



ELECTRICAL RESIDENTIAL

910-893-7525

www.harnett.org

PERMIT NUMBER

ERES2201-0028

JOB ADDRESS: 429 HIGHGROVE DR	PERMIT SUBTYPE: RESIDENTIAL SOLAR PANELS	PARCEL NO: 0504-71-3699.000
DESCRIPTION: roof top solar panels	DATE ISSUED: 1/27/2022	DATE EXPIRED:
PLAN NAME:	ZONING DISTRICT: RA-20M - 0.24 acres (100.0%)	

APPLICANT: Sigora Solar 1222 Harris Street Charlottesville, VA 22903	PHONE: (434)465-6788 EMAIL: permitting@sigorasolar.com
CONTRACTOR: Sigora Solar 1222 Harris Street Charlottesville, VA 22903	PHONE: (434)465-6788 EMAIL: permitting@sigorasolar.com
OWNER: KADISH ROBBEN P 429 HIGHGROVE DR SPRING LAKE, NC 28390 SPRING LAKE, NC 28390-0000	PHONE: EMAIL:

REQUIRED INSPECTIONS

INSPECTION TYPE	APPROVAL	DATE	COMMENTS
FINAL**			
ROUGH IN			



Scott E. Wyssling, PE
Jon P. Ward, SE, PE
Gregory T. Elvestad, PE

76 North Meadowbrook Drive
Alpine, UT 84004
office (201) 874-3483
swyssling@wysslingconsulting.com

January 11, 2022
revised March 16, 2022

Sigora Solar LLC
490 Westfield Road STE A
Charlottesville, VA 22901

SCOTT E
WYSSLING, PE

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Re: Engineering Services
Kadish Residence
429 Highgrove Drive, Spring Lake, NC
16.400 kW System

To Whom It May Concern:

We have received information regarding solar panel installation on the roof of the above referenced structure. Our evaluation of the structure is to verify the existing capacity of the roof system and its ability to support the additional loads imposed by the proposed solar system.

A. Site Assessment Information

1. Site visit documentation identifying attic information including size and spacing of framing for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information will be utilized for approval and construction of the proposed system.

B. Description of Structure:

Roof Framing: 2 x 6 dimensional lumber at 14" on center.
Roof Material: Composite Asphalt Shingles
Roof Slope: 45 degrees
Attic Access: Accessible
Lumber type: Assumed Douglas Fir
Foundation: Permanent

C. Loading Criteria Used

- **Dead Load**
 - Existing Roofing and framing = 7 psf
 - New Solar Panels and Racking = 3 psf
 - TOTAL = 10 PSF
- **Live Load** = 20 psf (reducible) – 0 psf at locations of solar panels
- **Ground Snow Load** = 10 psf
- **Wind Load** based on ASCE 7-16
 - Ultimate Wind Speed = 120 mph (based on Risk Category II)
 - Exposure Category C

Analysis performed of the existing roof structure utilizing the above loading criteria is in accordance with the North Carolina Residential Code (2018), including provisions allowing existing structures to not require strengthening if the new loads do not exceed existing design loads by 105% for gravity elements and 110% for seismic elements. This analysis indicates that the existing framing will support the additional panel loading without damage, if installed correctly.

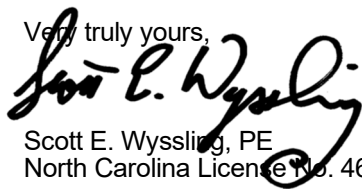
D. Solar Panel Anchorage

1. The solar panels shall be mounted in accordance with the most recent SnapNRack installation manual. If during solar panel installation, the roof framing members appear unstable or deflect non-uniformly, our office should be notified before proceeding with the installation.
2. The maximum allowable withdrawal force for a $5/16$ " lag screw is 235 lbs per inch of penetration as identified in the National Design Standards (NDS) of timber construction specifications. Based on a minimum penetration depth of $2\frac{1}{2}$ ", the allowable capacity per connection is greater than the design withdrawal force (demand). Considering the variable factors for the existing roof framing and installation tolerances, the connection using one $5/16$ " diameter lag screw with a minimum of $2\frac{1}{2}$ " embedment will be adequate and will include a sufficient factor of safety.
3. Considering the wind speed, roof slopes, size and spacing of framing members, and condition of the roof, the panel supports shall be placed no greater than 48" on centers.
4. Panel supports connections shall be staggered to distribute load to adjacent framing members.

Based on the above evaluation, this office certifies that with the racking and mounting specified, the existing roof system will adequately support the additional loading imposed by the solar system. This evaluation is in conformance with the North Carolina Residential Code, current industry standards, and is based on information supplied to us at the time of this report.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

Very truly yours,



Scott E. Wyssling, PE
North Carolina License No. 46546



Wyssling Consulting, PLLC
76 N Meadowbrook Drive
Alpine UT 84004 COA # P-2308

PROJECT DESCRIPTION:

41 x REC SOLAR: REC400AA PURE BLACK 400W MONO MODULES
 ROOF MOUNTED SOLAR PHOTOVOLTAIC MODULES
 DC SYSTEM SIZE: 16.400kW DC
 AC SYSTEM SIZE: 11.890kW AC

EQUIPMENT SUMMARY:

41 REC SOLAR: REC400AA PURE BLACK 400W MONO MODULES
 41 ENPHASE IQ7PLUS-72-2-US 290W MICRO INVERTERS
 EQUIPPED WITH RAPID SHUTDOWN
 ROOF ARRAY AREA #1:- 258.83 SQ FT.
 ROOF ARRAY AREA #2:- 119.46 SQ FT.
 ROOF ARRAY AREA #3:- 119.46 SQ FT.
 ROOF ARRAY AREA #4:- 199.10 SQ FT.
 ROOF ARRAY AREA #5:- 119.46 SQ FT.

SCOPE OF WORK:

DESIGNED FOR INSTALLATION OF GRID-TIED PHOTOVOLTAIC SOLAR SYSTEM

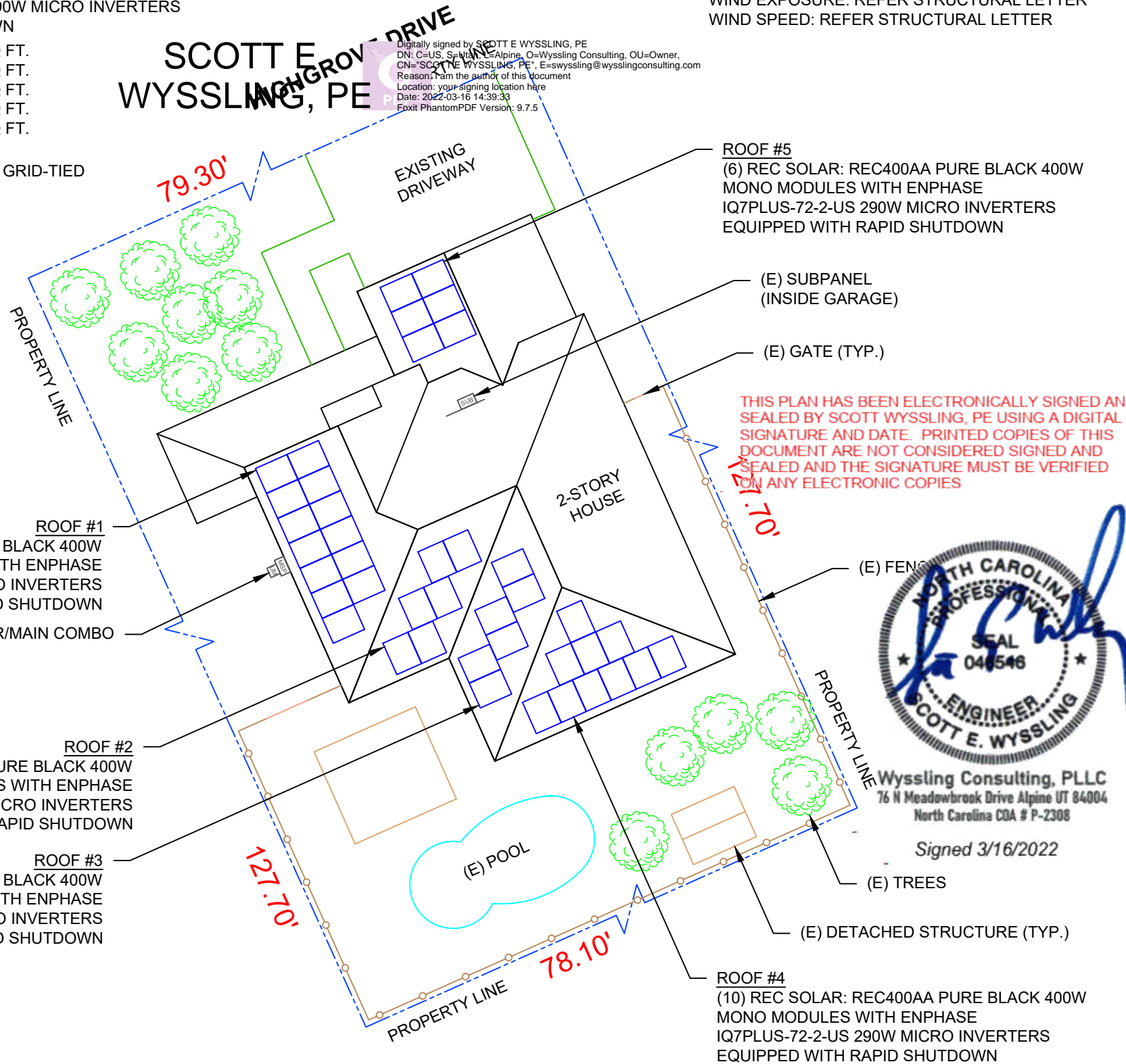
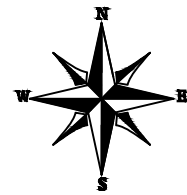
AUTHORITIES HAVING JURISDICTION:
 BUILDING: HARNETT, COUNTY OF (NC)
 ZONING: HARNETT, COUNTY OF (NC)

APPLICABLE CODES & STANDARDS
 NCBC 2018
 NEC 2017

DESIGN SPECIFICATION

OCCUPANCY: II
 CONSTRUCTION: SINGLE-FAMILY
 ZONING: RESIDENTIAL
 GROUND SNOW LOAD: REFER STRUCTURAL LETTER
 WIND EXPOSURE: REFER STRUCTURAL LETTER
 WIND SPEED: REFER STRUCTURAL LETTER

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Wyssling Consulting, PLLC
 76 N Meadowbrook Drive Alpine UT 84004
 North Carolina COA # P-2308

Signed 3/16/2022



2 HOUSE PHOTO
 PV-1 SCALE: NTS



3 VICINITY MAP
 PV-1 SCALE: NTS

SHEET INDEX	
PV-1	PLOT PLAN WITH ROOF PLAN
PV-2	ROOF PLAN & MODULES
PV-2A	CIRCUIT LAYOUT
PV-3	ATTACHMENT DETAIL
PV-4	ELECTRICAL LINE DIAGRAM
PV-5	LABELS
PV-6	PLACARD
PV-7	MICRO INVERTER CHART
PV-8	MODULE SPECIFICATIONS
PV-9	INVERTER SPECIFICATIONS
PV-10	COMBINER SPECIFICATIONS
PV-11	RAIL SPECIFICATIONS
PV-12	ATTACHMENT SPECIFICATIONS
PV-13	SOLADECK SPECIFICATIONS



REVISIONS		
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ELECTRICAL CHANGE	02/16/2022	B
ELECTRICAL CHANGE	02/18/2022	C
ELECTRICAL CHANGE	03/16/2022	D

DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH RESIDENCE
 429 HIGHGROVE DRIVE,
 SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME
PLOT PLAN WITH ROOF PLAN

SHEET SIZE

ANSI B
 11" X 17"

SHEET NUMBER

PV-1

1 PLOT PLAN WITH ROOF PLAN
 PV-1 SCALE: 1/16" = 1'-0"

MODULE TYPE, DIMENSIONS & WEIGHT

NUMBER OF MODULES = 41 MODULES
 MODULE TYPE = REC SOLAR: REC400AA PURE BLACK 400W MONO MODULES
 MODULE WEIGHT = 45 LBS / 20.4KG
 MODULE DIMENSIONS = 71.70"x 40.00" = 19.91 SF

