

# PHOTOVOLTAIC ROOF MOUNT SYSTEM

20 MODULES-ROOF MOUNTED - 8.50 kWDC, 11.50 kWAC,BATTERY 11.50 kWh

BLDG NO. STREET, CITY, STATE ZIP USA



BETTER SOLAR STARTS HERE  
1411 BROADWAY BLVD NE  
ALBUQUERQUE, NM 87102  
PH: 505-242-6411

SYSTEM SUMMARY:

- (N) 20 - HANWHA Q.CELLS Q.TRON BLK M-G2+425 (425W) MODULES
- (N) 01 - TESLA POWERWALL 3 (1707000-XX-Y) INTEGRATED SOLAR AND BATTERY
- (N) 08 - TESLA MCI (RAPID SHUT DOWN DEVICE) GEN 2
- (N) JUNCTION BOX
- (N) 125A BUSBAR WITH (N) 100A MAIN PANEL AND
- (N) 100A MAIN BREAKER
- (N) 60A NON FUSED AC DISCONNECT (SQUARE D DU222RB)

MSP UPGRADE: YES

DESIGN CRITERIA:

- ROOF TYPE: - ASPHALT SHINGLE
- ROOF FRAME: - 2"X6" RAFTERS @24" O.C.
- STORY: - ONE STORY
- SNOW LOAD : - 0 PSF
- WIND SPEED :- 94 MPH
- WIND EXPOSURE:- C
- RISK CATEGORY:- II

GOVERNING CODES:

- 2022 CALIFORNIA ELECTRICAL CODE (CEC)
- 2022 CALIFORNIA BUILDING CODE (CBC)
- 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC)
- 2022 CALIFORNIA RESIDENTIAL CODE (CRC)
- 2022 CALIFORNIA GREEN CODE (CGC)
- 2022 CALIFORNIA MECHANICAL CODE (CMC)
- 2022 CALIFORNIA PLUMBING CODE (CPC)
- 2022 CA FIRE CODE TITLE 24 SUPPLEMENT
- ANY OTHER LOCAL AMENDMENTS

SHEET INDEX

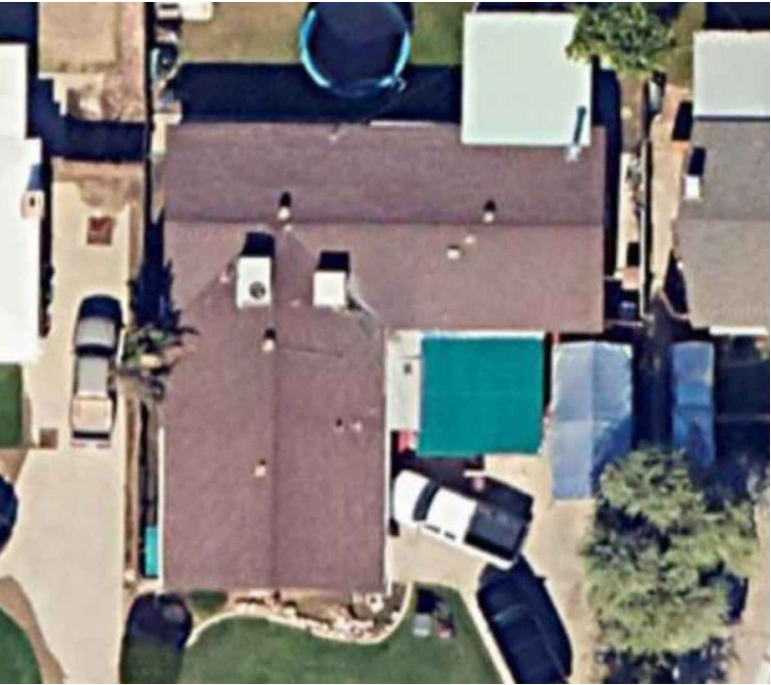
|      |                             |
|------|-----------------------------|
| PV-0 | COVER SHEET                 |
| PV-1 | SITE PLAN WITH ROOF PLAN    |
| PV-2 | ROOF PLAN WITH MODULES      |
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GENERAL NOTES

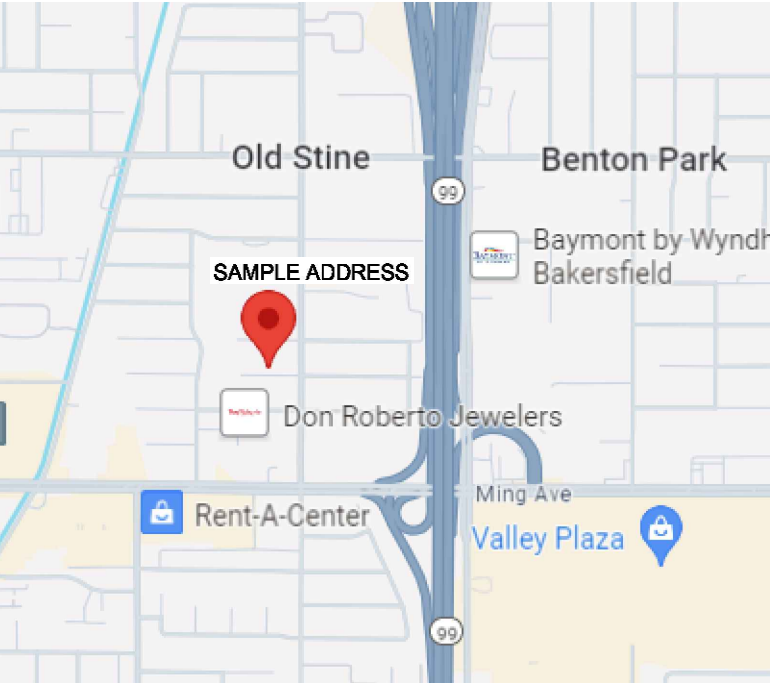
- THE CONTRACTOR/INSTALLER OF THE SOLAR PV SYSTEM OVER EXISTING ROOF SHALL CONFORM TO OSHA REQUIREMENTS DURING THE CONSTRUCTION PHASE. JOB SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR/INSTALLER.
- REFER TO ELECTRICAL DRAWING PV-5 FOR PANEL DETAILED INFORMATION.
- IN CASE OF CONFLICT BETWEEN STRUCTURAL DRAWINGS AND ELECTRICAL DRAWINGS, THE MOST RIGID REQUIREMENTS SHALL GOVERN.
- THE CONTRACTOR/INSTALLER SHALL VERIFY ALL EXISTING BUILDING INFORMATION SHOWN (DIMENSIONS, ROOF TOP PROJECTIONS, ETC.) AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATIONS OF PV SYSTEM.
- THE CONTRACTOR/INSTALLER SHALL VERIFY AND COORDINATE EXISTING OPENINGS, ROOF TOP UNITS, VENT PIPES, ETC. SHOWN ON DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTORS/INSTALLER'S RESPONSIBILITY TO NOTIFY ENGINEER PRIOR TO PERFORMING THE WORK.
- ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE TOWN, COUNTY & STATE REGULATIONS AND/OR ANY OTHER GOVERNING BODIES.
- DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS. CONTRACTOR MUST CONDUCT ROOF SURVEY TO VERIFY DIMENSIONS SHOWN ON PLAN PRIOR TO INSTALLATION. IF THERE IS A DISCREPANCY IT IS CONTRACTOR/INSTALLER'S RESPONSIBILITY TO NOTIFY THE ENGINEER IMMEDIATELY.
- LOCATED IN AREAS NOT REQUIRING PLACEMENT OF GROUND LADDERS OVER OPENINGS SUCH AS DOORS OR WINDOWS.
- LOCATED AT STRONG POINTS OF BUILDING CONSTRUCTION IN LOCATIONS WHERE ACCESS POINT DOES NOT CONFLICT WITH OVERHEAD OBSTRUCTIONS SUCH AS TREE LIMBS, WIRES, OR SIGNS.
- DISCONNECT MEANS MUST HAVE DEDICATED CLEAR UNOBSTRUCTED WORKING SPACE NOT LESS THAN 3' DEEP BY 2.5' WIDE TO NOT LESS THAN 6.5' ABOVE WALKABLE SURFACES IN FRONT OF DISTRIBUTION PANEL.
- ALL SOLAR MODULES, EQUIPMENT, AND METALLIC COMPONENTS TO BE BONDED.
- PV ARRAY NOT TO EXCEED HIGHEST POINT OF THE ROOF.
- RAPID SHUTDOWN IS ACTIVATED AT THE INVERTER BY THE AC DISCONNECT.

