



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

I. IDENTIFICATION

1. Proposed Work Site at: 11652 Forge Pond Road

2. Name of Owner in Fee: Christopher Wratchford

Tel. _____ e-mail _____

Address 11652 Forge Pond Road Brick 08724

street municipality zip code

3. Ownership in Fee: Public _____ Private _____

4. Principal Contractor: Sunrun Installation Services Tel. (732) 652-7785

Address 26 Worlds Fair Drive, Unit K e-mail joan.cometto@sunrun.com

Somerset, NJ 08873

License No. OR, if new home, Builder Reg. No. 13VH05700500 Exp. Date 3/31/19

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. 770471407 FAX: (732) 356-8398

5. Architect or Engineer Sage V. Lopez Contact _____

Address 595 Market St., Suite 2900 e-mail sage.lopez@sunrun.com

Tel. (949) 393-0993 FAX: (_____) _____

6. Responsible Person in Charge once Work has Begun Joan Cometto

Tel. (732) 652-7785 FAX: (732) 356-8398

V. FEE SUMMARY (for office use only)

		Update	Update
1. Building	\$ <u>211</u>		
2. Electrical	\$ <u>248</u>		
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal			
7. Less 20% for State Plan Review \$			
8. Subtotal	\$		
9. State Permit Surcharge Fee	\$ <u>10</u>		
10. Subtotal	\$ <u>15</u>		
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$ <u>5610</u>		

VI. BUILDING/SITE CHARACTERISTICS

1. Number of Stories 12.21 kw

2. Height of Structure _____ ft.

3. Area — Largest Floor _____ sq. ft.

4. New Building Area _____ sq. ft.

5. Volume of New Structure _____ cu. ft.

6. Max. Live Load _____

7. Max. Occupancy Load _____

8. If Industrialized Building: State Approved _____ HUD _____

9. Total Land Area Disturbed _____ sq. ft.

10. Flood Hazard Zone _____

11. Base Flood Elevation _____ ft.

12. Wetlands yes _____ no _____

(office use only)

IIa. PROPOSED WORK

☐ Minor Work ☐ New Building ☐ Addition ☐ Demolition

☐ Repair ☐ Alteration ☐ Renovation ☐ Reconstruction

☐ Asbestos Abat. -Subch. 8 ☐ Lead Hazard Abatement ☐ Radon Remediation ☐ Annual Permit

IIb. SUBCODES
(Check all that apply)

	Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates	Re-viewer
☒ Building	<u>4218</u>	<u>MFF</u>	<u>7/20/18</u>		<u>8/13/18</u>	<u>AM</u>		
☒ Electrical	<u>17,100</u>				<u>8/6/18</u>	<u>PS</u>		
☐ Plumbing								
☐ Fire Protection								
☐ Elevator								
TOTAL COST		<u>21318</u>						

Salad panels

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale _____

Gained, Rental _____

Lost, Sale _____

Lost, Rental _____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:

1. ☐ Partial Releases

2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks

2. ☐ High Pressure Boilers

3. ☐ Pressure Vessels

4. ☐ Refrigeration Systems

5. ☐ Cross-Connections/Backflow Preventers

6. ☐ Hazardous Uses/Places of Assembly

7. ☐ Sprinklers/Standpipes

8. ☐ Smoke Control Systems in Open Wells

9. ☐ Underground Storage Tanks

10. ☐ Swimming Pools, Spas and Hot Tubs

11. ☐ LPGas Tanks

12. ☐ Fire Alarm

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name **Sunrun Installation Services**

Address **26 Worlds Fair Drive, Unit K**

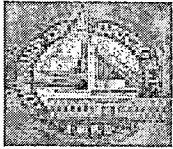
Somerset, NJ 08873

Telephone **(732) 652-7785**

Signature _____

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:23-2.15(b)4.

- IV. ☐ HOME ELEVATION: Include Home Elevation Contractor Certification as per N.J.S.A. 52:27D-123.16.



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 11/8/2018
Control Number C-18-002809
Permit Number 18-2246
Permit Issue Date 8/15/2018
Certificate Number 18-2246

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 1652 FORGE POND RD Brick Township, NJ Block: 833 Lot: 14.01 Qual: _____
Owner in Fee: WRATCHFORD, CHRISTOPHER & KAREN D
Owner Address: 1652 FORGE POND ROAD BRICK NJ 08724
Telephone: [REDACTED]
Contractor Sunrun Installation Services
Address 26 Worlds Fair Dr. Unit K Somerset NJ 08873
Telephone: (848) 702-2164 Fax: (732) 356-8398
License Number or Builders Registration Number: _____ Federal Emp. Number: 770471407

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: R-5 Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: SOLAR PANELS - ...INSTALL 12.21 kw ROOF MOUNT PHOTOVOLTAIC SOLAR SYSTEM

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (_____ years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (_____ years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

Construction Official

Fee: \$0.00

Check Number: _____

Collected By: _____



8/5/18

18-2246

Block 833 Lot 14.01 Qualification Code _____
Work Site Location 11652 Forge Pond Road

Owner in Fee: Christopher Wraatchford

Tel. [REDACTED] e-mail [REDACTED]

Address 11652 Forge Pond Rd Bridle 08724
street municipality zip code

Contractor: Sunrun Installation Services Tel. (732) 652-7785
Address 26 Worlds Fair Drive, Unit K e-mail joan.cometto@sunrun.com
Somerset, NJ 08873

Contractor License No. or Builder Registration No. **13VH05700500** Exp. Date **03/31/2019**

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. **770471407** FAX: (**732**) **356-8398**

JOB SUMMARY (Office Use Only)

PLAN REVIEW		Date	Initial	INSPECTIONS		Dates (Month/Day)	
				Type:	Failure	Failure	Approval
☐	No Plans Required						
☐	All	8/13/18		Footing			
☐	Footings/Foundations			Footing Bonding			
☐	Structural/Framework			Foundation			
☐	Exterior			Slab			
☐	Interior			Frame			
	Joint Plan Review Required:			Truss Sys./Bracing			
				Barrier-Free			
☐	Elec.			Insulation			
☐	Plumb			Finishes -Base Layer			
☐	Fire			Finishes -Final			
☐	Elevator			Energy			
SUBCODE APPROVAL for PERMIT				Mechanical			
Date:		08/13/18		TCO			
Approved by:				Other			
SUBCODE APPROVAL for CERTIFICATE				Final			
☐	CO			Barrier-Free			
☐	CCO						
Date:		11/03/18					
Approved by:							

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____ **Constr. Class** Present _____ Proposed _____

No. of Stories _____ If Industrialized Building: ☒

Height of Structure _____ ft. State Approved _____ HUD _____

Area — Largest Floor _____ sq. ft. Est. Cost of Bldg. Work: _____

New Bldg. Area/All Floors _____ sq. ft. 1 New Bldg \$ 4.218

Volume of New Structure _____ cu. ft. 2 Rehabilitation \$ _____

Max. Live Load _____ 3. Total (1+2) \$ 4,218

Max. Occupancy Load

U.C.C. F110 (rev. 11/09)

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here: [Signature]

Print name here: **Joan Cometto**

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

DESCRIPTION OF WORK

Solar panels ~~(37)~~ 330 watt panels

Inverter (1) solaredge inverter

PV Solar System 12.21kw roof mount solar

TYPE OF WORK:

- ☐ New Building
☐ Addition
☒ Rehabilitation
☐ Roofing
☐ Siding
☐ Fence _____ Height (exceeds 6')
☐ Sign _____ Sq. Ft.
☐ Pool
☐ Retaining Wall _____ Sq. Ft.
☐ Asbestos Abatement Subchapter 8
☐ Lead Haz. Abatement NJAC 5:17
☐ Radon Remediation
☐ Other _____
☐ Demolition

FEE (Office Use Only)

§

Administrative Surcharge	\$	
Minimum Fee	\$	
State Permit Surcharge Fee	\$	
TOTAL FEE	\$	

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ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 833 Lot 14.01 Qualification Code _____
Work Site Location 11652 Forge Pond Road

Owner in Fee: Christopher Wratford

Tel. _____ e-mail _____

Address 11652 Forge Pond Rd Brick 08724
street municipality zip code

Contractor: Sunrun Installation Services Tel. (732) 652-7785

Address 26 Worlds Fair Drive Unit K e-mail joan.cometto@sunrun.com

Somerset, NJ 08873

Contractor License No. 34E101574500 Exp. Date 03/31/2021

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. 770471407 FAX: (732) 356-8398

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. JCP&L

Est. Cost of Elec. Work \$ 17,100

JOB SUMMARY (Office Use Only)

PLAN REVIEW

[] No Plans Required

[] Partial -Underslab Utilities Approved

Date: _____ Approved by: _____

[X] Electric Plans Approved

Date: 8/6/18 Approved by: PJ

Joint Plan Review Required:

[] Bldg. [] Plumb. [] Fire [] Elev.

SUBCODE APPROVAL for PERMIT

Date: 8/6/18

Approved by: PJ

SUBCODE APPROVAL for CERTIFICATE

[] CO [] CCO [] CA

Date: 8/5/18

Approved by: PJ

INSPECTIONS

Type: Roof

Barrier-Free

Trench

Temp. Serv.

Constr. Serv.

TCO

Other

Service

Final

Barrier-Free

Temp. Cut-in-Card Date Issued

Final Cut-in-Card Date Issued

Annual Pool Inspection

Date of Grounding and Bonding

Certification

Dates (Month/Day)

Failure

Failure

Approval

Initial

10/23/18

11-2-18

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: [Signature]

Print name here: Paul Joyce

☒ Licensed Elec. Contractor [] Certif'd Landscape Irrigation Contr [] Exempt Applicant

D. TECHNICAL SITE DATA

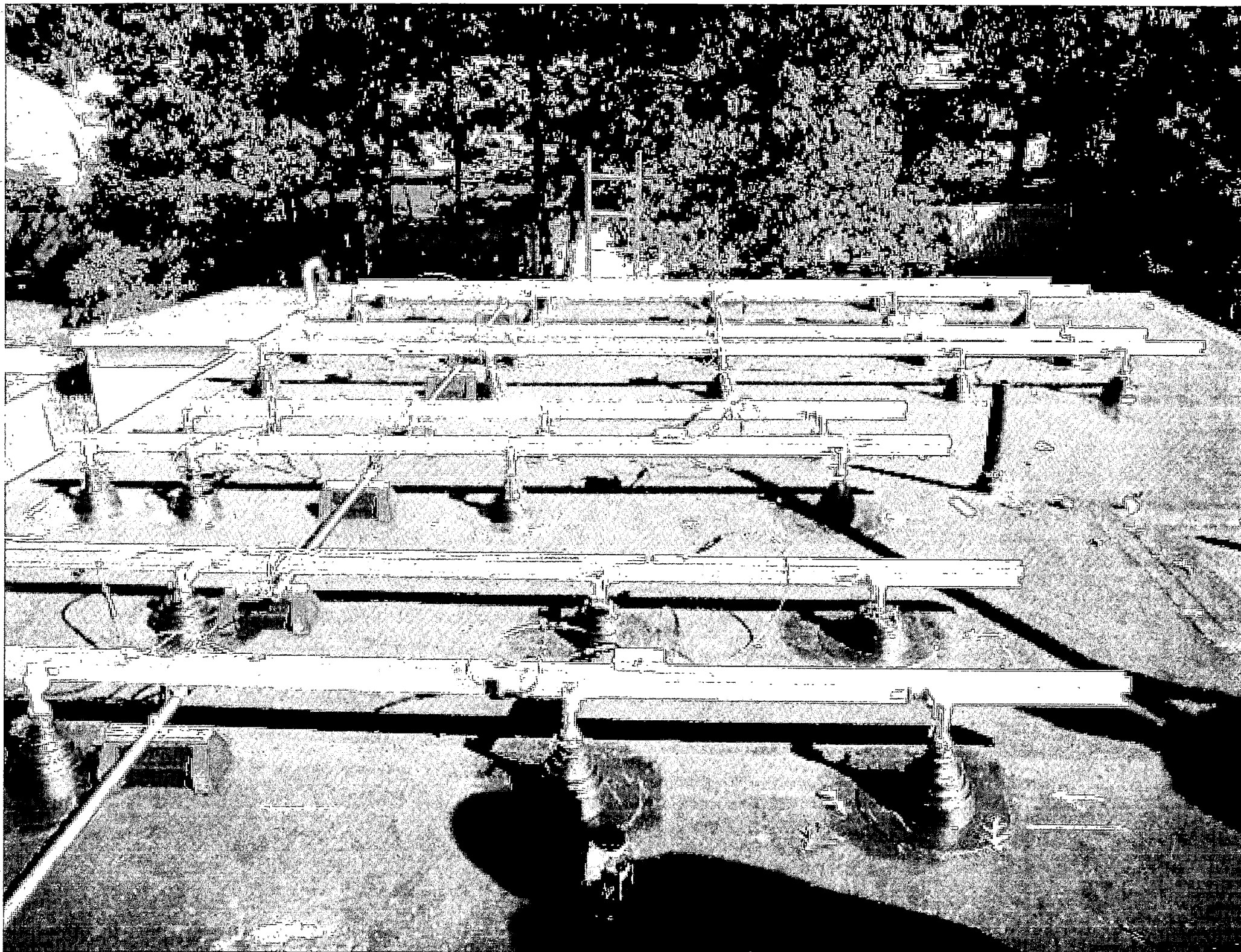
DESCRIPTION OF WORK:

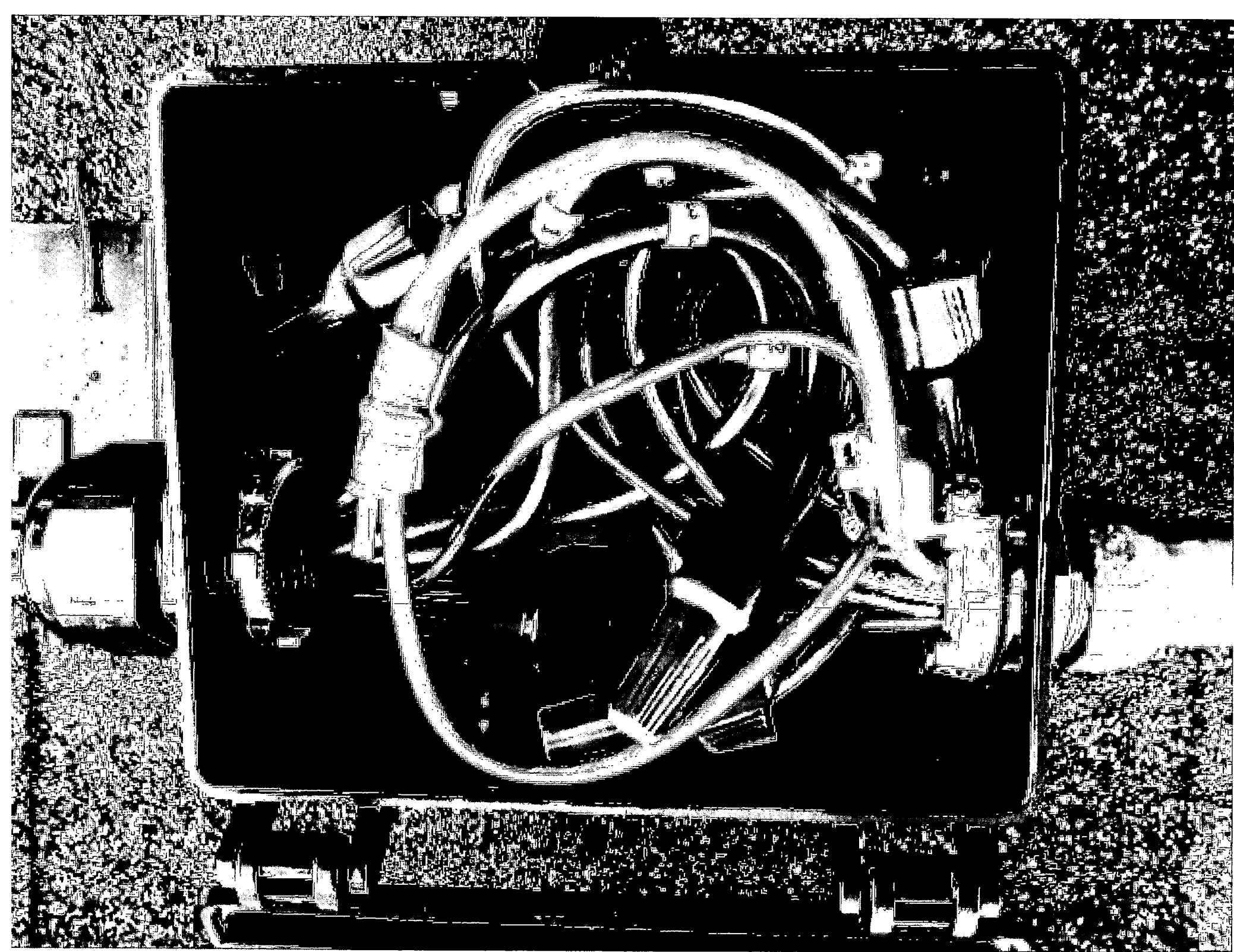
install 12.21kW (37 panels) 1 solar edge inverter

