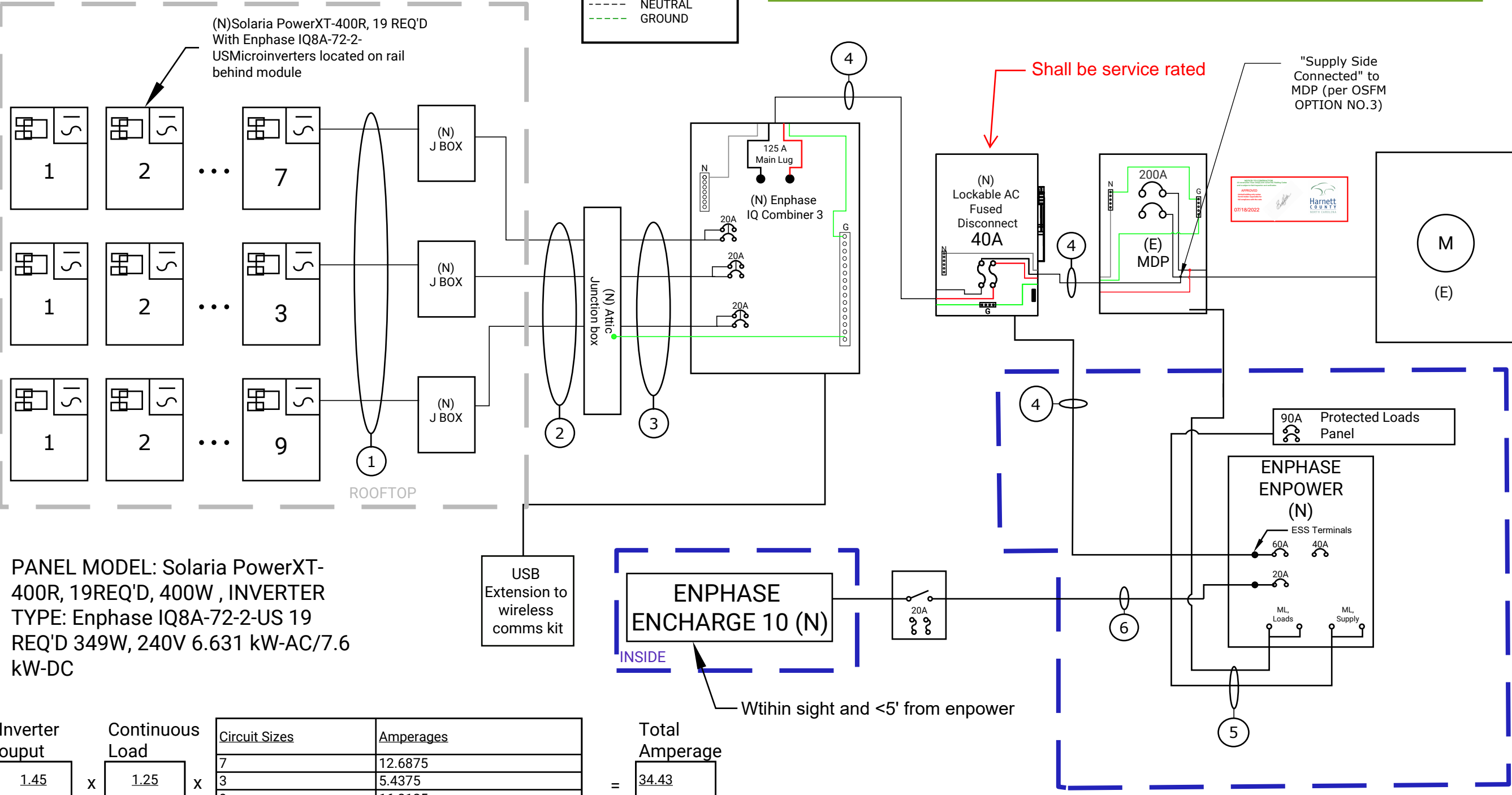


GENERAL ELECTRICAL NOTES

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 the NEC.
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.