- TOTAL WEIGHT OF PV MODULES AND RAILS = 2448.9 LBS
- WEIGHT PER ATTACHMENT POINT = 24 LBS
- DISTRIBUTED WEIGHT OF PV MODULE = 2.26 LBS/SF

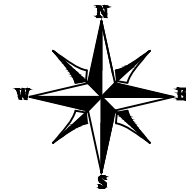
ARRAY AREA & ROOF AREA CALC'S		
TOTAL PV ARRAY AREA (SQ. FT.)	TOTAL ROOF AREA (Sq. Ft.)	ROOF AREA COVERED BY ARRAY (%)
816.31	2516.56	32

ROOF DESCRIPTION					
ROOF TYPE				ASPHALT SHINGLE	
ROOF LAYER				1 LAYER	
ROOF	# OF MODULES	ROOF PITCH	AZIMUTH	RAFTER SIZE	RAFTER SPACING
#1	13	45°	246°	2X6	16"
#2	6	45°	156°	2X6	16"
#3	6	45°	246°	2X6	16"
#4	10	45°	156°	2X6	16"
#5	6	45°	246°	2X6	16"

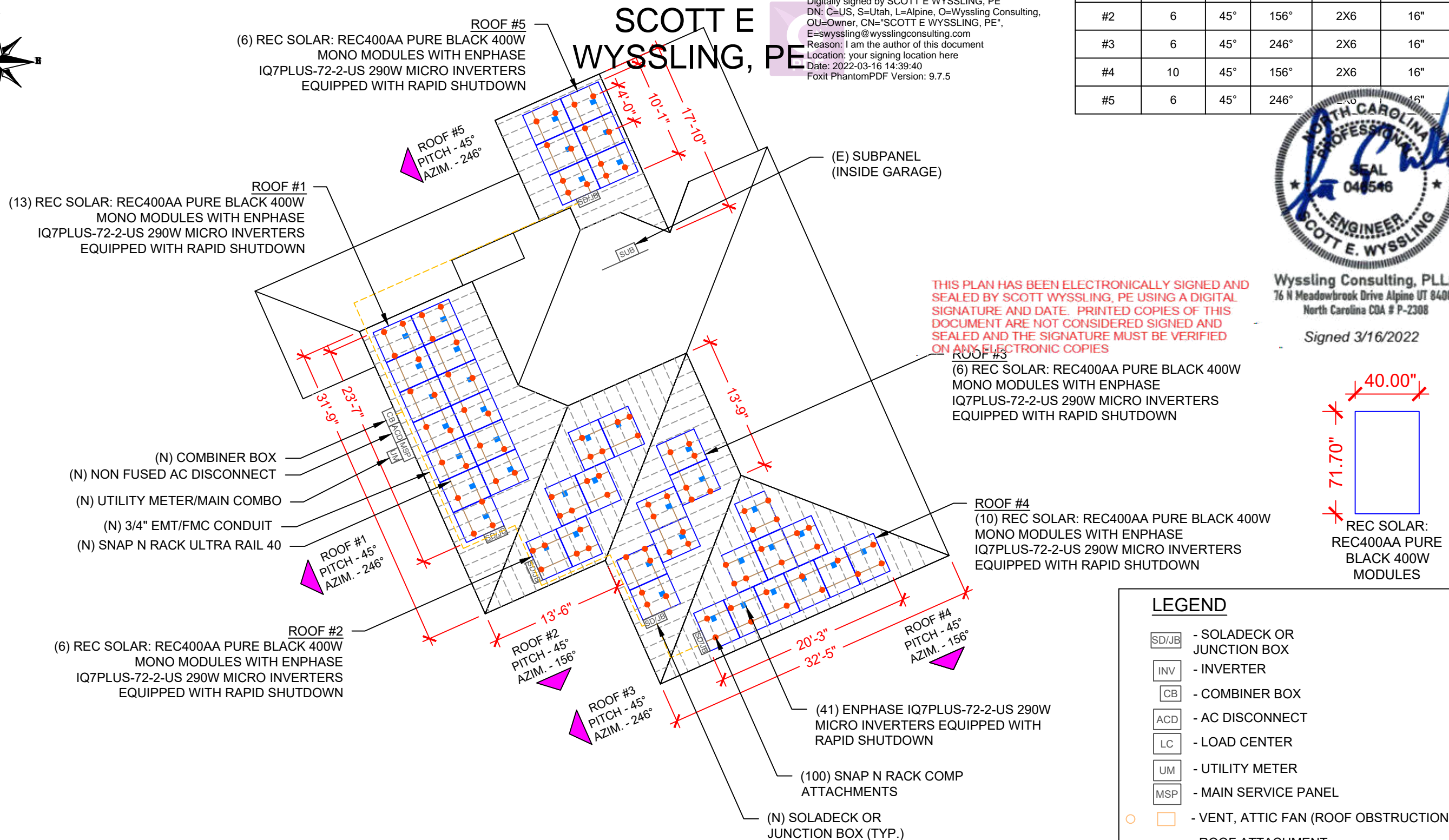


SIGORA SOLAR LLC
 490 WESTFIELD RD STE A
 CHARLOTTEVILLE, VA 22901

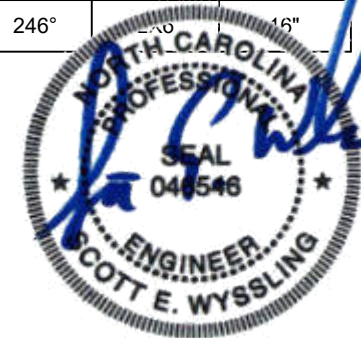
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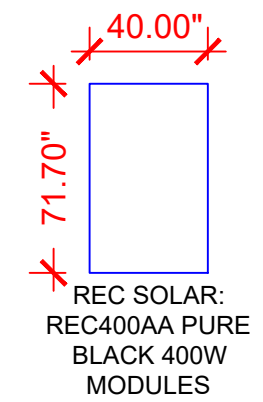
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 76 N Meadowbrook Drive Alpine UT 84004
 North Carolina CDA # P-2308
 Signed 3/16/2022



LEGEND	
	- SOLADECK OR JUNCTION BOX
	- INVERTER
	- COMBINER BOX
	- AC DISCONNECT
	- LOAD CENTER
	- UTILITY METER
	- MAIN SERVICE PANEL
	- VENT, ATTIC FAN (ROOF OBSTRUCTION)
	- ROOF ATTACHMENT
	- RAFTER
	- CONDUIT

DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH RESIDENCE
 429 HIGHGROVE DRIVE,
 SPRING LAKE, NC 28390

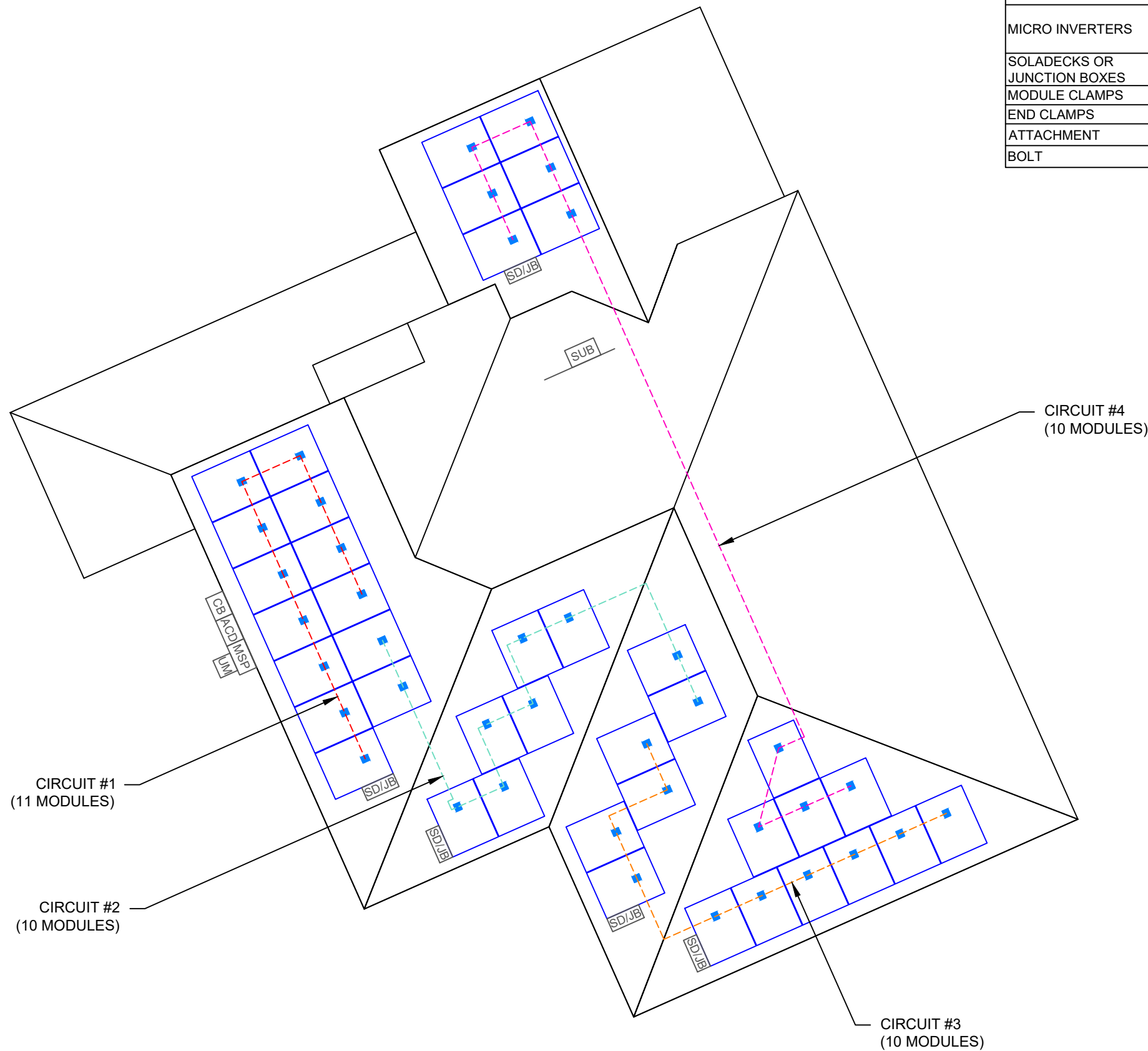
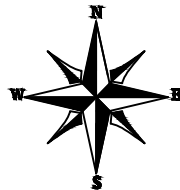
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SHEET NAME
ROOF PLAN & MODULES

SHEET SIZE
**ANSI B
 11" X 17"**

SHEET NUMBER
PV-2

CIRCUIT LEGENDS	
	CIRCUIT #1
	CIRCUIT #2
	CIRCUIT #3
	CIRCUIT #4



BILL OF MATERIALS		
EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULES	41	REC SOLAR: REC400AA PURE BLACK 400W
MICRO INVERTERS	41	ENPHASE IQ7PLUS-72-2-US 290W MICRO INVERTERS EQUIPPED WITH RAPID SHUTDOWN
SOLADECKS OR JUNCTION BOXES	5	SOLADECKS OR JUNCTION BOXES
MODULE CLAMPS	56	MID MODULE CLAMPS
END CLAMPS	52	END CLAMPS / STOPPER SLEEVE
ATTACHMENT	100	SNAP N RACK COMP
BOLT	100	LAG BOLT

