TOWN OF BLANDFORD, MASSACHUSETTS
PLANNING BOARD
1 Russell Stage Road, Blandford, MA 01008
Tel 1-413-848-4279 ext. 207, Fax 1-413-848-0908, E-mail: planning@townofblandford.com

SPECIAL PERMIT APPLICATION – GM SOLAR - MARIJUANA ESTABLISHMENTS

Town Use Only (Official Date Stamp below)

Received by ZBA/PB: (9 full sets)

Received by Town Clerk (1 full set):

Building Inspector (1 full set):

Section 1: SITE INFORMATION

Street Address 3 Huntington Rd Blandford MA 01008

Assessors Map # 102 Parcel # 102-0-14.1 District (ZoningDistrict)1 Registry of Deeds: Book 23443 Page 162
(Required for filing Board's Decision)

Land Area (acres or square footage) 36.329 Town Maintained Road Lot Frontage: _____

Any Portion in a Flood Plain? No

Section 2: APPLICANT INFORMATION

Applicant Name(s) and Address(es) Jacqueline Coury

3 Huntington Road, Blandford, MA 01008

(If applicant is a corporation or partnership – is copy of condition or similar document attached?) YES/NO _____

Home Telephone #(203) 241-4658 Work # _____ Cell Phone # (203) 252-1012 E-mail couryt1@gmail.com

Section 3: I/WE REQUEST A SPECIAL PERMIT FOR

Description for proposed work or use: Install 12.8kW solar ground mount. (32) panels. Trench approximately 70 ft

Application is made under Section(s) 8 of the Blandford Zoning By-Law.

I hereby certify that the information above and on the Site-Plan is correct to the best of my knowledge and permission is granted for the site inspection.

Applicant: Jacqueline Coury (Jan 17, 2023 15:47 EST) **Co-Applicant** _____ **Date:** 01/17/23

Site Plans (9+ copies + mylar, if applicable) attached [X] Certified Abutters List attached [X] Fee(s) enclosed [X]

PLEASE USE AN ADDITIONAL SHEET OF PAPER IF NECESSARY AND ATTACH IT TO THIS FORM ALONG WITH ANY OTHER INFORMATION YOU THINK MY BE HELPFUL IN PROCESSING YOUR APPLICATION. (MAPS, ETC.)

INSTALLATION OF NEW
GROUND MOUNTED PV SOLAR SYSTEM
3 HUNTINGTON ROAD
BLANDFORD, MA 01008

HUNTINGTON ROAD

VICINITY MAP
SCALE: NTS

SATELLITE VIEW
SCALE: NTS

GENERAL NOTES

IF ISSUED DRAWING IS MARKED WITH A REVISION CHARACTER OTHER THAN "A", PLEASE BE ADVISED THAT FINAL EQUIPMENT AND/OR SYSTEM CHARACTERISTICS ARE SUBJECT TO CHANGE DUE TO AVAILABLITY OF EQUIPMENT.

GENERAL NOTES

1. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL DIRECTIONS AND INSTRUCTIONS CONTAINED IN THE DRAWING PACKAGE AND INFORMATION RECEIVED FROM TRINITY.
2. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL DIRECTIONS AND INSTRUCTION CONTAINED IN THE COMPLETE MANUAL.
3. THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR READING AND UNDERSTANDING ALL DRAWINGS, COMPONENT AND INVERTER MANUALS PRIOR TO INSTALLATION. THE INSTALLATION CONTRACTOR IS ALSO REQUIRED TO HAVE ALL COMPONENT SWITCHES IN THE OFF POSITION AND FUSES REMOVED PRIOR TO THE INSTALLATION OF ALL FUSE BEARING SYSTEM COMPONENTS.
4. ONCE THE PHOTOVOLTAIC MODULES ARE MOUNTED, THE INSTALLATION CONTRACTOR SHOULD HAVE A MINIMUM OF ONE ELECTRICIAN WHO HAS ATTENDED A SOLAR PHOTOVOLTAIC INSTALLATION COURSE ON SITE.
5. FOR SAFETY, IT IS RECOMMENDED THAT THE INSTALLATION CREW ALWAYS HAVE A MINIMUM OF TWO PERSONS WORKING TOGETHER AND THAT EACH OF THE INSTALLATION CREW MEMBERS BE TRAINED IN FIRST AID AND CPR.
6. THIS SOLAR PHOTOVOLTAIC SYSTEM IS TO BE INSTALLED FOLLOWING THE CONVENTIONS OF THE NATIONAL ELECTRICAL CODE. ANY LOCAL CODE WHICH MAY SUPERSEDE THE NEC SHALL GOVERN.
7. ALL SYSTEM COMPONENTS TO BE INSTALLED WITH THIS SYSTEM ARE TO BE "UL" LISTED. ALL EQUIPMENT WILL BE NEMA 3R OUTDOOR RATED UNLESS INDOORS.

GENERAL NOTES CONTINUED

8. THE DC VOLTAGE FROM THE PANELS IS ALWAYS PRESENT AT THE DC DISCONNECT ENCLOSURE AND THE DC TERMINALS OF THE INVERTER DURING DAYLIGHT HOURS. ALL PERSONS WORKING ON OR INVOLVED WITH THE PHOTOVOLTAIC SYSTEM ARE WARNED THAT THE SOLAR MODULES ARE ENERGIZED WHENEVER THEY ARE EXPOSED TO LIGHT.
9. ALL PORTIONS OF THIS SOLAR PHOTOVOLTAIC SYSTEM SHALL BE MARKED CLEARLY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 690 & 705.
10. PRIOR TO THE INSTALLATION OF THIS PHOTOVOLTAIC SYSTEM, THE INSTALLATION CONTRACTOR SHALL ATTEND A PRE-INSTALLTION MEETING FOR THE REVIEW OF THE INSTALLATION PROCEDURES, SCHEDULES, SAFETY AND COORDINATION.
11. PRIOR TO THE SYSTEM START UP THE INSTALLATION CONTRACTOR SHALL ASSIST IN PERFORMING ALL INITIAL HARDWARE CHECKS AND DC WIRING CONDUCTIVITY CHECKS.
12. FOR THE PROPER MAINTENANCE AND ISOLATION OF THE INVERTERS REFER TO THE ISOLATION PROCEDURES IN THE OPERATION MANUAL.
13. THE LOCATION OF PROPOSED ELECTRIC AND TELEPHONE UTILITIES ARE SUBJECT TO FINAL APPROVAL OF THE APPROPRIATE UTILITY COMPANIES AND OWNERS.
14. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREIN SHALL BE IN ACCORDANCE WITH:
    A) CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS AND REQUIREMENTS

GENERAL NOTES CONTINUED

14. B) CURRENT PREVAILING UTILITY COMPANY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS
15. THIS SET OF PLANS HAVE BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. ONCE APPROVED, THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SYSTEM COMPONENTS AS DESCRIBED IN THE DRAWING PACKAGE.
16. ALL INFORMATION SHOWN MUST BE CERTIFIED PRIOR TO USE FOR CONSTRUCTION ACTIVITIES.

