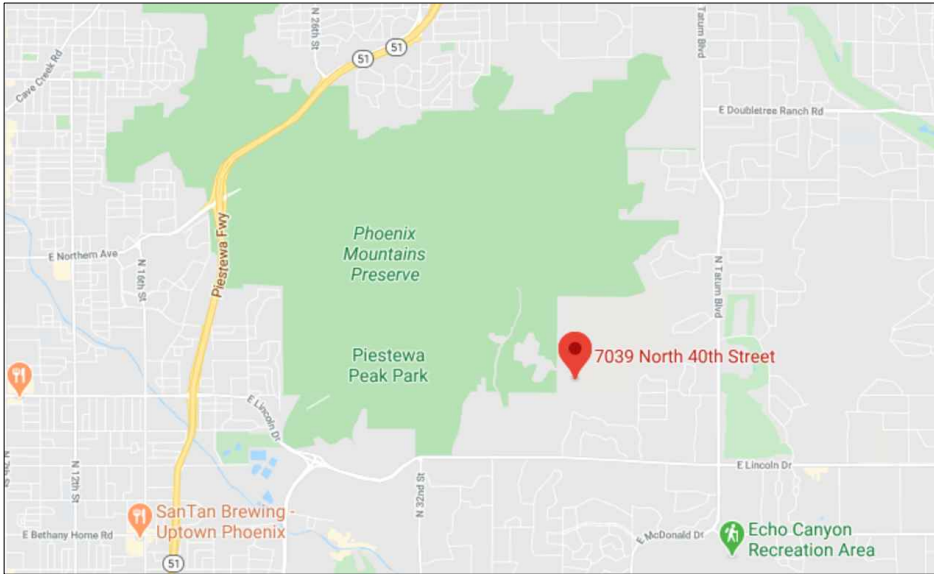
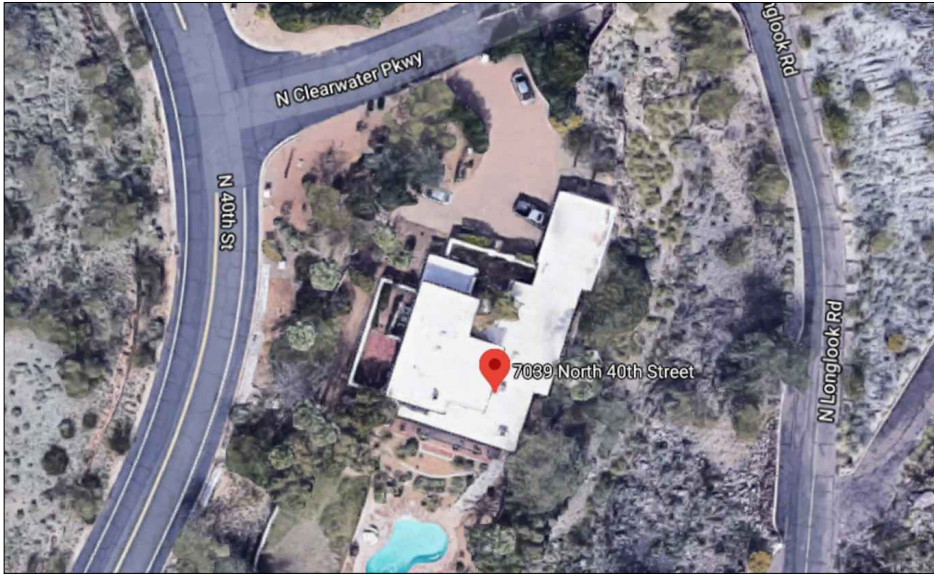
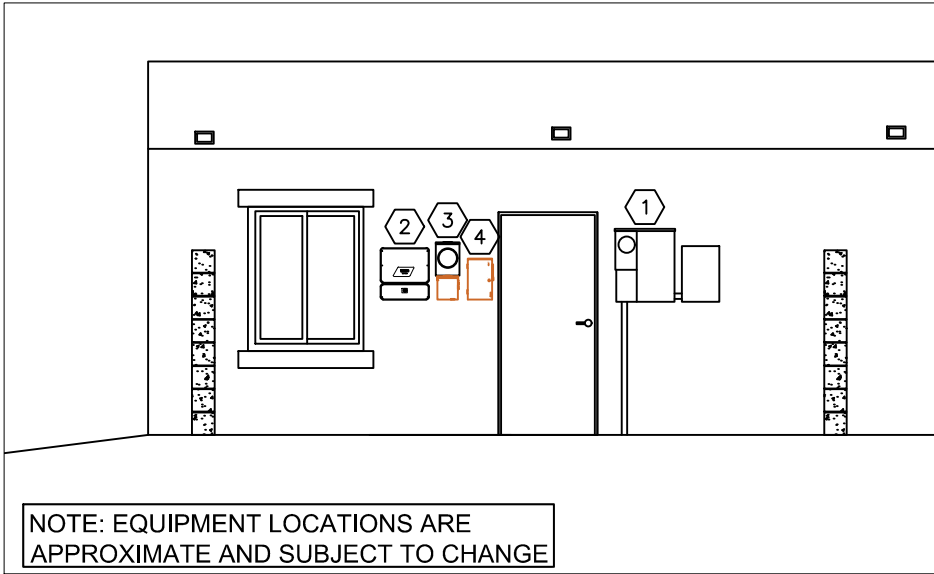




SITE LOCATION

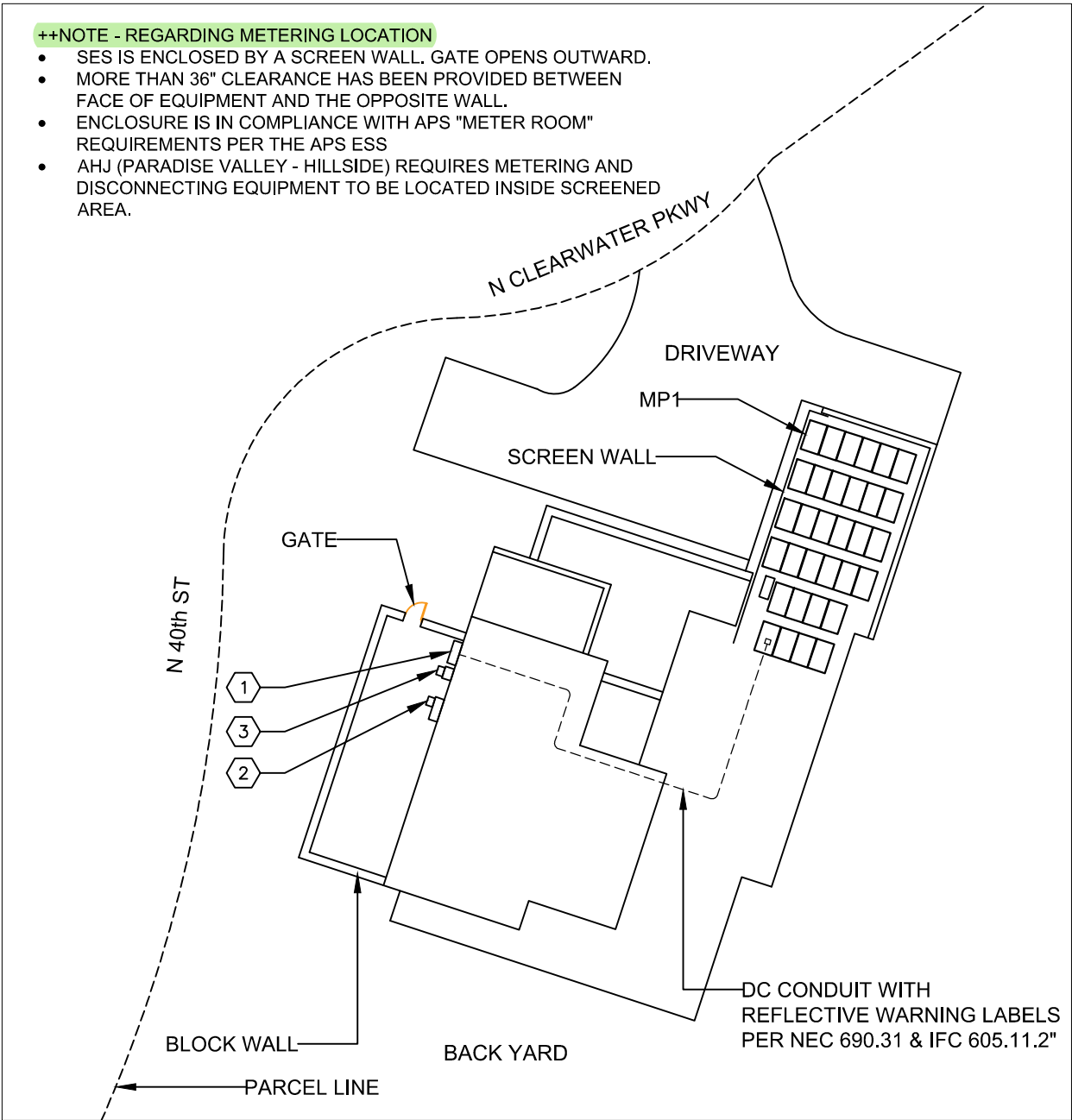


AERIAL VIEW



EQUIPMENT LAYOUT

- ++NOTE - REGARDING METERING LOCATION**
- SES IS ENCLOSED BY A SCREEN WALL. GATE OPENS OUTWARD.
 - MORE THAN 36" CLEARANCE HAS BEEN PROVIDED BETWEEN FACE OF EQUIPMENT AND THE OPPOSITE WALL.
 - ENCLOSURE IS IN COMPLIANCE WITH APS "METER ROOM" REQUIREMENTS PER THE APS ESS
 - AHJ (PARADISE VALLEY - HILLSIDE) REQUIRES METERING AND DISCONNECTING EQUIPMENT TO BE LOCATED INSIDE SCREENED AREA.