ELECTRICAL NOTES

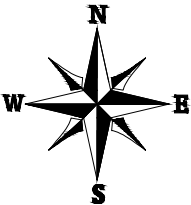
- ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.
- WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH CEC 110.26.
- DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES AND STANDARDS.
- WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
- MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURER'S INSTRUCTION.
- MODULE SUPPORT RAIL TO BE BONDED TO CONTINUOUS COPPER E.G.C. VIA WEEB LUG OR ILSCO GBL-4DBT LAY-IN LUG.
- THE POLARITY OF THE GROUNDED CONDUCTORS IS NEGATIVE



1 AERIAL PHOTO  
PV-0 SCALE: NTS



2 VICINITY MAP  
PV-0 SCALE: NTS



| VERSION         |            |     |
|-----------------|------------|-----|
| DESCRIPTION     | DATE       | REV |
| INITIAL RELEASE | DD/MM/YYYY | UR  |
|                 |            |     |
|                 |            |     |

CUST. NAME  
BLDG NO. STREET,  
CITY, STATE ZIP USA  
APN#  
UTILITY:  
AHJ:

PROJECT NAME

SHEET NAME

COVER SHEET

SHEET SIZE

ANSI B  
11" X 17"

SHEET NUMBER

PV-0

● **ROOF ACCESS POINT** SHALL BE LOCATED IN AREAS THAT DO NOT REQUIRE THE PLACEMENT OF GROUND LADDERS OVER OPENINGS SUCH AS WINDOWS OR DOORS, AND LOCATED AT STRONG POINTS OF BUILDING CONSTRUCTION IN LOCATIONS WHERE THE ACCESS POINT DOES NOT CONFLICT WITH OVERHEAD OBSTRUCTIONS SUCH AS TREE LIMBS, WIRES OR SIGNS.

NOTE: LOCATIONS OF DC CONDUCTORS SHALL COMPLY WITH CRC SECTION R324.7.3

**NOTE:**  
A. ALL ELECTRICAL EQUIPMENT, INVERTERS, DISCONNECTS, MAIN SERVICE PANELS, ETC. SHALL NOT BE INSTALLED WITHIN 3' OF THE GAS METERS' SUPPLY OR DEMAND PIPING.

ESS SEPARATION OF 3' MINIMUM FROM DOORS AND WINDOWS DIRECTLY ENTERING THE DWELLING UNIT AS PER CRC R328.4



BETTER SOLAR STARTS HERE

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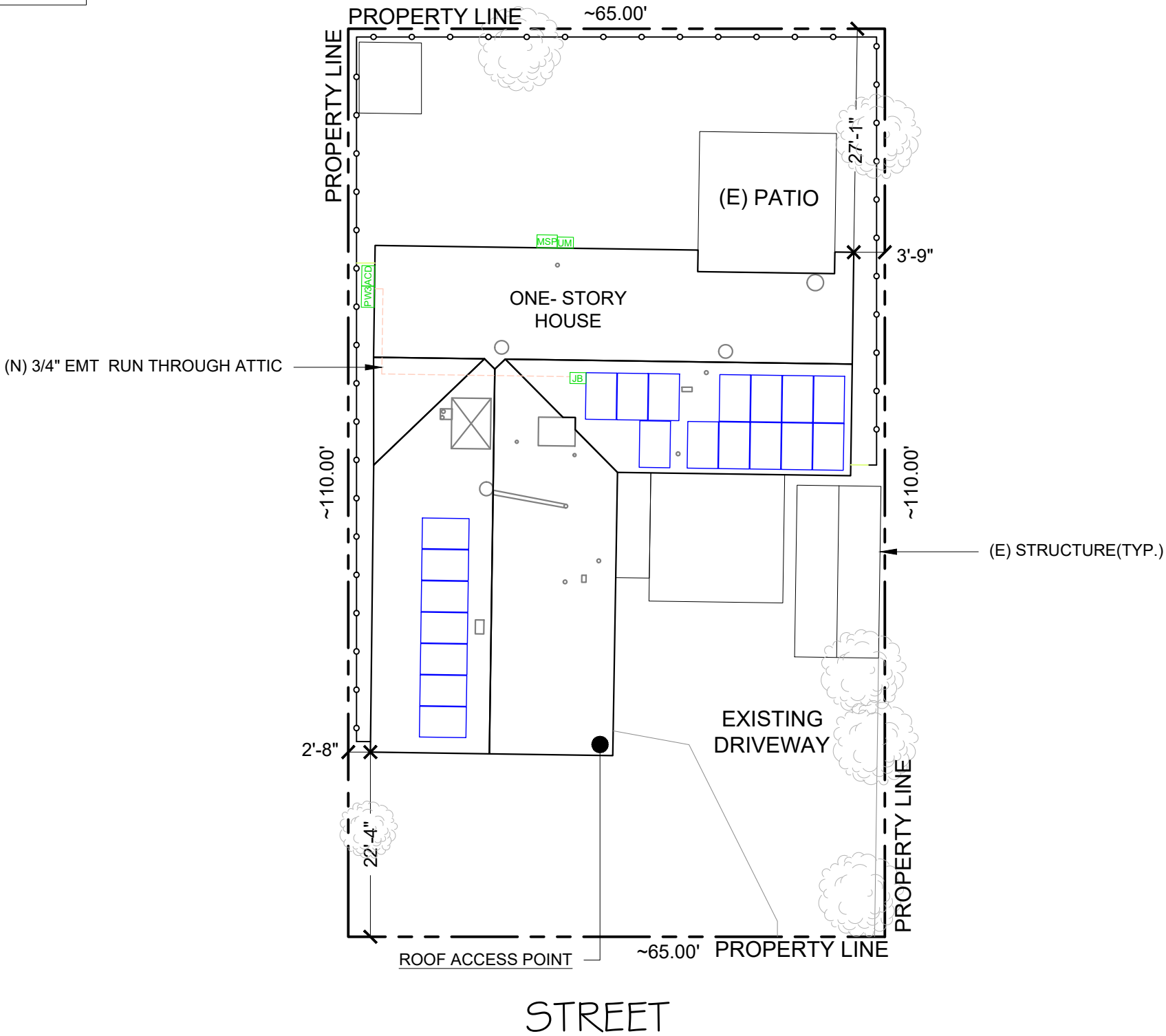
PROJECT NAME













