



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Jeffrey Hains
Chair

Date: March 5, 2026

MEMORANDUM

TO: Rabbiah Sabbakhan
Department of Permitting Services

FROM: Devon Murtha
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #1144999 – Solar panel installation

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved with one (1) condition** at the February 25, 2026 HPC meeting. The condition is that

1. The applicant must submit an updated justification to confirm that the expected energy generated will not exceed 100% of household needs prior to issuance of final approval documents. If expected energy generated exceeds 100% of household needs, the applicant will return to the HPC with an updated plan for a reduced number of panels. The HPC staff has reviewed and stamped the attached submission materials.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Jared Hughes; Morgan Malone (Agent)
Address: 101 Elm Avenue, Takoma Park, MD 20912

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete, the applicant will contact Devon Murtha at 301-495-1328 or devon.murtha@montgomeryplanning.org to schedule a follow-up site visit.



Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

The subject property at 101 Elm Avenue is a detached single-family dwelling located within the Takoma Park Historic District, a locally and nationally recognized historic district characterized by late-19th- and early-20th-century suburban residential development. The property occupies an interior lot along Elm Avenue, a residential, tree-lined street exhibiting a consistent historic streetscape pattern of modestly scaled houses set back from the public right-of-way.

The building is oriented toward Elm Avenue and maintains the established setback, scale, and massing typical of contributing resources within the district. The surrounding neighborhood is composed primarily of single-family dwellings of similar height, width, and spacing, reinforcing the cohesive historic character of the block. Sidewalks, mature street trees, and front yards contribute to the pedestrian-oriented suburban setting that defines the historic district.

The lot includes landscaped open space with lawn areas, foundation plantings, and mature vegetation that contribute to the property’s historic setting. The rear and side yards provide additional green space consistent with historic residential lot patterns in Takoma Park. No significant historic site

Description of Work Proposed: Please give an overview of the work to be undertaken:

The proposed work consists of the installation of a rooftop-mounted photovoltaic solar energy system on the existing residential structure. The system will include a total of 33 photovoltaic panels, each rated at 455 watts, arranged in three discrete arrays mounted flush to the roof surface.

Array 1: 17 panels

Array 2: 11 panels

Array 3: 5 panels

The solar arrays will be located on roof planes selected to minimize visibility from the public right-of-way and to reduce visual impact on the historic streetscape, consistent with the Montgomery County Historic Preservation Guidelines for rooftop solar installations. Panels will be installed parallel to the roof slope using a low-profile mounting system and will not alter the roof form, massing, or architectural character of the historic resource.

All installation work will be reversible and will avoid removal or permanent alteration of historic materials to the extent feasible. No changes are proposed to the building’s footprint, height, or primary character-defining features. The proposed solar installation is designed to be compatible with the historic character of the property and the Takoma Park Historic District while supporting energy efficiency and sustainability goals.



Work Item 1: _____	
Description of Current Condition:	Proposed Work:

Work Item 2: _____	
Description of Current Condition:	Proposed Work:

Work Item 3: _____	
Description of Current Condition:	Proposed Work:

HISTORIC AREA WORK PERMIT
CHECKLIST OF
APPLICATION REQUIREMENTS

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Exc avation/Land scaing	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*



APPROVED

Montgomery County

Historic Preservation Commission

PROJECT INFORMATION

HUGHES, JARED RESIDENCE
101 ELM AVE, TAKOMA PARK, MD 20912
(301) 270-3012

RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION
CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(33) X445W = 14.685 KWdc
(33) U650 POWER OPTIMIZERS
(2) SOLAREEDGE USE5700H-US (240V) INVERTER

SCOPE OF WORK

BUILDING OCCUPANCY GROUP

R-3 (SINGLE-FAMILY RESIDENTIAL)

CODES AND STANDARDS

2017 NATIONAL ELECTRICAL CODE
2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL RESIDENTIAL CODE

MODULE SPECS

CANADIAN SOLAR INC. CS6.1-54TM-445H
(L) 70.9" X (W) 44.6" X (H) 1.38"
WEIGHT = 50.7 LBS
COMBINED WEIGHT OF MODULES AND RACKING: 2.94 PSF ≤ 4.5 PSF

EQUIPMENT CONTRACTOR

ROI CONSTRUCTION
8378 VETERANS HWY
MILLERSVILLE, MD 21108
CONTACT: JORGE ESCOBAR
PHONE: 202-694-9890

SITE DETAILS

COMP. SHINGLE ROOF, 2X6 RAFTERS @ 16" O.C., DF#2
ROOF SLOPE(S): 6.1:12 (27°), 5.9:12 (26°) AND 4.4:12 (20°)
AREA OF ROOF(PLAN VIEW) = 1900 SF
AREA OF NEW ARRAY = 723 SF = 34% OF ROOF AREA (ARRAY <66% OF ROOF AREA)
CLIMATE DATA SOURCE: WASHINGTON DC REAGAN AP, 38.87N, 77.03W
ASHRAE EXTREME LOW: -12.3°C
ASHRAE 2% HIGH: 36°C
ASHRAE EXTREME HIGH: 40.9°C
WIND SPEED: 115 MPH
RISK CATEGORY: II
WIND EXPOSURE CATEGORY: B
GROUND SNOW LOAD: 35 PSF
ROOF SNOW LOAD: 25 PSF
ROOF ASSEMBLY FIRE CLASS RATING: A
HISTORIC DISTRICT: NONE
FIRE SPRINKLES: NO

CONTRACTOR

ROI CONSTRUCTION
8378 VETERANS HWY
MILLERSVILLE MD 21108
Ph: (202) 694-9890
Contractor# 420219000135



HUGHES, JARED RESIDENCE
RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION
101 ELM AVE, TAKOMA PARK, MD 20912
PH: (301) 270-3012
PEPCO: 5501 2645 911