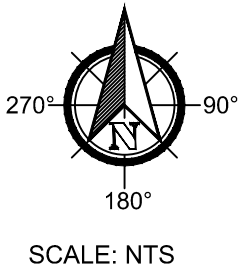
SITE PLAN

PITCH: 5	AZIMUTH: 198
MP1	MATERIAL: Rolled Asphalt
	MOUNTING: Tilt Structure

Project Manager:
Rebecca Van Horn
Sales Person:
Bobby Burnett

ROOF LEGEND	
⊗	GAS VENT
⊠	T-TOP VENT
⊡	DORMER VENT

PARCEL INFO	
PARCEL #:	169-13-043
SQUARE FOOTAGE:	3,444
CONST. YEAR:	1971



- NOTE:**
1. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT THE SERVICE ENTRANCE.
 2. WORKSPACE IN FRONT OF THE AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS & NEC REQUIREMENTS. FOR APS REQUIREMENTS, REFERENCE SECTION 300 OF THE APS ESRM & SECTION 8.2 OF THE APS INTERCONNECTION REQUIREMENTS.
 3. REFERENCE SECTION 301.15 OF THE APS ESRM FOR ELECTRIC METER SEPARATION BETWEEN WATER & GAS.

SCOPE OF WORK

TO INSTALL A PHOTOVOLTAIC (PV) SYSTEM AT THE
Hall, Suzanne Residence

LOCATED AT
7039 N 40th Street
Paradise Valley, AZ 85253

THE POWER GENERATED BY THE PV
SYSTEM WILL BE INTERCONNECTED WITH
THE UTILITY GRID THROUGH THE EXISTING
ELECTRICAL SERVICE EQUIPMENT.

SHEET INDEX

PV1 SITE MAP / SITE PLAN
PV2 ROOF PLAN
E1 THREE LINE DIAGRAM
L1 LABELING
ATTACHMENTS: CUT-SHEETS

GOVERNING CODES

LOCAL JURISDICTION - Paradise Valley
UTILITY - APS
2014 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL RESIDENTIAL CODE
2015 INTERNATIONAL FIRE CODE
CITY AMENDMENTS

SITE PLAN NOTES

- 1 (NEW)++ ELECTRICAL SERVICE
ENTRANCE 200A MAIN BREAKER
and UTILITY REVENUE METER
- 2 (NEW) INVERTER WITH
INTEGRATED DC DISCONNECT
- 3 (NEW) DEDICATED PV SYSTEM
KWH METER and UTILITY
DISCONNECT SWITCH
- 4 (NEW) FUSED AC DISCONNECT

EQUIPMENT SUMMARY

- | | |
|----|---------------------------------|
| 32 | Silfab Solar SLA-M 320 |
| 01 | SolarEdge SE11,400H-US |
| 01 | Milbank 100A Meter Base |
| 32 | SolarEdge Power Optimizer P320 |
| 01 | SIEMENS, 60A, LNF222RL, 2P |
| 01 | EATON, 60A, DG222NRB, 2P, Fused |

Sun Valley Solar Solutions LLC
3225 N Colorado St, Chandler, AZ 85225
T: (480) 669-5000 / F: (480) 669-3429
www.sunvalleysolar.com



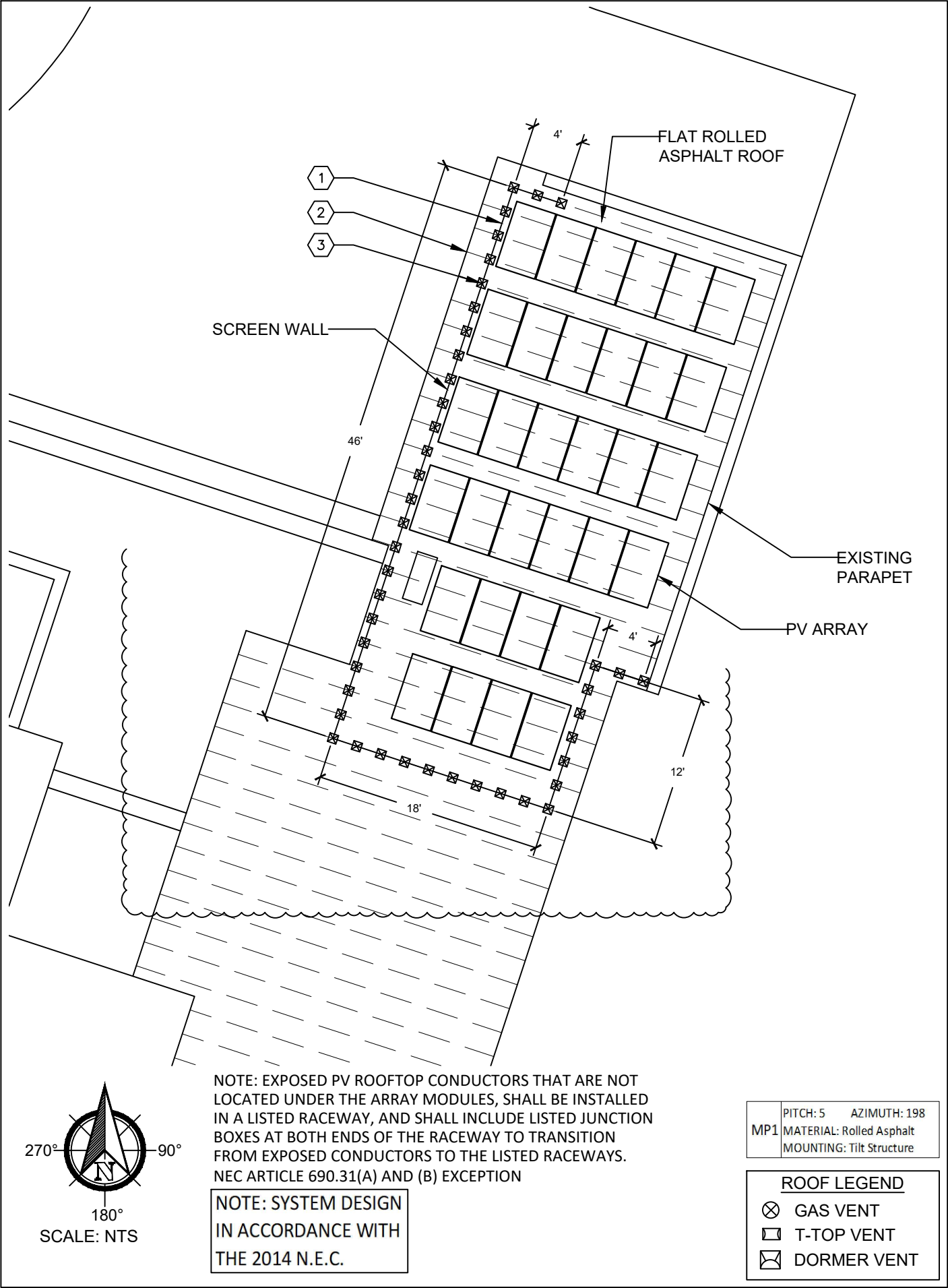
SHEET:
PV1

DATE:
8/13/2020

Revision: 0
Designer: Evan Jerpak

TITLE: SITE PLAN 11.400 kW-AC
Hall, Suzanne Residence 10,240 W-DC
7039 N 40th Street, Paradise Valley, AZ 85253

