

Amended Agenda
Tolland Green Historic District Commission
21 Tolland Green, Tolland, Connecticut
Wednesday, February 21, 2024 at 7:00 p.m., via Zoom
Remote Participation Only

1. **Call to Order**
2. **Election of Officers for the new calendar year**
3. **Seating of Alternate(s)**
4. **Additions to Agenda**
5. **Public Comment** - Any person wishing to ask a question, make a comment or put forward a suggestion for any item or matter other than a public hearing item. (Two minute limit)
6. **Public Hearing(s)**
 - 6.1. **HDC #24-01 Certificate of Appropriateness**- Request to install PV solar panels, roof-mounted installation 13.60kW- 32 panels- not structural upgrades.
7. **Old Business**
8. **New Business**
 - 7.1 Consideration of the COA HDC #24-01 at 95 Tolland Green by the Commission, and vote thereon
9. **Other Business**
10. **Correspondence**
11. **Approval of Minutes** – November 29, 2023 Special Meeting
12. **Adjournment**

To join the Zoom meeting, either click:

<https://us06web.zoom.us/j/83900638828?pwd=bYwqVekq6NjhG6r7p7IN530pfxvsa9.1>

One tap mobile: +13092053325,,83900638828#,,, *02212024# US

Or call: 1-646-876-9923 and input:

Meeting ID: 839 0063 8828

Passcode: 02212024

Public Hearing

**Legal Notice
Public Hearing**

Tolland Green Historic District Commission

The Tolland Green Historic District Commission will hold a Public Hearing on Wednesday, February 21, 2024, commencing at 7:00 p.m., to hear and discuss the following:

95 Tolland Green – Request to install PV solar panels, roof-mounted installation 13.60kW-32 panels- not structural upgrades.

A copy of these applications are on file and available for review online:

<https://www.tollandct.gov/historic-district-commission/pages/applications-pending>

To be advertised twice in the Journal Inquirer: Thursday, February 8, 2024 and
Thursday, February 15, 2024



TOLLAND GREEN HISTORIC DISTRICT COMMISSION
Application for a Certification of Appropriateness

Property Information

Property Address: 95 Tollard Green, Tollard, Connecticut 06084

Property Owner: John Hughes

Phone Number: [REDACTED]

Applicant Information

Applicant Name: Venture Home solar - Marilu Medina (permit coordinator)

Applicant Address: 327 Captain Lewis Dr. Southington CT 06489

Phone Number: [REDACTED]

Email Address: [REDACTED]

Project Information

Type of Building: Residential - Single house

Nature and description of work to be done as it affects exterior appearance. Attach appropriate drawing or plans giving the position of the house or structure on the site, ground plan of house with proposed addition, and all pertinent elevations showing size and style of windows, dormers, doors, exterior wall finishes, roofing material, chimneys, vents and ornamentation. (If more space needed, attach sheet to application.)

PV Solar panels roof mounted installation 13.60kw - 32 panels- Not structural upgrades

Estimated Start and Completion Dates:

Start: _____ Complete: _____

1. Attach a photograph of the existing structure or place to be changed as viewed from the street showing that portion of the structure to be altered, together with a drawing of the proposed alteration or change.
2. Application fee of \$75.00 must accompany application (make checks payable to Town of Tollard).
3. Application form, fee, plans, photograph and drawing must be submitted to **Planning & Building Department**. Public Hearings will be scheduled within not more than sixty-five days after the filing of an application.

Certificate of Appropriateness will expire 1 year from date of approval.

This application form and all accompanying plans and materials are accurate and complete:

Applicant Signature: _____

Date: 02/05/24

Property Owner Signature: _____

John Hughes

Date: 02/05/24

RECEIVED
FEB 06 2024
BY: 18

-----OFFICE USE ONLY-----

Received & Fee Paid:	2/10/24 [REDACTED]	Hearing Scheduled:	2/21/24
Hearing Advertised:	2/18/24 + 2/15/24	Action:	
Notice of Action to Applicant:		HDC Due Date:	04/11/2024

Aurora Shade Report

Customer

John Hughes

Designer

Doug Finkbiner

Organization

Venture Solar LLC

Address

95 Tolland Grn
Tolland, CT 06084, USA

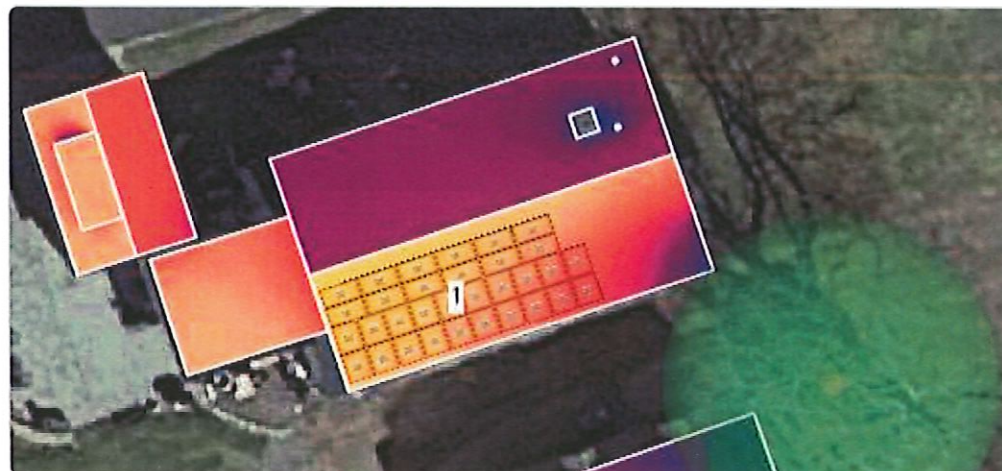
Coordinates

(41.874286, -72.370815)

Date

31 January 2024

Annual irradiance



kWh/m²/year

2,450 or more

2,100

1,750

1,400

1,050

700

350

0



Summary

Array	Panel Count	Azimuth (deg.)	Pitch (deg.)	Annual TOF (%)	Annual Solar Access (%)	Annual TSRF (%)
1	32	162	43	99	85	84
Weighted average by panel count		-	-	-	85.2	84.4

Monthly solar access (%) across arrays

Array	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	84	85	82	84	88	90	89	84	82	84	84	85

Customer
John Hughes

Address
95 Tolland Grn
Tolland, CT 06084, USA

Designer
Doug Finkbiner

Coordinates
(41.874286, -72.370815)