SIGORA SOLAR

SIGORA SOLAR LLC
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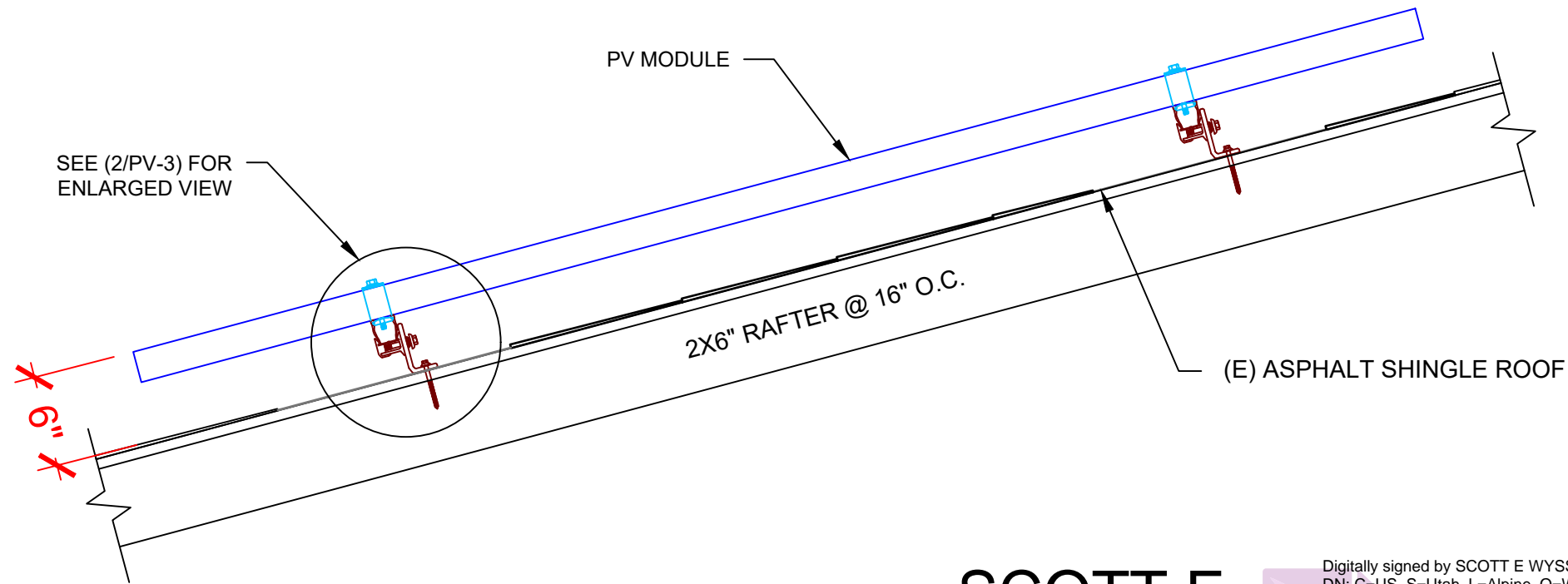
ROBBEN KADISH RESIDENCE
429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

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SHEET NAME
CIRCUIT LAYOUT

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
PV-2A



1 STRUCTURAL ATTACHMENT (SIDE VIEW)
 PV-3 SCALE: N.T.S

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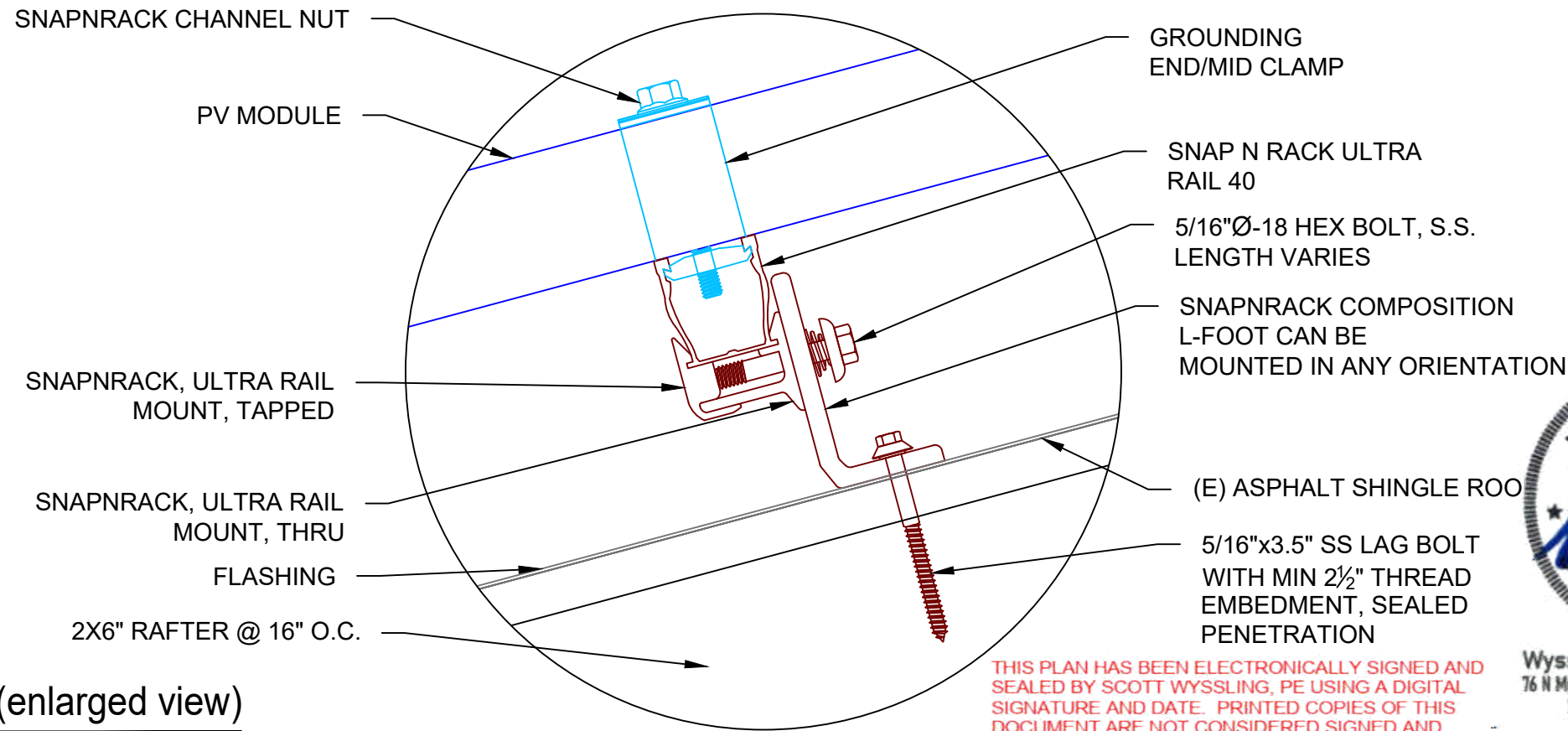
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PROJECT NAME & ADDRESS

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 429 HIGHGROVE DRIVE,
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2 ATTACHMENT DETAIL (enlarged view)
 PV-3 SCALE: N.T.S

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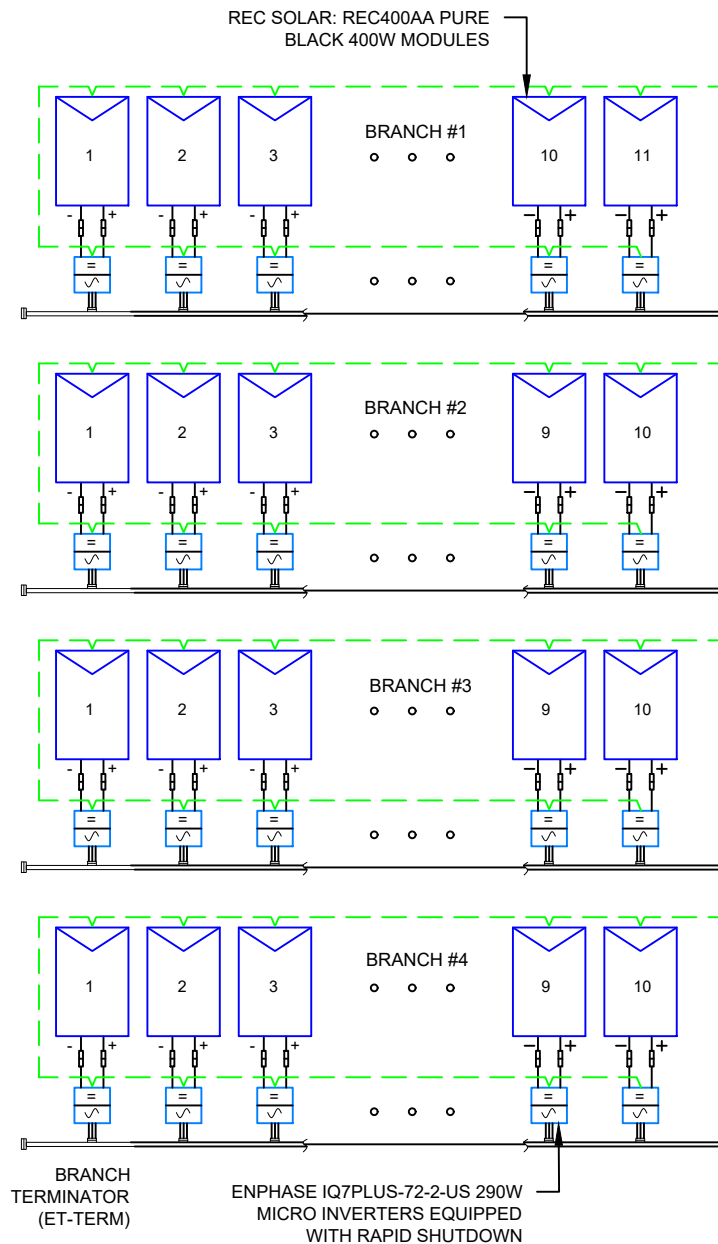
SHEET NAME
 ATTACHMENT
 DETAIL

SHEET SIZE
 ANSI B
 11" X 17"

SHEET NUMBER
 PV-3

DC SYSTEM SIZE: 16.400 kW DC
AC SYSTEM SIZE: 11.890 kW AC

(41) REC SOLAR: REC400AA PURE BLACK 400W MONO MODULES WITH (41) ENPHASE IQ7PLUS-72-2-US 290W MICRO INVERTERS EQUIPPED WITH RAPID SHUTDOWN
(1) BRANCH CIRCUIT OF 11 MODULES AND
(3) BRANCH CIRCUITS OF 10 MODULES CONNECTED IN PARALLEL



INTERCONNECTION NOTES:

1. INTERCONNECTION SIZING, LIMITATIONS AND COMPLIANCE DETERMINED IN ACCORDANCE WITH [NEC 705.12], AND [NEC 690.64].
2. GROUND FAULT PROTECTION IN ACCORDANCE WITH [NEC 215.9], [NEC 230.95] AND [NEC 690.5]
3. ALL EQUIPMENT TO BE RATED FOR BACKFEEDING.
4. PV BREAKER TO BE POSITIONED AT THE OPPOSITE END OF THE BUSBAR RELATIVE TO THE MAIN BREAKER.

DISCONNECT NOTES:

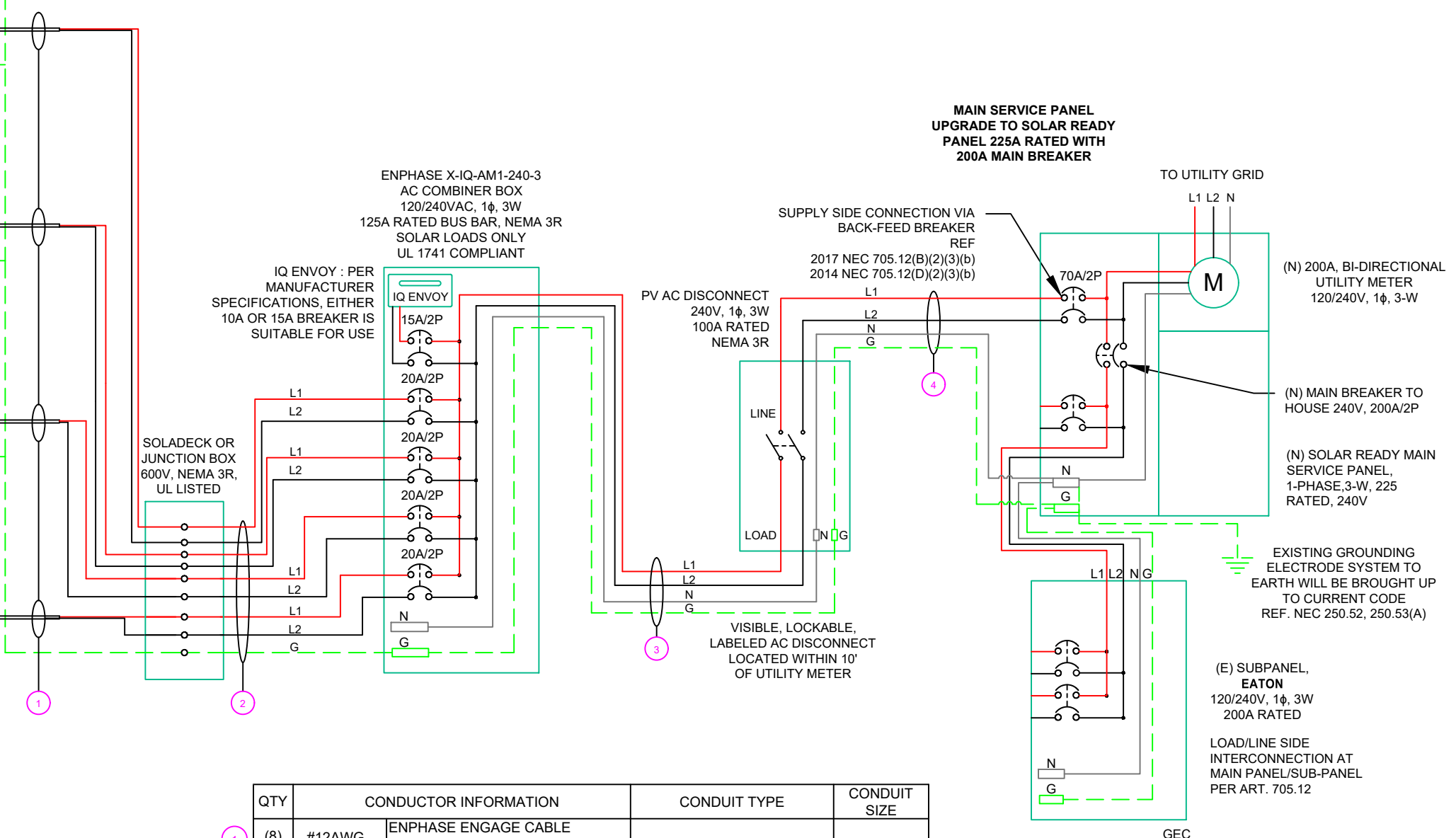
1. DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS)
2. AC DISCONNECT MUST BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH

RACKING NOTE:

1. BOND EVERY RAIL WITH #6 BARE COPPER

GROUNDING & GENERAL NOTES:

1. A SECOND FACILITY GROUNDING ELECTRODE IS NOT REQUIRED PER [NEC 690.47(C)(3)]
2. PV INVERTER IS UNGROUNDED, TRANSFORMER-LESS TYPE.
3. DC GEC AND AC EGC TO REMAIN UNSPLICED, OR SPLICED TO EXISTING ELECTRODE
4. ANY EXISTING WIRING INVOLVED WITH PV SYSTEM CONNECTION THAT IS FOUND TO BE INADEQUATE PER CODE SHALL BE CORRECTED PRIOR TO FINAL INSPECTION.
5. SOLADECK OR JUNCTION BOX QUANTITIES, AND PLACEMENT SUBJECT TO CHANGE IN THE FIELD - SOLADECK OR JUNCTION BOX DEPICTED ON ELECTRICAL DIAGRAM REPRESENT WIRE TYPE TRANSITIONS.
6. AC DISCONNECT NOTED IN EQUIPMENT SCHEDULE OPTIONAL IF OTHER AC DISCONNECTING MEANS IS LOCATED WITHIN 10' OF SERVICE DISCONNECT
7. RACEWAYS AND CABLES EXPOSED TO SUNLIGHT ON ROOFTOPS SHOULD BE INSTALLED MORE THAN 7/8" ABOVE THE ROOF USING CONDUIT SUPPORTS.
8. TEMPERATURE RATINGS OF ALL CONDUCTORS, TERMINATIONS, BREAKERS, OR OTHER DEVICES ASSOCIATED WITH THE SOLAR PV SYSTEM SHALL BE RATED FOR AT LEAST 75 DEGREE C.



QTY	CONDUCTOR INFORMATION	CONDUIT TYPE	CONDUIT SIZE
1	(8) #12AWG - ENPHASE ENGAGE CABLE (L1 & L2 NO NEUTRAL)	N/A	N/A
1	(1) #6AWG - BARE COPPER IN FREE AIR		
2	(8) #10AWG - CU, THWN-2	EMT OR FMC IN ATTIC	3/4"
1	(1) #10AWG - CU, THWN-2 GND		
2	(2) #4AWG - CU, THWN-2	EMT, LFMC OR PVC	1"
1	(1) #4AWG - CU, THWN-2 N		
1	(1) #8AWG - CU, THWN-2 GND		
2	(2) #4AWG - CU, THWN-2	EMT, LFMC OR PVC	1"
1	(1) #4AWG - CU, THWN-2 N		
1	(1) #8AWG - CU, THWN-2 GND		



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429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

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SHEET NAME
ELECTRICAL LINE DIAGRAM

SHEET SIZE
ANSI B 11" X 17"

SHEET NUMBER
PV-4

**WARNING:PHOTOVOLTAIC
POWER SOURCE**

LABEL 1

AT DIRECT-CURRENT EXPOSED RACEWAYS, CABLE TRAYS, COVERS AND ENCLOSURES OF JUNCTION BOXES, AND OTHER WIRING METHODS; SPACED AT MAXIMUM 10FT SECTION OR WHERE SEPARATED BY ENCLOSURES, WALLS, PARTITIONS, CEILINGS, OR FLOORS.

NEC 690.31(G)(3&4)

(NOT USED FOR ENPHASE MICROINVERTERS)

PHOTOVOLTAIC

LABEL 2

AT EACH PV DISCONNECTING MEANS

NEC 690.13(B)

(NOT USED FOR ENPHASE MICROINVERTERS)

DC DISCONNECT

MAXIMUM VOLTAGE
 MAXIMUM CIRCUIT CURRENT
 MAX RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED)

LABEL 3

AT DC PV SYSTEM DISCONNECTING MEANS

NEC 690.53

(NOT USED FOR ENPHASE MICROINVERTERS)

PHOTOVOLTAIC

LABEL 4

AT AC DISCONNECTING MEANS

NEC 690.13(B)

AC DISCONNECT

PHOTOVOLTAIC AC DISCONNECT

LABEL 5

AT AC DISCONNECTING MEANS

NEC 690.54

RATED AC OUTPUT CURRENT:
 NOMINAL OPERATING AC VOLTAGE:

41 MICROS X 1.21 AMP/MICRO = 49.61AMP

LABELING NOTES:

1. LABELS CALLED OUT ACCORDING TO ALL COMMON CONFIGURATIONS. ELECTRICIAN TO DETERMINE EXACT REQUIREMENTS IN THE FIELD PER CURRENT NEC AND LOCAL CODES AND MAKE APPROPRIATE ADJUSTMENTS.
2. LABELING REQUIREMENTS BASED ON THE 2017 NATIONAL ELECTRIC CODE, OSHA STANDARD 19010.145, ANSI Z535.
3. MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
4. LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED [NEC 110.21]
5. LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8", WHITE ON RED BACKGROUND; REFLECTIVE, AND PERMANENTLY AFFIXED [IFC 605.11.1.1]

WARNING
 INVERTER OUTPUT CONNECTION
 DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL 6

PLACED ADJACENT TO THE BACK-FED BREAKER FROM THE INVERTER IF TIE IN CONSISTS OF LOAD SIDE CONNECTION TO BUSBAR.
 NEC 705.12(D)(2)(3)(B)

WARNING: DUAL POWER SOURCE
 SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL 7

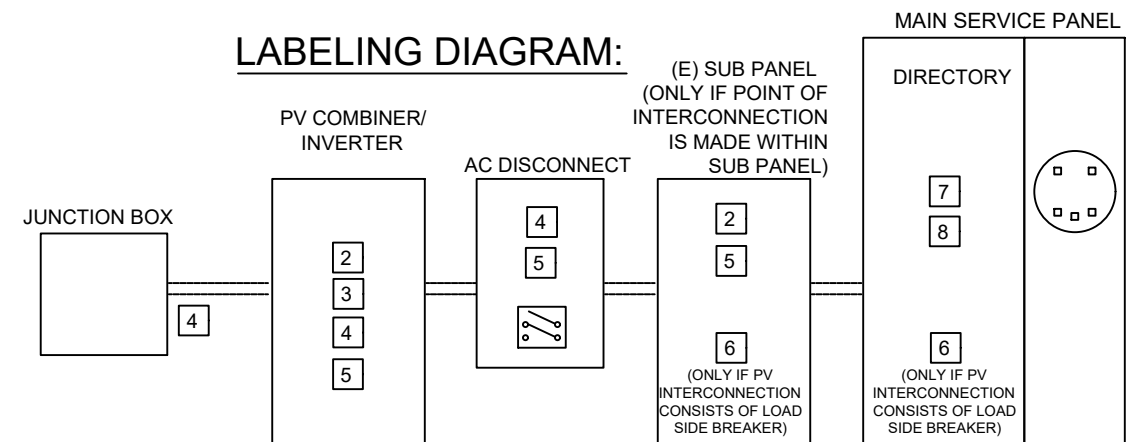
SIGN LOCATED AT LOAD CENTER
 NEC 705.12(B)(3-4) & NEC 690.59

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

LABEL 8

FOR PV SYSTEMS THAT SHUT DOWN THE ARRAY AND CONDUCTORS LEAVING THE ARRAY:
 SIGN TO BE LOCATED ON OR NO MORE THAN 3 FT AWAY FROM SERVICE DISCONNECTING MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED AND SHALL INDICATE THE LOCATION OF ALL IDENTIFIED RAPID SHUTDOWN SWITCHES IF NOT AT THE SAME LOCATION.
 [NEC 690.56(C)(1)(A)]



** ELECTRICAL DIAGRAM SHOWN ABOVE IS FOR LABELING PURPOSES ONLY. NOT AN ACTUAL REPRESENTATION OF EQUIPMENT AND CONNECTIONS TO BE INSTALLED. LABEL LOCATIONS PRESENTED MAY VARY DEPENDING ON TYPE OF INTERCONNECTION METHOD AND LOCATION PRESENTED ELECTRICAL DIAGRAM PAGE. **



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**ROBBEN KADISH
 RESIDENCE**
 429 HIGHGROVE DRIVE,
 SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME

LABELS

SHEET SIZE

**ANSI B
 11" X 17"**

SHEET NUMBER

PV-5



SIGORA SOLAR LLC
490 WESTFIELD RD STE A
CHARLOTTEVILLE, VA 22901

REVISIONS

DESCRIPTION	DATE	REV
INITIAL	01/10/2022	
ELECTRICAL CHANGE	02/15/2022	A
ELECTRICAL CHANGE	02/16/2022	B
ELECTRICAL CHANGE	02/18/2022	C
ELECTRICAL CHANGE	03/16/2022	D

DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH
RESIDENCE
429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME

PLACARD

SHEET SIZE

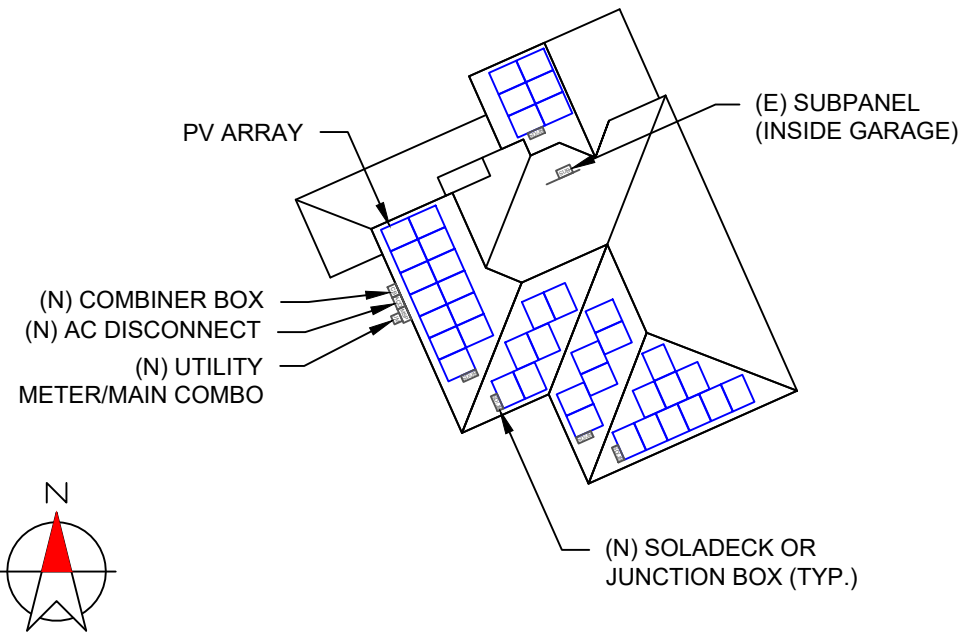
ANSI B
11" X 17"

