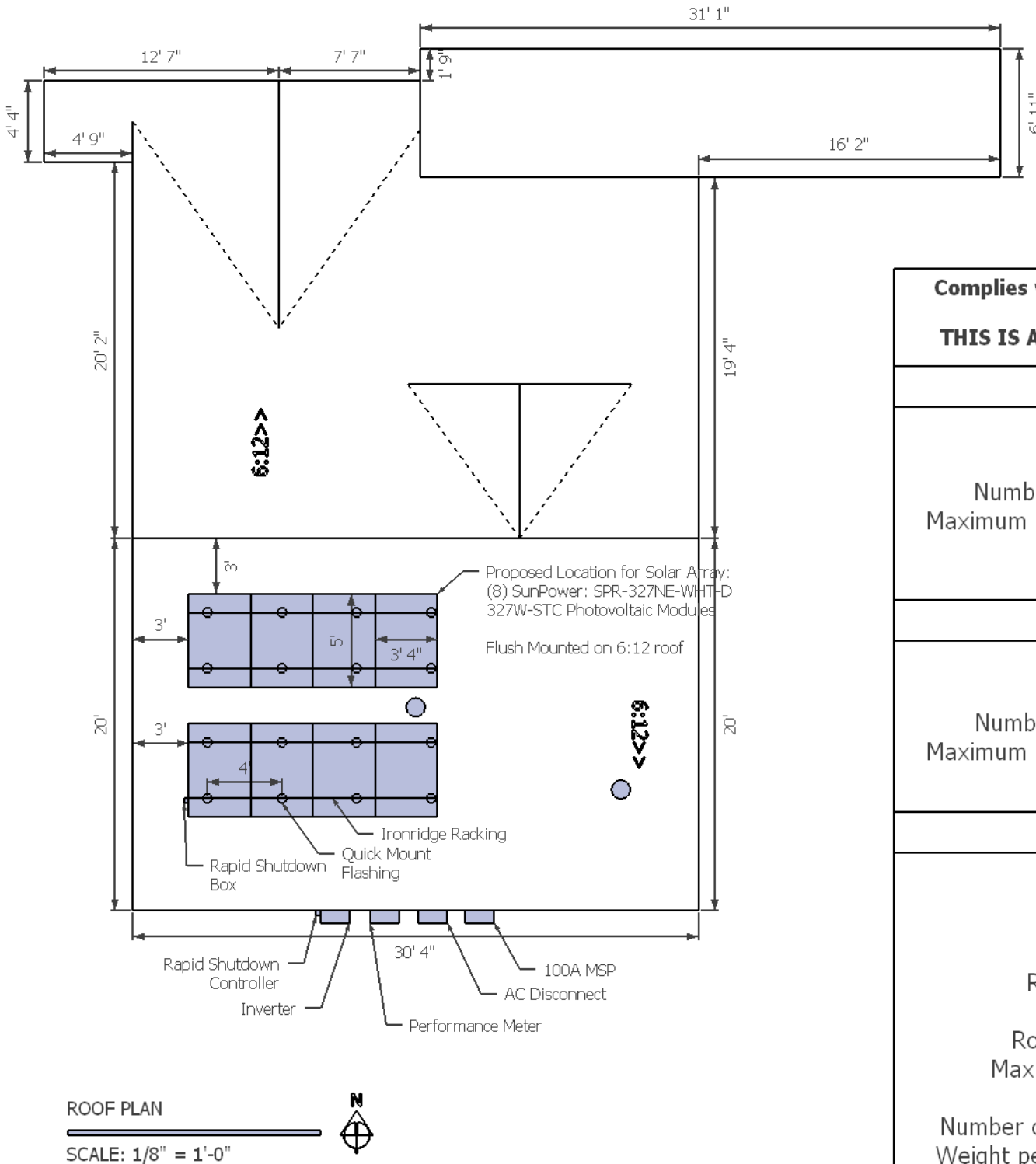
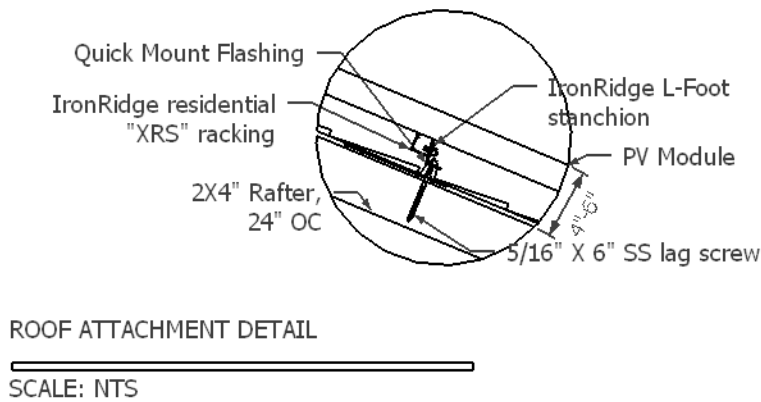


