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Block: 128 Prop Loc: 8 OCEAN PATHWAY Owner: KERNS, THOMAS E & HARGRAVE, JEANMAR Square Ft: 2522
 Lot: 7 District: 1335 NEPTUNE TOWNSHIP Street: 48 OAKLAND ROAD Year Built: 1989
 Qual: Class: 2 City State: MAPLEWOOD, NJ 07040 Style: 5

Additional Information

Prior Block: 7 Acct Num: 00001452 Addl Lots: EPL Code: 0 0 0
 Prior Lot: 493 Mtg Acct: Land Desc: 30X88 Statute:
 Prior Qual: Bank Code: 0 Bldg Desc: 2.5S-F-1DG-1U Initial: 000000 Further: 000000
 Updated: 10/28/19 Tax Codes: F02 Class4Cd: 0 Desc:
 Zone: HD-O Map Page: Acreage: 0 Taxes: 31371.69 / 31177.32

Sale Information

Sale Date: 08/04/15 Book: 9126 Page: 5420 Price: 1400000 NU#: 0

Sr1a	Date	Book	Page	Price	NU#	Ratio	Grantee
More Info	08/04/15	9126	5420	1400000		71.05	KERNS, THOMAS E & HARGRAVE, JEANMAR

TAX-LIST-HISTORY

Year	Owner Information	Land/Imp/Tot	Exemption	Assessed	Property Class
<u>2020</u>	KERNS, THOMAS E & HARGRAVE, JEANMAR	675600	0	1423600	2
	48 OAKLAND ROAD	748000			
	MAPLEWOOD, NJ 07040	1423600			
<u>2019</u>	KERNS, THOMAS E & HARGRAVE, JEANMAR	675600	0	1475500	2
	48 OAKLAND ROAD	799900			
	MAPLEWOOD, NJ 07040	1475500			
<u>2018</u>	KERNS, THOMAS E & HARGRAVE, JEANMAR	675600	0	1469400	2
	48 OAKLAND ROAD	793800			
	MAPLEWOOD, NJ 07040	1469400			
<u>2017</u>	KERNS, THOMAS E & HARGRAVE, JEANMAR	664300	0	1399200	2
	48 OAKLAND ROAD	734900			
	MAPLEWOOD, NJ 07040	1399200			

*Click on Underlined Year for Tax List Page

[*Click Here for More History](#)

Deborah Osepchuk, Chair
Lucinda Heinlein, 1st Vice Chair
Leonard J. Steen, 2nd Vice Chair
Steven R. Tombalakian, Esq., HPC Attorney
Ronald D. Cucchiaro, Esq., HPC Attorney
Dawn Crozier, Administrative Officer
Kristie Dickert, Secretary



Douglas MacMorris, Member
Jeffery Rudell, Member
Jenny Shaffer, Member
Joseph Wierzbinsky, Member
Douglas McKeon, Alternate No. 1
Linda Henderson, Alternate No. 2

OFFICE OF THE HISTORIC PRESERVATION COMMISSION

25 Neptune Boulevard Neptune NJ 07753
(732) 988-5200 x. 204 Fax (732) 988-4259
kdickert@neptunetownship.org

June 8, 2020

Sent Via Email

Jennifer Cordasco
c/o Vivint Solar
687 Prospect Street, Unit 480
Lakewood, NJ 08701

**RE: HISTORIC PRESERVATION COMMISSION APPLICATION NO. HPC2020-116
BLOCK 128, LOT 7 ALSO KNOWN AS 8 OCEAN PATHWAY**

Dear Applicant:

Please be advised the above mentioned application has been reviewed for completeness and the Application Review Team (Review Team) has determined that this application cannot be administratively approved. Therefore, you are hereby notified that your application has been scheduled for a virtual public hearing before the Historic Preservation Commission. Your application has been scheduled for a virtual public hearing/meeting on **Tuesday, July 14, 2020 at 7:00 PM**. The meeting will be held virtually via Zoom. Log-in and Participant information is as follows:

Topic: Historic Preservation Commission Regular Meeting
Time: Jul 14, 2020 07:00 PM Eastern Time (US and Canada)

Join Zoom Meeting
<https://us02web.zoom.us/j/87051472922?pwd=VjRyclZWaWhdVVdiWHM3KzRtSzQ0UT09>

Meeting ID: 870 5147 2922
Password: 027038
One tap mobile
+16465588656,,87051472922#,,1#,027038# US (New York)
+13017158592,,87051472922#,,1#,027038# US (Germantown)

Dial by your location
+1 646 558 8656 US (New York)
+1 301 715 8592 US (Germantown)
+1 312 626 6799 US (Chicago)
+1 346 248 7799 US (Houston)
+1 669 900 9128 US (San Jose)
+1 253 215 8782 US (Tacoma)

Meeting ID: 870 5147 2922
Password: 027038
Find your local number: <https://us02web.zoom.us/j/khKdzLynB>

Preliminary Review Notes

Below, please find the Application Review notes. Please understand that this is a preliminary review. It includes, but is not limited to, the observations on the following pages concerning your project. In no event shall this preliminary review constitute an approval. Neither the Applicant nor the Review Team is bound by this review. Also, these comments do not preclude additional information requests, comments, or concerns from HPC members before or at the virtual hearing/meeting. The Applicant and/or the Representative of the Applicant should carefully review the notes below and be prepared to discuss these items.

Description of Work:

"Installation of flush roof mounted solar panels (12) located on detached structure behind home. Panel specs are attached."

Classification:

According to the Assessor's records, the subject structure was constructed in 1988; this property is classified as an "Other" Structure by date. "Other" structures include those dwellings constructed after 1941. These may not specifically contribute to the overall historic styles or craftsmanship of preceding historic dwellings, but, as part of the Historic District of Ocean Grove, are subject to review based on *Ocean Grove Historic District Architectural Guidelines for Residential Structures*. As per the *Design Guidelines*, Section I, Subsection B, p. 2: "All exterior work performed on or around any existing or proposed single family, townhouse, multi-family residential, religious or recreational structure within the Ocean Grove Historic District is subject to and must comply with the standards and intent of Ocean Grove Historic District Architectural Guidelines for Residential Structures".

Compliance Issues:

1. Solar panels that are visible to public view. Please review the following section of the current Design Guidelines and be prepared to discuss:
 - **Section IV, Subsection M**, of the *Ocean Grove Historic District Architectural Guidelines for Residential Structures*, p. 26-27: "Satellite dishes seriously detract from the characteristics of the District. Solar panels present a similar intrusion and usually constitute an even larger visual problem as do antenna towers. Property Owners of all residential buildings, whether undergoing repair, restoration, renovation, alteration, new construction or addition, or not, should (note): The placement of TV Satellite and all other visually offensive mechanical HVAC devices on roofs in a manner visible to public view is unacceptable."

A site visit is necessary to determine visibility. **Please be advised that for purposes of a thorough review during the site visit, you are asked to position at least one panel temporarily in its proposed location; this location should be the most prominent / most likely visible position.**

ADDITIONAL REQUEST:

1. Color photos of the front of the house and of the proposed location of the panels must be submitted.
2. Please contact this office to schedule the above-referenced site visit at least 10 days prior to your scheduled hearing date.

PLEASE PROVIDE THIS OFFICE WITH ELEVEN (11) COPIES OF THE PLANS AS WELL AS ELEVEN (11) COLOR COPIES OF ANY PHOTOS AND/OR CATALOG CUTS THAT HAVE BEEN REQUESTED AND/OR SUBMITTED IN CONNECTION WITH THIS APPLICATION AT LEAST 10 DAYS PRIOR TO YOUR SCHEDULED HEARING DATE.

If any changes are made to your application after you have been placed on the agenda, or if you fail to produce any of the items requested by the Commission, your hearing will be deferred to the next available meeting.

It is highly recommended that you attend this virtual hearing in order to address any questions or concerns the Commission may have. An Architect, Contractor, or Attorney may accompany you, or you may appoint a representative in the event you are unable to attend/participate. Please be advised, your absence or lack of participation in the virtual meeting may cause your application to be deferred.

For your convenience, the Ocean Grove Historic District Guidelines for Residential Structures can be found online at www.neptunetownship.org.

The HPC thanks you for your cooperation and support in maintaining the integrity and character of the Ocean Grove, a registered National and State Historic District. Should you have any further questions or concerns please feel free to contact me at (732) 988-5200, extension 278 or via email kdickert@neptunetownship.org.

Cordially,



Kristie Dickert
HPC Secretary



Fee \$10.00

HISTORIC PRESERVATION
PHONE 732-988-5200
FAX 732-988-4259

Application #: HPC 2020-116

Application Date: 5/27/2020

Historic Preservation Commission Certificate of Appropriateness Application

- ☐ AC UNIT
- ☐ ADDITION
- ☐ ARBOR
- ☐ AWNING
- ☐ BALCONY
- ☐ CHIMNEY
- ☐ COLUMNS
- ☐ DECK
- ☐ DOOR REPLACEMENT
- ☐ DRIVEWAY
- ☐ EXTERIOR ALTERATIONS
- ☐ FENCE
- ☐ FLAGS / BANNERS
- ☐ FOUNDATION

- ☐ GATE
- ☐ GENERATOR
- ☐ GUTTERS & LEADERS
- ☐ HOT TUB
- ☐ LATTICE
- ☐ LIGHT FIXTURE
- ☐ NEW CONSTRUCTION
- ☐ ORNAMENTATION
- ☐ OUTDOOR SHOWER
- ☐ PAINT
- ☐ PATIO
- ☐ PIERS
- ☐ PORCH
- ☐ PORCH FAN

- ☐ RAILINGS
- ☐ RETAINING WALL
- ☐ ROOF
- ☐ SATELLITE DISH
- ☐ SHED
- ☐ SHUTTERS
- ☐ SIDING
- ☐ SIGN
- ☐ SKYLIGHT
- ☒ SOLAR
- ☐ STAIRS
- ☐ VENT
- ☐ WALKWAY
- ☐ WINDOWS

☐ OTHER _____

Please complete this application in its entirety.

Before submission of an application, the applicant is encouraged to review the Ocean Grove Historic District Architectural Design Guidelines for Residential Structures or Commercial Buildings and read the entire attached Information Sheet. The Guidelines are available online at www.neptunetownship.org. Please type or print legibly with ink.

Incomplete applications will not be accepted.

REQUIRED INFORMATION: With each application, you are required to submit color photos of the property, and, depending on the scope of work proposed, architectural plans or sketches, material samples, color samples, catalog cuts, or any other useful references for review. Once your application is scheduled for a meeting, you may be required to submit additional information or copies of your application and other submitted documents.

PROPERTY IDENTIFICATION

ADDRESS: 8 OCEAN PATHWAY OCEAN GROVE NJ 07756

BLOCK: 128 LOT: 7 QUALIFIER: _____

OWNER INFORMATION

NAME(S): THOMAS KERNS + JEANMARIE HARGRAVE

ADDRESS: 8 OCEAN PATHWAY OCEAN GROVE NJ 07756

PHONE: _____ EMAIL: _____

APPLICANT INFORMATION

☒ Check if same as Owner

NAME(S): Jennifer Cordasco COMPANY: Vivint Solar

ADDRESS: 1687 Prospect St. Unit 480, Lakewood, NJ, 08701

PHONE: 732-366-5322

EMAIL: _____

APPLICANT CAPACITY - IF OTHER THAN OWNER (Check one):

☐ Lessee ☐ Agent ☐ Architect ☒ Contractor ☐ Attorney ☐ Other: _____

PROPERTY INFORMATION

PROPERTY TYPE (Check one):

☒ Single Family ☐ Multifamily: _____ Units ☐ Commercial ☐ Condo ☐ Mixed Use

ARCHITECTURAL PERIOD / YEAR BUILT: 1988 ARCHITECTURAL STYLE: Faux Victorian

Does your project include demolition of 15% or more of exterior of existing structure? ☐ YES ☒ NO

If YES: you must apply for a Demolition Permit prior to applying for a Certificate of Appropriateness.