ROOF PLAN



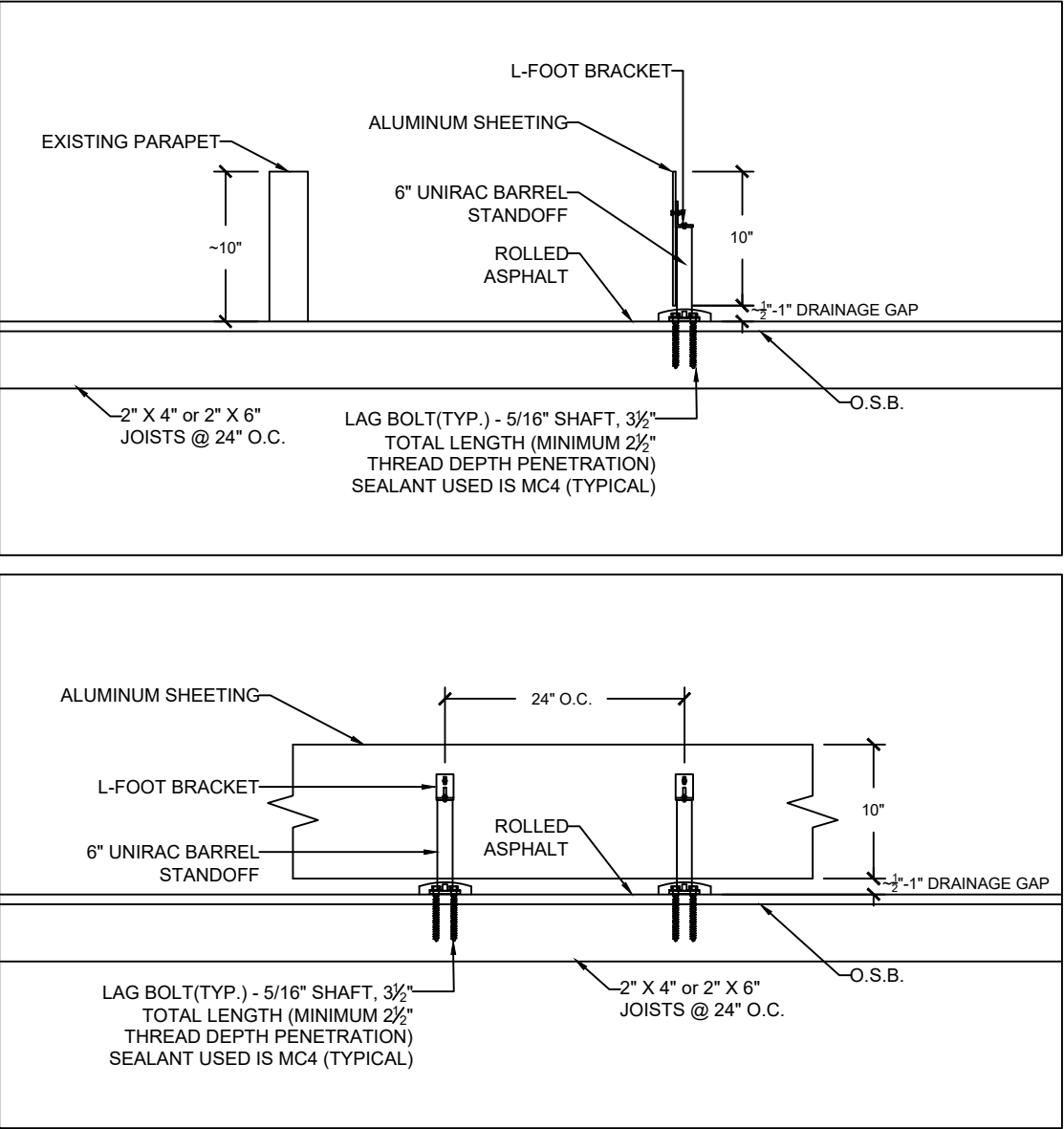
ROOF PLAN NOTES:

- 1 (NEW) METAL SCREEN WALL TO MASK PV ARRAYS
- 2 2" x 4" TRUSS @ 24" O.C.
- 3 RACKING INFORMATION
- UNIRAC STANDOFF – 6"
 - TRUSS SPACING = 24" O.C.
 - PENETRATION POINTS = 2' SPACING
 - MOUNTING DETAIL

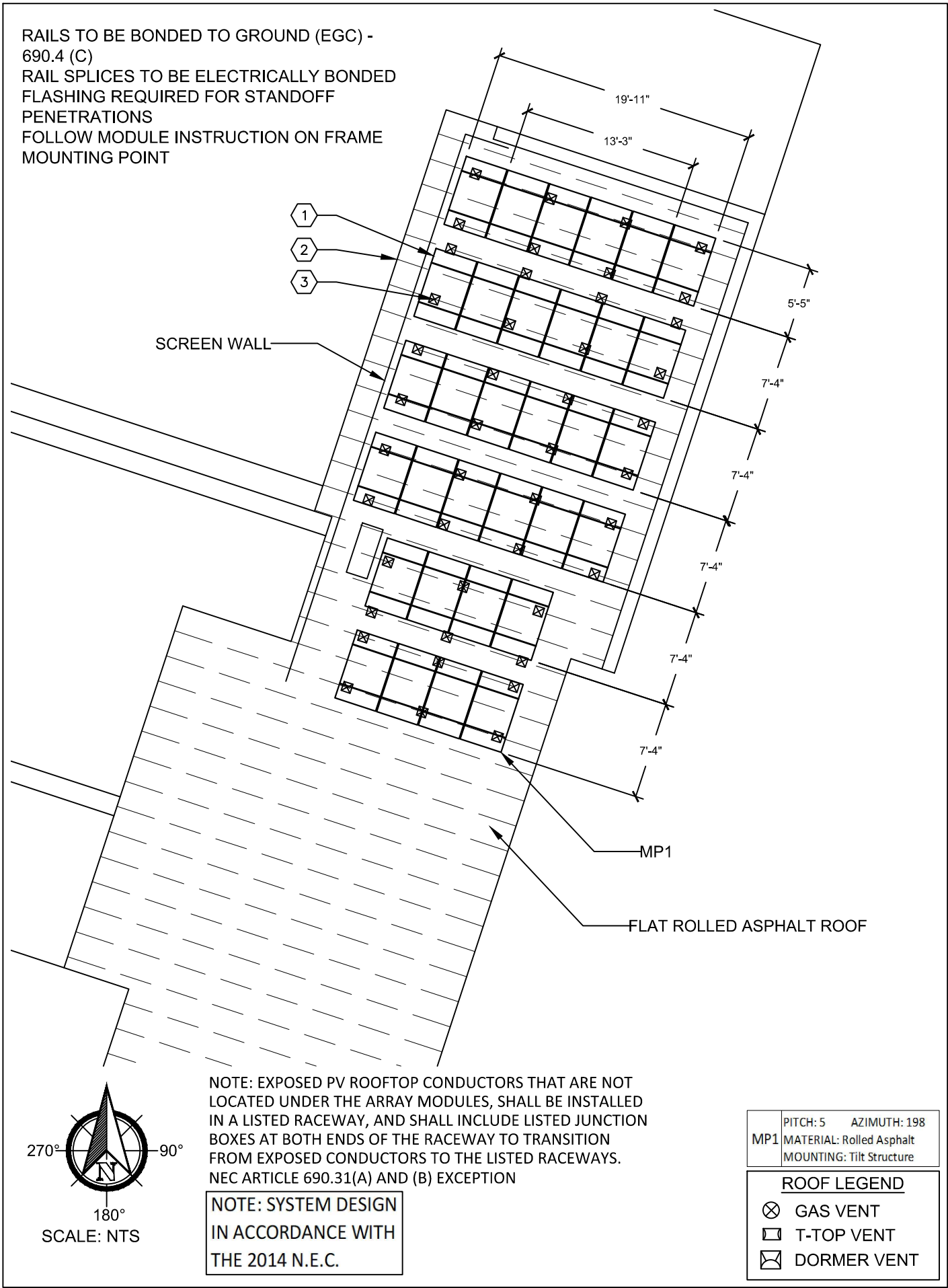
EQUIPMENT APPEARANCE DATA			
ITEM	LRV	COLOR	
BARREL STANDOFF	~80%	SEE NOTE ¹	
L FOOT	~80%	SEE NOTE ¹	
ALUMINUM SCREEN WALL	~80%	SEE NOTE ¹	

NOTE ¹: ALL SCREEN WALL EQUIPMENT TO BE PAINTED SIMILAR HUE TO EXISTING PARAPET AND LRV OF <38%

NOTE ²: ALL PARAPET WALLS ARE 10" OR HIGHER PANELS WILL BE TILTED SUCH THAT THE TOP END OF THE MODULE DOES NOT EXTEND BEYOND THE PARAPET OR SCREEN WALL



ROOF PLAN



ROOF PLAN NOTES:

- 1 (NEW) PHOTOVOLTAIC PANEL ARRAY TILTED TO ROOF WITH 5DEG TILT
- 2 2" x 4" TRUSS @ 24" O.C.
- 3 **RACKING INFORMATION**
- EVEREST MOUNTING RAIL
 - UNIRAC STANDOFF - 4"
 - EVEREST CROSSRAIL 48
 - TRUSS SPACING = 24" O.C.
 - PENETRATION POINTS = 6' SPACING
 - MOUNTING DETAIL

ROOF 1 CALCULATIONS:

DESIGN PER ASCE 7-10 2.4.1 & IBC 2015
SOLAR MODULE WEIGHT = 41.9 LBS.
EXPOSURE CATEGORY = B
BASIC WIND SPEED = 115 MPH

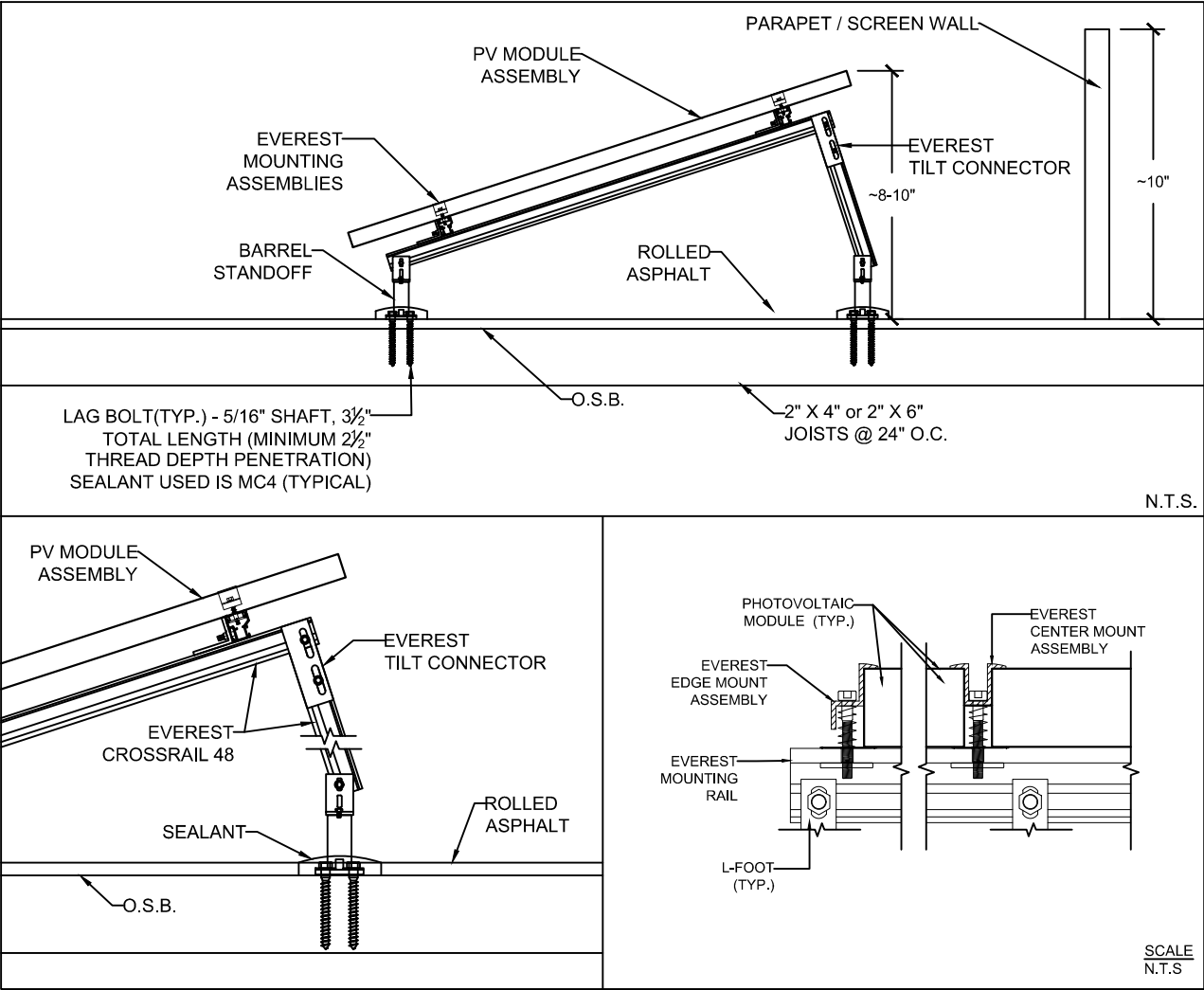
STRUCTURAL NOTES:

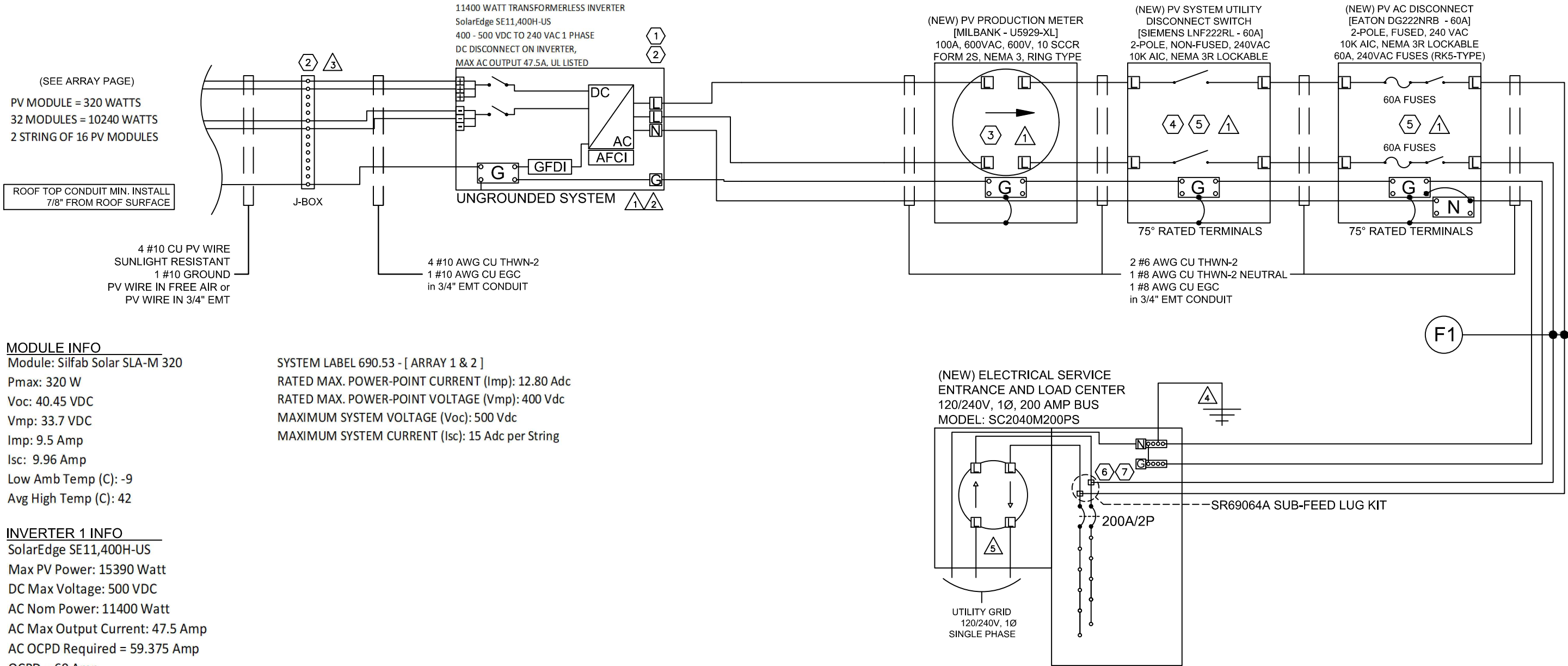
- TOTAL ASSEMBLY WEIGHT: 1555.1 LBS
- TOTAL AREA COVERED BY MODULES: 590.7 FT²
- DEAD LOAD = 1555.1 / 590.7 = 2.6 LBS/FT²
- POINT LOAD CALCULATIONS [# OF POINTS (44)] - 35.3 lb/point
- TOTAL DESIGN LOAD (DOWNFORCE) = 11.5 psf
- TOTAL DESIGN LOAD (UPFORCE) = -27.7 psf

EQUIPMENT APPEARANCE DATA

ITEM	LRV	COLOR
EVEREST CLAMPS	<10%	BLACK
EVEREST CROSSRAIL	<10%	BLACK
EVEREST TILT CONNECTOR	<10%	BLACK
BARREL STANDOFF	35%	DARK SILVER
L FOOT	35%	DARK SILVER
PV MODULE FRAME	<10%	BLACK

NOTE:
ALL PARAPET WALLS ARE 10" OR HIGHER
PANELS WILL BE TILTED SUCH THAT THE TOP END OF THE MODULE DOES NOT EXTEND BEYOND THE PARAPET OR SCREEN WALL





MODULE INFO

Module: Silfab Solar SLA-M 320

Pmax: 320 W

Voc: 40.45 VDC

Vmp: 33.7 VDC

Imp: 9.5 Amp

Isc: 9.96 Amp

Low Amb Temp (C): -9

Avg High Temp (C): 42

INVERTER 1 INFO

SolarEdge SE11,400H-US

Max PV Power: 15390 Watt

DC Max Voltage: 500 VDC

AC Nom Power: 11400 Watt

AC Max Output Current: 47.5 Amp

AC OCPD Required = 59.375 Amp

OCPD = 60 Amp

SYSTEM LABEL 690.53 - [ARRAY 1 & 2]