SOLAR ARRAY PROPOSED

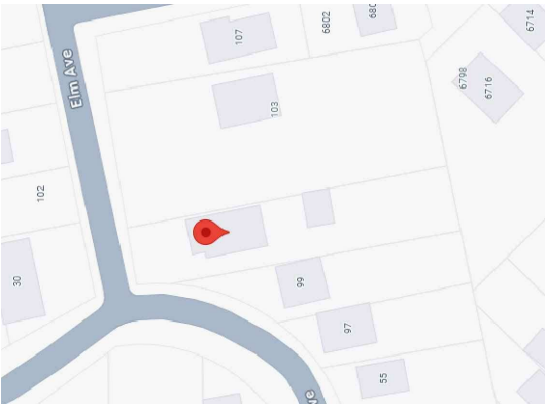
ARRAY #	MODS	TILT	AZIMUTH	MAX. HEIGHT
ARRAY #1	17	6.1:12 (27°)	78°	0'-7"
ARRAY #2	11	5.9:12 (26°)	258°	0'-7"
ARRAY #3	5	4.4:12 (20°)	167°	0'-7"

DRAWINGS INDEX

G-1	COVER SHEET
PV-1	SITE PLAN
PV-2	ROOF LAYOUT
PV-2.1	STRUCTURAL DETAILS
PV-3	ELECTRICAL PLAN
PV-4	SINGLE LINE DIAGRAM
PV-4.1	ELECTRICAL SCHEDULE
PV-5	LABELS
SUPPORTING DOCUMENTS	DATA SHEETS, STRUCTURAL CALCULATIONS

OFFICIAL USE

PE STAMP



VICINITY MAP



ROOF

COVER SHEET

System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW
(33) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(2) SOLAREEDGE USE5700H-US (240V) INVERTER RGM CERTIFIED

Drawn by:
LM

Rev: PERMIT SET

Date:
02/04/2026

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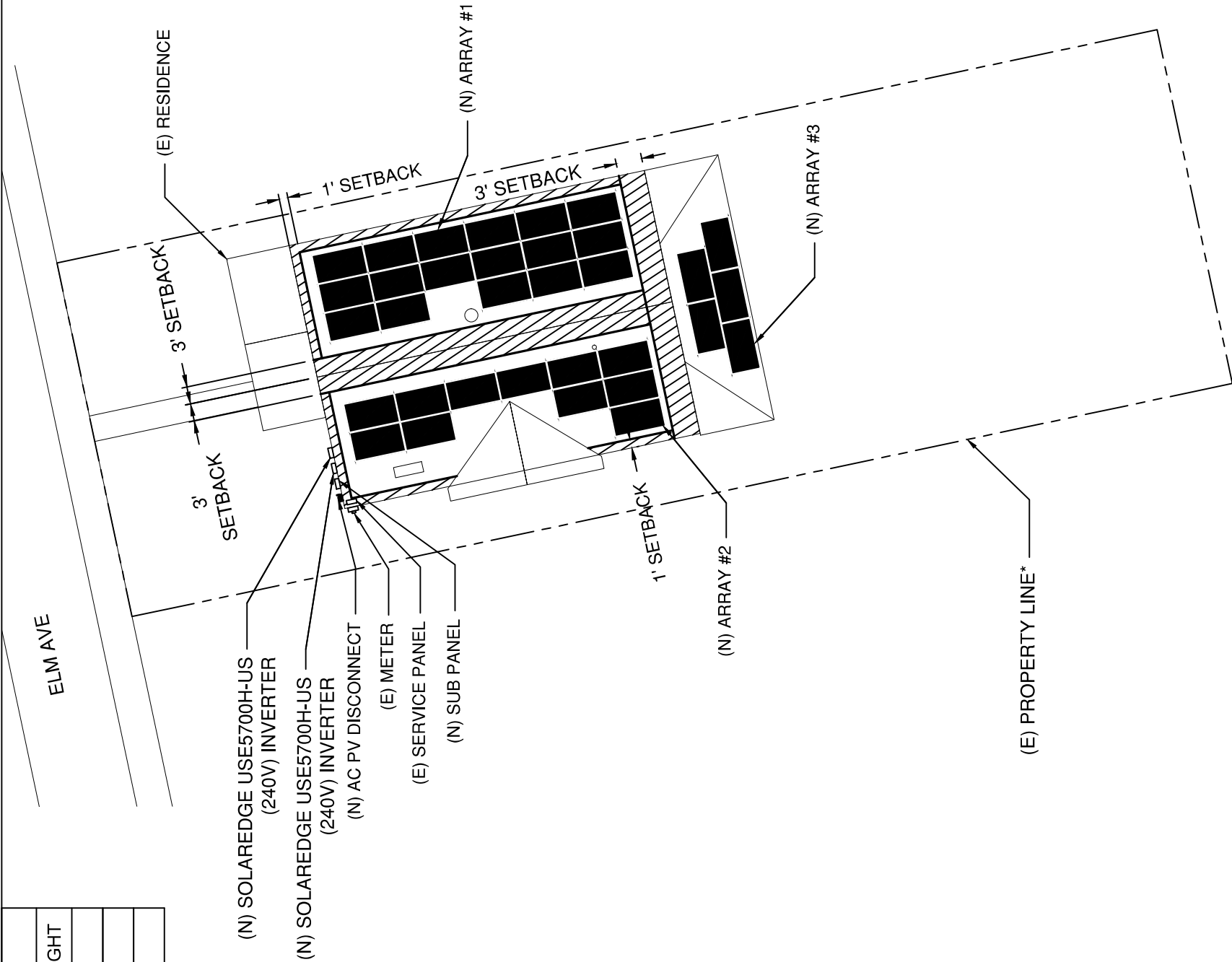
Historic Preservation Commission

SOLAR ARRAY PROPOSED

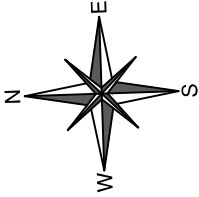
MODS	TILT	AZIMUTH	MAX. HEIGHT
17	6.1:12 (27°)	78°	0'-7"
11	5.9:12 (26°)	258°	0'-7"
5	4.4:12 (20°)	167°	0'-7"

NOTE: *CHECK WITH CITY/COUNTY OR LAND SURVEYOR FOR ACCURATE PROPERTY LOCATE.
NOTE: HEIGHT FROM ROOF TO TOP OF PANEL IS 0'-7".