SHEET NUMBER

PV-6

CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM MULTIPLE SOURCES OF POWER WITH SAFETY DISCONNECTS AS SHOWN:



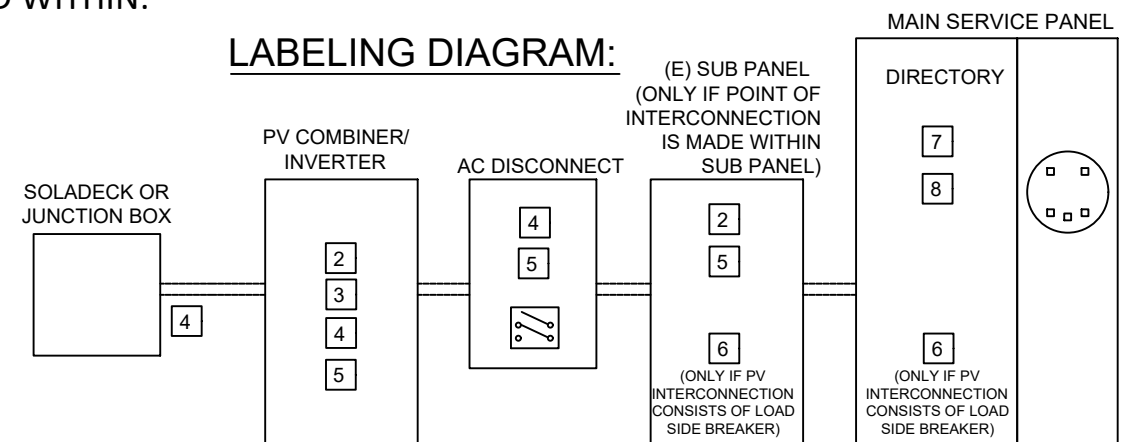
429 HIGHGROVE DRIVE, SPRING LAKE, NC 28390

DIRECTORY

PERMANENT PLAQUE OR DIRECTORY PROVIDING THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC SYSTEM.

(ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS OUTLINED WITHIN: NEC 690.56(B)&(C), [NEC 705.10])

LABELING DIAGRAM:



** ELECTRICAL DIAGRAM SHOWN ABOVE IS FOR LABELING PURPOSES ONLY. NOT AN ACTUAL REPRESENTATION OF EQUIPMENT AND CONNECTIONS TO BE INSTALLED. LABEL LOCATIONS PRESENTED MAY VARY DEPENDING ON TYPE OF INTERCONNECTION METHOD AND LOCATION PRESENTED ELECTRICAL DIAGRAM PAGE. **

LABELING NOTES:

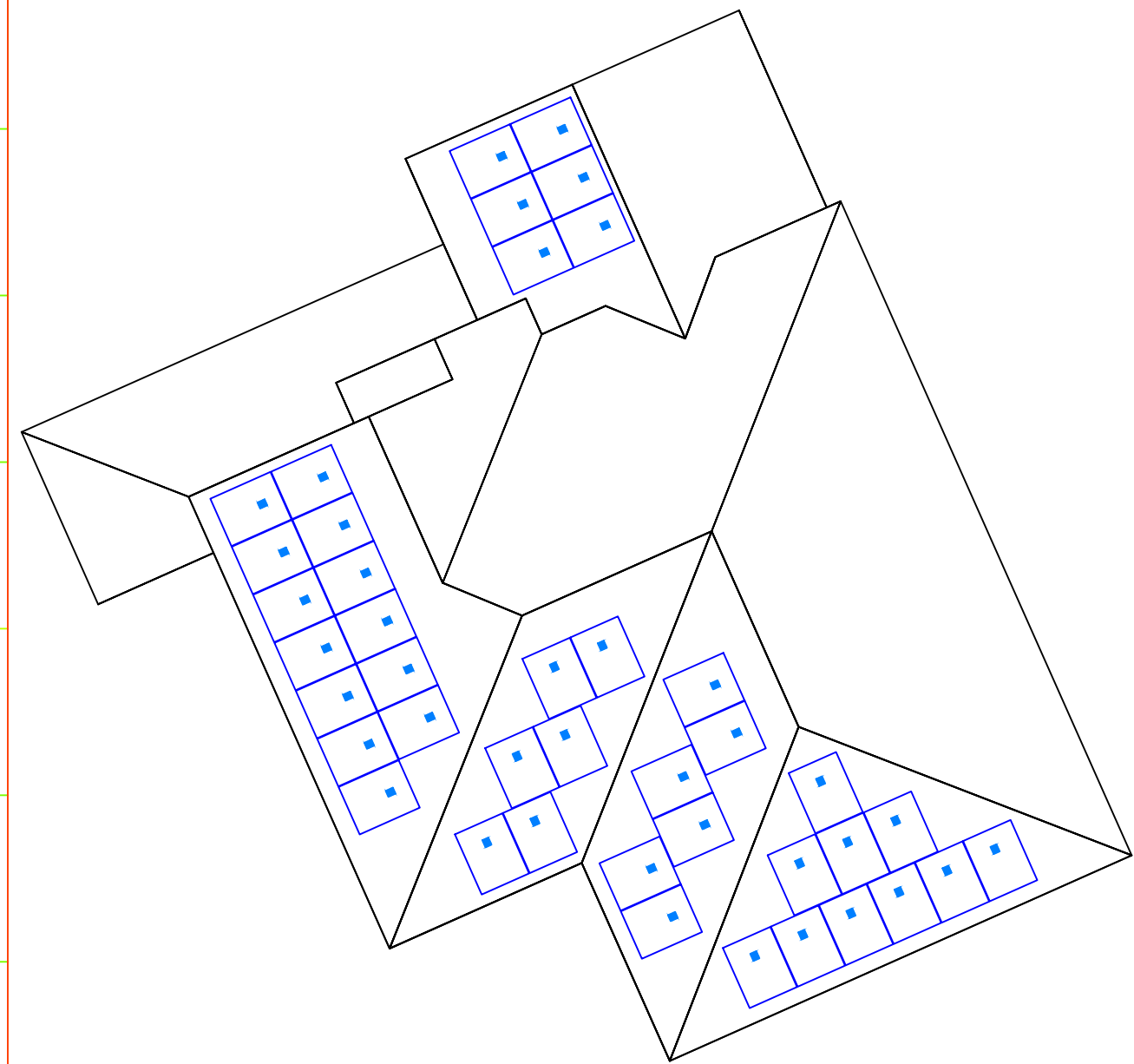
1. LABELS CALLED OUT ACCORDING TO ALL COMMON CONFIGURATIONS. ELECTRICIAN TO DETERMINE EXACT REQUIREMENTS IN THE FIELD PER CURRENT NEC AND LOCAL CODES AND MAKE APPROPRIATE ADJUSTMENTS.
2. LABELING REQUIREMENTS BASED ON THE 2017 NATIONAL ELECTRIC CODE, OSHA STANDARD 19010.145, ANSI Z535.
3. MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
4. LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED [NEC 110.21]
5. LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8", WHITE ON RED BACKGROUND; REFLECTIVE, AND PERMANENTLY AFFIXED [IFC 605.11.1.1]

1-10 11-20 21-30 31-40 41-50 51-60 61-70

1
2
3
4
5
6
7
8
9
10



MICRO INVERTER CHART




SIGORA SOLAR LLC
490 WESTFIELD RD STE A
CHARLOTTEVILLE, VA 22901

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DATE:01/10/2022

PROJECT NAME & ADDRESS

**ROBBEN KADISH
RESIDENCE**

429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME

**MICRO INVERTER
CHART**

SHEET SIZE

**ANSI B
11" X 17"**

SHEET NUMBER

PV-7

Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready **Enphase IQ 7 Micro™** and **Enphase IQ 7+ Micro™** dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.



Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell and 72-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7+ Micro is required to support 72-cell modules.

Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US		IQ7PLUS-72-2-US	
Commonly used module pairings ¹	235 W - 350 W +		235 W - 440 W +	
Module compatibility	60-cell PV modules only		60-cell and 72-cell PV modules	
Maximum input DC voltage	48 V		60 V	
Peak power tracking voltage	27 V - 37 V		27 V - 45 V	
Operating range	16 V - 48 V		16 V - 60 V	
Min/Max start voltage	22 V / 48 V		22 V / 60 V	
Max DC short circuit current (module Isc)	15 A		15 A	
Overtoltage class DC port	II		II	
DC port backfeed current	0 A		0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit			
OUTPUT DATA (AC)	IQ 7 Microinverter		IQ 7+ Microinverter	
Peak output power	250 VA		295 VA	
Maximum continuous output power	240 VA		290 VA	
Nominal (L-L) voltage/range ²	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)	1.39 A (208 V)
Nominal frequency	60 Hz		60 Hz	
Extended frequency range	47 - 68 Hz		47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms	
Maximum units per 20 A (L-L) branch circuit ³	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 (208 VAC)
Overtoltage class AC port	III		III	
AC port backfeed current	0 A		0 A	
Power factor setting	1.0		1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging		0.85 leading ... 0.85 lagging	
EFFICIENCY	@240 V	@208 V	@240 V	@208 V
Peak efficiency	97.6 %	97.6 %	97.5 %	97.3 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %	97.0 %
MECHANICAL DATA				
Ambient temperature range	-40°C to +65°C			
Relative humidity range	4% to 100% (condensing)			
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)			
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)			
Weight	1.08 kg (2.38 lbs)			
Cooling	Natural convection - No fans			
Approved for wet locations	Yes			
Pollution degree	PD3			
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure			
Environmental category / UV exposure rating	NEMA Type 6 / outdoor			
FEATURES				
Communication	Power Line Communication (PLC)			
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.			
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.			
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.			

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-us/support/module-compatibility>.
 2. Nominal voltage range can be extended beyond nominal if required by the utility.
 3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

To learn more about Enphase offerings, visit enphase.com

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SIGORA SOLAR LLC
 490 WESTFIELD RD STE A
 CHARLOTTEVILLE, VA 22901

REVISIONS

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DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH
 RESIDENCE

429 HIGHGROVE DRIVE,
 SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME
**INVERTER
 SPECIFICATION**

SHEET SIZE

ANSI B
 11" X 17"

SHEET NUMBER

PV-9



To learn more about Enphase offerings, visit enphase.com



Enphase IQ Combiner 3 (X-IQ-AM1-240-3)

The **Enphase IQ Combiner 3™** with Enphase IQ Envoy™ consolidates interconnection equipment into a single enclosure and streamlines PV and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.