CUST. NAME  
BLDG NO. STREET,  
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AHJ:

SHEET NAME  
SITE PLAN WITH  
ROOF PLAN

SHEET SIZE  
ANSI B  
11" X 17"

SHEET NUMBER  
PV-1



| LEGEND  |                                      |
|---|--------------------------------------|
|  | UTILITY METER                        |
|  | MAIN SERVICE PANEL                   |
|  | TESLA POWERWALL 3                    |
|  | AC DISCONNECT                        |
|  | JUNCTION BOX                         |
|  | CONDUIT                              |
|  | GATE                                 |
|  | FENCE                                |
|  | VENT, ATTIC FAN<br>(ROOFOBSTRUCTION) |
|  | TREES                                |
|  | CHIMNEY                              |
|  | AC UNIT                              |



| BILL OF MATERIALS |     |                                 |
|-------------------|-----|---------------------------------|
| EQUIPMENT         | QTY | DESCRIPTION                     |
| RAIL              | 13  | UNIRAC NXT UMount RAIL 168" DRK |
| RAIL SPLICE       | 06  | NXT UMount RAIL SPLICE          |
| UNIVERSAL CLAMP   | 50  | NXT UMount COMBO CLAMP -DRK     |
| ROOF ATTACHMENTS  | 36  | UNIRAC STRONGHOLD ATT BUTYL     |
| ACCESSORIES       | 20  | NXT UMount RL & CLMP CAP KIT    |
| MLPE & GROUNDING  | 25  | NXT UMount MLPE & LUG CLAMP     |

ESS SEPARATION OF 3' MINIMUM FROM DOORS AND WINDOWS DIRECTLY ENTERING THE DWELLING UNIT AS PER CRC R328.4

NOTE: LOCATIONS OF DC CONDUCTORS SHALL COMPLY WITH CRC SECTION R324.7.3

**NOTE:** ACTUAL ROOF CONDITIONS AND RAFTERS (OR SEAM) LOCATIONS MAY VARY. INSTALL PER MANUFACTURER(S) INSTALLATION GUIDELINES AND ENGINEERED SPANS FOR ATTACHMENTS

PLUMBING VENTS, SKYLIGHTS AND MECHANICAL VENTS SHALL NOT BE COVERED, MOVED, RE-ROUTED OR RE-LOCATED.

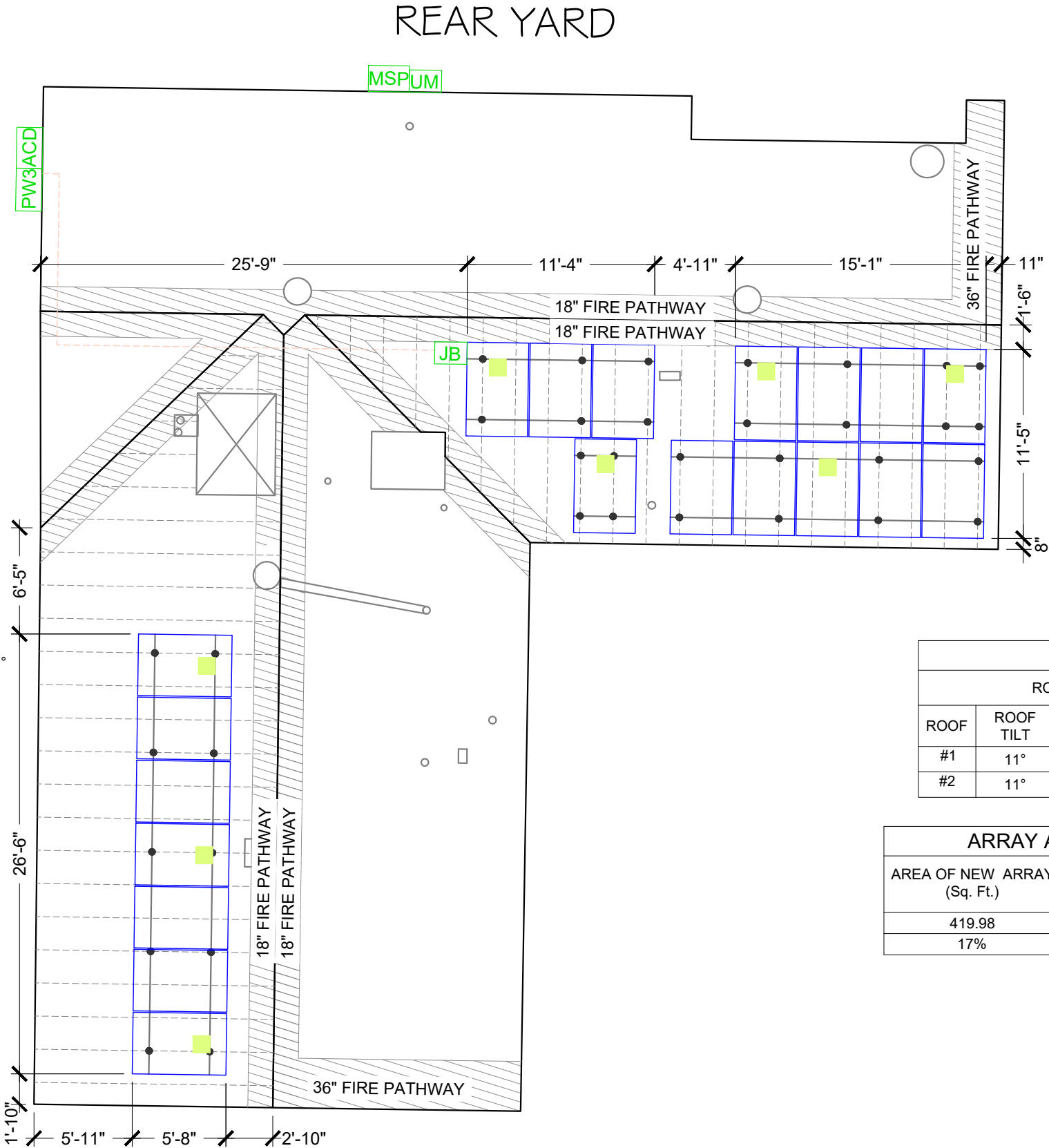
| LEGEND         |   |
|----------------|---|
| <div>UM</div>  | UTILITY METER                             |
| <div>MSP</div> | MAIN SERVICE PANEL                        |
| <div>PW3</div> | TESLA POWERWALL 3                         |
| <div>ACD</div> | AC DISCONNECT                             |
| <div>JB</div>  | JUNCTION BOX                              |
| <div></div>    | UNIARC NXT UMount RAIL                    |
| <div></div>    | RAFTERS                                   |
| <div></div>    | ROOF ATTACHMENT @72" O.C.                 |
| <div></div>    | TESLA MCI (RAPID SHUT DOWN DEVICES) GEN 2 |
| <div></div>    | VENT, ATTIC FAN (ROOF OBSTRUCTION)        |
| <div></div>    | CHIMNEY                                   |
| <div></div>    | AC UNIT                                   |

