

PROJECT DETAILS	
PV Modules	40 x SOLARIA POWERXT-400R-PM
Optimizers	40 x P401
Inverter	01 x SE7600H-US (RGM) 01 x SE7600H-US
Roof Type	Asphalt Shingles
Racking	PSR-B84 Rails (Black)
Mounting Type	CompMount Flashing (Black)
DC SIZE	16.0 kW
AC SIZE	15.2 kVA

DRAWING INDEX			
Item	Drawing #	Rev	Description
1	22132CC00-0	A	Drawing Index
2	22132CC00-1	A	Site Layout
3	22132CC00-2	A	String Mapping
4	22132CC00-3	A	Electrical One Line Diagram
5	22132CC00-4	A	Detailed Electrical Wiring Schematic
6	22132CC00-5	A	PV Labels
7	22132CC00-6	A	Bill of Materials
8	22132CC00-7	A	PV Dead Load



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**Venus Marie Camp**  
 1036 Stone Cross Dr  
 Spring Lake NC 28390

**PHOTOVOLTAIC NOTES**

- THE INSTALLATION OF SOLAR ARRAYS AND PHOTOVOLTAIC POWER SYSTEMS SHALL COMPLY WITH THE FOLLOWING CODES:
  - 2020 NATIONAL ELECTRICAL CODE
  - 2018 NORTH CAROLINA RESIDENTIAL CODE
  - 2018 NORTH CAROLINA BUILDING CODE
  - AS ADOPTED BY THE STATE OF NORTH CAROLINA
  - ALL OTHER ORDINANCE ADOPTED BY THE LOCAL GOVERNING AGENCIES
- ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED AND IDENTIFIED BY RECOGNIZED ELECTRICAL TESTING LABORATORY.
- SOLAR SYSTEM SHALL NOT COVER ANY PLUMBING OR MECHANICAL VENTS
- MODULES AND SUPPORT STRUCTURES SHALL BE GROUNDED
- SOLAR INVERTER SHALL BE LISTED TO UL1741
- ALL CONDUCTORS SHALL BE COPPER AND SHOULD BE 75 AND 90 DEG RATED
- REMOVAL OF AN INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTORS.
- LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.
- ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM PHYSICAL DAMAGE.



1	04/25/2022	A

Customer's Signature

JOB NUMBER  
22-132-CC00

PROJECT STATUS  
PERMITTING

SHEET  
DRAWING INDEX

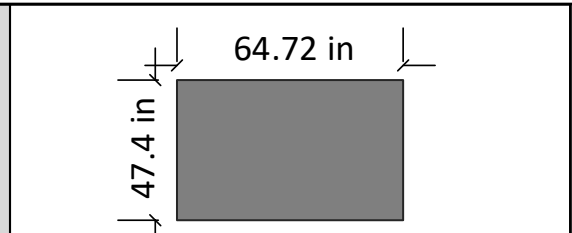
The roof is located in 119mph wind zone

There is one layer of shingles  
Roofing material is asphalt shingles



Utility Meter

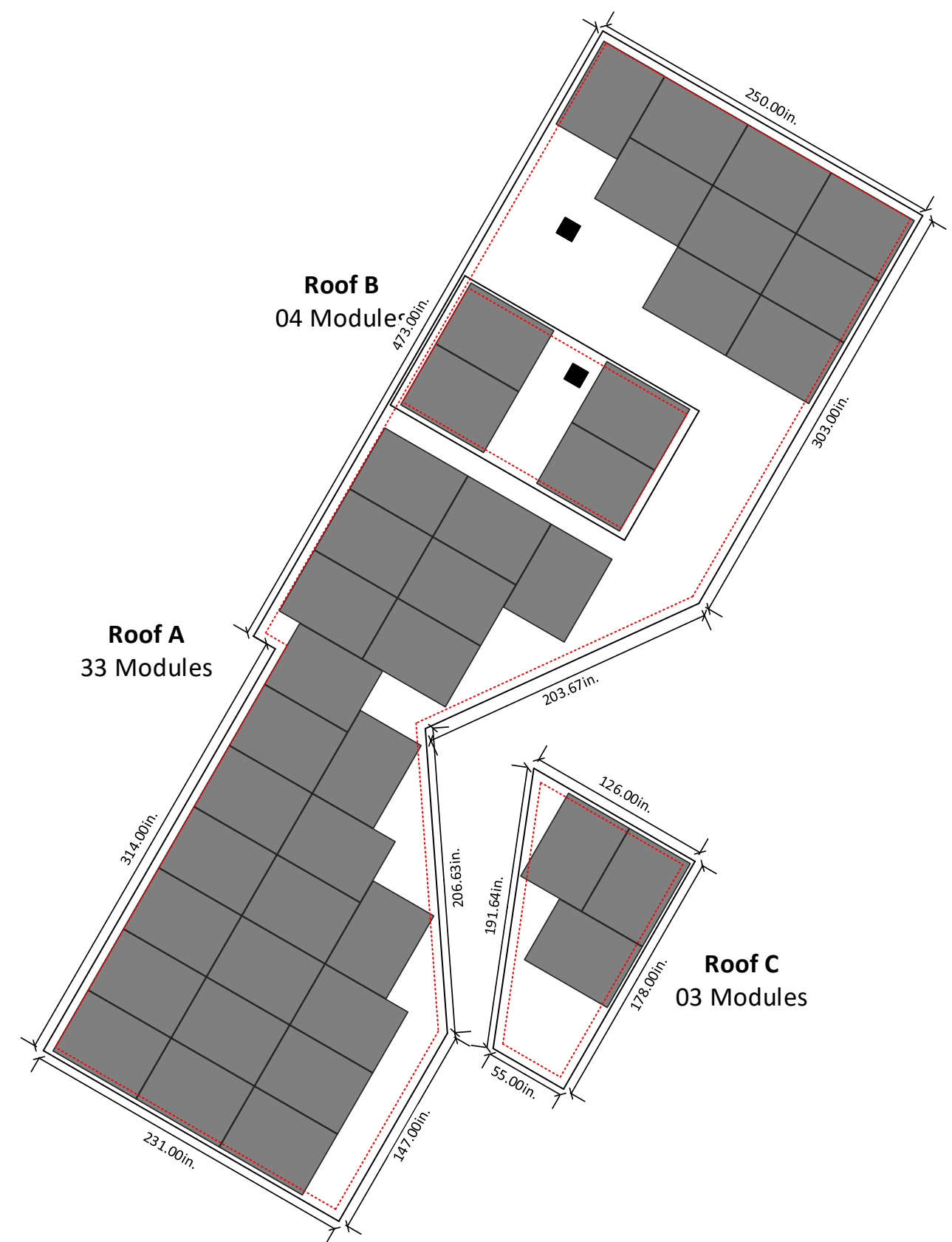
Module Dimension	Roofs	
	Pitch	Azimuth
	A	38°
	B	14°
	C	27°



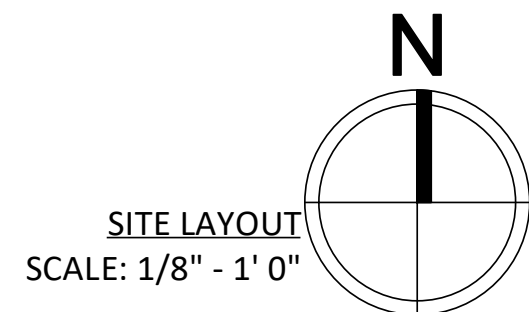
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**SYSTEM DETAILS**

NUMBER OF PANELS : 40  
PANELS MODEL : SOLARIA POWERXT-400R-PM  
DC SIZE : 16.0 KW  
AC SIZE : 15.2 KVA



6" clearance from each side of the roof



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1	04/25/2022	A







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PROJECT STATUS  
PERMITTING

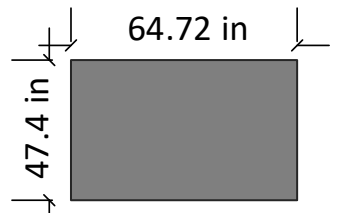
SHEET  
SITE LAYOUT

CC  
22132CC00-1

String Layout					
Inverter-A SE7600H-US(RGM)			Inverter-B SE7600H-US		
Strings #	No. of Modules	Color Code	Strings #	No. of Modules	Color Code
String 1	11		String 3	11	
String 2	09		String 4	09	
					



Utility Meter

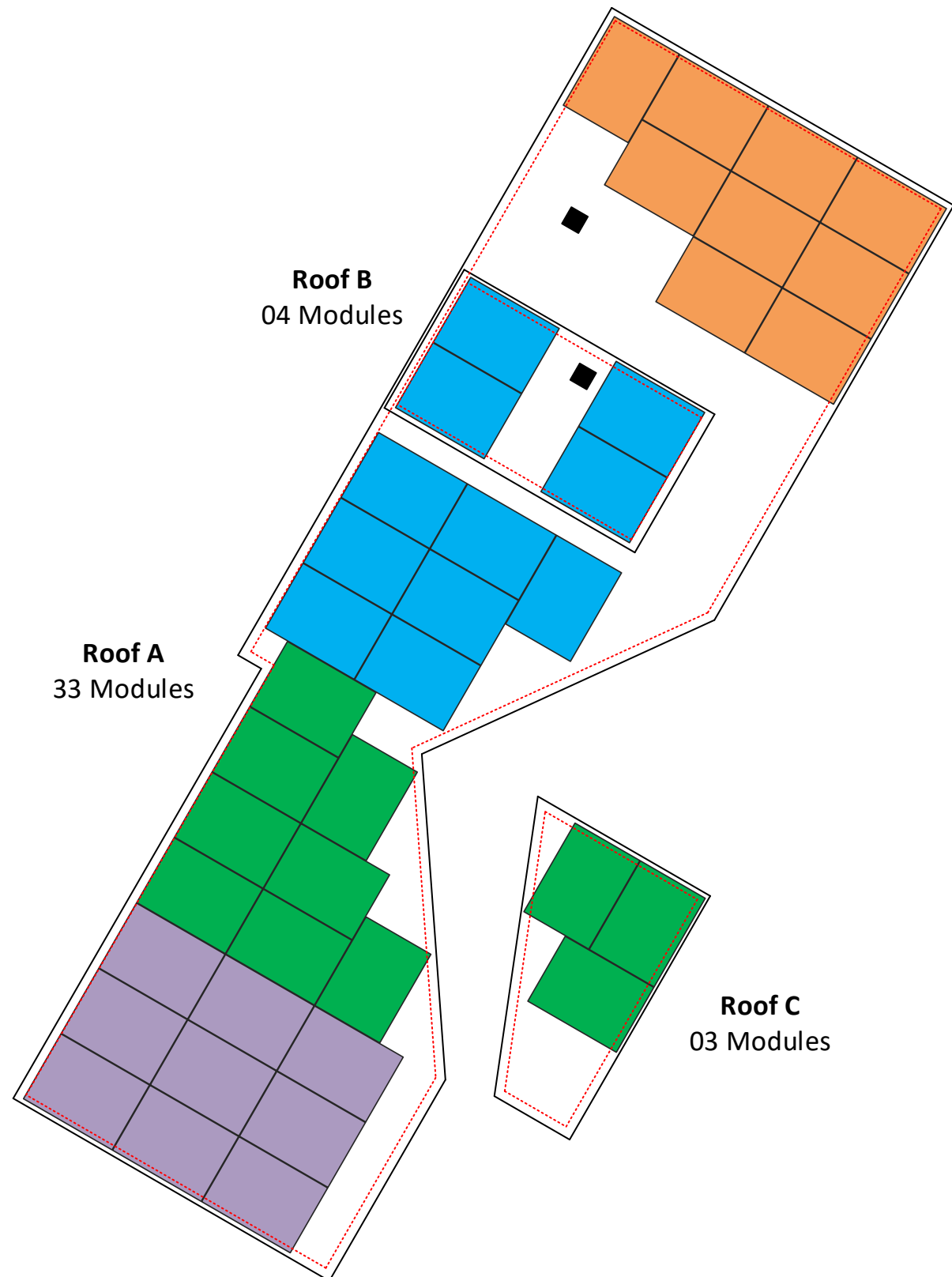
Module Dimension		
	Roofs	Pitch
A	38°	120°
B	14°	120°
C	27°	210°



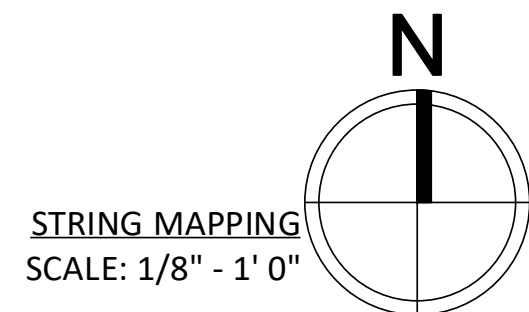
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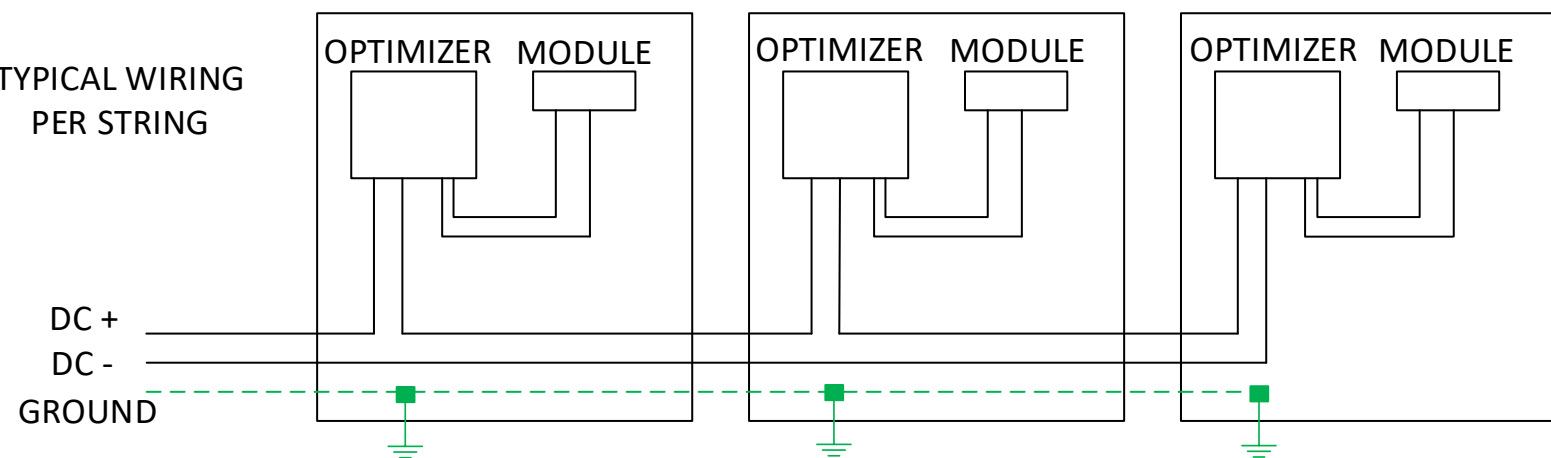
PROJECT STATUS  
 PERMITTING

SHEET  
 STRING MAPPING

CC  
 22132CC00-2



TYPICAL WIRING PER STRING



Line 1	
Line 2	
Neutral	
Ground	

**DIP SWITCH CONFIGURATION**

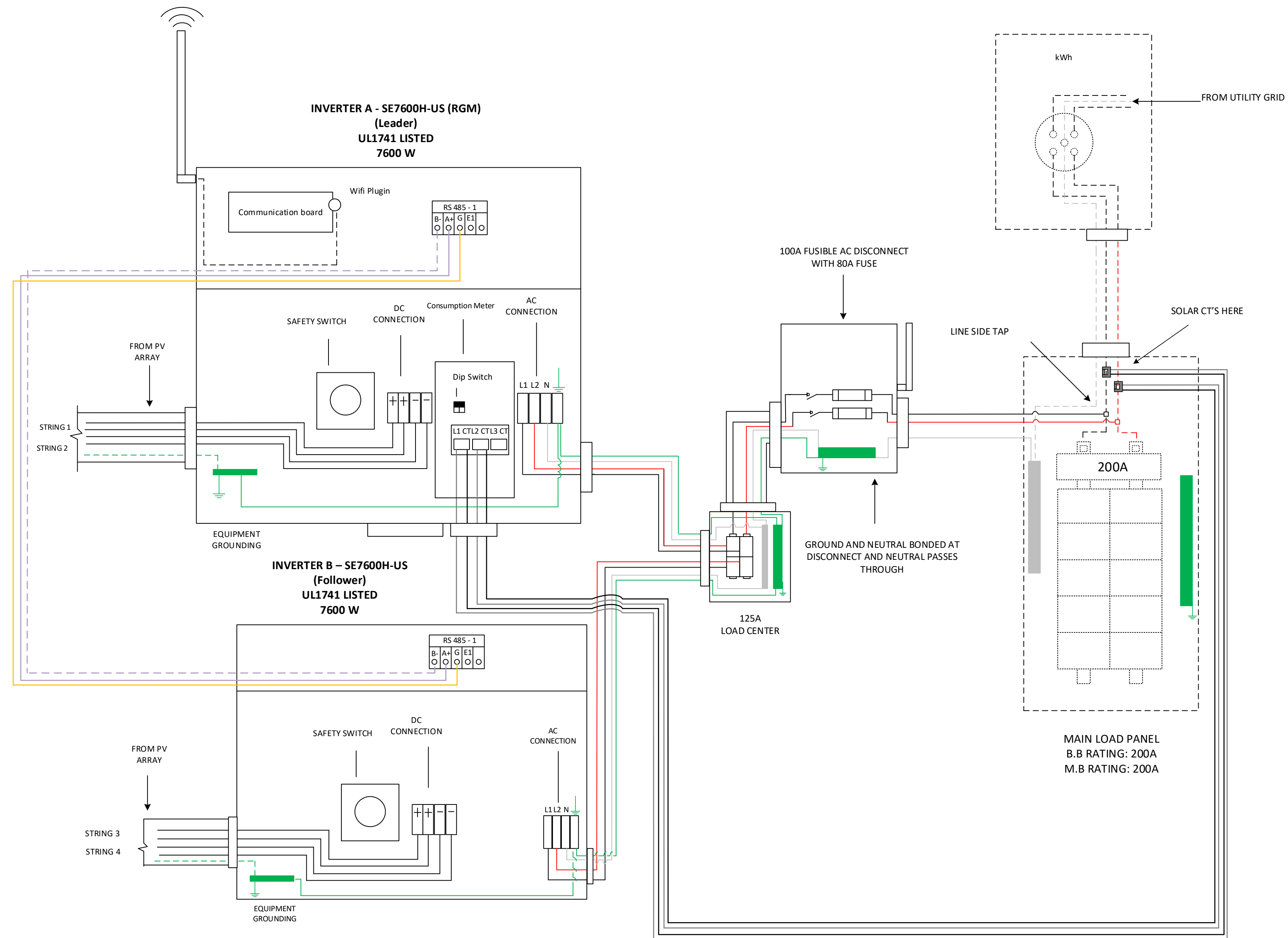
<input checked="" type="checkbox"/>	0	OFF
<input type="checkbox"/>	1	ON

- Note**
- The arrow on the 225A CTs should face the Grid.
- Note**
- Dip switch settings are factory set to address 1



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PV Installation Professional  
 Ali Buttar  
 PVIP #031310-32

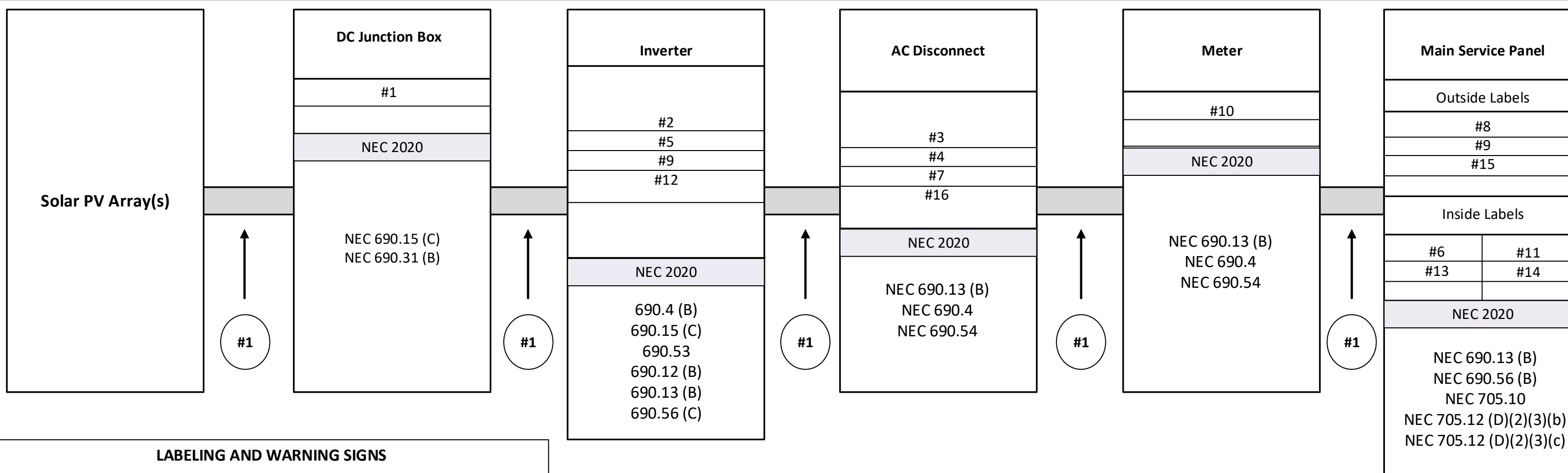
1	04/25/2022	A

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 22-132-CC00

PROJECT STATUS  
 PERMITTING

SHEET  
 DETAILED ELECTRICAL DIAGRAM



**LABELING AND WARNING SIGNS**

**A. PURPOSE**

PROVIDE EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRIC SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER, AS SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.