Smart

- Includes IQ Envoy for communication and control
- Flexible networking supports Wi-Fi, Ethernet, or cellular
- Optional AC receptacle available for PLC bridge
- Provides production metering and optional consumption monitoring

Simple

- Reduced size from previous combiner
- Centered mounting brackets support single stud mounting
- Supports back and side conduit entry
- Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- 80 A total PV or storage branch circuits

Reliable

- Durable NRTL-certified NEMA type 3R enclosure
- Five-year warranty
- UL listed

Enphase IQ Combiner 3

MODEL NUMBER	
IQ Combiner 3 X-IQ-AM1-240-3	IQ Combiner 3 with Enphase IQ Envoy™ printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and optional* consumption monitoring (+/- 2.5%).
ACCESSORIES and REPLACEMENT PARTS (not included, order separately)	
Enphase Mobile Connect™ CELLMODEM-03 (4G / 12-year data plan) CELLMODEM-01 (3G / 5-year data plan) CELLMODEM-M1 (4G based LTE-M / 5-year data plan)	Plug and play industrial grade cellular modem with data plan for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)
Consumption Monitoring* CT CT-200-SPLIT	Split core current transformers enable whole home consumption metering (+/- 2.5%).
Circuit Breakers BRK-10A-2-240 BRK-15A-2-240 BRK-20A-2P-240	Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers. Circuit breaker, 2 pole, 10A, Eaton BR210 Circuit breaker, 2 pole, 15A, Eaton BR215 Circuit breaker, 2 pole, 20A, Eaton BR220
EPLC-01	Power line carrier (communication bridge pair), quantity 2
XA-PLUG-120-3	Accessory receptacle for Power Line Carrier in IQ Combiner 3 (required for EPLC-01)
XA-ENV-PCBA-3	Replacement IQ Envoy printed circuit board (PCB) for Combiner 3
ELECTRICAL SPECIFICATIONS	
Rating	Continuous duty
System voltage	120/240 VAC, 60 Hz
Eaton BR series busbar rating	125 A
Max. continuous current rating (output to grid)	65 A
Max. fuse/circuit rating (output)	90 A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included)
Max. continuous current rating (input from PV)	64 A
Max. total branch circuit breaker rating (input)	80A of distributed generation / 90A with IQ Envoy breaker included
Production Metering CT	200 A solid core pre-installed and wired to IQ Envoy
MECHANICAL DATA	
Dimensions (WxHxD)	49.5 x 37.5 x 16.8 cm (19.5" x 14.75" x 6.63"). Height is 21.06" (53.5 cm with mounting brackets).
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40° C to +46° C (-40° to 115° F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	<ul style="list-style-type: none"> • 20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors • 60 A breaker branch input: 4 to 1/0 AWG copper conductors • Main lug combined output: 10 to 2/0 AWG copper conductors • Neutral and ground: 14 to 1/0 copper conductors Always follow local code requirements for conductor sizing.
Altitude	To 2000 meters (6,560 feet)
INTERNET CONNECTION OPTIONS	
Integrated Wi-Fi	802.11b/g/n
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included)
Cellular	Optional, CELLMODEM-01 (3G) or CELLMODEM-03 (4G) or CELLMODEM-M1 (4G based LTE-M) (not included)
COMPLIANCE	
Compliance, Combiner	UL 1741 CAN/CSA C22.2 No. 107.1 47 CFR, Part 15, Class B, ICES 003 Production metering: ANSI C12.20 accuracy class 0.5 (PV production)
Compliance, IQ Envoy	UL 60601-1/CANCSA 22.2 No. 61010-1

* Consumption monitoring is required for Enphase Storage Systems.

To learn more about Enphase offerings, visit enphase.com

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2018-09-13



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SIGORA SOLAR LLC
490 WESTFIELD RD STE A
CHARLOTTESVILLE, VA 22901

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DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH
RESIDENCE
429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME
COMBINER
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-10

DESCRIPTION:
SNAPNRACK, UR-40 RAIL

DRAWN BY:
mwatkins

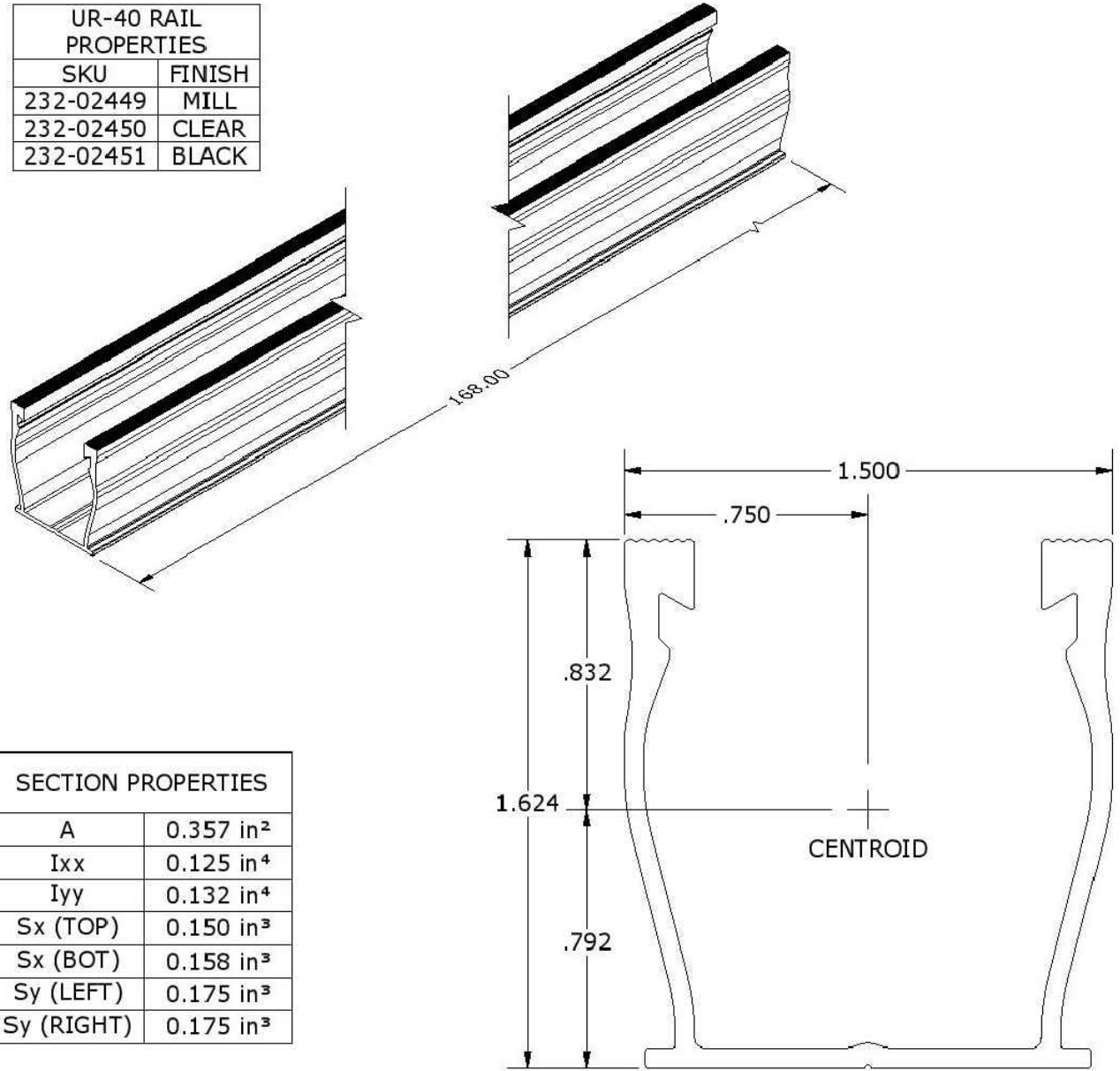


PART NUMBER(S):
232-02449, 232-02450, 232-02451

REVISION:
B

595 MARKET STREET, 29TH FLOOR • SAN FRANCISCO, CA 94105 USA.
PHONE (415) 580-6900 • FAX (415) 580-6902
THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF SUNRUN SOUTH LLC.

UR-40 RAIL PROPERTIES	
SKU	FINISH
232-02449	MILL
232-02450	CLEAR
232-02451	BLACK



SECTION PROPERTIES	
A	0.357 in ²
I _{xx}	0.125 in ⁴
I _{yy}	0.132 in ⁴
S _x (TOP)	0.150 in ³
S _x (BOT)	0.158 in ³
S _y (LEFT)	0.175 in ³
S _y (RIGHT)	0.175 in ³

ALL DIMENSIONS IN INCHES

MATERIALS:	6000 SERIES ALUMINUM	OPTIONS:
DESIGN LOAD (LBS):	N/A	CLEAR / BLACK ANODIZED
ULTIMATE LOAD (LBS):	N/A	MILL FINISH
TORQUE SPECIFICATION:	N/A LB-FT	BUNDLES OF 144
CERTIFICATION:	UL 2703, FILE E359313	BOXES OF 8
WEIGHT (LBS):	5.85	



SIGORA SOLAR LLC
490 WESTFIELD RD STE A
CHARLOTTEVILLE, VA 22901

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DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH RESIDENCE
429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

DRAWN BY
ESR

SHEET NAME
RAIL SPECIFICATION

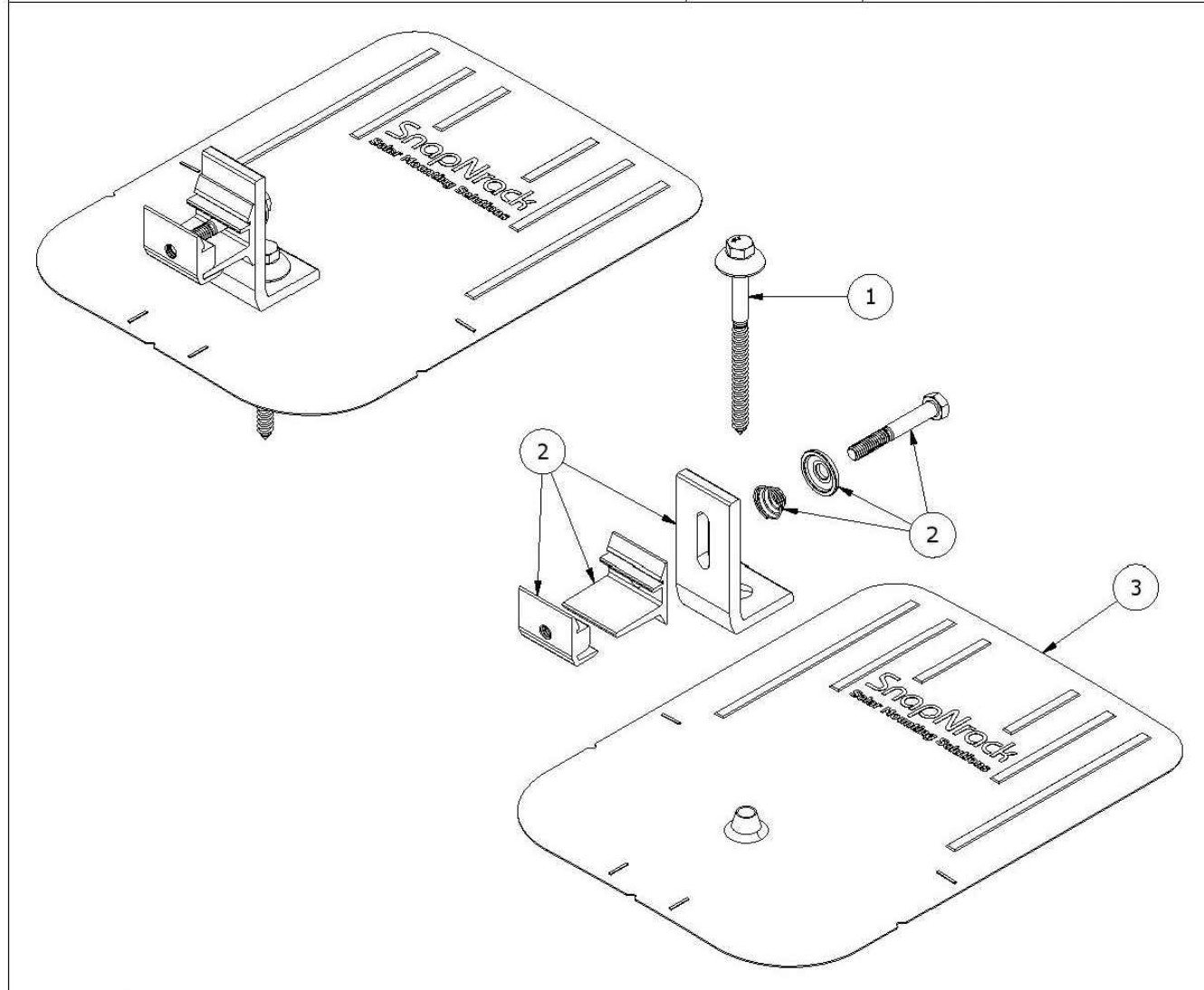
SHEET SIZE
ANSI B 11" X 17"

SHEET NUMBER
PV-11

DESCRIPTION: SNAPNRACK, ULTRA RAIL COMP KIT	DRAWN BY: mwatkins	
PART NUMBER(S): SEE BELOW	REVISION: B	

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PHONE (415) 550-6900 • FAX (415) 550-6902