RATED MAX. POWER-POINT CURRENT (Imp): 12.80 Adc

RATED MAX. POWER-POINT VOLTAGE (Vmp): 400 Vdc

MAXIMUM SYSTEM VOLTAGE (Voc): 500 Vdc

MAXIMUM SYSTEM CURRENT (Isc): 15 Adc per String

LABEL REQUIREMENTS

- LABEL "PHOTOVOLTAIC ARRAY DC DISCONNECT SWITCH" PER NEC 690.14(C)(2). LABEL WITH OPERATING CURRENT, OPERATING VOLTAGE, MAX SYSTEM VOLTAGE AND SHORT CIRCUIT CURRENT PER NEC 690.53.
- LABEL WARNING SIGN PER NEC 690.35 READING "WARNING - ELECTRIC SHOCK HAZARD - THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED"
- LABEL "PHOTOVOLTAIC POWER SYSTEM DEDICATED KWH METER"
- LABEL "PHOTOVOLTAIC SYSTEM AC UTILITY DISCONNECT SWITCH". SWITCH COVER TO BE LOCKABLE. SWITCH TO BE VISIBLE BLADE AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.22.
- LABEL WARNING SIGN PER NEC 690.17 READING "WARNING - ELECTRIC SHOCK HAZARD - DO NOT TOUCH TERMINALS. TERMINAL ON BOTH THE LINE AND LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION".
- LABEL WARNING SIGN PER NEC 705.12(D)(7) READING "WARNING INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCORRECT PROTECTION DEVICE". LOCATE AT OPPOSITE END OF BUS FROM MAIN BREAKER LOCATION
- LABEL BREAKER "PHOTOVOLTAIC ELECTRIC POWER SOURCE" PER NEC 705.10, AND "BREAKERS ARE BACKFED" PER NEC 705.12 (D)(5). LABELED WITH THE MAX AC OUTPUT OPERATION CURRENT AND THE OPERATING VOLTAGE PER NEC 690.54.
- LABEL COMBINER PANEL "DEDICATED PHOTOVOLATIC SYSTEM COMBINER PANEL" AND "LOADS NOT TO BE ADDED TO THIS PANEL"
- LABEL "BREAKER HAS BEEN DE-RATED PER NEC 705.12 (D)(2)"

SYSTEM REQUIREMENTS

- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC 690 AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRIC UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION
- LISTING AGENCY NAME AND NUMBERS TO BE INDICATED ON POWER INVERTER AND SOLAR MODULES PER NEC 110.3(B).
- METALLIC CONDUIT SHALL BE USED WITHIN BUILDINGS PER NEC 690.31(E). EMT BONDED PER NEC 110.3(B).
- GEC TO BE INSTALLED AS REQUIRED BY MANUFACTURER AND NEC 690.47
- BI-DIRECTIONAL UTILITY METER TO BE INSTALLED BY UTILITY COMPANY

NOTE: SYSTEM DESIGN
IN ACCORDANCE WITH
THE 2014 N.E.C.

NEUTRAL IS USED
EXCLUSIVELY FOR PHASE
AND VOLTAGE DETECTION
PER NEC 705.95 (B)

SOLAREEDGE OPTIMIZERS FUNCTION AS DISCONNECTING CONDUCTORS TO DE-ENERGIZE PV SOURCE CIRCUITS IN COMPLIANCE WITH NEC SECTION 690.12 (RAPID SHUTDOWN)

FAULT CALCULATIONS

F1 AVAILABLE = 9,931 AIC
D = 9.5'
F = .442
M = .694
Isc = 14,318 AIC
#6 AWG CU CONDUCTORS

CALCULATIONS IN
ACCORDANCE WITH
NEC 110.9 & 110.10

SHEET:
E1

DATE:
8/13/2020

Revision: 0

Designer: Evan Jerpbak

TITLE: 3-LINE 11,400 kW-AC
Hall, Suzanne Residence 10,240 W-DC
7039 N 40th Street, Paradise Valley , AZ 85253

Sun Valley Solar Solutions LLC
3225 N Colorado St, Chandler, AZ 85225
T: (480) 659-5000 / F: (480) 659-3429
www.sunvalleysolar.com



INVERTER 1

PV MODULE = 320 WATTS
32 MODULES = 10240 WATTS
2 STRING OF 16 PV MODULES

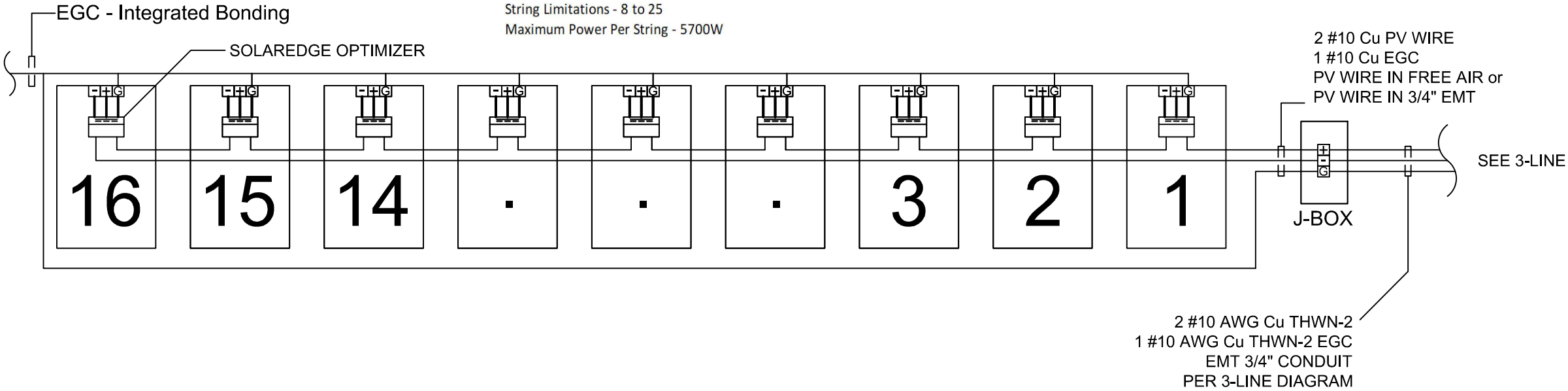
MODULE INFO
Module: Silfab Solar SLA-M 320
Pmax: 320 W
Voc: 40.45 VDC
Vmp: 33.7 VDC
Imp: 9.5 Amp
Isc: 9.96 Amp
Low Amb Temp (C): -9
Avg High Temp (C): 42

INVERTER 1 INFO
SolarEdge SE11,400H-US
Max PV Power: 15390 Watt
DC Max Voltage: 500 VDC
AC Nom Power: 11400 Watt
AC Max Output Current: 47.5 Amp
AC OCPD Required = 59.375 Amp
OCPD = 60 Amp

NOTE: SYSTEM DESIGN
IN ACCORDANCE WITH
THE 2014 N.E.C.

SolarEdge Optimizer P320
Rated DC Input Power - 320W
Maximum Input Voltage - 48 Vdc
MPPT Range - 8 to 48 Vdc
Maximum Input Current - 11 Adc
Maximum Output Current - 15 Adc
String Limitations - 8 to 25
Maximum Power Per String - 5700W

SYSTEM LABEL 690.53 - [ARRAY 1 & 2]
RATED MAX. POWER-POINT CURRENT (Imp): 12.80 Adc
RATED MAX. POWER-POINT VOLTAGE (Vmp): 400 Vdc
MAXIMUM SYSTEM VOLTAGE (Voc): 500 Vdc
MAXIMUM SYSTEM CURRENT (Isc): 15 Adc per String



NOTES

1. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC 690 AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRICAL UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION
2. EGC WIRE MUST BE CONTINUOUS AND INSTALLED TO ALLOW PANEL REMOVAL WITHOUT DISRUPTING CONTINUITY. ALL MODULE EGC CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH NEC 690.4(C)
3. FOLLOW MANUFACTURER'S SUGGESTED INSTALLATION PRACTICES AND WIRING SPECIFICATIONS.
4. CONDUCTORS SHALL BE RATED AND LABELED
5. LISTING AGENCY NAME AND NUMBERS TO BE INDICATED ON POWER INVERTER AND SOLAR MODULES PER NEC 110.3(B)
6. METALLIC CONDUIT TO BE USED WITHIN BUILDINGS PER NEC 690.31(E). EMT BONDED PER NEC 250.97

SYSTEM EQUIPMENT TAG LIST

REQ'D BY: NEC 690.5 (C)
APPLY TO: TRANSFORMERLESS
INVERTERS / DC J-BOX / DC
DISCONNECTS

REQ'D BY: NEC 690.54
APPLY TO: AC PANEL

REQ'D BY:
APPLY TO: PV KWH METER

REQ'D BY: NEC 690.14(C)(2)
APPLY TO: AC DISCONNECT

REQ'D BY: NEC 690.17
APPLY TO: DISCONNECT,
COMBINER PANELS

REQ'D BY:
APPLY TO: DEAD FRONT

REQ'D BY: IFC 605.11.1.1 -605.11.1.4
NEC 690.31 (E)(3)

- LABEL WITH CAPITALIZED LETTERS
MINIMUM HEIGHT 3/8 INCH WHITE
LETTERS ON RED BACKGROUND
- LABEL MUST BE REFLECTIVE AND
WEATHER RESISTANT
- LABEL PLACED ON INTERIOR AND
EXTERIOR DC CONDUIT,
RACEWAYS, ENCLOSURES AND
CABLE ASSEMBLIES EVERY 10 FEET,
WITHIN 1 FOOT OF TURNS OR
BENDS AND WITHIN 1 FOOT ABOVE
AND BELOW PENETRATIONS OF
ROOF/CELINGS ASSEMBLIES, WALL
OR BARRIERS.