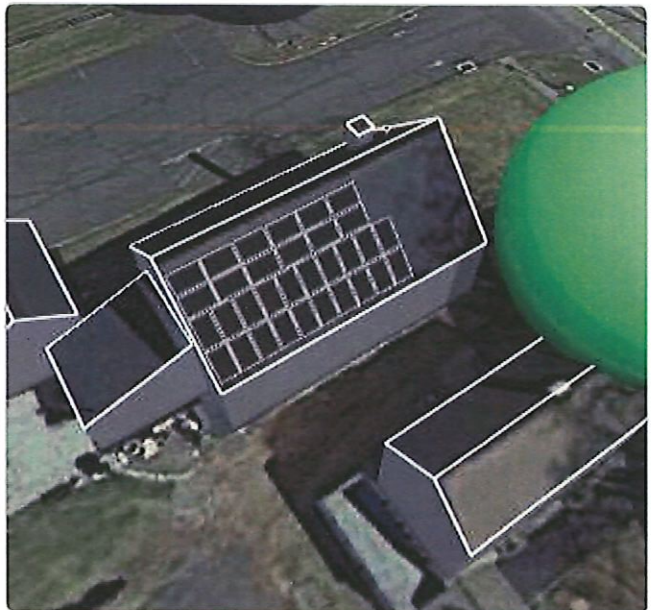
Organization
Venture Solar LLC

Date
31 January 2024

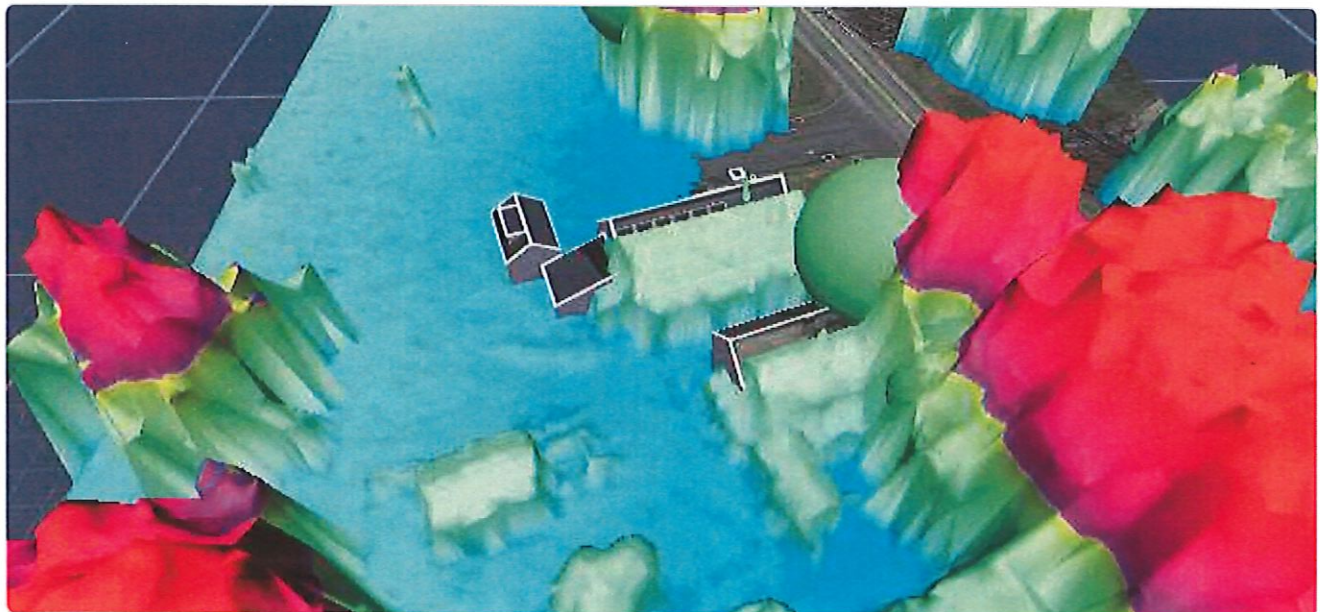
Zoomed out satellite view



3D model



3D model with LIDAR overlay 19 ft



Customer
John Hughes

Designer
Doug Finkbiner

Organization
Venture Solar LLC

Address
95 Tolland Grn
Tolland, CT 06084, USA

Coordinates
(41.874286, -72.370815)

Date
31 January 2024

Street view and corresponding 3D model



I, **Doug Finkbiner**, certify that I have generated this shading report to the best of my abilities, and I believe its contents to be accurate.

Service Report

Prepared for:

Prepared By:

Work Order
Number 00074211

Name Venture Home Solar

Company Address United States



Service Report

Prepared for:

Prepared By:

Work Order
Number 00074211

Name Venture Home Solar

Company Address United States



Service Report

Prepared for:

Work Order Number 00074211

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Company Address United States



Service Report

Prepared for:

Prepared By:

Work Order
Number

00074211

Name

Venture Home Solar

Company Address

United States



Service Report

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Company Address United States



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Name Venture Home Solar

Company Address United States



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Work Order Number 00074211

Prepared By:

Name Venture Home Solar

Company Address United States



Service Report

Prepared for:

Work Order Number 00074211

Prepared By:

Name Venture Home Solar

Company Address United States



SOLAR ELECTRIC GENERATION INSTALLATION ON EXISTING RESIDENCE: 95 Tolland Grn, Tolland, CT 06084-3040, USA

SITE PLAN

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

SCOPE OF WORK

SCOPE OF WORK IS SOLELY FOR THE INSTALLATION OF THE SOLAR ELECTRIC GENERATING SYSTEM. ALL OTHER WORK IS NOT TO BE RELIED UPON AS BEING APPROVED AND/OR PERMITTED BY THE BUILDINGS DEPARTMENT.

NOTES

The existing roof structure for this project, as is or with the structural reinforcement specified on page S-000.00, has been structurally analyzed and has been determined to be capable of supporting the loads imposed by the installation of the proposed solar electrical generating system as described in these design documents.

There is no tree, utility line or any other potential hazard that could come into contact with any part of the solar electric generating system.

APPLICABLE CODES

All proposed work shall meet the standards specified in the 2022 Connecticut State Building Code With The 2022 Connecticut Amendments
2021 International Building Code
2021 International Residential Code
2021 International Energy Conservation Code
2020 National Electrical Code (NFPA 70)
2022 Connecticut State Fire Safety Code
2017 ICC A117.1 Accessible and Usable Buildings & Facilities

AERIAL SITE VIEW



MAP OF BLOCK DISTRICTS



GPS COORDINATES

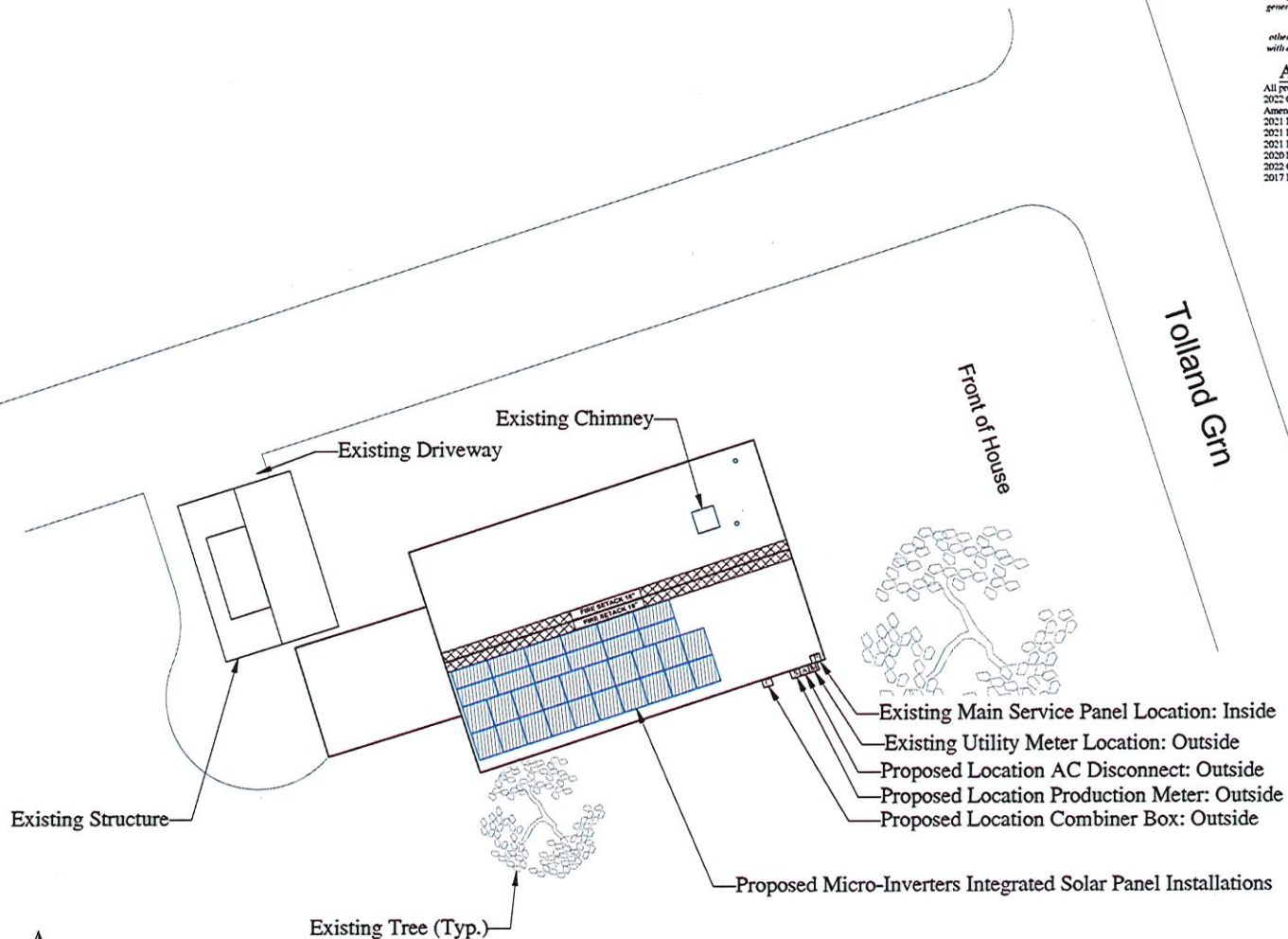
41.874286, -72.370815

DRAWING INDEX

1	Site Plan	Z-000.00
2	Elevations and System Layout	A-000.00
3	Racking and Lead Calculations	S-000.00
4	Spreadsheet	S-001.00
5	Labels & Solar Map Placard	G-000.00
6	String Diagram	B-000.00
7	Label Sheet	B-001.00
8	Electrical 3-Line & Labels	B-002.00
9	BOM	G-001.00

LEGEND

	Proposed Panel
	Existing Building
	Fire Setback/Access Path
	Obstruction



Patrick Bussett
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990



P.E./R.A. Stamp/Signatures

Patrick Bussett
2/1/2024

DOB Stamp/Signatures

SITE PLAN
Z-000.00
Scale: 1/8" = 1'-0"
Page 1 of 9

95 Tolland Grn, Tolland, CT 06084-3040, USA		
John Hughes's Residence		
Solar Panels: (32) Hanwha Q-Cell Q.TRON BLK M-G2+ 425 Modules		
Inverters: (32) IQOPLUS-72-2-18 Micro-Inverters		
Solar System DC Size: 13.60KW AC Size: 9.28KW		
Solar Annual Production: 15,971.00 KWH		
Designed By: UNIRAC		
Date: 2/1/2024		
Revision #	Approval Date	Description

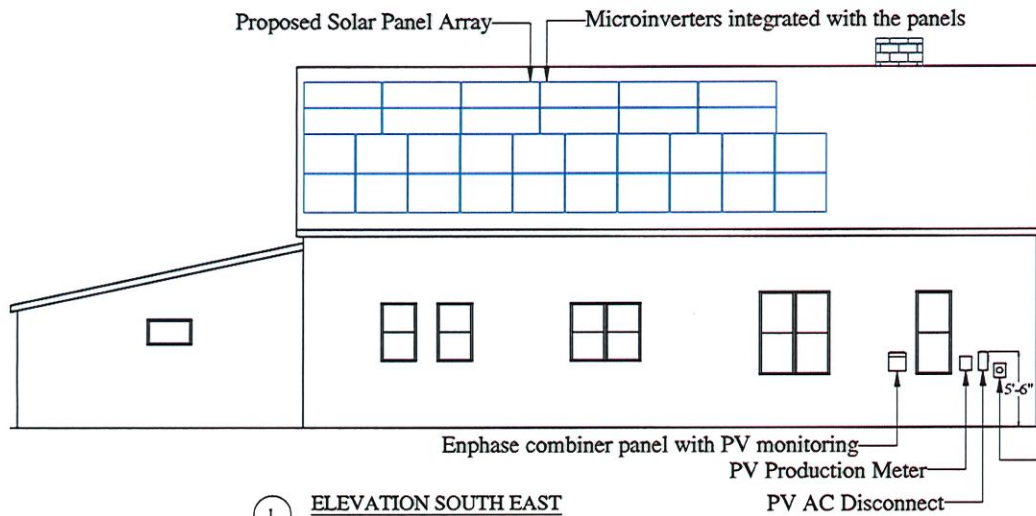
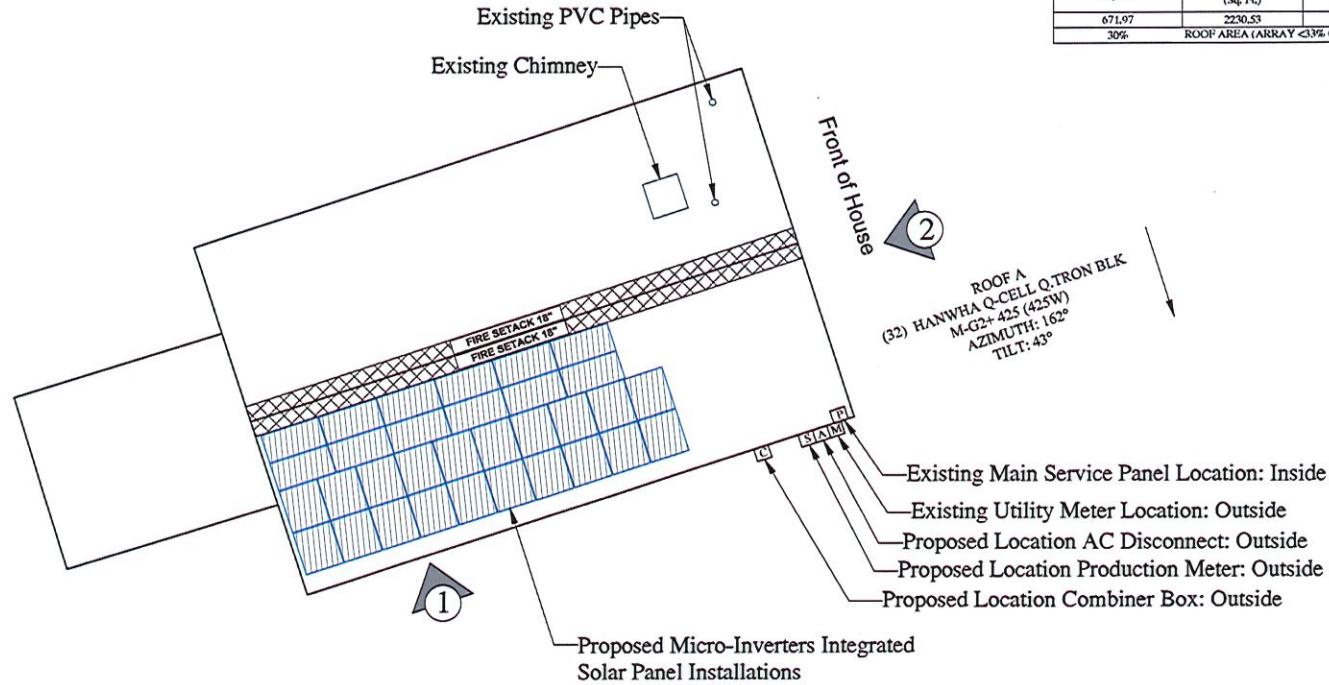
SYSTEM LAYOUT

Scale: 3/16" = 1'-0"

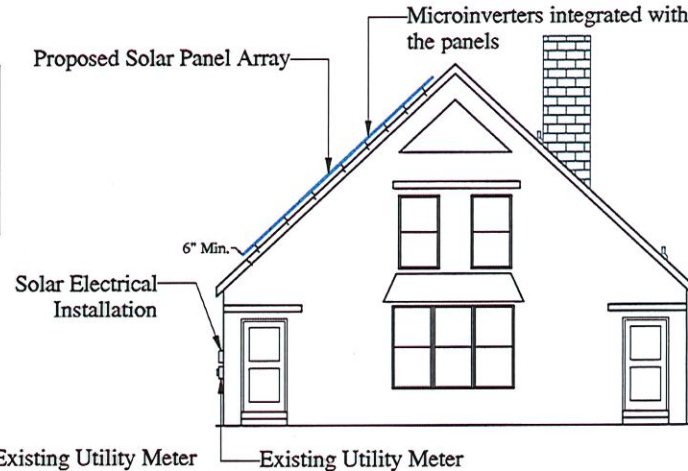
ARRAY AREA & ROOF AREA CALC'S		
AREA OF NEW ARRAY (Sq. Ft.)	AREA OF ROOF PLAN VIEW (Sq. Ft.)	TOTAL ROOF AREA COVERED BY ARRAY %
671.97	2230.53	30%
30%	ROOF AREA (ARRAY <33% OF ROOF AREA)	

ELEVATION LEGEND

	Vent Pipes 44", 16", 12" Tall
	Vent Box
	Vent Fan
	Skylight



1 ELEVATION SOUTH EAST
(LEFT SIDE OF HOME)



2 ELEVATION NORTH EAST
(FRONT SIDE OF HOME)

Patrick Dunnett
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990



P.E./R.A. Stamp/Signatures

Patrick Dunnett
2/1/2024

DOB Stamp/Signatures

ELEVATIONS, SYSTEM LAYOUT	
A-000.00	
Scale: 3/16" = 1'	
Page 2 of 2	

95 Tolland Gm, Tolland, CT 06084-3040, USA		
John Hughes's Residence		
Solar Panels: (32) Hanwha Q-Cell Q.TRON BLK M-62+425		
Inverters: (32) IQORPLUS-72-24IS Micro-Inverters		
Solar System DC Size: 13.60KW AC Size: 9.28KW		
Solar Annual Production: 15,971.00 KWH		
Designed By: UNIRAC		
Date: 2/1/2024		
Revisions #	Approval Date	Description

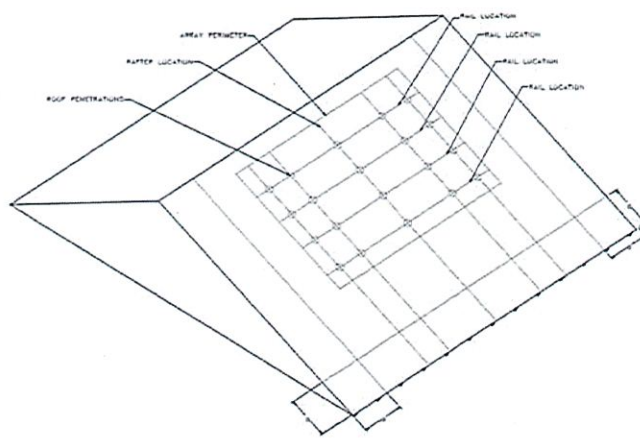
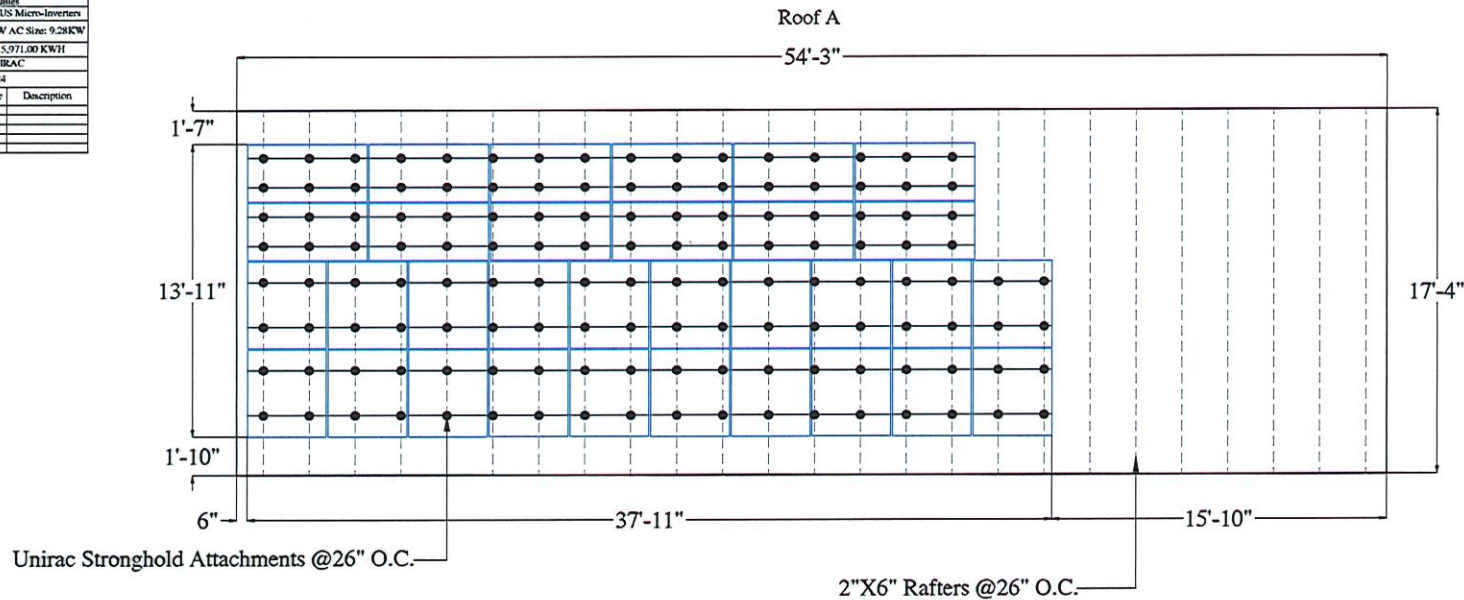
UNIRAC PARALLEL STRONGHOLD ROOF ATTACHMENT

Scale: 3/8" = 1'-0"

LEGEND

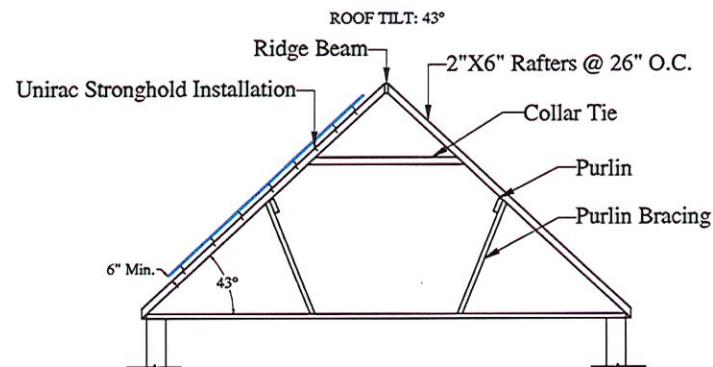


Acceptable Rail Mounting Area
L-Feet Rail Supports shall be installed at each end of rail and every 26" there after to support all Solar array wind and snow loads. Roof attachments shall be parallel.



ROOF STRUCTURAL DETAILS:

Scale: 1/4" = 1'-0"



The PV modules will be maximum 6" off the roof surface.

Patrick Bussett
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990



P.E./R.A. Stamp/Signatures

Patrick Bussett
2/1/2024

DOR Stamp/Signatures

RACKING AND LOAD CALCULATIONS
S-000.00
Scale: SBB SCALE
Page 3 of 9

PV MODULE SPEC-SHEET

Patrick Bussett
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990

P.E./R.A. Stamp/Signatures

Patrick Bussett

7/1/2004

DOR Stamp/Signatures

SPREADSHEET

S-001.00

Scale: SEE SCALE

Page 4 of 9

95 Tolland Grn, Tolland, CT 06084-3040, USA		
John Hughes's Residence		
Solar Panels: (32) Hanwha Q-Cell Q.TRON BILK M42+423 Modules		
Inverters: (32) IQPLUS-75-2-10 Micro-Inverters		
Solar System: DC Size: 13.64KW AC Size: 9.28KW		
Solar Annual Production: 15,971.00 KWH		
Designed By: UNIRAC		
Date: 2/1/2024		
Revision #	Approval Date	Description

WARNING
ELECTRICAL SHOCK HAZARD

TERMINALS ON LINE AND LOAD
SIDES MAY BE ENERGIZED IN
THE OPEN POSITION

LABEL LOCATION:
INVERTER(S), AC DISCONNECT(S), AC
COMBINER PANEL (IF APPLICABLE).
PER CODE(S): NEC 2020: NEC 690.15 (C)
& NEC 690.13(B)

**RAPID SHUTDOWN FOR
SOLAR PV SYSTEM**

LABEL LOCATION:
UTILITY SERVICE ENTRANCE/METER (WITHIN 3 FEET),
INVERTER/DC DISCONNECT IF REQUIRED BY LOCAL
AHL, OR OTHER LOCATIONS AS REQUIRED BY LOCAL
AHL 690.12(D)(2)

WARNING
POWER SOURCE OUTPUT
CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

LABEL LOCATION:
SERVICE PANEL IF SUM OF BREAKERS
EXCEEDS PANEL RATING
NEC 690.12 (B)(3)(2)

WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL LOCATION:
POINT OF INTERCONNECTION
PRODUCTION METER
NEC 705.12(D)(3) & NEC 690.59

NOTES AND SPECIFICATIONS:

- SIGNS AND LABELS SHALL MEET THE REQUIREMENTS OF THE 2020 ARTICLE 110.21(B), UNLESS SPECIFIC INSTRUCTIONS ARE REQUIRED BY SECTION 690, OR IF REQUESTED BY THE LOCAL AHL.
- SIGNS AND LABELS SHALL ADEQUATELY WARN OF HAZARDS USING EFFECTIVE WORDS, COLORS AND SYMBOLS.
- LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT OR WIRING METHOD AND SHALL NOT BE HAND WRITTEN.
- LABEL SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
- SIGNS AND LABELS SHALL COMPLY WITH ANSI Z39.4-2011, PRODUCT SAFETY SIGNS AND LABELS, UNLESS OTHERWISE SPECIFIED.
- DO NOT COVER EXISTING MANUFACTURER LABELS.

PHOTOVOLTAIC AC DISCONNECT

RATED AC OUTPUT CURRENT: 38.72 AMPS
NOMINAL OPERATING AC VOLTAGE: 240_VAC

LABEL LOCATION:
AC DISCONNECT(S), PHOTOVOLTAIC SYSTEM POINT OF
INTERCONNECTION.
PER CODE(S): NEC 2020: 690.54

PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
CONDUIT, COMBINER BOX
(PER CODE: NEC 690.31(D)(2))

PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
EMT/ CONDUIT RACEWAYS
(PER CODE: NEC 690.31(D)(2))

**MAIN PHOTOVOLTAIC
SYSTEM DISCONNECT**

LABEL LOCATION:
MAIN SERVICE DISCONNECT / UTILITY METER
(PER CODE: NEC 690.13(B))

PHOTOVOLTAIC

AC DISCONNECT

2020 NEC CODE 690.13(B)

WARNING

THE DISCONNECTION OF THE
GROUNDED CONDUCTOR(S)
MAY RESULT IN OVERVOLTAGE
ON THE EQUIPMENT

LABEL LOCATION:
INVERTER
PER CODE: NEC 690.31(E)

WARNING

ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

LABEL LOCATION:
COMBINER BOX / CIRCUITS /
CONDUIT COMBINER BOX /
ENCLOSURES / EMT
ENCLOSURES
PER CODE: NEC 706.15(C)(4) and NEC 690.13(B)

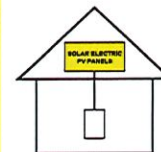
WARNING

**TURN OFF PHOTOVOLTAIC
AC DISCONNECT PRIOR TO
WORKING INSIDE PANEL**

LABEL LOCATION:
COMBINER BOX / CIRCUITS /
CONDUIT COMBINER BOX /
ENCLOSURES / EMT
ENCLOSURES
PER CODE: NEC 110.27(C) & OSHA 1910.145(D)(7)

**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.



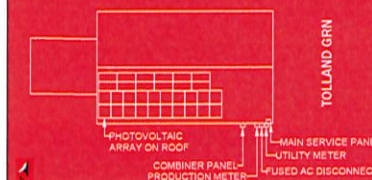
LABEL LOCATION:
MAIN SERVICE PANEL
PER CODE : NEC 2020 : IFC 605.11.3.1(f) & 690.56(c)

COMBINER PANEL
AC Output Current: 38.72A
Nominal Operating AC Voltage: 240V

COMBINER PANEL

CAUTION:

POWER TO THIS BUILDING IS ALSO
SUPPLIED FROM THE FOLLOWING
SOURCES WITH DISCONNECT(S)
LOCATED AS SHOWN:



Patrick Dunsen
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990



P.E./R.A. Stamp/Signatures

Patrick Dunsen
2/1/2024

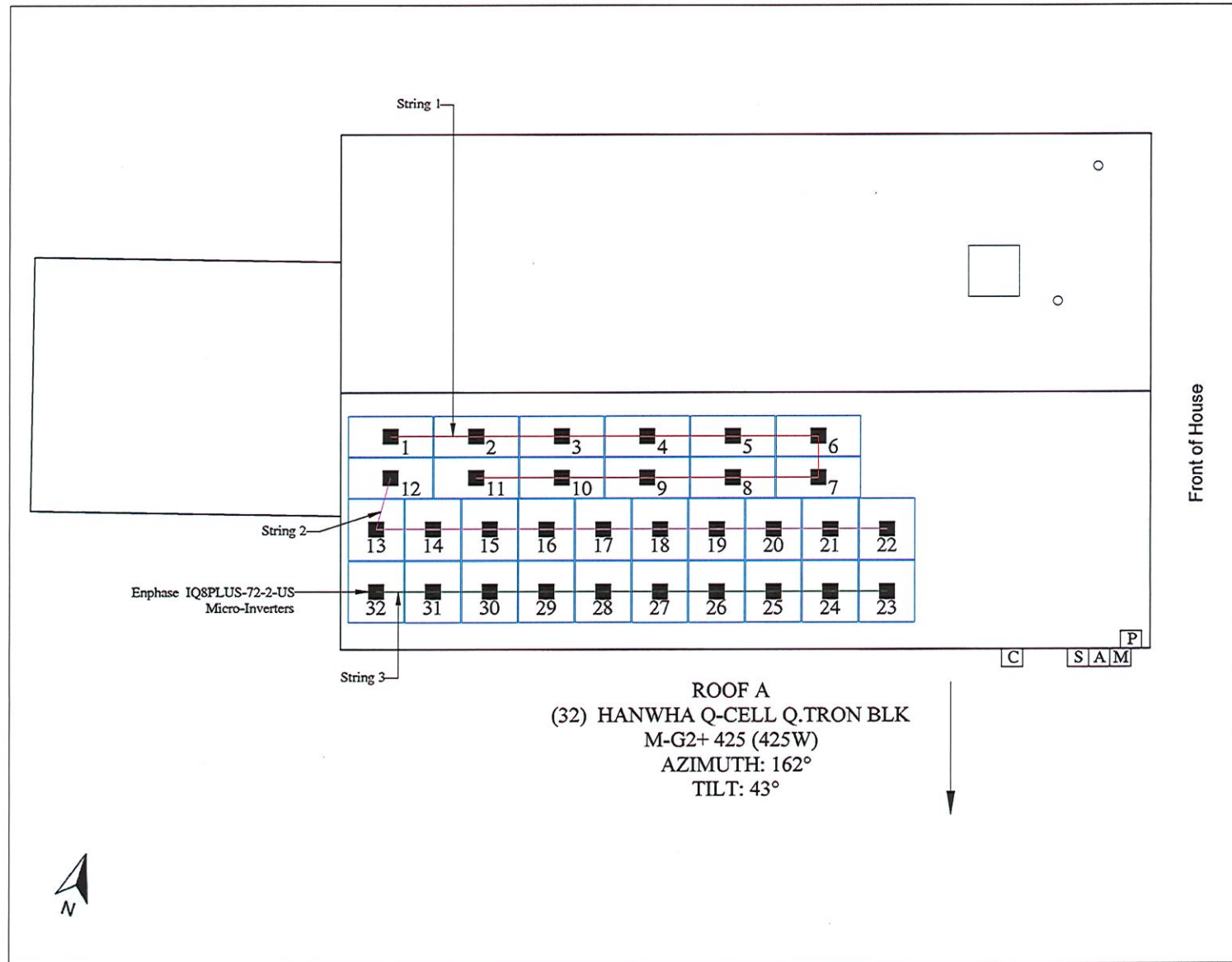
DOB Stamp/Signatures

LABELS
G-000.00
Scale: NTS
Page 5 of 9

String Diagram

Scale: NTS

95 Tolland Grn, Tolland, CT 06084-3040, USA		
John Hughes's Residence		
Solar Panels: (32) Hanwha Q-CELL Q.TRON BLK		
Inverters: (32) IQ8PLUS-72-2-US Micro-Inverters		
Solar System DC Size: 13.60KW AC Size: 9.28KW		
Solar Annual Production: 15,971.00 KWH		
Designed By: UNIREAC		
Date: 2/1/2024		
Revision #	Approval Date	Description



Patrick Bussett
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990



P.E./R.A. Stamp/Signatures

Patrick Bussett
2/1/2024

DOB Stamp/Signatures

String Diagram
E-000.00
Scale: NTS
Page 6 of 9

95 Tolland Gm, Tolland, CT 06084-3040, USA		
John Hughes's Residence		
Solar Panels: (32) Hanwha Q-Gall Q-TKON BLK		
McQuay-475 Modules		
Inverters: (32) IQORPLUS-75-0-150 Micro-Inverters		
Solar System DC Size: 13,60KW AC Size: 9.28KW		
Solar Annual Production: 15,971.00 KWH		
Designed by: UNIRAC		
Date: 2/1/2024		
Revision #	Approval Date	Description

Labels Sheet

String Number	Module Number	Sticker
1	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
2	12	
	13	
	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	

3	23	
	24	
	25	
	26	
	27	
	28	
	29	
	30	
	31	
	32	

Patrick Bussett
Venture Solar
67 West St, Brooklyn, NY 11222
License # 34990

P.E./R.A. Stamp/Signatures

2/1/2024

DOB Stamp/Signatures



Label Sheet

E-001.00

Scaler: NTS

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MODULE SPEC-SHEET

67 West St, Brooklyn, NY 11222
www.venturhedgefund.com
(212) 692-3333

95 Tolland Grn, Tolland, CT

06084-3040, USA
John Hughes's Residence

[illegible]

POWER CLASS		410	415	420	425	430
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE: $\pm 10\%$)						
Power at MPP ¹	P_{MPP} [W]	500	490	485	420	425
Short Circuit Current ²	I_{SC} [A]	13.99	13.42	13.42	13.49	13.5
Open Circuit Voltage ³	V_{OC} [V]	35.58	39.61	39.64	38.67	38.7
Current at MPP	I_{MPP} [A]	12.68	12.75	12.62	12.98	12.99
Voltage at MPP	V_{MPP} [V]	32.32	32.35	32.27	32.98	32.99
Efficiency ⁴	η [%]	21.4	21.6	21.9	22.2	22.2
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ⁵						
Power at MPP	P_{MPP} [W]	310.0	315.8	317.6	321.4	325
Short Circuit Current	I_{SC} [A]	10.79	10.82	10.84	10.87	10.9
Open Circuit Voltage	V_{OC} [V]	34.61	36.63	36.66	36.49	36.5
Current at MPP	I_{MPP} [A]	9.97	10.03	10.09	10.15	10.2
Voltage at MPP	V_{MPP} [V]	31.09	31.29	31.48	31.66	31.8

Measurement Conditions: P_{MPP} $\pm 3\%$, I_{SC} $\pm 5\%$ at STC, NMOT: 25 $\pm 2^\circ\text{C}$, AM 1.5 according to IEC 60904-9 $\pm 100\text{ mW/m}^2$ NMOT, Spectral index $\pm 1\%$

CONDUCTOR SIZING CALCULATION								
CIRCUIT DESCRIPTION	NO. OF INVERTERS	I _{max} (600,8kVA)	I _{cont} (600,8kVA) calc	SPECIFIED CONDUCTOR	AMPACITY @ 90°C	AMBIENT TEMPERATURE °C	CURRENT CARRYING COND.	COND. OF USE APPLIED (600,8kVA) calc
PV SOURCE STRING 1	11.00	13.21	13.31 x 1.25 = 16.64	#10 THWN-2	40	31-35	1-3	40A x 0.96 (amb. temp. x 1.0 (raceway fill)) = 38.40A
PV SOURCE STRING 2	11.00	13.31	13.31 x 1.25 = 16.64	#10 THWN-2	40	31-35	1-3	40A x 0.96 (amb. temp. x 1.0 (raceway fill)) = 38.40A
PV SOURCE STRING 3	10.00	12.10	12.10 x 1.25 = 15.13	#10 THWN-2	40	31-35	1-3	40A x 0.96 (amb. temp. x 1.0 (raceway fill)) = 38.40A
COMBINER BOX OUTPUT	32.00	38.72	38.72 x 1.25 = 48.40	#6 THWN-2	75	31-35	1-3	75A x 0.96 (amb. temp. x 1.0 (raceway fill)) = 72.00A
AC DISCONNECT OUTPUT	32.00	38.72	38.72 x 1.25 = 48.40	#6 THWN-2	75	31-35	1-3	75A x 0.96 (amb. temp. x 1.0 (raceway fill)) = 72.00A

FUSE SIZE CALCULATIONS

(32) x 1.21A x 1.25 = 48.40A = 60A fuse size (Min.)

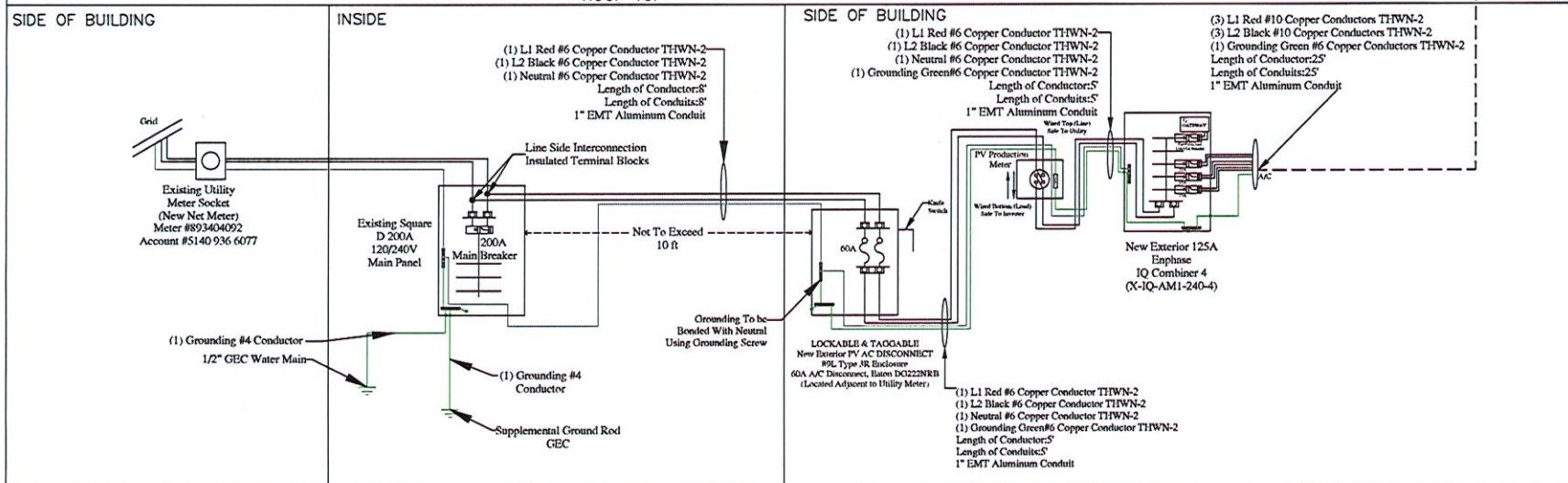
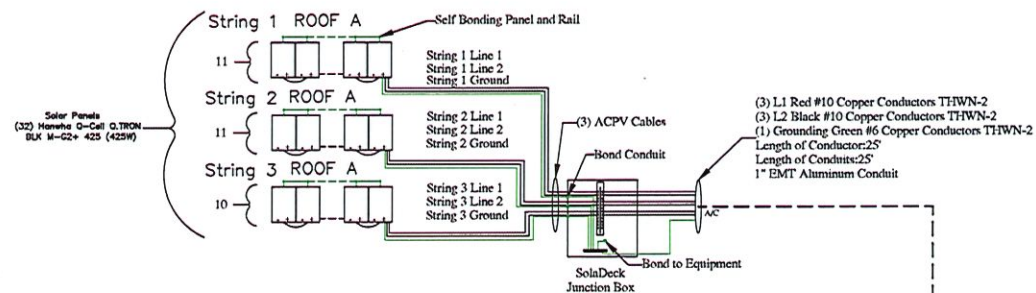
STRING CALCULATIONS

(11) x 1.21A x 1.25 = 16.64A <20A —>OK

(11) x 1.21A x 1.25 = 16.64A <20A —>OK

(10) x 1.21A x 1.25 = 15.13A <20A —>OK

SERVICE FEED SOURCE : OVERHEAD
COMMUNICATION PORT IS AVAILABLE FOR UTILITY USE.



DOB Stamps/Signatures

ELECTRICAL 3-LINE & LABELS
E-002.00
Scale: NTS
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95 Tolland Gm, Tolland, CT 06084-3040, USA
John Hughes's Residence
Solar Panels: (25) Hanwha Q-Cell Q.TRON BILK M-02+ 425 Modules
Inverters: (2) IQPLUS-72-2-US Micro-Inverters
Solar System DC Size: 13.60KW AC Size: 9.28KW
Solar Annual Production: 15,971.00 KWH
Designed By: UNIRAC
Date: 2/1/2024
Revision # Approval Date Description

VENTURE SOLAR						
Customer Name	John Hughes					
Customer Address	95 Tolland Grn, Tolland, CT 06084-3040, USA					
Team	UNIRAC					
ROOF			ELECTRICAL			
Description	Qty.	Bar Code	Description	Qty.	Bar Code	
Hanwha 425	32		Enphase IQ Combiner 4	1		
Portrait Q Cable - #Conn	24		Enphase Mobile Connect	1		
Landscape Q Cable- #Conn	14		Enphase IQ7 + Micro	0		
Q Term	3		Enphase IQ7X Micro	0		
Q Seal	6		Eaton 20 A Breaker	3		
Q-Conn 10M	2		IPC - 4/0 - #6 (Taps)	2		
Q-Conn 10F	2		60 A Disconnect	1		
Micro Inverter T Bolt	34		60A Set of Fuses	1		
Wire Restraints	3		100 AMP Disconnect	0		
Ground Lug	4		100A Set of Fuses	0		
Pitched ROOF			125 A Solar Load Center	0		
Strong Hold Box (Qty.20)	4		Square D 100 A Main Breaker	0		
Unirac Rail	22		Square D 20 A Breaker	0		
Unirac Splice	6		Square D 15 A Breaker	0		
Unirac Ends	17		Enphase IQ Envoy	0		
Unirac Mids	4		Enphase IQ7A Micro	0		
Solar Seal	4		Enphase IQ8 Micro	0		
Solar Deck	1		Enphase IQ8+ Micro	32		
Consumption CT x 1Sets	200		Enphase IQ8MC Micro	0		
Fire and Smoke detector x 1 No	No		Enphase IQ8H Micro	0		
Battery Details						
Manufacturer	Type	Mfr. Part No. & Description			Qty	
Enphase Energy Inc	Battery	Enphase Encharge 10			0	
Enphase Energy Inc	Other	ENCHARGE-10-1P-NAAC Battery			0	
Enphase Energy Inc	Monitor	COMMS-KIT-01 (Ensemble)			0	
FLAT ROOF			CONFIRMATION			
Chemlink 6" E-curb Kit	0		Procurement Team Signature			
L- Foot Box w/ Nut & Bolt (Qty.24)	0					
4" Stand Off	0					
Unirac Tilt 18 - 30"	0					
Unirac Tilt 26 - 44"	0					
Unirac Tilt 40 - 72"	0					
Silver Unirac Rail	0					
Silver Unirac Splice	0					
Silver Unirac End	0					
Silver Unirac Mid	0					
4" Lag	0					
8"x8"x4" Junction Box	0					

DOB Stamp/Signatures

BOM

G-001.00

Scale: NTS

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SPECIAL MEETING MINUTES
TOLLAND GREEN HISTORIC DISTRICT COMMISSION
Wednesday, November 29, 2023 at 7:00 p.m.
REMOTE MEETING

Public Hearing

1. Call to Order by the chair at 7:00.

2. Roll Call

Commissioners: Jodie Coleman-Marzialo, Chair; Ann Deegan, substitute clerk; Celeste Senechal, alternate: John Hughes

Katie Murray, town council liaison

Guests: Mr. Bailey Brenn (applicant), Reverend Doctor Jeffrey Gallagher, pastor of the UCCT, Dr. Fred Day-Lewis, Ms. Cindy Minchune, Rep from AE Solar, Ms. Cheryl Randino. Mrs. Tonja Kelly

3. Continued discussion of Application for a COA at 45 Tolland Green to install black non reflective solar energy collection panels to the south facing roofs on the main church and daycare building (on the rear property of church).

Mr. Brenn discussed the new configuration of the panels as seen in the revised material included in the Special agenda meeting packet for the November 29, 2023, meeting of the TGHDC. It states that there would no longer be panels installed on the main church building. According to Ms. Cindy Minchune, there will be 75 panels on a freestanding structure at the rear of the church property. It is beyond the purview of the historic district and will not be seen from the road. There will be a fence around this structure and a buffer zone with foliage added. There will also be 26 solar panels located on the backside west-facing roofs and one south-facing roof that will not be visible from the street.

4. Neighbor Comments:

Mrs. Tonja Kelly 64 Tolland Green, spoke in support of the solar project at the UCCT. She stated that she has lived in town for 44 years and on the Green for 32. Mrs. Kelly wrote a letter declaring her support for the solar project, which was to be included in the October minutes and was not. I will now be added.

Alternate commissioner, Mr. Hughes stated that he was hopeful that the Commission would now be able to accommodate the church in this project.

The letters received since the November 15th meeting that are in the revised meeting packet for the special meeting of the TGHDC on November 29th should be included in the minutes of the November 29, 2023, special meeting. There were 15 letters received, 10 in support and 5 opposed.

5. Motion to close the public hearing at 7:14 by C. Senechal, 2nd A. Deegan. Vote: unanimous.

The Regular meeting was called to order at 7:14.

1. Roll Call: Same as above.

2. Motion to accept the UCCT proposal as presented in the revised special meeting packet to place a solar free-standing structure on the rear of their property outside the TGHDC which will not be visible from the road and will be fenced in with plantings to further obscure view from the street. There will also be 26 additional panels on west facing roofs and one south facing roof, none of which will be visible. There will be no panels placed on the main roof of the church per material found in the updated agenda of the special public hearing of the TGHDC. By C. Senechal 2nd A. Deegan Vote: unanimous

3. Old Business

3.1 proposed sidewalk on the Green. According to our liaison, the preliminary findings seem to indicate that there is no problem with the project going forward as proposed by the town manager and town council as the archeological study did not find anything problematic.

4. Miscellaneous:

4.1 Vice chair will be retiring. New officers will be discussed and voted on at a later meeting. This retirement will create a vacancy and the commission was reminded by our liaison that the Town Council is in charge of appointing and approving all new members.

5. Motion to approve the revised minutes of the October 18, 2023, TGHDC meeting with the letters in support and against the solar panels to be included. The letter from Mrs. Tonja Kelly in support of the panels should be included. By C. Senechal, 2nd A. Deegan vote unanimous.

6. Motion to approve the minutes of the November 15, 2023, TGHDC. By C. Senechal, 2nd A. Deegan vote unanimous.

7. Motion to adjourn at 7:24 by C. Senechal, 2nd A. Deegan vote unanimous

Respectfully submitted,

Ann Deegan, Substitute Clerk

Laura Smith

From: Jodie Coleman-Marziano [REDACTED]
Sent: Saturday, November 25, 2023 12:04 PM
To: Laura Smith; Celeste Senechal; Ann Deegan
Cc: Jim Paquin; Michael McGee [REDACTED]; John Hughes
[REDACTED]; Mariah B; Kathy Bach
Subject: [EXTERNAL]Fw: Solar panel on UCCT

Hi Laura,
Can you please update our Nov. 29th meeting packet to include this neighbor response.
Thank you,
Jodie

From: Hollie Barnas <[REDACTED]>
Sent: Friday, November 24, 2023 12:47 PM
To: Jodie Coleman-Marziano <[REDACTED]>
Subject: Re: Solar panel on UCCT

Hi Jodie - we would approve of solar panels on the back roof of the church ONLY if the church replants *large* trees that were removed along the parking lot perimeter. Prior to removal, the trees obstructed the view of the backside of the church and daycare building from my home and when driving on Tolland Green road thereby maintaining the historic ambience. Since tree removal our home and road drivers have a clear line of sight to the parking lot which includes the back roof of the church. Therefore, without plantings, the solar panels would be seen from our home and the road and they would not appear consistent with a registered historic area and designated scenic road. My hope is that a win-win situation can be negotiated so that the church can have the eco-benefits of solar while they also take responsibility for maintaining the historic area ambience they reside in.

Thank you for allowing me the opportunity to comment,
Hollie (31 Tolland Green)

On Thu, Nov 23, 2023 at 10:38 AM Jodie Coleman-Marziano <[REDACTED]> wrote:

Hi Hollie and Dave,

The United Congregational Church would like to install solar panels on the main roof of the church toward the back. Do you have a neighbor comment please. We referred to the comments from 2018 and are reaching out to those to comment again. Our continued PH is next Wednesday Nov. 29th. Please let me know.

Happy Thanksgiving,
Jodie

Laura Smith

From: Jodie Coleman-Marzialo <[REDACTED]>
Sent: Monday, November 27, 2023 8:07 PM
To: Laura Smith; Celeste Senechal; Ann Deegan; Michael McGee
[REDACTED]; John Hughes [REDACTED]; Jim Paquin
Cc: Kathy Bach; Mariah B
Subject: [EXTERNAL]Fw: solar panels

Hi Laura,
I have a few more neighbor letters to add to our Special Meeting packet in addition to the one I sent you Saturday from Hollie Barna.
Thanks for help,
Jodie

From: Stella Demand [REDACTED]
Sent: Sunday, November 26, 2023 4:32 PM
To: [REDACTED]
Subject: solar panels

As residents of the Tolland Green, we hope to preserve the historicity of our neighborhood. We are encouraging the Historic District Commission to decline any request that would degrade the historic aesthetic, the degree to which we feel would be acceptable if the installation were limited to the less prominent parts of the structure. We believe the church is a beautiful building, and is perhaps the most iconic component of our neighborhood. We hope the parties can come to an agreement by which the historical integrity of the neighborhood is preserved far into the future.
Thank you for considering our input.
Phil and Stella Demand
81 Tolland Green

Laura Smith

From: Jodie Coleman-Marzialo [REDACTED]
Sent: Monday, November 27, 2023 8:08 PM
To: Laura Smith; Jim Paquin; Ann Deegan; Celeste Senechal; Michael McGee
[REDACTED]; John Hughes [REDACTED]
Cc: Mariah B; Kathy Bach
Subject: [EXTERNAL]Fw: UCCT solar panels

Here is another letter for our packet.
Jodie

From: Craig Surber [REDACTED]
Sent: Sunday, November 26, 2023 7:50 PM
To: Jodie Coleman-Marzialo [REDACTED] >
Subject: Re: UCCT solar panels

As a former resident of the historic district I do not like the idea. I believe it will take away from the historical feel of the green. All these types of proposal will eventually ruin the historic feel of the green. I feel it is important to maintain and preserve the green before we have gone to far.
Craig Surber

[Sent from the all new AOL app for iOS]Sent from the all new AOL app for iOS

On Saturday, November 25, 2023, 3:54 PM, Jodie Coleman-Marzialo <[REDACTED]> wrote:

The United Congregational Church would like to install solar panels on the main roof of the church toward the back. As a previous resident of the HD do you have a comment please. We referred to the comments from 2018 and are reaching out for comments again. Our continued PH is next Wednesday Nov. 29th. Please let me know.
Happy Thanksgiving,
Jodie

Laura Smith

From: Jodie Coleman-Marzialo <[REDACTED]>
Sent: Monday, November 27, 2023 8:13 PM
To: Laura Smith; Jim Paquin; Ann Deegan; Celeste Senechal; Michael McGee
([REDACTED]); John Hughes ([REDACTED])
Cc: Mariah B; Kathy Bach
Subject: [EXTERNAL]Fw: Solar Panels for UCCT

And here is another please for our meeting packet. I believe we have 24 hours to post the agenda and materials for a Special Meeting. Thanks for your help.

Jodie

From: Denis Deegan [REDACTED]
Sent: Monday, November 27, 2023 2:12 PM
To: [REDACTED]>
Subject: Solar Panels for UCCT

Jodie,

Please allow me to express my absolute objection to "any" use of visible solar panels on "any" property located on or adjacent to the historically designated Tolland Green. Just because one Tolland Green resident played the delay game to side step the Historic District Commission's purview, doesn't then make that outcome precedent for all other property owners.

This is a very pivotal point in terms of preserving the intentions of prior generations to maintain Tolland as an aesthetically traditional old New England town. If the creation of the Tolland Historic Commission and its chartered intentions to protect the integrity of the Tolland Green can no longer be maintained because of demographic new-comers who fail to understand its purpose, then it's time for everyone to admit that Tolland is ready to walk away from its historical identity. Placing solar panels on the main structure of UCCT as they have proposed will create an extreme eyesoar in addition to significantly degrading the historical value of the Town Green.

While I am committed to supporting steps to allow the environment to overcome the proliferation of hydrocarbon pollutants, let's take into consideration the full perspective. First and foremost, what steps are all of these concerned individuals taking to minimize their own personal carbon footprint. What type of vehicle(s) do they drive? How many miles a day / week / year do they drive? Do they take mass transportation? How efficient are their heating systems? Do they operate wood burning stoves or fireplaces? Have their homes been brought up to the highest efficiency standards? It's extraordinarily easy for "concerned individuals" to support measures that either shift the burden upon others and / or directly benefit their own pocketbooks.

It is also critical to keep in mind that advancements in alternative energy are dramatically evolving with each passing year. We can simply compare the solar panels of a few years ago with those of today to see both the aesthetic and energy generation improvements that have occurred. One can only imagine what advancements will transpire over the next 5 to 10 years that may potentially render today's solar panels obsolete. Why is it so critical for UCCT to take this action now?

In closing, two final thoughts. Only "residents" of Tolland should have any involvement in decisions relating to the maintenance of The Green's historical purity. And, when part of a property owner's argument / solution

involves enhancing or maintaining trees or other plantings to mitigate a proposal that violates the intent of The Tolland Green's historical designation, then they must be legally bound to that solution. Allowing property owners to later walk away from their commitment, as at least one other Tolland Green resident has, should place them in violation of Town Ordinance and thus forfeiture of their CofO.

Thank you,

Denis J. Deegan
689 Tolland Stage Road

Laura Smith

From: Jodie Coleman-Marzialo <[REDACTED]>
Sent: Monday, November 27, 2023 9:47 PM
To: Laura Smith; Jim Paquin; Ann Deegan; Celeste Senechal; Michael McGee
([REDACTED]); John Hughes ([REDACTED])
Cc: Mariah B; Kathy Bach
Subject: [EXTERNAL]Fw: Solar panels

Hi Laura,
Here is one more neighbor comment for the HDC Special Meeting packet.
Thanks,
Jodie

From: Heather & Matt ([REDACTED])
Sent: Monday, November 27, 2023 9:20 PM
To: [REDACTED]
Subject: Solar panels

Hi Jody - Here's a statement you can include for the meeting about the solar panels on the Congregational church:

In considering the installation of solar panels on the Congregational church, we believe any decision should prioritize preserving the visual integrity of our historic neighborhood. Any placement should be discreet and not only maintain the historical appearance of the Green, but consider the potential impact on neighboring properties.

Heather and Matt Ferretti