Do you have Zoning Department approval for this project? ☒ YES ☐ NO ☐ N/A

ZONING PERMIT ID# (from Zoning Permit): 552450700 DATE APPROVED: 5/13/2020

Please Note: If Zoning approval is required for the work described on your application, your application will remain incomplete until Zoning approval is received. **Incomplete applications will not be accepted.**

Describe all proposed work to be conducted on subject property below. Be sure to include all colors and materials to be used. Attach additional pages if necessary.

Installation of flush roof mounted solar panels (12)
located on detached structure behind home. Panel
specs are attached.

By signing this application, the Applicant and Owner agree to the following:

- Property site visits by Neptune Township Staff, HPC Members and HPC Professionals until the project has been deemed to be complete.
- The information herein is correct and complete to the best of your knowledge.
- The HPC or HPC Application Review Team may require additional information for your application to be considered complete.

By signing this application, the Owner authorizes the listed Applicant to appear as their representative at a public hearing before the Commission.

Thomas Kerns Jeanmarie Hargrave
OWNER NAME - Please PRINT

Jennifer Cordasco Vivint Solar
APPLICANT NAME - Please PRINT

Thomas Kerns
OWNER SIGNATURE

Jennifer Cordasco
APPLICANT SIGNATURE

4/20/2020
DATE

5/5/2020
DATE



1850 W Ashton Blvd
Lehi, UT 84043
support@vivintsolar.com | www.vivintsolar.com
Phone: 877.404.4129 | Fax: 801.765.5758

Amendment for HPC Application: 2020-116
8 Ocean Pathway,
Ocean Grove, NJ,07756

July 29th,2020

To whom it may concern,

The following changes have been made to the above referenced application: Added 2 panels on the same roof section. Attached are the following documents: Zoning approval with the 2 additional panels, panel layout and design drawings. I hope this will suffice the requirements. Thank you.

Thank you,

A handwritten signature in black ink, appearing to read "Jennifer Cordasco", with a long horizontal flourish extending to the right.

Jennifer Cordasco

Field Project Manager

NJ-04 Office

jennifer.comiskey@vivintsolar.com
C:609.389.0029 • O: 732.366.5322



Fee Date: 07/15/2020

Check #: 8830

Cash: 0

ZONING PERMIT

ID: 552710110

Date: 07/23/2020

Fee: \$ 35.00

PROPOSED WORK

- | | | |
|---|---|--|
| <input type="checkbox"/> Adding a New Use to a Property | <input type="checkbox"/> Home Occupation | <input type="checkbox"/> Private Garage |
| <input type="checkbox"/> Air Condensor Unit(s) | <input type="checkbox"/> Interior Remodel - Comm / Res | <input type="checkbox"/> Residential Addition |
| <input type="checkbox"/> Commercial Addition | <input type="checkbox"/> New Accessory Structure | <input type="checkbox"/> Signs |
| <input type="checkbox"/> Continuing/Changing Use | <input type="checkbox"/> New Commercial Business | <input checked="" type="checkbox"/> Solar |
| <input type="checkbox"/> Deck/Balcony | <input type="checkbox"/> New Ownership of Property/Business | <input type="checkbox"/> Storage Shed |
| <input type="checkbox"/> Driveway / Sidewalk / Apron | <input type="checkbox"/> New Residence | <input type="checkbox"/> Swimming Pool/Hot Tub |
| <input type="checkbox"/> Fence/Retaining Wall | <input type="checkbox"/> Porch | <input type="checkbox"/> Zoning Determination |
| <input type="checkbox"/> Other: _____ | | |

The Neptune Township Zoning Map, Land Development Ordinance and its amendments can be found online at www.neptunetownship.org/departments/land-use.

ALL APPLICATIONS WITHIN THE HISTORIC DISTRICT REQUIRE HPC APPROVAL.

**IF ANY OF THE REQUESTED INFORMATION IS SUBMITTED INCOMPLETE,
THEN THIS APPLICATION SHALL BE RETURNED UNPROCESSED.**

1. Location of property for which zoning permit is desired:

Street Address: 8 OCEAN PATHWAY Block: 128 Lot: 7 Zone: HD-O

2. Applicant Name: VIVINT SOLAR DEVELOPER LLC Phone No. [REDACTED] Fax No.

Applicant's Address: 687 PROSPECT ST UNIT 480 LAKEWOOD NJ 08701

Email: [REDACTED]

3. Property Owner Name: KERNS, THOMAS E & HARGRAVE, JEANMAR Phone No. Fax No.

Property Owner's Address: 48 OAKLAND ROAD MAPLEWOOD, NJ 07040

Email:

4. Present Approved Zoning Use of the Property: Detached Single Family Residence

5. Proposed Zoning Use of the Property: Detached Single Family Residence

6. Describe in detail the activity or activities you are proposing. If you are proposing construction, then describe in detail the dimension and setbacks. If you are proposing a use, then describe the proposed use.

"Installation of roof mounted solar panels. Unirac Settings (see attached Structural Letter)"

7. Has the above referenced premises been the subject of any prior application to the ZONING BOARD OF ADJUSTMENT or PLANNING BOARD?

Yes ☐ No ☒ If Yes, state date:

Board: Resolution # (if any): (submit a copy of the Resolution)

8. For all exterior work pertaining to additions and accessory structures, excluding fences, please provide:

Building Coverage: 0

Lot Coverage: 0 (Please include calculations)

40:55D-68.3. Penalty for false filing. Any person who knowingly files false information under this act shall be liable to a civil penalty not to exceed \$1,000 for each filing. any penalty imposed under this section may be recovered with costs in a summary proceeding pursuant to "the penalty enforcement law," N.J.S.2A:58-1 et seq.

-----FOR OFFICE USE-----

Zoning Review Notes:

07/23/2020 This zoning permit application consists of:

- One (1) copy of the Zoning Permit Application.
- One (1) copy of the signed and sealed letter of correspondence from J. Matthew Walsh, PE.
- Two (2) copies of the Photovoltaic System Specifications.

The property is located within the HD-O Zoning District. The present zoning use of the property is a Detached Single Family Residence.

The applicant describes the proposed work in detail:

"Installation of roof mounted solar panels. Unirac Settings (see attached Structural Letter)"

The applicant does not describe all proposed work and structures as defined by the Land Development Ordinance in the detailed description and in the submitted plans.

In reviewing the submitted application, it appears the applicant is proposing work in reference to:

- Residential Addition

RESIDENTIAL ADDITION:

ZONING NOTES:

- The applicant indicates the proposed construction of roof mounted solar panels. The applicant indicates the proposed solar panels to project no more than 6" from the outer most portion of the roof to the outer most portion of the solar panel.

The applicant is approved zoning for the construction indicated in the above ZONING NOTES only. The above indicated zoning approved construction, shall be constructed as indicated on the stamped approved zoning plans. Any deviations shall void this zoning approval.







Construction Department approval is required.

- * Returned to the applicant
- One (1) copy of the Zoning Determination.
- One (1) copy of the Photovoltaic System Specifications.

Status

Approved  Denied 

Referrals

Construction  HPC  Engineering  Planning Board  Zoning Board  Mercantile  Code Enforcement 

JURISDICTIONAL NOTES:

GENERAL STRUCTURAL NOTES:

- 1. THE SOLAR PANELS ARE TO BE MOUNTED TO THE ROOF FRAMING USING THE ROCK-IT SYSTEM BY ECOFASTEN. THE MOUNTING FEET ARE TO BE SPACED AS SHOWN IN THE DETAILS, AND MUST BE STAGGERED TO ADJACENT FRAMING MEMBERS TO SPREAD OUT THE ADDITIONAL LOAD.
- 2. UNLESS NOTED OTHERWISE, MOUNTING ANCHORS SHALL BE 5/8" LAG SCREWS WITH A MINIMUM OF 2 1/2" PENETRATION INTO ROOF FRAMING.
- 3. THE PROPOSED PV SYSTEM ADDS 3.0 psf TO THE ROOF FRAMING SYSTEM.
- 4. ROOF LIVE LOAD = 20 psf TYPICAL, 0 psf UNDER NEW PV SYSTEM.
- 5. GROUND SNOW LOAD = 30 psf
- 6. WIND SPEED = 125 mph
- 7. EXPOSURE CATEGORY = B

GENERAL ELECTRICAL NOTES:

- 1. ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE. FOR ROOF-MOUNTED SYSTEMS, WIRING MUST BE PERMANENTLY AND COMPLETELY HELD OFF OF THE ROOF SURFACE.
 - 2. ANY CODE VIOLATIONS EVIDENT IN THE INTERCONNECTION PANEL WILL BE CORRECTED ON INSTALLATION.
 - 3. SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL RELEVANT CODE
 - 4. RAPID SHUTDOWN INITIATION TAKES PLACE WITHIN THE FIRMWARE OF THE INVERTER. RAPID SHUTDOWN COMMENCES UPON LOSS OF UTILITY SOURCE VOLTAGE.
- SEE *E 1.0 AND *E 2.0 FOR DIAGRAMS, CALCULATIONS, SCHEDULE AND SPECIFICATIONS

GOVERNING CODES

ALL WORK SHALL CONFORM TO THE FOLLOWING CODES

- 1. 2017 NATIONAL ELECTRICAL CODE
- 2. 2018 INTERNATIONAL BUILDING CODE
- 3. 2018 INTERNATIONAL PLUMBING CODE
- 4. 2018 INTERNATIONAL RESIDENTIAL CODE
- 5. ANY OTHER LOCAL AMENDMENTS

SHEET INDEX:

- PV 0.0 - COVER SHEET
- PV 1.0 - SITE PLAN
- S 1.0 - MOUNT DETAILS
- E 1 - ELECTRICAL DIAGRAM
- E 2 - ELECTRICAL NOTES
- E 3 - WARNING LABELS
- E 4 - WARNING LABEL LOCATIONS

James M. Waller

PHOTOVOLTAIC SYSTEM SPECIFICATIONS:

SYSTEM SIZE - 5.180kW DC | 3.800kW AC
MODULE TYPE & AMOUNT - (14) SOLARIA POWERXT-370R-PD
MODULE DIMENSIONS - (L/W/H) 63.82" / 43.94" / 1.57"
INVERTER - (1) SOLAREEDGE TECHNOLOGIES SE3800H-US
INTERCONNECTION METHOD - LOAD BREAKER

vivint. Solar

1800 ASHTON BLVD. LEHI, UT, 84043

1.877.404.4129

NJ LICENSE: HIC-13VH06589300

EC-34EB0189700

HARGRAVE RESIDENCE

8 OCEAN PATHWAY

OCEAN GROVE, NJ, 07756

UTILITY ACCOUNT #: 100 115 213 827

SERVICE #: S-6211182

DATE: 7/8/2020

DRAWN BY: DJN

COVER SHEET

ROOF SECTION(S):

PV STRING(S):

- 1) SLOPE - 30
AZIMUTH - 286
MATERIAL - COMPOSITION
SHINGLE
- 2) SLOPE - 30
AZIMUTH - 106
MATERIAL -
COMPOSITION SHINGLE



#1) 14 MODULES

ROOF FIRE SUPPRESSION
SPRINKLER SYSTEM: NO

TOTAL ROOF AREA: 2084ft²
TOTAL MODULE AREA: 273ft²
TOTAL AREA COVERED: 13%

PV SYSTEM SIZE:

NEW 5.180kW DC | 3.800kW AC

SYSTEM LEGEND

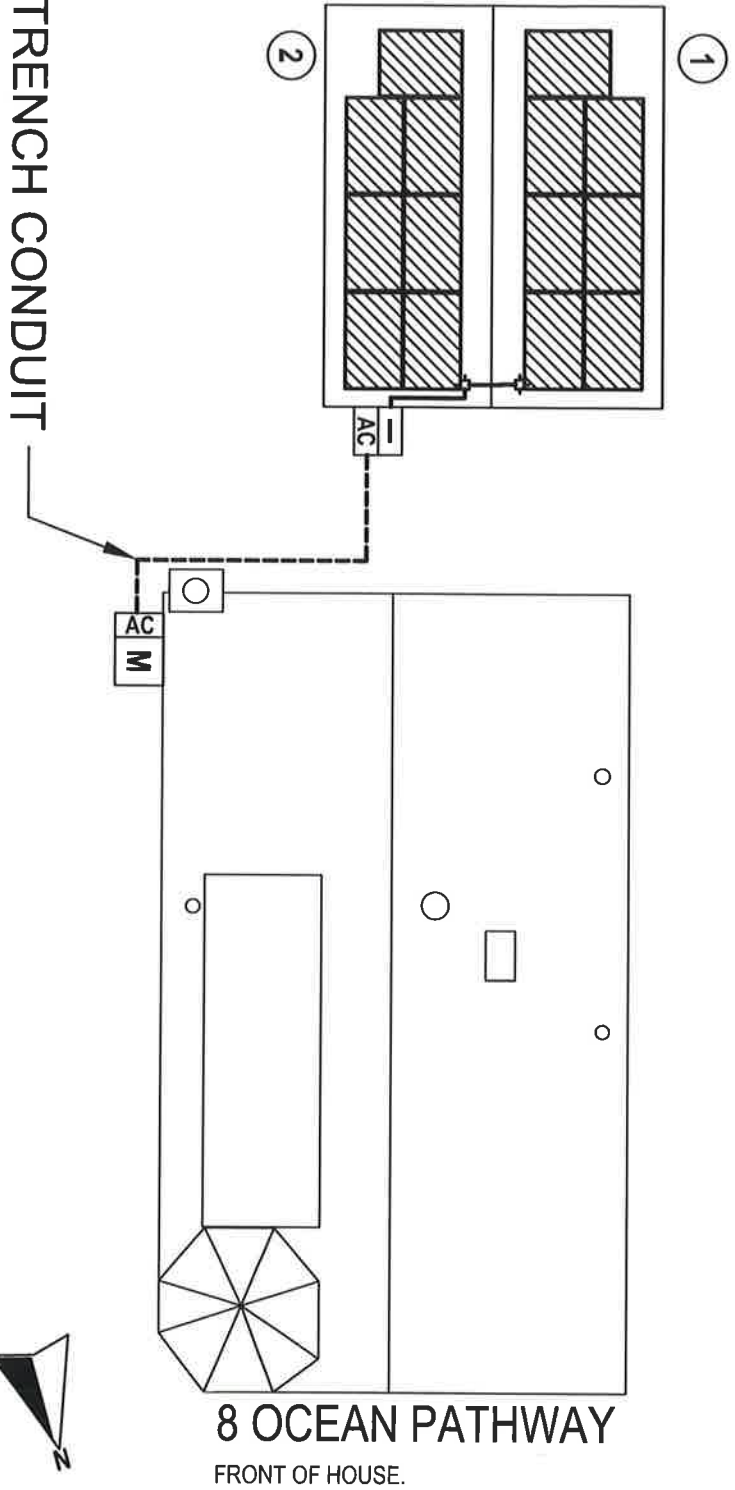
M NEW INTERIOR MAIN SERVICE PANEL & POINT OF INTERCONNECTION, TIED TO DETACHED UTILITY METER #S313235113.

AC NEW PV SYSTEM AC DISCONNECT. LOCATED WITHIN 10' OF MSP.

I 1 NEW PV SYSTEM INVERTER: SOLAREEDGE SE3800H-US, RSD EQUIPPED.

P 14 NEW SOLARIA POWERXT-370R-PD MODULES. NEW SOLAR EDGE P370 OPTIMIZERS, MOUNTED ON THE BACK OF EACH MODULE.

NEW PV CONDUIT RUN. *SEE EE1.0 CONDUIT SCHEDULE
--- = EXTERIOR RUN --- = ATTIC RUN
-X- NEW JUNCTION BOX. (MOUNTED TO PV MODULE)



SITE PLAN

SCALE: 3/32" = 1'-0"

vivint. Solar

1.877.404.4129

HARGRAVE RESIDENCE
8 OCEAN PATHWAY
OCEAN GROVE, NJ, 07756
UTILITY ACCOUNT #: 100 115 213 827

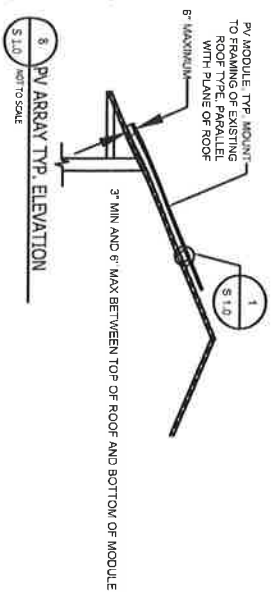
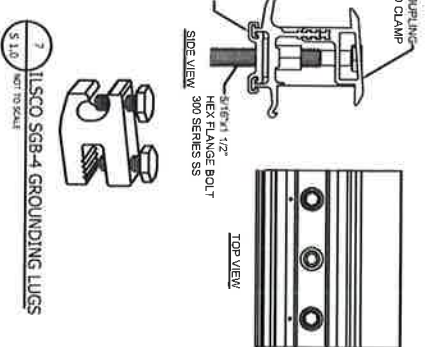
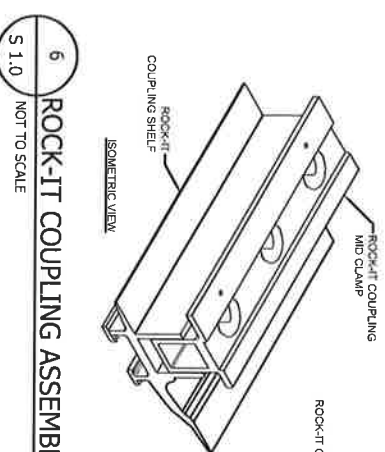
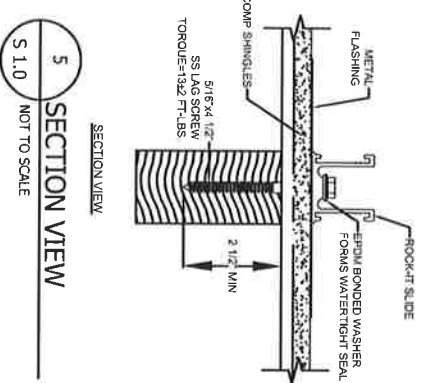
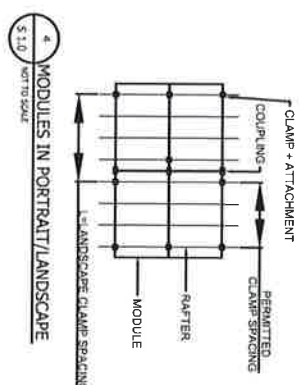
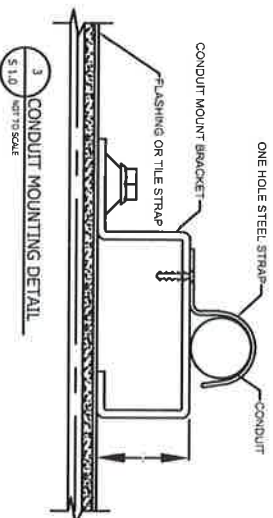
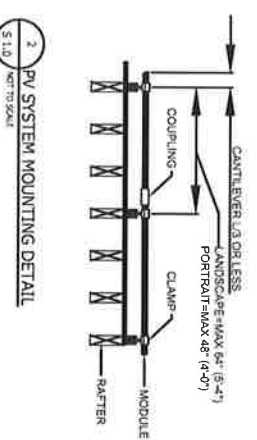
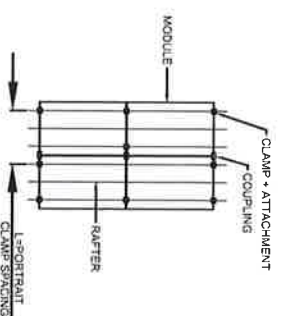
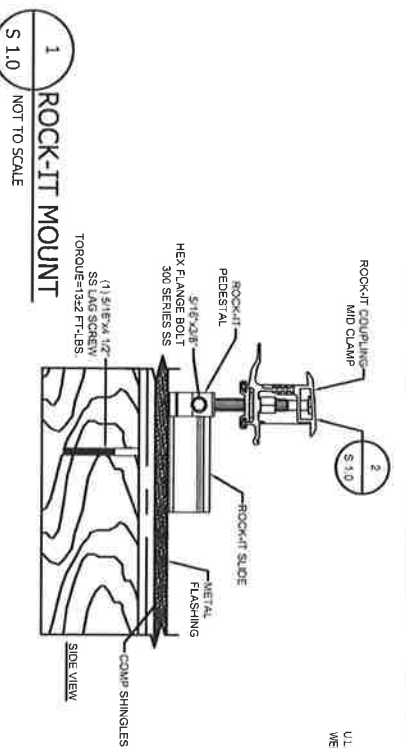
SERVICE #: S-6211182
DATE: 7/8/2020

PV 1.0

DRAWN BY: DIN

MOUNT DETAIL LEGEND

U.L. LISTING FOR ECP-ASTEN 2703
WEIGHT: 23 lb.

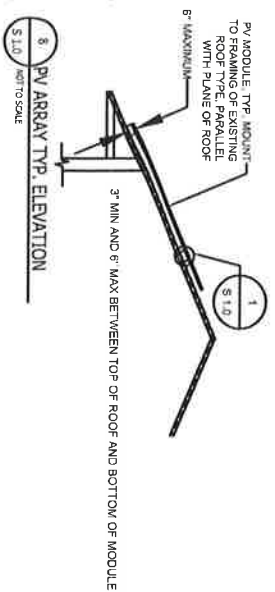
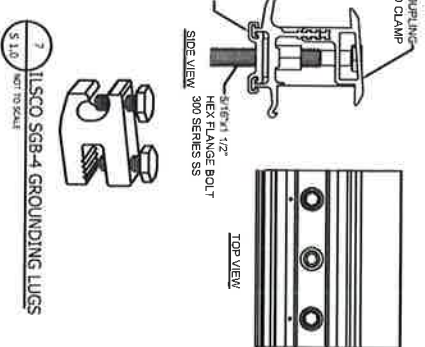
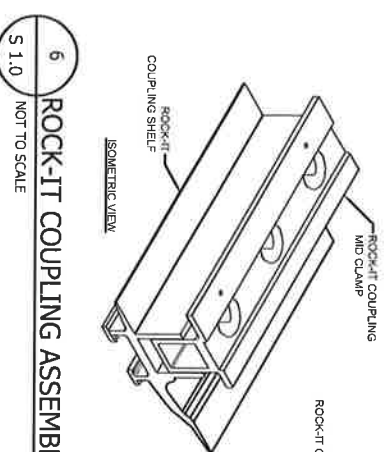
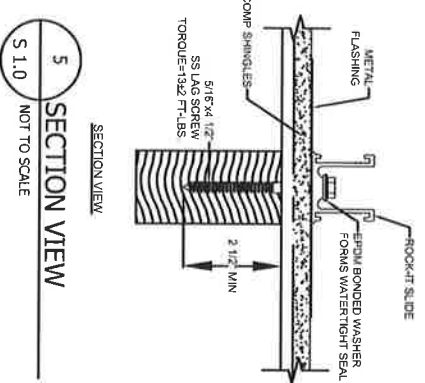
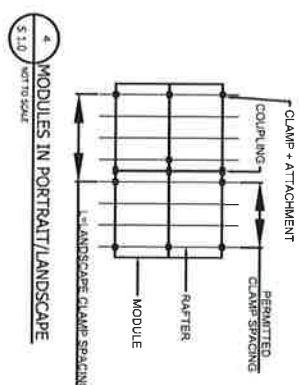
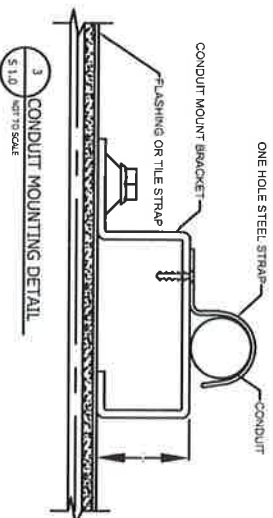
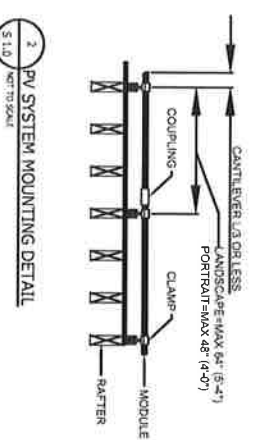
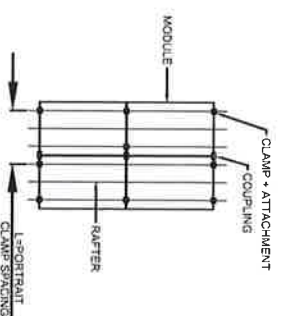
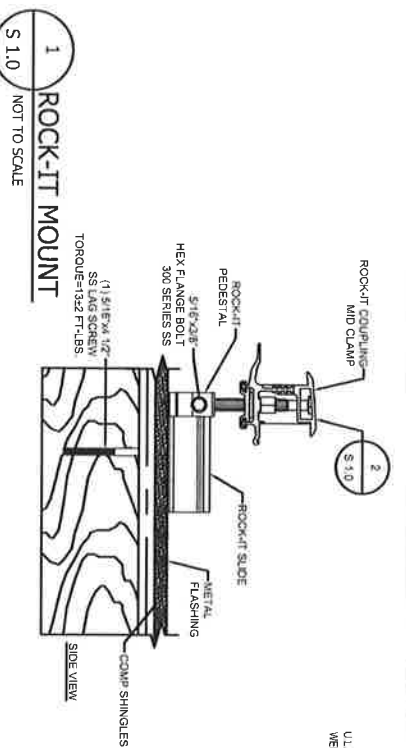


MOUNT DETAIL

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U.L. LISTING FOR ECP-ASTEN 2703
WEIGHT: 23 lb.