QTY.	SIZE	ITEMS	FEE (Office Use Only)
_____	_____	Lighting Fixtures	_____
_____	_____	Receptacles	_____
_____	_____	Switches	_____
_____	_____	Detectors	_____
_____	_____	Light Poles	_____
_____	_____	Motors—Fract. HP	_____
_____	_____	Emergency & Exit Lights	_____
_____	_____	Communications Points	_____
_____	_____	Alarm Devices/F.A.C. Panel	_____
_____	_____	<u>320 Watt Panels</u>	_____
_____	_____	TOTAL NUMBERS	\$ _____
_____	_____	Pool Permit/with UW Lights	_____
_____	_____	Storable Pool/Spa/Hot Tub	_____
_____	_____	KW Elec. Range/Receptacle	_____
_____	_____	KW Oven/Surface Unit	_____
_____	_____	KW Elec. Water Heater	_____
_____	_____	KW Elec. Dryer/Receptacle	_____
_____	_____	KW Dishwasher	_____
_____	_____	HP Garbage Disposal	_____
_____	_____	KW Central A/C Unit	_____
_____	_____	HP/KW Space Heater/Air Handler	_____
_____	_____	NEMA 4 Rapid Shut Down Box	_____
_____	_____	Amp Breaker	_____
_____	_____	Amp Load Center	_____
_____	_____	Amp Fused Disconnect	_____
_____	_____	Amp Disconnect	_____
_____	_____	Amp Meter	_____
_____	_____	KW Inverter	_____
_____	_____	KW PV Roof-Mount Solar	_____

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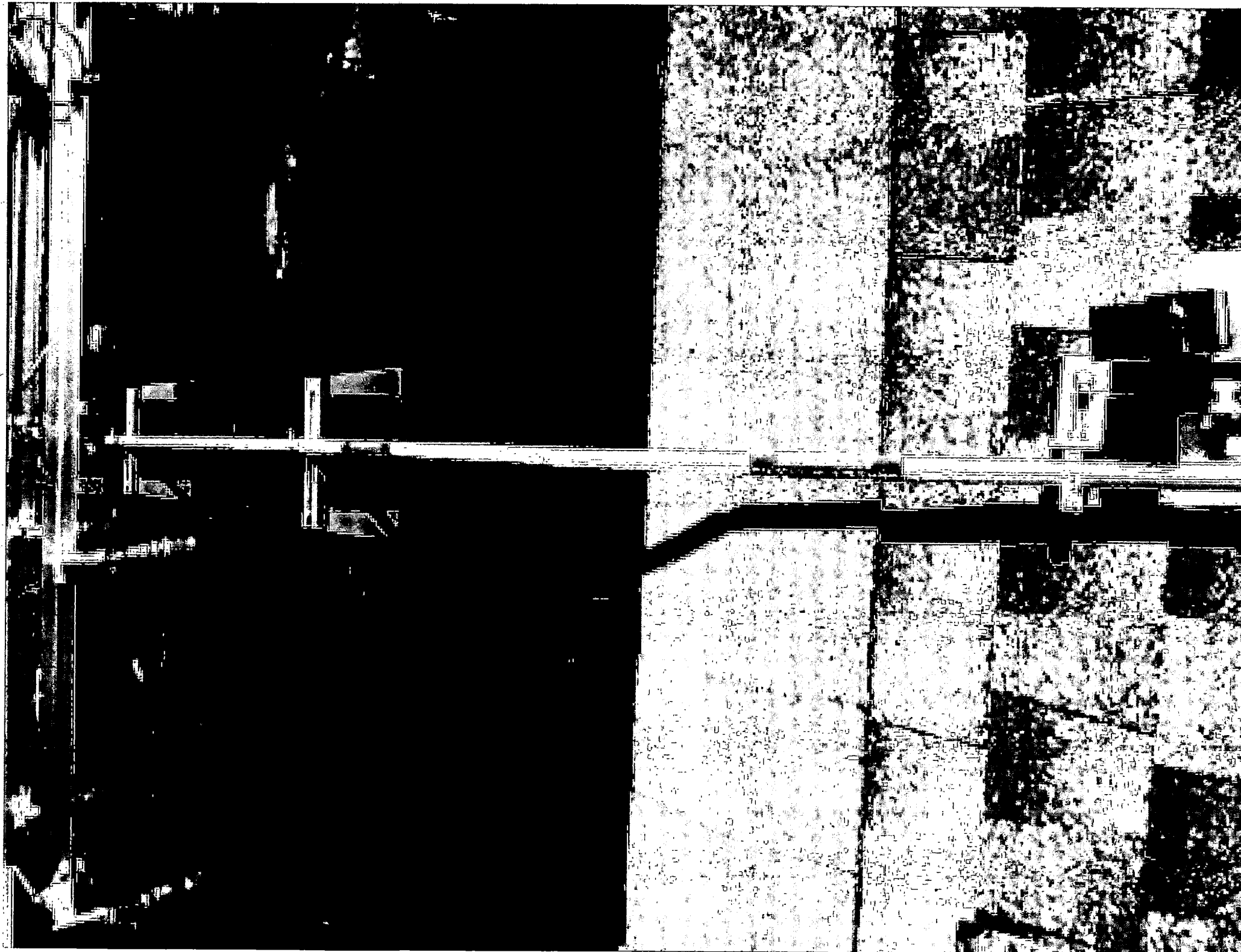
Administrative Surcharge	\$ _____
Minimum Fee	\$ _____
State Permit Surcharge Fee	\$ _____
TOTAL FEE	\$ _____





Shao Nigou
Shao Nigou Shao Nigou

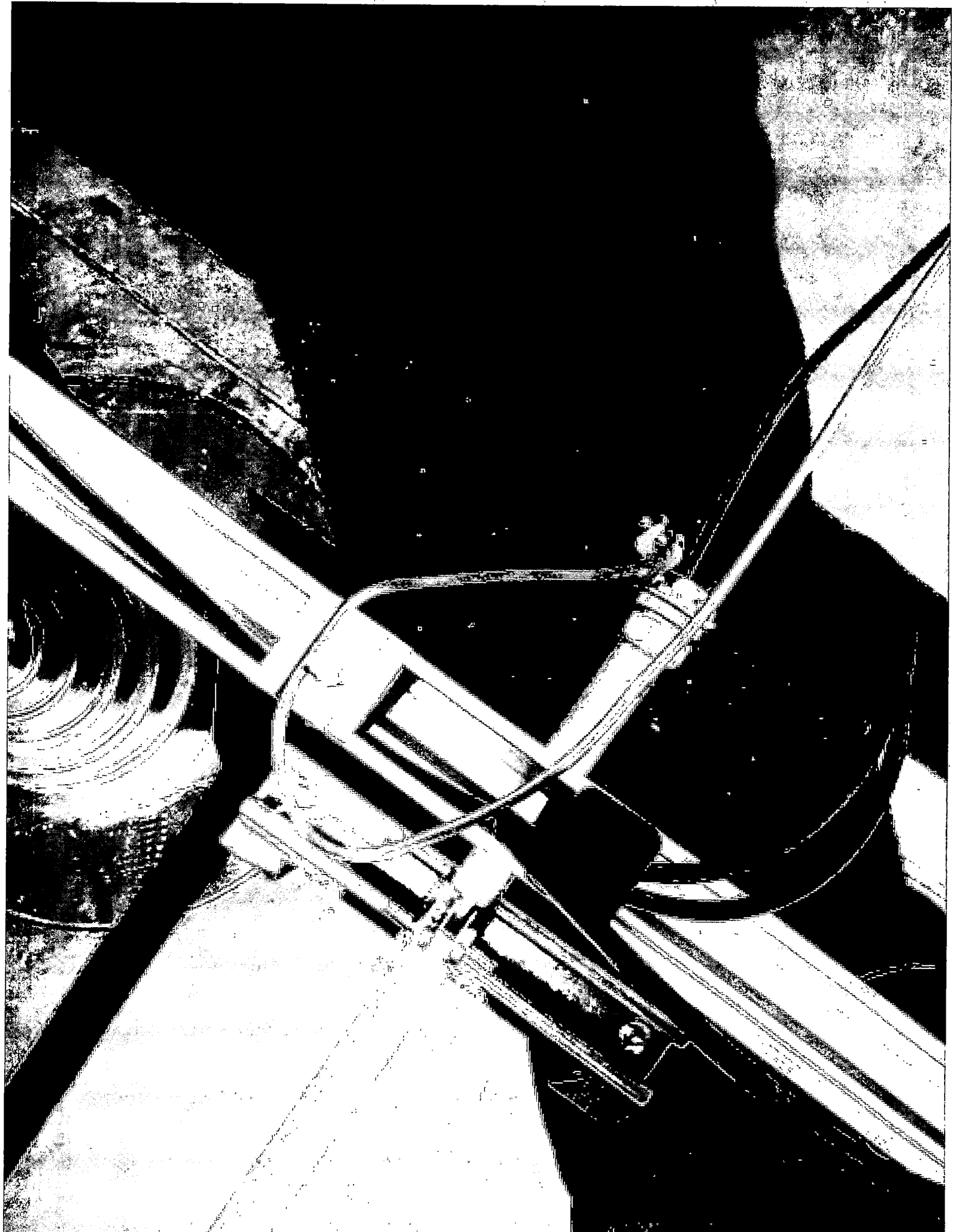
WARNING: PHOTOGRAPHIC
POWER SOURCE















CONSTRUCTION PERMIT

Date Issued 8/15/18
Control # C-18-002809
Permit # 18-2246

IDENTIFICATION Block: 833 Lot: 14.01 Qualifier _____
Work Site Location: 1652 FORGE POND RD Brick Township, NJ Contractor Sunrun Installation Services
Owner in Fee WRATCHEFORD, CHRISTOPHER & KAREN D Address 26 Worlds Fair Dr. Unit K Somerset NJ 08873
1652 FORGE POND ROAD BRICK NJ 08724 Telephone: (848) 702-2164
Telephone: _____ Lic. No. or Bldrs. Reg. No. 13VH05700500 34E101574500
Federal Employee No. 17047407

Is hereby granted permission to perform the following work:

- ☒ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☒ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☐ OTHER

DESCRIPTION OF WORK:

SOLAR PANELS...INSTALL 12.21 kw ROOF MOUNT PHOTOVOLTAIC SOLAR SYSTEM

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.
Estimated Cost of Work \$21,318

Construction Official [Signature]

Date 8/13/18

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$211
Electrical	\$240
Plumbing	\$0
Fire Protection	\$0
Elevator Devices	\$0
Other	\$0.00
DCA Training Fee	\$40
CO Fee	
Other	\$0
Total	\$491
Check No.	<u>2015521</u>
Cash	\$0
Credit	\$0
Collected By	<u>CW</u>

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

☒ Required inspections for all subcodes for one- and two-family dwellings are as follows:

- The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
- Foundations and all walls up to grade level prior to back filling.
- All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
- Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☒ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

RECEIVING CLERK _____
DATE REC'D _____

ZONING PERMIT APPLICATION

PERMIT # ZP-12-00911
DATE ISSUED 8/15/18

BLOCK: 833 LOT: 14.01 QUALIFIER: _____ SITE ADDRESS: 11652 Forge Pond Road

IDENTIFICATION:

1. NAME OF OWNER IN FEE: Christopher Wratford
COMPLETE ADDRESS: 11652 Forge Pond Road
Brick Twp 08724
PHONE: [REDACTED] EMAIL: _____

2. NAME OF APPLICANT: SUNRUN INSTALLATION SERVICES
APPLICANT ADDRESS: 26 WORLDS FAIR DR UNIT K
SOMERSET, NJ 08873
PHONE # 732-652-7781 EMAIL: MELISSA.WESLEY@SUNRUN.COM

3. RESPONSIBLE PERSON FOR WORK: MELISSA WESLEY
PHONE # 732-652-7781 FAX # 732-356-8398

4. SIGNATURE OF APPLICANT: [Signature]

FOR OFFICE USE ONLY

FEE SUMMARY:

APPLICATION FEE: \$ 45-
OTHER: \$ _____
TOTAL: \$ 75-

REQUIRED BY APPLICANT

RESIDENTIAL: ☒
COMMERCIAL: _____
EXISTING USE: SAC
PROPOSED USE: SAC

BOARD APPROVAL: _____ PB _____ ZB _____
RESOLUTION #: _____
APPROVAL DATE: _____

PROJECT DESCRIPTION: (PLEASE CHECK APPLICABLE WORK & DESCRIBE)

*NEW BUILDING: _____ *ADDITION _____ *ALTERATION _____ *PORCH _____ *DECK _____

POOL: ABOVE GROUND _____ IN GROUND _____ FENCE: HEIGHT _____ TYPE _____

HEIGHT: _____ (*APPLICABLE)

OTHER SOLAR

DESCRIPTION: ROOF MOUNT SOLAR

ZONING REVIEW:

DATE REVIEWED: 8/1/18 DATE DENIED: _____ DATE APPROVED: 8/1/18 INTLS: a

(SEE BACK PAGE)

OFFICE USE ONLY

ZONING REVIEW:

DATE REVIEWED: 8/1/18 DATE DENIED: — DATE APPROVED: 8/1/18 INTLS: sg

[illegible]