- NOTES:
- ROOF PENETRATIONS ARE SEALED WITH GEOCEL 2300 AND ALUMINUM SOLAR FLASHINGS.
 - MECHANICAL AND PLUMBING VENTS WILL NOT BE COVERED THROUGH THE ROOF WITH THE MODULES.
 - All electrical work shall be designed per 2016 California Electrical Code, and 2014 National Electrical Code and 2016 Building Energy Efficiency Standards.
 - All electrical equipment shall be labeled, listed, or certified by a Nationally Recognized Testing Laboratory accredited by the United States Occupational Safety Health Administration.
 - Conductors normally used to carry current shall be of copper. For aluminum and copper-clad aluminum #6 AWG and larger, see Sec. 310.15 CEC. Exception: Aluminum conductors smaller than #6 AWG may be used provided the method of connection is approved in advanced by the Building Official and the installation is made under continuous special inspection.
 - A smoke detector, approved and listed by the State Fire Marshal, shall be installed in each dwelling when a permit for alterations, repairs or additions exceeds \$1,000.00. A battery powered smoke detector satisfies the requirements for a smoke dectector. (R314.2.2 CRC))
 - Provide smoke alarms at the following locations and note on the plans; (R314.3.4 CRC)
 - a. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
 - b. In each room used for sleeping purposes
 - c. In each story, including basements. In split level units without an intervening door between adjacent levels, a smoke alarm installed on the upper level shall suffice provided that the lower level is less than one full story below the upper level.
 - d. Alarms shall be interconnected such that the actuation of one alarm shall activate all alarms.
 - e. Alarms shall receive their primary power from the building wiring with battery backup.
 - f. Approved combined smoke alarms and carbon monoxide alarms shall be acceptable.
 - Where an addition is made to an existing dwelling, or a fuel-burning heater, appliance, or fireplace is added to an existing dwelling, not previously required to be provided with carbon monoxide alarms, new carbon monoxide alarms shall be installed in accordance with Section R315. (R315.2.2 CRC)
 - Applications for which no permit is issued within 180 days following the date of applications shall automatically expire.
 - Every permit issued shall become invalid unless work authorized is commenced within 180 days, a successful inspection is not obtained within 180 days, or if work is suspended or abandoned for a period of 180 days. Permits which have become invalid shall pay a renewable fee of 50% of the original permit fee amount when the permit has been expired for up to (1) year. When a permit has been expired for a period in excess of (1) year, the renewal fee shall be 100% of the original permit fee.
 - The contractor shall provide a written letter to the building inspector stating that all inaccessible structural connections have been installed in conformance with the requirements of the approved plans.