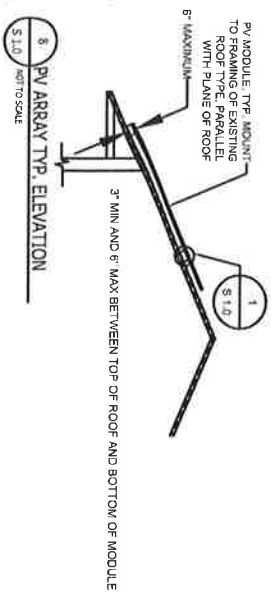
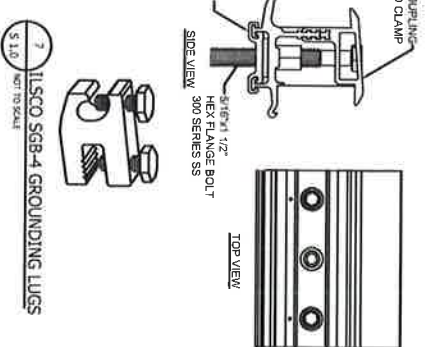
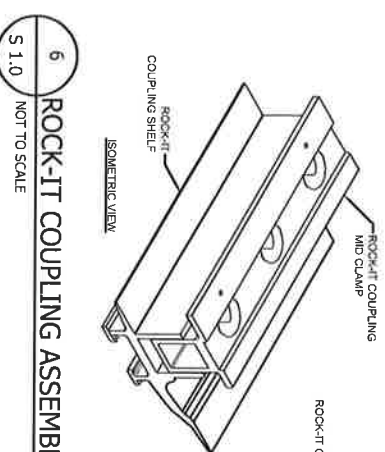
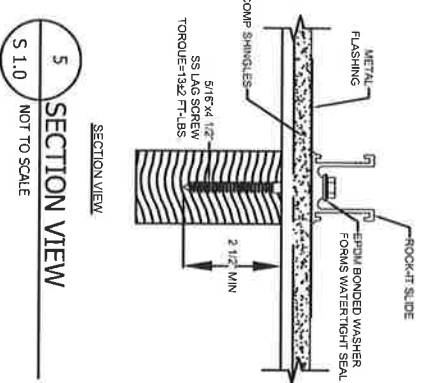
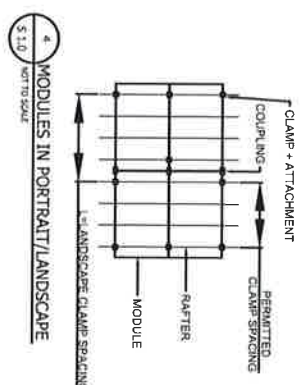
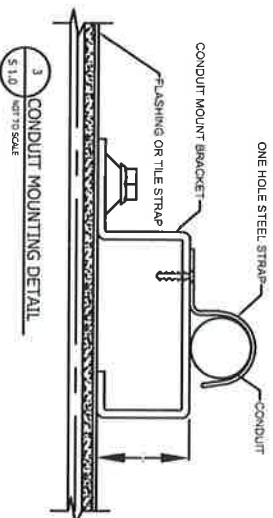
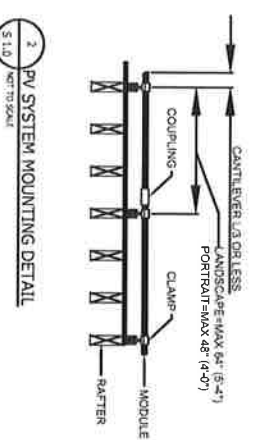
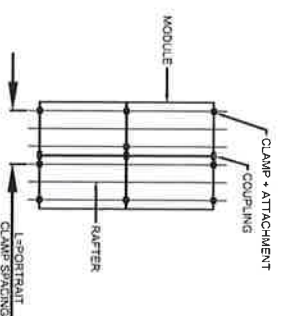
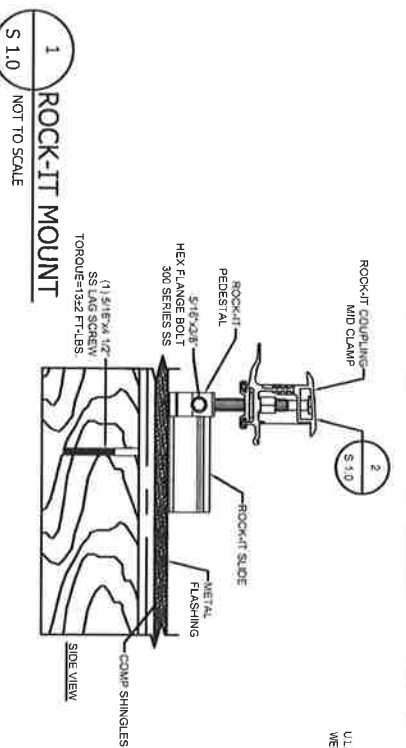


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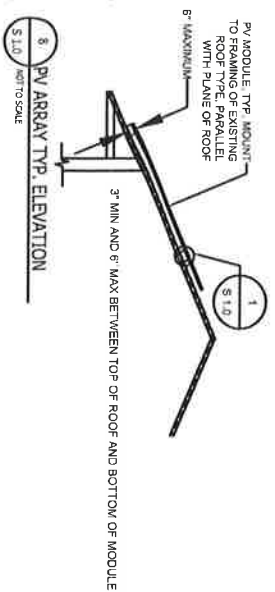
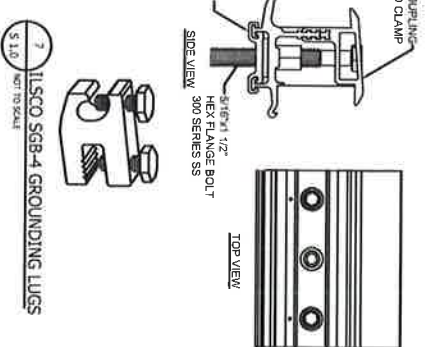
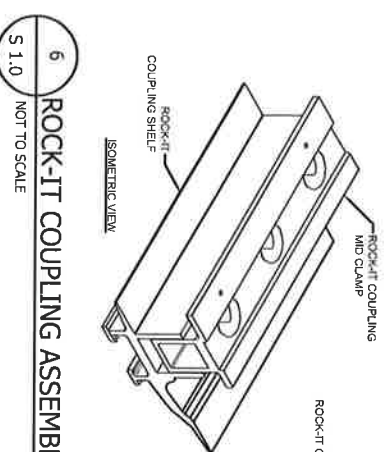
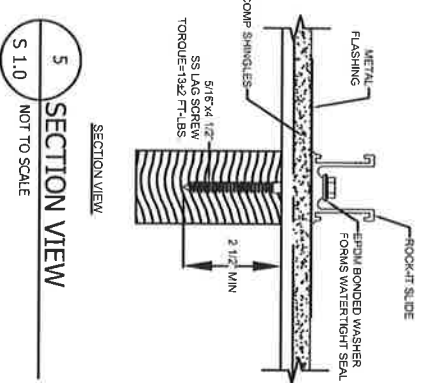
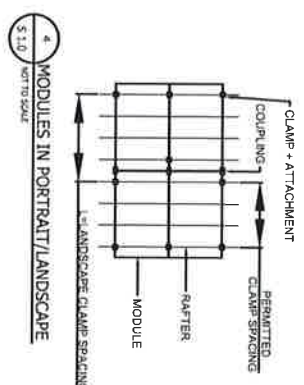
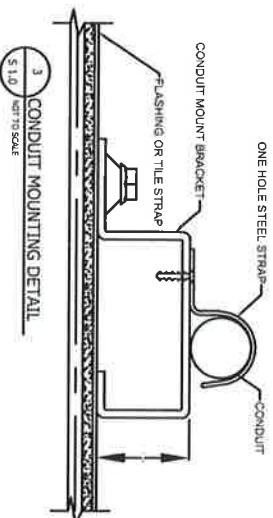
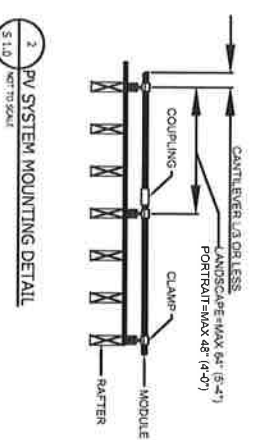
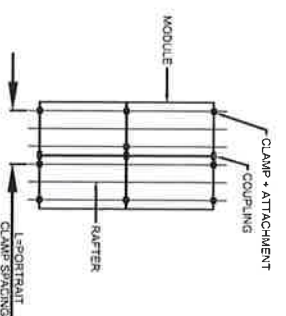
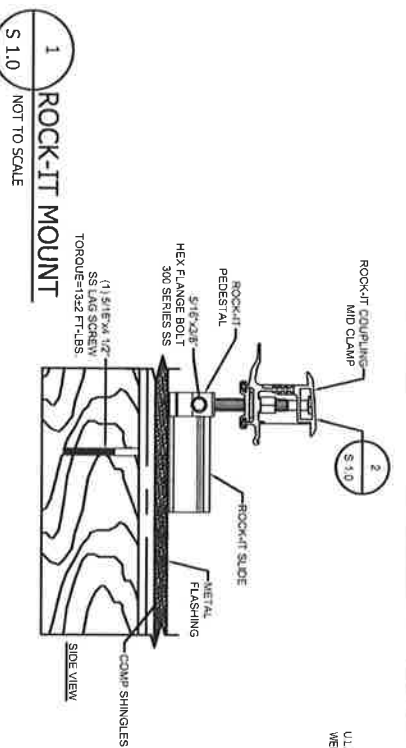