NOTE: SYSTEM DESIGN
IN ACCORDANCE WITH
THE 2014 N.E.C.

WARNING
ELECTRIC SHOCK HAZARD.
THE DC CONDUCTORS OF THIS
PHOTOVOLTAIC SYSTEM ARE
UNGROUND AND MAY BE ENERGIZED

PHOTOVOLATIC POWER SOURCE
BREAKERS ARE BACKFED
MAX AC CURRENT: 47.5 A
OPERATING VOLTAGE: 240 VAC

PHOTOVOLTAIC SYSTEM METER

PHOTOVOLTAIC SYSTEM
AC UTILITY DISCONNECT SWITCH

WARNING - ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS - TERMINALS
ON BOTH THE LINE AND LOAD MAY BE
ENERGIZED IN THE OFF POSITION

PHOTOVOLTAIC
POWER SOURCE
BREAKERS ARE
BACKFEEDING

WARNING: PHOTOVOLTAIC POWER SOURCE

WARNING:
PHOTOVOLTAIC
POWER SOURCE

REQ'D BY: NEC 705.12 (D)(2)
APPLY TO: ABOVE MAIN BREAKER

REQ'D BY: UTILITY & NEC 2014 - 705.10
APPLY TO:

REQ'D BY:
APPLY TO: FRONT COMBINER PANEL

REQ'D BY: SUN VALLEY SOLAR
APPLY TO: INVERTERS

REQ'D BY: NEC 2014 - 690.12
APPLY TO: RAPID SHUTDOWN DEVICE

BREAKER HAS BEEN DE-RATED
PER NEC 705.12 (D)(2)

WARNING
OTHER POWER SOURCE CONNECTED IS A PHOTOVOLTAIC SYSTEM
UTILITY DISCONNECT SWITCH FOR THIS SOURCE IS LOCATED APPROX.

DEDICATED PHOTOVOLTAIC
SYSTEM COMBINER PANEL
LOADS NOT TO BE ADDED
TO THIS PANEL

QUALITY INSTALLATION BY:
**SUN VALLEY SOLAR
SOLUTIONS**
3225 N Colorado St
Chandler, AZ 85225
PHONE: 1 888 5 SOLAR UP

PHOTOVOLTAIC SYSTEM
EQUIPPED WITH
RAPID SHUTDOWN

RAPID SHUTDOWN
LOCATED AT

REQ'D BY: NEC 690.53
APPLY TO: DC DISCONNECT

INVERTER
1

PHOTOVOLTAIC ARRAY DC
DISCONNECT SWITCH

Voc: 500 VDC Isc: 15 Adc
Vop: 400 VDC Iop: 12.80 A
Max MPPT Voltage: 500 VDC
Max System Voltage: 500 VDC

MPPT 1
STRING 1

PHOTOVOLTAIC ARRAY DC
DISCONNECT SWITCH

Voc: 500 VDC Isc: 15 Adc
Vop: 400 VDC Iop: 12.80 A
Max MPPT Voltage: 500 VDC
Max System Voltage: 500 VDC

MPPT 2
STRING 2



Sun Valley Solar Solutions LLC
3225 N Colorado St, Chandler, AZ 85225
T: (480) 689-5000 / F: (480) 659-3429
www.sunvalleysolar.com

TITLE: LABELS - SAFETY
1,400 kW-AC
Hall, Suzanne Residence 10,240 W-DC
7039 N 40th Street, Paradise Valley , AZ 85253

Revision: 0
Designer:

DATE:
8/13/2020

SHEET:
L1

Notes:

-
-
-

Competent Person: _____

Crew Lead: _____

Emergency Center



SHEET:
L1

DATE:
8/13/2020

Revision: 0

Designer:

TITLE: SAFETY PLAN 11.400 KW-AC
Hall, Suzanne Residence 10,240 W-DC
7039 N 40th Street, Paradise Valley, AZ 85253

Sun Valley Solar Solutions LLC

3225 N Colorado St, Chandler, AZ 85225
T: (480) 689-5000 / F: (480) 659-3429
www.sunvalleysolar.com



REQUIRED PPE

- ☐ STEEL TOE BOOTS
- ☐ HARD HAT
- ☐ HARNESS/FALL PROTECTION
- ☐ SAFETY GLASSES
- ☐ GLOVES
- ☐ HIGH VOLTAGE GLOVES
- ELECTRICAL PPE CAT
- ☐ -0
- ☐ -1
- ☐ -2
- ☐ -3
- ☐ -4
- SPECIALTY

Mark Up Key

- ☐ Permanent Anchor
- ☐ Temporary Anchor
- ☐ Warning Line Delineator
- ☐ Guard Rail Stanchion
- ☐ IL Installer Ladder
- ☐ AL Auditor Ladder
- ☐ CB Combiner Box
- ☐ SO Stubout
- ☐ SkyLight
- No Ladder Access
- ☐ Restricted Area
- ☐ Conduit

Installer Signatures:

Print

Signature

- | | |
|----------|-------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |
| 4. _____ | _____ |
| 5. _____ | _____ |
| 6. _____ | _____ |
| 7. _____ | _____ |
| 8. _____ | _____ |

OSHA SECTIONS PURSUANT TO JOB TASKS:

- ☐ PPE & Life Saving Equip-1926 Subpart E
- ☐ Lifelines & Lanyards-1926.104
- ☐ Tools-Hand and Power-1926-Subpart I
- ☐ Toxic Substances-1926 Subpart Z
- ☐ Steel Erection- 1926 Subpart R
- ☐ Ladders-1926 Subpart X
- ☐ Fall Protection-1926 Subpart M
- ☐ Electrical-1926 Subpart K
- ☐ Excavation-1926 Subpart P
- ☐ First Aid & Medical-1926.23



N

3D

INVERTER

SES

24.6 ft.

34.3 ft

39.1 ft

24.9 ft.

17.7 ft

29.4 ft

35.7 ft

27.1 ft.

29.6 ft

24.9 ft.

31.6 ft.



Hall Residence:

7039 N. 40th St. Paradise Valley, AZ 85253



View from the east:



View from the West:



View from the South:



View from the north:



All electrical equipment will be located behind enclosed area.





SLA-M 320 Wp



60 Cell Monocrystalline PV Module



CHUBB®

* Chubb provides error and omission insurance to Silfab Solar Inc.

INDUSTRY LEADING WARRANTY

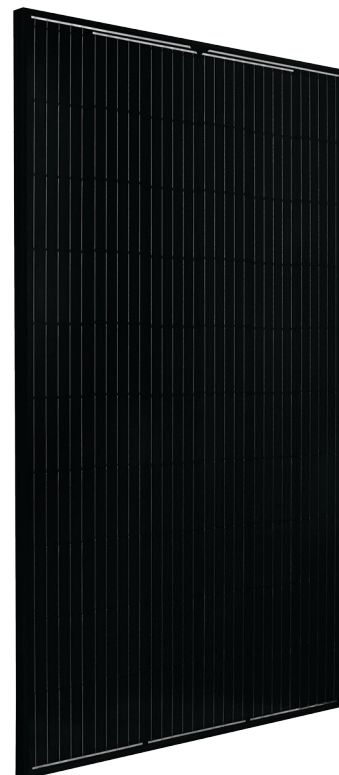
All our products include an industry leading 25-year product workmanship and 30-year performance warranty.

35+ YEARS OF SOLAR INNOVATION

Leveraging over 35+ years of worldwide experience in the solar industry, Silfab is dedicated to superior manufacturing processes and innovations such as Bifacial and Back Contact technologies, to ensure our partners have the latest in solar innovation.

NORTH AMERICAN QUALITY

Silfab is the largest and most automated solar manufacturer in North America. Utilizing premium quality materials and strict quality control management to deliver the highest efficiency, premium quality PV modules 100% made in North America.



BAA / ARRA COMPLIANT

Silfab panels are designed and manufactured to meet Buy American Act Compliance. The US State Department, US Military and FAA have all entrusted Silfab panels in their solar installations.

LIGHT AND DURABLE

Engineered to accommodate low load bearing structures up to 5400Pa. The light-weight frame is exclusively designed for wide-ranging racking compatibility and durability.

LOWEST DEFECT RATE

Total automation ensures strict quality controls during the entire manufacturing process at our ISO certified facilities. 48.18 ppm as per December 2018.

DOMESTIC PRODUCTION

Silfab is 100% North American which means our customer service is direct, efficient and local. Your solar panels can be delivered anywhere in the Continental USA within days.

AESTHETICALLY PLEASING

All black sleek design doesn't compromise on quality.

PID RESISTANT

PID Resistant due to advanced cell technology and material selection. In accordance to IEC 62804-1

Electrical Specifications		SILFAB SLA Monocrystalline	
Test Conditions		STC	NOCT
Module Power (Pmax)	Wp	320	242
Maximum power voltage (Vpmax)	V	33.7	30.3
Maximum power current (Ipmax)	A	9.5	8.0
Open circuit voltage (Voc)	V	40.45	37.42
Short circuit current (Isc)	A	9.96	8.17
Module efficiency	%	19.6	18.5
Maximum system voltage (VDC)	V	1000	
Series fuse rating	A	20	
Power Tolerance	Wp	-0/+5	

Measurement conditions: STC 1000 W/m² • AM 1.5 • Temperature 25 °C • NOCT 800 W/m² • AM 1.5 • Measurement uncertainty ≤ 3%
• Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by -0/+5W.

Temperature Ratings		SILFAB SLA Monocrystalline	
Temperature Coefficient Isc	%/K	0.03	
Temperature Coefficient Voc	%/K	-0.30	
Temperature Coefficient Pmax	%/K	-0.38	
NOCT (± 2°C)	°C	45	
Operating temperature	°C	-40/+85	

Mechanical Properties and Components		SILFAB SLA Monocrystalline	
Module weight (± 1 kg)		19 kg	
Dimensions (H x L x D; ± 1mm)		1650 x 990 x 38 mm	
Maximum design load (wind/snow)*		2400 Pa upward / 5400 Pa downward	
Hail impact resistance		Ø 25 mm at 83 km/h	
Cells		60 - Si monocrystalline - 5 busbar - 156.75 x 156.75 mm	
Glass		3.2 mm high transmittance, tempered, antireflective coating	
Backsheet		Multilayer polyester-based	
Frame		Anodized Al (Black)	
Bypass diodes		3 diodes, 20SQ040 (45V/20A) IP67/IP68 Junction Box	
Cables and connectors (See installation manual)		90° C, 12 AWG, PV Wire, MC4 compatible	
Warranties		SILFAB SLA Monocrystalline	
Module product workmanship warranty		25 years**	

Linear power performance guarantee

30 years
≥ 97% end of 1st year
≥ 90% end of 12th year
≥ 82% end of 25th year
≥ 80% end of 30th year

Certifications		SILFAB SLA Monocrystalline	
Product		ULC ORD C1703, UL 1703, IEC 61215, IEC 61730-1 and IEC 61730-2 Certified. FSEC and CEC listed. IEC 62716 Ammonia Corrosion, IEC 61701:2011 Salt Mist Corrosion Certified	
		UL Fire Rating: Type 2 (Type 1 on request)	
Factory		ISO9001:2015	

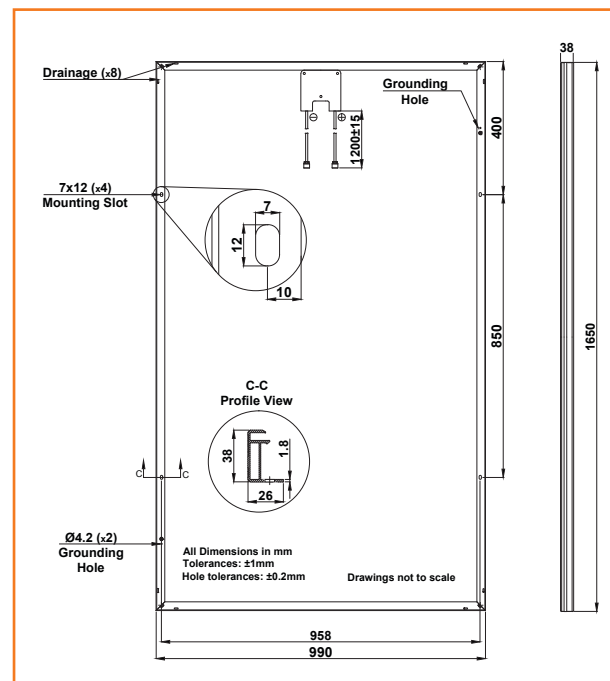
*Please refer to the Safety and Installation Manual for mounting specifications.
**12 year extendable to 25 years subject to registration and conditions outlined under
“Warranty” at www.silfabsolar.com.

⚠ Warning: Read the installation and User Manual before handling, installing and operating modules.

Third-party generated pan files from
Fraunhofer-Institute for Solar Energy
Systems ISE are available for download at:
www.silfabsolar.com/downloads



■ Modules Per Pallet: 26
■ Pallets Per Truck: 36
■ Modules Per Truck: 936



Silfab Solar Inc.
240 Courtneypark Drive East
Mississauga ON L5T 2Y3 Canada
Tel +1 905-255-2501 | Fax +1 905-696-0267
info@silfabsolar.com | www.silfabsolar.com

Silfab Solar Inc.
800 Cornwall Ave
Bellingham WA 98225 USA
Tel +1 360-569-4733

Single Phase Inverter with HD-Wave Technology

for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / SE10000H-US / SE11400H-US



Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ⁽¹⁾							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, Adjustable - 0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V ⁽²⁾	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V ⁽²⁾	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600kΩ Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

⁽¹⁾ For other regional settings please contact SolarEdge support

⁽²⁾ A higher current source may be used; the inverter will limit its input current to the values stated

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

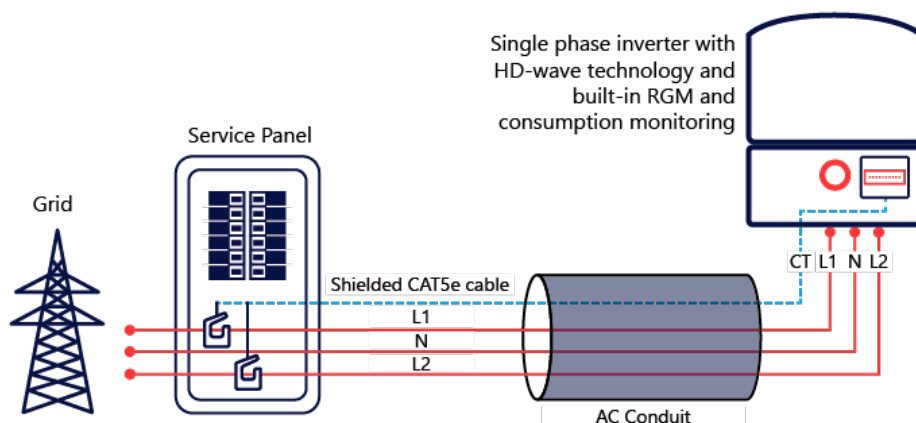
MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)							
Revenue Grade Metering, ANSI C12.20	Optional ⁽³⁾							
Consumption metering								
Inverter Commissioning	With the SetApp mobile application using Built-in Wi-Fi Access Point for Local Connection							
Rapid Shutdown - NEC 2014 and 2017 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect							
STANDARD COMPLIANCE								
Safety	UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07							
Grid Connection Standards	IEEE1547, Rule 21, Rule 14 (HI)							
Emissions	FCC Part 15 Class B							
INSTALLATION SPECIFICATIONS								
AC Output Conduit Size / AWG Range	1" Maximum / 14-6 AWG				1" Maximum /14-4 AWG			
DC Input Conduit Size / # of Strings / AWG Range	1" Maximum / 1-2 strings / 14-6 AWG				1" Maximum / 1-3 strings / 14-6 AWG			
Dimensions with Safety Switch (HxWxD)	17.7 x 14.6 x 6.8 / 450 x 370 x 174				21.3 x 14.6 x 7.3 / 540 x 370 x 185			in / mm
Weight with Safety Switch	22 / 10		25.1 / 11.4		26.2 / 11.9		38.8 / 17.6	lb / kg
Noise	< 25				< 50			dBA
Cooling	Natural Convection							
Operating Temperature Range	-40 to +140 / -40 to +60 ⁽⁴⁾							°F / °C
Protection Rating	NEMA 4X (Inverter with Safety Switch)							

⁽³⁾ Inverter with Revenue Grade Meter P/N: SExxxxH-US000BNC4; Inverter with Revenue Grade Production and Consumption Meter P/N: SExxxxH-US000BNI4. For consumption metering, current transformers should be ordered separately: SEACT0750-200NA-20 or SEACT0750-400NA-20. 20 units per box

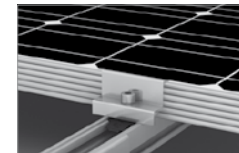
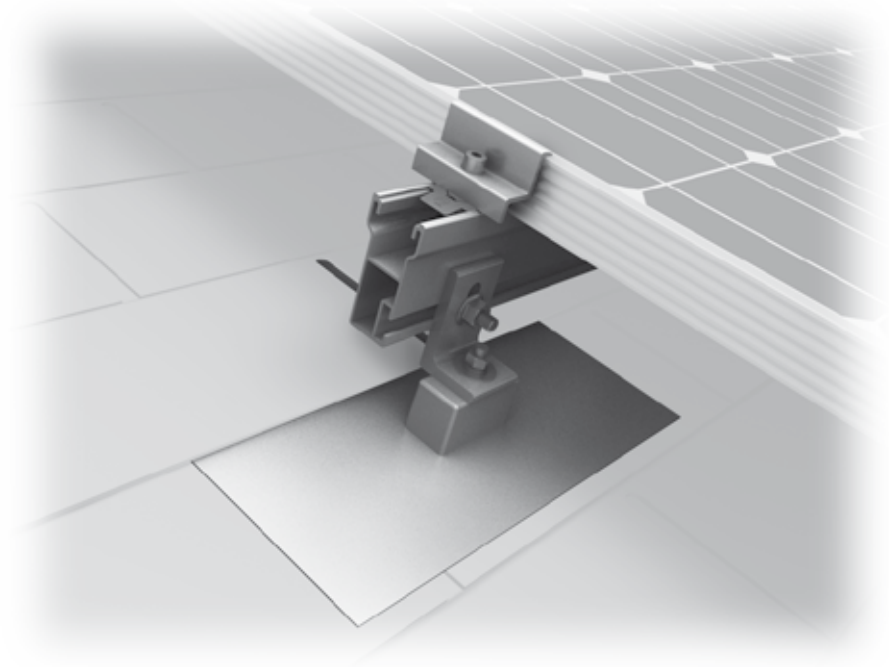
⁽⁴⁾ Full power up to at least 50°C / 122°F; for power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf>

How to Enable Consumption Monitoring

By simply wiring current transformers through the inverter's existing AC conduits and connecting them to the service panel, homeowners will gain full insight into their household energy usage helping them to avoid high electricity bills



Mounting systems for solar technology



Everest Solar Systems, LLC
3809 Ocean Ranch Blvd., Suite 111
Oceanside, CA 92056
Service-Hotline +1.760.301.5300
info@everest-solarsystems.com
www.everest-solarsystems.com

Produktblatt QuickMount-CrossRail | US3 | 1113
Product images are for illustrative purposes only. Specifications are subject to change without notice. All sales of our products shall be subject to Everest Solar Systems terms and conditions, including the exclusive limited warranty set forth therein.

EVEREST SOLAR SYSTEMS
RESIDENTIAL ROOF SOLUTIONS
CROSSRAIL SYSTEM

CROSSRAIL SYSTEM

- High quality, German engineered system optimized for residential installation
- Everest M K2 mounting hardware simplifies module installation – fast, easy, and secure
- Easily integrates with third party roof attachment products, such as QuickMountPV
- L-foot provides adjustability and compatibility with common roof interfaces (Comp, Tile & Metal)
- No shingle cutting, won't void roof manufacturer's warranty
- 100% code-compliant, structural validation for all solar states
- Two rail sizes available to suit all structural conditions
- Fast installation, minimal component count result in low total installed cost
- Simple to design and permit using code compliant "Everest Base" software

Technical data

Applicable Roof Types	composition shingle, tile, flat tile
Flexibility	modular construction, suitable for any system size, height adjustable
PV-Modules	for all common module types
Module orientation	portrait and landscape
Material	high corrosion resistance, stainless steel and high grade aluminum
Roof attachment	screw connection into rafter
Structural Validity	IBC compliant, stamped engineering letters available for all solar states
Warranty	10 years
System components	CrossRail 36, 48 or 80, L-Foot, mid and end clamp sets, M K2, third-party roof attachment products such as QuickMountPV



Flashing System with CrossRail 48 for asphalt shingle roofs

2-Piece Standoff Technical Datasheet

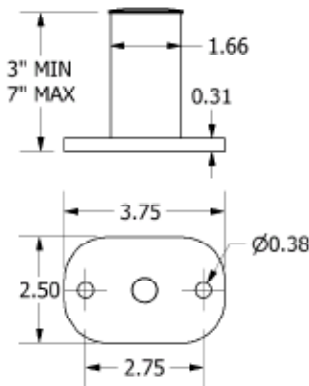
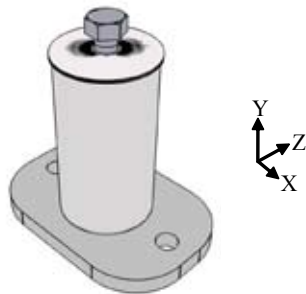
Pub 101026-1td V1.0 October 2010

2-Piece Aluminum Standoffs	1
2-Piece Aluminum Standoff with SolarMount-I 1-flange connection	2
2-Piece Aluminum Standoff with L-foot connection	2

Standoffs

2-Piece Aluminum Standoffs

Part No. 310503, 310504, 310506, 310507, 310553, 310554, 310556, 310557, 310603, 310604, 310606, 310607, 310653, 310654, 310656, 310657



Dimensions specified in inches unless noted

Standoff and Base Material:

- One of the following extruded aluminum alloys: 6005-T5, 6105-T5, 6061-T6
- Ultimate tensile: 38 ksi; Yeild: 35 ksi
- Clear or Dark anodized

Weight:

- 3" Standoff (as shown): 0.522 pounds (237 g)
- Add 0.086 pounds per inch (39 g/ inch)

Allowable and design loads are valid for a Unirac 2-piece aluminum standoff

Attach with zinc plated carbon steel or stainless steel fasteners

Resistance and safety factors are determined according to Part 1A section 9 of the 2005 Aluminum Design Manual

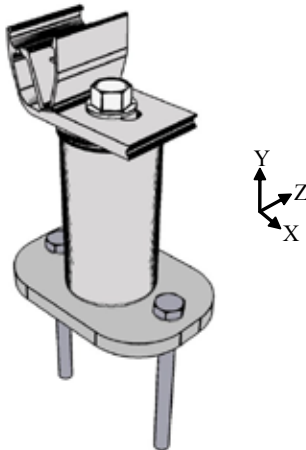
NOTE: Loads are given for the standoff only. Check load limits for lag screw or other attachment method.

Applied Load Direction	Average Ultimate Load lbs (N)	Allowable Load lbs (N)	Safety Factor, W	Design Load lbs (N)	Resistance Factor, F
Tension/Compression, Y±	3266 (14528)	1089 (4844)	3.00	1633 (7264)	0.500
⌢Z Bending, Applied Moment*	559 ft lbs (758 Nm)	250 ft lbs (339 Nm)	2.24	378 ft lbs (512 Nm)	0.676

*Example: If the module is mounted 6" (0.5 ft) from the base of the standoff, the allowable side load is 250 ft*lbs/ 0.5 ft = 500 lbs

2-Piece Aluminum Standoff with SolarMount-I 1-flange connection

Part No. 05013C, 05014C, 05016C, 05017C



Reference the SolarMount-I series datasheet for 1-flange connection specifications.

For the 1-flange connection to standoff:

- Use included 1 3/4" EPDM washer between the 1-flange connection and standoff
- Assemble with included 300 series stainless steel 3/8"-16 flanged hex head screw
- Use anti-seize and tighten to 30 ft-lbs of torque

Allowable and design loads are valid when components are assembled according to authorized Unirac documents.

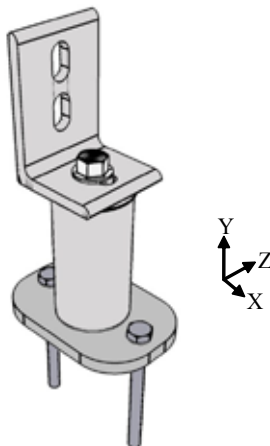
1-Flange connections are compatible with SolarMount-I series beams.

Resistance factors and allowable loads are determined according to part 1A section 9 of the 2005 Aluminum Design Manual.

NOTE: Loads are for the connection and standoff only. Check load limits for the lag screw or other attachment method.

Applied Load Direction	Average Ultimate lbs (N)	Allowable Load lbs (N)	Safety Factor, FS	Design Loads lbs (N)	Resistance Factor, ϕ
Tension, Y+	1415 (6294)	635 (2825)	2.23	960 (4270)	0.679
Compression, Y-	1949 (8670)	873 (3883)	2.23	1320 (5872)	0.677
Transverse, X-, downhill	635 (2825)	313 (1392)	2.03	473 (2104)	0.745
Transverse, X+, uphill	42 (187)	20 (89)	2.15	30 (133)	0.705
$\cup$ Z Bending, Applied Moment	559 ft lbs (758 Nm)	250 ft lbs (339 Nm)	2.24	378 ft lbs (512 Nm)	0.676

2-Piece Aluminum Standoff with L-foot connection



Reference the SolarMount datasheet for L-foot specifications.

For the L- foot to standoff connection:

- Use included 1 3/4" EPDM washer between the L-foot and standoff
- Assemble with included 300 series stainless steel 3/8"-16 flanged hex head screw
- Use anti-seize and tighten to 30 ft-lbs of torque

Allowable and design loads are valid when components are assembled according to authorized Unirac documents.

L-feet are compatible with SolarMount, SolarMount Heavy Duty, and SunFrame rails.

Resistance factors and allowable loads are determined according to part 1A section 9 of the 2005 Aluminum Design Manual.

NOTE: Loads are for the connection and standoff only. Check load limits for the lag screw or other attachment method.

Applied Load Direction	Average Ultimate lbs (N)	Allowable Load lbs (N)	Safety Factor, FS	Design Loads lbs (N)	Resistance Factor, ϕ
Tension, Y+	1859 (8269)	707 (3144)	2.63	1069 (4755)	0.575
Compression, Y-	3258 (14492)	1325 (5893)	2.46	2004 (8913)	0.615
Sliding, Z $\pm$	1766 (7856)	755 (3356)	2.34	1141 (5077)	0.646
Transverse, X $\pm$	486 (2162)	213 (949)	2.28	323 (1436)	0.664
$\cup$ Z Bending, Applied Moment	559 ft lbs (758 Nm)	250 ft lbs (339 Nm)	2.24	378 ft lbs (512 Nm)	0.676