LAND USE

245 Attachment 5

Township of Brick

SCHEDULE OF AREA, YARD AND BUILDING REQUIREMENTS

Township of Brick
Ocean County, New Jersey

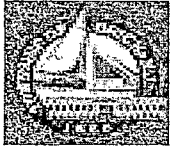
[Amended 6-26-1979 by Ord. No. 354-2B-79; 4-22-1980 by Ord. No. 354-2H-80; 10-14-1980 by Ord. No. 354-2N-80; 9-23-1980 by Ord. No. 354-1B-80; 8-25-83 by Ord. No. 354-2SS-83; 11-5-1984 by Ord. No. 354-2AAA-84; 11-5-1984 by Ord. No. 354-2CCC-84; 6-24-1986 by Ord. No. 354-2WWW-86; 9-13-1988 by Ord. No. 354-2TTTT-88; 9-27-1988 by Ord. No. 354-2XXX-88; 9-12-2000 by Ord. No. 354-2EE-00; 5-9-2000 by Ord. No. 354-2Z-00; 3-26-2002 by Ord. No. 354-2C-02; 11-26-2002 by Ord. No. 354-2L-02; 3-25-2003 by Ord. No. 354-2D-03; 6-13-2006 by Ord. No. 19-06]

Zone	Minimum Lot Size						Minimum Required Yard Depth						Maximum Lot Coverage by Building	Maximum Building Height				Minimum Floor/ Building Area (square feet) 2 stories/1 story	Maximum Allowable Impervious Coverage	
	Interior Lots			Corner Lots			Principal Building				Accessory Building			Stories	Eaves (feet)	Feet	Ridge (feet)			
	Area (square feet)	Width (feet)	Depth (feet)	Area (square feet)	Width (feet)	Depth (feet)	Front Yard (feet)	Side Yard, Each (feet)	Both Sides Combined (feet)	Rear Yard (feet)	Side Yard (feet)	Rear Yard ³ (feet)								
R-R	40,000	150	150	40,000	150	150	50	25			50	25	25	25%	-	25			-	
RR-2	See § 245-90.																			
RR-3	See § 245-103.																			
R-20	20,000	100	125	25,000	100	125	40	15	-		40	10	10	25%	-	25	35	38.5	-	
R-15	15,000	100	115	17,250	100	115	35	12	-		35	10	10	25%	-	25	35	38.5	-	
R-10	10,000	90	100	10,500	100	100	30	6	20		20	5	5	30%	-	25	35	38.5	-	
R-7.5	7,500	75	90	9,000	75	90	25	6	15		15	5	5	30%	-	25	35	38.5	-	
R-5	5,000	50	75	6,000	50	75	20	5	12		15	5	5	35%	-	25	35	38.5	-	
O-P	15,000	100	150	15,000	100	150	50	10	-		50	20	50	35% ²	2	-	35	38.5	1,500	70%
B-1	10,000	100	90	12,500	100	125	30	10	-		20	10	20	30% ³	2	-	35	38.5	1,000	60%
B-2	20,000	125	125	20,000	125	125	50	10	-		50	10	50	30% ²	2	-	35	38.5	2,000	65%
B-3	2 acres	200	200	2 acres	200	200	75	30	-		50	20	50	25% ²	-	-	35	38.5	2,000	65%
B-4	5 acres	300	300	-	-	-	100	50(150')	-		100(150')	20	50	25%	3	-	35	38.5	30,000	70%
M-1	5 acres	300	300	5 acres	300	300	100	50	-		150	75	150	30% ²	-	-	35	38.5	5,000	65%
R-M	25 acres	350	200	-	-	-	50	50	-		30	30	30	20%	-	25	35	38.5	-	65%
O-P-T	40,000	150	150	40,000	150	150	50	20	-		50	20	50	25% ²	2	-	35	38.5	2,000	50%
H-S	See § 245-261.																			

NOTES:

- ¹ If adjacent to residential zone or use.
- ² The maximum lot coverage shall refer only to that percentage of an affected lot which is suitable for building.
- ³ For rear yard setback requirements for accessory buildings on waterfront property, see § 245-10D.

FOR REFERENCE ONLY



Brick Township
401 Chambers Bridge Rd.

Brick, NJ 08723
(732) 262-1336

Date Issued:

8/15/18

Application Number: ZA-18-00927

Application Date: 7/30/2018

Project Number:

Permit Number:

2P-18-00911

Fee:

\$75.00

Zoning Permit

Worksite: 1652 FORGE POND RD
Location: Brick Township, NJ 08724

Owner: WRATCHFORD, CHRISTOPHER & KAREN D
Address: 1652 FORGE POND ROAD
BRICK, NJ 08724

Applicant: Sunrun Installation Services
Address: 26 Worlds Fair Dr. Unit K
Somerset, NJ 08873

Block: 833 Lot: 14.01 Qualifier: Zone: R-10

This Certifies that an application for the issuance of a Zoning Permit has been examined.

Present Use: Single-Family Residential

☐ Non Conforming Use

☐ Non Conforming Structure

Proposed Use: Single-Family Residential

Work Description:

Solar Energy System - 37- 330W LG Solar, 12.21kW SolarEdge, mounted on the roof of the house.

Additional Zoning Permit is required for additional work.

Application Approved Date: 8/1/2018

Upon review it was determined that the Zoning Permit:

☒ Permitted by Ordinance

☐ Permitted by Variance approved on: _____

☐ Approved with Conditions

☐ Valid Nonconforming Use/Structure is established by

☐ Zoning Board of Adjustment

☐ Zoning Officer

Christopher J. Romano, Assistant Zoning Officer

8/1/2018

Date

Sean Kinnevy, Zoning Officer

8/1/18

Date

ENGINEERING PERMIT APPLICATION

RECEIVING CLERK: _____

PERMIT #: _____

BLOCK: 833 LOT: 14.01 ADDRESS: 1652 Forge Pond Road**IDENTIFICATION:**

1. WORK SITE ADDRESS: 1652 Forge Pond Road
2. NAME OF OWNER IN FEE: Christopher Wratford
ADDRESS: 1652 Forge Pond Rd PHONE: [REDACTED]
FAX #: ()
3. PRINCIPAL CONTRACTOR: SUNRUN INSTALLATION SERVICES
ADDRESS: 26 WORLDS FAIR DRIVE UNIT K PHONE #: (732) 652-7781
SOMERSET, NJ 08873 FAX #: (732) 356-8398
4. ARCHITECT OR ENGINEER: SHUMWAY
ADDRESS: 6040 WEST 91ST AVE, WESTMINSTER, CO PHONE: # ()
5. RESPONSIBLE PERSON FOR WORK: MELISSA WESLEY
ADDRESS: 26 WORLDS FAIR DRIVE UNIT K SOMERSET NJ 08873
MELISSA.WESLEY
PHONE #: (732) 652-7781 FAX #: (732) 356-8398 E-MAIL: @SUNRUN.COM

FEE SUMMARY:

APPLICATION FEE: \$ _____

REVIEW FEE: \$ _____

INSPECTION FEE: \$ _____

OTHER: \$ _____

BOND(S): \$ _____

TOTAL: \$ _____

SPECIAL CONDITIONS:

OCEAN COUNTY SOILS: _____

DRAINAGE EASEMENTS: _____

UTILITY EASEMENTS: _____

CONSERVATION EASEMENTS: _____

FEMA REQUIREMENTS: _____

D.E.P. PERMITS: _____

BOARD APPROVAL: ☐ PB ☐ ZB

APPLICATION NUMBER: _____

APPROVED DATE: _____

PROJECT DESCRIPTION: ☐ GRADING/CLEARING ☐ ROAD OPENING
☐ SOIL REMOVAL/FILL ☐ RETAINING WALL ☐ POOL
☐ BULKHEAD/DOCK ☐ DWELLING ☐ TREE REMOVAL _____
☒ OTHER install roof mount solar system
LENGTH: _____ WIDTH: _____ HEIGHT: _____

ENGINEERING REVIEW:

DATE RECEIVED: _____ DATE REJECTED: _____ DATE APPROVED: _____ INITIALS: _____

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Exam. of Electrical Contractors

HAS LICENSED

Paul Joyce
223 Kendall Road
Kendall Park NJ 08824

FOR PRACTICE IN NEW JERSEY AS A(N): Electrical Contractor

03/02/2018 TO 03/31/2021

VALID



Signature of Licensee/Registrant/Certificate Holder

34E101574500

LICENSE/REGISTRATION/CERTIFICATION #



ACTING DIRECTOR

Township of Brick

SOLAR PANEL INSTALL CHECKLIST

REVISED 05/04/16

1. Construction Jacket signed & completed – Front and inside the jacket filled out completely.	Yes ☒	No ☐
2. Zoning Application completely filled out all sections.	Yes ☒	No ☐
3. Engineering Application completely filled out all sections.	Yes ☒	No ☐
4. Four true size surveys to scale showing proposed work	Yes ☒	No ☐
5. Building Subcode Tech completed	Yes ☒	No ☐
6. Electrical Subcode Tech completed	Yes ☒	No ☐
7. Copy of Home Improvement Contractor Registration	Yes ☒	No ☐
8. Two sets of detailed plans showing actual conditions of each installation signed and sealed by a licensed design professional.	Yes ☒	No ☐

USEFUL TIPS:

- Electric sub-code form must be signed and sealed by NJ licensed contractor.
- If you are cutting down trees, you will need a grading/clearing permit prior to the removal of the trees.

NOT AN
ELECTRICIAN'S
OR PLUMBER'S
LICENSE

THIS DOCUMENT IS PRINTED ON WATERMARKED PAPER WITH A MULTI-COLORED
BACKGROUND AND BULGARE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

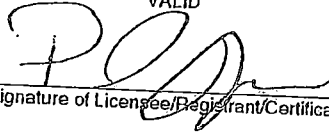
HAS REGISTERED

SUNRUN INSTALLATION SERVICES INC
Paul Joyce
595 Market St 29th Floor
San Francisco CA 94105

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

03/02/2018 TO 03/31/2019

VALID



Signature of Licensee/Registrant/Certificate Holder

13VH05700500

LICENSE/REGISTRATION/CERTIFICATION #



ACTING DIRECTOR



J. MEDINA
ENGINEERING LLC

July 19, 2018

FILE COPY

John Doherty
Sunrun, Inc.
26 Worlds Fair Drive, Unit K
Somerset, NJ 08873

Re: Structural Review for
Wratchford, Christopher Solar Electric System
1652 Forge Pond Road
Brick, NJ 08724

TOWNSHIP OF BRICK
RELEASED FOR PERMIT _____
Building Subcode _____
Plumbing Subcode _____
Fire Subcode _____
Electrical Subcode PJC 8/16/18
Plan Reviewer _____
Plans Released _____
Construction Official _____

To Whom It May Concern:

This letter is to certify that we have performed structural analysis of the existing roof framing members where photovoltaic (PV) modules will be installed at the above referenced project location.

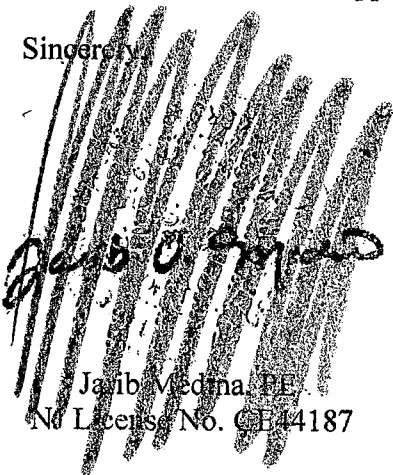
The calculations were performed in accordance with the 2015 International Residential Code of New Jersey Edition and the ASCE 7-10 Standard. Our analysis was based on the following design criteria:

Ground Snow Load = 20 psf
Ultimate Design Wind Speed = 130 mph (Risk Category II)

Based on our structural analysis, ~~we certify that the existing structural members are adequate to support the live, snow, and wind design loads required by the code in addition to the existing dead load and the self-weight of the PV modules and mount rail system as shown on Sunrun Solar drawings Revision A-2, dated 6/21/2018.~~ We also certify that the 5/16" diameter stainless steel hex lag screws 3.5" long, with a 2.5" minimum embedment into center of rafters, are adequate to support the maximum wind uplift design load acting on the modules.

Should you have any questions or if you need any other information, please do not hesitate to contact us at your convenience. We appreciate this opportunity to be of service.

Sincerely,



J. Medina, P.E.
NJ License No. CE44187

maximum standoff spacing 48"

Office: 732-302-0402 || www.jmestructural.com

2 Executive Drive, Suite 100A, Somerset, NJ 08873



J. MEDINA
ENGINEERING LLC

2 Executive Drive, Suite 100A
Somerset, NJ 08873
Phone: (732) 302-0402
Fax: (732) 965-2660

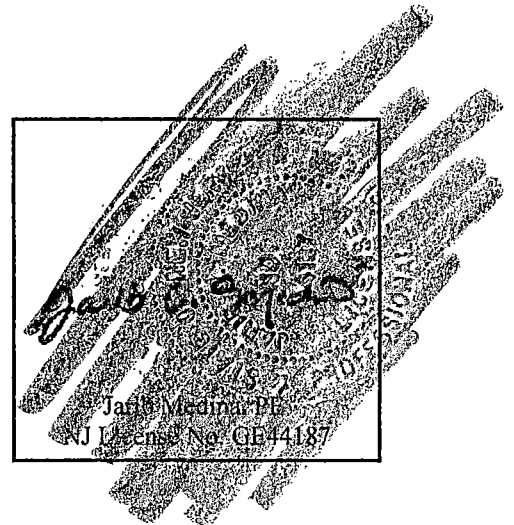
STRUCTURAL CALCULATIONS
PREPARED FOR:

SUNRUN INC.
26 WORLDS FAIR DRIVE, UNIK K
SOMERSET, NJ 08873

NAME OF PROJECT:
Wratchford, Christopher Solar System

LOCATION OF PROJECT:
1652 Forge Pond Road
Brick, NJ 08724

PROJECT NO:
18132



July 19, 2018

 J. MEDINA ENGINEERING LLC	Project Name:	Wratchford, Christopher Solar System	Designer:	HSP
	Project No:	18132	Date:	07/19/18

DESIGN CRITERIA (Per IRC 2015 NJ Edition and ASCE 7-10)

SNOW LOAD (At Roof with PV Modules)

Ground Snow Load, P_g	=	20.0 psf	
C_e	=	0.9	
C_t	=	1.2	
I	=	1.0	
Flat Roof Snow Load, $P_f = 0.7C_e C_t I P_g$	=	15.1 psf	
Roof Slope	=	15.0 °	
Unobstructed Slippery Surface?	=	Y Y/N	
C_s	=	1.00	
Slope Roof Snow Load, $P_s = C_s P_f$	=	15.1 psf	Use 16.0 psf

SNOW LOAD (At Roof without PV Modules)

Ground Snow Load, P_g	=	20.0 psf	
C_e	=	0.9	
C_t	=	1.1	
I	=	1.0	
Flat Roof Snow Load, $P_f = 0.7C_e C_t I P_g$	=	13.9 psf	
Roof Slope	=	15.0 °	
Unobstructed Slippery Surface?	=	N Y/N	
C_s	=	1.00	
Slope Roof Snow Load, $P_s = C_s P_f$	=	13.9 psf	Use 16.0 psf

UNBALANCED SNOW LOAD

$$P_U = I P_g = 20.0 \text{ psf}$$

 J. MEDINA ENGINEERING LLC	Project Name:	Wratchford, Christopher Solar System	Designer:	HSP
	Project No:	18132	Date:	07/19/18

DESIGN CRITERIA

DEAD LOAD (PV Modules)

Solar Panels	2.6 psf
Racking System	0.4 psf
Total	3.0 psf

ROOF DEAD LOAD (Superimposed)

Asphalt Shingles w/ Felt	3.0 psf
Plywood Sheathing	1.5 psf
Misc. (Electrical, Mech, etc.)	2.0 psf
Total	6.5 psf

LIVE LOAD

Roof without PV Modules	16.0 psf
Roof with PV Modules	0.0 psf
Attic without Storage	10.0 psf
Attic with Storage	20.0 psf

