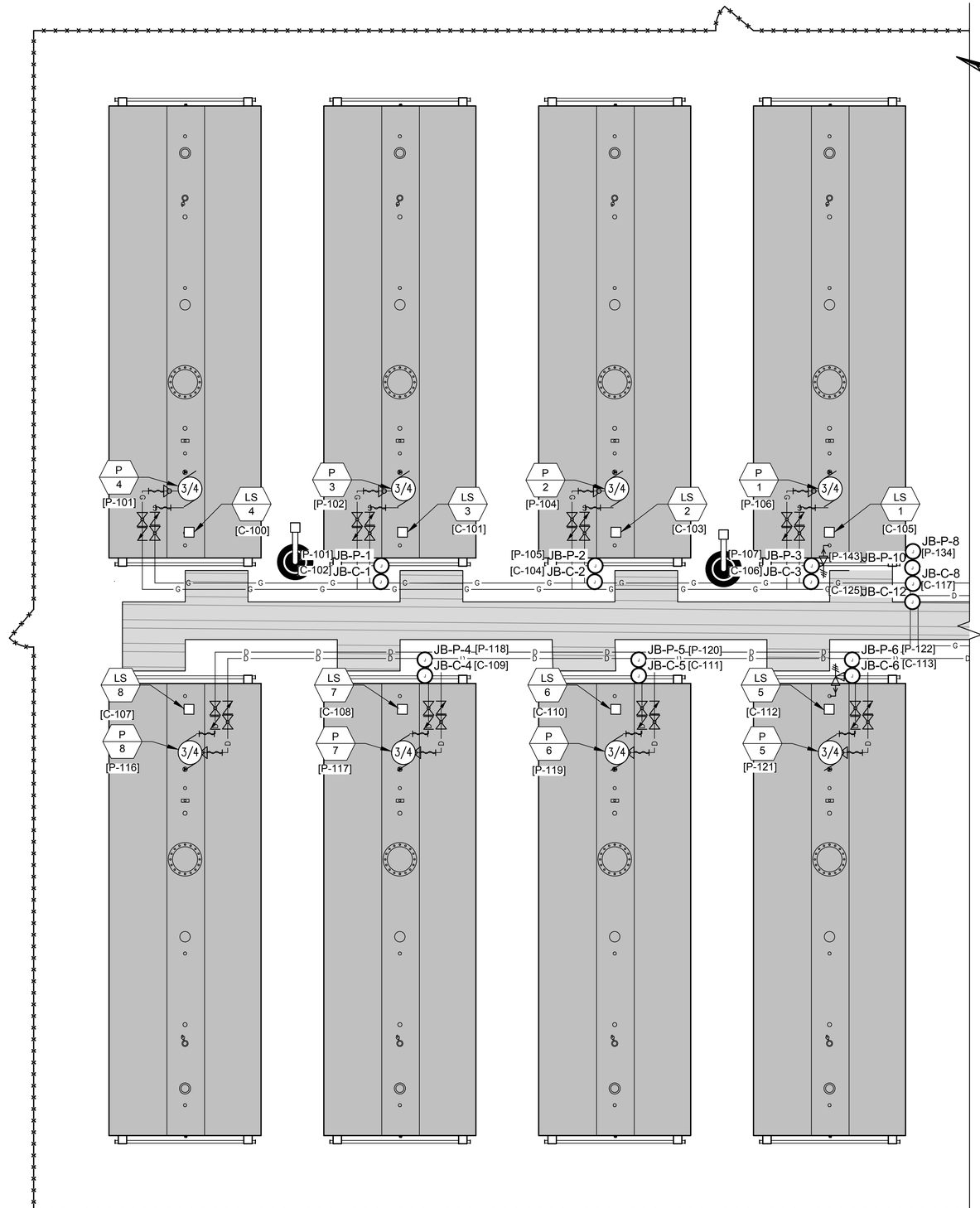
NOTES

1. SEE SHEET E6 FOR CONDUIT DEVELOPMENT PLAN
2. CHROMOLOX AIR HEATER. WALL MOUNTED 240V, 5KW HEATER WITH WALL BRACKET. HVH–05–21–34–TL–D–00–0–0–0 WITH DISCONNECT, INTEGRAL TRANSFORMER (24V), CONTACTOR AND THERMOSTAT.
3. PLATE MOUNTED, ABOVE CONNEX DOORS
4. 240V, 1.5KW WALL MOUNTED CONVECTION HEATER WITH INTEGRAL THERMOSTAT, CHROMOLOX 332435 HCH–501.

[XXX] SEE SHEET E4 FOR CONDUIT SCHEDULE.

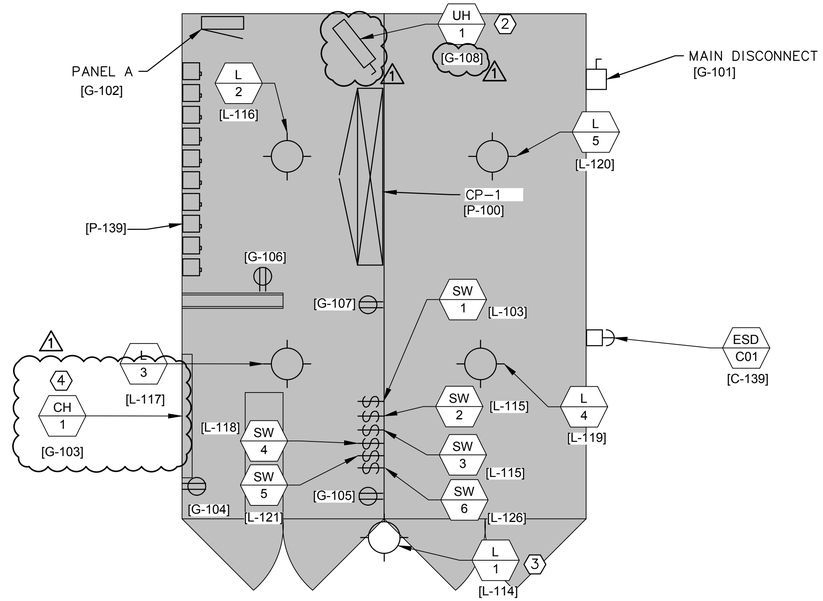
SEE SPECIFICATION FOR CONDUIT ROUTING REQUIREMENTS.

HAZARDOUS BOUNDARIES SHOW ON E8. PROVIDE SEAL OFF FITTINGS PER CODE.



1 **TANK FARM ELECTRICAL PLAN**

5' 0 5' 10'



3 **SPILL RESPONSE/SALES CONNEX ELECTRICAL DETAIL**

ALASKA ENERGY AUTHORITY

STATE OF ALASKA 49TH WILLIAM M. MCDONELL EE-7879 PROFESSIONAL ENGINEER 12/21/21

CRW ENGINEERING GROUP, LLC
3940 ARCTIC BLVD, SUITE 300
ANCHORAGE, ALASKA 99503
PHONE: (907) 562-3252
#AECL882-AK

BULK FUEL UPGRADES

POWER & CONTROLS PLAN (1 OF 2)

NUNAPITCHUK, ALASKA

NO.	REVISION	BY	DATE
1	ISSUED FOR BIDDING	AH	7/28/21
1	REVISED CONNEX DETAIL	WM	10/18/21

Plot Date 10/18/21
Designed WM
Drawn DJ
Approved WM

Sheet No. E6

File: J:\JobsData\30418.00 AEA – Nunapitchuk BFU\00 CADD 2019\01 Working Set\03 Electrical\30418.00 Electrical Site Plan.dwg Plot Date: 10/18/2021 2:33 PM