LEGEND:
(E) = EXISTING
(N) = NEW



OFFICIAL USE



SITE PLAN

SCALE: 1/16" = 1'-0"



PE STAMP

CONTRACTOR

ROI CONSTRUCTION
8378 VETERANS HWY
MILLERSVILLE MD 21108
Ph: (202) 694-9890
Contractor# 420219000135



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SITE PLAN

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NOTES:

- IRONRIDGE HUG L, TYP. OF 95
- RAFTERS @ 16" O.C. TYP.
- IRONRIDGE XR10 RAIL, TYP.
- IRONRIDGE MID CLAMP, TYP. OF 46
- IRONRIDGE END CLAMP, TYP. OF 40
- RIDGE (SETBACK 36")
- RAKE (SETBACK 36")
- EAVE (SETBACK 12")
- PV MODULE WITH FIRE SAFETY CLASS A ACCORDING TO UL1703 AND TABLE 1505.1

GENERAL NOTES:

- RAFTERS LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS MAY DIFFER AND CONTRACTOR MAY NEED TO ADJUST MOUNT LOCATIONS. IN NO CASE SHALL THE MOUNT SPACING EXCEED OF 48", MAX. CANTILEVER IS 1/2 MOUNT SPACING OR 24". TYPICAL MOUNT SPACING OF 4' FOR MODULES IN PORTRAIT POSITION AND 6' FOR MODULES IN LANDSCAPE POSITION.
- THE MEMBRANE COVERING THE ROOF HAS A MINIMUM FIRE CLASS C RATING.
- THE ATTACHMENT ASSEMBLIES INSTALLED FIREPLACE RATING IS A MINIMUM OF C.
- HEIGHT FROM ROOF TO TOP OF PANEL IS 0'-7".
- FOR STRUCTURAL DETAILS REFER TO THE STRUCTURAL CALCULATION BY THE EOR.
- STRUCTURAL PLANS CERTIFIED AS PROVIDED IN SECTION 106.1.4.1 OF THE D.C. CONSTRUCTION CODES

ROOF PROPERTIES	
ROOF MATERIAL	COMP. SHINGLE
ROOF SLOPE	6.1:12 (27°), 5.9:12 (26°) AND 4.4:12 (20°)
MEAN ROOF HEIGHT	~22 FT
DECK SHEATING	7/16" OR THICKER OSB OR PLYWOOD
CONSTRUCTION	RAFTERS 2X6 @ 16" O.C.
MODULE MECHANICAL PROPERTIES	
MODEL	CANADIAN SOLAR INC. CS6.1-54TM-445H
DIMENSIONS	(L) 70.9" X (W) 44.6" X (H) 1.38"
WEIGHT	50.7 LB