ALLOWABLE DEFLECTIONS

$$\Delta_{DL} = L/240$$

$$\Delta_{LL} = L/240$$

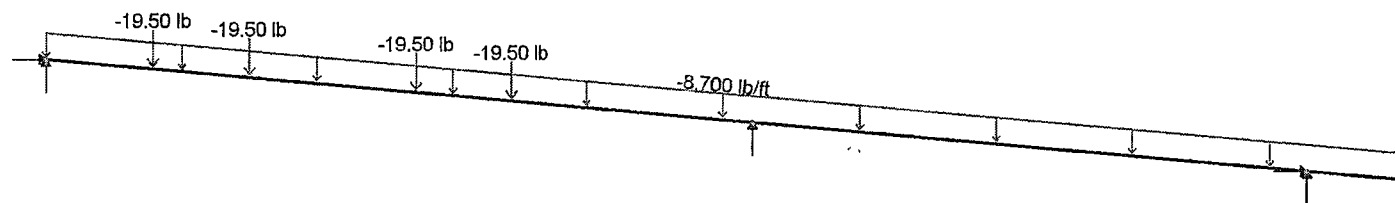
	2 Executive Drive, Suite 100A Somerset, NJ 08873	TITLE: Design Criteria: Wind Loads (Per ASCE 7-10)	SHEET:
	JOB : 18132 Wrtachford, Christopher Solar System ADDRESS: 1652 Forge Pond Road, Brick, NJ 08724	PREPARED BY: JOM CHECKED BY:	DATE: 07/19/18 DATE:

Basic Wind Speed:	130 mph	Risk Category:	II v
Mean Roof Height:	26.00 ft	Roof Angle:	15.00 °
Exposure Category:	B v	Ridge Height:	30.00 ft
Importance Factor, I_w :	1.00	Eave Height:	22.00 ft
Adjustment Coefficient:	1.00	Width of Edge Strip (a):	4.00 ft
Topographic Factor, K_{zt} :	1.00		

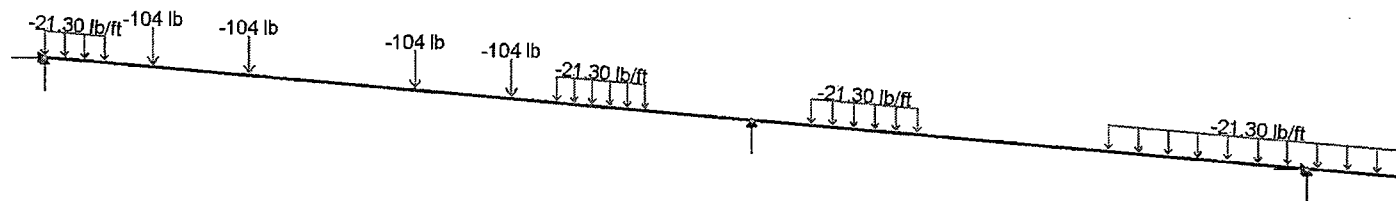
COMPONENT AND CLADDING LOADS (psf)						
LOCATION	ROOF (Rafters or Trusses)			ROOF (PV Rail Connectors)		
Effective Wind Area (ft ²)	57.00			14.40		
Zone per Figure 30.5-1	Zone 1	Zone 2	Zone 3	Zone 1	Zone 2	Zone 3
Maximum Positive	13.9	13.9	13.9	17.5	17.5	17.5
Maximum Negative	-26.0	-39.4	-60.8	-27.8	-48.4	-71.6

a. See Figure 6-2 for location of zones.

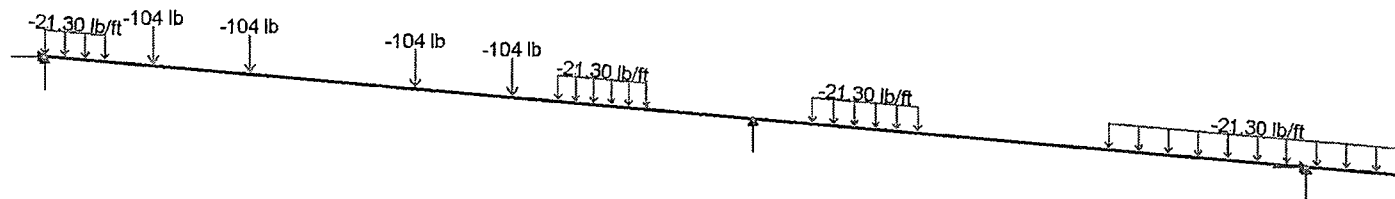
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J. MEDINA ENGINEERING LLC, Jarib Medina, PE
18132 Wratford, Christopher Solar AR-01
Jun 03, 2018; 09:36 PM
Load Case: D
IES VisualAnalysis 12.00.0020



J Medina Engineering LLC, Jarib Medina PE
J. MEDINA ENGINEERING LLC, Jarib Medina, PE
18132 Wratford, Christopher Solar AR-01
Jun 03, 2018; 09:37 PM
Load Case: S
IES VisualAnalysis 12.00.0020



J Medina Engineering LLC, Jarib Medina PE
J. MEDINA ENGINEERING LLC, Jarib Medina, PE
18132 Wratford, Christopher Solar AR-01
Jun 03, 2018; 09:37 PM
Load Case: S
IES VisualAnalysis 12.00.0020



Project: J Medina Engineering LLC, Jarib Medina PE

Jarib Medina, PE, J. MEDINA ENGINEERING LLC

June 03, 2018

18132 Wratchford, Christopher Solar AR-01

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Nodes

Node	X ft	Y ft	Fix DX	Fix DY	Fix RZ	Scissor?
001	22.912	-2.005	No	No	No	No
002	21.246	-1.859	Yes	Yes	No	No
003	11.954	-1.046	No	Yes	No	No
004	0.000	0.000	Yes	Yes	No	No

Member Elements

Member	Section	Beta deg	Material	(1)Node	(2)Node	Length ft	Rz 1	Rz 2	One Way	Framing
M001	SS2x10	0.00	Douglas Fir-Larch NDS Lumber (Visual) No.2	004	001	23.000	Free	Free	Normal (2-way)	Beam

Member Point Loads

Load Case	Member	Direction	Offset ft	Force lb	Moment lb-ft
D	M001	Force Y	1.820	-19.500	-NA-
D	M001	Force Y	3.450	-19.500	-NA-
D	M001	Force Y	6.270	-19.500	-NA-
D	M001	Force Y	7.900	-19.500	-NA-
S	M001	Force Y	1.820	-104.000	-NA-
S	M001	Force Y	3.450	-104.000	-NA-
S	M001	Force Y	6.270	-104.000	-NA-
S	M001	Force Y	7.900	-104.000	-NA-
Su	M001	Force Y	1.820	-130.000	-NA-
Su	M001	Force Y	3.450	-130.000	-NA-
Su	M001	Force Y	6.270	-130.000	-NA-
Su	M001	Force Y	7.900	-130.000	-NA-

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Offset ft	Force lb/ft	Moment ft-lb/ft
D	M001	Force Y	0.000	23.000	-8.700	-NA-
S	M001	Force Y	0.000	1.000	-21.300	-NA-
S	M001	Force Y	8.700	10.200	-21.300	-NA-
S	M001	Force Y	13.000	14.770	-21.300	-NA-
S	M001	Force Y	18.000	23.000	-21.300	-NA-
Su	M001	Force Y	0.000	1.000	-26.700	-NA-
Su	M001	Force Y	8.700	10.200	-26.700	-NA-
Su	M001	Force Y	13.000	14.770	-26.700	-NA-
Su	M001	Force Y	18.000	23.000	-26.700	-NA-

Member Unity Checks

Member	Unit	Controlling Case	Check	Model Shape	Design Shape	Material	Reference	Specification
M001	0.77	D+Su	Combined Check	SS2x10	SS2x10	Douglas Fir-Larch NDS Lumber (Visual) No.2	3.9-3	NDS 2012 ASD

JOB CODE: _____

1

- MINIMUM (3) PHOTOS PER SPAN
1. OVERALL (SEVERAL IF NEEDED)
2. OVERALL OF SPAN TO BE MEASURED
3. PHOTOS w/ TAPE ON RAFTER FOR SIZE
4. PHOTOS w/ TAPE ON RAFTER FOR SPACING

RIDGE TO GRADE: ___' - ___"

EAVE TO GRADE: ___' - ___"

ROOF LABEL: W

PITCH: 15°

FRAMING: 2 x 6 @ 16" OC

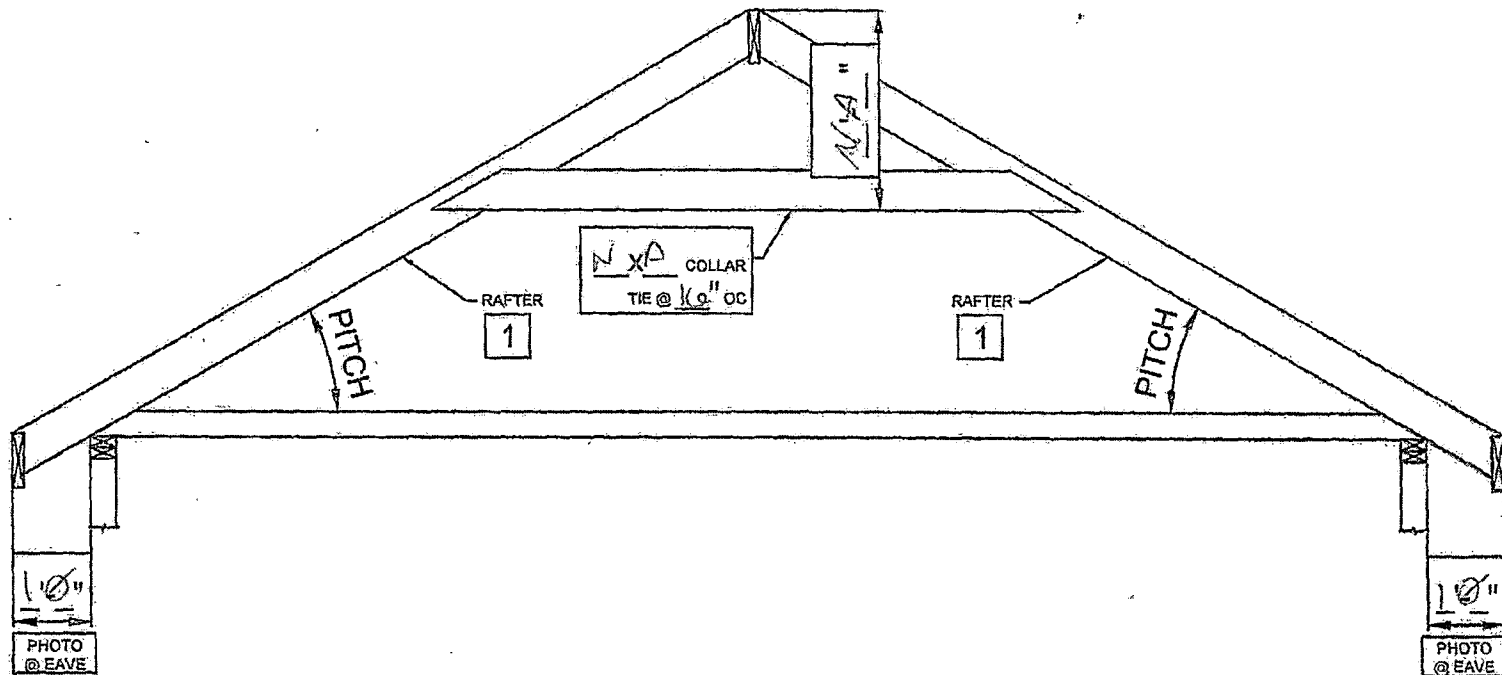
MAX SPAN: ___' - ___"

ROOF LABEL: E1

PITCH: 15°

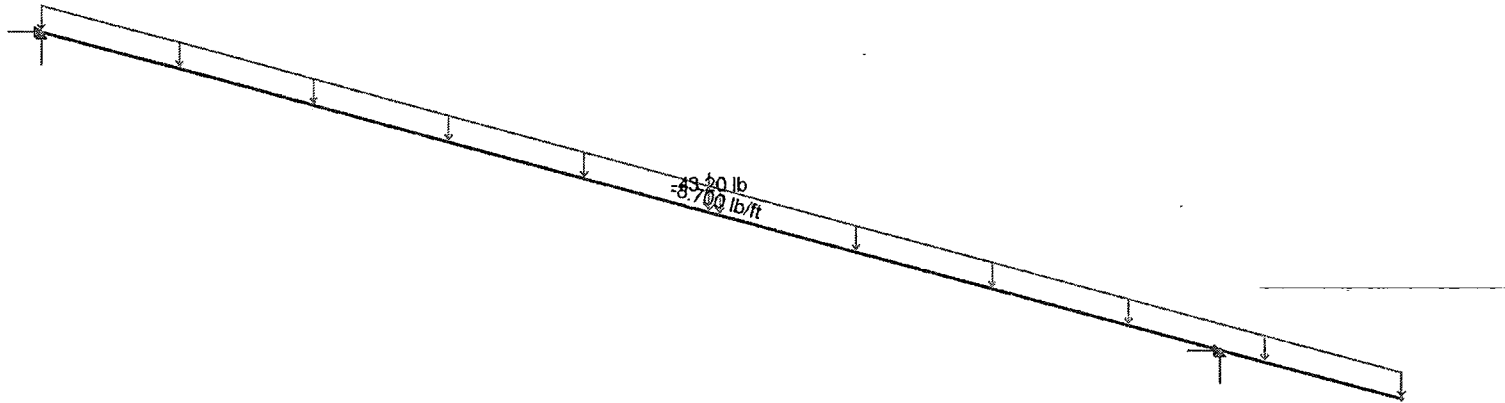
FRAMING: 2 x 6 @ 16" OC

MAX SPAN: ___' - ___"