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PARTS LIST

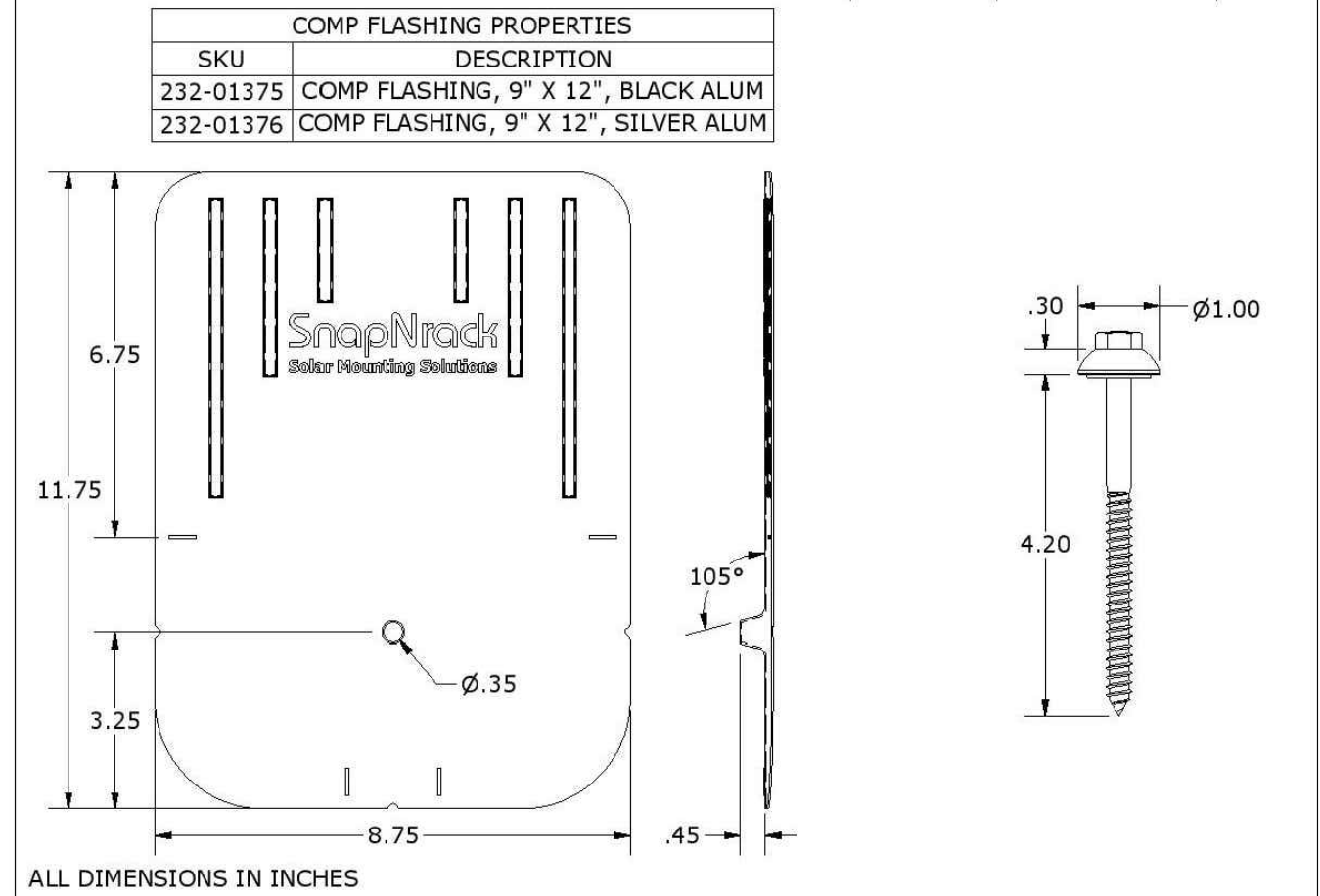
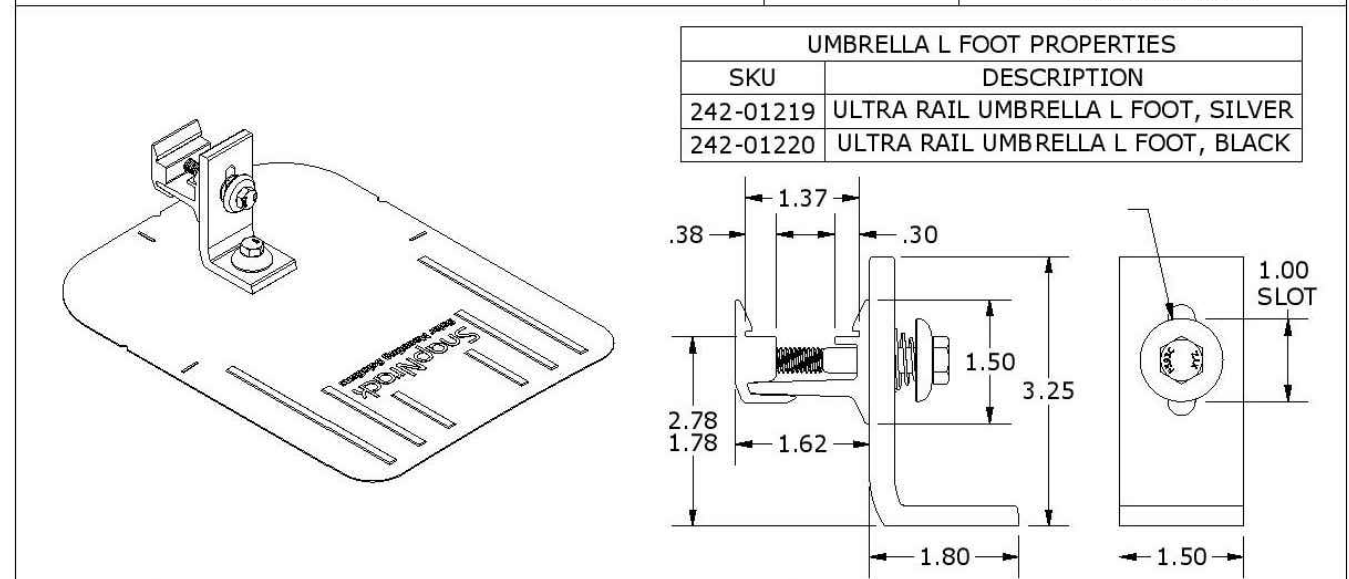
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	242-92266	SNAPNRACK, UMBRELLA LAG, TYPE 3, 4IN, SS
2	1	242-01219, 242-01220	SNAPNRACK, ULTRA FOOT FOR U FLASHING, SILVER / BLACK
3	1	232-01375, 232-01376	SNAPNRACK, COMP FLASHING, 9IN X 12IN, SILVER / BLACK ALUM

MATERIALS:	6000 SERIES ALUMINUM, STAINLESS STEEL, RUBBER
DESIGN LOAD (LBS):	802 UP, 1333 DOWN, 356 SIDE
ULTIMATE LOAD (LBS):	2005 UP, 4000 DOWN, 1070 SIDE
TORQUE SPECIFICATION:	12 LB-FT
CERTIFICATION:	UL 2703, FILE E359313; WIND-DRIVEN RAIN TEST FROM UL SUBJECT 2582
WEIGHT (LBS):	0.80

DESCRIPTION: SNAPNRACK, ULTRA RAIL COMP KIT	DRAWN BY: mwatkins	
PART NUMBER(S): SEE BELOW	REVISION: B	

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PHONE (415) 550-6900 • FAX (415) 550-6902

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DATE:01/10/2022

PROJECT NAME & ADDRESS

ROBBEN KADISH
RESIDENCE
429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME

ATTACHMENT
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-12

SolaDeck

FLASHED PV ROOF-MOUNT COMBINER/ENCLOSURE

Basic Features

- Stamped Seamless Construction
- 18 Gauge Galvanized Steel
- Powder Coated Surfaces
- Flashes into the roof deck
- 3 Roof deck knockouts .5", .75", 1"
- 5 Centering dimples for entry/exit fittings or conduit
- 2 Position Ground lug installed
- Mounting Hardware Included



SolaDeck Model SD 0783



SolaDeck UL50 Type 3R Enclosures

Available Models:

Model SD 0783 - (3" fixed Din Rail)

Model SD 0786 - (6" slotted Din Rail)



SolaDeck UL 1741 Combiner/Enclosures

Models SD 0783-41 and SD 0786-41 are labeled and ETL listed UL STD 1741 according to the UL STD 1741 for photovoltaic combiner enclosures.

Max Rated - 600VDC, 120AMPS

Model SD 0783-41 3" Fixed Din Rail fastened using Norlock System

**Typical System Configuration

- 4- Din Rail Mounted Fuse Holders 600VDC 30 AMP
- 1- Power Distribution Block 600VDC 175AMP
- 1- Bus Bar with UL lug

Model SD 0786-41 6" Slotted Din Rail fastened using steel studs

**Typical System Configuration

- 4- Din Rail Mounted Fuse Holders 600VDC 30 AMP
- 4- Din Rail Mounted Terminal Blocks
- Bus Bars with UL lug

**Fuse holders and terminal blocks added in the field must be UL listed or recognized and meet 600 VDC 30 AMP 110C for fuse holders; 600V 50 AMP 90C for rail mounted terminal blocks and 600 V 175 AMP 90C for Power Distribution Blocks. Use Copper Wire Conductors.



Cover is trimmed to allow conduit or fittings, base is center dimpled for fitting locations.



Model SD 0783-41, wired with Din Rail mounted fuse holders, bus bar and power distribution block.



Model SD 0786-41, wired with Din Rail mounted fuse holders, terminal blocks and bus bars.



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ROBBEN KADISH
RESIDENCE
429 HIGHGROVE DRIVE,
SPRING LAKE, NC 28390

DRAWN BY

ESR

SHEET NAME

SOLADECK
SPECIFICATION

SHEET SIZE

ANSI B
11" X 17"

SHEET NUMBER

PV-13



Scott E. Wyssling, PE
Jon P. Ward, SE, PE
Gregory T. Elvestad, PE

76 North Meadowbrook Drive
Alpine, UT 84004
office (201) 874-3483
swyssling@wysslingconsulting.com

June 2, 2022

Sigora Solar LLC
490 Westfield Road STE A
Charlottesville, VA 22901

Scott
Wyssling, PE

Digitally signed by Scott Wyssling, PE
DN: C=US, S=Utah, L=Alpine, O=Wyssling Consulting, OU=Owner, CN="Scott Wyssling, PE", E=swyssling@wysslingconsulting.com
Reason: I am the author of this document
Location: your signing location here
Date: 2022.06.02 09:51:50-06'00'
Foxit PDF Editor Version: 11.1.0

Re: Engineering Services (Post-Install)
Kadish Residence
429 Highgrove Drive, Spring Lake NC
16.400 kW System

To Whom It May Concern:

Pursuant to your request, we have reviewed the installation of the above-referenced solar panel system. As you are aware, this office initially prepared a structural assessment, dated March 16, 2022, of the solar panel installation. This installation was inspected and found to be in compliance with the layout plan as specified in our report, product installation criteria, and the requirements of the current building codes. The installation is in compliance with the 2018 North Carolina Residential Code Book, professional engineering assessment and judgment and covers this dwellings assessment for solar panel connections and support only. We have determined that the equipment will not create a negative impact on the building's structural design, including any additional loads imposed (dead, snow, wind).

This letter pertains only to the panel support attachments to the roof framing and not the engineered photovoltaic panel products, components, or electrical-related installations/connections.

Should you have any questions regarding the above or if you require additional information do not hesitate to contact me.