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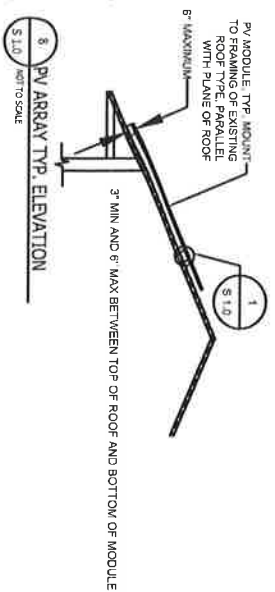
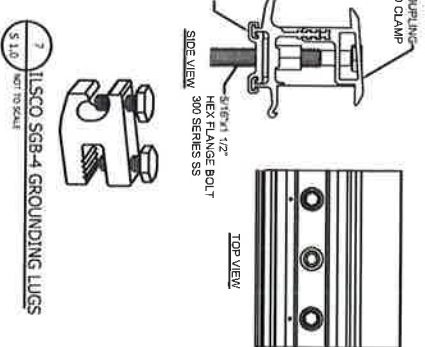
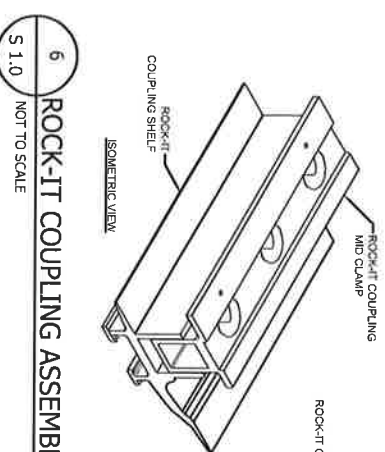
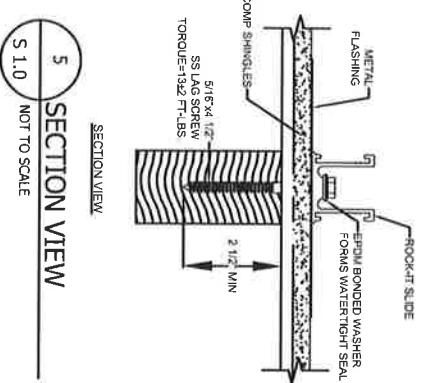
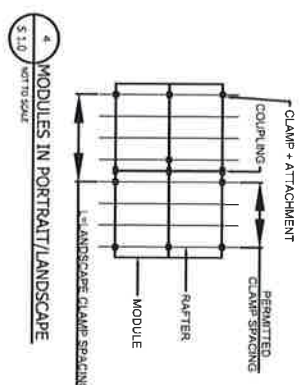
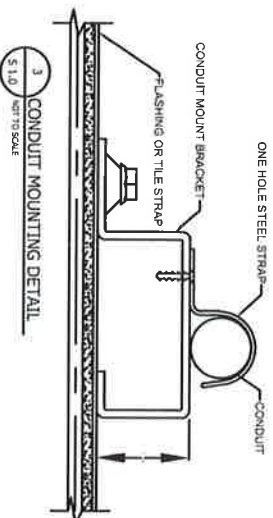
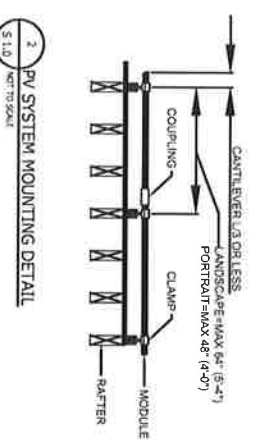
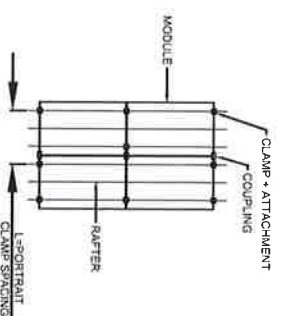
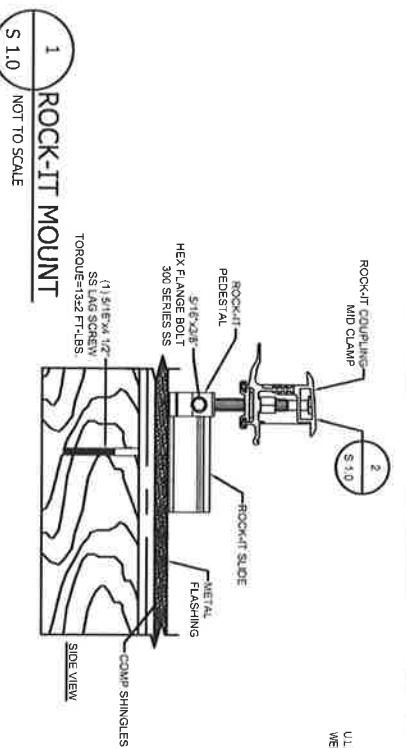


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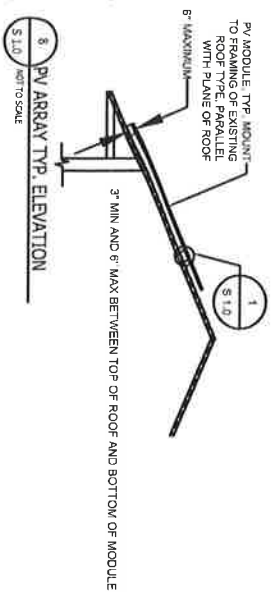
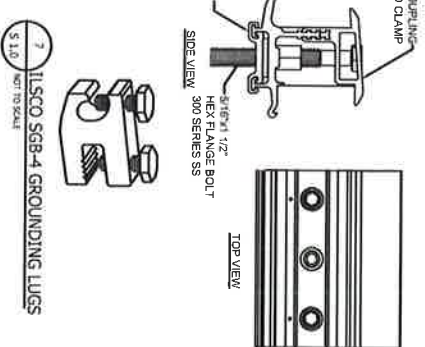
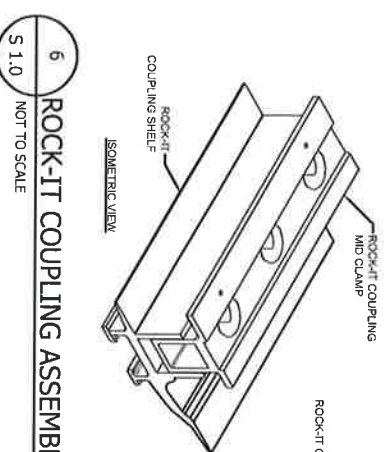
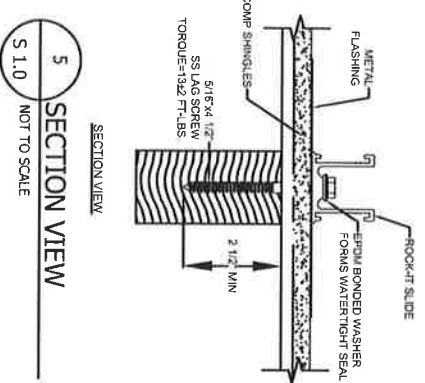
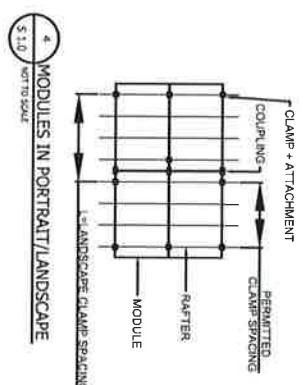
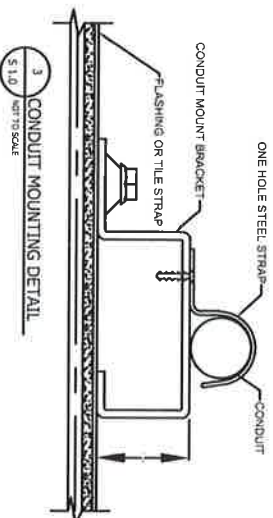
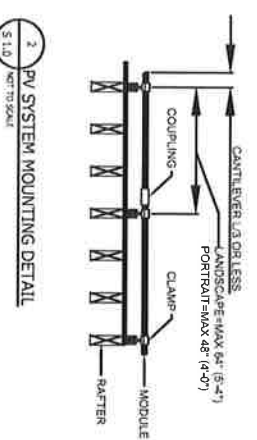
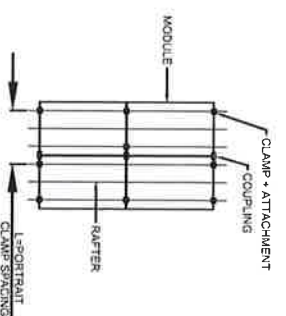
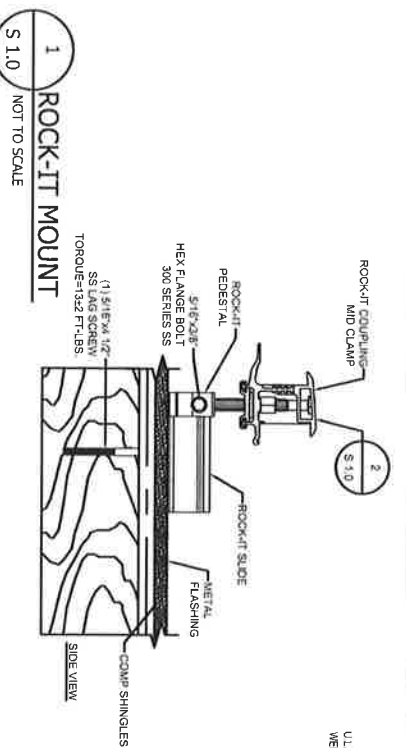


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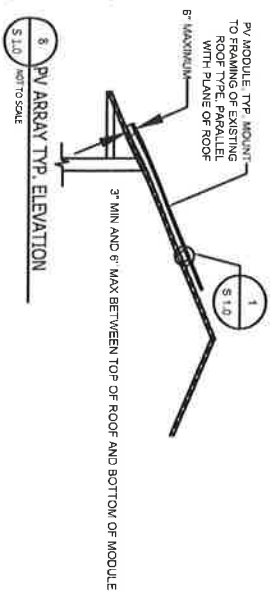
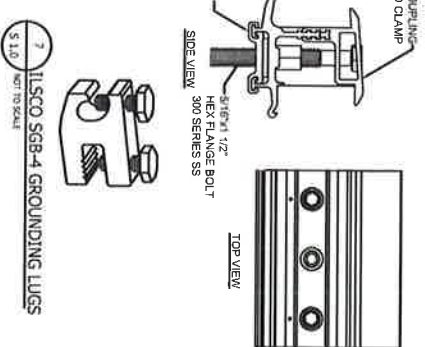
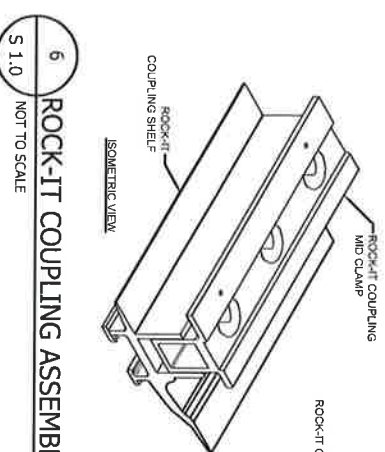
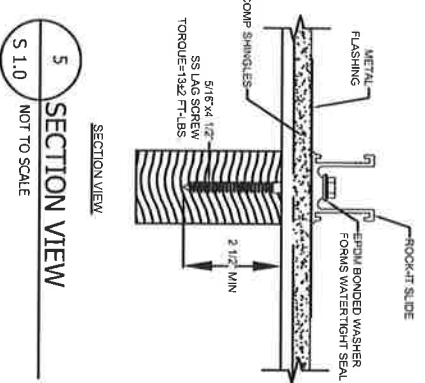
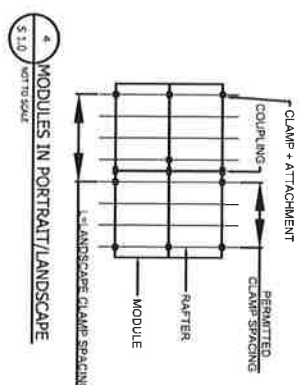
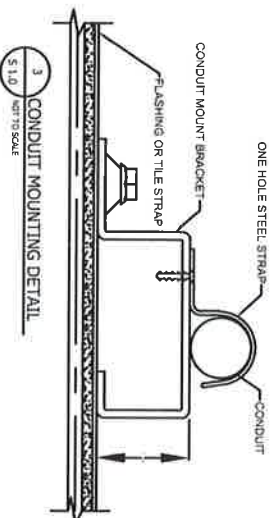
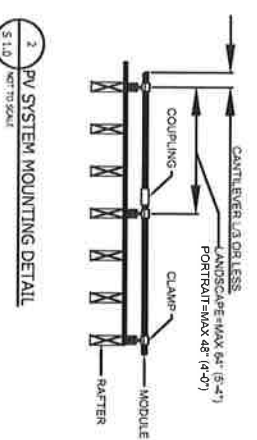
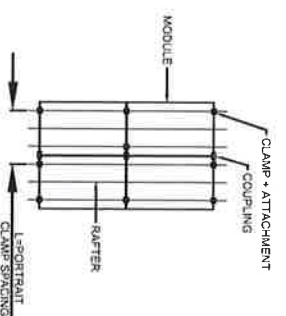
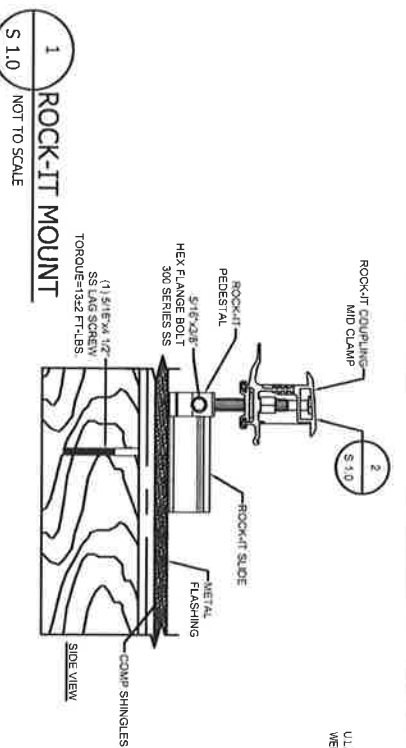