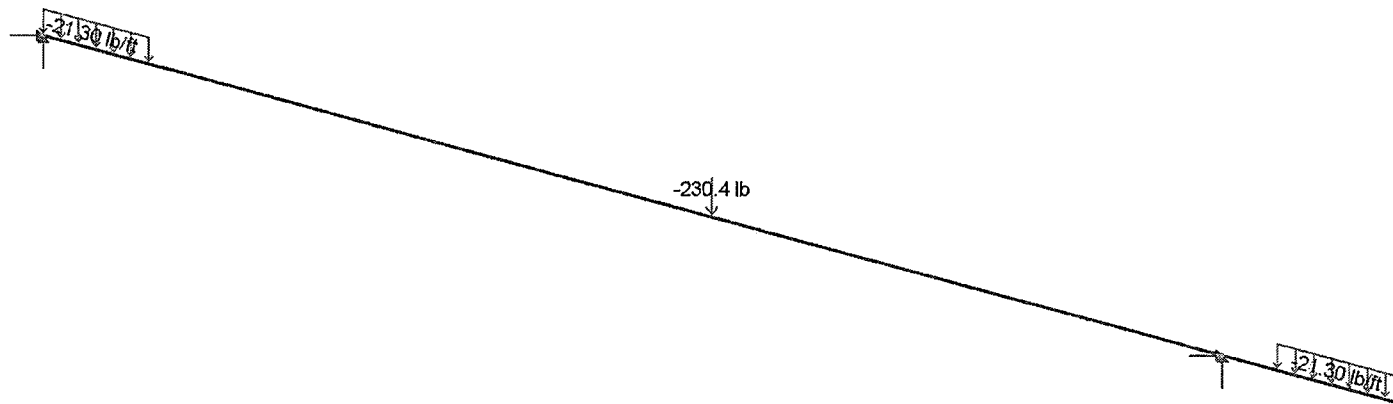


3 RAFTER COLLAR TIE
SCALE: NTS

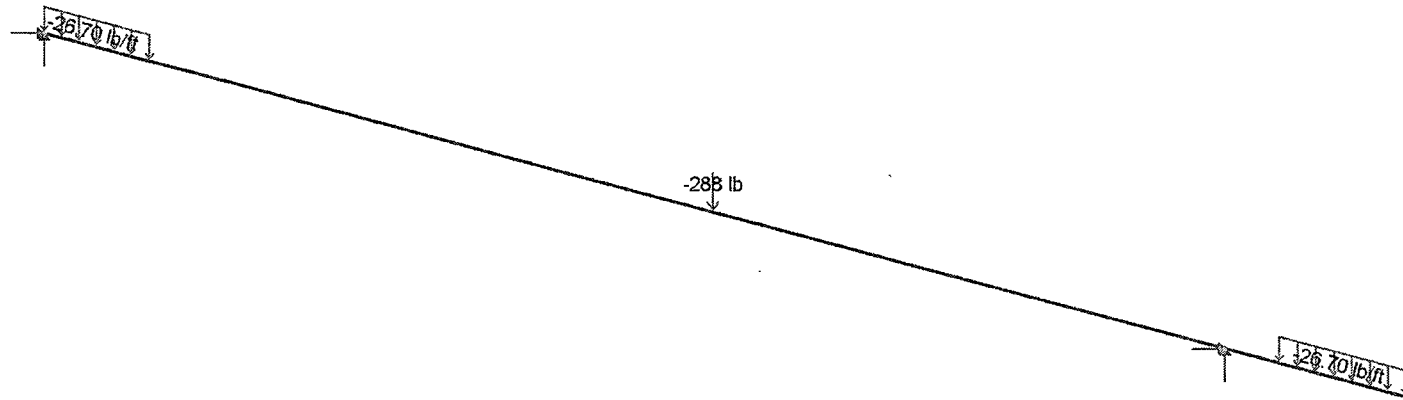
J Medina Engineering LLC, Jarib Medina PE
J. MEDINA ENGINEERING LLC, Jarib Medina, PE
18132 Wratford, Christopher Solar AR-02
Jun 03, 2018; 09:45 PM
Load Case: D
IES VisualAnalysis 12.00.0020



J Medina Engineering LLC, Jarib Medina PE
J. MEDINA ENGINEERING LLC, Jarib Medina, PE
18132 Wratford, Christopher Solar AR-02
Jun 03, 2018; 09:46 PM
Load Case: S
IES VisualAnalysis 12.00.0020



J Medina Engineering LLC, Jarib Medina PE
J. MEDINA ENGINEERING LLC, Jarib Medina, PE
18132 Wratford, Christopher Solar AR-02
Jun 03, 2018; 09:46 PM
Load Case: Su
IES VisualAnalysis 12.00.0020



Project: J Medina Engineering LLC, Jarib Medina PE

Jarib Medina, PE, J. MEDINA ENGINEERING LLC

June 03, 2018

18132 Wratchford, Christopher Solar AR-02

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Nodes

Node	X ft	Y ft	Fix DX	Fix DY	Fix RZ	Scissor?
001	12.557	-3.365	No	No	No	No
002	10.890	-2.918	Yes	Yes	No	No
003	0.000	0.000	Yes	Yes	No	No

Member Elements

Member	Section	Beta deg	Material	(1)Node e	(2)Node e	Length ft	Rz 1	Rz 2	One Way	Frame
M001	SS2x6	0.00	Douglas Fir-Larch NDS Lumber (Visual) No.1	003	001	13.000	Free	Free	Normal (2-way)	Beam

Member Point Loads

Load Case	Member	Direction	Offset ft	Force lb	Moment lb-ft
D	M001	Force Y	6.400	-43.200	-NA-
S	M001	Force Y	6.400	-230.400	-NA-
Su	M001	Force Y	6.400	-288.000	-NA-

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Offset ft	Force lb/ft	Moment ft-lb/ft
D	M001	Force Y	0.000	13.000	-8.700	-NA-
S	M001	Force Y	0.000	1.000	-21.300	-NA-
S	M001	Force Y	11.800	13.000	-21.300	-NA-
Su	M001	Force Y	0.000	1.000	-26.700	-NA-
Su	M001	Force Y	11.800	13.000	-26.700	-NA-

Member Unity Checks

Member	Unit y	Controlling Case	Check	Model Shape	Design Shape	Material	Reference	Specification
M001	0.95	D+Su	Combined Check	SS2x6	SS2x6	Douglas Fir-Larch NDS Lumber (Visual) No.1	3.9-3	NDS 2012 ASD

MOUNT RAIL CONNECTORS



SolarMount™

Lag Bolts Specifications

Because lag bolt requirements vary with design wind load and the lumber used for the roof trusses, lag bolts are no longer provided with SolarMount rail sets.

The table below (reproduced from UniRac's Technical Bulletin 103: *Code Compliant SolarMount Installation*) lists pull-out values for various roof truss lumber and the lag screws. To

ensure code compliance, the lag pull-out value must exceed the installation's design live load per footing multiplied by an appropriate safety factor.

For more information on design live loads, download Technical Bulletin 103 at www.unirac.com.

Lag Pull-Out Values (lbs) in Typical Roof Truss Lumber

	Specific Gravity	Lag Screw Specifications		
		5/16" Shaft, 2-1/2" Thread Depth	5/16" Shaft, per 1" Thread Depth	3/8" Shaft, per 1" Thread Depth
Douglas Fir — Larch	0.50	665	266	304
Douglas Fir — South	0.46	588	235	269
Engelmann Spruce, Lodgepole Pine (MSR 1650 f & higher)	0.46	588	235	269
Hem — Fir	0.43	530	212	243
Hem — Fir (North)	0.46	588	235	269
Southern Pine	0.55	768	307	352
Spruce, Pine, Fir	0.42	513	205	235
Spruce, Pine, Fir (E of 2 million psi and higher grades of MSR and MEL)	0.50	665	266	304

Sources: *Uniform Building Code; American Wood Council.*

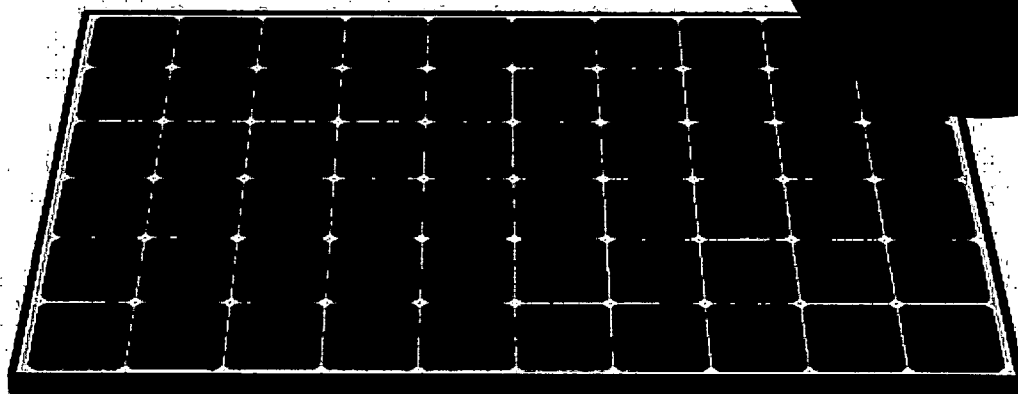
$$P_{max} = 14.4 \text{ ft}^2 \times 71.6 \text{ psf} \times 0.6 = 618 \text{ lbs.} < P_{allow} = 665 \text{ lbs.} \dots \dots \dots \text{OK}$$

Pub 030102-1ii
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The New Standard in PV Module Racks™

UNIRAC, INC., 3201 UNIVERSITY BLVD SE, SUITE 110, ALBUQUERQUE, NM 87106-5635 USA
505.242.6411 FAX 505.242.6412 WWW.UNIRAC.COM

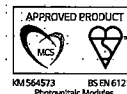


LG NeON™ 2

LG330N1C-A5

60 cell

LG's new module, LG NeON™ 2, adopts Cello technology. Cello technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. LG NeON™ 2 demonstrates LG's efforts to increase customer's values beyond efficiency. It features enhanced warranty, durability, performance under real environment, and aesthetic design suitable for roofs.



Enhanced Performance Warranty

LG NeON™ 2 has an enhanced performance warranty. The annual degradation has fallen from -0.6%/yr to -0.55%/yr. Even after 25 years, the cell guarantees 1.2% more output than the previous LG NeON™ 2 modules.



Aesthetic Roof

LG NeON™ 2 has been designed with aesthetics in mind; thinner wires that appear all black at a distance. The product may help increase the value of a property with its modern design.



Better Performance on a Sunny Day

LG NeON™ 2 now performs better on sunny days thanks to its improved temperature coefficient.



High Power Output

Compared with previous models, the LG NeON™ 2 has been designed to significantly enhance its output efficiency, thereby making it efficient even in limited space.



Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the LG NeON™ 2 for an additional 2 years. Additionally, LG NeON™ 2 can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.



Double-Sided Cell Structure

The rear of the cell used in LG NeON™ 2 will contribute to generation, just like the front; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power.

About LG Electronics

LG Electronics is a global player who has been committed to expanding its capacity, based on solar energy business as its future growth engine. We embarked on a solar energy source research program in 1985, supported by LG Group's rich experience in semi-conductor, LCD, chemistry, and materials industry. We successfully released the first Mono X® series to the market in 2010, which were exported to 32 countries in the following 2 years, thereafter. In 2013, LG NeON™ (previously known as Mono X® NeON) won "Intersolar Award", which proved LG is the leader of innovation in the industry.

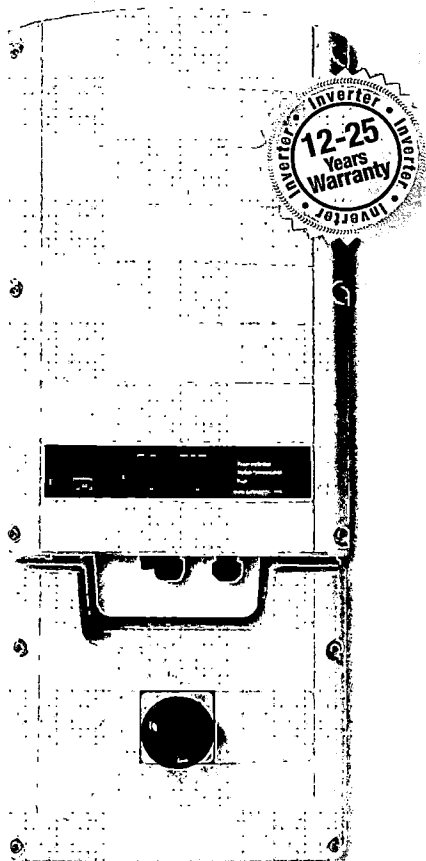


INVERTERS

SolarEdge Single Phase Inverters

For North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US /
SE7600A-US / SE10000A-US / SE11400A-US



The best choice for SolarEdge enabled systems

- Integrated arc fault protection (Type 1) for NEC 2011 690.11 compliance
- Superior efficiency (98%)
- Small, lightweight and easy to install on provided bracket
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Outdoor and indoor installation
- Fixed voltage inverter, DC/AC conversion only
- Pre-assembled Safety Switch for faster installation
- Optional – revenue grade data, ANSI C12.1

USA - GERMANY - ITALY - FRANCE - JAPAN - CHINA - AUSTRALIA - THE NETHERLANDS - ISRAEL

www.solaredge.us



Single Phase Inverters for North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US /

SE7600A-US / SE10000A-US / SE11400A-US

	SE3000A-US	SE3800A-US	SE5000A-US	SE6000A-US	SE7600A-US	SE10000A-US	SE11400A-US		
OUTPUT									
Nominal AC Power Output	3000	3800	5000	6000	7600	9980 @ 208V 10000 @ 240V	11400	VA	
Max. AC Power Output	3300	4150	5400 @ 208V 5450 @ 240V	6000	8350	10800 @ 208V 10950 @ 240V	12000	VA	
AC Output Voltage Min.-Nom.-Max. ⁽¹⁾ 183 - 208 - 229 Vac	-	-	✓	-	-	✓	-		
AC Output Voltage Min.-Nom.-Max. ⁽¹⁾ 211 - 240 - 264 Vac	✓	✓	✓	✓	✓	✓	✓		
AC Frequency Min.-Nom.-Max. ⁽¹⁾	59.3 - 60 - 60.5 (with HI country setting 57 - 60 - 60.5)							Hz	
Max. Continuous Output Current	12.5	16	24 @ 208V 21 @ 240V	25	32	48 @ 208V 42 @ 240V	47.5	A	
GFDI Threshold	1							A	
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							Yes	
INPUT									
Maximum DC Power (STC)	4050	5100	6750	8100	10250	13500	15350	W	
Transformer-less, Ungrounded	Yes								
Max. Input Voltage	500							Vdc	
Nom. DC Input Voltage	325 @ 208V / 350 @ 240V							Vdc	
Max. Input Current ⁽²⁾	9.5	13	16.5 @ 208V 15.5 @ 240V	18	23	33 @ 208V 30.5 @ 240V	34.5	Adc	
Max. Input Short Circuit Current	45							Adc	
Reverse-Polarity Protection	Yes								
Ground-Fault Isolation Detection	600k Ω Sensitivity								
Maximum Inverter Efficiency	97.7	98.2	98.3	98.3	98	98	98	%	
CEC Weighted Efficiency	97.5	98	97.5 @ 208V 98 @ 240V	97.5	97.5	97 @ 208V 97.5 @ 240V	97.5	%	
Nighttime Power Consumption	< 2.5					< 4		W	
ADDITIONAL FEATURES									
Supported Communication Interfaces	RS485, RS232, Ethernet, ZigBee (optional)								
Revenue Grade Data, ANSI C12.1	Optional ⁽³⁾								
Rapid Shutdown – NEC 2014 690.12	Functionality enabled when SolarEdge rapid shutdown kit is installed ⁽⁴⁾								
STANDARD COMPLIANCE									
Safety	UL1741, UL1699B, UL1998 , CSA 22.2								
Grid Connection Standards	IEEE1547								
Emissions	FCC part15 class B								
INSTALLATION SPECIFICATIONS									
AC output conduit size / AWG range	3/4" minimum / 16-6 AWG					3/4" minimum / 8-3 AWG			
DC input conduit size / # of strings / AWG range	3/4" minimum / 1-2 strings / 16-6 AWG					3/4" minimum / 1-2 strings / 14-6 AWG			
Dimensions with Safety Switch (HxWxD)	30.5 x 12.5 x 7.2 / 775 x 315 x 184					30.5 x 12.5 x 10.5 / 775 x 315 x 260		in / mm	
Weight with Safety Switch	51.2 / 23.2		54.7 / 24.7		88.4 / 40.1		lb / kg		
Cooling	Natural Convection				Natural convection and internal fan (user replaceable)	Fans (user replaceable)			
Noise	< 25				< 50				dBA
Min.-Max. Operating Temperature Range	-13 to +140 / -25 to +60 (-40 to +60 version available ⁽⁵⁾)							°F / °C	
Protection Rating	NEMA 3R								

⁽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.

⁽³⁾ Revenue grade inverter P/N: SExxxxA-US000NNR2 (for 7600W inverter:SE7600A-US002NNR2).

⁽⁴⁾ Rapid shutdown kit P/N: SE1000-RSD-S1.

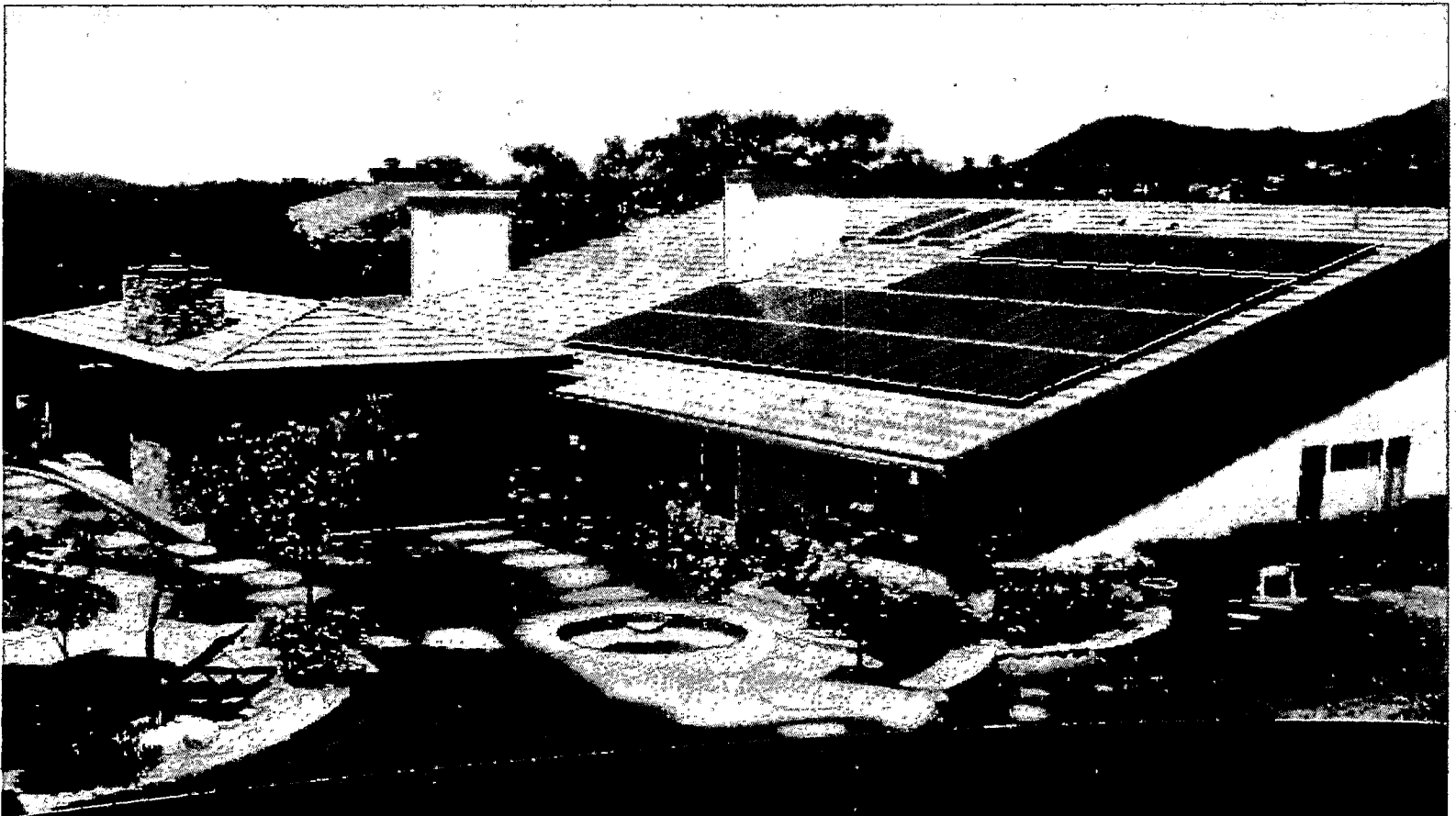
⁽⁵⁾ -40 version P/N: SExxxxA-US000NNU4 (for 7600W inverter:SE7600A-US002NNU4).



RoHS

SnapNrack™
Solar Mounting Solutions

UL LISTED
PV Mounting System
2703



SERIES 100 UL ROOF MOUNT SYSTEM

SnapNrack Residential PV Mounting Systems
Code Compliant Installation Manual

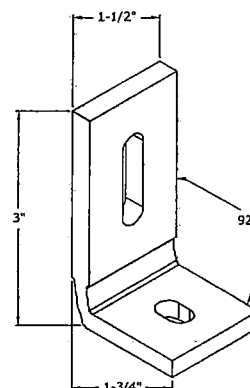
Required Tools:

Hammer Or Stud Finder
Roof Marking Crayon
Drill with 1/8 inch Pilot Drill Bit
Roof Sealant
Torque Driver with Bit Adapter
1/2 inch Socket Wrench

Materials Included in Series 100 L-Foot Kit:

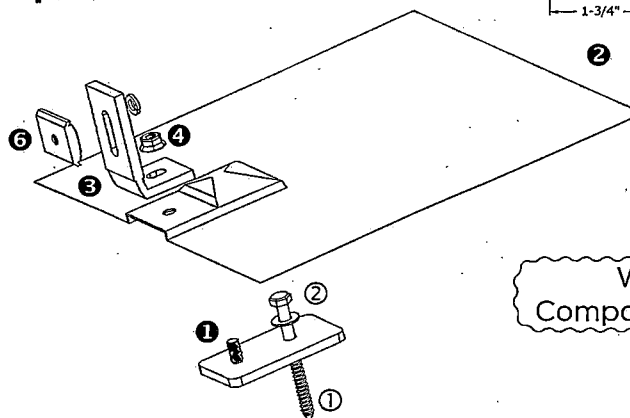
- ① (1) SnapNrack Flashed Base
- ② (1) SnapNrack Composition Flashing
- ③ (1) SnapNrack L Foot, Composition 92°
- ④ (1) 5/16in- 18 SS Flange Hex Nut
- ⑤ (1) 5/16in Flange Bolt
- ⑥ (1) SnapNrack Bonding Channel Nut, 5/16in - 18

Dimensioned L-Foot



Other Materials Required:

- ① (1) 5/16 in Lag Screw
- ② (1) 5/16 in Washer

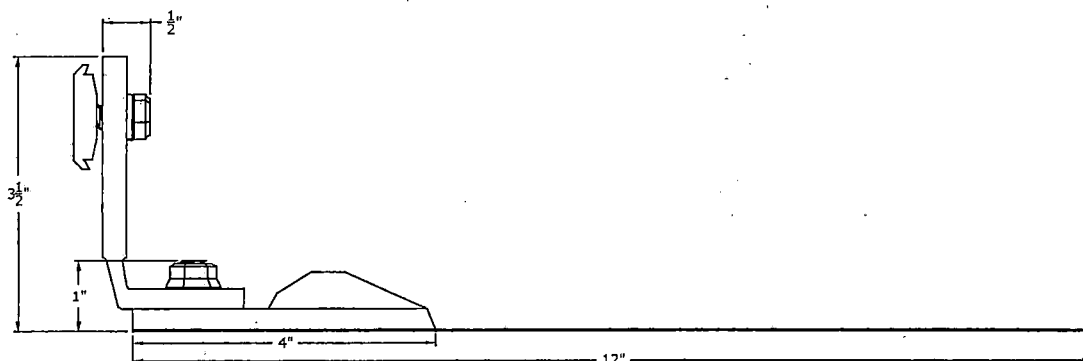


When To Use:
Composite Shingle Roofs

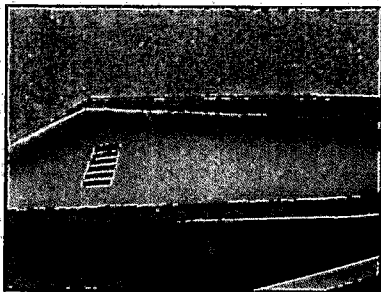
Technical L-Foot Data:

Material	6000 Series Heat Treated Aluminum
Finish	Class 2 Anodized Finish Clear and Black Finish Available
Weight	0.16 LBS
Design Uplift Load	200 LBS Uplift
Design Ultimate Load	1000 LBS Uplift

Dimensioned Assembly



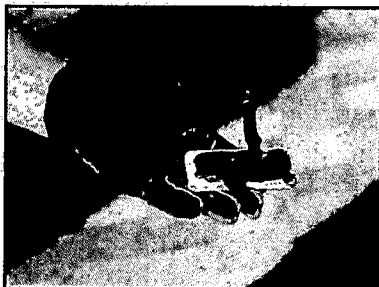
1) Locate the rafter



2) Drill the pilot hole



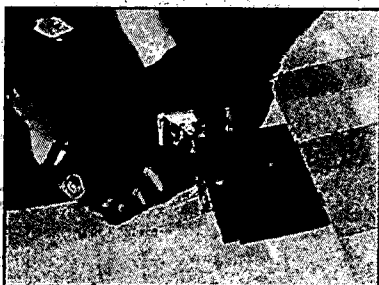
3) Prep the base



4) Attach base



5) Set the flashing



6) Attach L-Foot



Series 100 UL Flashed L-Foot

Step-by-Step Instructions

1) Locate the rafter underneath the decking of the roof by looking underneath the eaves or in the attic.

2) Drill a pilot hole through the roofing material into the rafter to ensure that the lag bolt will be located into a solid portion of the rafter. If the rafter is not found then seal the pilot hole immediately with roofing sealant.

3) Apply roofing sealant to the bottom of the base and directly onto the lag bolt to ensure a water tight seal.

4) Attach the L-foot base with a 5/16" lag bolt and a minimum embedment of 2 1/2" lag shank into the rafter. Tighten Lag bolt to seat with a hand wrench.

5) Slide the flashing underneath the row of shingles, directly above the installed standard base, and then line up the hole in the flashing with the threads on the base. It may be necessary to pry up shingles with a breaker bar.

6) Attach the L-foot to the threaded portion of the base that is protruding from the flashing. Then tighten the flange bolt over the threads to 10 - 16 ft-lbs. The L-foot can be attached in any orientation.

Notes

- Alternative 90° L Foot included in UL 2703 Listing
- SnapNrack engineered systems should only be used with SnapNrack components and hardware. Any alternate application may void the warranty and structural calculations could become invalid.

Warning

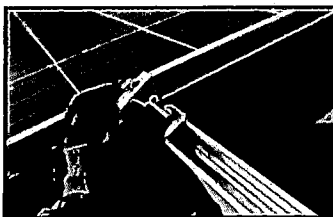
- If a pilot hole is drilled and a rafter is not found, immediately seal pilot hole with roofing sealant to avoid water damage.
- Do not over tighten hardware.
- Always wear fall protection and safety gear.

Design Tools

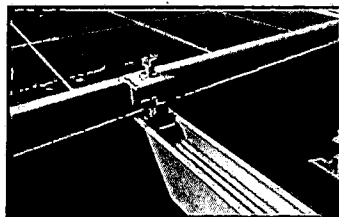
- SnapNrack has a suite of design tools to help configure your PV installation to be an accurate and fast install. Please visit us at: www.SnapNrack.com

SnapNrack Mid Clamp

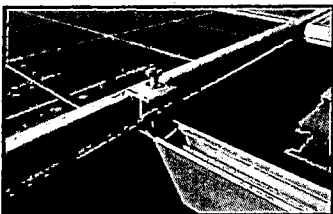
1) Snap into channel



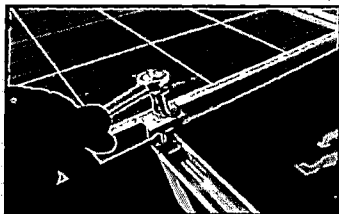
2) Set mid clamp



3) Set modules

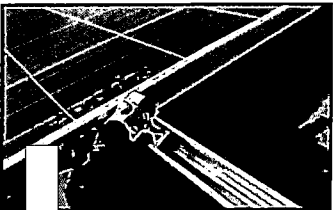


4) Tighten

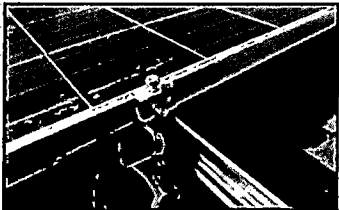


SnapNrack X Clamp

1) Snap into channel

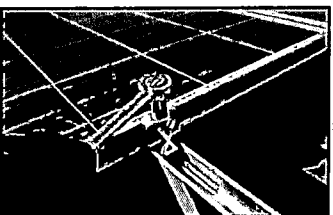


2) Set on module



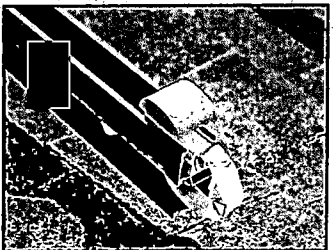
Torque:
Silver 10-16
ft-lbs. Black
8-10 ft-lbs.

3) Tighten



SnapNrack Universal End Clamp

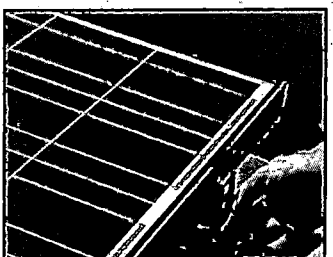
1) Set in rail



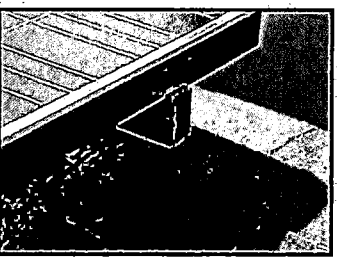
2) Place module



3) Pull tab forward



4) Set end cap



Series 100 UL Attaching Modules

Step-by-Step Instructions

SnapNrack Mid Clamp

- 1) Snap the preassembled SnapNrack mid clamp's channel nut into the top channel of the rail.
- 2) Slide the mid clamp flush to the module with the top lip of the mid clamp over the top edge of the module.
- 3) Place the next module flush to the other side of the mid clamp.
- 4) Tighten hardware, torque silver hardware to 10-16 ft-lbs and black hardware to 8-10 ft-lbs.

SnapNrack X Clamp

- 1) Snap the preassembled SnapNrack X clamp's channel nut into the top channel of the rail.
- 2) Slide the X clamp flush to the edge of the module with the lip of the top of the end clamp over the top of the module and lip of the bottom of the end clamp under the module.
- 3) Tighten hardware, torque silver hardware to 10-16 ft-lbs and black hardware to 8-10 ft-lbs.
- 4) Install rubber end cap to finish.

SnapNrack Universal End Clamp

- 1) Slide the preassembled universal end clamp into the end of the rail.
- 2) Lift the module and slide the universal end clamp under the module far enough to pass the lip of the bottom edge of the module.
- 3) Use the pull tab to pull the universal end clamp tight to the end of the rail.
- 4) Hold and tighten the universal end clamp to 10 - 16 ft-lbs. Then install rubber end cap to finish.

Notes

- REC Group Modules are listed with a minimum 4" clearance requirement under the modules.
- SnapNrack engineered systems should only be used with SnapNrack components and hardware. Any alternate application may void the warranty and structural calculations could become invalid.

Warning

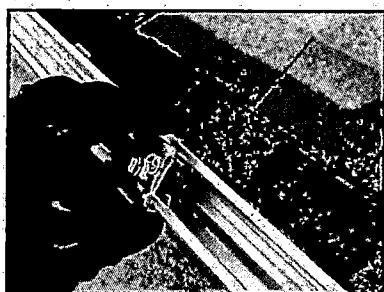
- Do not over tighten hardware
- Always wear fall protection and safety gear

Design Tools

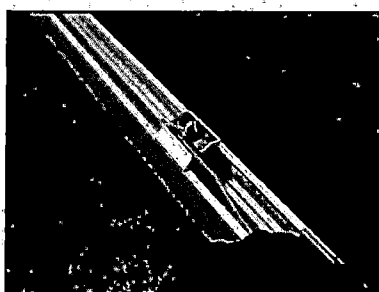
- SnapNrack has a suite of design tools to help configure your PV installation to be an accurate and fast install. Please visit us at: www.SnapNrack.com

SnapNrack Bonding Lug

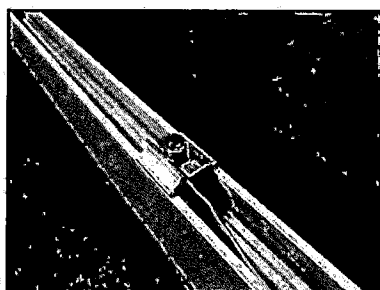
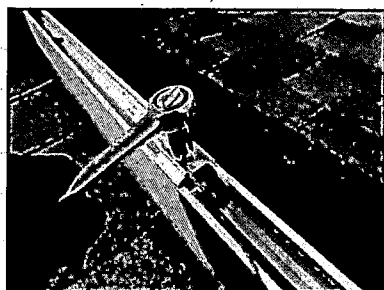
1) Snap in Bonding Lug



2) Attach grounding

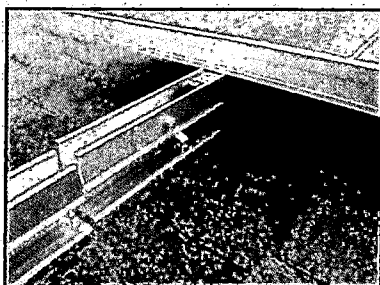


3) Tighten hardware

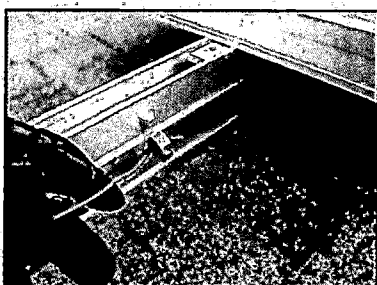


IlSCO Bonding Lug

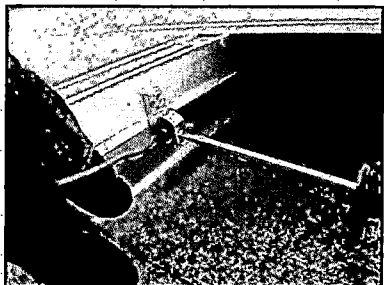
1) Drill & attach IlSCO Lug



2) Attach grounding



3) Tighten hardware



Series 100 UL System Ground

Step-by-Step Instructions

SnapNrack Bonding Lug

1) Snap in the SnapNrack Bonding Lug in to the rail channel on **one rail per module row**.

2) Attach grounding conductor into slot and tighten bolt to 7 ft-lbs.

3) Tighten all hardware to a min of 10 ft-lbs.

IlSCO Bonding Lug

1) Using a 3/8" drill bit, drill a hole in the back side of the rail for the IlSCO lug to attach to and place the bolt through the hole and attach the lug assembly on **one rail per module row**.

2) Attach grounding conductor into slot and tighten bolt to 7 ft-lbs.

3) Tighten all hardware to a min of 10 ft-lbs.

Notes

- System has been evaluated to a maximum overcurrent device (OCD) protection level of 20 Amps.

- Universal End Clamp (UEC) does not bond module to rail, the UEC is bonded to the module frame. Be sure to separately ground any modules that only secured by UECs, especially during servicing.

- SnapNrack Bonding Lug Assembly: torque bolt to 16 ft-lbs. The bonding lug may be used in side or top slot. It may be rotated 90 degrees relative to slot to facilitate running copper across tops of rails

- Grounding with a standard IlSCO GBL-4DBT Lug is a listed alternate and requires drilling of a hole in the rail.

- Hardware connection to rail: 5 ft-lbs. Torque for lug set screw: #10-#14 Copper- 20in-lb, #8-#14 Copper- 25in-lb, #4-#6 Copper- 35in-lb

- SnapNrack engineered systems should only be used with SnapNrack components and hardware. Any alternate application may void the warranty, UL 2703 Listing, and structural calculations could become invalid.

**SNAPNRACK RL SOLAR MOUNTING
SOLUTION INSTALLED ON COMPOSITION
SHINGLE ROOF**

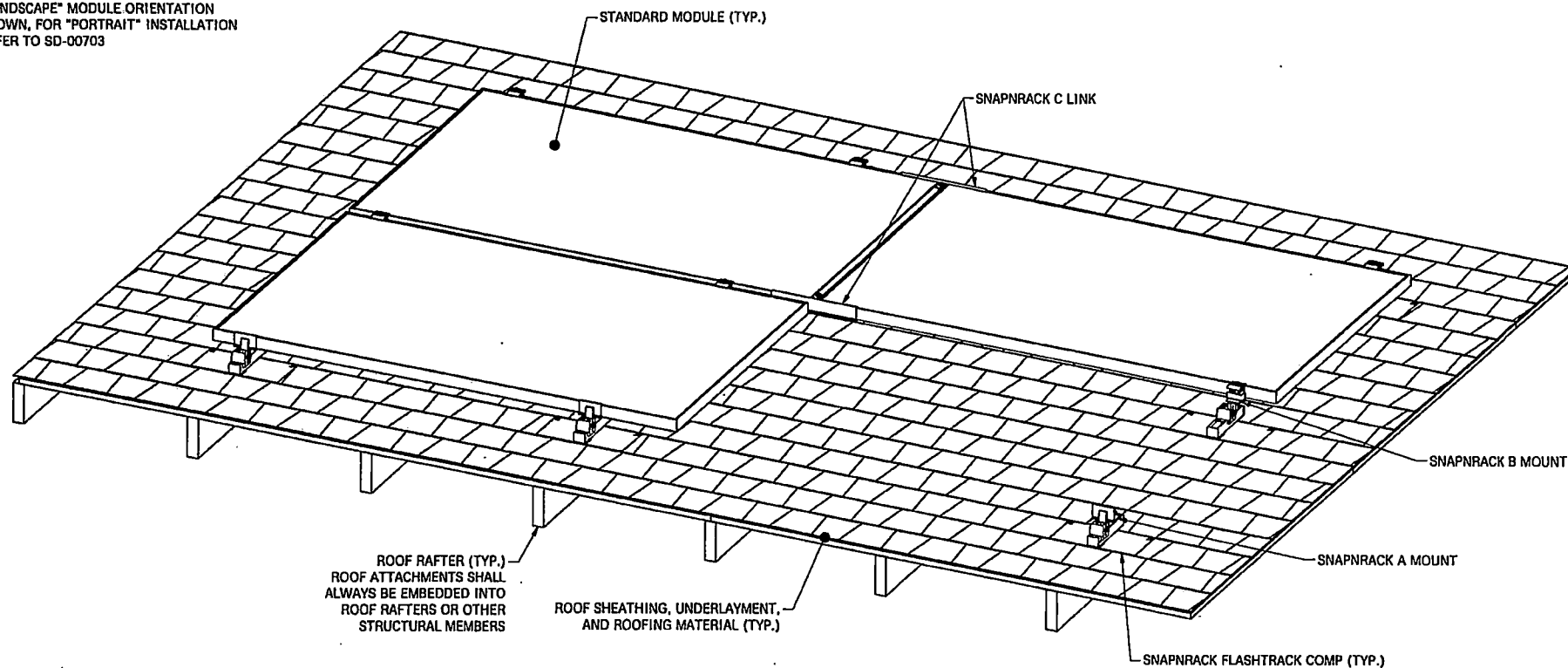
ROOF ATTACHMENT: SNAPNRACK
FLASHTRACK COMP

MODULE ATTACHMENT: SNAPNRACK A
MOUNTS AND B MOUNTS

SNAPNRACK C LINKS CONNECT MODULE
FRAMES TOGETHER TO ACT AS A
CONTINUOUS STRUCTURAL ELEMENT

"LANDSCAPE" MODULE ORIENTATION
SHOWN, FOR "PORTRAIT" INSTALLATION
REFER TO SD-00703

REVISION:		
A	6/19/2017	NEW ITEM



SnapNrack
Solar Mounting Solutions

Sunrun South LLC
505 MARKET STREET, 20TH FLOOR • SAN FRANCISCO, CA 94102 USA
PHONE (415) 580-6900 • FAX (415) 580-6902

THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY. ANY
REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE
WRITTEN CONSENT OF SUNRUN SOUTH LLC.

DESIGNER: G.McPheeters

DRAFTER: G.Viscuso

APPROVED BY: G.McPheeters

SCALE: NTS

DATE: 6/19/2017

PART NUMBER:
SD-00700

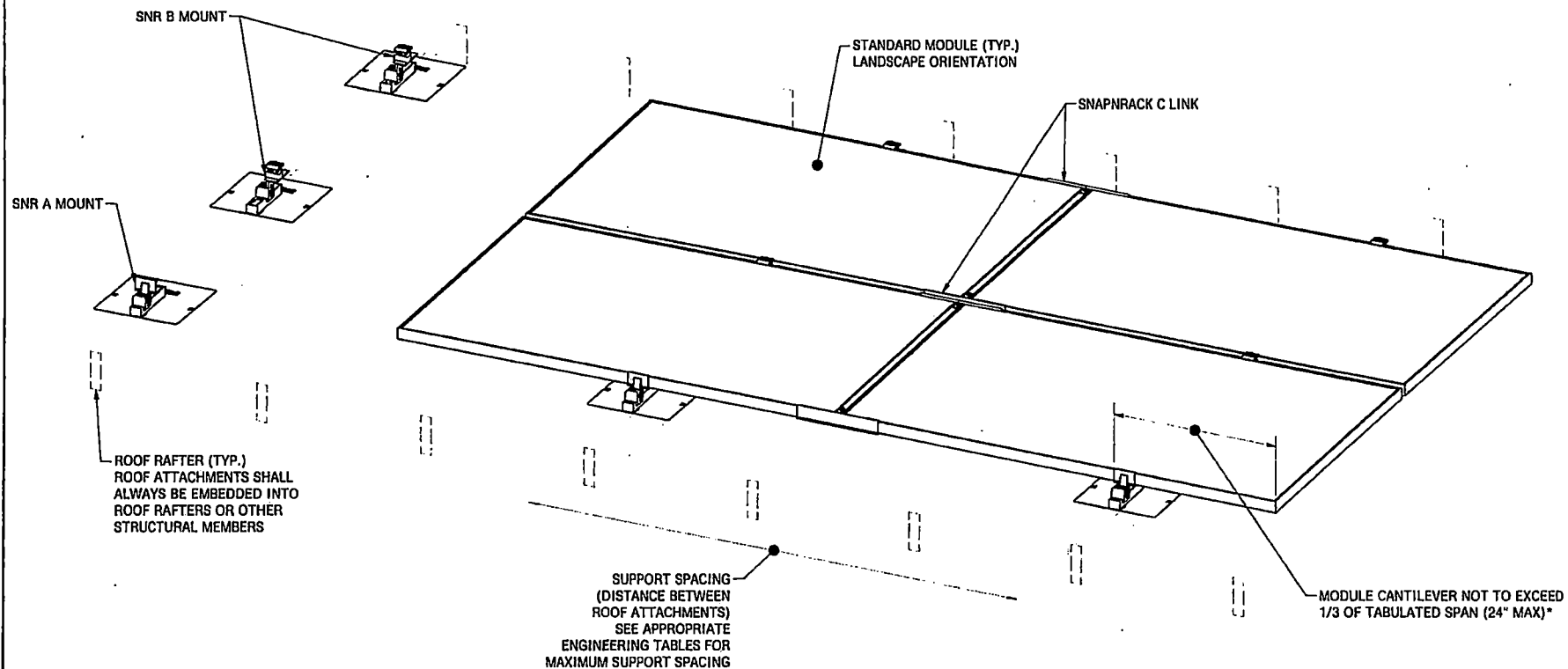
DESCRIPTION:
SYSTEM OVERVIEW, FLASHTRACK COMP

REV
A
19 of 25

SNAPRACK RL SOLAR MOUNTING SOLUTION INSTALLED IN LANDSCAPE

*MODULE CANTILEVER IS THE DISTANCE BETWEEN THE MODULE EDGE AND THE CENTERLINE OF THE FLASH TRACK

REVISION:		
Δ	8/19/2017	NEW ITEM

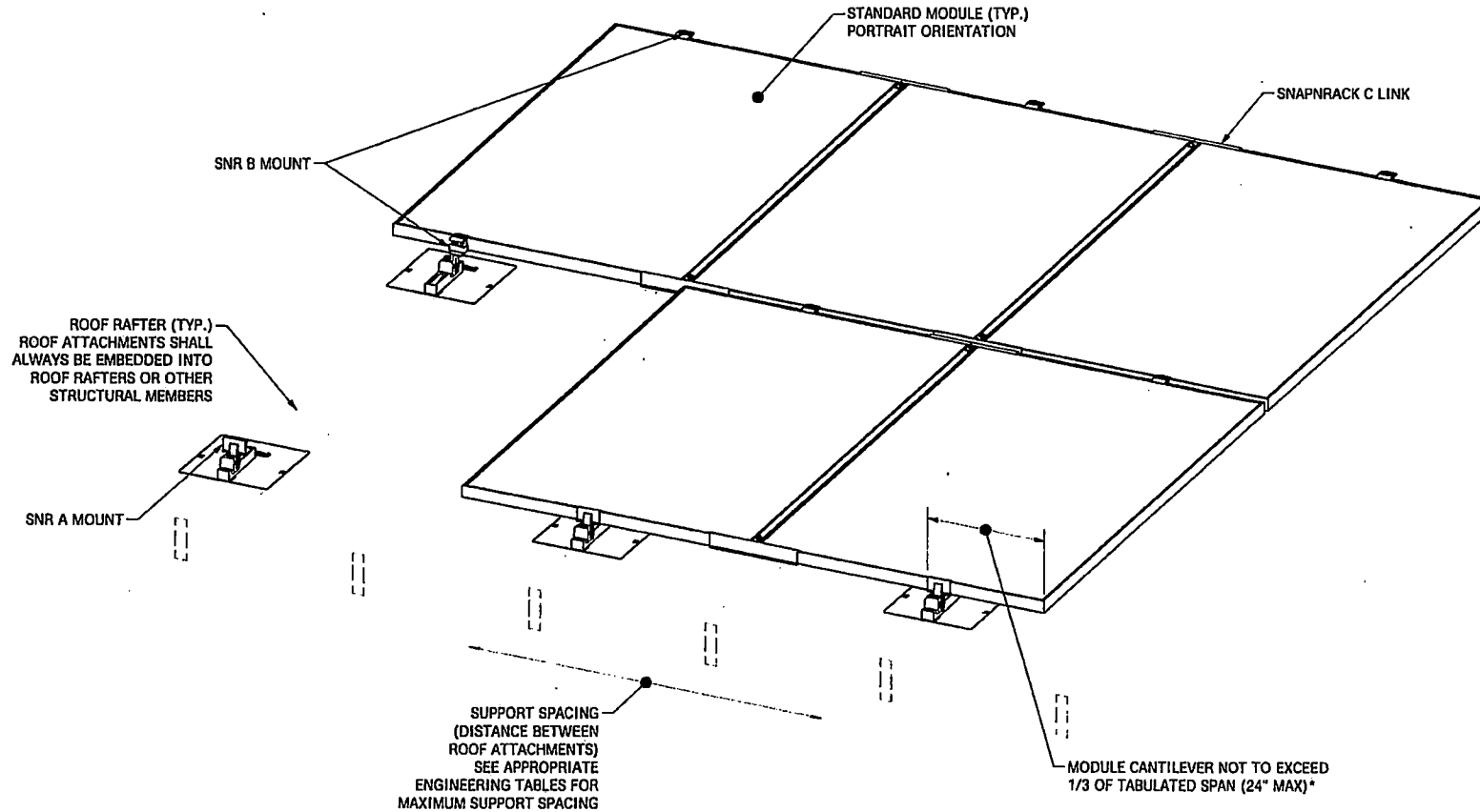


	Sunrun South LLC 365 MARKET STREET, 20TH FLOOR • SAN FRANCISCO, CA 94105 USA PHONE (415) 540-4000 • FAX (415) 540-4002 THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF SUNRUN SOUTH LLC.	DESIGNER: <u>G.McPheeters</u>	SCALE: NTS	PART NUMBER: SD-00702	DESCRIPTION: SYSTEM LAYOUT, LANDSCAPE	REV A
		DRAFTER: <u>G.Viscuso</u>	DATE: 6/19/2017			20 of 25
		APPROVED BY: <u>G.McPheeters</u>				