Complies with CEC2016, CBC2016 and NEC2014	
THIS IS A 2.327 kW-AC SOLAR ELECTRIC SYSTEM	
MODULES	
Manufacture:	SunPower
Model:	SPR-327NE-WHT-D
Number of Modules:	8
Maximum Power Output:	327W-STC
Dimension:	61.39 inches x 41.18 inches
Weight:	41 lbs
INVERTER	
Manufacturer:	SMA Solar Technology
Model:	SB3.0-1SP-US-40
Number of Inverter:	1
Maximum Power Output:	3000 W
Weight:	57 lbs
ROOF INFORMATION	
Roof Type:	Composition Shingles
Roof Pitch:	6:12 (25 Degree)
Rafter Size:	2" x 4"
Rafter Spacing:	24"
Roof Azimuth:	180 Degree
Roof Attachment	
Maximum Spacing:	48" O.C.
Array Weight:	362.0 lbs
Number of Attachment:	16
Weight per Attachment:	22.6 lbs
Array Squire Footage:	138.7 Sqft
Distributed Area:	2.6 lbs/Sqft



GRID Alternatives - Greater Los Angeles
1338 S. Flower St. Los Angeles, CA 90015
310-735-9762 (p) | 310-388-0288 (f)
CLC C-10, C-46 #867533

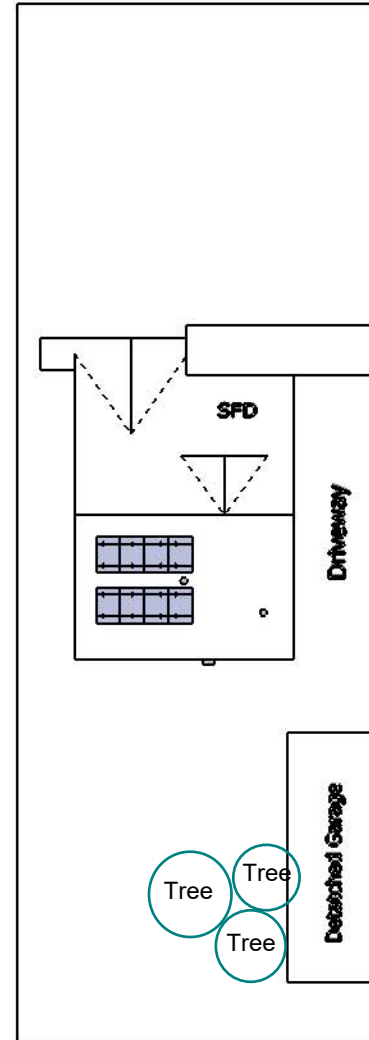
[Signature]

Designed By: J. Giarmito
Date: 1/26/2017
Scale:

Roof Plan & Plot Plan

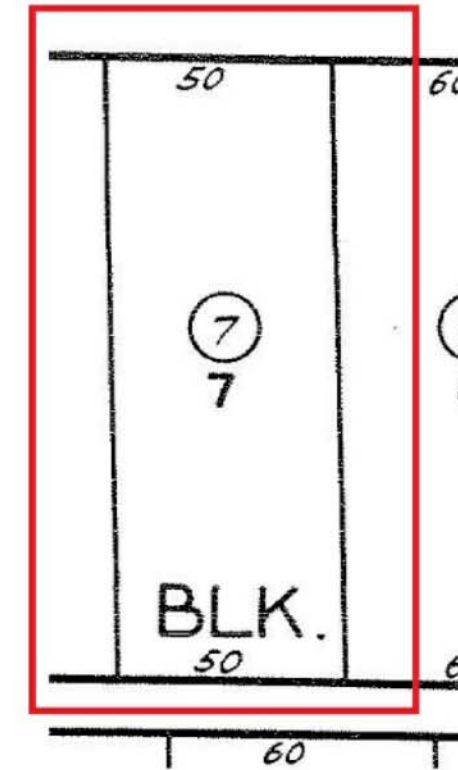
Address: 246 Garfield Ave, Pomona, Ca 91767
APN: 6068-011-008
Client: IRIS WILSON, (714) 234-8777
Valuation: \$10,000

