


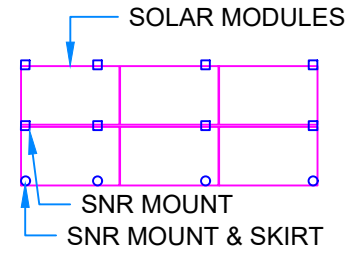

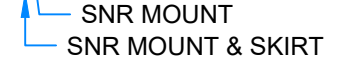



















SCOPE OF WORK

- SYSTEM SIZE: 7800W DC, 6000W AC
- MODULES: (24) JA SOLAR: JAM60S17-325/MR
- INVERTERS: (1) SOLAREEDGE TECHNOLOGIES: SE6000H-USS3
- RACKING: SNAPRACK RLU; RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436
- TRENCHING REQUIRED: AC WIRE TO BE TRENCHED 50 FT IN DIRT MATERIAL.

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH 2015 IRC/IBC/IEBC w 2018 CT Amendments, MUNICIPAL CODE, AND ALL MANUFACTURERS' LISTINGS AND INSTALLATION INSTRUCTIONS.
- PHOTOVOLTAIC SYSTEM WILL COMPLY WITH NEC 2017.
- ELECTRICAL SYSTEM GROUNDING WILL COMPLY WITH NEC 2017.
- PHOTOVOLTAIC SYSTEM IS UNGROUNDED. NO CONDUCTORS ARE SOLIDLY GROUNDED IN THE INVERTER. SYSTEM COMPLIES WITH 690.35.
- MODULES CONFORM TO AND ARE LISTED UNDER UL 1703.
- INVERTER CONFORMS TO AND IS LISTED UNDER UL 1741.
- RACKING CONFORMS TO AND IS LISTED UNDER UL 2703.
- SNAPRACK RACKING SYSTEMS, IN COMBINATION WITH TYPE I, OR TYPE II MODULES, ARE CLASS A FIRE RATED.
- RAPID SHUTDOWN REQUIREMENTS MET WHEN INVERTERS AND ALL CONDUCTORS ARE WITHIN ARRAY BOUNDARIES PER NEC 690.12(1).
- CONSTRUCTION FOREMAN TO PLACE CONDUIT RUN PER 690.31(G).
- ARRAY DC CONDUCTORS ARE SIZED FOR DERATED CURRENT.
- 10.23 AMPS MODULE SHORT CIRCUIT CURRENT.
- 15.98 AMPS DERATED SHORT CIRCUIT CURRENT [690.8 (a) & 690.8 (b)].
- PV INSTALLATION COMPLIES WITH THE NEC 2017 ARTICLE 690.12(B)(2). CONTROLLED CONDUCTORS LOCATED INSIDE THE ARRAY BOUNDARY ARE LIMITED TO 80 VOLTS WITHIN 30 SECOND OF A RAPID SHUTDOWN INITIATION

LEGEND AND ABBREVIATIONS

	UTILITY METER		SOLAR MODULES
	MAIN PANEL		SNR MOUNT SNR MOUNT & SKIRT
	SUB-PANEL		CHIMNEY
	PV LOAD CENTER		ATTIC VENT
	SUNRUN METER		FLUSH ATTIC VENT
	DEDICATED PV METER		PVC PIPE VENT
	INVERTER(S)		METAL PIPE VENT
	AC DISCONNECT(S)		T-VENT
	DC DISCONNECT(S)		SATELLITE DISH
	IQ COMBINER BOX		FIRE SETBACKS
	INTERIOR EQUIPMENT SHOWN AS DASHED		HARDSCAPE
			PROPERTY LINE

SCALE: NTS

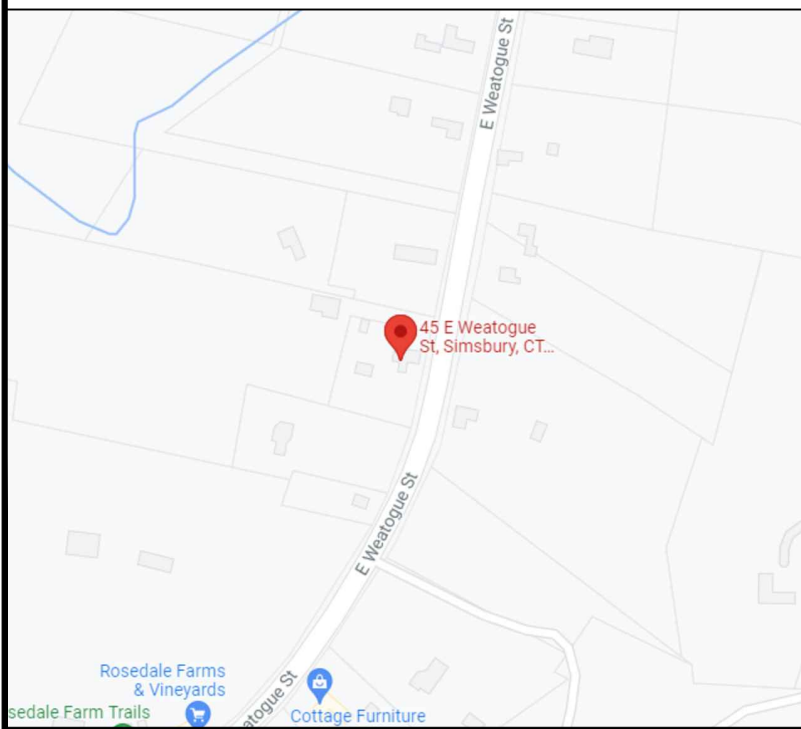
A	AMPERE
AC	ALTERNATING CURRENT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AZIM	AZIMUTH
COMP	COMPOSITION
DC	DIRECT CURRENT
(E)	EXISTING
ESS	ENERGY STORAGE SYSTEM
EXT	EXTERIOR
INT	INTERIOR
MAG	MAGNETIC
MSP	MAIN SERVICE PANEL
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
PRE-FAB	PRE-FABRICATED
PSF	POUNDS PER SQUARE FOOT
PV	PHOTOVOLTAIC
RSD	RAPID SHUTDOWN DEVICE
TL	TRANSFORMERLESS
TYP	TYPICAL
V	VOLTS
W	WATTS

REV	NAME	DATE	COMMENTS

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PV-5.0	SIGNAGE

VICINITY MAP



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 APN/TMK #: APN:
 SIMS-000014H-000108-000008

PROJECT NUMBER:
 231R-045MCCU

DESIGNER: (415) 580-6920 ex3
 JOHN ESTANISLAO

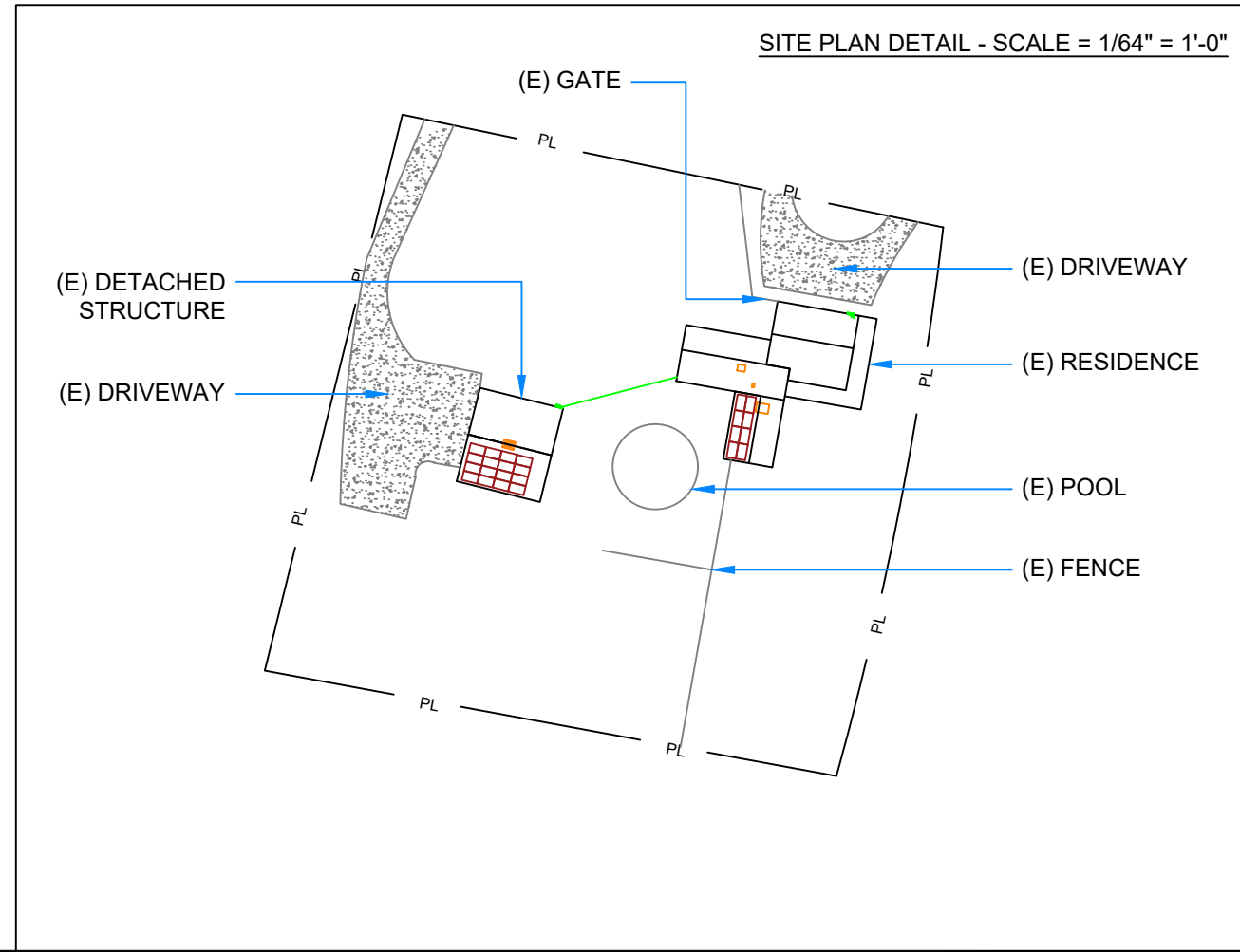
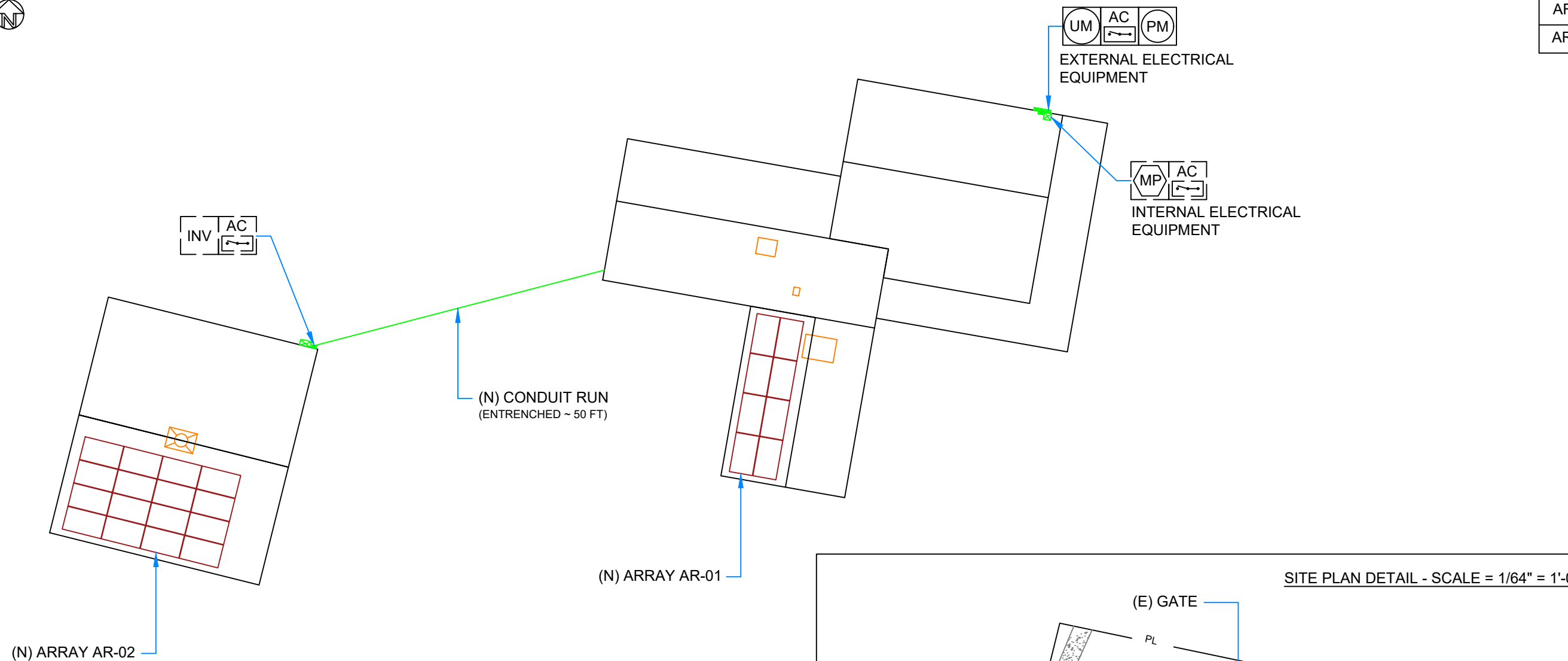
SHEET
COVER SHEET

REV: A 01/26/2022

PAGE
PV-1.0



	ARRAY PITCH	TRUE AZIM	MAG AZIM	PV AREA (SQFT)
AR-01	30°	280°	293°	144.9
AR-02	39°	194°	207°	289.7



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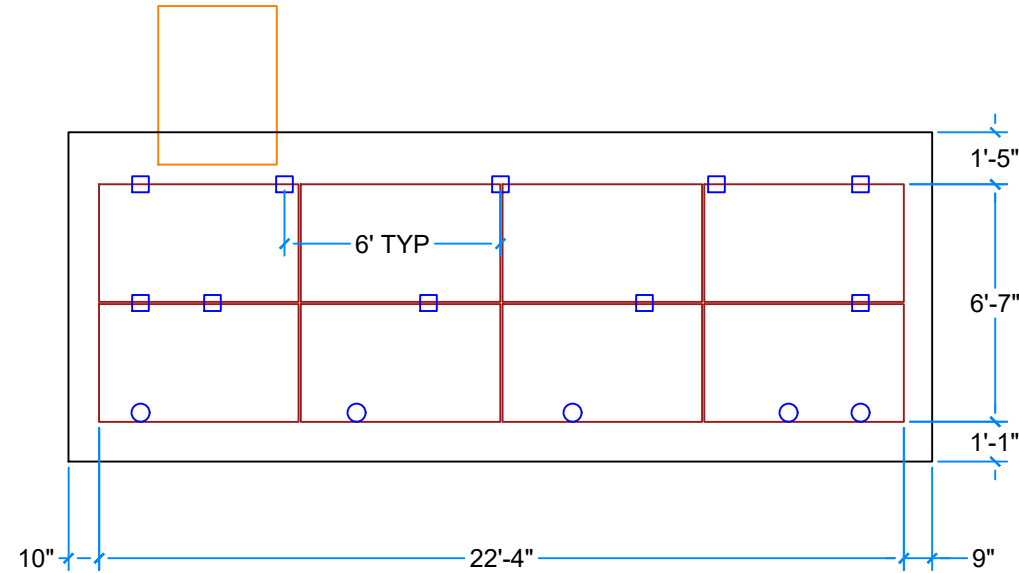
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SITE PLAN

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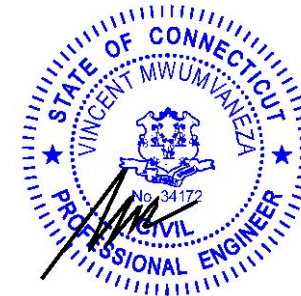
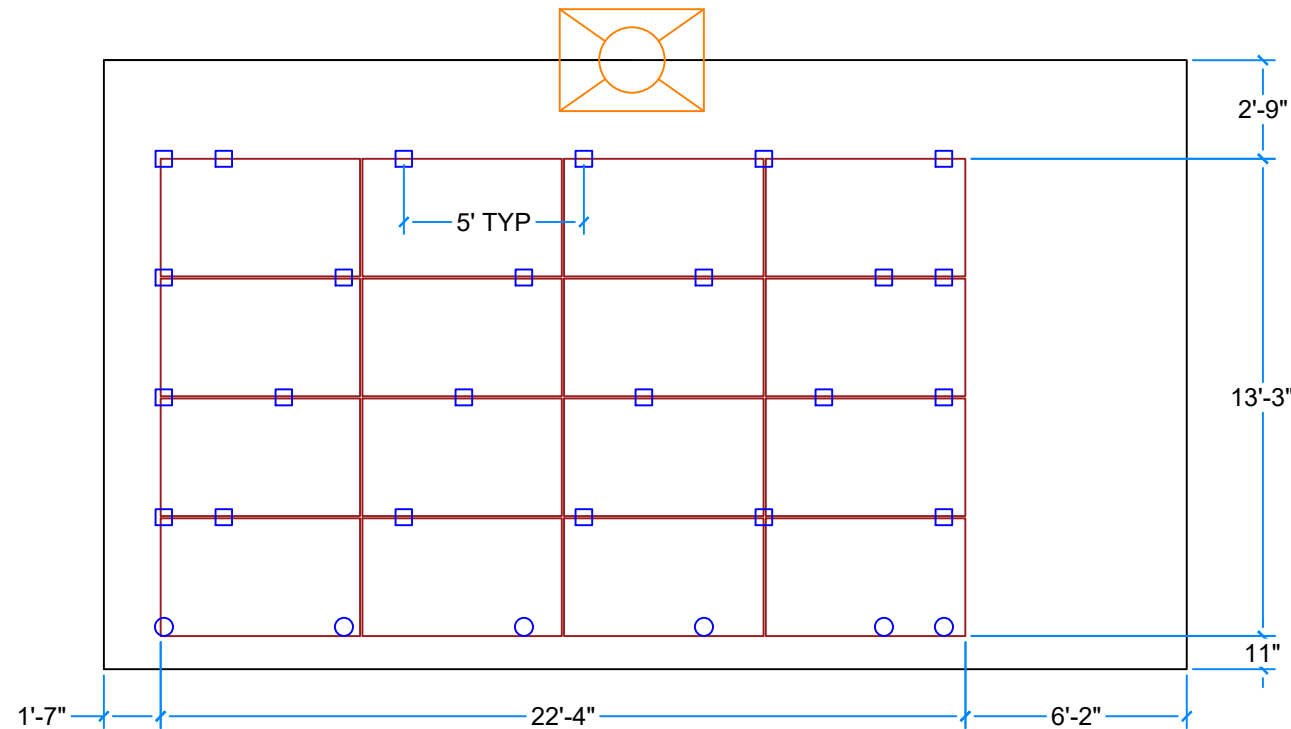
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ROOF INFO			FRAMING INFO			ATTACHMENT INFORMATION					
Name	Type	Height	Type	Max Span	OC Spacing	Detail	Max Landscape OC Spacing	Max Landscape Overhang	Max Portrait OC Spacing	Max Portrait Overhang	Configuration
AR-01	COMP SHINGLE - RLU	1-Story	3X3 RAFTERS	6' - 7"	24"	RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436	6' - 0"	2' - 4"	4' - 0"	2' - 0"	STAGGERED
AR-02	COMP SHINGLE - RLU	1-Story	2X8 RAFTERS	11' - 9"	20"	RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436	5' - 0"	2' - 0"	3' - 4"	1' - 8"	STAGGERED

D1 - AR-01 - SCALE: 3/16" = 1'-0"
PITCH: 30°
AZIM: 280°



D2 - AR-02 - SCALE: 3/16" = 1'-0"
PITCH: 39°
AZIM: 194°



DESIGN CRITERIA
MAX DISTRIBUTED LOAD: 3 PSF
SNOW LOAD: 35 PSF
WIND SPEED: 120 MPH 3-SEC GUST.
S.S.LAG SCREWS: 5/16"x4.5": 2.5" MIN EMBEDMENT
STRUCTURAL NOTES:

- INSTALLERS SHALL NOTIFY ENGINEER OF ANY POTENTIAL STRUCTURAL ISSUES OBSERVED PRIOR TO PROCEEDING W/ INSTALLATION.
- IF ARRAY (EXCLUDING SKIRT) IS WITHIN 12" BOUNDARY REGION OF ANY ROOF PLANE EDGES (EXCEPT VALLEYS), THEN ATTACHMENTS NEED TO BE ADDED AND OVERHANG REDUCED WITHIN THE 12" BOUNDARY REGION ONLY AS FOLLOWS:
 - ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS TO BE REDUCED BY 50%
 - ALLOWABLE OVERHANG INDICATED ON PLANS TO BE 1/5TH OF ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS



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SHEET
 LAYOUT

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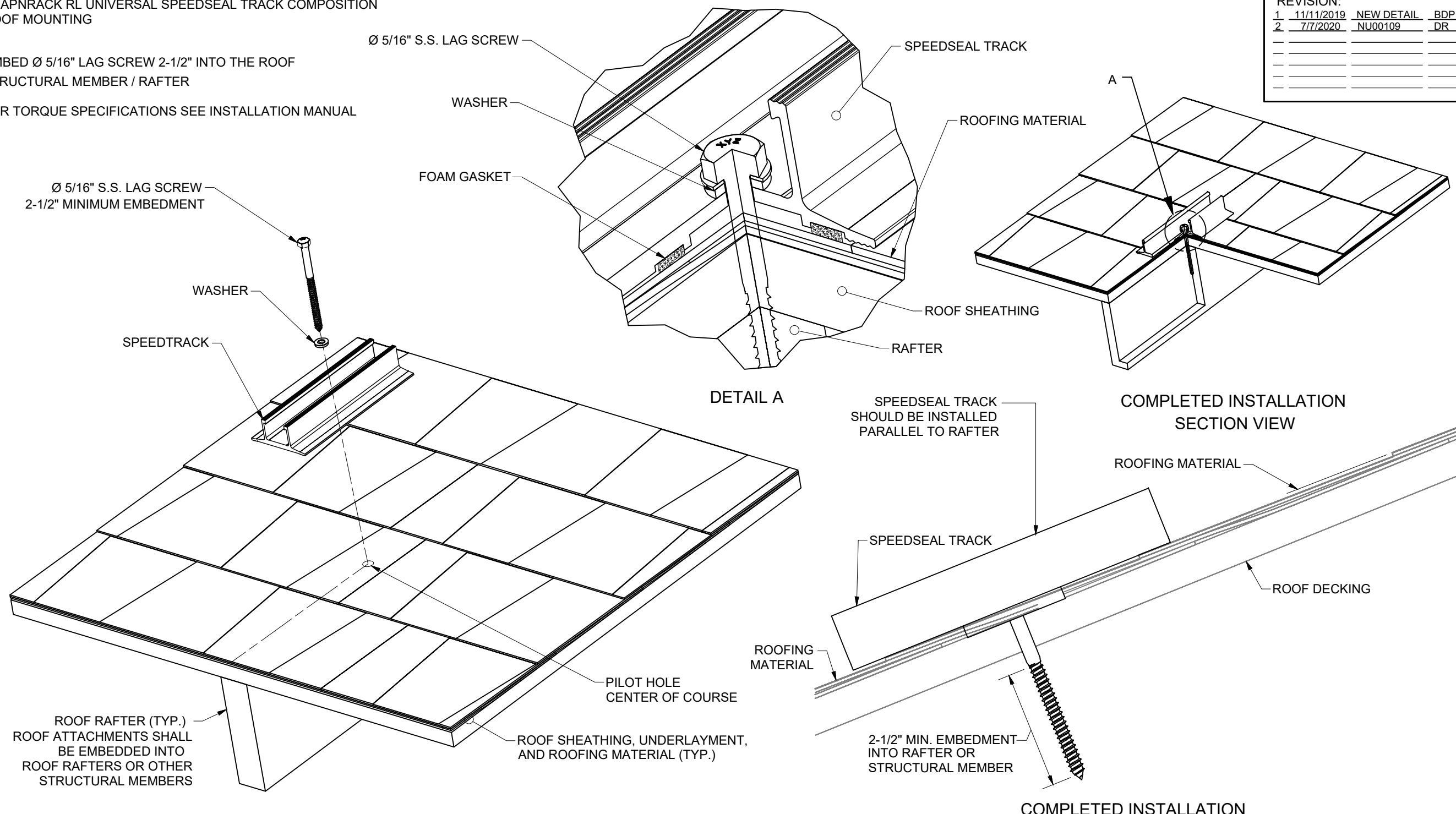
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SNAPRACK RL UNIVERSAL SPEEDSEAL TRACK COMPOSITION
ROOF MOUNTING

EMBED \varnothing 5/16" LAG SCREW 2-1/2" INTO THE ROOF
STRUCTURAL MEMBER / RAFTER

FOR TORQUE SPECIFICATIONS SEE INSTALLATION MANUAL

REVISION:			
1	11/11/2019	NEW DETAIL	BDP
2	7/7/2020	NU00109	DR



SUNRUN

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SHEET
MOUNTING DETAIL

REV: A 01/26/2022

PAGE PV-3.1



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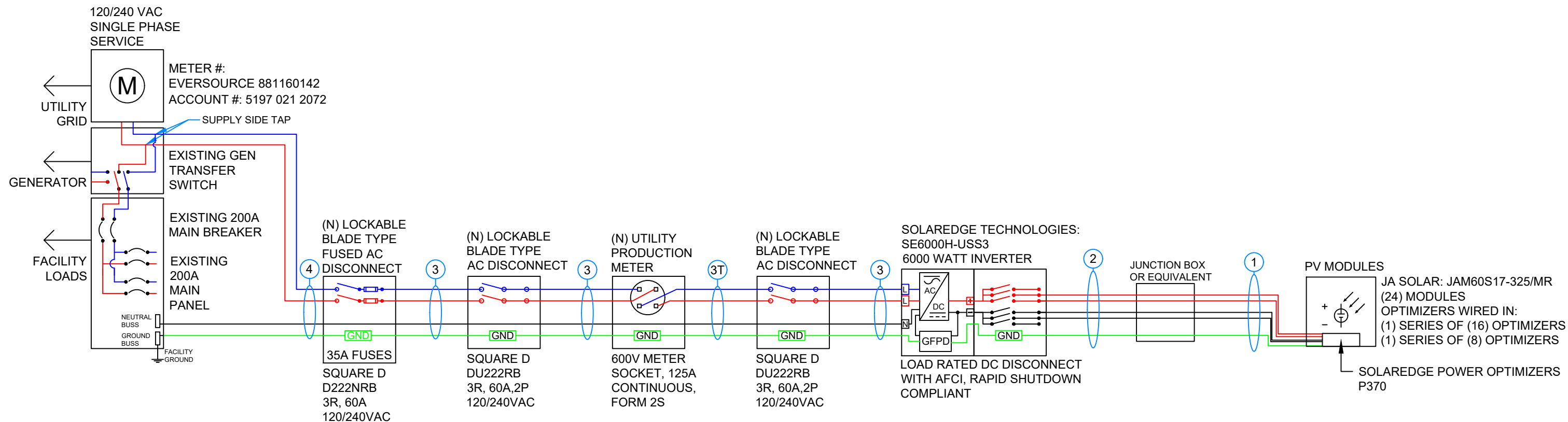
DESIGNER: D.RYAN
DRAFTER: B.PETERSON
APPROVED BY: W.ARBUCKLE