ABBREVIATIONS

AMP	AMPERE
AC	ALTERNATING CURRENT
AL	ALUMINUM
AF	AMP. FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT (GENERIC TERM OF RACEWAY, PROVIDE AS SPECIFIED)
CB	COMBINER BOX
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DISC	DISCONNECT SWITCH
DWG	DRAWING
EC	ELECTRICAL SYSTEM INSTALLER
EMT	ELECTRICAL METALLIC TUBING
FS	FUSIBLE SWITCH
FU	FUSE
GND	GROUND
GFI	GROUND FAULT INTERRUPTER
HZ	FREQUENCY (CYCLES PER SECOND)

ABBREVIATIONS CONTINUED

JB	JUNCTION BOX
kCMIL	THOUSAND CIRCULAR MILS
kVA	KILO-VOLT AMPERE
kW	KILO-WATT
kWH	KILO-WATT HOUR
L	LINE
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUG ONLY
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO #	NUMBER
NTS	NOT TO SCALE
OCP	OVER CURRENT PROTECTION
P	POLE
PB	PULL BOX
PH ∅	PHASE
PVC	POLY-VINYL CHLORIDE CONDUIT
PWR	POWER
QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SN	SOLID NEUTRAL
JSWBD	SWITCHBOARD
TYP	TYPICAL
U.O.I.	UNLESS OTHERWISE INDICATED
WP	WEATHERPROOF
XFMR	TRANSFORMER
+72	MOUNT 72 INCHES TO BOTTOM OF ABOVE FINISHED FLOOR OR GRADE

SHEET INDEX

*PLANS COMPLY WITH 2010 RCNYS ASCE 7-05, 2001 WFCM AS PER REFERNCED STANDARDS. WIND SPEED DESIGN IS 110 MPH

Issued / Revisions

NO.	DESCRIPTION	DATE
R1	GM LOCATION / PROPERTY LINES	10/10/2022
P1	ISSUED TO TOWNSHIP FOR PERMIT	9/16/2022

Project Title:

COURY, THOMAS-

TRINITY ACCT #: 2022-05-706594

Project Address:

3 HUNTINGTON ROAD
BLANDFORD, MA 01008
42.2074672,-72.9381878

Drawing Title:

PROPOSED PV SOLAR SYSTEM

Drawing Information

DRAWING DATE:	9/16/2022
DRAWN BY:	KTD
REVISED BY:	DMR

System Information:

DC SYSTEM SIZE:	12.8kW
AC SYSTEM SIZE:	10kW
MODULE COUNT:	32
MODULES USED:	HANWHA 400
MODULE SPEC #:	Q.PEAK DUO BLK ML-G10.a+ 400
UTILITY COMPANY:	EVERSOURCE
UTILITY ACCT #:	5446 082 9054
UTILITY METER #:	868888802
DEAL TYPE:	SUNNOVA

Rev. No. R1

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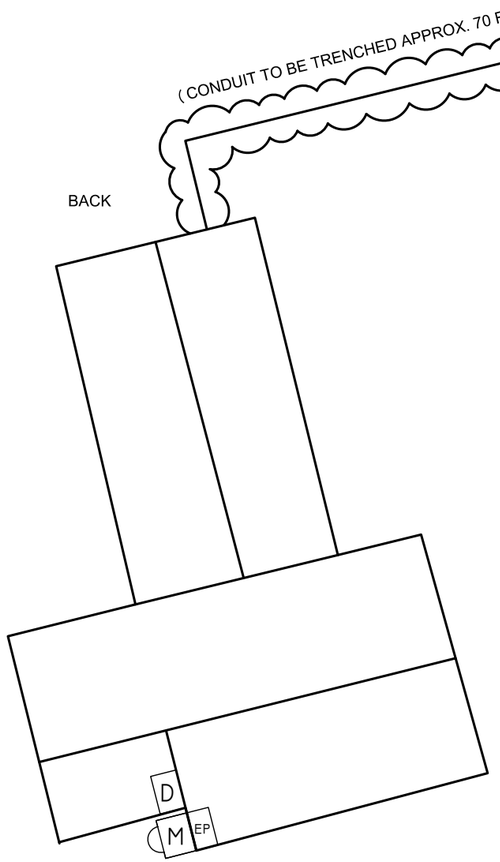
ARRAY SCHEDULE

GM 1
MODULES: 32
PITCH: 30
ORIENTATION: 180



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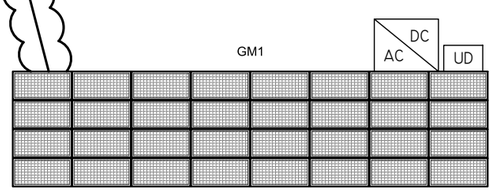

NOTES:

1.) ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2.) ARRAY BONDING TO COMPLY WITH MANUFACTURER SPECIFICATION.
3.) ALL LOCATIONS ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION.
4.) AN AC DISCONNECT SHALL BE GROUPED WITH INVERTER (S) NEC 690.13 (E) .
5.) ALL OUTDOOR EQUIPMENT SHALL BE RAIN TIGHT WITH MINIMUM NEMA 3R RATING.
6.) ROOFTOP SOLAR INSTALLATION ONLY PV ARRAY SHALL NOT EXTEND BEYOND THE EXISTING ROOF EDGE.

SYMBOL LEGEND

R1	INDICATES ROOF DESIGNATION . REFER TO ARRAY SCHEDULE FOR MORE INFORMATION	UD	INDICATES NEW UNFUSED PV DISCONNECT TO BE INSTALLED OUTSIDE (UTILITY ACCESSIBLE)	SP	INDICATES NEW PV ONLY SUBPANEL TO BE INSTALLED
M	INDICATES EXISTING METER LOCATION		INDICATES NEW PV SOLAR MODULE. RED MODULES INDICATE PANELS THAT USE MICRO INVERTERS. REFER TO EQUIPMENT SCHEDULE FOR SPECS.	DC	INDICATES NEW DC DISCONNECT
EP	INDICATES EXISTING ELECTRICAL PANEL LOCATION: IN BASEMENT	P	INDICATES NEW PRODUCTION METER TO BE INSTALLED OUTSIDE.	SD	INDICATES EXISTING SERVICE DISCONNECT
D	INDICATES NEW FUSED PV DISCONNECT TO BE INSTALLED OUTSIDE (UTILITY ACCESSIBLE)	DC / AC	INDICATES NEW INVERTER TO BE INSTALLED OUTSIDE. REFER TO EQUIPMENT SCHEDULE FOR SPECS.	TS	INDICATES EXISTING TRANSFER SWITCH

PLUMBING SCHEDULE

OTHER OBSTRUCTIONS

EQUIPMENT SCHEDULE

QTY	SPEC #
32	HANWHA 400 (Q.PEAK DUO BLK ML-G10.a+ 400)
1	SE10000H-US0SHBNC4

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UTILITY METER #:	868888802
DEAL TYPE:	SUNNOVA

Rev. No. R1

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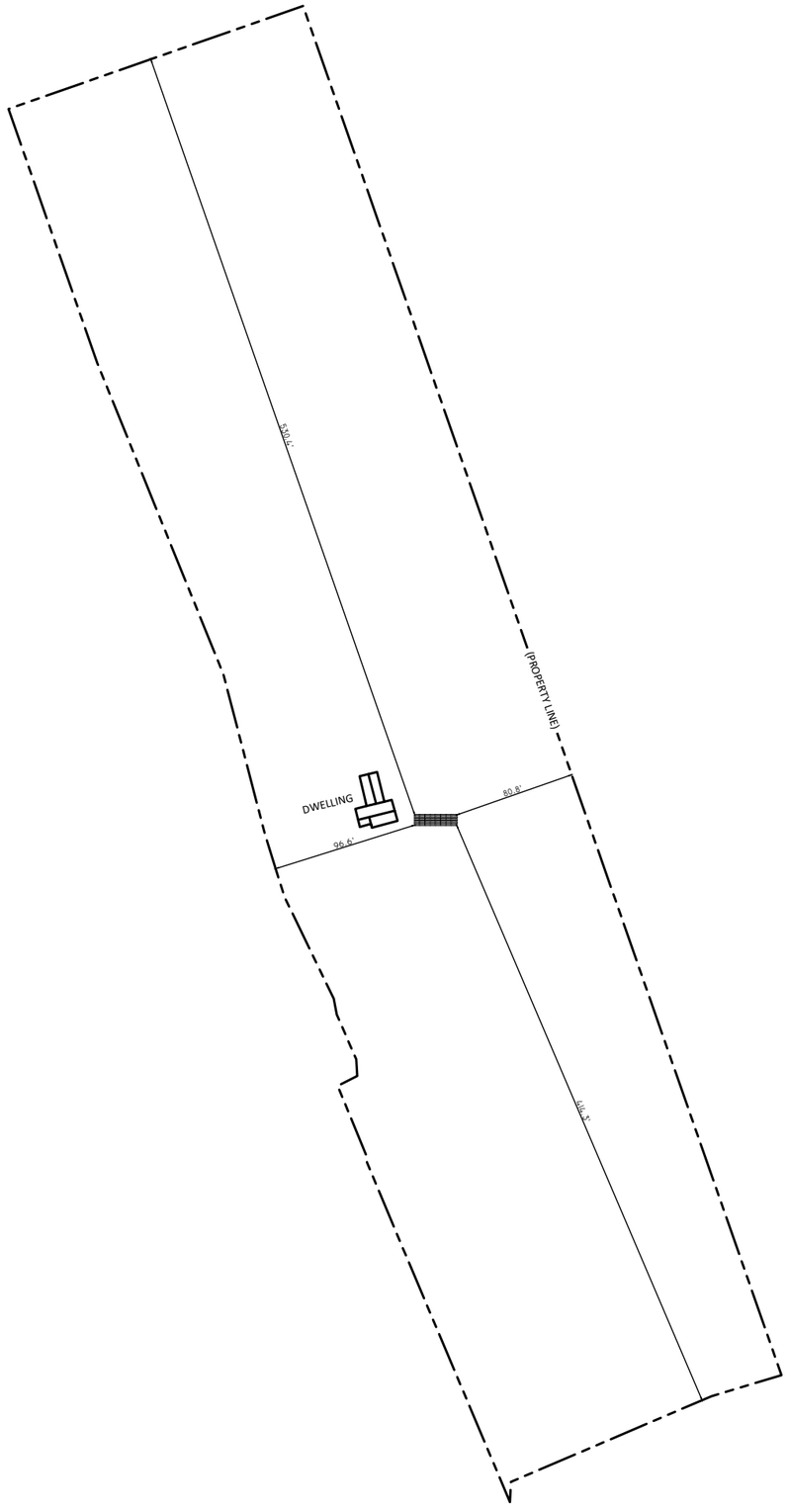

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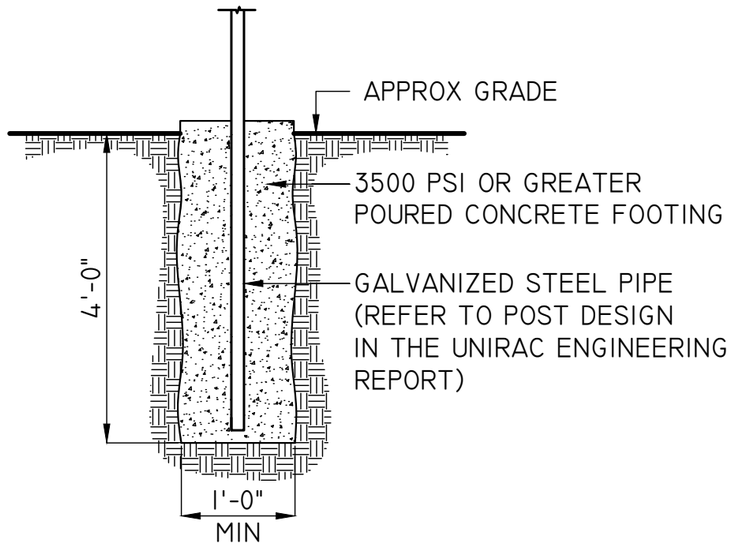
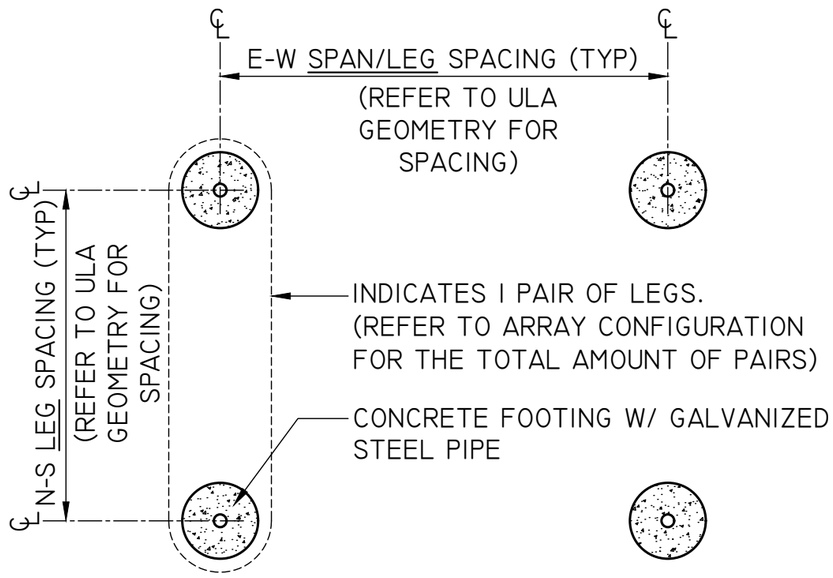


CONCRETE FOOTING DETAIL

SCALE: NTS REFER TO UNIRAC ENGINEER REPORT FOR SPECIFICATIONS



CONCRETE FOOTING LAYOUT

SCALE: NTS REFER TO UNIRAC ULA QUOTATIONS FOR SPECIFICATIONS

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Rev. No.	Sheet
R1	PV - 3

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ARRAY CIRCUIT WIRING NOTES

1.) LICENSED ELECTRICIAN ASSUMES ALL RESPONSIBILITY FOR DETERMINING ONSITE CONDITIONS AND EXECUTING INSTALLATION IN ACCORDANCE WITH

NEC 2020

2.) LOWEST EXPECTED AMBIENT TEMPERATURE BASED ON ASHRAE MINIMUM MEAN EXTREME DRY BULB TEMPERATURE FOR ASHRAE LOCATION MOST SIMILAR TO INSTALLATION LOCATION. LOWEST EXPECTED AMBIENT TEMP = **-16°C**

3.) HIGHEST CONTINUOUS AMBIENT TEMPERATURE BASED ON ASHRAE HIGHEST MONTH 2% DRY BULB TEMPERATURE FOR ASHRAE LOCATION MOST SIMILAR TO INSTALLATION LOCATION. HIGHEST CONTINUOUS TEMP = **33°C**

4.) 2005 ASHRAE FUNDAMENTALS 2% DESIGN TEMPERATURES DO NOT EXCEED 47°C IN THE UNITED STATES (PALM SPRINGS, CA IS 44.1°C). FOR LESS THAN 9 CURRENT-CARRYING CONDUCTORS IN A ROOF-MOUNTED SUNLIT CONDUIT AT LEAST 0.5" ABOVE ROOF AND USING THE OUTDOOR DESIGN TEMPERATURE OF 47°C OR LESS (ALL OF UNITED STATES)

5.) PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION THAT CONTROLS SPECIFIC CONDUCTORS IN ACCORDANCE WITH NEC 690.12(A) THROUGH (D)

6.) PHOTOVOLTAIC POWER SYSTEMS SHALL BE PERMITTED TO OPERATE WITH UNGROUNDED PHOTOVOLTAIC SOURCE AND OUTPUT CIRCUIT AS PER **NEC 690.41 (A)(4)**

7.) UNGROUNDED DC CIRCUIT CONDUCTORS SHALL BE IDENTIFIED WITH THE FOLLOWING OUTER FINISH:
POSITIVE CONDUCTORS = RED
NEGATIVE CONDUCTORS = BLACK
NEC 210.5(C)(2)

8.) ARRAY AND SUB ARRAY CONDUCTORS SHALL BE #10 PV WIRE TYPE RHW-2 OR EQUIVELANT AND SHALL BE PROTECTED BY CONDUIT WHERE EXPOSED TO DIRECT SUNLIGHT. SUB ARRAY CONDUIT LONGER THAN 24" SHALL CONTAIN ≤ 20 CURRENT CARYING CONDUCTORS AND WHERE EXPOSED TO DIRECT SUNLIGHT SHALL CONTAIN ≤ 9 CURRENT CARRYING CONDUCTORS.