246 Garfield Ave.



SITE PLAN

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



VICINITY MAP

SCALE: NTS

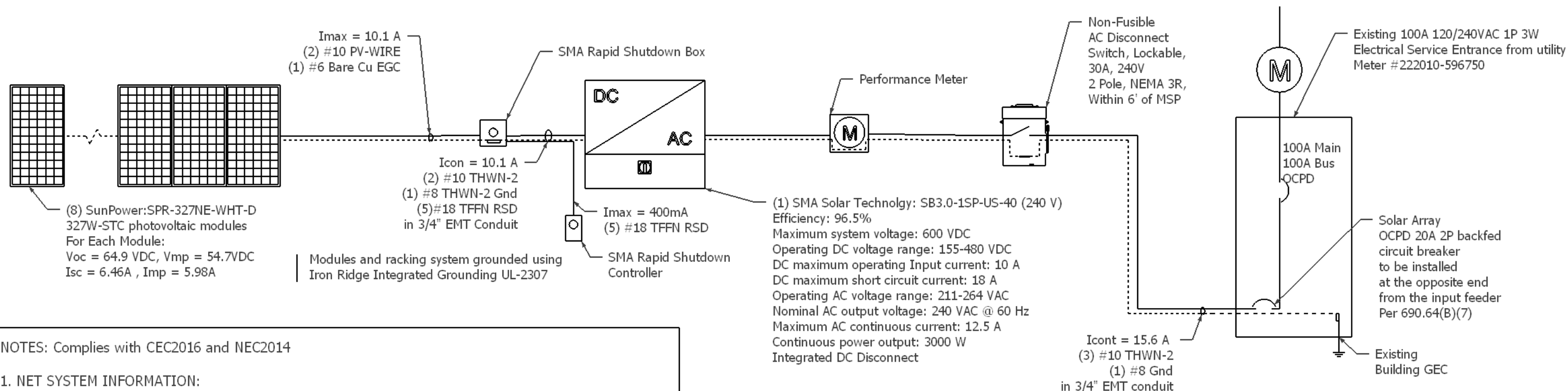


GRID Alternatives - Greater Los Angeles
1338 S. Flower St., Los Angeles, CA 90015
310-735-9762 (p) | 310-388-0288 (f)
CLC C-10, C-46 #867533

Designed By: J. Collins
Date: 03/18/2017
Scale:

Site Plan and Vicinity Map

Address: 246 Garfield Ave, Pomona, Ca 91767
APN: 6068-011-008
Client: IRIS WILSON, (714) 234-8777



NOTES: Complies with CEC2016 and NEC2014

1. NET SYSTEM INFORMATION:

INVERTER MFG & MODEL NO: (1) SMA Solar Technology: SB3.0-1SP-US-40(240V) Inverter

EFFICIENCY RATING: 96.5%

PV MODULES PER UNIT: 7

CEC-AC RATING = NModules x CEC Rating-PTC x Eff (%)
= 8 x 304.1 W x 96.5% = 2.327 kW

2. THE SYSTEM IS A NEGATIVELY GROUNDED ARRAY.

3. WIRE AND CONDUIT SIZES ARE AS INDICATED OR LARGER.

4. ALL EQUIPMENT IS BONDED BY MECHANICAL MEANS OR BY A GROUNDING CONDUCTOR.

5. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE #8 AWG COPPER GROUND WIRE AND BONDED TO THE EXISTING GROUNDING ELECTRODE SYSTEM.