CONTRACTOR

ROI CONSTRUCTION
8378 VETERANS HWY
MILLERSVILLE MD 21108
Ph: (202) 694-9890
Contractor# 420219000135

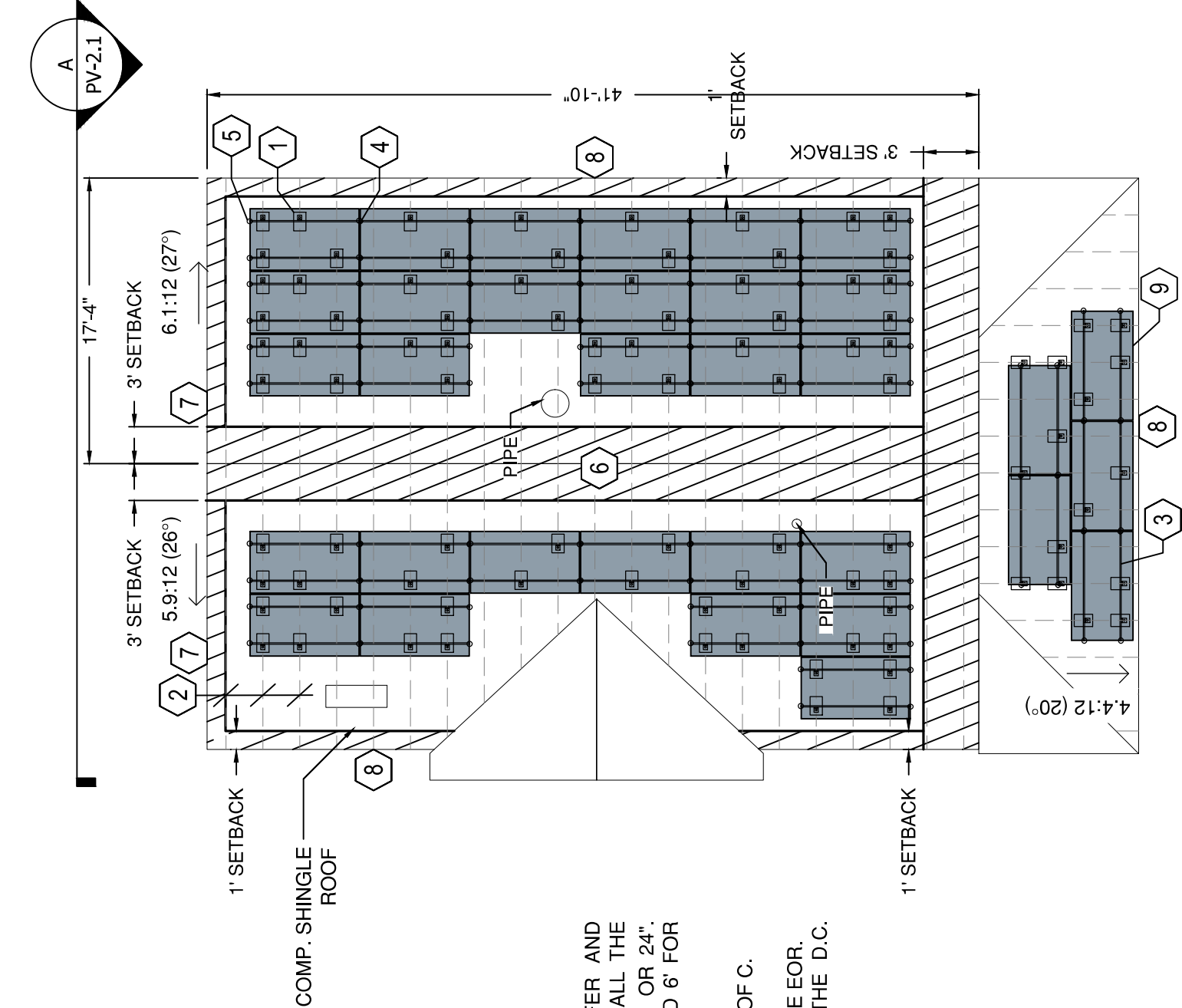


HUGHES, JARED RESIDENCE
RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION
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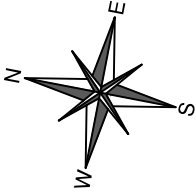
System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW
(33) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(2) SOLAREDGE USE5700H-US (240V) INVERTER RGM CERTIFIED

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ROOF LAYOUT



OFFICIAL USE



ROOF LAYOUT

SCALE: 1/8" = 1'-0"

PE STAMP



NOTES:

IRONRIDGE HUG L, TYP. OF 95

2 2X6 RAFTERS @ 16" O.C. TYP.

3 IRONRIDGE XR10 RAIL, TYP.

4 IRONRIDGE MID CLAMP, TYP. OF 46

5 IRONRIDGE END CLAMP, TYP. OF 40

6 RIDGE (SETBACK 36")

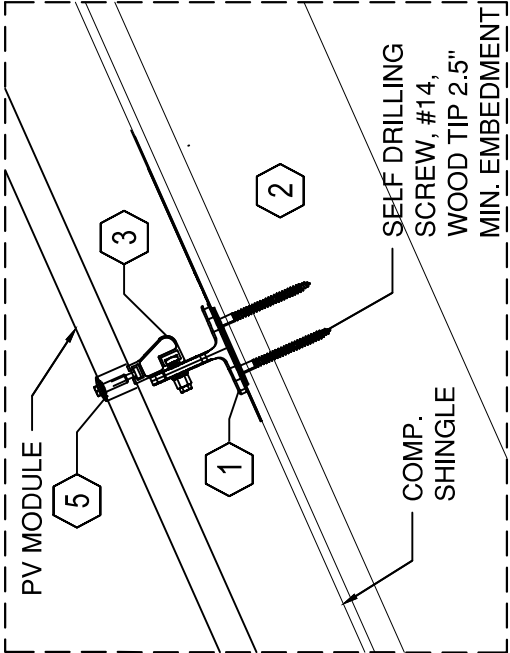
7 RAKE (SETBACK 36")

8 EAVE (SETBACK 12")

9 PV MODULE WITH FIRE SAFETY CLASS A ACCORDING TO UL1703 AND TABLE 1505.1

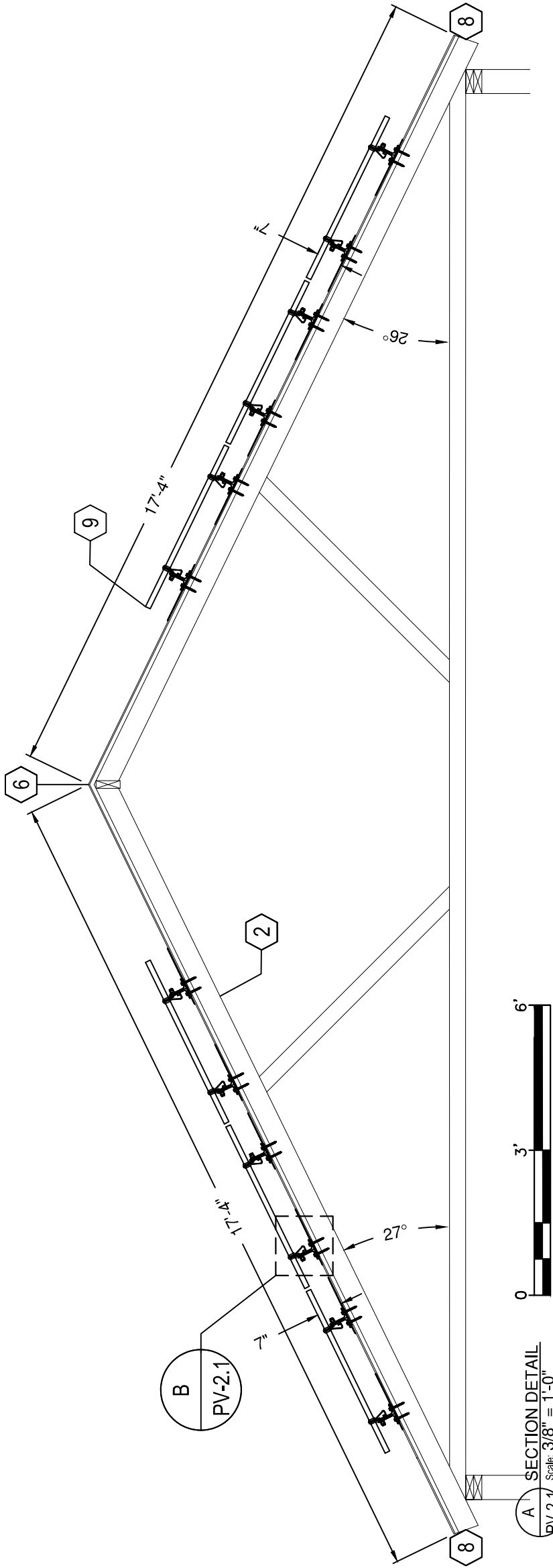
GENERAL NOTES:

- A. RAFTERS LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS MAY DIFFER AND CONTRACTOR MAY NEED TO ADJUST MOUNT LOCATIONS. IN NO CASE SHALL THE MOUNT SPACING EXCEED OF 48", MAX. CANTILEVER IS 1/2 MOUNT SPACING OR 24". TYPICAL MOUNT SPACING OF 4' FOR MODULES IN PORTRAIT POSITION AND 6' FOR MODULES IN LANDSCAPE POSITION.
- B. THE MEMBRANE COVERING THE ROOF HAS A MINIMUM FIRE CLASS C RATING.
- C. THE ATTACHMENT ASSEMBLIES INSTALLED FIREPLACE RATING IS A MINIMUM OF C.
- D. HEIGHT FROM ROOF TO TOP OF PANEL IS 0'-7".
- E. FOR STRUCTURAL DETAILS REFER TO THE STRUCTURAL CALCULATION BY THE EOR.



B MOUNTING DETAIL
PV-2.1 Scale: NTS

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CONTRACTOR

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Ph: (202) 694-9890
Contractor# 420219000135



HUGHES, JARED RESIDENCE

RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION
101 ELM AVE, TAKOMA PARK, MD 20912
PH: (301) 270-3012
PEPCO: 5501 2645 911

STRUCTURAL DETAILS

System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW
(83) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(2) SOLAREDGE USE5700H-US (240V) INVERTER RGM CERTIFIED

Drawn by:
LM

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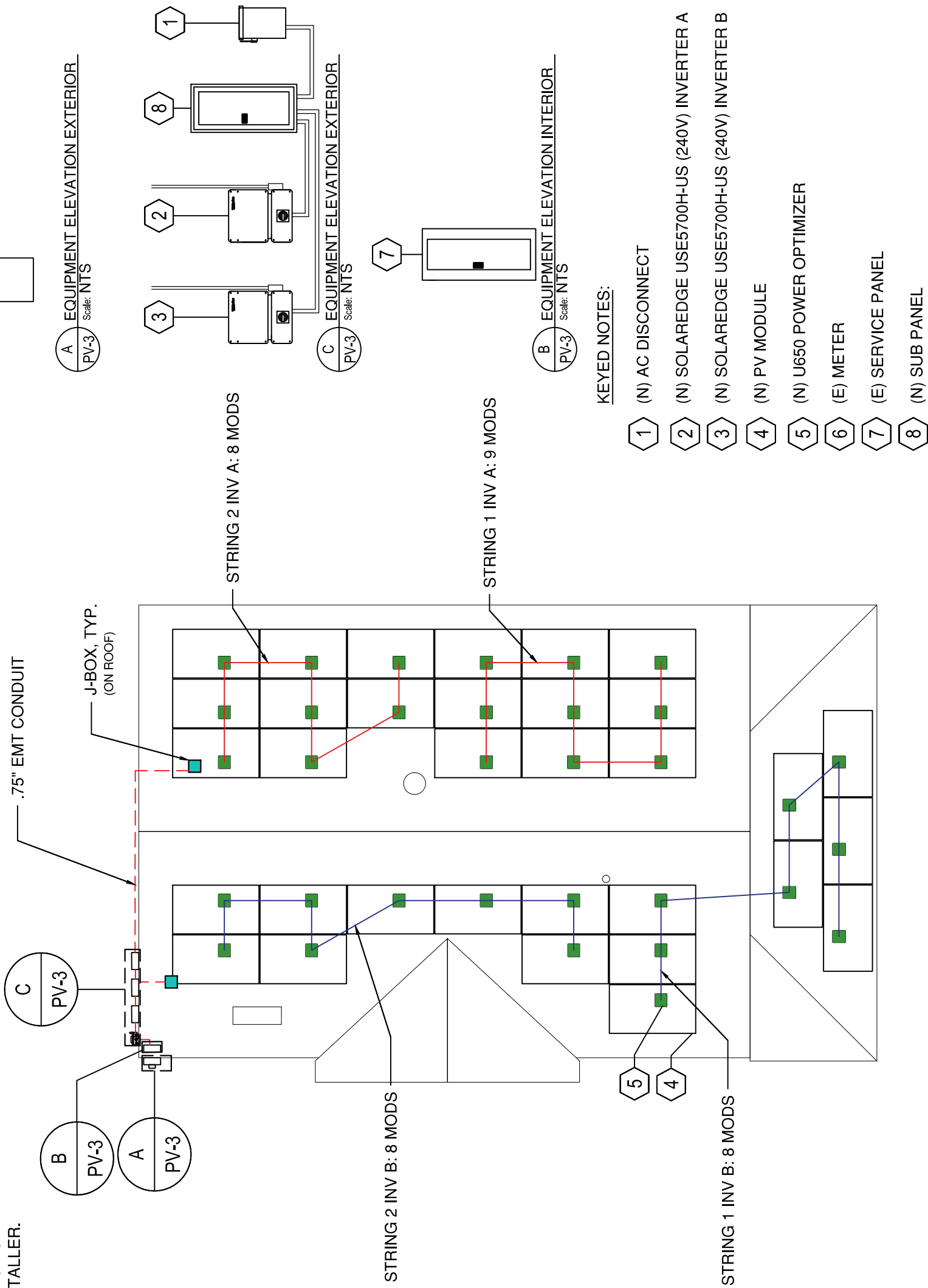
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NOTES:

ROUTING TO BE DETERMINED BY INSTALLER.