1

ROOF PLAN WITH MODULES

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

N



PHOTOVOLTAIC MODULES  
HANWHA Q.CELLS Q.TRON BLK  
M-G2+425 (425W)

67.8"

44.6"

ROOF #1  
TILT - 11°  
AZIMUTH - 181°

| ROOF DESCRIPTION |           |                |         |                      |                 |
|------------------|-----------|----------------|---------|----------------------|-----------------|
| ROOF TYPE        |           |                |         | ASPHALT SHINGLE ROOF |                 |
| ROOF             | ROOF TILT | NO. OF MODULES | AZIMUTH | RAFTERS SIZE         | RAFTERS SPACING |
| #1               | 11°       | 13             | 181°    | 2"x6"                | 24" O.C.        |
| #2               | 11°       | 7              | 271°    | 2"x6"                | 24" O.C.        |

| 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 % |
| 419.98                        | 2535.62                             | 17%                                |
| 17%                           | ROOF AREA (ARRAY <33% OF ROOF AREA) |                                    |

UNIRAC

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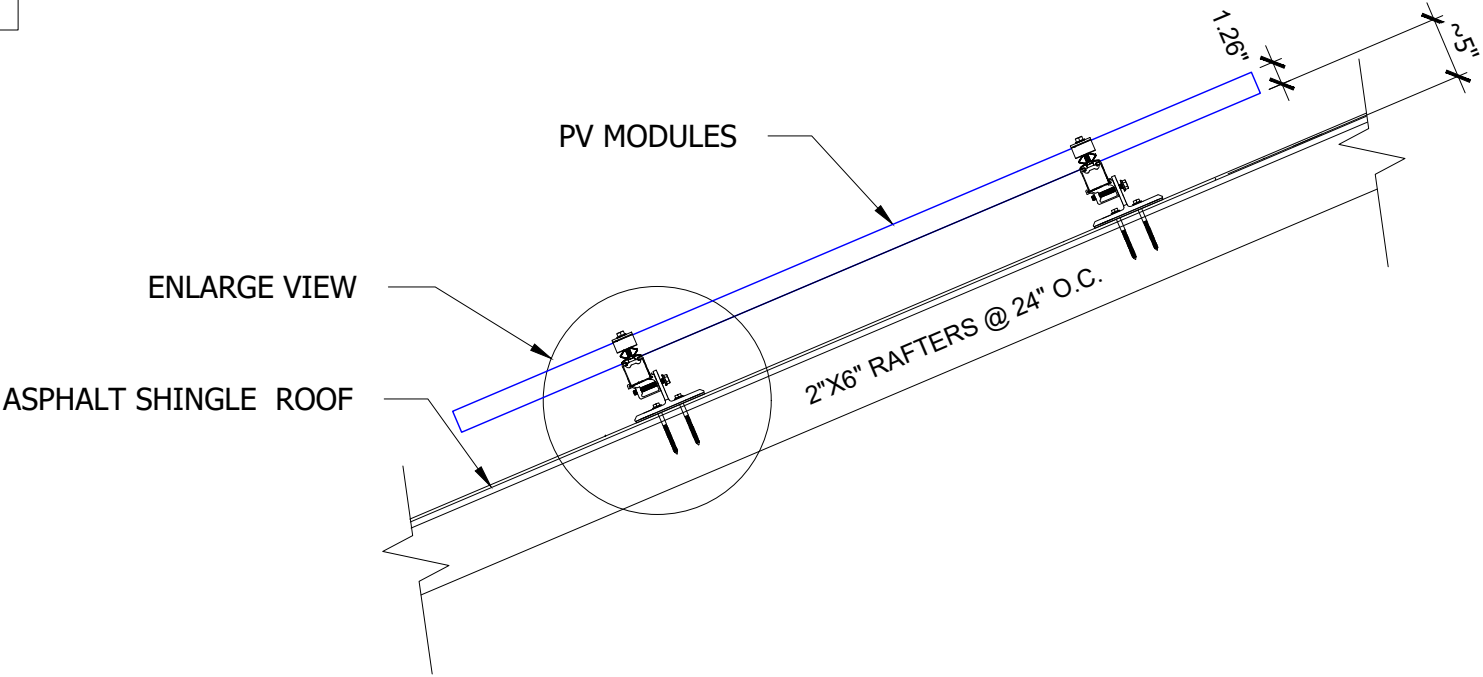
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UTILITY:

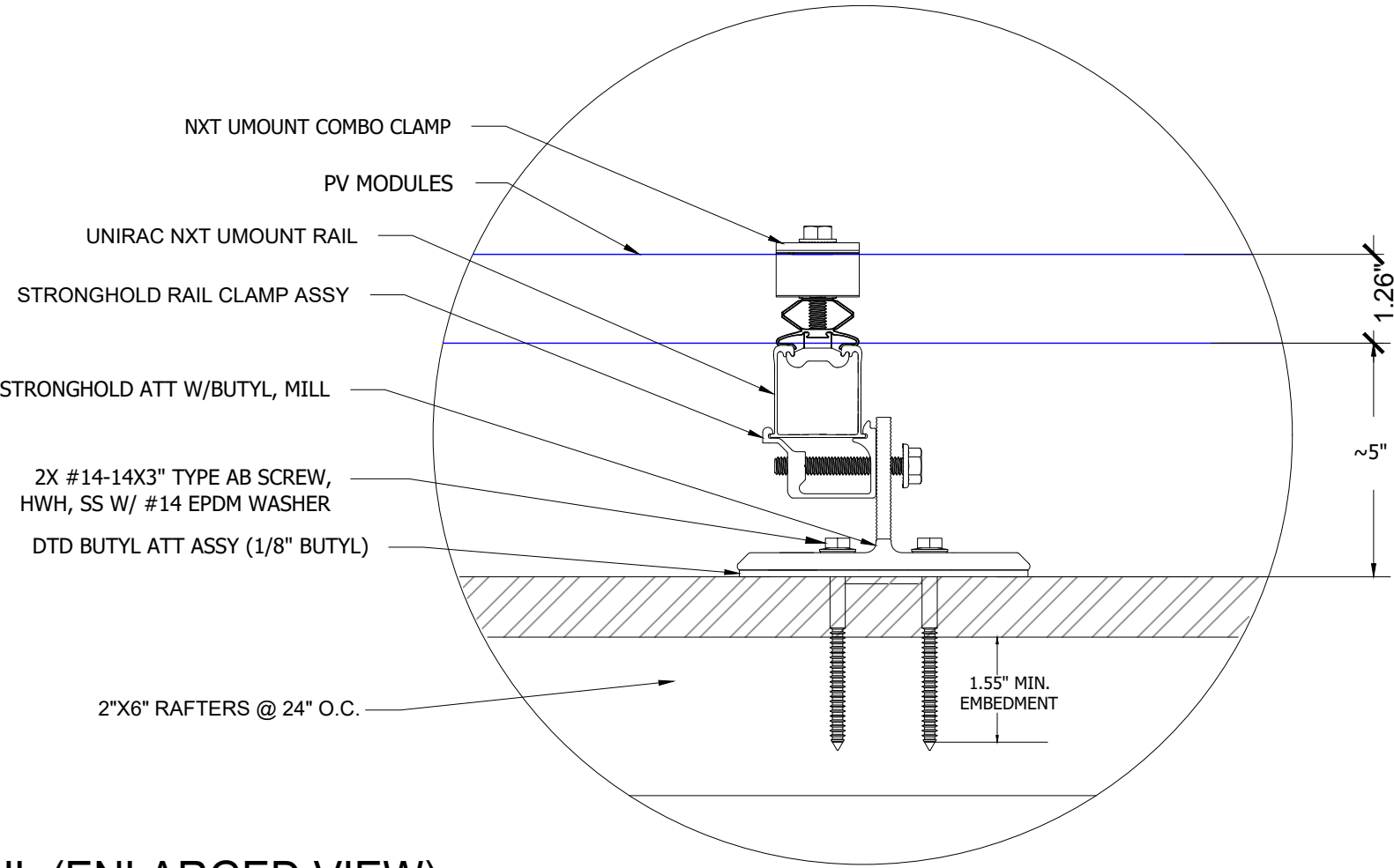
AHJ:

|                        |
|------------------------|
| SHEET NAME             |
| ROOF PLAN WITH MODULES |
| SHEET SIZE             |
| ANSI B<br>11" X 17"    |
| SHEET NUMBER           |
| PV-2                   |

**NOTE:** ACTUAL ROOF CONDITIONS AND RAFTERS (OR SEAM) LOCATIONS MAY VARY. INSTALL PER MANUFACTURER(S) INSTALLATION GUIDELINES AND ENGINEERED SPANS FOR ATTACHMENTS



**1** ATTACHMENT DETAIL  
SCALE: NTS



**2** ATTACHMENT DETAIL (ENLARGED VIEW)  
SCALE: NTS

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SHEET NAME  
ATTACHMENT  
DETAIL

SHEET SIZE  
ANSI B  
11" X 17"

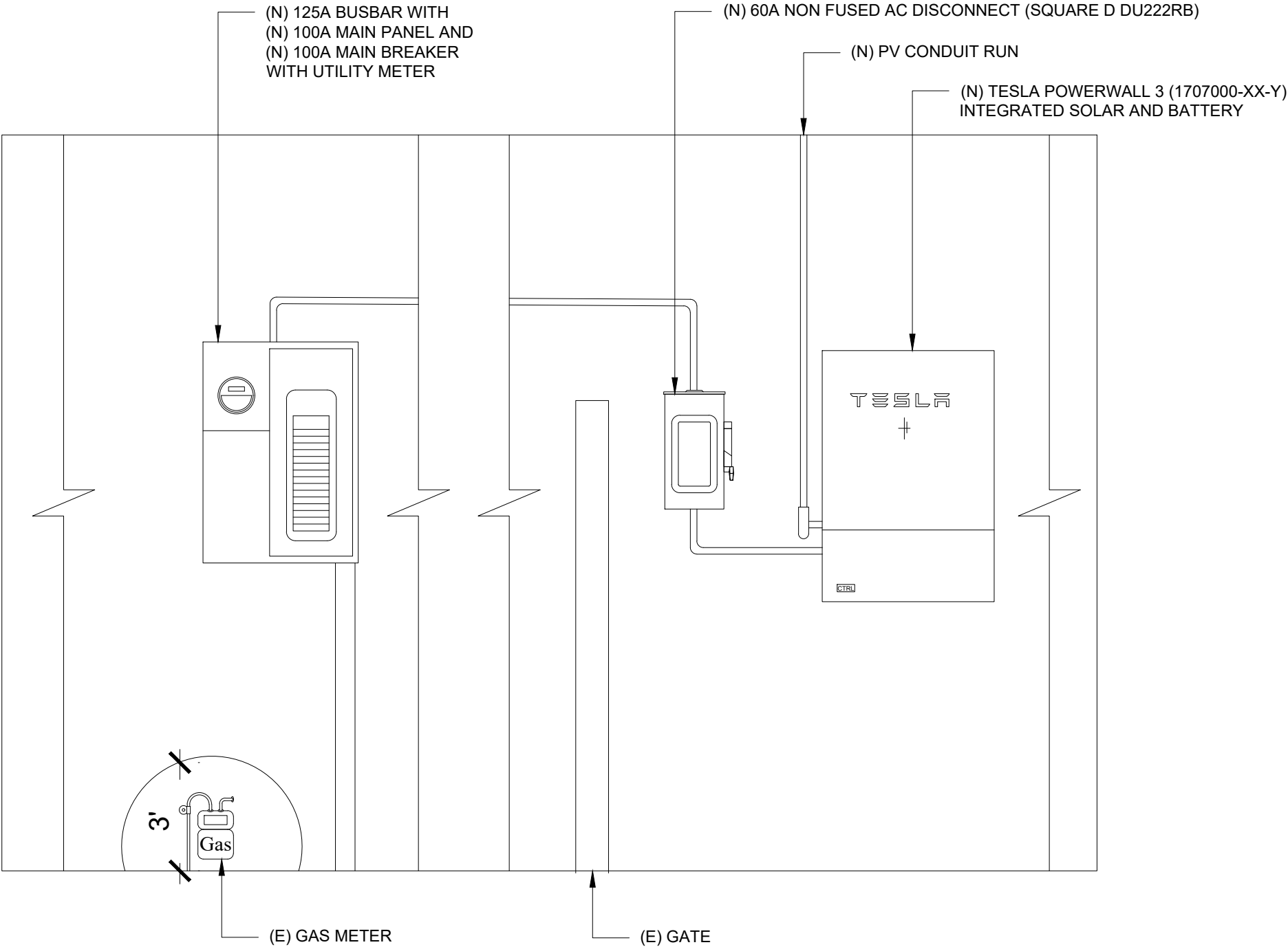
SHEET NUMBER  
PV-3

ESS SEPARATION OF 3' MINIMUM FROM  
DOORS AND WINDOWS DIRECTLY ENTERING  
THE DWELLING UNIT AS PER CRC R328.4



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NORTH SIDE OF THE HOUSE

WEST SIDE OF THE HOUSE

| VERSION         |            |     |
|-----------------|------------|-----|
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|                 |            |     |
|                 |            |     |
|                 |            |     |

PROJECT NAME

CUST. NAME

BLDG NO. STREET,

CITY, STATE ZIP USA

APN#

UTILITY:

AHJ:

|                        |
|------------------------|
| SHEET NAME             |
| EQUIPMENT<br>ELEVATION |
| SHEET SIZE             |
| ANSI B<br>11" X 17"    |
| SHEET NUMBER           |
| PV-4                   |

| AMBIENT TEMPERATURE SPECIFICATIONS |                             |                |                                      |                                       |
|------------------------------------|-----------------------------|----------------|--------------------------------------|---------------------------------------|
| RECORD LOW TEMPERATURE             | AMBIENT TEMP (HIGH TEMP 2%) | CONDUIT HEIGHT | CONDUCTOR TEMPERATURE RATE (ON ROOF) | CONDUCTOR TEMPERATURE RATE (OFF ROOF) |
| -2°                                | 39°                         | 7/8"           | 90°                                  | 75°                                   |

NOTE: PRODUCERS STORAGE DEVICE(S) WILL NOT CAUSE THE HOST LOAD TO EXCEED ITS NORMAL PEAK DEMAND. NORMAL PEAK DEMAND IS DEFINED AS THE HIGHEST AMOUNT OF POWER REQUIRED FROM THE DISTRIBUTION SYSTEM BY PRODUCERS COMPLETE FACILITIES WITHOUT THE INFLUENCE OR USE OF THE ENERGY STORAGE DEVICE(S).

| SOLAR MODULE SPECIFICATIONS               |                        |         |         |         |                                |                     |
|---|------------------------|---------|---------|---------|--------------------------------|---------------------|
| MANUFACTURER / MODEL #                    | VMP (V)                | IMP (A) | VOC (V) | ISC (A) | TEMPERATURE COEFFICIENT OF Voc | QUANTITY OF MODULES |
| HANWHA Q-CELLS Q.TRON BLK M-G2+425 (425W) | 32.74                  | 12.98   | 39.03   | 13.66   | -0.27%/K                       | 20                  |
| MODULE DIMENSIONS                         | 67.8"L x44.6"W x1.18"D |         |         |         |                                |                     |

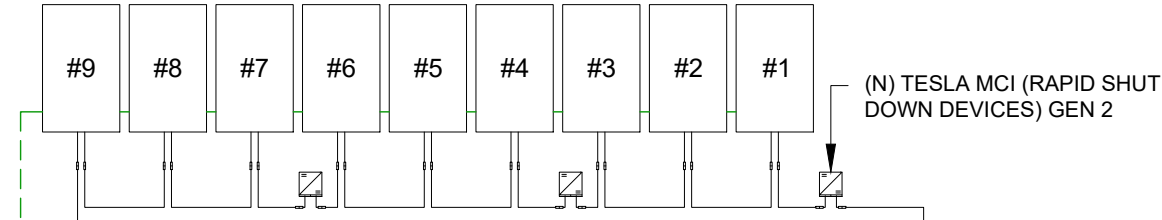
NOTE: "ESS SEPERATION OF 3' MINIMUM FROM DOORS AND WINDOWS DIRECTLY ENTERING THE DWELLING UNIT AS PER CRC R328.4"

| INVERTER SPECIFICATIONS                                       |          |                        |                        |
|---|----------|------------------------|------------------------|
| MANUFACTURER / MODEL #  | QUANTITY | NOMINAL OUTPUT VOLTAGE | NOMINAL OUTPUT CURRENT |
| TESLA POWERWALL 3 (1707000-XX-Y) INTEGRATED SOLAR AND BATTERY | 01       | 240VAC                 | 48.0A                  |

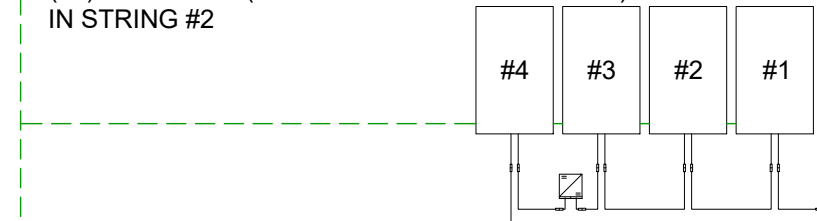
NOTE: THE MAXIMUM OPERATING CURRENTS IN CONTROLLED BUSBARS OR CONDUCTORS ARE LIMITED BY THE SETTINGS OF THE POWER CONTROL SYSTEM (PCS) AND MAY BE LOWER THAN THE SUM OF THE CURRENTS OF THE CONNECTED CONTROLLED POWER SOURCES. THE SETTINGS OF THE PCS CONTROLLED CURRENTS MAY BE USED FOR CALCULATION OF THE DESIGN CURRENTS USED IN THE RELEVANT SECTIONS OF NEC ARTICLE 690 AND 705. PCS CONTROLLED CURRENT SETTINGS : 160A

UPGRADE MSP INFORMATION  
(N) 125A MAIN SERVICE PANEL WITH (N) 100A MAIN BREAKER

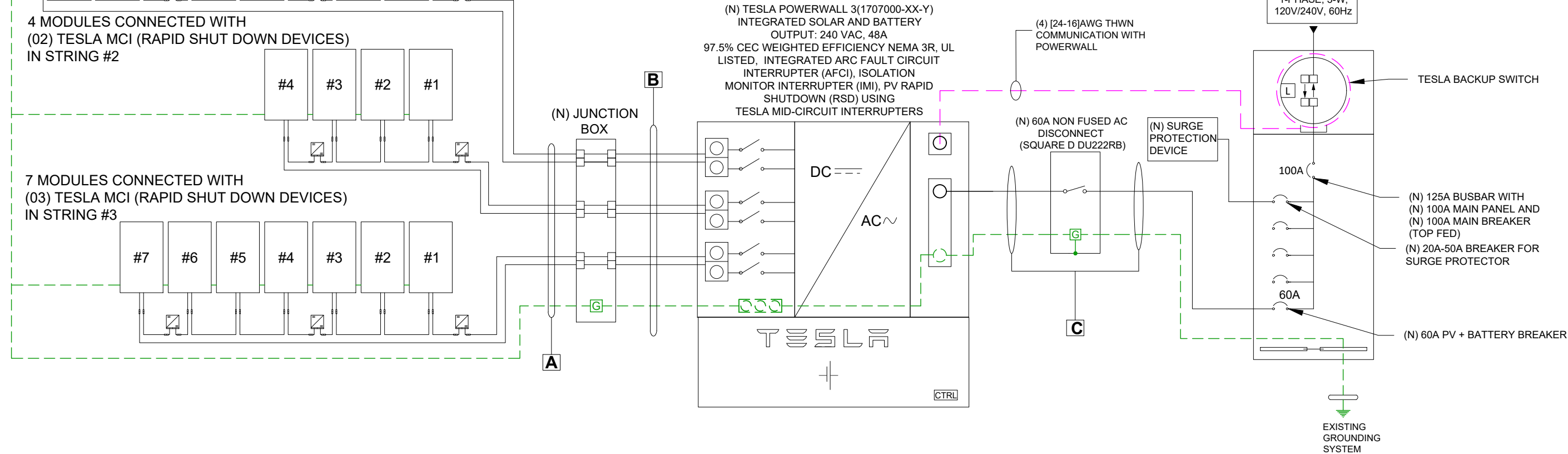
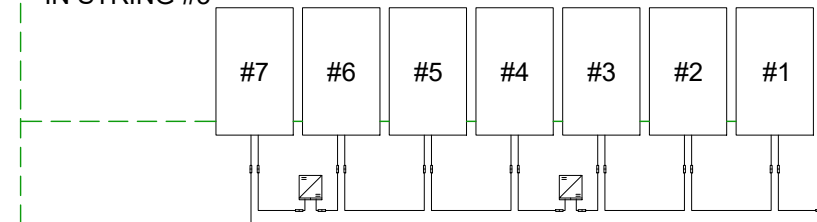
09 MODULES CONNECTED WITH  
(03) TESLA MCI (RAPID SHUT DOWN DEVICES)  
IN STRING #1



4 MODULES CONNECTED WITH  
(02) TESLA MCI (RAPID SHUT DOWN DEVICES)  
IN STRING #2



7 MODULES CONNECTED WITH  
(03) TESLA MCI (RAPID SHUT DOWN DEVICES)  
IN STRING #3



| WIRE TAG | CONDUIT  | WIRE QTY | WIRE GAUGE | WIRE TYPE | TEMP. RATING | WIRE AMPACITY (A) | TEMP. DERATE | CONDUIT FILL DERATE | DERATED AMPACITY (A) | INVERTER QTY | NOC (A) | CEC  | DESIGN CURRENT (A) | GROUND SIZE | GROUND WIRE TYPE | BATTERY QTY | BATTERY CURRENT |
|----------|----------|----------|------------|-----------|--------------|-------------------|--------------|---------------------|----------------------|--------------|---------|------|--------------------|-------------|------------------|-------------|-----------------|
| A        | OPEN AIR | 6        | 10 AWG     | PV WIRE   | 90°C         | 40                | 0.91         | N/A                 | 36.4                 | 1            | 17      | 1.25 | 21.25              | 10 AWG      | BARE CU GND      | -           | -               |
| B        | 3/4" EMT | 6        | 10 AWG     | THWN-2    | 90°C         | 40                | 0.91         | 0.8                 | 29.12                | 1            | 17      | 1.25 | 21.25              | 10 AWG      | THWN-2           | -           | -               |
| C        | 3/4" EMT | 3        | 4 AWG      | THWN-2    | 75°C         | 85                | 0.88         | 1                   | 74.80                | -            | -       | 1.25 | 60.0               | 10 AWG      | THWN-2           | 1           | 48              |

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SHEET NAME  
ELECTRICAL LINE  
DIAGRAM WITH WIRE  
CALCULATIONS

SHEET SIZE  
ANSI B  
11" X 17"

SHEET NUMBER  
PV-5

|   |                                     |   |  |              |          |  |
|---|-------------------------------------|---|--|--------------|----------|--|
| PHOTOVOLTAIC SYSTEM MAIN PANEL ALTERATION FOR:      |                                     |   |  |              |          |  |
| CUST. NAME  |                                     |   |  |              |          |  |
| BLDG NO. STREET, CITY, STATE ZIP USA                |                                     |   |  |              |          |  |
|   |                                     |   |  |              |          |  |
| LOAD CALC RESULTS                                   |                                     |   |  |              |          |  |
| MAIN BREAKER  |                                     |   |  | TOTAL DEMAND |          |  |
| 100   |                                     | > |  | 96.4         |          |  |
|   |                                     |   |  |              |          |  |
| RESIDENTIAL LOAD CALCULATION FOR EXISTING DWELLINGS |                                     |   |  |              |          |  |
| 2,536   | SQ. FT. X 3 VA                      |   |  | 7608         | VA       |  |
| 2   | SMALL APPLIANCE BRANCH CIRCUITS     |   |  | 3000         | VA       |  |
| 1   | LAUNDRY CIRCUIT (WASHER)            |   |  | 1500         | VA       |  |
| 50  | DRYER                               |   |  | 9600         | VA       |  |
| 40  | RANGE                               |   |  | 7680         | VA       |  |
| 20  | KIT                                 |   |  | 1920         | VA       |  |
| 30  | PUMP                                |   |  | 5760         | VA       |  |
| 20  | GFI                                 |   |  | 3840         | VA       |  |
| 20  | PLUGS                               |   |  | 1920         | VA       |  |
|   |                                     |   |  | 0            | VA       |  |
|   |                                     |   |  | 0            | VA       |  |
|   |                                     |   |  | 0            | VA       |  |
|   |                                     |   |  | 0            | VA       |  |
|   |                                     |   |  | 0            | VA       |  |
| TOTAL LOAD GROSS (VA)                               |                                     |   |  | 42828        | TOTAL VA |  |
| FIRST 10,000VA, VA X 100%                           |                                     |   |  | 10000        | VA       |  |
| REMAINDER ABOVE 10,000 VA X 40%                     |                                     |   |  | 13131.2      | VA       |  |
| TOTAL LOAD NET (VA)                                 |                                     |   |  | 23131.2      | VA       |  |
| TOTAL LOAD (AMPS) (VA/240V)                         |                                     |   |  | 96.4         | AMPS     |  |
|   |                                     |   |  |              |          |  |
| AIR CONDITIONING LOADS                              |                                     |   |  |              |          |  |
|   | 1-A/C MIN. CIRCUIT AMPS             |   |  | 0            | VA       |  |
|   | 2-A/C MIN. CIRCUIT AMPS             |   |  | 0            | VA       |  |
|   | 3-A/C MIN. CIRCUIT AMPS             |   |  | 0            | VA       |  |
|   | 4-A/C MIN. CIRCUIT AMPS             |   |  | 0            | VA       |  |
|   | SUB POOL MIN. CIRCUIT AMPS          |   |  | 0            | VA       |  |
|   | AHU VA (Breaker Amps X Volts X 80%) |   |  | 0            |          |  |
| TOTAL A/C LOAD (VA)                                 |                                     |   |  | 0            | TOTAL VA |  |
| TOTAL LOAD (AMPS) (VA/240V)                         |                                     |   |  | 0            | AMPS     |  |
|   |                                     |   |  |              |          |  |
| TOTAL DEMAND (AMPS)                                 |                                     |   |  | 96.4         | AMPS     |  |



BETTER SOLAR STARTS HERE  
1411 BROADWAY BLVD NE  
ALBUQUERQUE, NM 87102  
PH: 505-242-6411

| VERSION         |            |     |
|-----------------|------------|-----|
| DESCRIPTION     | DATE       | REV |
| INITIAL RELEASE | DD/MM/YYYY | UR  |
|                 |            |     |
|                 |            |     |

PROJECT NAME

CUST. NAME  
BLDG NO. STREET,  
CITY, STATE ZIP USA  
APN#  
UTILITY:  
AHJ:

SHEET NAME  
ELECTRICAL LOAD  
CALCULATION

SHEET SIZE  
ANSI B  
11" X 17"

SHEET NUMBER  
PV-6

A yellow rectangular warning label with a black border. At the top left is a black triangle containing a white exclamation mark. To its right, the word "WARNING" is written in large, bold, black capital letters. Below this, the text "ELECTRICAL SHOCK HAZARD" is written in bold, black capital letters. At the bottom, the text "TERMINALS ON LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION" is written in bold, black capital letters.

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

## RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

 **WARNING**  
POWER SOURCE OUTPUT  
CONNECTION  
DO NOT RELOCATE THIS  
OVERCURRENT DEVICE

**CAUTION**  
**TRI POWER SOURCE**  
FIRST SOURCE IS UTILITY ELECTRICAL GRID  
SECOND SOURCE IS AC BATTERY  
THIRD SOURCE IS PV INVERTER

THE MAXIMUM CURRENT BACKFEED BY THIS SYSTEM TO THE MAIN PANEL MAY BE CONTROLLED ELECTRONICALLY. REFER TO THE MANUFACTURER'S INSTRUCTIONS FOR MORE INFORMATION.

A yellow rectangular warning label with a black border. On the left is a black triangle containing a white exclamation mark. To the right of the triangle, the word "WARNING" is written in large, bold, black capital letters. Below "WARNING", the text "THE DISCONNECTION OF THE GROUNDED CONDUCTOR(S) MAY RESULT IN OVERVOLTAGE ON THE EQUIPMENT" is written in smaller, bold, black capital letters, arranged in four lines.

|  |        |   |
|--|--------|---|
| RATED MAXIMUM POWER-<br>POINT CURRENT (I <sub>mp</sub> ) | 38.79  | A |
| RATED MAXIMUM POWER-<br>POINT VOLTAGE (V <sub>mp</sub> ) | 365.75 | V |
| MAXIMUM SYSTEM<br>VOLTAGE (VOC)                          | 479.37 | V |
| MAXIMUM CIRCUIT<br>CURRENT (I <sub>sc</sub> )            | 52.01  | A |

THIS EQUIPMENT FED BY  
MULTIPLE SOURCES:  
TOTAL RATING OF ALL OVERCURRENT  
DEVICES EXCLUDING MAIN POWER  
SUPPLY SHALL NOT EXCEED  
AMPACITY OF BUSBAR

|                    |         |
|--------------------|---------|
| NOMINAL VOLTAGE:   | 240 VAC |
| MAX AVAILABLE ISC: | AAC     |
| ISC CLEAR TIME:    | MS      |
| DATE:              |         |

LABEL LOCATION:  
POINT OF INTERCONNECTION  
MAIN SERVICE PANEL

**LABEL LOCATION:**  
**AC DISCONNECT/BREAKER/  
POINT OF CONNECTION**  
**(PER CODE: CEC 690.13(B))**

FIRST SOURCE IS UTILITY ELECTRICAL GRID  
SECOND SOURCE IS AC BATTERY  
THIRD SOURCE IS PV INVERTER

**LABEL LOCATION:**  
**POINT OF INTERCONNECTION**  
**MAIN SERVICE PANEL**  
**(CEC 705.12(C) & CEC 690.59)**

A diagram of a house with a triangular roof. A yellow rectangular box labeled "SOLAR ELECTRIC PV PANELS" is mounted on the roof. A vertical line connects this box to a white rectangular box representing a battery, which is located inside the house below the roofline.

# CAUTION !



(E) UTILITY METER  
(N) 125A BUSBAR WITH  
(N) 100A MAIN PANEL AND  
(N) 100A MAIN BREAKER

PROJECT NAME

CUST. NAME \_\_\_\_\_  
BLDG NO. STREET, \_\_\_\_\_  
CITY, STATE ZIP USA \_\_\_\_\_  
APN# \_\_\_\_\_  
UTILITY: \_\_\_\_\_  
AHJ: \_\_\_\_\_

SHEET NAME  
WARNING LABELS &  
PLACARD

SHEET SIZE  
ANSI B  
11" X 17"

SHEET NUMBER  
**PV-7**