SCALE: NTS
DATE: 7/7/2020

PART NUMBER:
SNR-DC-00436

DESCRIPTION:
RL UNIVERSAL, ATTACHMENT DETAIL, MOUNT
SPEEDSEAL TRACK ON COMP

REV: 1



CONDUIT SCHEDULE				
#	CONDUIT	CONDUCTOR	NEUTRAL	GROUND
1	NONE	(4) 10 AWG PV WIRE	NONE	(1) 10 AWG BARE COPPER
2	1" EMT OR EQUIV.	(4) 10 AWG THHN/THWN-2	NONE	(1) 10 AWG THHN/THWN-2
3	1" EMT OR EQUIV.	(2) 8 AWG THHN/THWN-2	(1) 10 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2
3T	1" SCH 40 PVC (BELOW GROUND) 1" SCH 80 PVC (ABOVE GROUND)	(2) 8 AWG THHN/THWN-2	(1) 10 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2
4	1" EMT OR EQUIV.	(2) 6 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2

MODULE CHARACTERISTICS

JA SOLAR: JAM60S17-325/MR: 325 W
 OPEN CIRCUIT VOLTAGE: 40.87 V
 MAX POWER VOLTAGE: 33.97 V
 SHORT CIRCUIT CURRENT: 10.23 A

SYSTEM CHARACTERISTICS - INVERTER 1

SYSTEM SIZE: 7800 W
 SYSTEM OPEN CIRCUIT VOLTAGE: 16 V
 SYSTEM OPERATING VOLTAGE: 380 V
 MAX ALLOWABLE DC VOLTAGE: 480 V
 SYSTEM OPERATING CURRENT: 20.53 A
 SYSTEM SHORT CIRCUIT CURRENT: 30 A

P370 OPTIMIZER CHARACTERISTICS:

MIN INPUT VOLTAGE: 8 VDC
 MAX INPUT VOLTAGE: 60 VDC
 MAX INPUT ISC: 11 ADC
 MAX OUTPUT CURRENT: 15 ADC



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SHEET
ELECTRICAL

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WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION:
INVERTER(S), AC DISCONNECT(S), AC COMBINER PANEL (IF APPLICABLE).
PER CODE(S): CEC 2019: 690.13(B), NEC 2017: 690.13(B)

WARNING
POWER SOURCE OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION:
ADJACENT TO PV BREAKER (IF APPLICABLE).
PER CODE(S): CEC 2019: 705.12(B)(2)(3)(b), NEC 2017: 705.12(B)(2)(3)(b)

WARNING
PHOTOVOLTAIC SYSTEM COMBINER PANEL
DO NOT ADD LOADS

LABEL LOCATION:
PHOTOVOLTAIC AC COMBINER (IF APPLICABLE).
PER CODE(S): CEC 2019: 705.12(B)(2)(3)(c), NEC 2017: 705.12(B)(2)(3)(c)

WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

LABEL LOCATION:
UTILITY SERVICE METER AND MAIN SERVICE PANEL.
PER CODE(S): CEC 2019: 705.12(B)(3), NEC 2017: 705.12(B)(3)

INVERTER 1
PHOTOVOLTAIC DC DISCONNECT
MAXIMUM SYSTEM VOLTAGE: 480 VDC
MAXIMUM CIRCUIT CURRENT: 30 ADC
MAX RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED): 15 ADC

LABEL LOCATION:
INVERTER(S), DC DISCONNECT(S).
PER CODE(S): NEC 2017: 690.53

- NOTES AND SPECIFICATIONS:
- SIGNS AND LABELS SHALL MEET THE REQUIREMENTS OF THE NEC 2017 ARTICLE 110.21(B), UNLESS SPECIFIC INSTRUCTIONS ARE REQUIRED BY SECTION 690, OR IF REQUESTED BY THE LOCAL AHJ.
 - SIGNS AND LABELS SHALL ADEQUATELY WARN OF HAZARDS USING EFFECTIVE WORDS, COLORS AND SYMBOLS.
 - LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT OR WIRING METHOD AND SHALL NOT BE HAND WRITTEN.
 - LABEL SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
 - SIGNS AND LABELS SHALL COMPLY WITH ANSI Z535.4-2011, PRODUCT SAFETY SIGNS AND LABELS, UNLESS OTHERWISE SPECIFIED.
 - DO NOT COVER EXISTING MANUFACTURER LABELS.

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL LOCATION:
INSTALLED WITHIN 3' OF RAPID SHUT DOWN SWITCH PER CODE(S): CEC 2019: 690.56(C)(3), NEC 2017: 690.56(C)(3), IFC 2012: 605.11.1, IFC 2018: 1204.5.3, CFC 2019: 1204.5.3

WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
INTERIOR AND EXTERIOR DC CONDUIT EVERY 10 FT, AT EACH TURN, ABOVE AND BELOW PENETRATIONS, ON EVERY JB/PULL BOX CONTAINING DC CIRCUITS.
PER CODE(S): CEC 2019: 690.31(G)(3), 690.31(G)(4), NEC 2017: 690.31(G)(3), 690.31(G)(4) IFC 2012: 605.11.1.4

PHOTOVOLTAIC AC DISCONNECT

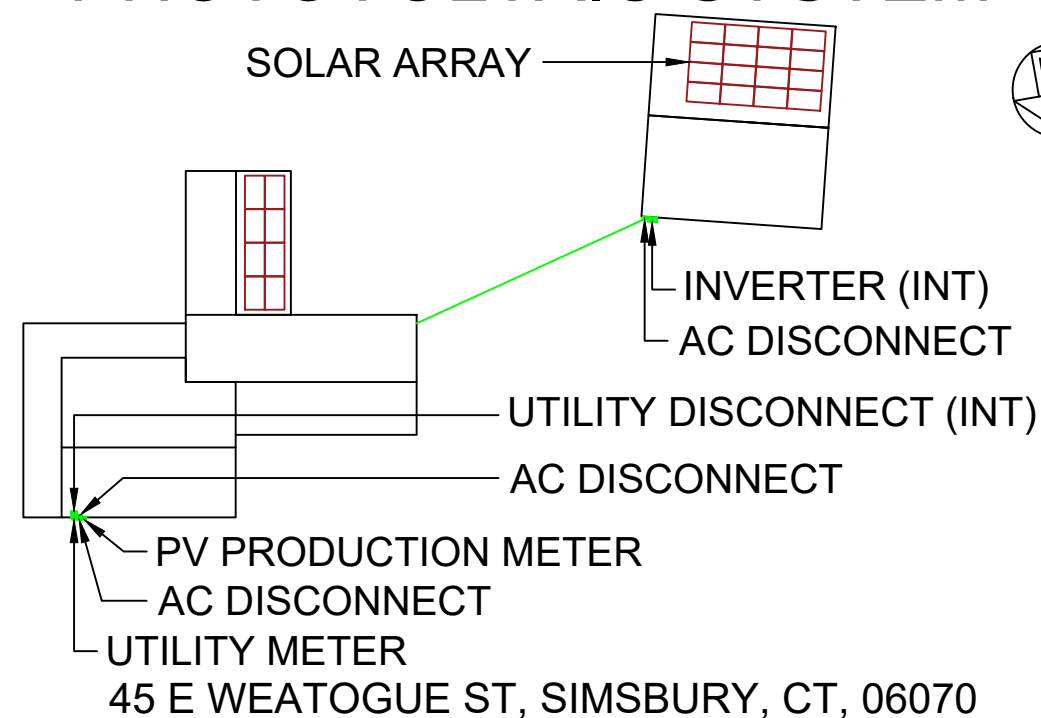
MAXIMUM AC OPERATING CURRENT: 25.00 AMPS
NOMINAL OPERATING AC VOLTAGE: 240 VAC

LABEL LOCATION:
AC DISCONNECT(S), PHOTOVOLTAIC SYSTEM POINT OF INTERCONNECTION.
PER CODE(S): CEC 2019: 690.54, NEC 2017: 690.54

4"
3"
SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN
TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY.
SOLAR ELECTRIC PV PANELS

LABEL LOCATION:
ON OR NO MORE THAT 1 M (3 FT) FROM THE SERVICE DISCONNECTING MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED.
PER CODE(S): CEC 2019: 690.56(C)(1)(a), NEC 2017: 690.56(C)(1)(a)

CAUTION:
BUILDING SUPPLIED BY
UTILITY GRID AND
PHOTOVOLTAIC SYSTEM



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SHEET
SIGNAGE

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