APPROVED
Montgomery County
Historic Preservation Commission



NOTES:

ROUTING TO BE DETERMINED BY INSTALLER.

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Montgomery County
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CONTRACTOR

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RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION
101 ELM AVE, TAKOMA PARK, MD 20912
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PEPCO: 5501 2645 911

ELECTRICAL PLAN

System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW
(33) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(2) SOLAREDGE USE5700H-US (240V) INVERTER RGM CERTIFIED

Contractor# 420219000135
(202) 894-9890

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ELECTRICAL PLAN

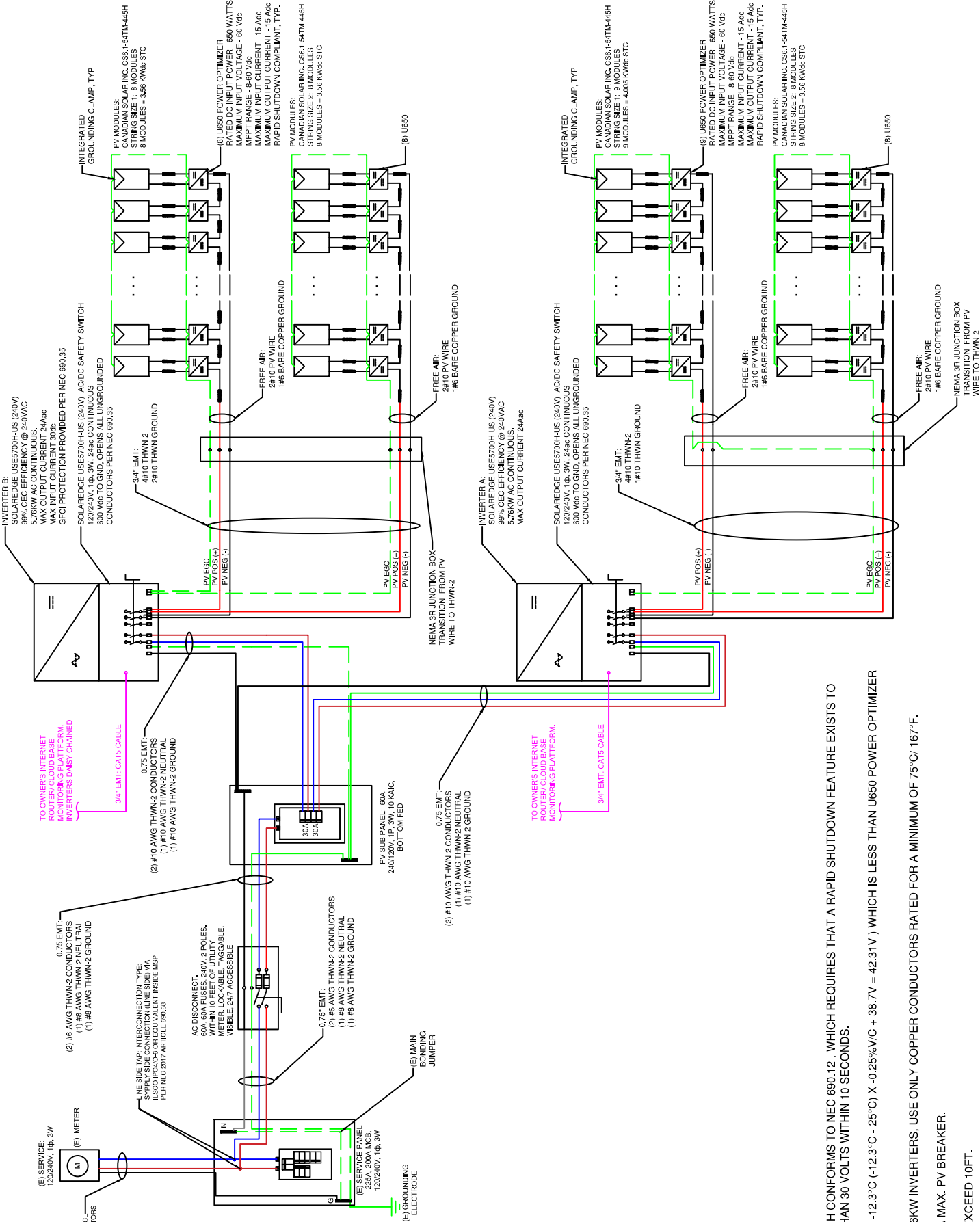
SCALE: 1/8" = 1'-0"



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Montgomery County
Historic Preservation Commission

REVIEWED
By Devon.Murtha at 1:04 pm, Mar 05, 2026



OFFICIAL USE

ELECTRICAL NOTES:

1. THE SYSTEM IS EQUIPPED WITH A RAPID SHUTDOWN FEATURE WHICH CONFORMS TO NEC 690.12, WHICH REQUIRES THAT A RAPID SHUTDOWN FEATURE EXISTS TO DE-ENERGIZE PV SOURCE CIRCUITS FROM ALL SOURCES TO LESS THAN 30 VOLTS WITHIN 10 SECONDS.
2. MAX DC VOLTAGE OF THE PV MODULE IS EXPECTED TO BE 42.31V AT -12.3°C (-12.3°C - 25°C) X -0.25%/V/C + 38.7V = 42.31V) WHICH IS LESS THAN U650 POWER OPTIMIZER MAX INPUT VOLTAGE OF 60V.
3. PER MANUFACTURERS RECOMMENDATIONS FOR SINGLE-PHASE 3-7.6KW INVERTERS, USE ONLY COPPER CONDUCTORS RATED FOR A MINIMUM OF 75°C/ 167°F.
4. 225A X 1.2 = 270A (120% BUS RATING). 270A - 200A (MCB RATING)= 70A MAX. PV BREAKER.
5. FOR LINE SIDE TAP CONNECTIONS, THE WIRE LENGTHS SHALL NOT EXCEED 10FT.
6. THIS INVERTER IS A REVENUE GRADE METER RGM CERTIFIED PERSUANT TO ANSI C 12.3.
7. SMART INVERTER UL-1741-SB AND IEEE 1547-2018 COMPLIANT.
8. INVERTER COMPLAINT WITH CAL. RULE 21 SMART INVERTER SETTINGS.
9. SINGLE LINE DIAGRAM SHOWS JUNCTION BOX. ALL EQUIPMENT ON ROOF AND ANY PENETRATIONS SHALL BE FLASHED AND SEALED IN ACCORDANCE WITH THIS CHAPTER AS PER R903 WEATHER PROTECTION (2017 DCMR 12B, DC RESIDENTIAL CODE AMENDMENTS).