SNAPNRACK RL SOLAR MOUNTING SOLUTION INSTALLED IN PORTRAIT

*MODULE CANTILEVER IS THE DISTANCE BETWEEN THE MODULE EDGE AND THE CENTERLINE OF THE FLASH TRACK

REVISION:		
A	6/19/2017	NEW ITEM



SnapNrack
Solar Mounting Solutions

Sunrun South LLC
205 MARKET STREET, 20TH FLOOR • SAN FRANCISCO, CA 94105 USA
PHONE (415) 540-6500 • FAX (415) 540-6502
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DESIGNER: G.McPheeters
DRAFTER: G.Viscuso
APPROVED BY: G.McPheeters

SCALE: NTS
DATE: 6/19/2017

PART NUMBER:
SD-00703

DESCRIPTION:
SYSTEM LAYOUT, PORTRAIT

REV
21 of 25 **A**

SNAPNRACK RL SYSTEM DETAILS

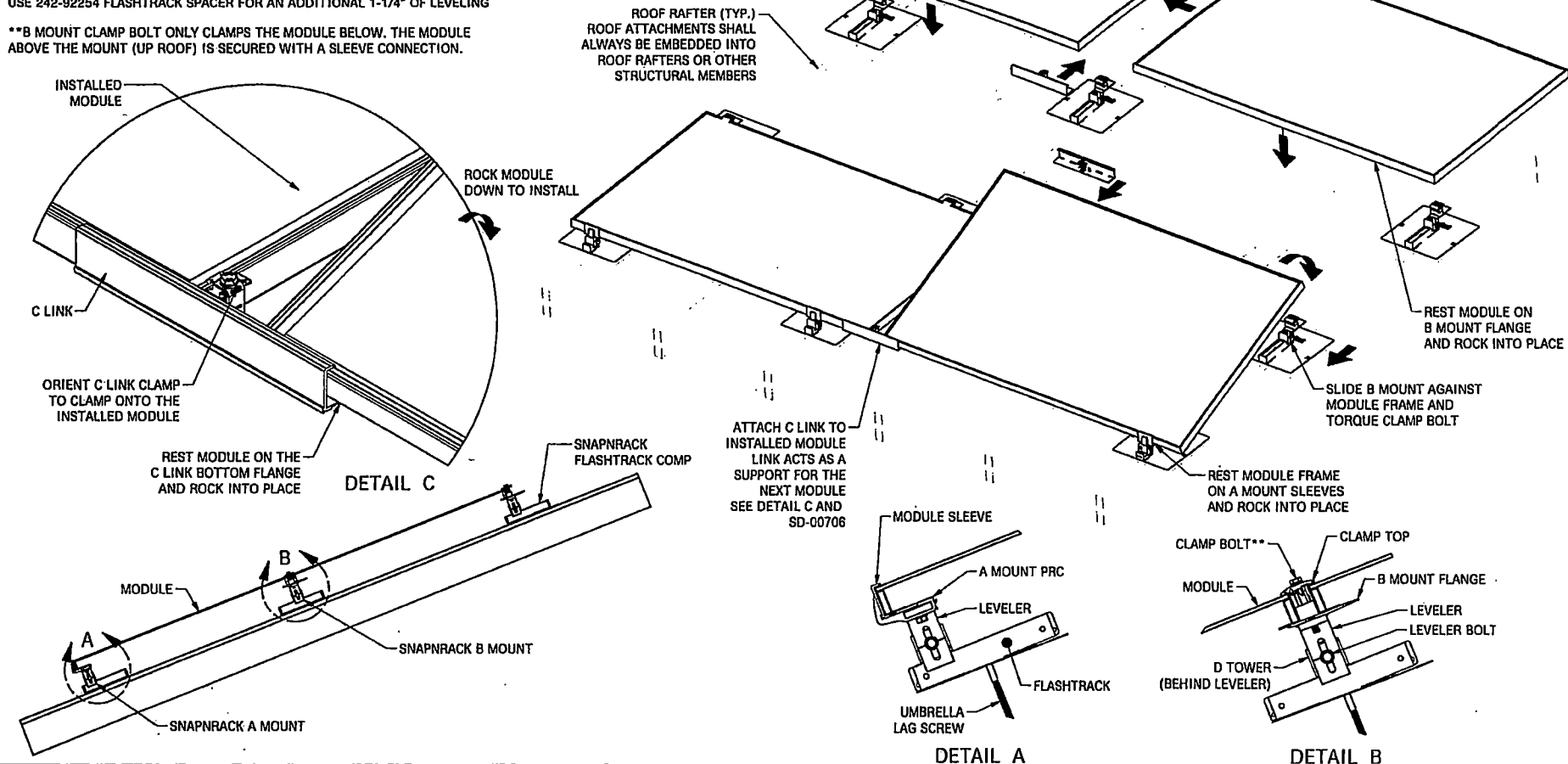
TORQUE ALL HARDWARE TO THE FOLLOWING VALUES:
 A AND B MOUNT HARDWARE*: 12-14 FT-LBS
 *FOR HANWHA, B MOUNT CLAMP BOLT: 16 FT-LBS
 C LINK BOLT: 9-10 FT-LBS

FOR UNEVEN ROOF SURFACES, EACH MOUNT HAS 1-1/2" OF LEVELING CAPABILITY IN 1/12" INCREMENTS

USE 242-92254 FLASHTRACK SPACER FOR AN ADDITIONAL 1-1/4" OF LEVELING

**B MOUNT CLAMP BOLT ONLY CLAMPS THE MODULE BELOW. THE MODULE ABOVE THE MOUNT (UP ROOF) IS SECURED WITH A SLEEVE CONNECTION.

REVISION:			
A	6/19/2017	NEW ITEM	GTV



	Sunrun South LLC 509 MARKET STREET, 28TH FLOOR • SAN FRANCISCO, CA 94105 USA PHONE (415) 540-6800 • FAX (415) 540-4302 THE INFORMATION ON THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF SUNRUN SOUTH LLC.	DESIGNER: G.McPheeters	SCALE: NTS	PART NUMBER: SD-00704	DESCRIPTION: SYSTEM DETAIL, HARDWARE	REV
		DRAFTER: G.Viscuso	DATE: 6/19/2017			A
		APPROVED BY: G.McPheeters				22 of 25

SNAPRACK RL C LINK

STRUCTURALLY CONNECTS TWO MODULES TOGETHER IN A ROW

C LINK SLEEVES THE MODULE FRAME

C LINKS MATCH MODULE FRAME HEIGHT

C LINK CLAMP FASTENS THE LINK TO THE MODULE FRAME(S)

THE CLAMP ALIGNS MODULES WITH A 3/4" GAP BETWEEN COLUMNS

BONDING TEETH ON THE CLAMP TOP RESIST MODULE MOVEMENT

DRAIN HOLES ALLOW WATER TO DRAIN FROM THE MODULE FRAME

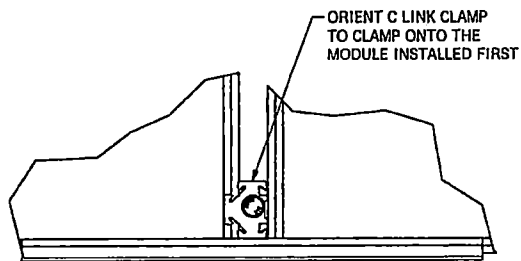
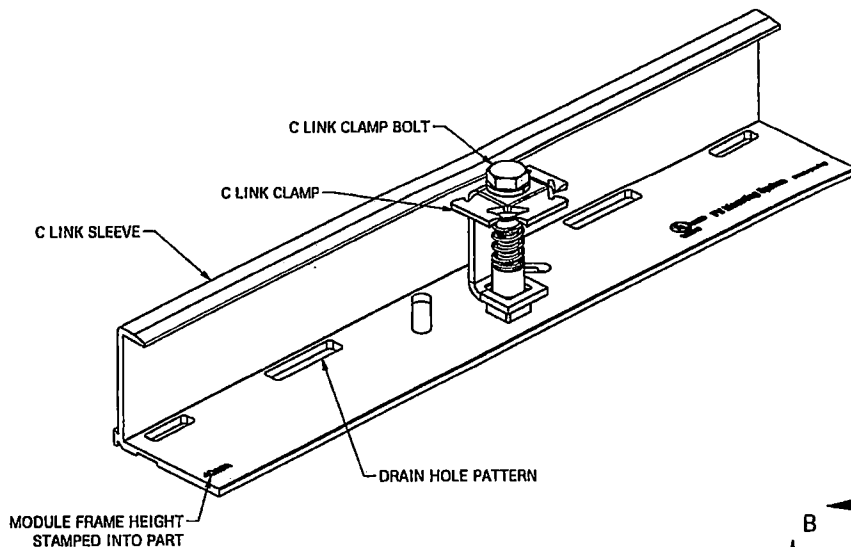
C LINKS CONNECT TWO ADJACENT MODULES TOGETHER IN THE SAME ROW
LINKS MUST BE INSTALLED ON BOTH SIDES OF THE MODULE (REFER TO SD-00704) WHEN ADJACENT MODULES ARE IN SAME ORIENTATION

C LINKS SHALL BE TIGHT AGAINST THE MODULE FRAME WHEN INSTALLED PROPERLY

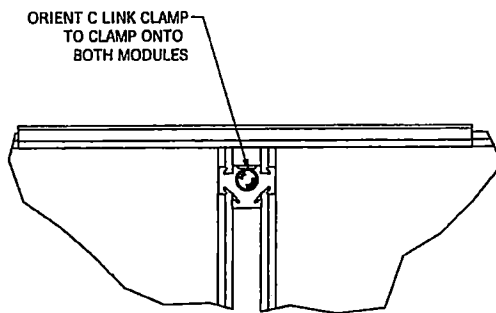
LOOSEN CLAMP BOLT AND PULL CLAMP UP TO CHANGE CLAMP ORIENTATION

REVISION:

A	6/19/2017	NEW ITEM	GTV

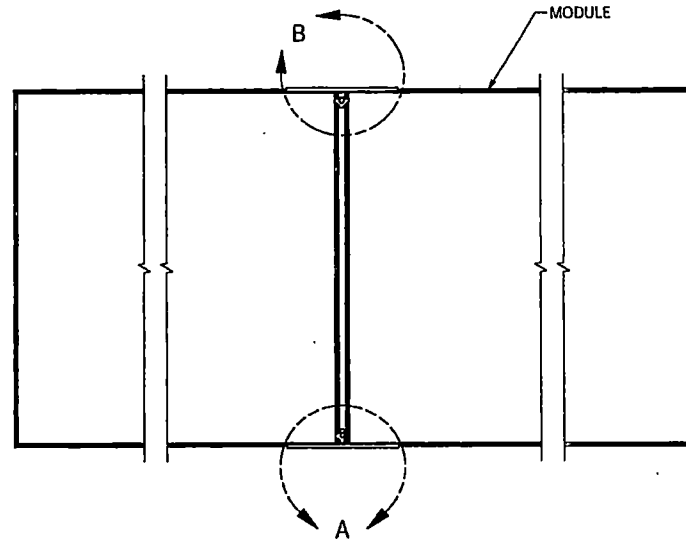


DETAIL A



DETAIL B

↓
DOWNSLOPE
(TO EAVE)



SnapRack
Solar Mounting Solutions

Sunrun South LLC
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DESIGNER: G.McPheeters
DRAFTER: G.Viscuso
APPROVED BY: G.McPheeters

SCALE: NTS
DATE: 6/19/2017

PART NUMBER:
SD-00706

DESCRIPTION:
SYSTEM DETAIL, C LINK

REV
A
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SNAPNRACK RL FLASHTRACK COMP MOUNTING

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

REVISION:		
A	6/19/2017	NEW ITEM
		GTV

5/16" STAINLESS STEEL UMBRELLA LAG SCREW
2-1/2" MINIMUM EMBEDMENT

FLASHTRACK COMP

5/16" UMBRELLA LAG SCREW

FLASHTRACK COMP

UMBRELLA GASKET (SHADED GRAY)

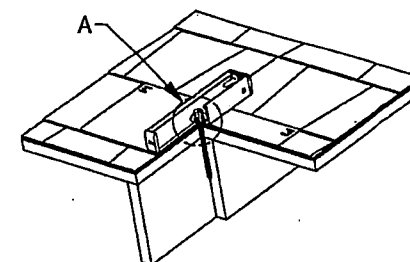
ROOFING MATERIAL

ROOF SHEATHING

RAFTER

COMP FLASHING (HATCHED)

DETAIL A



COMPLETED INSTALLATION
SECTION VIEW

COMP FLASHING
SLIP FLASHING UNDER
SHINGLE ABOVE

ROOF RAFTER (TYP.)
ROOF ATTACHMENTS SHALL
ALWAYS BE EMBEDDED INTO
ROOF RAFTERS OR OTHER
STRUCTURAL MEMBERS

ROOF SHEATHING, UNDERLAYMENT,
AND ROOFING MATERIAL (TYP.)

FLASH TRACK SHOULD BE ORIENTED NO MORE
THAN 3 DEGREES FROM PARALLEL TO RAFTER

FLASHING SHOULD EXTEND
TO END OF SHINGLE COURSE

FLASHTRACK COMP

ROOFING MATERIAL

COMP FLASHING

ROOF DECKING

ROOFING MATERIAL

2-1/2" MIN. EMBEDMENT
INTO STRUCTURAL MEMBER

COMPLETED INSTALLATION

SnapNrack
Solar Mounting Solutions

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DESIGNER: G.McPheeters
DRAFTER: G.Viscuso
APPROVED BY: G.McPheeters

SCALE: NTS
DATE: 6/19/2017

PART NUMBER:
SD-00708

DESCRIPTION:
PENETRATION DETAIL, FLASHTRACK COMP

REV
A
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