Very truly yours,

Scott E. Wyssling, PE
North Carolina License No. 46546

THIS PLAN HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SCOTT WYSSLING, PE USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES



Wyssling Consulting, PLLC
76 N Meadowbrook Drive
Alpine UT 84004 COA # P-2308













250VAC 20A
+79°C 2046

015



www.rstcenterprises.com

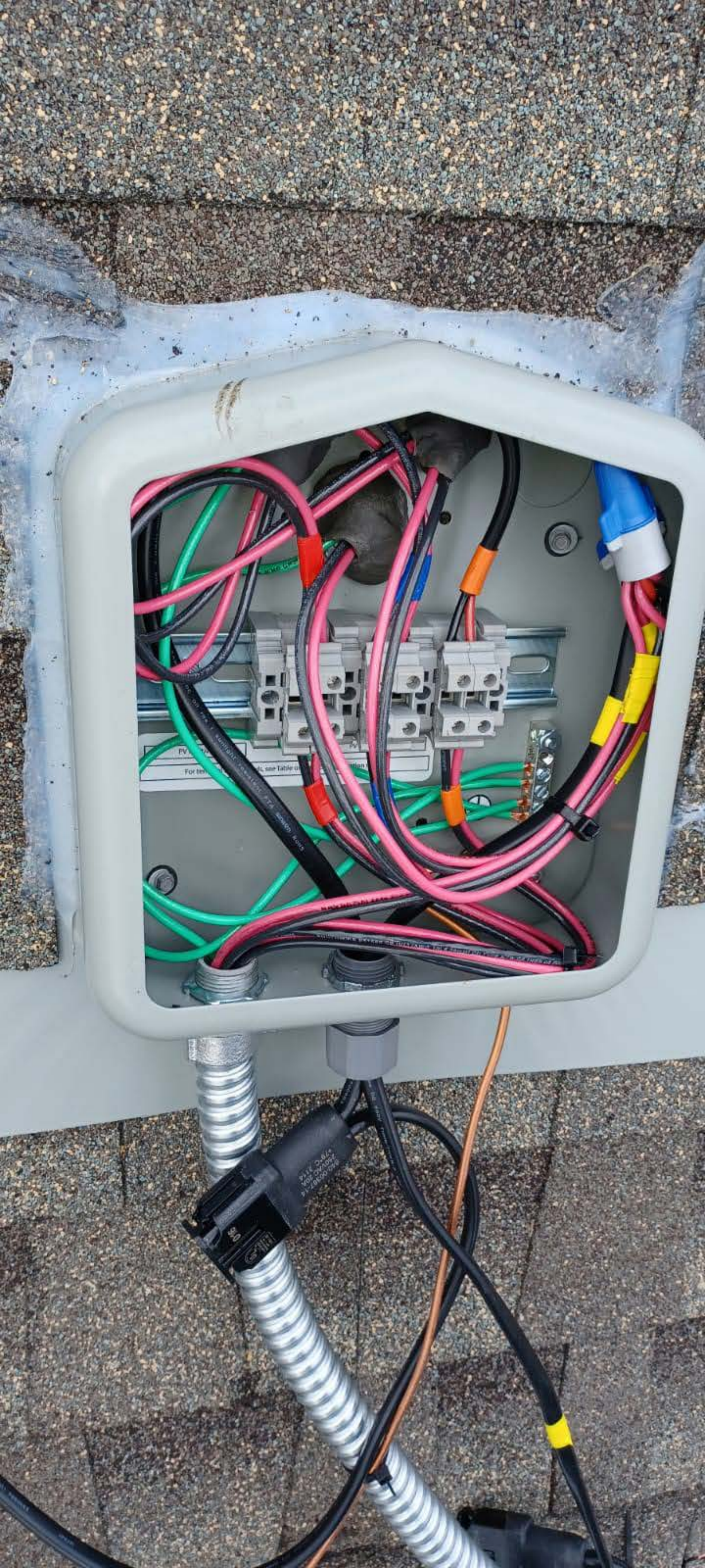
Photovoltaic Combiner/Enclosure Conforms to UL 1741; Certified to CSA C22.2 No. 290; Nema Type 3R

Q1 Q2 Q3 Q4 21 22 23 24
 0799 Series 0766-41AD

Max Ratings: 600 VDC/115 AMPS; 240 VAC/60 AMPS, Short circuit 10KA, Ambient Temp 75C*

⚠ WARNING	⚠ AVERTISSEMENT
 <p>HIGH VOLTAGE, KEEP OUT! RISK OF ELECTRICAL SHOCK. ONLY TRAINED SERVICE PERSONNEL ALLOWED ACCESS. SUITABLE FOR PHOTOVOLTAIC USE. APPROVED FOR USE WITH FIELD-INSTALLED CONDUCTORS UP TO 400 AMP ALLOWABLE AMPACITY OF 30°C. AN EXTERNAL OUTPUT CIRCUIT DISCONNECTING MEANS SHALL BE PROVIDED WHEN REQUIRED BY THE CANADIAN ELECTRICAL CODE (PANEL).</p> <p>CAUTION: BEFORE SERVICING FUSES, DISCONNECT ALL PHOTOVOLTAIC INPUTS AND OUTPUT CIRCUITS. WARNING: MORE THAN ONE CIRCUIT. SEE DIAGRAM. PLEASE CONSULT MAKE'S OF MANUAL FOR COMBINE COMPONENT AND RT RATINGS.</p>	<p>HAUTE TENSION, SÉVÈRE ÉLECTRIFICATION DE CHOC. ÉLOIGNÉZ-VOUS. SEULES PERSONNELS DE SERVICE FORMÉS À AUTORISÉ L'ACCÈS. CONVIENT À UNE UTILISATION PHOTOVOLTAÏQUE. APPROUVÉ POUR UTILISATION AVEC DES CONDUCTEURS INSTALLÉS SUR LE TERRAIN (OUBLIÉS POUR UNE CAPACITÉ ADAPTEE DE 30°C. UN MOYEN DE DÉCONNECTER DU CIRCUIT DE SORTIE EXTERNE DOIT ÊTRE FOURNI CONFORMÉ LA NORME DU CODE CANADIEN DE L'ÉLECTRICITÉ (PANNEAU).</p> <p>ATTENTION: AVANT D'ENTREPRENDRE LES RÉPARATIONS, DÉBRANCHER LES ENTRÉES ET CIRCUITS DE SORTIE PHOTOVOLTAÏQUES.</p> <p>AVERTISSEMENT: PLUS D'UN CIRCUIT EN COURANT. VOTRE MANUEL.</p> <p>VEUILLEZ CONSULTER LA PAGE 5 DU MANUEL POUR LES ÉVALUATIONS DES COMPOSANTS ET DES RTS DE COMBINAISON.</p>

RSTC - Entreprises
Patent No. US 7,626,118 B1





WARNING: PHOTOVOLTAIC
POWER SOURCE

**WARNING: PHOTOVOLTAIC
POWER SOURCE**



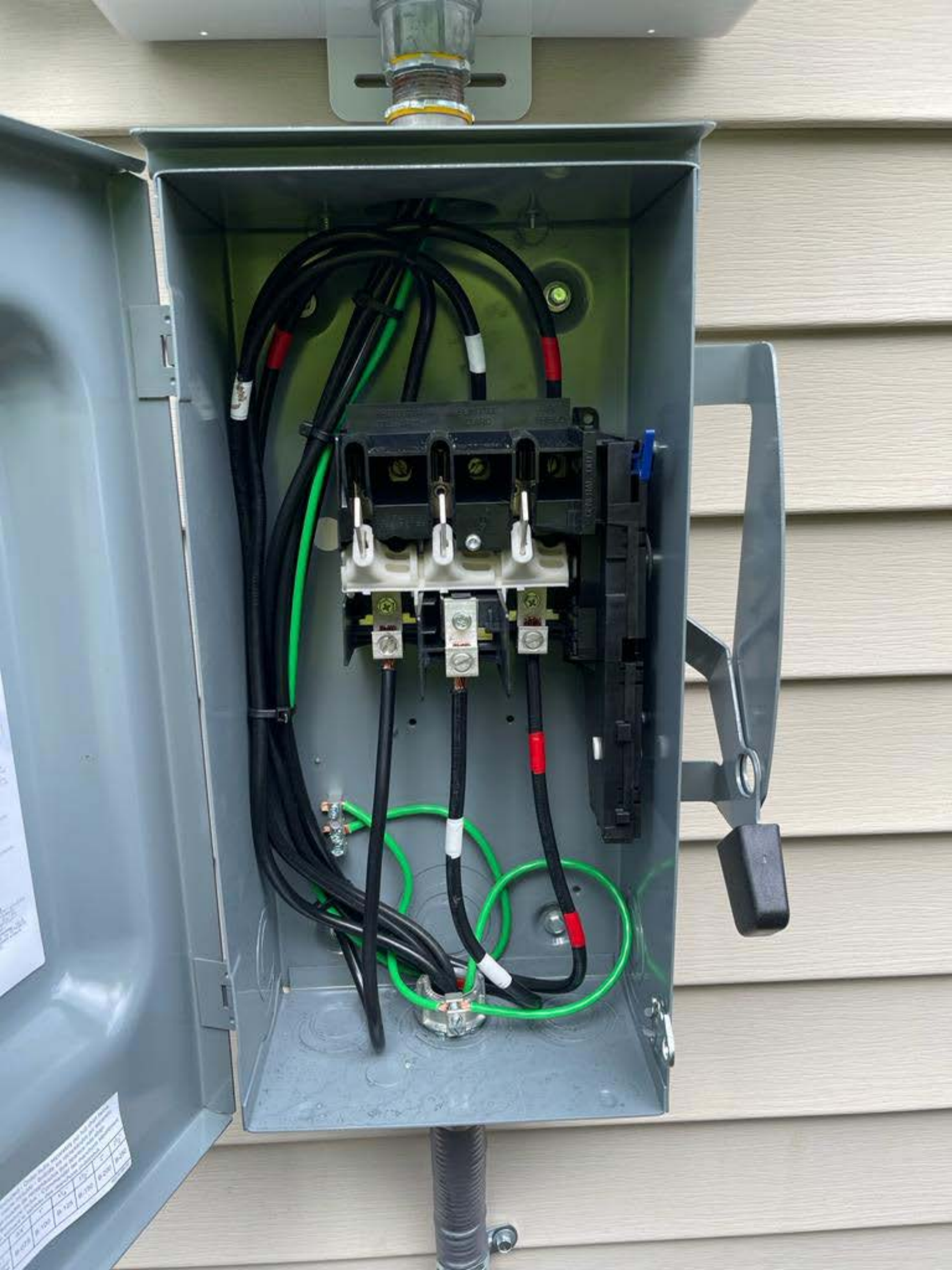
WARNING: PHOTOVOLTAIC
POWER SOURCE

WARNING: PHOTOVOLTAIC
POWER SOURCE

WARNING: PHOTOVOLTAIC
POWER SOURCE







WARNING: Check this information carefully and read the instructions carefully before using this product. Do not use this product if you are not qualified to do so. Do not use this product if you are not qualified to do so. Do not use this product if you are not qualified to do so.

Model	Rating	Temp.	Alt.	Humidity
W-100	100A	30°C	1000'	95%
W-150	150A	30°C	1000'	95%
W-200	200A	30°C	1000'	95%





EMERGENCY
DISCONNECT



WARNING: High Voltage
Do Not Touch
When Power is On
Call Electrician
If You Have
Any Questions
Call
1-800-368-7777



Hot Water	A/C #1
Heater	" "
Range	Sub #1
Range	" "
Main	A/C 2
Garage	A/C 1

BRUNNEN COMPANY
84V0228



WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

SERVICE DISCONNECT
DESCONECION DE ALIMENTA



⚠ DANGER / PELIGRO

HAZARD OF ELECTRIC SHOCK
SEE LABELS

BEFORE WORKING ON THIS EQUIPMENT, THE PHOTOVOLTAIC SYSTEM MUST BE SHUT DOWN TO PREVENT ELECTRIC SHOCK. THE PHOTOVOLTAIC SYSTEM IS A SOURCE OF ELECTRICAL ENERGY AND MUST BE TREATED AS SUCH. THE PHOTOVOLTAIC SYSTEM IS A SOURCE OF ELECTRICAL ENERGY AND MUST BE TREATED AS SUCH. THE PHOTOVOLTAIC SYSTEM IS A SOURCE OF ELECTRICAL ENERGY AND MUST BE TREATED AS SUCH.



WITH

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY

WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

⚠ WARNING
POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE.
299-00383
VHT

⚠ WARNING / ADVERTENCIA

EQUIPMENT DAMAGE	DAÑO AL EQUIPO
<ul style="list-style-type: none"> This warning applies when back fed solar breaker is installed Photovoltaic power source breaker is back fed Inverter output connection. Do not relocate this overcurrent device 	<ul style="list-style-type: none"> Esta advertencia aplica cuando un interruptor solar alimentado inversamente esta instalado El interruptor de la Fuente de energía fotovoltaica es alimentado de manera inversa No reubicar el dispositivo de sobrecorriente conectado a la salida del inversor
<p>Failure to follow these instructions can result in death, serious injury or equipment damage.</p> <p><small>ODH52006</small></p>	<p>El incumplimiento de estas instrucciones puede causar la muerte, lesiones serias o daño al equipo.</p> <p><small>Rev 01</small></p>



29 SOLAR

27 SOLAR

25

23

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