9.) ALL WIRE LENGTHS SHALL BE LESS THAN 100' UNLESS OTHERWISE NOTED

10.) FLEXIBLE CONDUIT SHALL NOT BE INSTALLED ON ROOFTOP AND SHALL BE LIMITED TO 12" IF USED OUTDOORS

11.)OVERCURRENT PROTECTION FOR CONDUCTORS CONNECTED TO THE SUPPLY SIDE OF A SERVICE SHALL BE LOCATED WITHIN 10' OF THE POINT OF CONNECTION NEC 690.9(A)(3)(2)

12.) WHERE TWO SOURCES FEED A BUSSBAR, ONE A UTILITY AND THE OTHER AN INVERTER, PV BACKFEED BREAKER(S) SHALL BE LOCATED OPPOSITE FROM UTILITY **NEC 705.12(B)(3)(2)**

13.) ALL SOLAR SYSTEM LOAD CENTERS TO CONTAIN ONLY GENERATION CIRCUITS AND NO UNUSED POSITIONS OR LOADS

14.) ALL EQUIPMENT INSTALLED OUTDOORS SHALL HAVE A **NEMA 3R** RATING

CALCULATIONS FOR CURRENT CARRYING CONDUCTORS
REQUIRED CONDUCTOR AMPACITY PER STRING
[**NEC 690.8(B)(1)**]: (15.00*1.25)1 = 18.75A

AWG #10, DERATED AMPACITY
AMBIENT TEMP: 33°C, TEMP DERATING FACTOR: .96
RACEWAY DERATING = 6 CCC: 0.80
(40*.96)0.80 = 30.72A

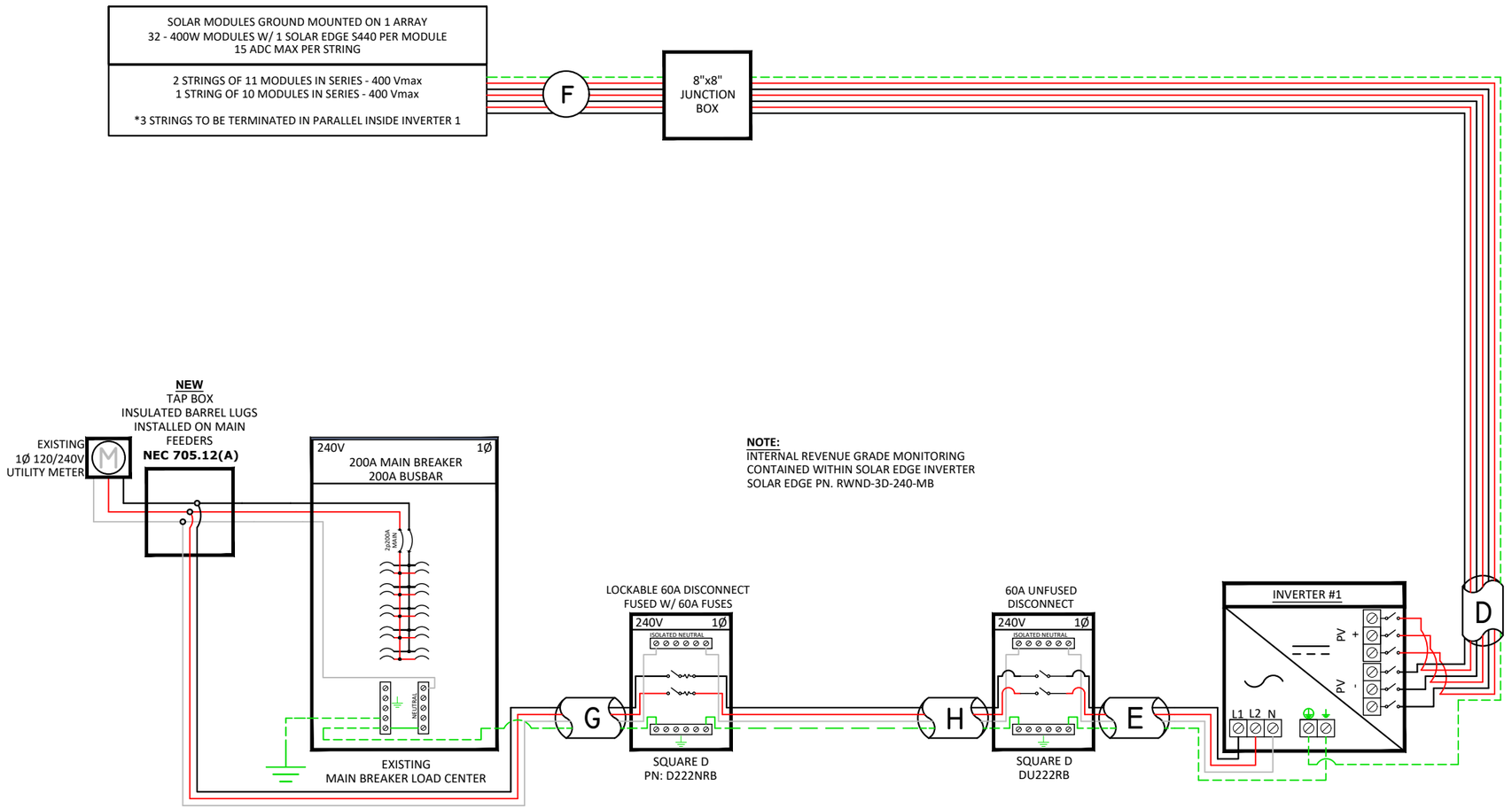
30.72A ≥ 18.75A, THEREFORE WIRE SIZE IS VALID

TOTAL AC REQUIRED CONDUCTOR AMPACITY
42.00A*1.25 = 52.50A

AWG #6, DERATED AMPACITY
AMBIENT TEMP: 30°C, TEMP DERATING: 1.0
RACEWAY DERATING ≤ 3 CCC: N/A
75A*1.0 = 75A

75A ≥ 52.50A, THEREFORE AC WIRE SIZE IS VALID

CALCULATION FOR PV OVERCURRENT PROTECTION
TOTAL INVERTER CURRENT: 42.00A
42.00A*1.25 = 52.50A
--> 60A OVERCURRENT PROTECTION IS VALID



NOTE:
INTERNAL REVENUE GRADE MONITORING CONTAINED WITHIN SOLAR EDGE INVERTER
SOLAR EDGE PN. RWND-3D-240-MB

PV MODULE SPECIFICATIONS	
HANWHA 400 (Q.PEAK DUO BLK ML-G10.a+ 400)	
Imp	10.77
Vmp	37.13
Voc	45.3
Isc	11.14

INVERTER #1 - SE10000H-US0SHBNC4			
DC		AC	
Imp	27	Pout	10000
Vmp	400	Imax	42
Voc	480	OCPDmin	52.5
Isc	45	Vnom	240

NOTE: CONDUIT TYPE SHALL BE CHOSEN BY THE INSTALLATION CONTRACTOR TO MEET OR EXCEED NEC AND LOCAL AHJD REQUIREMENTS

A	#6 THWN-2 GEC TO EXISTING GROUND ROD	G	3/4'' CONDUIT W/ 2-#6 THWN-2, 1-#6 THWN-2, 1-#8 THWN-2 GROUND
B	3/4'' CONDUIT W/ 2-#6 THWN-2, 1-#10 THWN-2, 1-#10 THWN-2 GROUND	H	1" PVC W/ 2-#4 THWN-2, 1-#6 THWN-2, 1-#6 THWN-2 GROUND (TRENCHED APPROX. 70')
C	3/4'' CONDUIT W/ 6-#10 THWN-2, 1-#10 THWN-2 GROUND		
D	3/4'' CONDUIT W/ 6-#10 THWN-2, 1-#10 THWN-2 GROUND		
E	3/4'' CONDUIT W/ 2-#6 THWN-2, 1-#10 THWN-2, 1-#10 THWN-2 GROUND		
F	#10 PV WIRE (FREE AIR) W/ #6 BARE COPPER BOND TO ARRAY		

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UTILITY METER #:	868888802
DEAL TYPE:	SUNNOVA

Rev. No. R1

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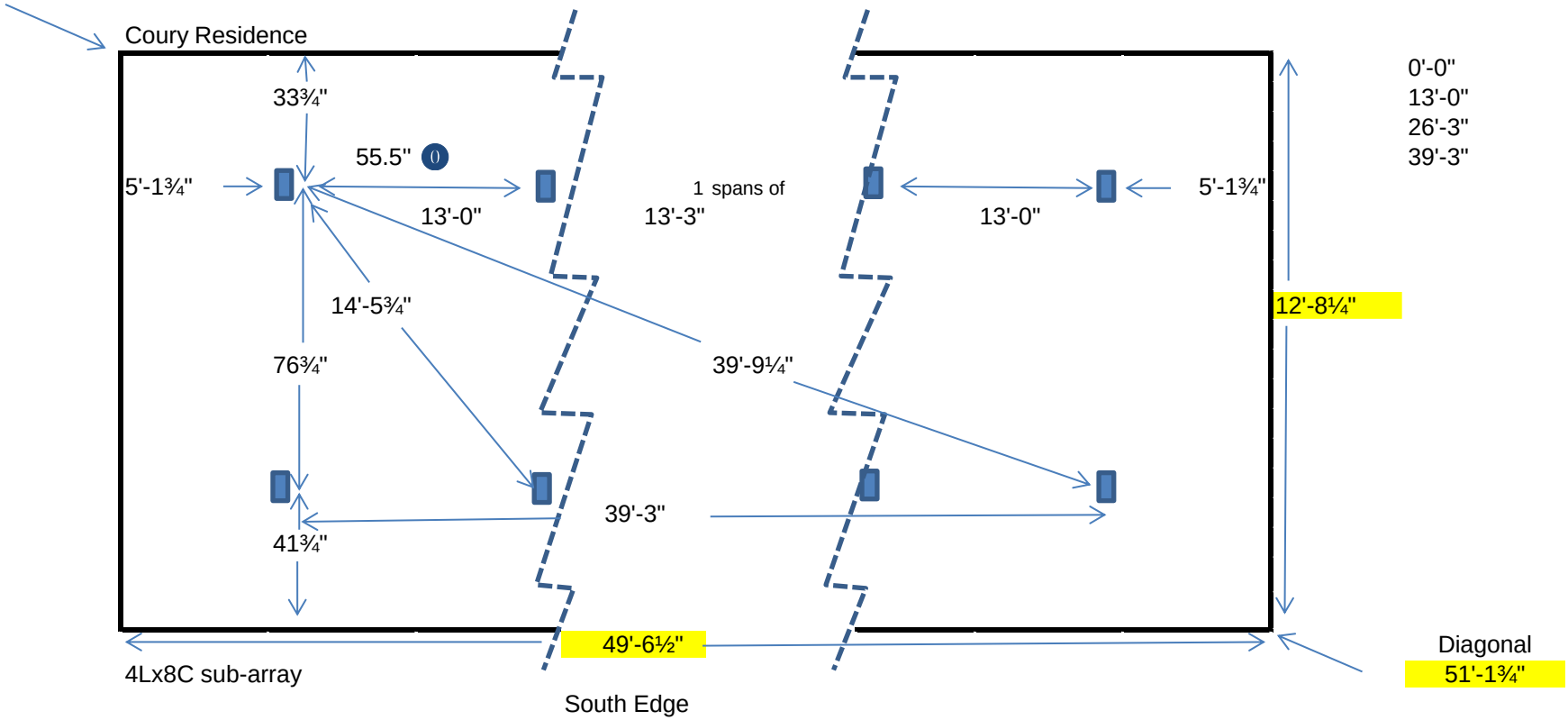
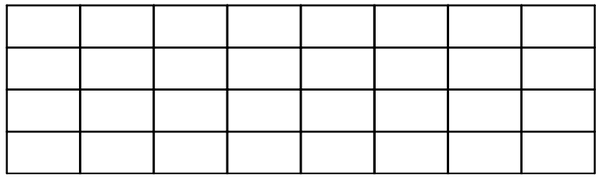
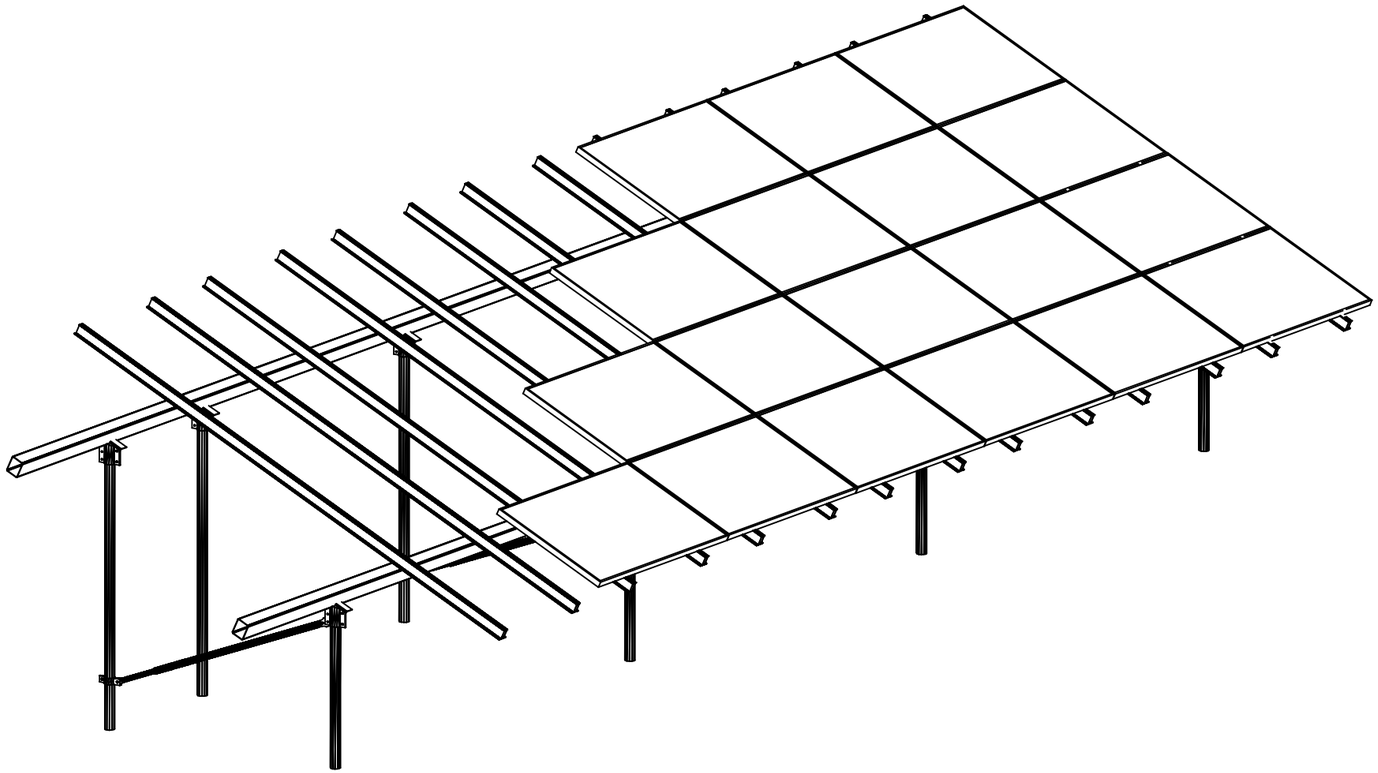

Coury Residence
33¾"
55.5"
0
5'-1¾"
13'-0"
1 spans of
13'-3"
13'-0"
5'-1¾"
0'-0"
13'-0"
26'-3"
39'-3"
14'-5¾"
12'-8¼"
76¾"
39'-9¼"
39'-3"
41¾"
49'-6½"
Diagonal
51'-1¾"
4Lx8C sub-array
South Edge



PLAN VIEW

N.T.S.



Site Design Conditions

Basic Wind Speed: (Risk Category II)	116 MPH	Max. Leg Axial Bearing:	4,360 lbs.
Basic Wind Speed: (Risk Category I)	105 MPH	Max. Leg Uplift:	2,155 lbs.
Exposure Category:	C	Max. Lateral Resistance:	1,670 lbs.
Ground Snow Load:	50 PSF	Top Rail Max. Loading:	146.4 plf
Flat Roof Snow Load: (if applicable)	40 PSF	Helical Pile Depth:	60" Min
Site Contour:	<5 Degree Slope	Lateral Resistance Plate Size:	Not Req'd

All design work has been performed in accordance with the Massachusetts State Building Code, Ninth Edition, Base Volume (780 CMR) including but not limited to the 2015 International Building Code as amended by 780 CMR.

Net design pressures were calculated in accordance with ASCE 7–10 section 27.4.3, "Open Buildings with Monoslope, Pitched, or Troughed Roofs". All load cases were evaluated in determining the limiting design conditions. The data table above provides the results for the limiting load case. Maximum leg reaction forces represent the highest load condition seen by any leg in the structure. All legs in the structure are designed to meet the maximum load conditions.

4Lx8C Sub–Array Design Conditions

Front Leg Height:	32¾"	Array Tilt Angle:	27 Degrees
Rear Leg Height:	71¾"	Front Edge Ground Clearance:	24"
North–South Leg Spacing:	76¾"	Overal Array East–West Dim:	49'–7"
West Span Leg Spacing:	13'–0"	Number of Modules/Sub–Array:	32
East Span Leg Spacing:	13'–0"	Number of Sub–Arrays:	1
Quantity Center Spans:	1	Module Columns/Sub–Array:	8
Center Span Leg Spacing:	13'–3"	Number of Module Rows:	4
East & West Overhang:	4'–9"	Module Orientation:	Landscape
Overall Beam Length:	48'–9"	Module Column Spacing	⅜"
Horizontal Rail Material:	5"x4"x⅛" HSS	Module Row Spacing	¼"
Top Rail Material:	SF Rails	Module Model:	Q.PEAK DUO BLK ML–G10.a+
Qty Rails per Panel:	2	Module Size:	41.14" x 73.98"
Top Rail Length:	171"	Individual Module Rating:	400 watt
Top Rail Center Span:	86"	Sub Array Power Rating:	12.80 kw
Top Rail Overhangs:	42½"	Total Power Rating:	12.80 kw

(1) Additional North Column is to be installed per field direction. The Column is to support equipment mounting needs. It is not required for North beam support.

James C Douglas

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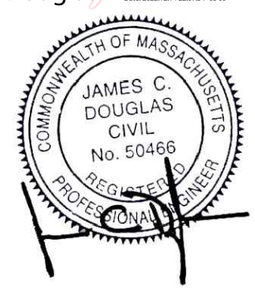
DN: c=US, o=New York, dnQualifier=A01410C0000018000DF316F00017C6D, cn=James C Douglas
Date: 2022.12.14 22:07:34 -05'00'



SHEET 1 OF 3

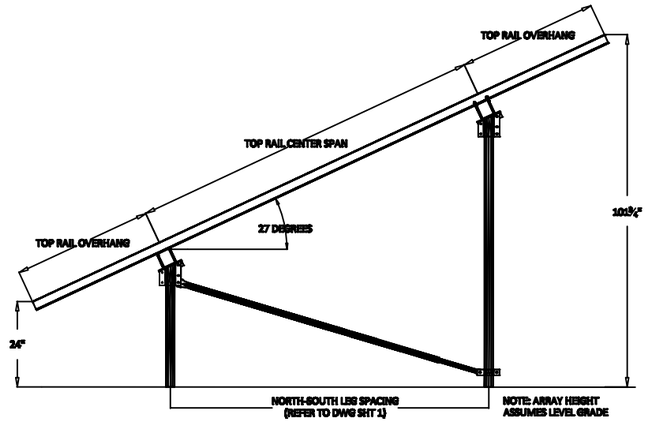
DATE	REVISION	DRAWN BY:	REVIEW BY:
11/23/2022	ORIGINAL	JB	JD
12/14/2022	REV 1 - CHANGE TO 27° TILT FOR 9 FT MAX HEIGHT	JB	JD

TRINITY SOLAR

PROJECT:
COURY RESIDENCE
3 HUNTINGTON ROAD
BLANDFORD, MA 01008

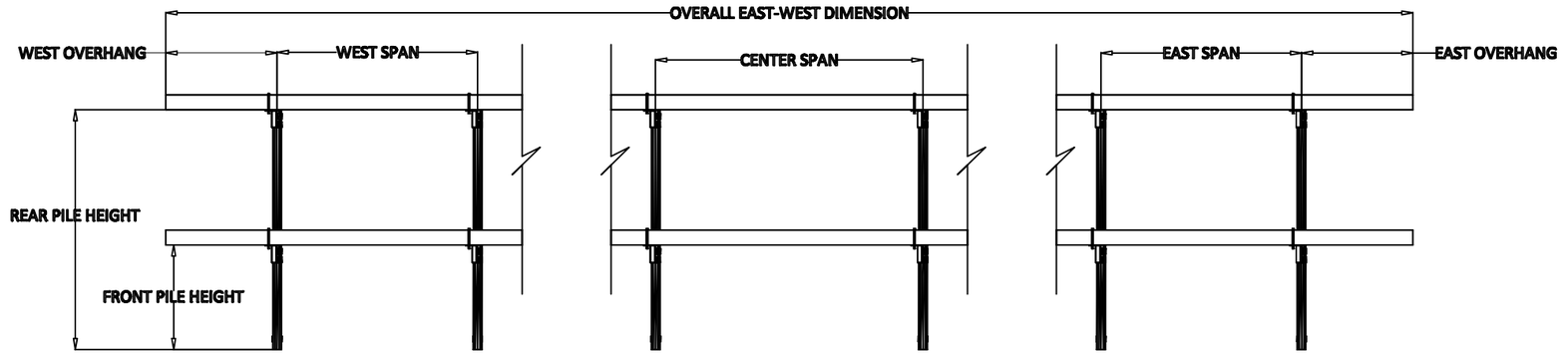
Solar Foundations USA

1142 River Road, New Castle, DE 19720 Ph: (855) 738-7200 Fax: (866) 644-5665



SIDE ELEVATION

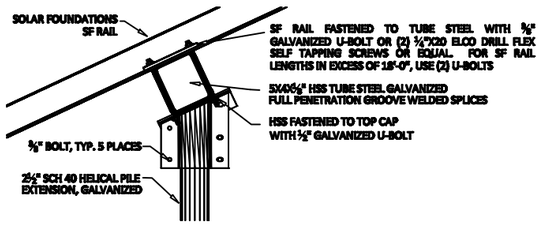
N.T.S.



REFER TO DWG SHEET 1 FOR EAST-WEST PILE SPANS AND FRONT AND REAR PILE HEIGHTS

PILE SPACING ELEVATION

N.T.S.



UPPER CAP DETAIL

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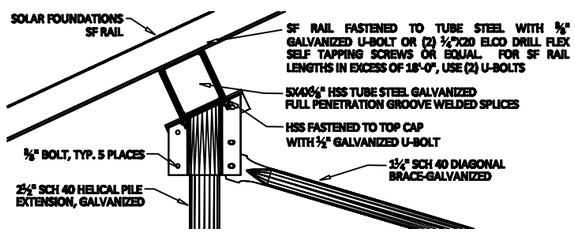
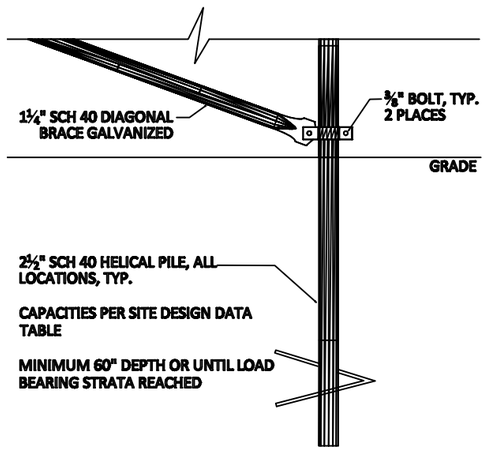


LOWER CAP DETAIL

N.T.S.



HELICAL PILE DETAIL

N.T.S.

James C Douglas

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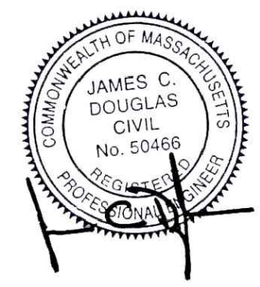
Date: 2022.12.14 22:07:07 -05'00'



SHEET 2 OF 3

DATE	REVISION	DRAWN BY:	REVIEW BY:
11/23/2022	ORIGINAL	JB	JD
12/14/2022	REV 1 - CHANGE TO 27° TILT FOR 9 FT MAX HEIGHT	JB	JD

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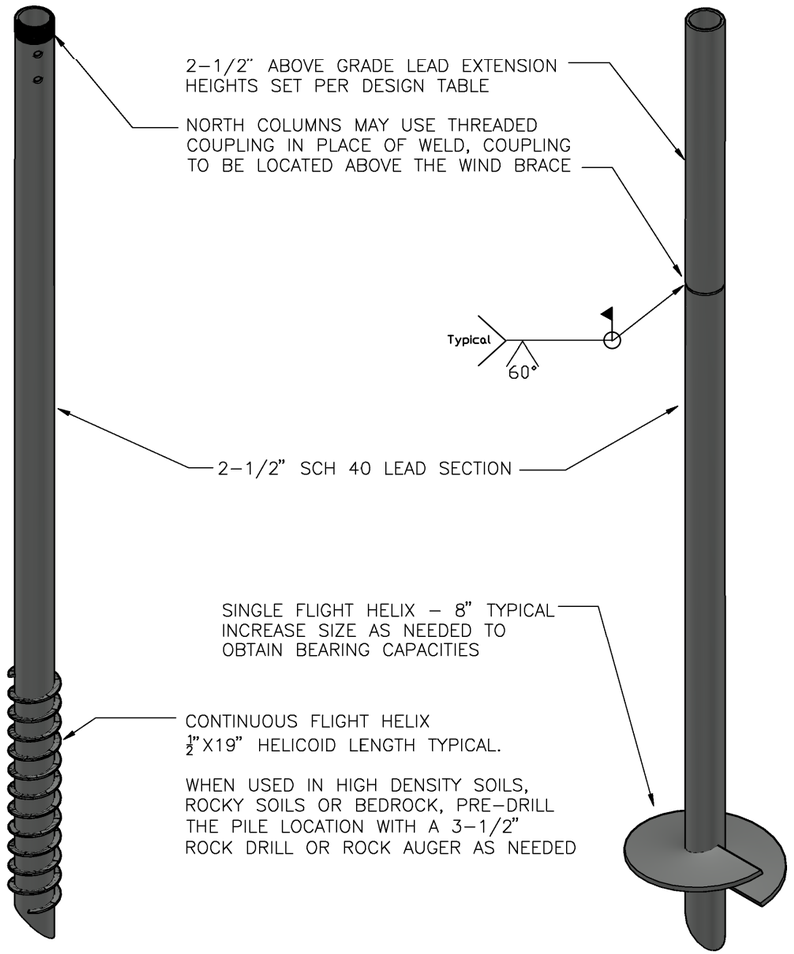

HELICAL PILE DETAIL

N.T.S.

SPECIFICATION REQUIREMENTS:

THE FOLLOWING MATERIAL SPECIFICATION REQUIREMENTS PERTAIN TO THE FABRICATION OF THE SOLAR FOUNDATIONS USA GROUND MOUNT SOLAR SUPPORT STRUCTURE AS INDICATED ON THESE DRAWINGS.

1. SOLAR FOUNDATION ALUMINUM RAILS SHALL CONFORM TO ASTM B221.
2. STRUCTURAL STEEL TUBING SHALL BE ASTM A500 HIGH YIELD (60 KSI).
3. STEEL PIPE FOR PILES SHALL CONFORM TO ASTM A500 GRADE C.
4. STEEL PILE EXTENSIONS SHALL BE ASTM A53 GRADE B.
5. STEEL PIPE FOR DIAGONAL BRACING SHALL BE ASTM A53 GRADE A.
6. FABRICATED STEEL PLATE FOR COLUMN CAP ASSEMBLIES, BRACING CLAMPS, ETC. SHALL BE ASTM A36 OR A1011.
7. STEEL BOLTS FOR CAP FASTENERS SHALL CONFORM TO SAE J429 GRADE 5. ALL OTHER BOLTS SHALL CONFORM TO SAE J429 GRADE 5 OR BETTER.
8. STEEL U-BOLTS SHALL CONFORM TO ASTM 1018.
9. USS FLAT STEEL WASHERS SHALL CONFORM TO ASTM F844 AND NUTS FOR STEEL CONNECTIONS SHALL CONFORM TO ASTM A563 GRADE A.
10. ALL FIELD WELDING SHALL CONFORM TO AWS D1.1/D1.1M -STRUCTURAL WELDING CODE REQUIREMENTS.
11. ALL STEEL SHALL BE HOT-DIP GALVANIZED PER ASTM A123 OR A153 AFTER ALL FABRICATION HAS BEEN COMPLETED.

INSTALLATION REQUIREMENTS:

1. THE MINIMUM AVERAGE INSTALLATION TORQUE REQUIRED TO OBTAIN THE REQUIRED INDICATED CAPACITIES AND THE MINIMUM INSTALLATION DEPTH SHOWN ON THE PLANS SHALL BE SATISFIED PRIOR TO TERMINATION OF THE INSTALLATION. THE INSTALLATION TORQUE SHALL BE AN AVERAGE OF THE INSTALLATION TORQUES INDICATED DURING THE LAST 1 FOOT OF INSTALLATION.

2. THE TORSIONAL STRENGTH RATING OF THE TORQUE ANCHOR SHALL NOT BE EXCEEDED DURING THE INSTALLATION. IF THE TORSIONAL STRENGTH LIMIT OF THE ANCHOR HAS BEEN REACHED, BUT THE ANCHOR HAS NOT REACHED THE TARGET DEPTH, PERFORM THE FOLLOWING:

   2.1. IF THE TORSIONAL STRENGTH LIMIT IS ACHIEVED PRIOR TO REACHING THE TARGET DEPTH, THE INSTALLATION MAY BE ACCEPTABLE IF REVIEWED AND APPROVED BY THE ENGINEER.

   2.2. THE INSTALLER MAY REMOVE THE TORQUE ANCHOR AND INSTALL A NEW ONE WITH SMALLER DIAMETER HELICAL PLATE.

   2.3. IF USING A CONTINUOUS FLIGHT PILE, PRE-DRILL THE PILE LOCATION WITH A 3-1/2" ROCK AUGER OR 3-5/8" ROCK DRILL AS NEEDED.

3. IF THE TARGET DEPTH IS ACHIEVED, BUT THE TORSIONAL REQUIREMENT HAS NOT BEEN MET THE INSTALLER MAY DO ONE OF THE FOLLOWING:

   3.1. INSTALL THE TORQUE ANCHOR DEEPER TO OBTAIN THE REQUIRED CAPACITY

   3.2. REMOVE THE TORQUE ANCHOR AND INSTALL A NEW ONE WITH A LARGER DIAMETER HELICAL PLATE OR ONE WITH MULTIPLE HELICAL PLATES.

   3.3. REDUCE THE LOAD CAPACITY ON THE INDIVIDUAL TORQUE ANCHOR BY PROVIDING ADDITIONAL TORQUE ANCHORS AT A REDUCED SPACING.

James C Douglas

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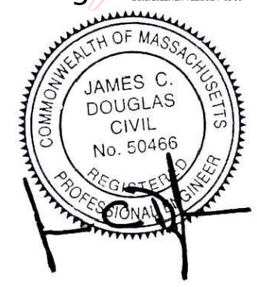

SHEET 3 OF 3

DATE	REVISION	DRAWN BY:	REVIEW BY:
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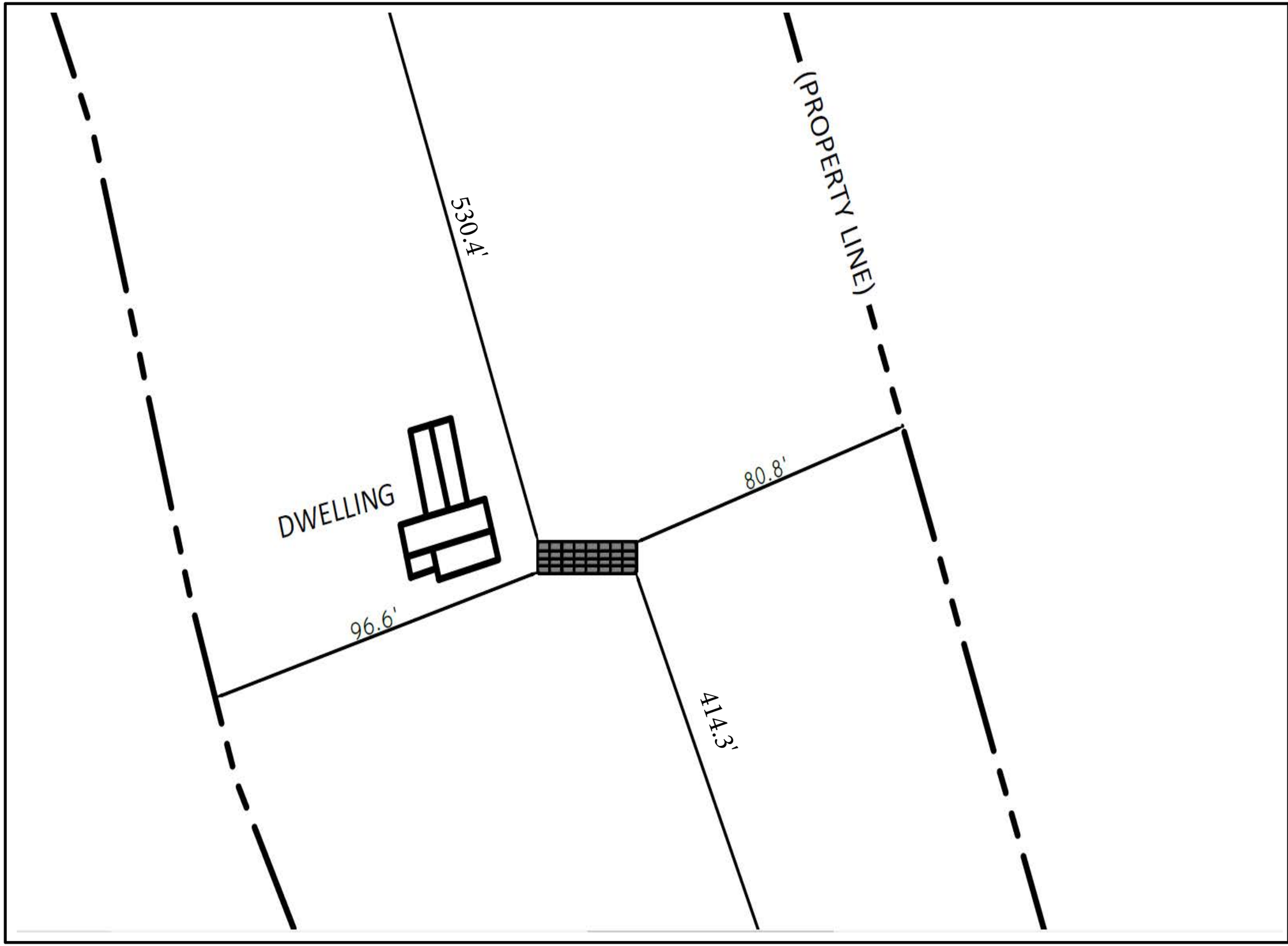

Issued / Revisions		
R1	GM LOCATION / PROPERTY LINES	10/10/2022
P1	ISSUED TO TOWNSHIP FOR PERMIT	9/16/2022
NO.	DESCRIPTION	DATE

Project Title:

COURY, THOMAS-

TRINITY ACCT #: 2022-05-706594

Project Address:

3 HUNTINGTON ROAD
BLANDFORD, MA 01008
42.2074672,-72.9381878

Drawing Title:

PROPOSED PV SOLAR SYSTEM

Drawing Information

DRAWING DATE:	9/16/2022
DRAWN BY:	KTD
REVISED BY:	DMR

System Information:

DC SYSTEM SIZE:	12.8kW
AC SYSTEM SIZE:	10kW
MODULE COUNT:	32
MODULES USED:	HANWHA 400
MODULE SPEC #:	Q.PEAK DUO BLK ML-G10.a+ 400
UTILITY COMPANY:	EVERSOURCE
UTILITY ACCT #:	5446 082 9054
UTILITY METER #:	868888802
DEAL TYPE:	SUNNOVA

Rev. No.	Sheet
R1	PV - 3

Trinity® SOLAR

2211 Allenwood Road
Wall, New Jersey 07719

877-786-7283
www.Trinity-Solar.com