**B. MAIN SERVICE DISCONNECT:**

1. RESIDENTIAL BUILDINGS- THE MARKING MAY BE PLACED WITHIN THE

MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.

2. COMMERCIAL BUILDINGS- THE MARKINGS SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED

**3. MARKINGS, VERBIAGE, FORMAT AND TYPE OF MATERIAL**

- a. VERBIAGE: CAUTION; SOLAR ELECTRIC SYSTEM CONNECTED
- b. FORMAT:

- (1) WHITE LETTERING ON A RED BACKGROUND
- (2) MINIMUM 3/8 INCH LETTER HEIGHT
- (3) ALL LETTERS SHALL BE CAPITALIZED
- (4) ARIAL OR SIMILAR FONT, NON-BOLD

**c. MATERIAL:**

- (1) REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (USE UL-969) AS STANDARD FOR WEATHER RATING); DURABLE ADHESIVE MATERIALS MEET THIS REQUIREMENT.

**C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS AND JUNCTION BOXES;**

**1. MARKING: PLACEMENT, VERBIAGE, FORMAT AND TYPE OF MATERIAL.**

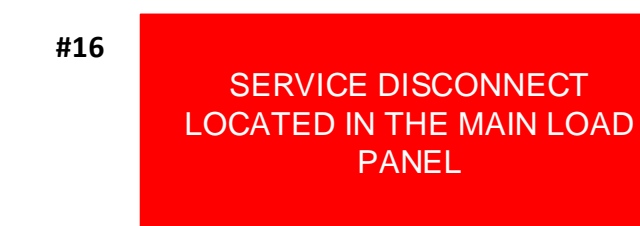
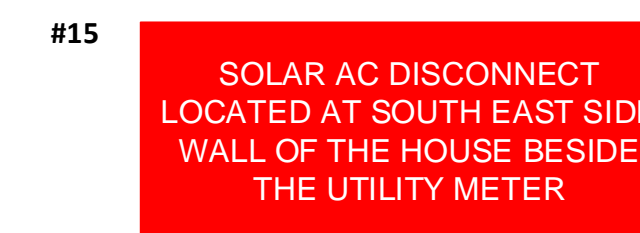
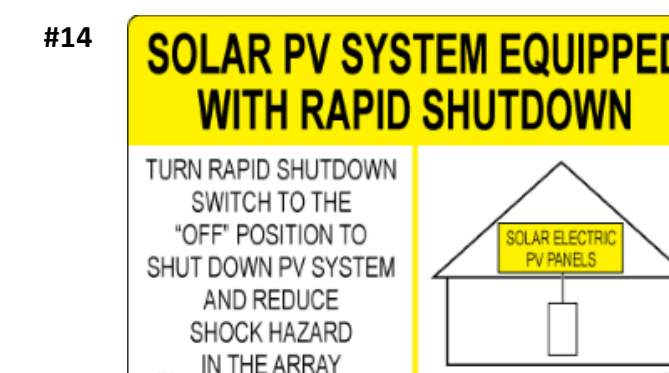
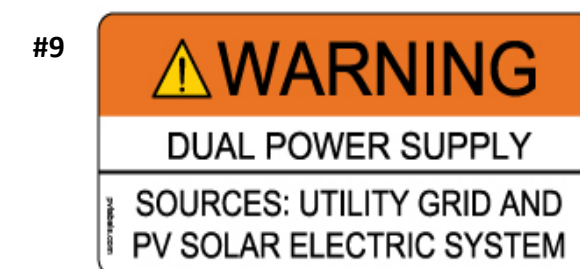
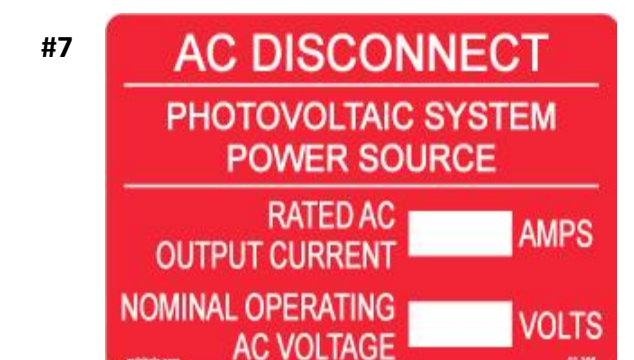
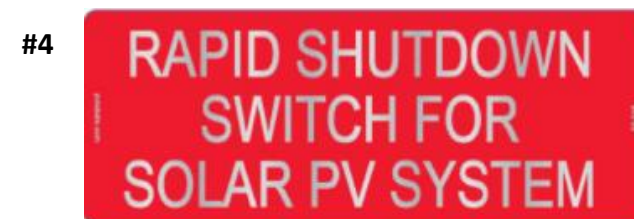
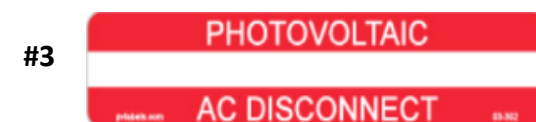
a. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 (TEN) FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES, AT TURNS ABOVE AND/OR BELOW PENETRATIONS, ALL DC COMBINERS AND JUNCTION

BOXES.

b. VERBIAGE: CAUTION SOLAR CIRCUIT

c. THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO SECTION B-3.B & C ABOVE

**D. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS**

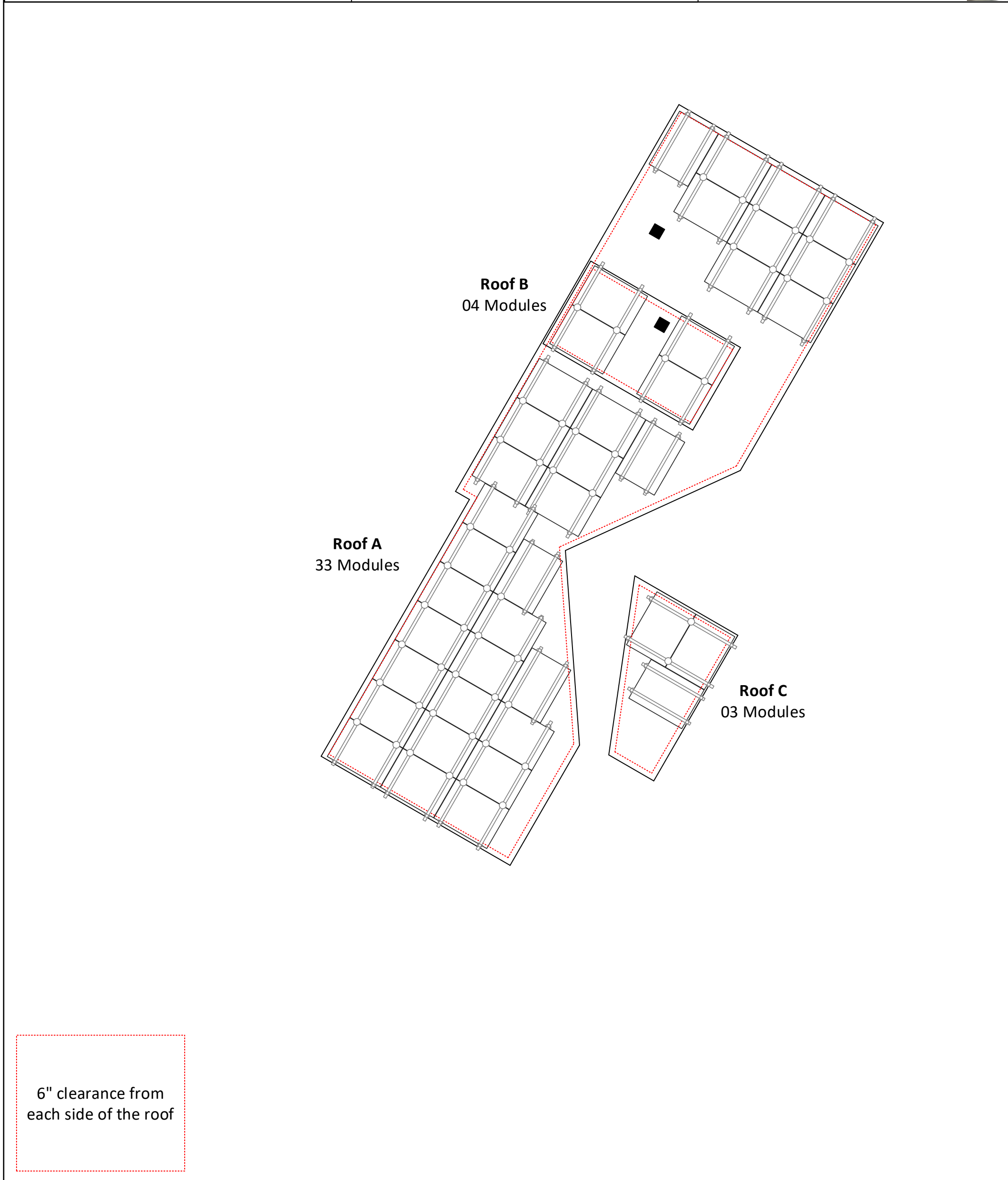


Rails and Splices : PSR – B84	Roof Attachment : Pegasus Comp Mount
Rafter Spacing : 24 in	There is one layer of shingles Roofing material is asphalt shingles
Attachment Span: 4ft	The roof is located in 119mph wind zone