WIRING SCHEDULE					
TAG	CONDUIT SIZE	CONDUCTOR	NEUTRAL	GROUND	NOTES
1	NONE	12/2 Trunk Cable	NONE	6 AWG	(Mfg. supplied cabling within array)
2	NONE	10/2 UF (60°)	NONE	10 AWG	J Box to Attic J Box
3	3/4" PVC OR EQUIV	#10 THWN-2	NONE	#10 THWN-2	Attic J Box to IQ Combiner
4	1" PVC OR EQUIV	#6 THWN-2	#6 THWN-2	#10 THWN-2	IQ Combiner to Disco, Disco to Enpower
5	NONE	#1 THWN-2 AL	#1 THWN-2 AL	#8 THWN-2 W	MDP to Enpower, to protected loads
6	NONE	10/2 NM	NONE	#10 THWN-2	Enpower to IQ Battery10

LEGEND	
(N)	NEW
(E)	EXISTING
(O)	NEW BY OTHERS
---	NEUTRAL
---	GROUND



PANEL MODEL: Solaria PowerXT-400R, 19REQ'D, 400W , INVERTER TYPE: Enphase IQ8A-72-2-US 19 REQ'D 349W, 240V 6.631 kW-AC/7.6 kW-DC

Inverter output	Continuous Load		
1.45	1.25		
x			
		Circuit Sizes	Amperages
		7	12.6875
		3	5.4375
		9	16.3125

Total Amperage = 34.43

Within sight and <5' from enpower

CAPE FEAR SOLAR SYSTEMS
 901 Martin Street, Unit A
 Wilmington, NC 28401
 910-409-5533

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

7.6KW PV SYSTEM
 RUFFIER RESIDENCE
 157 Blue Bay Ln, Cameron, NC 28326
LINE DIAGRAM

REVISION LIST

#	REV. DATE	DESC.

DATE: July 6, 2022
 DRAWN BY: ZJP

Sheet No. **E-01**

WARNING
TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

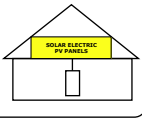
Location: Combiner box

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

**WARNING:
PHOTOVOLTAIC POWER SOURCE**
690.31(G)(3)
Location: Conduit

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY



690.56 (c)(1)(a)
Location: Disconnect

RAPID SHUTDOWN PV ARRAY
690.56 (c)(3)
Location: Disconnect

WARNING
DUAL POWER SUPPLY SOURCES: UTILITY GRID AND PV SOLAR ELECTIC SYSTEM
705.10
Location: MDP

PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OPERATING CURRENT 34.4375 AMPS AC
AC NOMINAL OPERATING VOLTAGE 240 VAC
690.54
Location: Disco

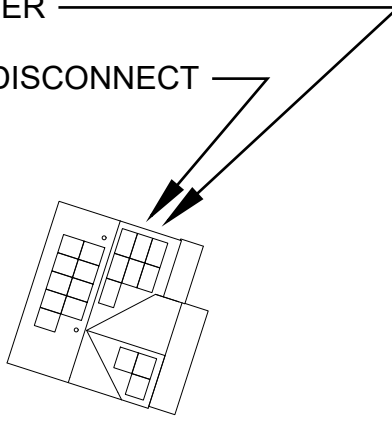
**PHOTOVOLTAIC SYSTEM COMBINER PANEL
DO NOT ADD LOADS**
705.12
Location: Combiner box

SOLAR DISCONNECT
690.13 (B)
Location: Disconnect

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

MAIN SERVICE PANEL AND METER

AC DISCONNECT



AC JUNCTION BOX FOR PHOTOVOLTAIC
690.19
Location: Junction boxes



7.6KW PV SYSTEM
RUFFIER RESIDENCE
157 Blue Bay Ln, Cameron, NC 28326

STICKERS

#	REV. DATE	DESC.

REVISION LIST ⚠

#	REV. DATE	DESC.

DATE: July 6, 2022
DRAWN BY: ZJP

Sheet No.
E-02