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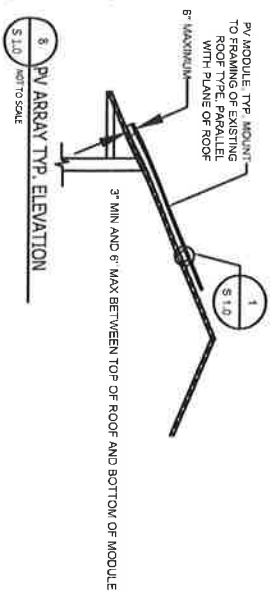
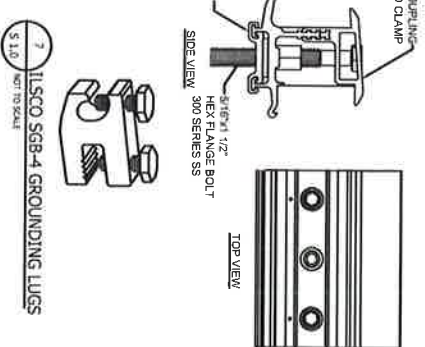
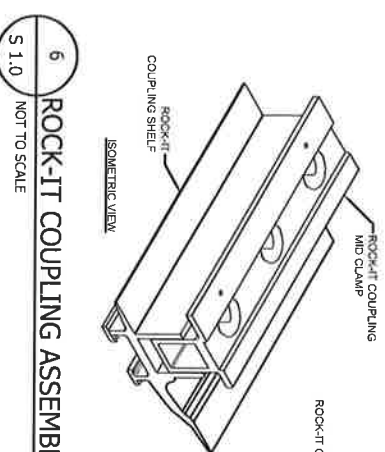
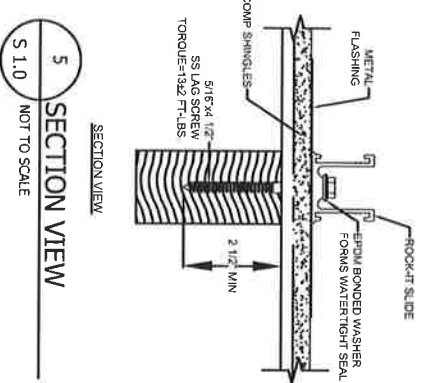
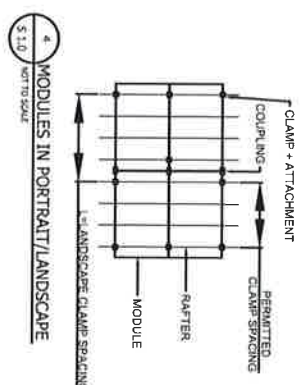
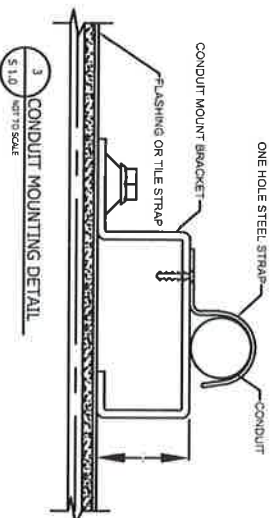
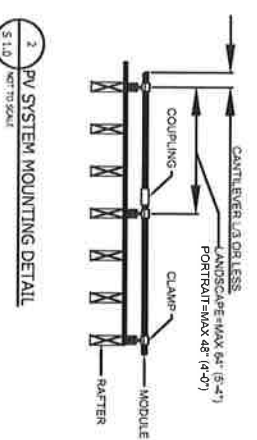
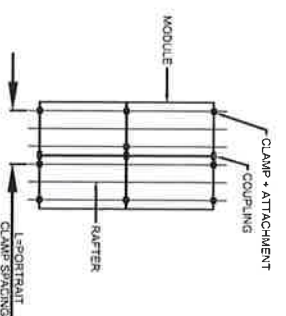
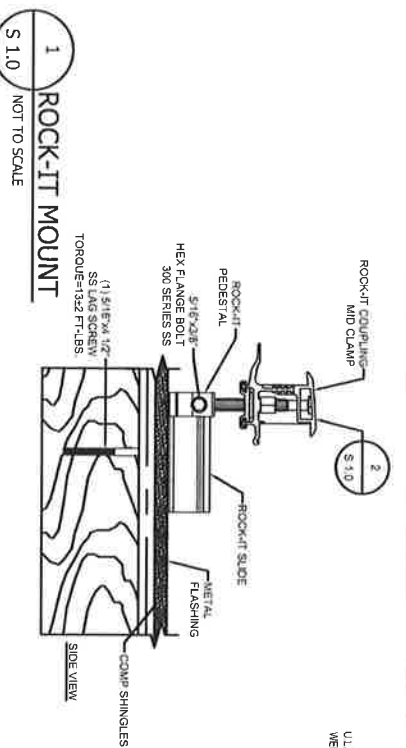


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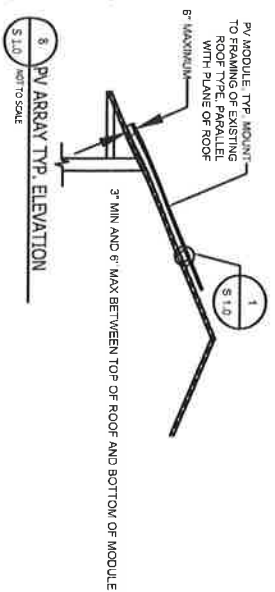
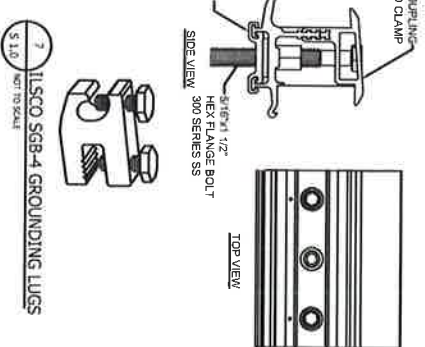
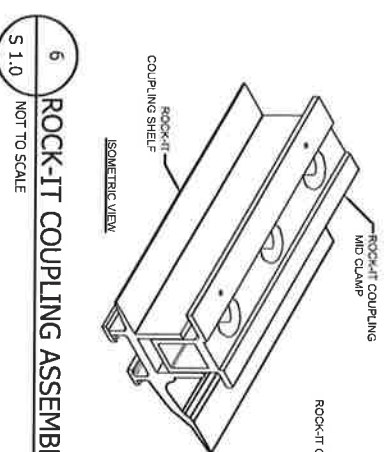
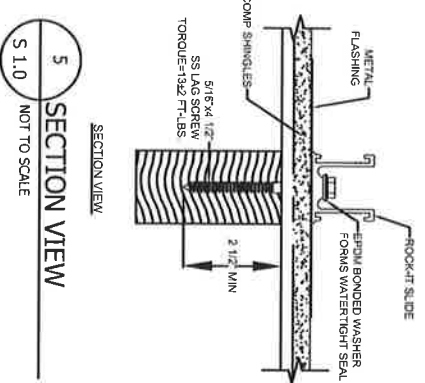
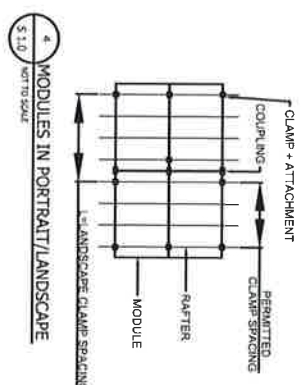
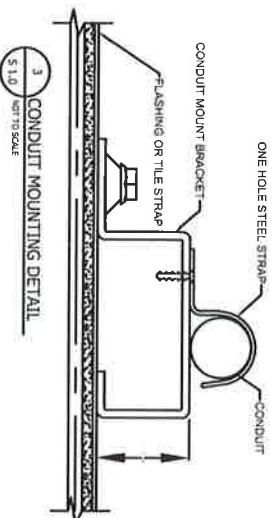
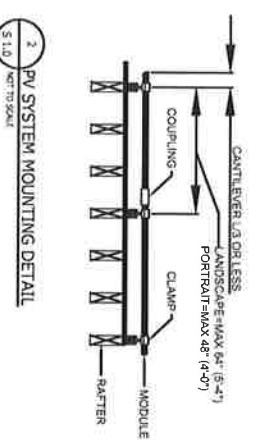
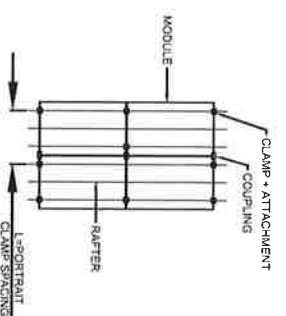
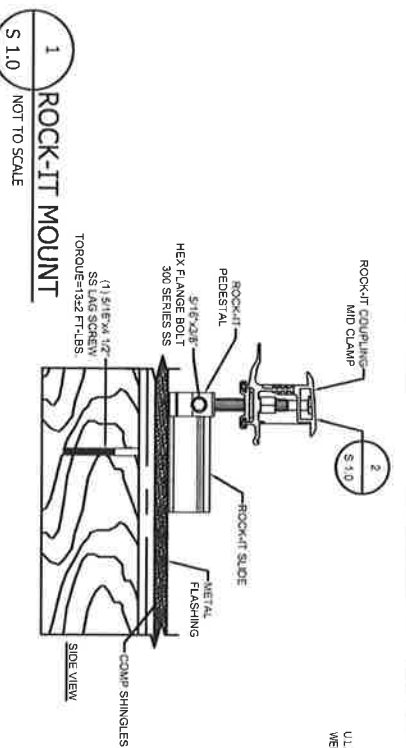


