NEW PHOTOVOLTAIC SYSTEM 11.52 kW 32 VINEYARD MEADOW FARMS RD, WEST TISBURY, MA 02575, USA

GENERAL NOTES

1.1.1 PROJECT NOTES:

1.1.2 THIS PHOTOVOLTAIC (PV) SYSTEM SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE (NEC) ARTICLE 690, ALL MANUFACTURERS'S LISTING AND INSTALLATION INSTRUCTIONS, AND THE RELEVANT CODES AS SPECIFIED BY THE AUTHORITY HAVING JURISDICTION'S (AHJ) APPLICABLE CODES.

1.1.3 THE UTILITY INTERCONNECTION APPLICATION MUST BE APPROVED AND PV SYSTEM INSPECTED PRIOR TO PARALLEL OPERATION 1.1.4 GROUND FAULT DETECTION AND INTERRUPTION (GFDI) DEVICE IS INTEGRATED WITH THE MICROINVERTER IN ACCORDANCE WITH NEC 690.41(B)

1.1.5 ALL PV SYSTEM COMPONENTS; MODULES, UTILITY-INTERACTIVE INVERTERS, AND SOURCE CIRCUIT COMBINER BOXES ARE IDENTIFIED AND LISTED FOR USE IN PHOTOVOLTAIC SYSTEMS AS REQUIRED BY NEC 690.4: PV MODULES: UL1703, IEC61730, AND IEC61215, AND NFPA 70 CLASS C FIRE INVERTERS: UL 1741 CERTIFIED, IEEE 1547, 929, 519 COMBINER BOX(ES): UL 1703 OR UL 1741 ACCESSORY

1.1.6 MAX DC VOLTAGE CALCULATED USING MANUFACTURER PROVIDED TEMP COEFFICIENT FOR VOC. IF UNAVAILABLE, MAX DC VOLTAGE CALCULATED ACCORDING TO NEC 690.7.

1.1.7 ALL INVERTERS, PHOTOVOLTAIC MODULES, PHOTOVOLTAIC PANELS, AND SOURCE CIRCUIT COMBINERS INTENDED FOR USE IN A PHOTOVOLTAIC POWER SYSTEM WILL BE IDENTIFIED AND LISTED FOR THE APPLICATIONPER 690.4 (D). SHALL BE INSTALLED ACCORDING TO ANY INSTRUCTIONS FROM LISTING OR LABELING [NEC 110.3].

1.1.8 ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS REQUIRED BY THE NEC AND AHJ.

1.2.1 SCOPE OF WORK:

1.2.2 PRIME CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND SPECIFICATIONS OF THE GRID-TIED PHOTOVOLTAIC SYSTEM RETROFIT. PRIME CONTRACTOR WILL BE RESPONSIBLE FOR COLLECTING EXISTING ONSITE REQUIREMENTS TO DESIGN, SPECIFY, AND INSTALL THE EXTERIOR GROUND-MOUNTED PORTION OF THE PHOTOVOLTAIC SYSTEMS DETAILED IN THIS DOCUMENT

1.3.1 WORK INCLUDES:

1.3.2 PV RACKING SYSTEM INSTALLATION - SUN ACTION TRACKERS

1.3.3 PV MODULE AND INVERTER INSTALLATION - Q CELLS Q.PEAK DUO XL-G10.3/BFG 480W / ENPHASE IQ8A-72-2-US

1.3.4 PV EQUIPMENT GROUND MOUNT

1.3.5 PV SYSTEM WIRING TO A GROUND-MOUNTED JUNCTION BOX

1.3.6 PV LOAD CENTERS (IF INCLUDED)

1.3.7 PV METERING/MONITORING (IF INCLUDED)

1.3.8 PV DISCONNECTS

1.3.9 PV GROUNDING ELECTRODE & BONDING TO (E) GEC

1.3.10 PV FINAL COMMISSIONING

1.3.11 (E) ELECTRICAL EQUIPMENT RETROFIT FOR PV

1.3.12 SIGNAGE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE

PROJECT INFORMATION

OWNER

NAME: HAYNES

CONTRACTOR INFORMATION:

CONTRACTOR NAME: FARLEY BUILT, INC.

PROJECT MANAGER: SAM HALL

EMAIL: sam@farleybuilt.com

PH: (617) 320-1876

SCOPE OF WORK

NEW SYSTEM SIZE: STC: 24 X 480W= 11.52 kW DC

PTC: 24 X 497.2W = 11.93 kW DC

AC SIZE: 8.37 kW AC

(24) Q CELLS Q.PEAK DUO XL-G10.3/BFG 480W

(24) ENPHASE IQ8A-72-2-US

ATTACHMENT TYPE: SUN ACTION TRACKERS

MSP UPGRADE: YES

<u>AUTHORITIES HAVING JURISDICTION</u> BUILDING: TOWN OF WEST TISBURY

UTILITY : EVERSOURCE

DESIGN SPECIFICATION

OCCUPANCY: - GROUP B CONSTRUCTION: - TYPE 2

ZONING: - TOWN OF WEST TISBURY

GROUND SNOW LOAD - 25 PSF WIND EXPOSURE - C

WIND SPEED - 134 MPH

APPLICABLE CODES & STANDARDS

BUILDING: IBC 2015, IRC 2015

ELECTRICAL: NEC 2020 FIRE: IFC 2015

VICINITY MAP



SATELLITE VIEW



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FARLEY BUILT, INC.

32 VINEYARD
MEADOW FARMS
D, WEST TISBURY



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SHEET TITLE

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T-001

NOTES

- 1. EXISTING PLUMBING VENTS, SKYLIGHTS, EXHAUST OUTLETS, VENTILATIONS INTAKE AIR OPENINGS SHALL NOT BE COVERED BY THE SOLAR PHOTOVOLTAIC SYSTEM.
- 2. EQUIPMENT. INVERTERS, MOTOR GENERATORS, PHOTOVOLTAIC MODULES, PHOTOVOLTAIC PANELS, AC PHOTOVOLTAIC MODULES, SOURCE-CIRCUIT COMBINERS, AND CHARGE CONTROLLERS INTENDED FOR USE IN PHOTOVOLTAIC POWER SYSTEMS SHALL BE IDENTIFIED AND LISTED FOR THE APPLICATION. (NEC 690.4(B))
- 3. ALL OUTDOOR EQUIPMENT SHALL BE NEMA 3R RATED, INCLUDING ALL ROOF MOUNTED TRANSITION BOXES AND NON ROOF SWITCHES. ROOF SWITCHES TO BE NEMA 4 RATED.
- 4. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED IN ACCORDANCE WITH NEC ARTICLE 250.
- 5.PROTECTION DEVICES FOR PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS ALSO CONNECTED TO SOURCES HAVING SIGNIFICANTLY HIGHER CURRENT
- AVAILABILITY (E.G., PARALLEL STRINGS OF
- MODULES, UTILITY POWER), SHALL BE PROTECTED AT THE SOURCE FROM OVERCURRENT. [NEC 690.9(A)]
- 6.PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION THAT CONTROLS SPECIFIC CONDUCTORS.

[NEC 690.12]

7.THE UTILITY INTERACTIVE INVERTERS SHALL AUTOMATICALLY DE-ENERGIZE ITS OUTPUT TO THE CONNECTED ELECTRICAL PRODUCTION AND DISTRIBUTION NETWORK UPON LOSS OF VOLTAGE IN THE SYSTEM AND SHALL REMAIN IN THAT STATE UNTIL

THE ELECTRICAL PRODUCTION AND DISTRIBUTION NETWORK VOLTAGE HAS BEEN RESTORED.

[NEC 705.41]

- 8.ALL CONDUCTOR EXPOSED TO WEATHER SHALL BE LISTED & IDENTIFIED FOR USE IN DIRECT SUNLIGHT. [CEC 310.10(D)(1)] 9.THE MODULE CONDUCTORS MUST BE TYPE USE-2 OR LISTED FOR PHOTOVOLTAIC (PV) WIRE. (NEC 690.31(C)
- 10.ALL CONDUCTORS SHALL BE MARKED ON EACH END FOR UNIQUE IDENTIFICATION.
- 11.AN INSULATED GROUNDED CONDUCTOR OF 6 AWG OR SMALLER SHALL BE IDENTIFIED AS A CONTINUOUS WHITE FINISH.[NEC 200.6]
- 12.THE OUTPUT OF AN INTERCONNECTED ELECTRICAL POWER SOURCE SHALL BE PERMITTED TO BE CONNECTED TO THE LOAD SIDE. INTERCONNECTING
- PROVISIONS FOR OTHER POWER SOURCES SHALL COMPLY WITH 705.12(B)(1) THROUGH 705.12(B)(5)
- 13. EACH SOURCE INTERCONNECTION OF ONE OR MORE POWER SOURCES INSTALLED IN ONE SYSTEM SHALL BE MADE AT A DEDICATED CIRCUIT BREAKER OR FUSIBLE DISCONNECTING MEANS [NEC 705.12(B)(1)]
- 14.THE SUM OF THE AMPERE RATING OF THE OVERCURRENT DEVICES IN CIRCUITS SUPPLYING POWER TO THE BUSBAR OR CONDUCTOR SHALL NOT EXCEED 120% OF THE RATING OF BUSBAR OR CONDUCTOR.[NEC 705.12(B)(2)(3)(B)]
- 15.A CONNECTION AT EITHER END, BUT NOT BOTH ENDS, OF A CENTER-FED PANEL BOARD IN DWELLINGS SHALL BE PERMITTED WHERE THE SUM OF 125 PERCENT OF THE POWER SOURCE(S) OUTPUT CIRCUIT CURRENT AND THE RATING OF THE OVERCURRENT DEVICE PROTECTING THE BUSBAR DOES NOT EXCEED 120 PERCENT OF THE CURRENT RATING OF THE BUSBAR. [NEC 705.12(B)(2)(3)(D)]
- 16.EQUIPMENT CONTAINING OVERCURRENT DEVICES IN CIRCUITS SUPPLYING POWER TO A BUS BAR OR CONDUCTOR

- SHALL BE MARKED TO INDICATE THE PRESENCE OF ALL SOURCES. [NEC 705.12(B)(3)]
- 17.CIRCUIT BREAKER, IF BACKFED, SHALLBE SUITABLE FOR SUCH OPERATION. [NEC705.12(B)(4)]
- 18.TO MINIMIZE OVERHEATING OF THE BUSBAR IN PANELBOARD, THE PANELBOARD MAIN CIRCUIT BREAKER AND THE PV POWER SOURCE CIRCUIT BREAKER SHALL BE PHYSICALLY LOCATED AT THE OPPOSITE END OF THE BUSBAR.
- 19. ALL THE NEC REQUIRED WARNING SIGNS, MARKINGS, AND LABELS SHALL BE POSTED ON EQUIPMENT AND DISCONNECTS PRIOR TO ANY INSPECTIONS TO BE PERFORMED BY THE BUILDING DEPARTMENT INSPECTOR. 20.WHERE PV SYSTEM DC CIRCUIT'S RUN INSIDE A BUILDING, THEY SHALL BE CONTAINED IN METAL RACEWAYS TYPE MC METAL CLAD CABLE OR METAL ENCLOSURES FROM POINT OF PENETRATION OF THE SURFACE OF THE BUILDING TO THE FIRST READILY ACCESSIBLE DISCONNECTING MEANS. [NEC 690.31(G)] 21.FLEXIBLE, FINE-STRANDED CABLES SHALL BE TERMINATED ONLY WITH TERMINALS, LUGS, DEVICES OR CONNECTOR THAT ARE IS IN ACCORDANCE WITH NEC 110.14
- 22.CONNECTORS SHALL BE OF LATCHING OR LOCKING TYPE. CONNECTORS THAT ARE READILY ACCESSIBLE AND OPERATING AT OVER 30V DC OR 15V AC SHALL REQUIRE TOOL TO OPEN AND MARKED "DO NOT DISCONNECT UNDER LOAD" OR "NOT FOR CURRENT INTERRUPTING".
- [NEC 690.33(C) & (E)(2)]

250.64 C)

- 23. EQUIPMENT GROUNDING CONDUCTOR FOR PV MODULES SMALLER THAN 6AWG SHALL BE PROTECTED FROM
- PHYSICAL DAMAGE BY A RACEWAY OR CABLE ARMOR. NEC 690.46 & 250.120(C)]
- 24. AN EQUIPMENT GROUNDING CONDUCTOR SHALL NOT BE SMALLER THAN 14 AWG. [NEC 690.45]
 25. FINE STRANDED CABLES USED FOR BATTERY TERMINALS, DEVICES, AND CONNECTIONS REQUIRE LUGS AND TERMINALS IS IN ACCORDANCE WITH NEC 110.14
 26.GROUNDING ELECTRODE CONDUCTOR(S) SHALL BE INSTALLED IN ONE CONTINUOUS LENGTH WITHOUT A SPLICE OR JOINT. IF NECESSARY, SPLICES OR CONNECTIONS SHALL BE MADE AS PERMITTED. (NEC
- 27.ALL SMOKE ALARMS, CARBON MONOXIDE ALARMS AND AUDIBLE NOTIFICATION DEVICES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 217 AND UL 2034. THEY WILL BE INSTALLED IN ACCORDANCE WITH NFPA 72 AND NFPA 720.(IRC 2019 R314 & R315).
- AND NFPA 720.(IRC 2019 R314 & R315).

 28.SMOKE ALARMS AND CARBON MONOXIDE ALARMS WILL BE RETROFITTED INTO THE EXISTING DWELLING. THESE SMOKE ALARMS ARE REQUIRED TO BE IN ALL BEDROOMS, OUTSIDE EACH BEDROOM, AND AT LEAST ONE ON EACH FLOOR OF THE HOUSE CARBON MONOXIDE ALARMS ARE REQUIRED TO BE RETROFITTED OUTSIDE EACH BEDROOM AND AT LEAST ONE ON EACH FLOOR OF THE HOUSE. THESE ALARMS MAY BE SOLELY BATTERY OPERATED IF THE PHOTOVOLTAIC PROJECT DOES NOT INVOLVE THE REMOVAL OF INTERIOR WALL AND 23. CEILING FINISHES INSIDE THE HOME, OTHERWISE,

THE ALARMS MUST BE HARD WIRED AND

INTERCONNECTED.

GENERAL CONDUCTOR INSULATION KEY

DC CONDUCTORS

POSITIVE(UNGROUNDED) RED NEGATIVE(UNGROUNDED) BLACK

480/277V AC CONDUCTORS

PHASE L1 BROWN
PHASE L2 ORANGE
PHASE L3 YELLOW

120/208V OR 240V AC CONDUCTORS
PHASE L1 BLACK

PHASE L2 RED (SEE NOTE)

PHASE L3

NEUTRAL

GROUND

BLUE

WHITE OR GREY

GREEN OR BARE Cu

NOTE: THREE PHASE HIGH LEG MUST BE IN ORANGE COLOUR PER NFPA 70.

GROUND FAULT PROTECTION

- 1. PHOTOVOLTAIC INVERTERS SHALL BE EQUIPPED WITH DC GROUND FAULT PROTECTION. INVERTERS ARE ALSO EQUIPPED WITH ANTI-ISLANDING CIRCUITRY. DISCONNECTING MEANS
- 1. MEANS SHALL BE PROVIDED TO ISOLATE EACH SOURCE CIRCUIT FROM THE SYSTEM.
- 2. WHERE A CIRCUIT GROUNDING CONNECTION IS NOT DESIGNED TO BE AUTOMATICALLY INTERRUPTED AS PART OF THE GROUND-FAULT PROTECTION, A SWITCH OR CIRCUIT BREAKER USED AS A DISCONNECTING MEANS SHALL NOT HAVE A POLE ON THE GROUNDED CONDUCTOR.
- 3. THE GROUNDED CONDUCTOR MAY HAVE A BOLTED OR TERMINAL DISCONNECTING MEANS TO ALLOW MAINTENANCE OR TROUBLESHOOTING BY QUALIFIED PERSONNEL.
- 4. EQUIPMENT SUCH AS PHOTOVOLTAIC SOURCE CIRCUITS, OVER CURRENT DEVICES, AND BLOCKING DIODES SHALL BE PERMITTED ON THE PHOTOVOLTAIC SIDE OF THE PHOTOVOLTAIC DISCONNECTING MEANS.
- 5. MEANS SHALL BE PROVIDED TO DISCONNECT INVERTERS FROM ALL UNGROUNDED CONDUCTORS OF ALL SOURCES. IF THE EQUIPMENT IS ENERGIZED FROM MORE THAN ONE SOURCE, THE DISCONNECTING MEANS SHALL BE GROUPED AND IDENTIFIED.
- 6. A SINGLE DISCONNECTING MEANS SHALL BE PERMITTED FOR THE COMBINED OUTPUT OF ONE OR MORE INVERTERS IN A GRID INTERACTIVE SYSTEM.
- 7. DISCONNECTING MEANS SHALL BE PROVIDED TO DISCONNECT A FUSE FROM ALL SOURCES OF SUPPLY IF THE FUSE IS ENERGIZED FROM BOTH DIRECTIONS AND IS ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS. SUCH A FUSE IN A PHOTOVOLTAIC SOURCE CIRCUIT SHALL BE CAPABLE OF BEING DISCONNECTED INDEPENDENTLY OF FUSES IN OTHER PHOTOVOLTAIC SOURCE CIRCUITS.



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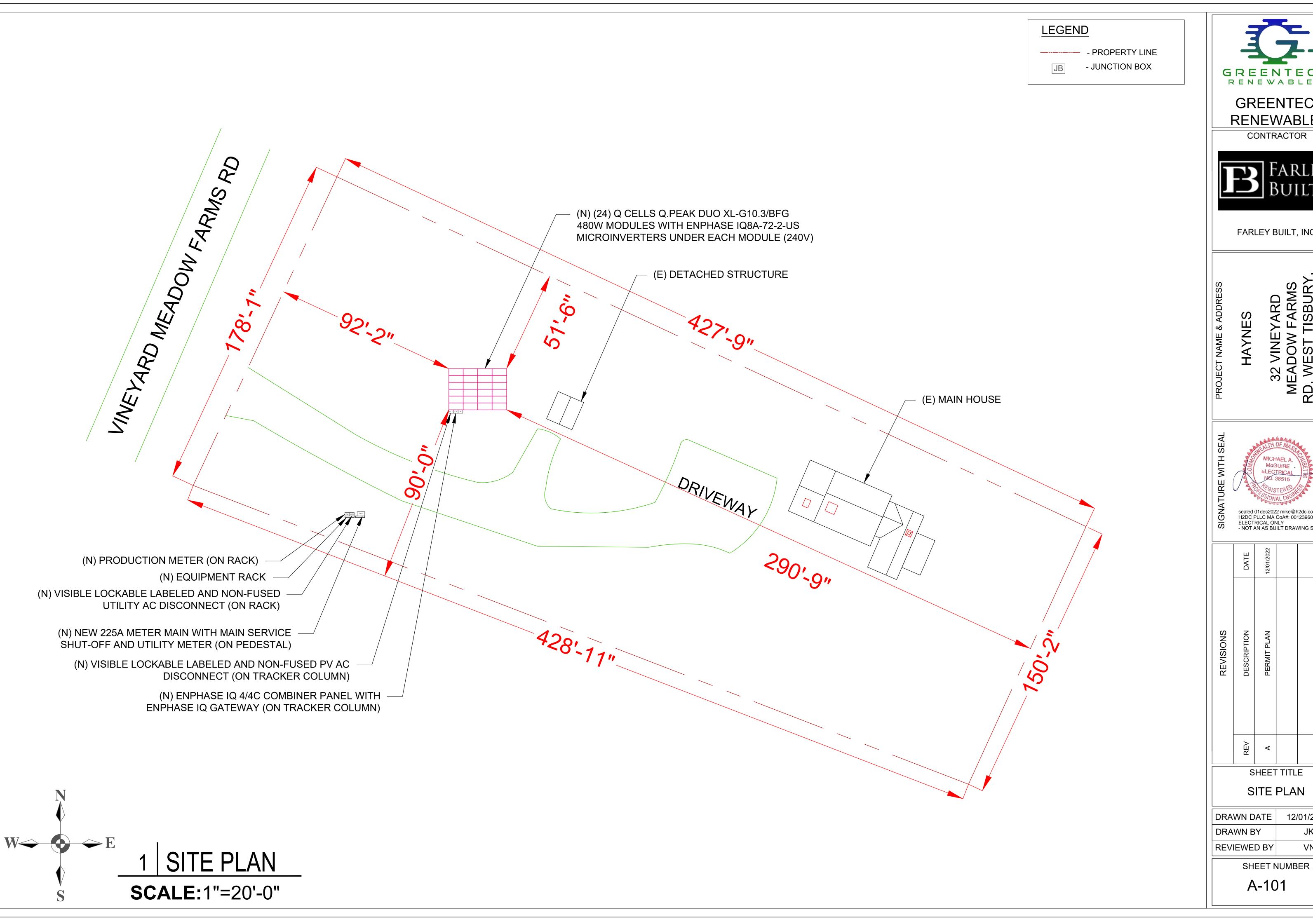
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NOTES

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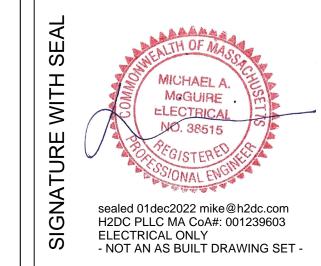
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SITE PLAN

12/01/2022
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- MODULE STRING 3 LEGEND - PROPERTY LINE - JUNCTION BOX (N) NEW 225A METER MAIN WITH MAIN SERVICE $\,-\,$ SHUT-OFF AND UTILITY METER (ON PEDESTAL)

+ - MODULE STRING 1

- MODULE STRING 2

(24) Q CELLS Q.PEAK DUO XL-G10.3/BFG 480W MODULES WITH (24) ENPHASE IQ8A-72-2-US MICROINVERTERS (03) STRINGS OF 8 MODULES CONNECTED IN PARALLEL.

ARRAY (S)

DUAL AXIS TILT - 0° TO 60° ARRAY 1 DUAL AXIS AZIMUTH - (-120° TO +120°) MODULE - 24

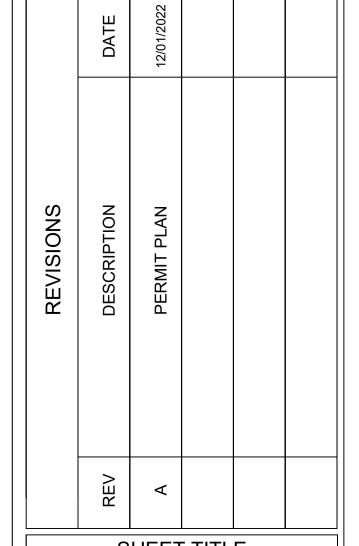
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CONTRACTOR

FARLEY BUILT, INC.





SHEET TITLE ELECTRICAL PLAN

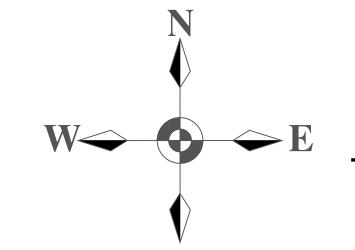
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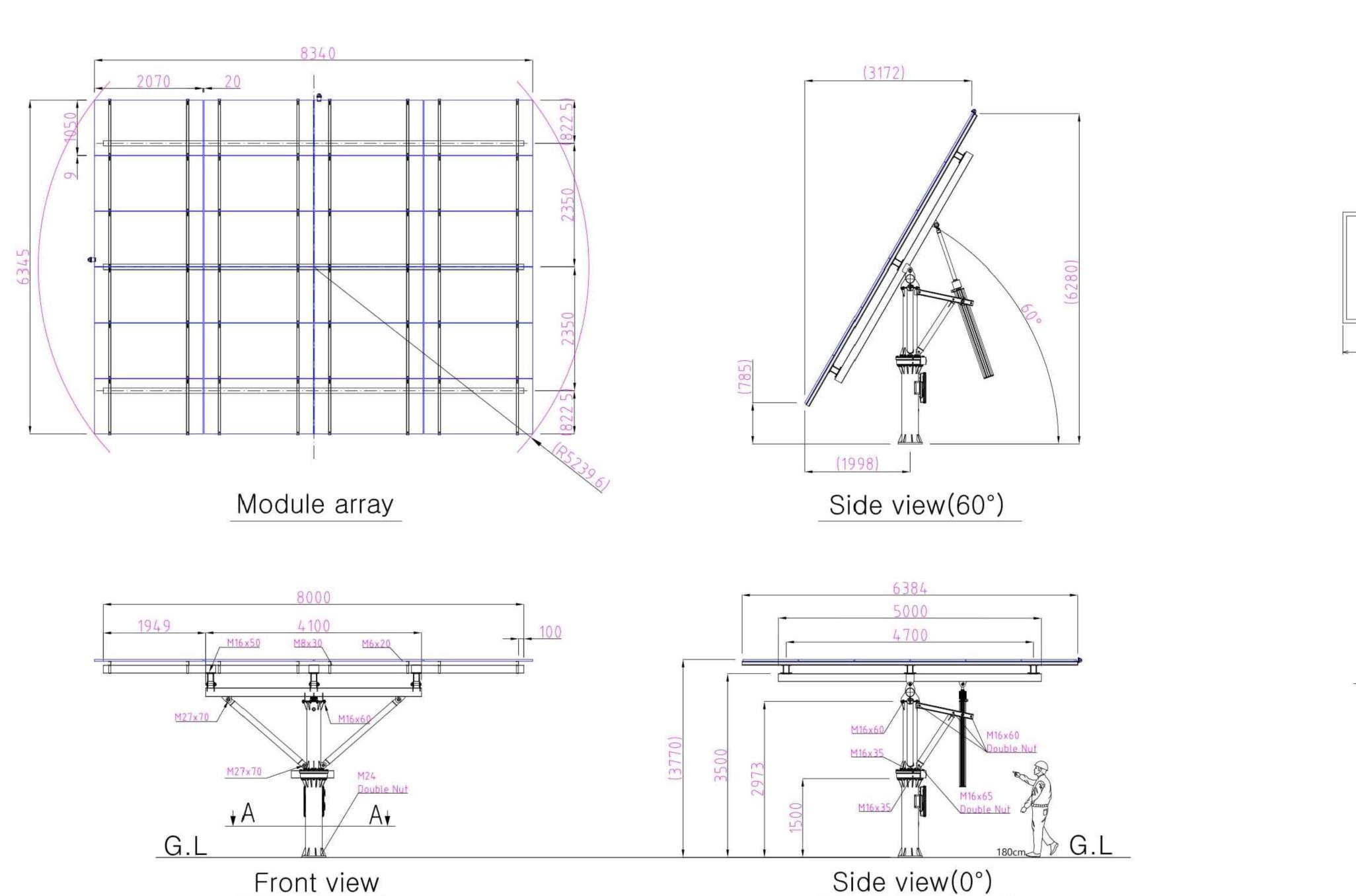
29'-2" (N) (24) Q CELLS Q.PEAK DUO XL-G10.3/BFG 480W MODULES WITH ENPHASE IQ8A-72-2-US MICROINVERTERS UNDER EACH MODULE (240V) \bigoplus ACD CB JB ARRAY 1 (N) ENPHASE IQ 4/4C COMBINER PANEL WITH ENPHASE IQ GATEWAY (ON TRACKER COLUMN) (N) VISIBLE LOCKABLE LABELED AND NON-FUSED PV AC DISCONNECT (ON TRACKER COLUMN) \(N) TRENCH ~112'

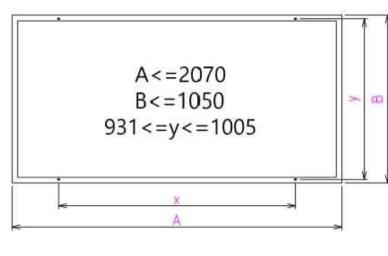
(N) VISIBLE LOCKABLE LABELED AND NON-FUSED -UTILITY AC DISCONNECT (ON RACK) (N) PRODUCTION METER (ON RACK) -

(N) EQUIPMENT RACK —

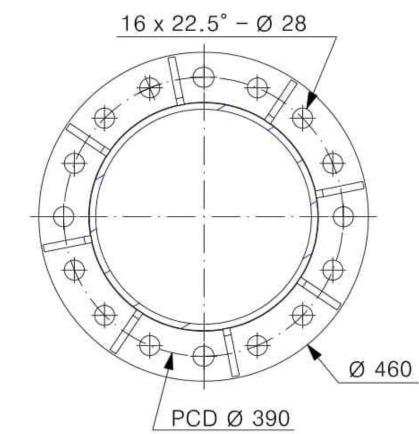


W 1 ELECTRICAL PLAN **SCALE:**3/16" = 1'-0"





Module Layout

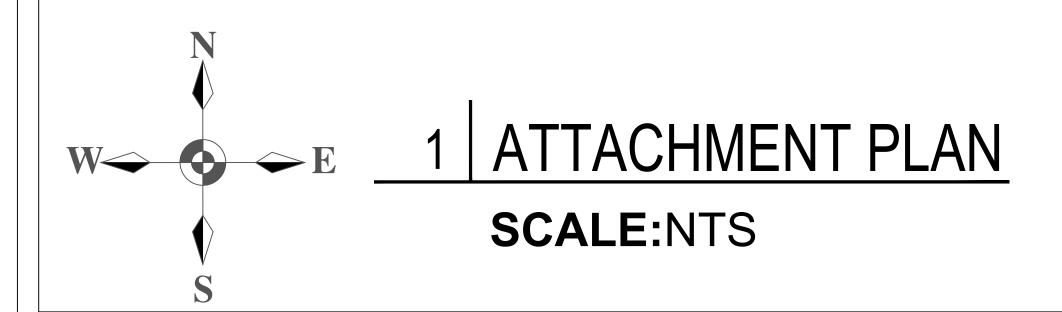


Detail Section View A-A (1:9)

- All dimensions in mm. Not to scale.
- Layout/Drawing is for reference use only.
- B. Prohibit counterfeiting, unauthorized copy, and opening public.
- 4. Return to authorized department immediately after competing the work.
- 5. Control strictly in accordance with classified documents.
- 6. Should have legal responsibility for information spill without permission.



Product	Product DualTrack 24M [Standard V1]		Approved By
	Dualitack 24w [Otalidald VI]	Material	Checked By
Part Name	Layout Drawing	Weight(Kg)	Designed By
	DCT OAL OAM	General Tolerance	Drawn By
DWG No.	PST-2AL-24M	Projection	Date







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HAYNES 2 VINEYARD

32 VINEY, MEADOW F

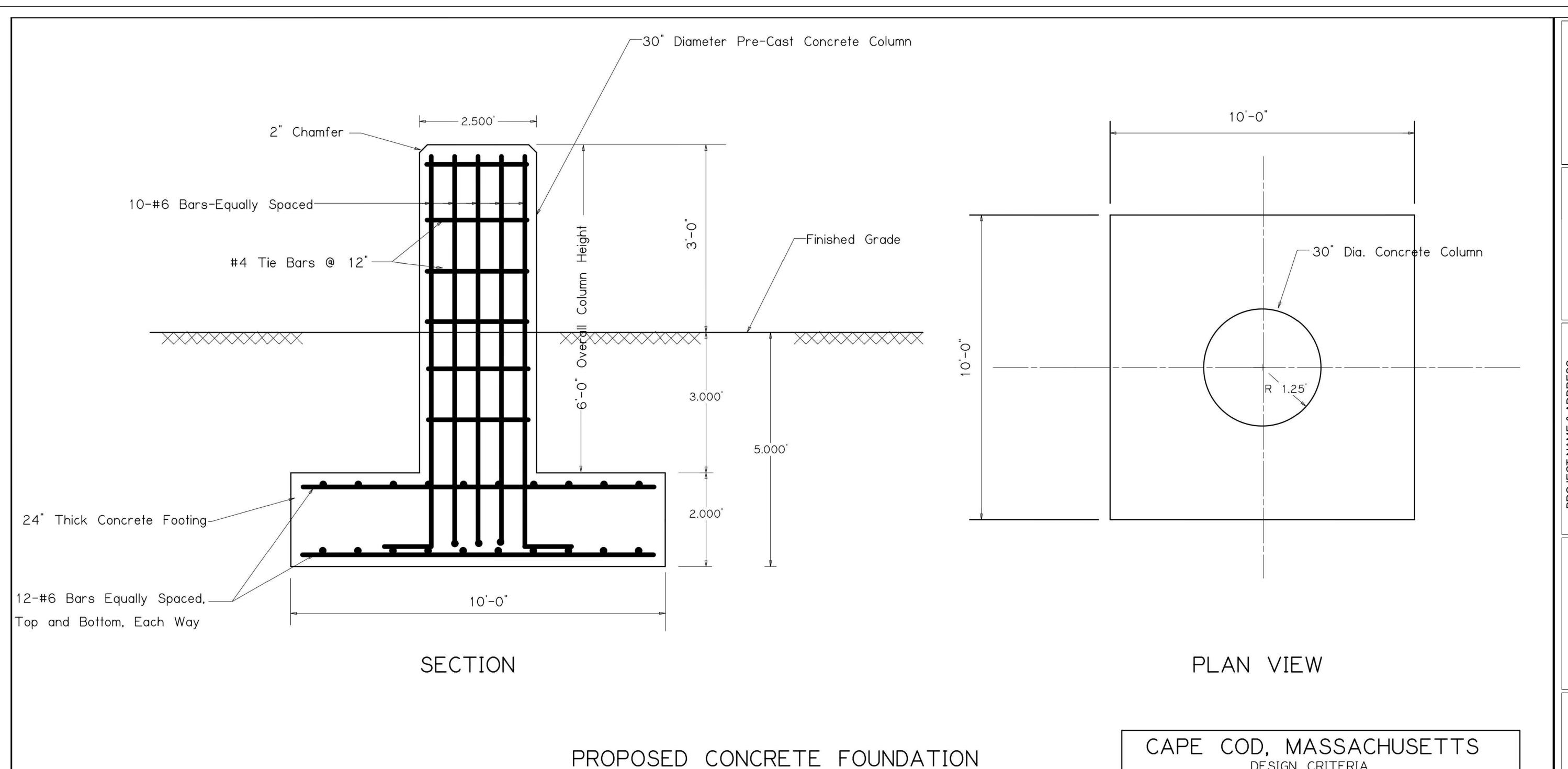
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Scale:1"=1'-0"

CAPE COD, MASSACHUSETTS

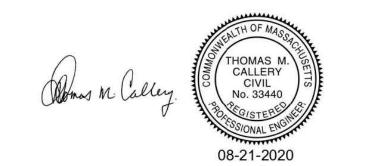
DESIGN CRITERIA

WIND SPEED:140 MPH GROUND SNOW LOAD:25 PSF

GENERAL CONSTRUCTION NOTES

1. Concrete shall be 5000 PSI (Min.) 28 Day Compressive Strength.

- 2. Reinforcing Steel shall be Grade 60.
- 3. Bottom of Footing shall be undisturbed native granular soil.
- 4. Backfill shall consist of clean sand & gravel and will be compacted to 95% Std. Proctor.



Packy Campbell

PreCast Concrete Foundation

24 Panel SunAction Solar Trackers

GREENTECH

RENEWABLES

CONTRACTOR

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SHEET TITLE

FOUNDATION DETAILS

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FOUNDATION DETAILS **SCALE:**NTS

DC SYSTEM SIZE: 11.52 kW DC AC SYSTEM SIZE: 8.37 kW AC

(24) Q CELLS Q.PEAK DUO XL-G10.3/BFG 480W MODULES WITH (24) ENPHASE IQ8A-72-2-US MICROINVERTERS (03) STRINGS OF 8 MODULES CONNECTED IN PARALLEL.

REACH. (F) PROPERTY LÍNES, BOUNDARIES AND ALL OTHER EXTERIOR MEASUREMENTS ARE FOR REFERENCE ONLY, AND MUST BE VERIFIED BY A

LICENSED SURVEYOR OR CIVIL ENGINEER. (G) ENERGY STORAGE SYSTEMS ARE REQUIRED TO BE INSTALLED IN LOCATIONS AND CONTAINERS IN

COMMERCIAL SYSTEMS - UNDER MODULE WIRE MANAGEMENT SYSTEMS ARE REQUIRED, RACEWAY FILL MUST NOT EXCEED 40% REFER TO LOCAL

REGULATIONS FOR EXCEPTIONS. (L) FOR LINE SIDE TAPS, CONNECTION IN PANEL MUST NOT VIOLATE CONDITIONS OF ACCEPTABILITY FROM PANEL

TRAY, ETC. MUST BE USED 40% FILL MAX. (N) TY WRAPS FOR WIRE MANAGEMENT MUST BE STRUCTURAL (S21) UL APPROVED, OR SUN BUNDLER OR

SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS, AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR

ROUTING OF CONDUIT TO AVOID OBSTRUCTIONS. (P) BURIED CONDUITS UNDER AREAS SUBJECT TO VEHICLE TRAFFIC REQUIRE MIN 24" COVER. (Q)

OR PAPER INSULATED CONDUCTORS MAY NOT BE USED EXTERIOR. INSTEAD USE THWN-2 OR EQUAL IN EMT CONDUIT. (T) FOR MULTIPLE

UTILITY, AND MAY NOT RELY SOLELY ON EXISTING BREAKER SIZES.

EQUAL. (0) DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONDUIT ROUTING, WHEN INDICATED, IS

SOLAREDGE INVERTERS MAY BE EQUIPPED WITH OCPD ON DC LINES. IF NOT EXTERNAL OCPD MAY BE REQUIRED FOR STRINGS NUMBERING 3 OR MORE.

(R) BATTERIES MUST BE IN AN APPROVED BATTERY ENCLOSURE (SPECIFIED BY THE BATTERY MANUFACTURER), SUITABLE FOR THE LOCATION. (S) NM-B

BATTERIES/INVERTERS SHARING A COMMON DC BUS, OCPD PROTECTION IS REQUIRED ON BOTH SIDES OF THE BUS AND AT INVERTERS DUE TO 2 WAY

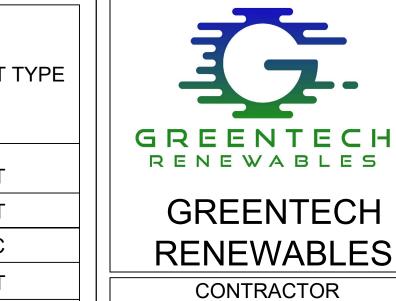
CURRENTS. (U) FOR ALL COMMERCIAL SOLAR PROJECTS, THE DEVELOPER IS REQUIRED TO CONFIRM EXISTING ELECTRICAL SERVICE SIZE FROM THE

COMPLIANCE WITH THEIR LISTING REQUIREMENTS. (H) IF TRAVEL ACROSS A ROOF IS LIMITED TO FIRE SETBACK AREAS, FALL RESTRAINT SYSTEMS MAY

MANUFACTURER'S NRTL LISTING, OR FIELD LABEL REQUIRED. (M) PV WIRES MAY NOT BE LAID DIRECTLY ON ROOF, WIRE MANAGEMENT SUCH AS SNAKE

BE REQUIRED. (I) NO PVC ALLOWED ON ROOF OR IN ATTIC. (J) MC4 CONNECTORS MAY NOT BE JOINED WITH 'MC4 COMPATIBLE' CONNECTORS. (K) FOR

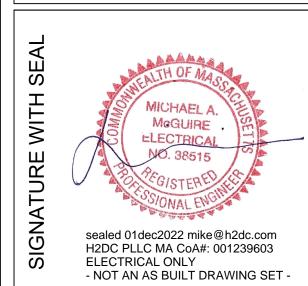
ID	PARALLEL FEEDER	Pŀ		ONDUCTOR QTY, SIZE YPE PER CONDUIT NEUTRAL		GROUND CONDUCTOR QTY, SIZE AND TYPE PER CONDUIT		CONDUIT SIZE	CONDUIT TYPE			
1	1	6	AWG #10	THWN-2,COPPER		N/A		1	AWG #10	THWN-2,COPPER EGC	3/4"	EMT
2	1 2 AWG #8 THWN-2,COPPER 1 AWG #10 THWN-2,COPPER		1	AWG #10	THWN-2,COPPER EGC	3/4"	EMT					
3	1	2	AWG #6	THWN-2,COPPER	1	AWG #10	THWN-2,COPPER	1	AWG #10	THWN-2,COPPER EGC	3/4"	PVC
4	1	2	AWG #8	THWN-2,COPPER	1	AWG #10	THWN-2,COPPER	1	AWG #10	THWN-2,COPPER EGC	3/4"	EMT
E	EXISTING											

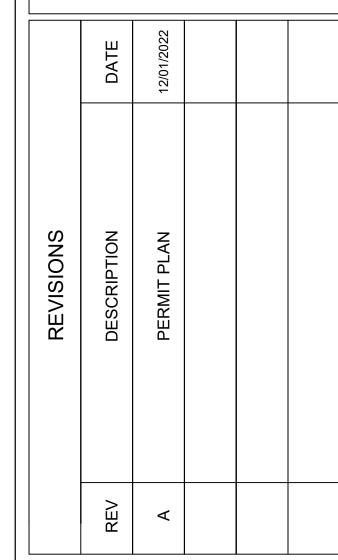




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FURTHEST END OF BUSBAR FROM

THE MAIN BREAKER OR FEEDER UNIT

SHEET TITLE

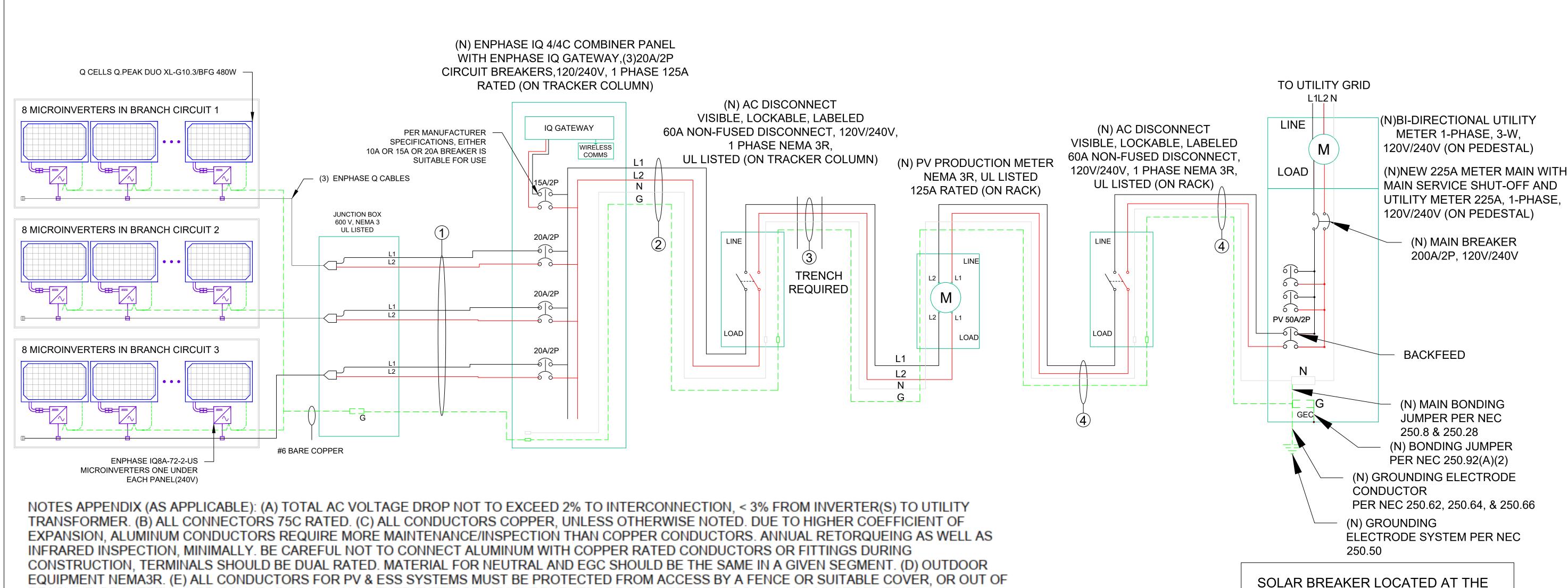
LINE DIAGRAM

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SOLAR MODULE SPECIFICATIONS					
MANUFACTURER / MODEL #	Q CELLS Q.PEAK DUO XL-G10.3/BFG 480W				
VMP	45.33V				
IMP	10.59A				
VOC	53.39V				
ISC	11.12A				
TEMP. COEFF. VOC	-0.27% / K				
PTC RATING	497.2W				
MODULE DIMENSION	87.2×41.1×1.38 (In Inch)				

PERCENT OF VALUES	NUMBER OF CURRENT CARRYING CONDUCTORS IN EMT
0.80	4-6
0.70	7-9
0.50	10-20

INVERTER SPECIFICATIONS						
MANUFACTURER / MODEL #	ENPHASE IQ8A-72-2-US					
NOMINAL OUTPUT VOLTAGE	240VAC					
NOMINAL OUTPUT CURRENT	1.45 A					

AMBIENT TEMPERATURE SPECS						
RECORD LOW TEMP	-17°					
AMBIENT TEMP (HIGH TEMP 2%)	27°					
CONDUIT HEIGHT	0.5"					
ROOF TOP TEMP	27°					
CONDUCTOR TEMPERATURE RATE	90°					

120% RULE FOR BACKFEED BREAKER

...NEC 705.12(B)(2)(3)(b)

MCB + PV BREAKER <= (1.2 x BUS BAR
RATING RATING)
(200 + 50) <= 1.2 x 225A
250.00 <= 270.00 HENCE OK

AC WIRE CALCULATION

WIRE ID	PARALLEL FEEDERS	EXPECTED WIRE TEMP (In Celsius)	TEMP. CORRECTION PER TABLE 310.15(B)(2)(a)	NO. OF CURRENT CARRYING CONDUCTORS	CONDUIT FILL CORRECTION PER CEC 310.15(B)(3)(a)	CIRCUIT CONDUCTOR SIZE	AMPACITY @75°(PER	CIRCUIT CONDUCTOR AMPACITY @90°(PER	REQUIRED CIRCUIT CONDUCTOR AMPACITY PER CEC 690.8(A&B)	DERATED AMPACITY OF CIRCUIT CONDUCTOR PER CEC TABLE 310.16 TEMP. CORRECTION PER TABLE (310.16) X CONDUIT FILL CORRECTION PER CEC	DERATED AMPACITY OF CIRCUIT CONDUCTOR IS GREATER	ESTIMATED DISTANCE (FT)	EXPECTED VOLTAGE DROP (%)
1	1	27°		6	0.80	AWG #10	FEEDER SET) 35A	FEEDER SET) 40A	1.25 X I	310.15(B)(2)(a) X CIRCUIT CONDUCTOR AMPACITY @90°(PER FEEDER SET) 32A	THAN REQUIRED YES	10	0.13
2	1		1.00	0	4			55A					
2	1	27°	1.00	2	1	AWG #8	50A		43.5A	55A	YES	10	0.25
3	1	27°	1.00	2	1	AWG #6	65A	75A	43.5A	75A	YES	112	1.80
4	1	27°	1.00	2	1	AWG #8	50A	55A	43.5A	55A	YES	20	0.51

TOTAL VOLTAGE DROP (%) 2.69





FARLEY BUILT, INC.

32 VINEYARD



DESCRIPTION PERMIT PLAN 12/01/20:

SHEET TITLE ELECTRICAL CALCULATIONS

DRAWN DATE 12/01/2022
DRAWN BY JK
REVIEWED BY VN

SHEET NUMBER

1

A WARNING

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

LABEL LOCATION:
COMBINER BOX
(PER CODE: NEC 690.31(I))

2

A WARNING

TURN OFF PHOTOVOLTAIC
AC DISCONNECT PRIOR TO
WORKING INSIDE PANEL

LABEL LOCATION:
COMBINER BOX, MAIN SERVICE PANEL
(PER CODE: NEC 110.27 (C))

3

A WARNING

ELECTRIC SHOCK HAZARD

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

LABEL LOCATION:
COMBINER BOX, MAIN SERVICE PANEL, AC
DISCONNECT
(PER CODE: NEC 690.13(B))

4

WARNING - Electric Shock Hazard

No user serviceable parts inside

Contact authorized service provider for assistance

LABEL LOCATION:
INVERTER, JUNCTION BOXES (ROOF),
(PER CODE: NEC690.13.G.3 & NEC 690.13.G.4)

5

WARNING: DUAL POWER SOURCE SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL LOCATION:
MAIN SERVICE PANEL, UTILITY METER
(PER CODE: NEC 705.12(B)(3-4) & NEC 690.59)

6

WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
CONDUIT, COMBINER BOX
(PER CODE: NEC690.31(G)(3)(4) & NEC
690.13(G)(4)

7

! WARNING

POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE.

LABEL LOCATION:
MAIN SERVICE PANEL
(PER CODE: NEC 705.12 (B)(2)(c))

8

PHOTOVOLTAIC

AC DISCONNECT

LABEL LOCATION:
AC DISCONNECT
(PER CODE: NEC 690.13 (B)

9

! CAUTION!

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

LABEL PER NEC 690.56(C)PROVIDE AT NEW SUB
PANEL OR SERVICE
PANEL FOR RAPID
SHUTDOWN COMPLIANT
SYSTEM

10

DO NOT DISCONNECT UNDER LOAD

LABEL LOCATION:
MAIN SERVICE PANEL
(PER CODE: NEC 690.15 (C) & NEC 690.33(E)(2))



ELECTRIC SHOCK HAZARD

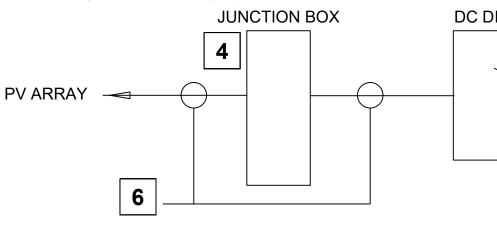
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH LINE & LOAD SIDES
MAY BE ENERGIZED IN OPEN POSITION
DO NOT DISCONNECT FUSES UNDER LOAD

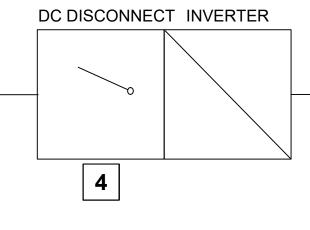
THE DC CONDUCTORS OF THIS
PHOTOVOLTAIC SYSTEM ARE
UNGROUNDED AND MAY BE ENERGIZED

PHOTOVOLTAIC SYSTEM DC DISCONNECT

AUTHORIZED PERSONNEL ONLY

Note: WARNING labels must resemble format in example above with over-sized WARNING, exclamation point in triangle, colors, etc.





A CAUTION

PHOTOVOLTAIC SYSTEM DISCONNECT IS BACKFEED

LABEL LOCATION:
MAIN SERVICE PANEL
(PER CODE: NEC 690.13 (F), NEC 705.12(D)(3-4)
& NEC 690.59)

12

MAIN PHOTOVOLTAIC SYSTEM DISCONNECT

LABEL LOCATION:
MAIN SERVICE PANEL
(PER CODE: NEC 690.13(B))

13

PHOTOVOLTAIC AC DISCONNECT

RATED AC OPERATING CURRENT:

34.8 A

NOMINAL OPERATING AC VOLTAGE:

240 V

LABEL LOCATION:
AC DISCONNECT
(PER CODE: NEC 690.54)

NOTE: MATERIALS USED FOR ALL MARKING SHALL BE REFLECTIVE, WEATHER RESISTANT AND SUITABLE FOR THE ENVIRONMENT. ALL LETTERS SHALL BE A MINIMUM HEIGHT OF 3/8", CAPITALIZED AND WHITE ON A RED BACKGROUND.

ADHESIVE FASTENED SIGNS:

- THE LABEL SHALL BE SUITABLE FOR THE ENVIRONMENT WHERE IT IS INSTALLED.
- WHERE REQUIRED ELSEWHERE IN THIS CODE, ALL FIELD APPLIED LABELS, WARNINGS, AND MARKINGS SHOULD COMPLY WITH ANSI Z535.4 [NEC 110.21(B) FIELD MARKING].
- ADHESIVE FASTENED SIGNS MAY BE ACCEPTABLE IF PROPERLY ADHERED. VINYL SIGNS SHALL BE WEATHER RESISTANT [IFC 605.11.1.3]

13

PHOTOVOLTAIC AC DISCONNECT

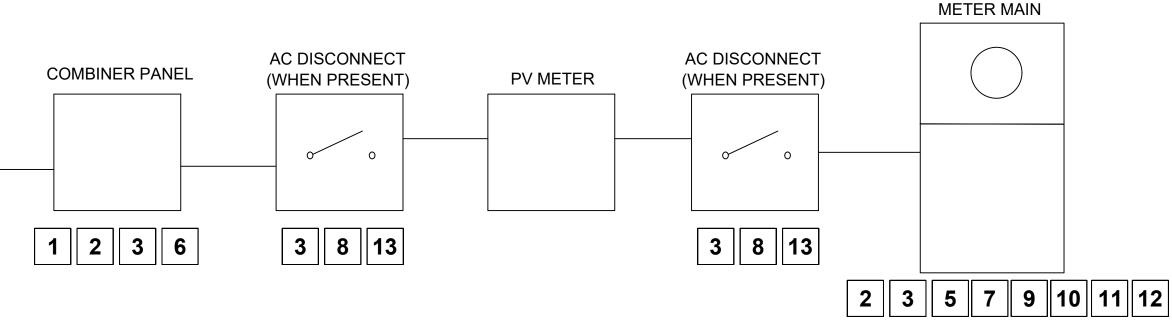
RATED AC OPERATING CURRENT:

34.8 A

NOMINAL OPERATING AC VOLTAGE:

240 V

LABEL LOCATION:
AC DISCONNECT
(PER CODE: NEC 690.54)



GREENTECH RENEWABLES GREENTECH RENEWABLES CONTRACTOR



FARLEY BUILT, INC.

32 VINEYARD MEADOW FARMS RD, WEST TISBURY, MA 02575, USA

Sealed 01dec2022 mike@h2dc.com
H2DC PLLC MA COA#: 001239603
ELECTRICAL ONLY
- NOT AN AS BUILT DRAWING SET -

REVISIONS

REV

DESCRIPTION

DATE

A

PERMIT PLAN

12/01/2022

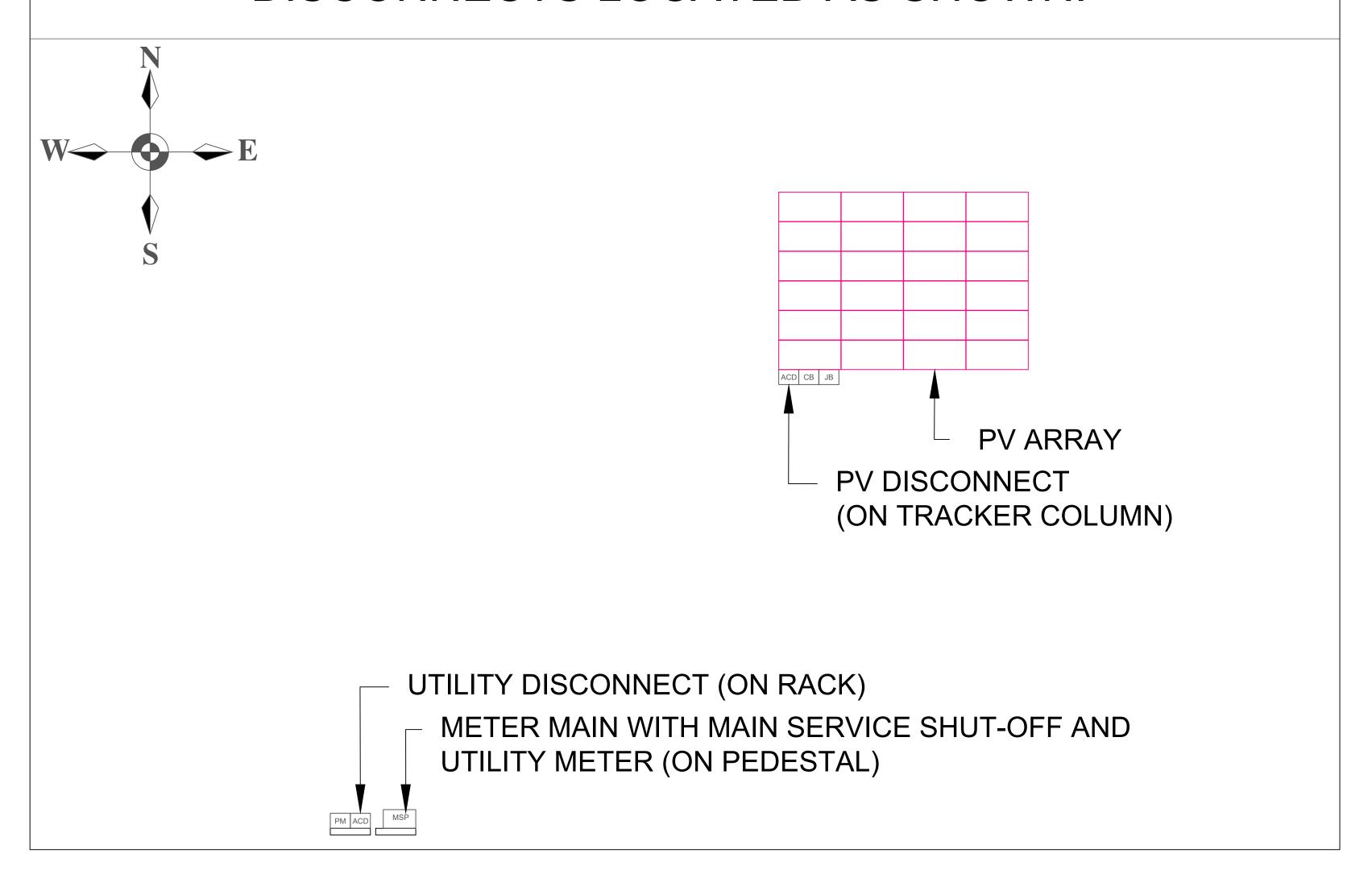
SHEET TITLE
WARNING LABELS

DRAWN DATE 12/01/2022
DRAWN BY JK
REVIEWED BY VN

SHEET NUMBER

CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN:







FARLEY BUILT, INC.

HAYNES

32 VINEYAR MEADOW FAF RD, WEST TISB



	REVISIONS	
REV	DESCRIPTION	DATE
А	PERMIT PLAN	12/01/2022

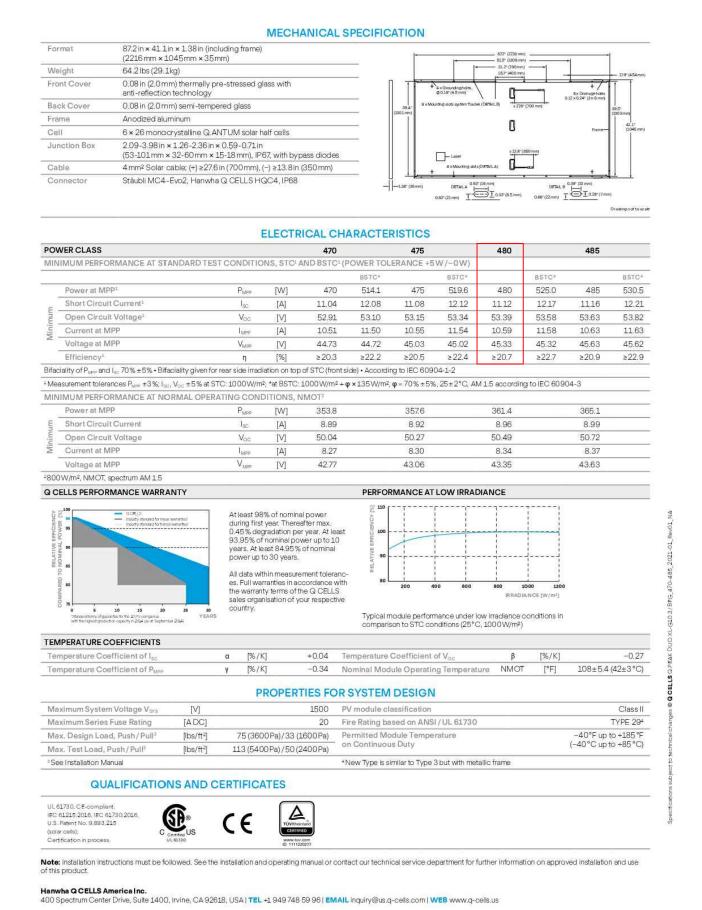
DRAWN DATE	12/01/2022				
DRAWN BY	JK				
REVIEWED BY	VN				

SHEET TITLE

PLACARDS

SHEET NUMBER





ENPHASE

IQ8 Series Microinverters

Our newest IQ8 Microinverters are the industry's first microgrid-forming, softwaredefined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently. The brain of the semiconductor-based microinverter is our proprietary application-specific integrated circuit (ASIC) which enables the microinverter to operate in grid-tied or off-grid modes. This chip is built in advanced 55nm technology with high speed digital logic and has super-fast response times to changing loads and grid events, alleviating constraints on battery sizing for home energy systems.



cable with plug-n-play MC4 connectors.

IQ8SE-DS-0001-01-EN-US-2022-03-17





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manufacturer's instructions.

Only when installed with IQ System Controller 2, meets UL 1741. IQ8H-208V operates only in grid-tied mode. ** IQ8 Series Microinverters supports split phase, 240V. IQ8H-208 supports split phase, 208V only.

Easy to install

Lightweight and compact with

Power Line Communication

(PLC) between components

Faster installation with simple

High productivity and reliability

Produce power even when the

Class II double-insulated

powered PV modules

Complies with the latest

advanced grid support**

range of grid profiles

requirements

Remote automatic updates for

Configurable to support a wide

Meets CA Rule 21 (UL 1741-SA)

the latest grid requirements

Microgrid-forming

Optimized for the latest high-

More than one million cumulative

plug-n-play connectors

two-wire cabling

grid is down*

hours of testing

enclosure

IQ8 Series Microinverters

INPUT DATA (DC)		108-60-2-US	IQ8PLUS-72-2-US	108M-72-2-US	IQ8A-72-2-US	IQ8H-240-72-2-US	IQ8H-208-72-2-US1
Commonly used module pairings ²	W	235 – 350	235 - 440	260 - 460	295 – 500	320 - 540+	295 – 500+
Module compatibility		60-cell/120 half-cell	6	60-cell/120 half-cell, 6	6-cell/132 half-cell a	nd 72-cell/144 half-ce	ell
MPPT voltage range	٧	27 - 37	29 - 45	33 – 45	36 - 45	38 – 45	38 – 45
Operating range	٧	25 - 48			25 - 58		
Min/max start voltage	٧	30 / 48			30 / 58		
Max input DC voltage	٧	50			60		
Max DC current ³ [module lsc]	Α			1:	5		
Overvoltage class DC port				I	I		
DC port backfeed current	mA			()		
PV array configuration		1x1 Ungrounded a	array; No additional D	C side protection requ	ired; AC side protecti	on requires max 20A p	er branch circuit
OUTPUT DATA (AC)		108-60-2-US	IQ8PLUS-72-2-US	IQ8M-72-2-US	IQ8A-72-2-US	IQ8H-240-72-2-US	IQ8H-208-72-2-US1
Peak output power	VA	245	300	330	366	384	366
Max continuous output power	VA	240	290	325	349	380	360
Nominal (L-L) voltage/range4	٧			240 / 211 - 264			208 / 183 - 250
Max continuous output current	Α	1.0	1.21	1.35	1.45	1.58	1.73
Nominal frequency	Hz			6	0		
Extended frequency range	Hz			50	- 68		
AC short circuit fault current over 3 cycles	Arms	3		2			4.4
Max units per 20 A (L-L) branch circuit ⁵	į.	16	13	11	11	10	9
Total harmonic distortion				<5	5%		
Overvoltage class AC port				I	II		
AC port backfeed current	mA			3	0		
Power factor setting				1.	0		
Grid-tied power factor (adjustable)				0.85 leading	- 0.85 lagging		
Peak efficiency	%	97.5	97.6	97.6	97.6	97.6	97.4
CEC weighted efficiency	%	97	97	97	97.5	97	97
Night-time power consumption	mW			6	0		
MECHANICAL DATA							
Ambient temperature range				-40°C to +60°C	(-40°F to +140°F)		
Relative humidity range				4% to 100%	(condensing)		
DC Connector type				М	C4		
Dimensions (HxWxD)			:	212 mm (8.3") x 175 mm	n (6.9") x 30.2 mm (1.2	")	

1.08 kg (2.38 lbs) Natural convection - no fans Approved for wet locations Enclosure Class II double-insulated, corrosion resistant polymeric enclosure NEMA Type 6 / outdoor

CA Rule 21 (UL 1741-SA), UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01

This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section

 $690.12 \ \text{and} \ C22.1-2018 \ \text{Rule} \ 64-218 \ \text{Rapid Shutdown} \ \text{of PV Systems, for AC and DC conductors, when installed according to the conductors of the conductor$ manufacturer's instructions. (1) The IQ8H-208 variant will be operating in grid-tied mode only at 208V AC. (2) No enforced DC/AC ratio. See DC current is 10.6A (4) Nominal voltage range can be extended beyond nominal if required by the utility. (5) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

Certifications

IQ8SE-DS-0001-01-EN-US-2022-03-17

Enphase Networking

Enphase IQ Combiner 4/4C X-IQ-AM1-240-4

X-IQ-AM1-240-4C



X-IQ-AM1-240-4

To learn more about Enphase offerings, visit **enphase.com**

The Enphase IQ Combiner 4/4C with Enphase IQ Gateway and integrated LTE-M1 cell modem (included only with IQ Combiner 4C) consolidates interconnection equipment into a single enclosure and streamlines IQ microinverters and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.

Smart

 Includes IQ Gateway for communication and control Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), included only with IQ

Combiner 4C Includes solar shield to match Enphase IQ Battery aesthetics and deflect heat

 Flexible networking supports Wi-Fi, Ethernet, or cellular Optional AC receptacle available for PLC bridge Provides production metering and consumption

Simple

 Centered mounting brackets support single stud mounting

 Supports bottom, back and side conduit entry Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)

80A total PV or storage branch circuits

Durable NRTL-certified NEMA type 3R enclosure Five-year limited warranty Two years labor reimbursement program coverage included for both the IQ Combiner SKU's

ENPHASE.

Enphase IQ Combiner 4/4C

MODEL NUMBER C12.20 +/- 0.5%) and consumption monitoring (+/- 2.5%). Includes a silver solar shield to match the IQ Battery system and IQ System Controller 2 and to deflect heat. IQ Combiner 4C (X-IQ-AM1-240-4C) IQ Combiner 4C with Enphase IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and consumption monitoring (+/- 2.5%). Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), a plug-and-play industrial-grade cell modem for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in ACCESSORIES AND REPLACEMENT PARTS (not included, order separately) - Includes COMMS-KIT-01 and CELLMODEM-M1-06-SP-05 with 5-year Sprint data plan for COMMS-CELLMODEM-M1-06 - 4G based LTE-M1 cellular modem with 5-year Sprint data plan CELLMODEM-M1-06-SP-05 - 4G based LTE-M1 cellular modem with 5-year AT&T data plan CELLMODEM-M1-06-AT-05 Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers. BRK-10A-2-240V Circuit breaker, 2 pole, 10A, Eaton BR210 Circuit breaker, 2 pole, 15A, Eaton BR215 BRK-15A-2-240V BRK-20A-2P-240V Circuit breaker, 2 pole, 20A, Eaton BR220 Circuit breaker, 2 pole, 15A, Eaton BR215B with hold down kit support

BRK-15A-2P-240V-B BRK-20A-2P-240V-B Circuit breaker, 2 pole, 20A, Eaton BR220B with hold down kit support Power line carrier (communication bridge pair), quantity - one pair EPLC-01 Replacement solar shield for IQ Combiner 4/4C XA-SOLARSHIELD-ES XA-PLUG-120-3 Accessory receptacle for Power Line Carrier in IQ Combiner 4/4C (required for EPLC-01) XA-ENV-PCBA-3 Replacement IQ Gateway printed circuit board (PCB) for Combiner 4/4C X-IO-NA-HD-125A Hold down kit for Eaton circuit breaker with screws. ELECTRICAL SPECIFICATIONS Continuous duty 120/240 VAC, 60 Hz Eaton BR series busbar rating Max. continuous current rating 65 A Max. continuous current rating (input from PV/storage) 64 A Max. fuse/circuit rating (output) Branch circuits (solar and/or storage) Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included) Max. total branch circuit breaker rating (input) 80A of distributed generation / 95A with IQ Gateway breaker included Envoy breaker 10A or 15A rating GE/Siemens/Eaton included 200 A solid core pre-installed and wired to IQ Gateway Consumption monitoring CT (CT 200 SPLIT)

A pair of 200 A split core current transformers

MECHANICAL DATA Dimensions (WxHxD) $37.5 \times 49.5 \times 16.8 \text{ cm}$ (14.75" x 19.5" x 6.63"). Height is 21.06" (53.5 cm) with mounting brackets. 7.5 kg (16.5 lbs) -40° C to +46° C (-40° to 115° F) Ambient temperature range Natural convection, plus heat shield Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction

• 20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors

· 60 A breaker branch input: 4 to 1/0 AWG copper conductors

Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included)

 Neutral and ground: 14 to 1/0 copper conductors Always follow local code requirements for conductor sizing. To 2000 meters (6,560 feet) INTERNET CONNECTION OPTIONS Integrated Wi-Fi CELLMODEM-M1-06-SP-05, CELLMODEM-M1-06-AT-05 (4G based LTE-M1 cellular modem). Note that an Enphase Mobile Connect cellular modem is required for all Ensemble installations.

COMPLIANCE UL 1741, CAN/CSA C22.2 No. 107.1, 47 CFR, Part 15, Class B, ICES 003 Compliance, IQ Combine Production metering: ANSI C12.20 accuracy class 0.5 (PV production) Consumption metering: accuracy class 2.5 UL 60601-1/CANCSA 22.2 No. 61010-1 Compliance, IQ Gateway

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To learn more about Enphase offerings, visit enphase.com

ENPHASE

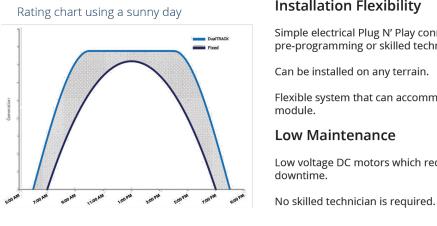


DualTrack 24 Dual Axis with Real-Time Sensing Technology



More power to you.

DualTrack 24 captures the most optimal energy for your home, thanks to our patented Real-Time Sensors (RTS) that guide our systems to the maximum point of sunlight throughout the day. This results in **30-40 percent more** power production than conventional fixed arrays.



Key features

Contains self-healing Magnesium Alloy Coated (MAC) steel, a strong alloy

that is 5-10 times stronger than galvanized steel. Utilizes patented Real-Time Sensors for ultimate tracking, allowing **no**

wasted energy during cloudy days - unlike conventional GPS input tracking

systems that follow their pre-programmed path. We provide company support during the lifetime of the tracker (Operation

& Troubleshooting) Installation Flexibility

Simple electrical Plug N' Play connection with the use of RTS technology. No pre-programming or skilled technician is required.

Can be installed on any terrain.

Flexible system that can accommodate any commercially available solar

Low Maintenance

Low voltage DC motors which require low maintenance and minimum



Sun Action Trackers | **Dual**Track 24



Tracker Specifications

Tracking Type	Dual Axis
Model	DualTrack 24
Module Area (Max)*	48m² [24 modules 72-cell]
System Weight	1,500kg, without modules & foundation
Tracking Axis	Dual Axis: azimuth & vertical
Tracking Range of Motion	Azimuth: -120° to +120° Vertical: 0° to 60°
Azimuth Rotation	Slew drive
Vertical Tilt	Linear actuator
Power Supply to Controller	100-240VAC / 50 ~ 60Hz
Materials	Magnesium Alloy Coated / Hot-dip Galvanized steel
Solar Tracking Method	Real-Time Solar Sensor
Max Wind Speed	Standard 47m/s (105MPH)
Safety Mode (Automatic Horizontal)	Wind mode, Less than 3,000 lux
Safety Mode (Tilted Position)	Snow Mode
Temperature Range	-25 to 55°C (-13 to 131°F)

The above specifications could vary according to local conditions *Module Area (Max) - Optional 60 cell modules

Available for Residential, Commercial & Industrial use.

Sun Action Trackers 3660 Thousand Oaks, Suite 316 | San Antonio, Texas 78247

Email: info@sat-energy.com www.sat-energy.com

Main:844-366-7525



GREENTECH RENEWABLES CONTRACTOR



FARLEY BUILT, INC.

VINE DOW EST 1

X

SHEET TITLE

RESOURCE

12/01/2022 DRAWN DATE JK DRAWN BY REVIEWED BY VN

SHEET NUMBER

R-001