Module Dimension		
	Roofs	Pitch
A	38°	120°
B	14°	120°
C	27°	210°

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### PV LABELS

Sr No	Code	Qty
01	02-314	12
02	03-301	02
03	03-302	01
04	02-316	01
05	03-308	02
06	03-390	01
07	03-306	01
08	05-215	02
09	05-211	03
10	07-359	01
11	05-372	01
12	05-103	02
13	05-108	01
14	07-111	02
15	8M-001	01
16	8M-002	01

- 60 x PSR-B84: Pegasus Rail, Black, 84" (7 Feet)
- 30 x PSR-SPL: Pegasus - Bonded, Structural Splice
- 50 x PSR-MCB: Pegasus - Multiclamp, Mid/End, 30 to 40 mm, Black
- 64 x PSR-HEC: Pegasus - Hidden End Clamp
- 40 x PSR-MLP: Pegasus - MLPE Mount
- 12 x PSR-LUG: Pegasus - Grounding Lug
- 13 x PSR-NSJ: Pegasus - N-S Bonding Jumper
- 60 x PSR-WMC: Pegasus - Wire Management Clip
- 07 x PSR-CBG: Pegasus - Cable Grip
- 64 x PSR-CAP: Pegasus - End Cap
- 100 x PSCR-UBBDT: Pegasus Comp Mount - Open Slot, Black L Foot, Black Flashing, Dovetail 3/8" T-Bolt
- 80 x Heyco Wire Clips

- SOLAR MODULES**
- 40 x SOLARIA POWERXT-400R-PM
- INVERTER & SUPPORTING ITEMS**
- 01 x Solar Edge SE7600H-US US000BNI4 (RGM)
  - 01 x Solar Edge SE7600H-US US000BNU4
  - 40 x SolarEdge Power Optimizer P401
  - 01 x SE-WFGW-B-S1-NA with Antenna kit
  - 02 x 225A SolarEdge CTs
- WIRE**
- 500 ft x #10 PV WIRE BLK (Cu)

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PV Installation Professional  
 Ali Buttar  
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1	04/25/2022	A

Customer's Signature \_\_\_\_\_

JOB NUMBER  
 22-132-CC00

PROJECT STATUS  
 PERMITTING

SHEET  
 BILL OF MATERIAL

6" clearance from each side of the roof

BILL OF MATERIAL  
 SCALE: 1/8" - 1' 0"

CC  
 22132CC00-6

**PV System Dead Load**  
**(Panel + Racking weight) / PV System Area**  
 (No. of panels x Weight of panel(lbs.) +Length of racking(ft.) x 1.17 lb.ft) /  
 (No. of panels x Height x Width) = Total psf

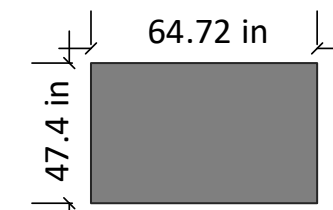
The roof is located in 119mph wind zone

There is one layer of shingles  
 Roofing material is asphalt shingles



Utility  
Meter

Module  
Dimension



Roofs	Pitch	Azimuth
A	38°	120°
B	14°	120°
C	27°	210°



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**ROOF A**

**PV System Dead Load**  
**(Panel + Racking weight) / PV System Area**  
 (33 modules x 48 lbs./modules + 275 ft. of racking x 1.17 lb.ft) /  
 (33 modules x 5.39' x 3.95') = 2.61 psf

**ROOF B**

**PV System Dead Load**  
**(Panel + Racking weight) / PV System Area**  
 (04 modules x 48 lbs./modules + 32 ft. of racking x 1.17 lb.ft) /  
 (04 modules x 5.39' x 3.95') = 2.59 psf

**ROOF C**

**PV System Dead Load**  
**(Panel + Racking weight) / PV System Area**  
 (03 modules x 48 lbs./modules + 27 ft. of racking x 1.17 lb.ft) /  
 (03 modules x 5.39' x 3.95') = 2.64 psf

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1    04/25/2022    A

Customer's Signature

JOB NUMBER  
 22-132-CC00

PROJECT STATUS  
 PERMITTING

SHEET  
 PV DEAD LOAD

CC  
 22132CC00-7