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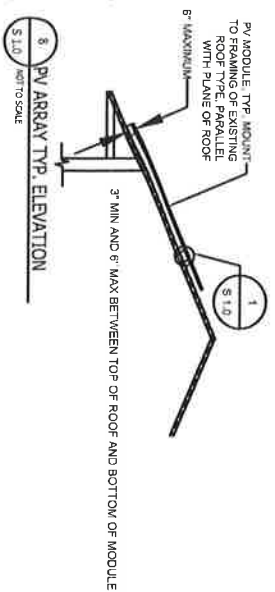
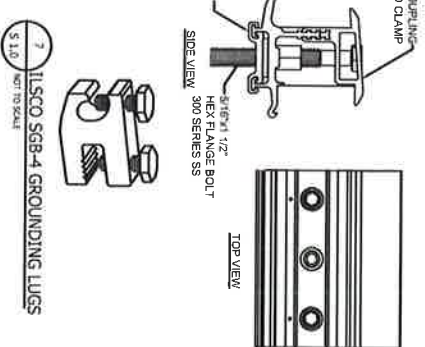
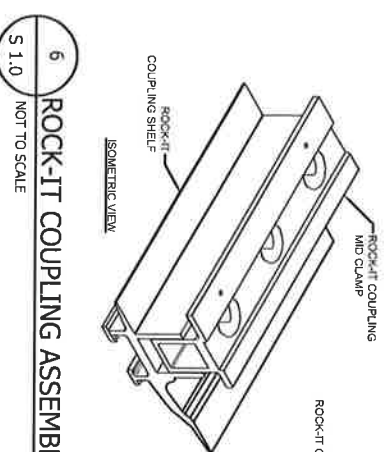
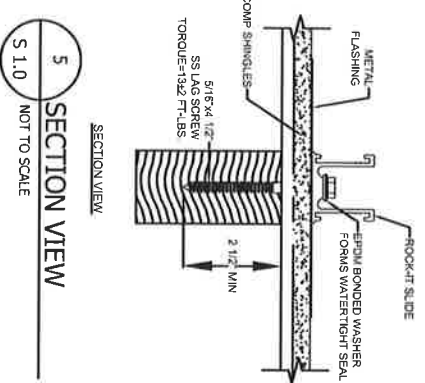
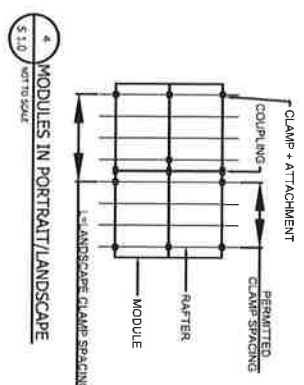
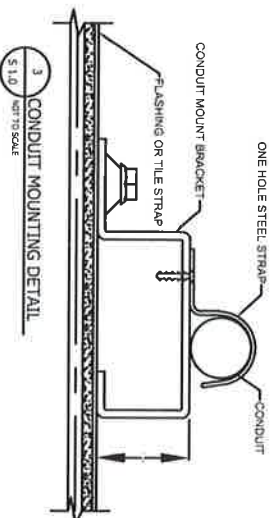
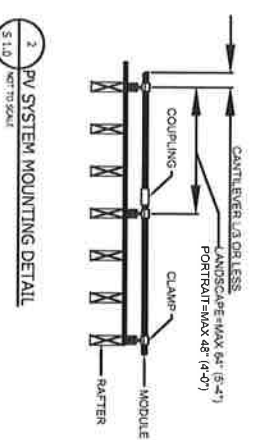
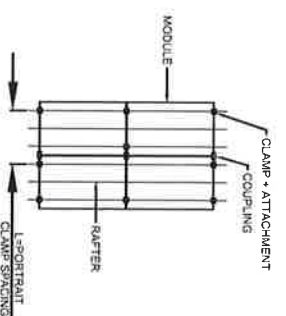
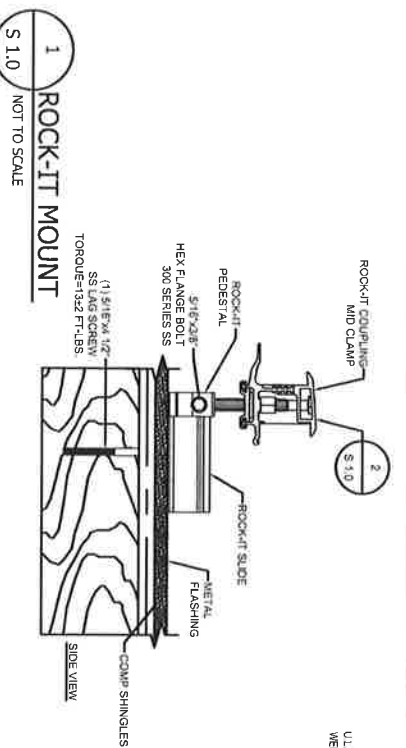


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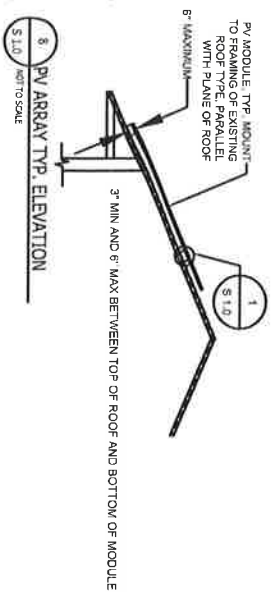
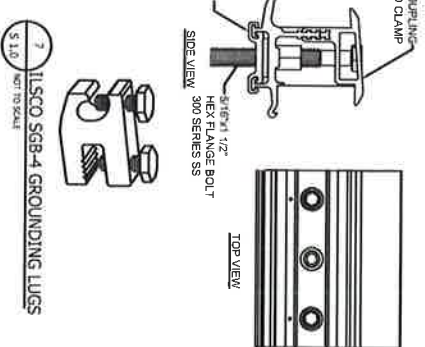
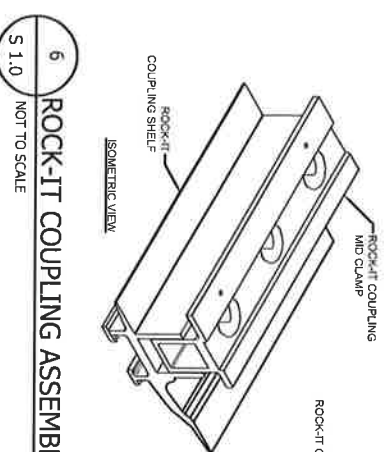
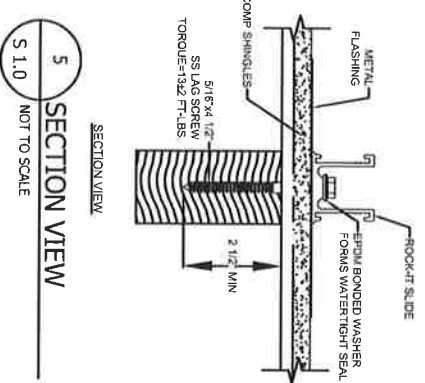
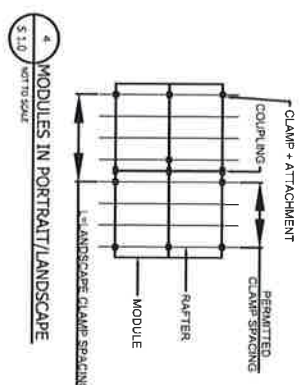
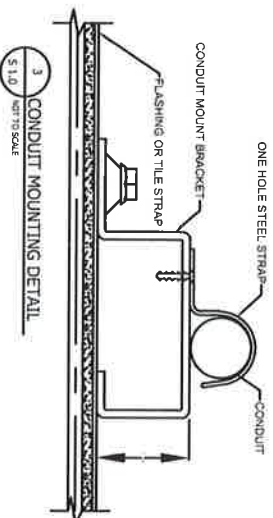
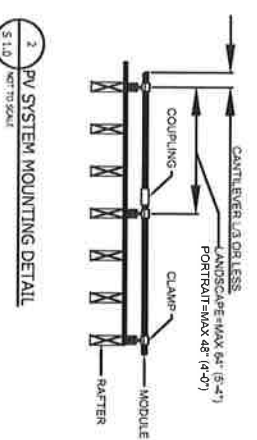
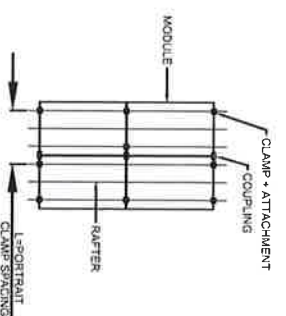
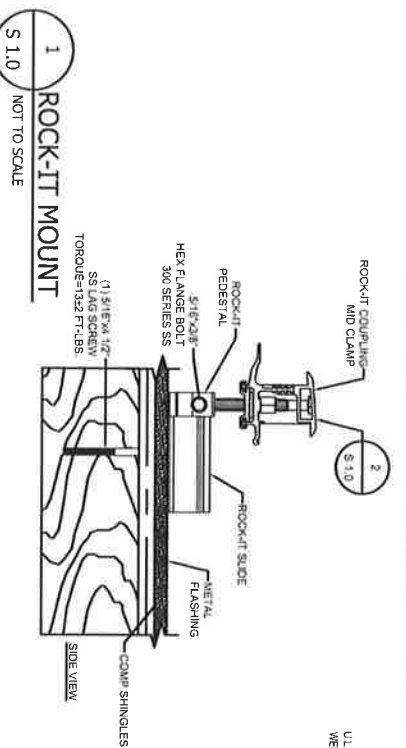


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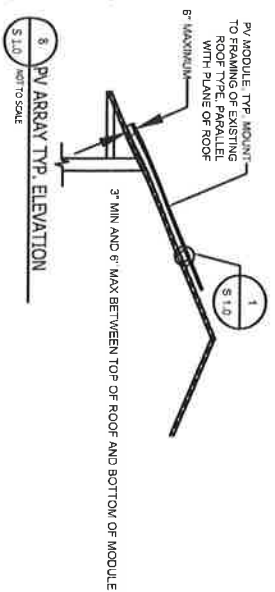
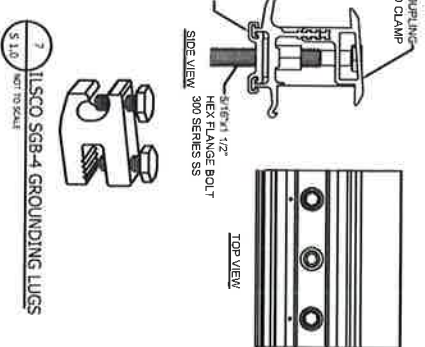
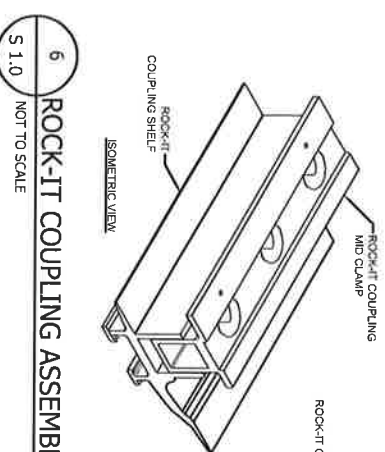
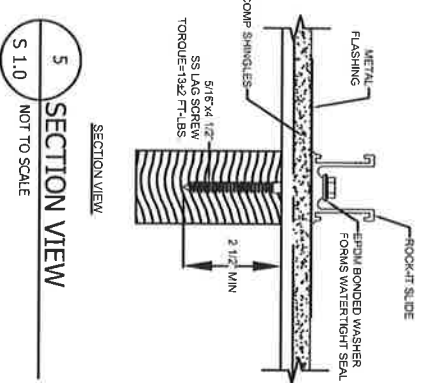
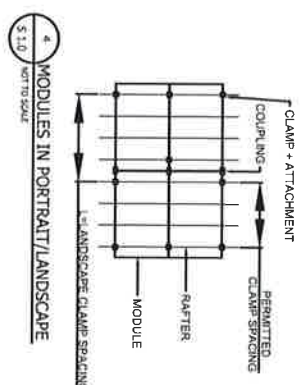
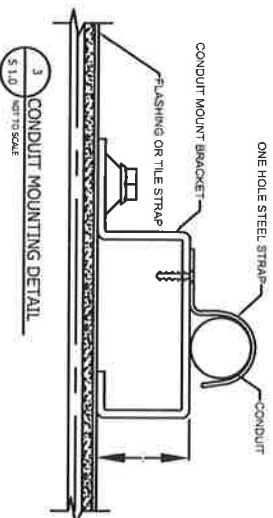
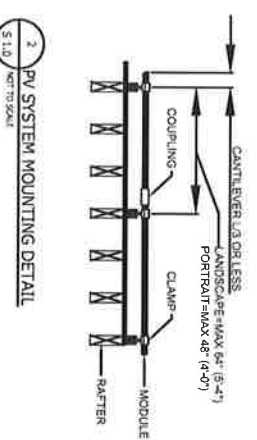
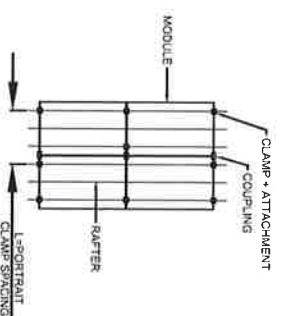
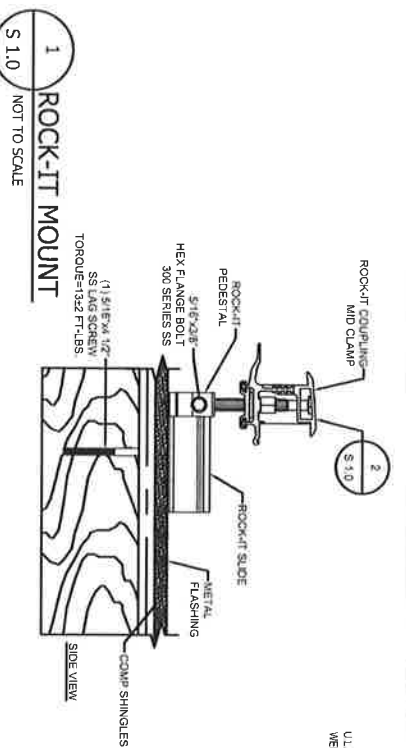