DC SIDE:

String Voc = Voc x Nmodules x (T-690.7 at 30 Degree A-Temp)
= 64.9 VDC x 8 x 1.12 = 581.5 VDC

Continuous Current = Isc x Nstrings x 1.25 x 1.25 (Per 690.8(A)(1) and 690.8(B)(1))
= 6.46 A x 1 x 1.25 x 1.25 = 10.1 A

Derate Ampacity = 90deg Rating of Conductor (T-310.15(B)(16) for #10 AWG)
x 90deg Temp Correction Factor (T-310.15(B)(2)(a)) x Conduit Fill Factor (T-310.15(B)(3)(a))
= 40A x .76 x 1.00 = 30.4 A

So that, Derate Ampacity > Continuous Current
30.4 A > 10.1 A >> OK

Voltage Drop % = Imp x Nstrings x ohms/kft (T-8) x One-Way Distance x 2 / 1000 / String Vmp x 100
= 5.98 A x 1 x 1.29 ohms/kft x 50 ft x 2 / 1000 / (54.7 VDC x 7) x 100 = 0.35% < 1% >> OK

AC SIDE:

Continuous Current = Imax x 1.25 (690.8(A)(3) and 690.8(B)(1))
= 12.5 A x 1.25 = 15.6 A

Derate Ampacity = 90deg Rating of Conductor (T-310.15(B)(16) for #10 AWG)
x 90deg Temp Correction Factor (T-310.15(B)(2)(a)) x Conduit Fill Factor (T-310.15(B)(3)(a))
= 40 A x .76 x 1.00 = 30.4 A

So that, Derate Ampacity > Continuous Current
30.4 A > 15.6 A >> OK

And, Derate Ampacity > Overcurrent Device Rating
30.4 A > 20 A >> OK

Voltage Drop % = Imax x ohms/kft (T-8) x One-Way Distance x 2 / 1000 / Vmin x 100
= 12.5 A x 1.29 ohms/kft x 15 ft x 2 / 1000 / 240 VAC x 100 = .39% < 1% >> OK