PE STAMP

CONTRACTOR

ROI CONSTRUCTION
8378 VETERANS HWY
MILLERSVILLE MD 21108
Ph: (202) 694-9890
Contractor# 420219000135



HUGHES, JARED RESIDENCE
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SINGLE LINE DIAGRAM

System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW
(33) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(2) SOLAREEDGE USE5700H-US (240V) INVERTER RGM CERTIFIED
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Historic Preservation Commission



REVIEWED

By Devon.Murtha at 1:04 pm, Mar 05, 2026

OFFICIAL USE

CONDUCTOR AND CONDUIT SCHEDULE W/ELECTRICAL CALCULATIONS									
CIRCUIT	TYPICAL	CONDUCTOR	CONDUIT	CURRENT-CARRYING CONDUCTORS IN CONDUIT	OCPD	EGC	TEMP CORR. FACTOR	CONDUIT FILL FACTOR	CONT. CURRENT
PV STRING TO J-BOX	4	10 AWG PV WIRE CU	FREE AIR	2	N/A	6 AWG BARE COPPER	0.87 (40.9°C)	1	15A
J-BOX TO INVERTER	2	10 AWG THWN-2 CU	0.75" DIA. EMT	4	N/A	10 AWG THWN-2 CU	0.87 (40.9°C)	0.8	15A
INVERTER A TO SUB PANEL	1	10 AWG THWN-2 CU	0.75" DIA. EMT	2	30A	10 AWG THWN-2 CU	0.91 (36°C)	1	24A
INVERTER B TO SUB PANEL	1	10 AWG THWN-2 CU	0.75" DIA. EMT	2	30A	10 AWG THWN-2 CU	0.91 (36°C)	1	24A
SUB PANEL TO AC DISCONNECT	1	6 AWG THWN-2 CU	0.75" DIA. EMT	2	60A	8 AWG THWN-2 CU	0.91 (36°C)	1	48A
AC DISCONNECT TO SERVICE PANEL	1	6 AWG THWN-2 CU	0.75" DIA. EMT	2	60A	8 AWG THWN-2 CU	0.91 (36°C)	1	48A
MAX. DC VOLTAGE DROP: 0.76%, MAX. AC VOLTAGE DROP: 0.46%									
*MAX OPTIMIZER OUTPUT CURRENT LIMITED TO:									15 AMPS

INVERTER A SPECIFICATIONS		SOLAREEDGE USE5700H-US (240V)
POWER STC	5.76KW	
Max. Output AC Current	24A	
AC Operating Voltage	240V	
Max. MPP Voltage	380V	
Max. System Voltage	480V	

INVERTER B SPECIFICATIONS		MAKE AND MODEL	SOLAREEDGE USE5700H-US (240V)
POWER STC	5.76KW		
Max. Output AC Current	24A		
AC Operating Voltage	240V		
Max. MPP Voltage	380V		
Max. System Voltage	480V		

OPTIMIZER SPECIFICATIONS		MAKE AND MODEL	U650
POWER STC	650W		
Max. Input Voltage Range	60V - 42.31 @ LOW TEMP.		
MPPT Voltage Range	8-60V		
Max. Input Current	15A		
Max. Output Current	15A		

MODULE SPECIFICATIONS		MAKE AND MODEL	CANADIAN SOLAR INC. CS6.1-54TM-445H
POWER STC	445W		
Imp	13.59A		
Vmp	32.8V		
Voc	38.7V 42.31 @ LOW TEMP.		
Isc	14.48A		

PE STAMP

CONTRACTOR		HUGHES, JARED RESIDENCE		ELECTRICAL SCHEDULE	
ROI CONSTRUCTION 8378 VETERANS HWY MILLERSVILLE MD 21108 Ph: (202) 694-9890 Contractor# 420219000135		RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION 101 ELM AVE, TAKOMA PARK, MD 20912 PH: (301) 270-3012 PEPCO: 5501 2645 911		System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW (33) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES (2) SOLAREEDGE USE5700H-US (240V) INVERTER RGM CERTIFIED	
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				Drawn by: LM	Date: 02/04/2026
				Rev: PERMIT SET	

MAIN SERVICE PANEL



DANGER

ARC FLASH AND SHOCK HAZARD

FOLLOW ALL REQUIREMENT IN NFPA 70E FOR SAFE WORK PRACTICES AND FOR PERSONAL PROTECTIVE EQUIPMENT

ON PANEL COVER



WARNING

DUAL POWER SUPPLY

SOURCES: UTILITY GRID, AND PV SOLAR ELECTRIC SYSTEM



WARNING

TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

NEXT TO THE MAIN CIRCUIT BREAKER



WARNING

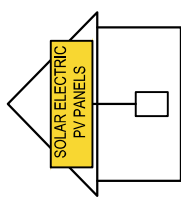
SOLAR CONNECTION LINE SIDE TAP

ON PANEL COVER FOR LINE SIDE TAPS ONLY

STRING INVERTER

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

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



SOLAR ELECTRIC PV PANELS

LABEL 6: FOR PV SYSTEMS THAT SHUT DOWN THE ARRAY AND THE CONDUCTORS LEAVING THE ARRAY.

THE LABEL SHALL UTILIZE CAPITALIZED CHARACTERS WITH A MINIMUM HEIGHT OF 3/8" IN BLACK ON YELLOW BACKGROUND, AND THE REMAINING CHARACTERS SHALL BE CAPITALIZED WITH A MINIMUM HEIGHT OF 3/16" IN BLACK ON WHITE BACKGROUND.



WARNING

DIRECT CURRENT PHOTOVOLTAIC POWER SOURCE

MAXIMUM VOLTAGE 480 VDC

MAX CIRCUIT CURRENT 13.5 AMPS



WARNING

DIRECT CURRENT PHOTOVOLTAIC POWER SOURCE

MAXIMUM VOLTAGE 480 VDC

MAX CIRCUIT CURRENT 13.5 AMPS

NEXT TO DC DISCONNECT

JUNCTION OR PULL BOXES



WARNING

DC JUNCTION BOX

ELECTRIC SHOCK HAZARD

THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNINSULATED AND MUST BE TREATED AS PHOTOVOLTAIC POWER SOURCE

2-3/4" X 2-1/4"

DC JUNCTION BOXES (STRING INVERTERS) ONLY

UTILITY METER



WARNING

THIS SERVICE METER IS ALSO SERVED BY A PHOTOVOLTAIC SYSTEM

AC DISCONNECT



WARNING

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM



WARNING

PHOTOVOLTAIC SYSTEM AC DISCONNECT

DUAL POWER SUPPLY

SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

ELECTRIC SHOCK HAZARD

DO NOT TOUCH TERMINALS, TERMINALS ON BOTH SIDES OF THE DISCONNECT MAY BE ENERGIZED IN THE OPEN POSITION

OPERATING VOLTAGE 240 VOLTS

OPERATING CURRENT 48 AMPS

INVERTER AC COMBINER



WARNING

PHOTOVOLTAIC SYSTEM COMBINER PANEL

DO NOT ADD LOADS

EXTERIOR CONDUITS



WARNING

CAUTION SOLAR CIRCUIT

PE STAMP

CONTRACTOR

ROI CONSTRUCTION
8378 VETERANS HWY
MILLERSVILLE MD 21108
Ph: (202) 694-9890
Contractor# 420219000135



HUGHES, JARED RESIDENCE

RESIDENTIAL GRID INTERACTIVE SOLAR INSTALLATION
101 ELM AVE, TAKOMA PARK, MD 20912
PH: (301) 270-3012
PEPCO: 5501 2645 911

LABELS

System AC Size @ STC: 11.52 kW System DC Size @ STC: 14.685 kW
(33) CANADIAN SOLAR INC. CS6.1-54TM-445H SOLAR MODULES
(2) SOLAREDGE USE5700H-US (240V) INVERTER RGM CERTIFIED

Drawn by:
LM

Rev: PERMIT SET

Date:

02/04/2026

Page:

PV-5

February 3rd, 2026

To Whom It May Concern:

This letter is in reference to the proposed solar project for Jared Hughes at 101 Elm Ave. in Takoma Park, MD.

Per your request, we reviewed the possibility of removing the panels from the side of the roof that faces Pine Ave., and instead placing them on the shed building behind the main home. Unfortunately, after reviewing this option with the customer, he informed us that the shed is not in good condition and lacks the structural integrity required for solar panels to be installed.

As such, I am writing this letter to outline the justification for placing the panels on both sides of the roof of the main home, including the side that faces Pine Ave. I have outlined the main points of justification below:

1. The customer uses roughly 23,000 kWh of electricity per year. Even when placing panels on both sides of the roof, we will not be able to generate the full 23,000 kWh annually to satisfy his usage needs. Therefore, his usage justifies the need for panels to be placed on both parts of the roof.
2. The side of the roof that faces Pine Ave. gets the most sunlight per the irradiance map that we shared. Excluding panels here would severely impact the overall electrical production of the solar panels.
3. As stated above, we are not able to use the shed to place panels due to structural concerns.
4. There are a number of homes in Takoma Park's historic district that have solar panels installed where they are visible from the road.

For these reasons, we feel justified in requesting that panels be placed on both sides of the roof of the main home at 101 Elm Ave. in Takoma Park, MD.

Please let us know if you have any questions on any of the above.

Thank you for your consideration!

Sincerely,

Justin Evans
Smartr Solar & ROI Construction



From: [ROI Solar](#)
To: [Murtha, Devon](#)
Subject: Re: 2/25 HPC Meeting
Date: Wednesday, March 4, 2026 11:22:19 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Hi Devon.

Thank you for the update regarding our approval. Please see the following information to satisfy the Staff condition:

The proposed system is expected to generate approximately 12,416 kWh per year. Based on the customer's 12-month utility usage of 22,800 kWh per year, the system is designed to offset approximately 54.5% of household energy needs, which does not exceed 100%.

Please let us know if any additional documentation is needed. We look forward to receiving the final approval documents.

ROI CONSTRUCTION LLC



On Thu, Feb 26, 2026 at 11:03 AM Murtha, Devon <Devon.Murtha@montgomeryplanning.org> wrote:

Hello,

Your case was approved, with Staff conditions, at last night's HPC meeting. The approved condition, as stated in the Staff report, is

1. The applicant must submit an updated justification to confirm that the expected energy generated will not exceed 100% of household needs prior to issuance of final approval documents. If expected energy generated exceeds 100% of household needs, the applicant will return to the HPC with an updated plan for a reduced number of panels.

I just need you to send over how much energy the proposed system is expected to generate, and then I can issue your approval documents.



REVIEWED
By Devon.Murtha at 1:04 pm, Mar 05, 2026