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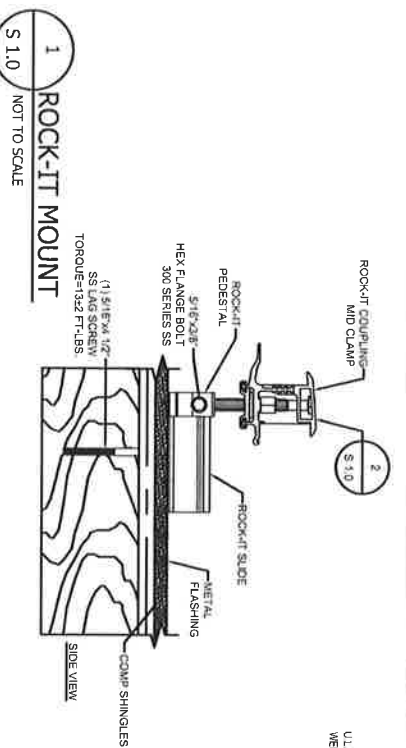


MOUNT DETAIL

NOT TO SCALE

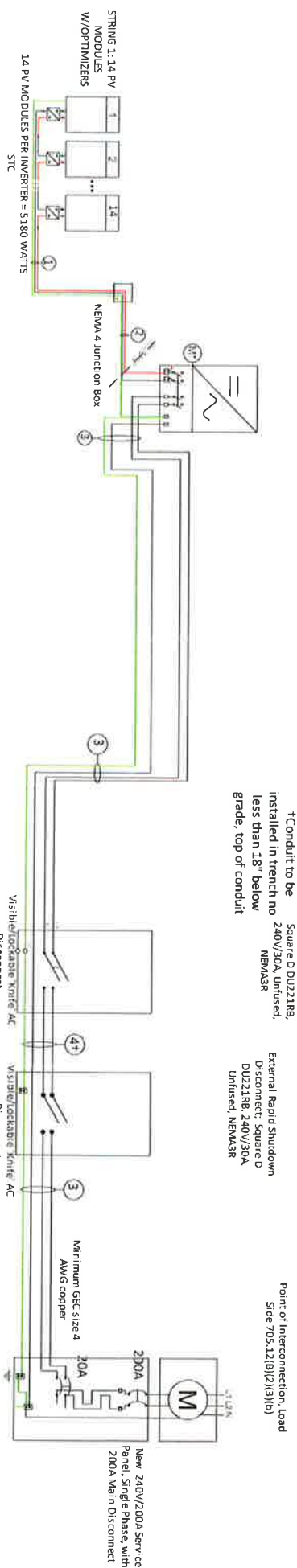
MOUNT DETAIL LEGEND

U.L. LISTING FOR ECP-ASTEN 2703
WEIGHT: 23 lb.



Photovoltaic System		
DC System Size (Watts)	5180	
AC System Size (Watts)	3800	
Total Module Count	14	

Tag	Conduit Conductor Schedule (Unless Otherwise Specified Conductors Shall be Copper)	Wire Gauge	# of Conductors/Color	Conduit Type	Conduit Size
1	DC-to-DC Converter Output (PV wire)	10 AWG	2(V-, V-) B/R	Free Air	N/A
1	EGC (bare)	6 AWG	1 BARE	Free Air	N/A
2	DC-to-DC Converter Output (THWN-2)	12 AWG	2(V-, V-) B/R	EMT	1/2"
2	EGC (THWN-2)	12 AWG	1(GRN)	EMT	1/2"
3	Inverter Output (THWN-2)	12 AWG	3(L, L, N) B/R/W	EMT	1/2"
3	EGC (THWN-2)	12 AWG	1(GRN)	EMT	1/2"
4*	Inverter Output (THWN-2)	12 AWG	3(L, L, N) B/R/W	PVC	1"
4*	EGC (THWN-2)	12 AWG	1(GRN)	PVC	1"



SolaEdge
SE3800H-US
*Conforms to ANSI
C12.1-2008

*Conduit to be installed in trench no less than 18" below grade, top of conduit

External Rapid Shutdown Disconnect, Square D DU221RB, 240V/30A, Unfused, NEMA3R

Point of Interconnection, Load Side 705.12(B)(2)(3)(b)

Optimizer	SolarEdge P370
DC Input Power	370 Watts
DC Max. Input Voltage	60 Volts
DC Max. Input Current	13.75 Amps
DC Max. Output Current	15 Amps
Max. string rating inverter dependent. See SE documents.	
Inverter Make/Model	SolarEdge SE3800H-US
CEC Efficiency	99 %
AC Operating Voltage	240 Volts
Cont. Max Output Current	16 Amps
DC Max Input Current	10.5 Amps
Input Short Circuit Current	45 Amps
Max Output Fault Current	17.5 A/20 ms

PV Module Rating @ STC	
Module Make/Model	Solaria PowerXT-370R-PD
Max. Power-Point Current (Imp)	9.2 Amps
Max. Power-Point Voltage (Vmp)	40.2 Volts
Open-Circuit Voltage (Voc)	48.3 Volts
Short-Circuit Current (Isc)	9.6 Amps
Max. Series Fuse (OCBD)	15 Amps
Nom. Max. Power at STC (Pmax)	370 Watts
Max. Temperature Coefficient	1000 VDC (UL) (IEC) -0.29 %/C

AC Output Current According to art. 690.8(B)(1)	16 Amps
Nominal AC Voltage	240 Volts
THIS PANEL IS FED BY MULTIPLE SOURCES (UTILITY AND SOLAR)	

Roof-top conductor ampacities designed in compliance with art. 690.8 Tables 310.15(B)(2)(a), 310.15(B)(3)(a), 310.15(B)(3)(c), 310.15(B)(1e), Chapter 9 Table 4, 5, & 9. Location specific temperature obtained from ASHRAE 2017 data tables.

ASHRAE 2017 - MONMOUTH EXECUTIVE
Highest Monthly 2% D.B. Design Temp.: 33.2 °C
Lowest Min. Mean Extreme D.B.: -19 °C

Power Production Calculation

Main Bus Rating: 200 Amps
Main Service Breaker Rating: 200 Amps
PV Breaker Rating: 20 Amps
200A + 20A <= 200 x 1.2; 220 <= 240A, OK

Conductor Calculations

Wire ampacity calculated from 310.15(B)(16) & (17) as appropriate with ambient temperature calculations from 310.15(B)(2)(a) & 310.15(B)(3)(c) and raceway fill adjustments from 310.15(B)(3)(a). Conduit on the roof shall be installed no less than 1" above the roof deck.
PV Circuit conductor ampacity is constrained using the 75°C column with the continuous duty uprating or the 90°C column with the relevant ambient temperature and raceway fill adjustments without the continuous duty uprating per 690.8(B), whichever results with a larger wire size.
Non-PV Circuit conductors use the ampacity in the 75°C column or the 90°C column with the relevant ambient temperature and raceway fill adjustments, whichever is less (110.14(C) & 310.15(A)(2)). The rating of the conductor after adjustments shall be greater than, or equal to, the continuous duty uprated current.

More information about conductor calculations can be provided upon request.
Calc. Ex: Wire Ampacity x Ambient Temp. Corr. Factor x Conduit Fill Adj. Factor >= Output Current

(Tag 1 Under Array):

DC-to-DC Converter Output: 10 AWG rated 30 A, 30 A >= 18.75 A

(Tag 2 On Roof):

DC-to-DC Converter Output: 12 AWG rated 20 A, 20 A >= 18.75 A

(Tag 3 Exterior):

Inverter Output: 12 AWG rated 20 A, 20 A >= 20 A

(Tag 4 In Trenched Conduit):

Inverter Output: 12 AWG rated 20 A, 20 A >= 20 A

OCPD Calculations

Breakers sized according to continuous duty output current. PV circuit nominal current based off inverter continuous output current X (1.25 [art. 690.8(A)]).

Inverter 1: SE3800H-US Max Output = 16 A x 1.25 [art. 690.8(A)]
= 20 A <= 20 A (OCPD)
system output current w/ continuous duty = 20 <= 20A (system OCPD)

Other Notes
• Designed according to and all code citations are relevant to the 2017 National Electrical Code.

Conduit, Raceways, and J-Boxes (Labeled Every 10') per 690.31(G)(3) & (4)

WARNING: PHOTOVOLTAIC POWER SOURCE

Interactive System Point of Interconnection per 690.54

PHOTOVOLTAIC AC POWER SOURCE
RATED AC OUTPUT CURRENT: 16 A
NOM. OPERATING AC VOLTAGE: 240 V

PV System Disconnects per 690.13(B)

PV SYSTEM DISCONNECT

All Disconnecting Means per 690.13(B) & 690.15(D)

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

Power Source Output Connection, Adjacent to Back-fed Breaker per 705.12

WARNING:
POWER SOURCE OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT
DEVICE

Rapid Shutdown Switch per 690.56(C)(3)

**RAPID SHUTDOWN SWITCH FOR
SOLAR PV SYSTEM**

Plaques and Directories at the Service Equipment (MSP) and the Location of All System Disconnects per 690.56(B) & 705.10

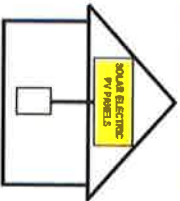


PV With Rapid Shutdown, Installed Within 3 ft. of the Service

Disconnecting Means per 690.56(C)(1)(a)

**SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN**

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



SE3800H-US String 1 DC Disconnecting Means per 690.53

PHOTOVOLTAIC DC POWER SOURCE DISCONNECT

STRING 1

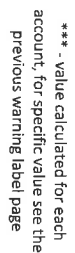
MAXIMUM VOLTAGE: 480 V
MAXIMUM CURRENT: 10.5 A

DC-TO-DC CONVERTER MAXIMUM RATED OUTPUT CURRENT: 15 A

ALL STICKERS DESCRIBED HEREIN SHALL BE MADE OF WEATHERPROOF ADHESIVE. THEY SHALL BE REFLECTIVE. THEY SHALL CONTAIN NO SMALLER THAN 3/8" WHITE ARIAL FONT TEXT, AND HAVE A RED BACKGROUND. UNLESS OTHERWISE DEPICTED OR DESCRIBED, ALL PLACARDS SHALL BE WEATHER-RESISTANT, PERMANENTLY ETCHED PLACARDS. HANDWRITTEN SIGNS WILL NOT BE ACCEPTABLE.

E.3	SHEET NUMBER:	Warning Labels Page	SHEET NAME:	INSTALLER: VIVINT SOLAR	Created: 7/08/20	Hargrave Residence 8 OCEAN PATHWAY OCEAN GROVE, NJ 07756 Utility Account: 100 115 213 827
				INSTALLER NUMBER: 1.877.404.4129 NJ LICENSE: 13VH06589300 6211182		

vivint.solar



THESE PLACARDS SHALL BE PLACED ON ALL INTERIOR AND EXTERIOR DIRECT-CURRENT (DC) CONDUIT ENCLOSURES, RACE-WAYS, CABLE ASSEMBLIES, JUNCTION BOXES COMBINED BOXES, AND DISCONNECTS TO ALERT THE FIRE SERVICE TO AVOID CUTTING THEM. MARKINGS SHALL BE PLACED ON ALL DC CONDUIT EVERY 10 FT (3048 MM), ABOVE AND BELOW PENETRATIONS OF ROOF/CEILING ASSEMBLIES, WALLS OR BARRIERS.