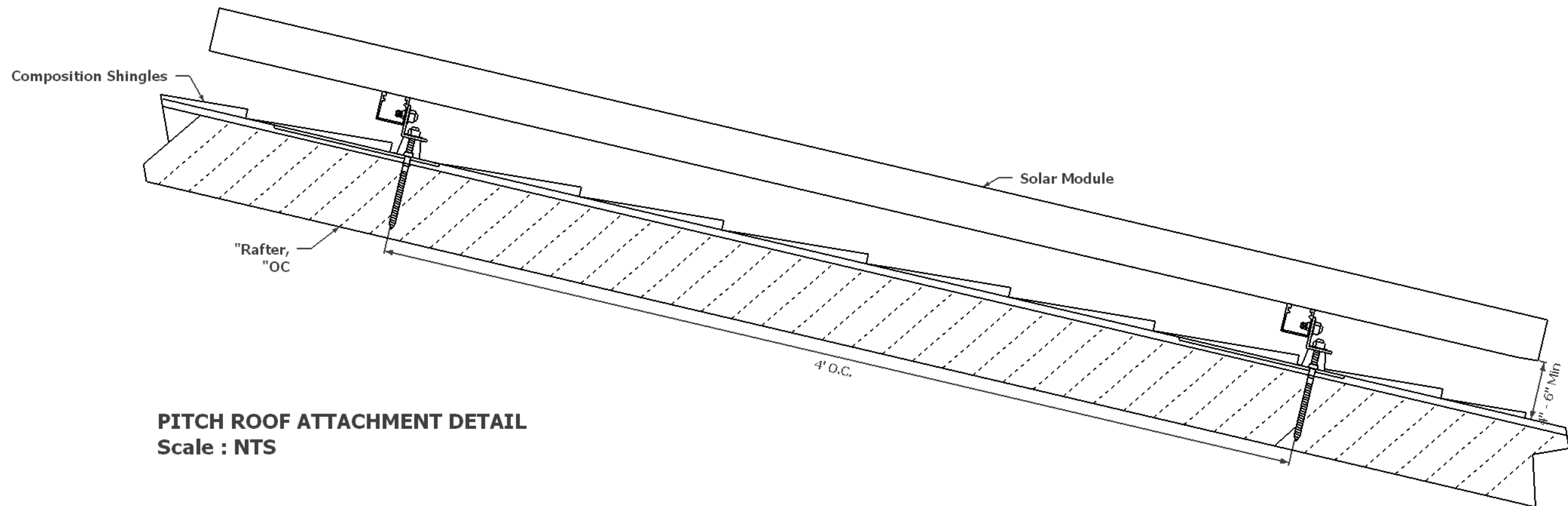


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310-735-9762 (p) | 310-388-0288 (f)
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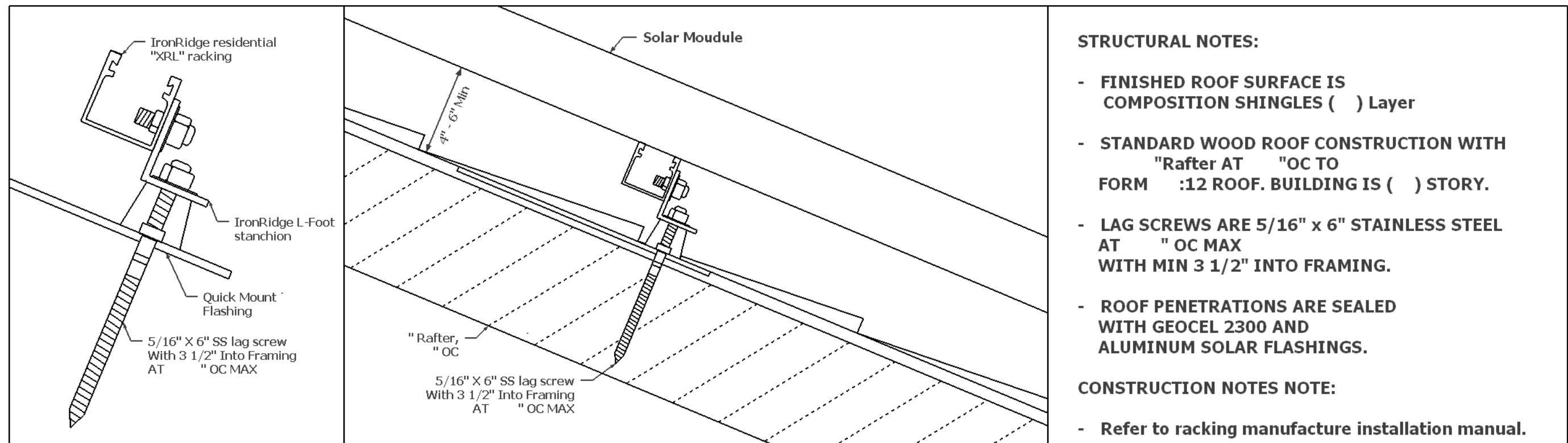
Designed By: J. Giaramito
Date: 01/24/2017
Scale:

Single-Line Electrical Drawing and Wire Sizing Calculations

Address: 246 Garfield Ave, Pomona, Ca 91767
APN: 6068-011-008
Client: IRIS WILSON, (714) 234-8777
SCE Service Account# 3-045-4759-32



PITCH ROOF ATTACHMENT DETAIL
Scale : NTS



STRUCTURAL NOTES:

- FINISHED ROOF SURFACE IS COMPOSITION SHINGLES () Layer
- STANDARD WOOD ROOF CONSTRUCTION WITH "Rafter AT "OC TO FORM :12 ROOF. BUILDING IS () STORY.
- LAG SCREWS ARE 5/16" x 6" STAINLESS STEEL AT " OC MAX WITH MIN 3 1/2" INTO FRAMING.
- ROOF PENETRATIONS ARE SEALED WITH GEOCEL 2300 AND ALUMINUM SOLAR FLASHINGS.

CONSTRUCTION NOTES NOTE:

- Refer to racking manufacture installation manual.



GRID Alternatives - Greater Los Angeles
1338 S Flower St Los Angeles, CA 90015
310-735-9762 (p) | 310-388-0288 (f)
CLC C-10, C-46 #867533

Designed By: V . Fuentes
Date:
Scale:

ROOF ATTACHMENT DETAILS

Address: