GENERAL ELECTRICAL NOTES

- 1. Equipment shall be new unless otherwise noted.
- 2. Equipment shall be listed unless otherwise noted.
- 3. Equipment shall be installed providing adequate working space in compliance with NEC.
- 4. Copper conductors shall be used and shall have insulation rating 600v, 90°C unless otherwise noted.
- 5. Conductors shall be sized in accordance with the NEC and ampacity shall be derated for temperature increase, conduit fill & voltage drop.
- 6. All conductors shall be installed in approved conduits. Conduits shall be adequately supported in accordance with
- 7. AC Disconnect is optional, however it may be required by the utility.
- 8. Exposed non-current carrying metal parts shall be grounded in accordance with the NEC.
- 9. All work shall comply with the NEC and all applicable local electrical code requirements.
- 10. Contractor will provide labeling in accordance with the NEC, Article 110, 225, 690, and 705.

| <u>LE</u> | <u>GE</u> | N | <u>U</u> |
|-----------|-----------|---|----------|
| (N) | | 1 | NE |

(E) EXISTING

NEW BY OTHERS NEUTRAL GROUND

TESLA SOLAR INVERTER

T

| WIRING SCHEDULE | | | | | | |
|-----------------|-------------------|-------------|-----------|------------|-------------------------------------|--|
| TAG | CONDUIT SIZE | CONDUCTOR | NEUTRAL | GROUND | NOTES | |
| 1 | NONE | #10 PV Wire | NONE | 6 AWG | (Mfg.supplied cabling within array) | |
| 2 | NONE | 10/2 MC | NONE | 10 AWG | J Box to Attic J Box | |
| 3 | 3/4" EMT | #10 THWN-2 | NONE | 10 AWG | Attic J box to Inverter | |
| 4 | 1" PVC or EQUIV | #8 THWN-2 | #8 THWN-2 | #10 THWN-2 | Inverter to Disco to MDP | |
| 5 | 3/4" PVC or EQUIV | #6 THWN-2 | #6 THWN-2 | #10 AWG | Charger to J-Box | |
| 6 | 3/4" PVC or EQUIV | 6/2 NM-B | NONE | #10 AWG | From J Box to MDP | |



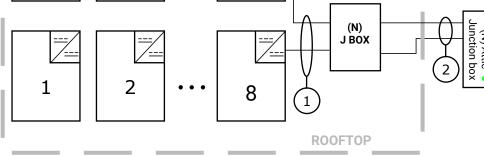
MDP

 \mathfrak{R}

M

(E)





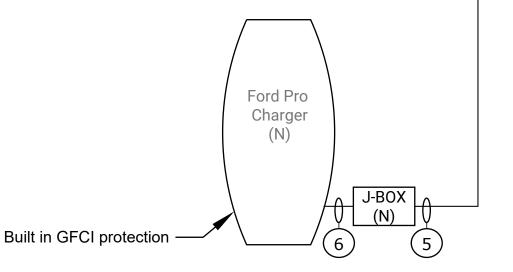
Inverter Total Amperage 32 \times 1.25 = $\frac{40.00}{}$

(INVERTER OUTPUT) X (1.25) = TOTAL RATED AMPERAGE

PANEL MODEL: Solaria PowerX-390R, QTY 16 REQ'D, 390W

INVERTER TYPE: 1538000-xx-y, QTY 1 REQ'D, 7600W, 240V

7.600 kW-AC/ 6.240 kW-DC



Backfed breaker

opposite end of busbar NEC 705.12(B)(2)(3)(d) - CAPE FEAR SOLAR SYSTEMS

910 S. 2nd St. Wilmington, NC 28401 910-409-5533



GC LIC. NO.: 65677 ELEC. LIC. NO.: U-33321

SHERIDAN RESIDENCE
Countryside Dr, Lillington, NC 27546

7.6KW PV SYSTEM

LINE DIAGRAM

REV. DATE DESC.

DATE: November 15, 2023

JPN

Sheet No.

E-01

SITE FLOOD PLANE: ZONE X



PV SOLAR BEAKER
DO NOT RELOCATE THIS
OVERCURRENT DEVICE 705.12 (B)(2)(3)(b)

Location: PV Breakers

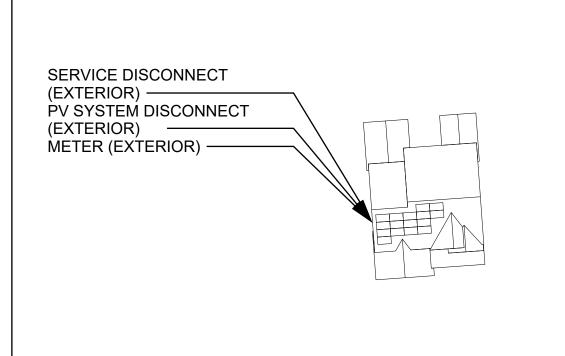
AC JUNCTION BOX FOR **PHOTOVOLTAIC**

PHOTOVOLTAIC SYSTEM AC DISCONNECT RATED AC OPERATING CURRENT 40 AMPS AC AC NOMINAL OPERATING VOLTAGE 240 VAC

COMBINER PANEL DO NOT ADD LOADS

CAUTION

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



CAPE FEAR SOLAR SYSTEMS 910 S. 2nd St. Wilmington, NC 28401 910-409-5533 GC LIC. NO.: 65677 ELEC. LIC. NO.: U-33321 99 Countryside Dr, Lillington, NC 27546

STICKERS

SHERIDAN RESIDENCE 7.6KW PV SYSTEM

> REVISION LIST \triangle REV. DATE DESC.

DATE: November 15, 2023 DRAWN BY: JPN

Sheet No.

E-02

SITE FLOOD PLANE: ZONE X