



Louden Tribe 1.5MW Solar PV Install

Invitation to Bid No: LT-FY24-001

Opening Date: Friday January 19th 2024

Bid Due Date: Sunday Feb 11th 2024, 5pm

Addendum 2

Change From Louden Tribe: New due Date for RFP Responses under LT-FY24-001 will be **Sunday Feb 11th 2024, 5pm**

Note to Bidders: Addendum 1 addresses emailed questions that came in from the date of issue through Tuesday January 31st 2024

Q1: Is there a map available and a proposed layout of the sub arrays at the site?

A1: Please see attached sub-array layout in the following pages showing the approximate location of the 28 sub arrays in Galena, AK that we are requesting a quote to construct. Note this RFP is not requesting any electrical work only procurement shipping and installation of the APA racking, Solar modules and ground screws. The final map of the site will

be supplied to the selected contractor but worst must be completed inside the polygonal map that has been approved by the Dept of Energy NEPA compliance officer. The mapping attached is for reference only and Louden will supply specific GPS points for the final area to the selected contractor.

Q2: What are the time constraints for a contractor to get access to the site

A2: Drilling work must be done while there is frozen ground at the site so as not to disrupt the ground or leave ground scars on the tundra or the contractor must propose a mitigation measure.

Q3: What is the layout of each sub array?

A3: A typical array layout showing the location of individual ground screws is shown on the following pages it is expected there will be 28 of these sub-arrays

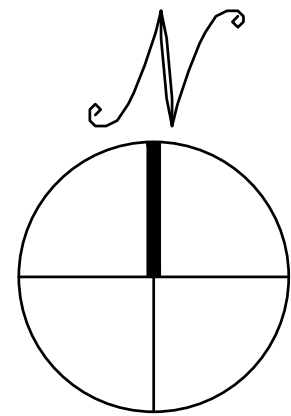
Q4: What is the timing for bid opening and contractor selection?

A4: Bids will be due 5pm Sunday Feb 11th and opened publically at 9am Feb 12th at the Louden Council Office in Galena, AK. The tribe will score respondents later that day and plans to select a contractor by Friday Feb 16th

Q5: What Specific Module will be the basis of design

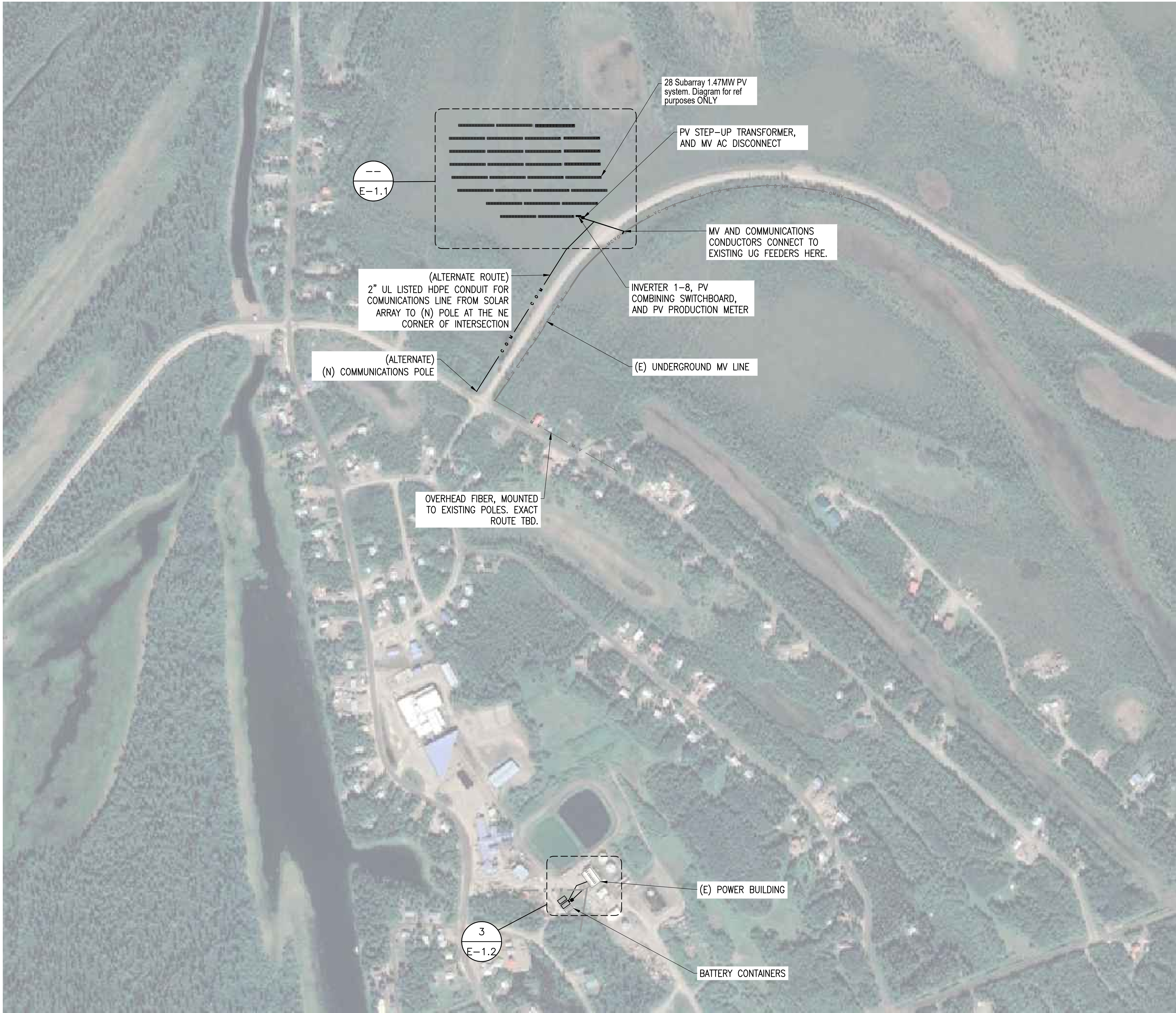
A5: The module spec sheet is attached SEG-550-BMA-TB is being used as the basis of design. Loudon is open to alternatives if proposed and accepted by the tribe

PRINT DATE: 1/16/2023 1:55 PM DWG LOCATION: g:\shared drives\Design\Projects\tanana chiefs conference\22-3270c - village of galena\working set\E-1.0 ELECTRICAL SITEPLAN.dwg



ELECTRICAL SITEPLAN

SCALE: 1" = 250'
0 250' 500'



2210 NW Hayes Ave
Corvallis, OR 97333
541.754.2001

STAMP:

NOT FOR
CONSTRUCTION

GALENA MICROGRID
GALENA, AK 99741

PROJECT NUMBER:
22-3270C

SCALE
AS SHOWN
ORIGINAL SIZE 24"x36"
SHEET SIZE ARCH "D"

0 1/2" 1"

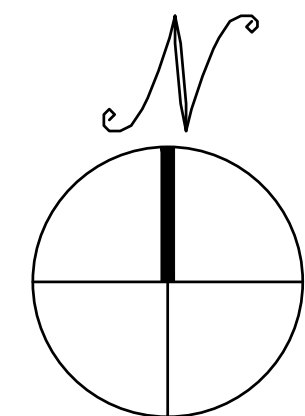
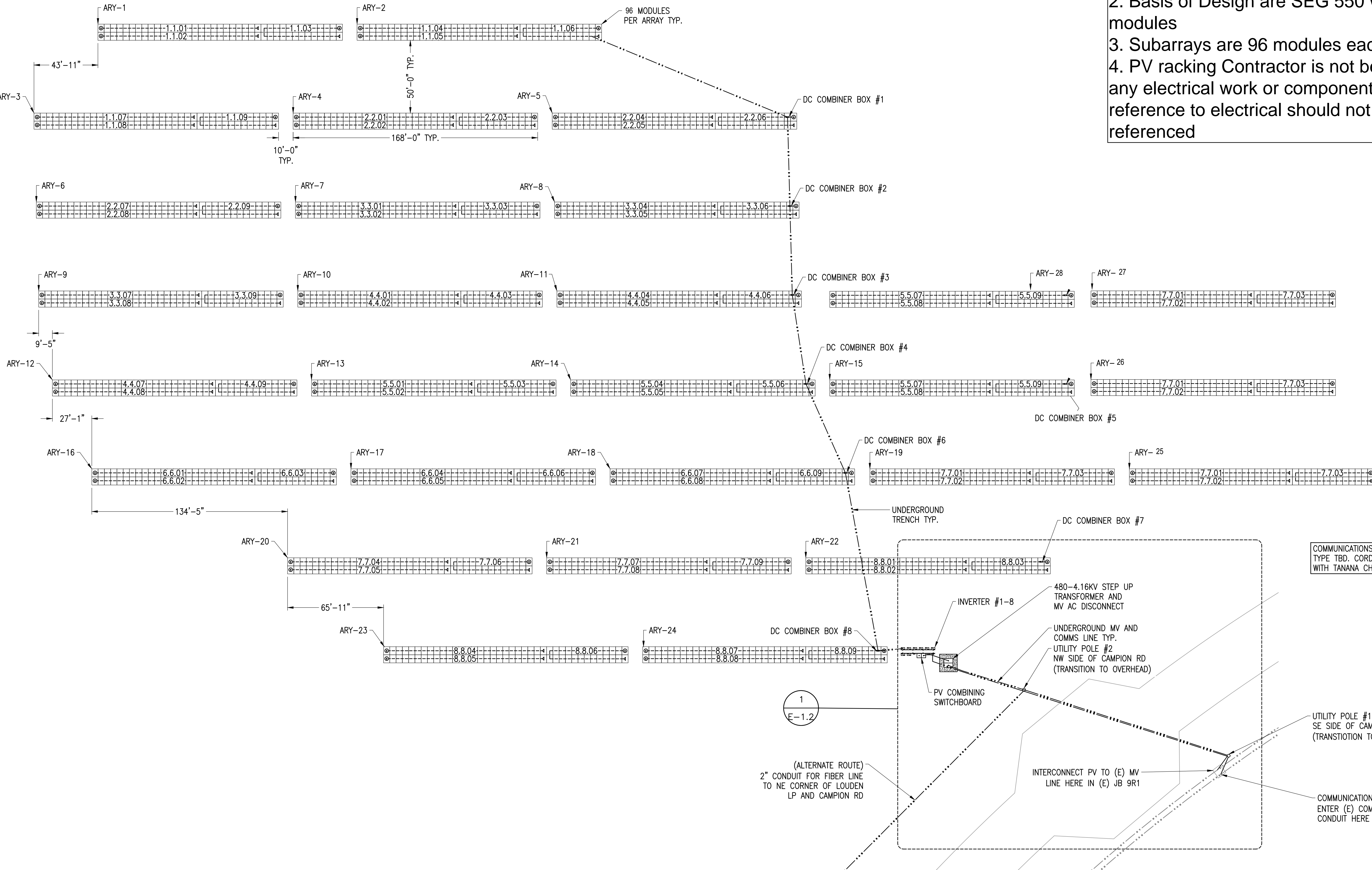
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REV. ISSUED BY DESCRIPTION

SHEET NO. & NAME:

E-1.0
ELECTRICAL SITEPLAN

PRINT DATE: 1/16/2023 1:56 PM DWG LOCATION: g:\shared drives\Design\Projects\tanana chiefs conference\22-3270c - village of galena\working set\E-1.1 ELECTRICAL GROUND PLAN.dwg



ELECTRICAL GROUND PLAN

SCALE: 1/32" = 1'-0"
0 32' 64'

SHEET NOTES

1. Below sheet is for Reference only
2. Basis of Design are SEG 550 watt PV modules
3. Subarrays are 96 modules each
4. PV racking Contractor is not being asked for any electrical work or components and any reference to electrical should not be referenced



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SHEET NO. & NAME:

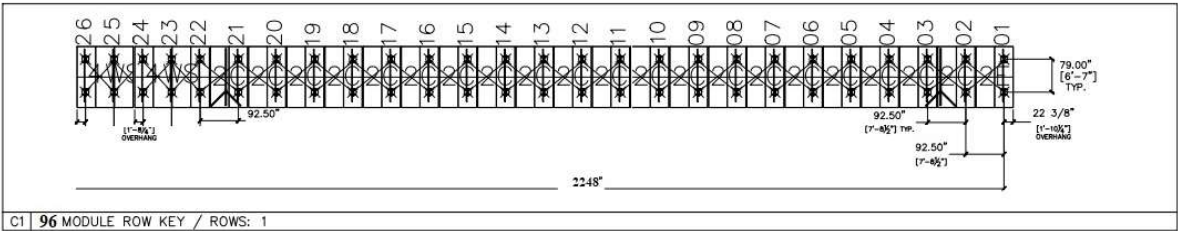
E-1.1
ELECTRICAL
GROUND PLAN

Drawings Below is the typical APA sub-array layout for Louden Solar Array- there are expected to be 28 identical sub-arrays that will make up the Galena 1.478 MW Solar Array. Drawing below is diagrammatic only - final planset will be issued by APA Solar.

26 sets of ground screws = 52 ground screws per sub array

28 sub arrays x 52 ground screws = 1,456 total ground screws

26 ground screws x 2 (north and south posts) = 52 ground screws/array



ROW BILL OF MATERIALS - 96 MODS	
TITAN	
ROW	1
EAST - WEST SEE RAILS	1
PV MODULES	96
FOUNDATION SETS	26
LONG BRACE	26
TRANSVERSE BRACE	2
CABLE BRACE, SHORT 68.12"	4
CABLE BRACE, LONG 92.50"	40
EAST - WEST SEE RAILS	1
MODS PER	
A747-48-134	4
A747-48-178	76
A747-52-134	4

C1 | 96 MODULE ROW KEY / ROWS: 1

Tanana Chiefs Conference

TANANA CHIEFS CONFERENCE

300 N. COUNTRY ROAD

FAIRBANKS, AK 99701

P 907-452-4000

APA Solar

300 N. COUNTRY ROAD

FAIRBANKS, AK 99701

P 907-452-4000

TITAN

300 N. COUNTRY ROAD

FAIRBANKS, AK 99701

P 907-452-4000

THE GROUP

300 N. COUNTRY ROAD

FAIRBANKS, AK 99701

P 907-452-4000

FOR REVIEW/NOT FOR CONSTRUCTION

GALENA

GALENA, AK 99741

ROW TECHNICAL DATA

REVISION NUMBER

REVISION DATE

YUKON Series

Half-Cell
Transparent Backsheet Module

540-555W

Module Power Output

21.48%

Max Efficiency



Key Features



High module conversion efficiency



Better temperature coefficient



Super multi busbar technology



Low attenuation long warranty



Superior load capacity



Higher bifaciality

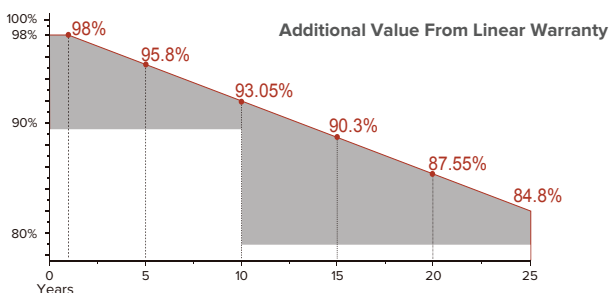


USA based liability insurance



Houston, Texas based company

Warranty



15 <Years>
Guarantee on product material and workmanship

25 <Years>
Linear power output warranty

Product Certification

IEC61215:2016; IEC 61730:2016; UL1703; UL61730/ETL/CEC

IEC62804

PID

IEC61701

Salt Mist

IEC62716

Ammonia Resistance

IEC60068

Dust and Sand

IEC61215

Hailstone

Fire Type (UL61730):Type1

ISO14001:2015; ISO9001:2015; ISO45001:2018



About SEG Solar

SEG Solar is a leading manufacturer of high-performance solar panels for residential, commercial, and utility applications. The company, headquartered in Houston, Texas, is committed to providing cost-effective and reliable solar solutions that help customers reduce their energy costs and carbon footprint.



Download Datasheet

Electrical Characteristics

Module Type	SEG-540-BMA-TB			SEG-545-BMA-TB			SEG-550-BMA-TB			SEG-555-BMA-TB		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -Pmp(W)	540	406	378	545	409	382	550	414	385	555	418	389
Open Circuit Voltage -Voc(V)	49.50	46.18	49.48	49.60	46.32	49.58	49.70	46.40	49.68	49.80	46.47	49.78
Short Circuit Current -Isc(A)	13.81	11.16	9.74	13.90	11.23	9.80	14.00	11.32	9.87	14.10	11.40	9.94
Maximum Power Voltage -Vmp(V)	41.55	38.39	41.61	41.80	38.41	41.86	42.05	38.58	42.10	42.31	38.75	42.35
Maximum Power Current -Imp(A)	13.00	10.59	9.09	13.04	10.65	9.13	13.08	10.73	9.15	13.12	10.79	9.19
Module Efficiency STC-ηm(%)	20.90			21.10			21.29			21.48		
Power Tolerance(W)	(0, +3%)											
Maximum System Voltage	1500V DC											
Maximum Series Fuse Rating	25 A											

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5

NOCT: Irradiance 800W/m² ambient temperature 20°C module temperature 45°C wind speed: 1m/s

Power measurement tolerance: +/-3%

Mechanical Specifications

External Dimension	2278 x 1134 x 35 mm
Weight	27.0 kg
Solar Cells	PERC Mono 182 x 91mm(144 pcs)
Front Glass	3.2 / mm AR coating tempered glass / low iron
Frame	Anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	QC4.10
Cable Type / Length	12 AWG PV Wire (UL) /1200 mm
Mechanical Load(Front)	5400 Pa / 113 psf*
Mechanical Load(Rear)	3600 Pa / 75 psf*

*Refer to SEG installation Manual for details

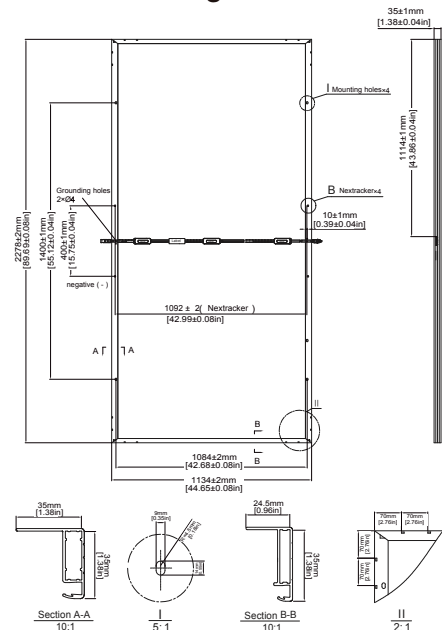
Packing Configuration

Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	4	20
Pieces per Container	124	620
341kw/container		

Temperature Characteristics

Pmax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

Technical Drawing



*Refer to SEG installation Manual for details

I-V Curve

