

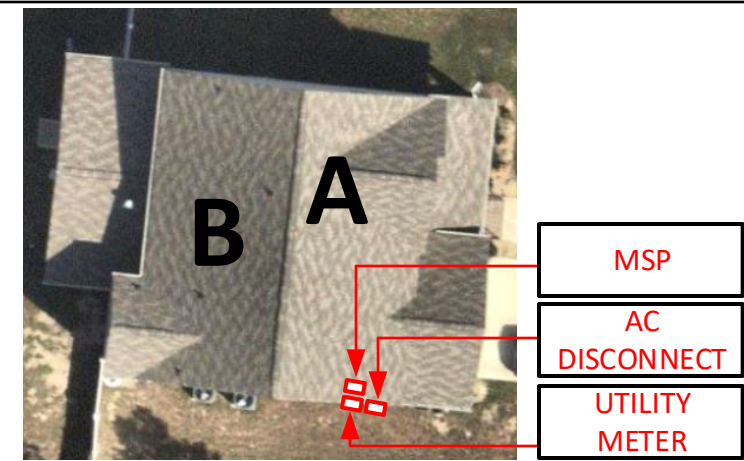
EXISTING STRING CALCULATION

String #	No of Modules	Estimated Power	I _{max}	V _{oc}	V _{mpp}	V _{rise} (<= 2%)
1	10	4,600 W	19.75 AC	<30	240V AC	1.35+0.62 = 1.97
2	10	4,600 W	19.75 AC	<30	240V AC	1.18+0.62 = 1.8
3	10	4,600 W	19.75 AC	<30	240V AC	1.24+0.62 = 1.86
4	10	4,600 W	19.75 AC	<30	240V AC	1.18+0.62 = 1.8

EXISTING SYSTEM DETAIL

40 X REC460AA PURE-RX
460W
ENPHASE IQ8X-80-M-US MICROINVERTERS
380VA
RAPID SHUTDOWN EQUIPPED

The diagram illustrates the electrical layout. Four solar strings (String 1-4) are connected to a Sola Deck. The Sola Deck leads to an Attic, which connects to an IQ Combiner 5. The IQ Combiner 5 is connected to a 100A NON-FUSIBLE AC DISCONNECT. This disconnect feeds into the MAIN LOAD PANEL (B.B RATING: 225A, M.B RATING: 200A). The MAIN LOAD PANEL also receives input from a SUB LOAD PANEL (B.B RATING: 100A, M.B RATING: 125A), which is connected to an EV Charger. The EV Charger is connected to a J. box. The J. box is connected to the SUB LOAD PANEL. The SUB LOAD PANEL is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a Span Remote Meter Kit. The Span Remote Meter Kit is connected to a Utility Meter. The Utility Meter is connected to a Factory Installed Quad Breaker (20A & 40A). The Factory Installed Quad Breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 200A/2P circuit breaker. The 200A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 100A/2P circuit breaker. The 100A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 50A/2P circuit breaker. The 50A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 20A/2P circuit breaker. The 20A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 10A/2P circuit breaker. The 10A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 5A/2P circuit breaker. The 5A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 2.5A/2P circuit breaker. The 2.5A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 1.25A/2P circuit breaker. The 1.25A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.625A/2P circuit breaker. The 0.625A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.3125A/2P circuit breaker. The 0.3125A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.15625A/2P circuit breaker. The 0.15625A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.078125A/2P circuit breaker. The 0.078125A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.0390625A/2P circuit breaker. The 0.0390625A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.01953125A/2P circuit breaker. The 0.01953125A/2P circuit breaker is connected to the MAIN LOAD PANEL. The MAIN LOAD PANEL is connected to a 0.009765625A/2P circuit breaker. The 0.009765625A/2P circuit breaker is connected to the MAIN LOAD PANEL. 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5112 Departure Drive,
Raleigh NC 27616
O: 919.948.6474
E: info@8msolar.com

Customer Information:

Bonnes John

97 Sunnybrook Lane
Lillington, NC 27546

Customer Signature:

Sheet Name:

Bill of Material

JOB NUMBER:

25-222-JB

Date:

08/11/2025

Revision:

A

Sheet Size:

ANSI C
17" X 22"

Sheet Number:

PV4



ELECTRICAL ITEMS

- 01 x IQ-EVSE-NA-1050-0100-0100 : IQ 50 EV Charger with J1772 Connector
- 01 x BR816L125RP: Load Center (EATON) MLO (NEMA 3R)
- 01 x BR2100: Eaton 100amp BR type Branch breaker
- 01 x BR250: Eaton 50amp BR type Branch breaker for Enphase IQ EV Charger

PV LABELS

Sr No	Code	Qty
01	05-108	01
02	05-211	01

BILL OF MATERIAL
SCALE: 1/8" - 1'

