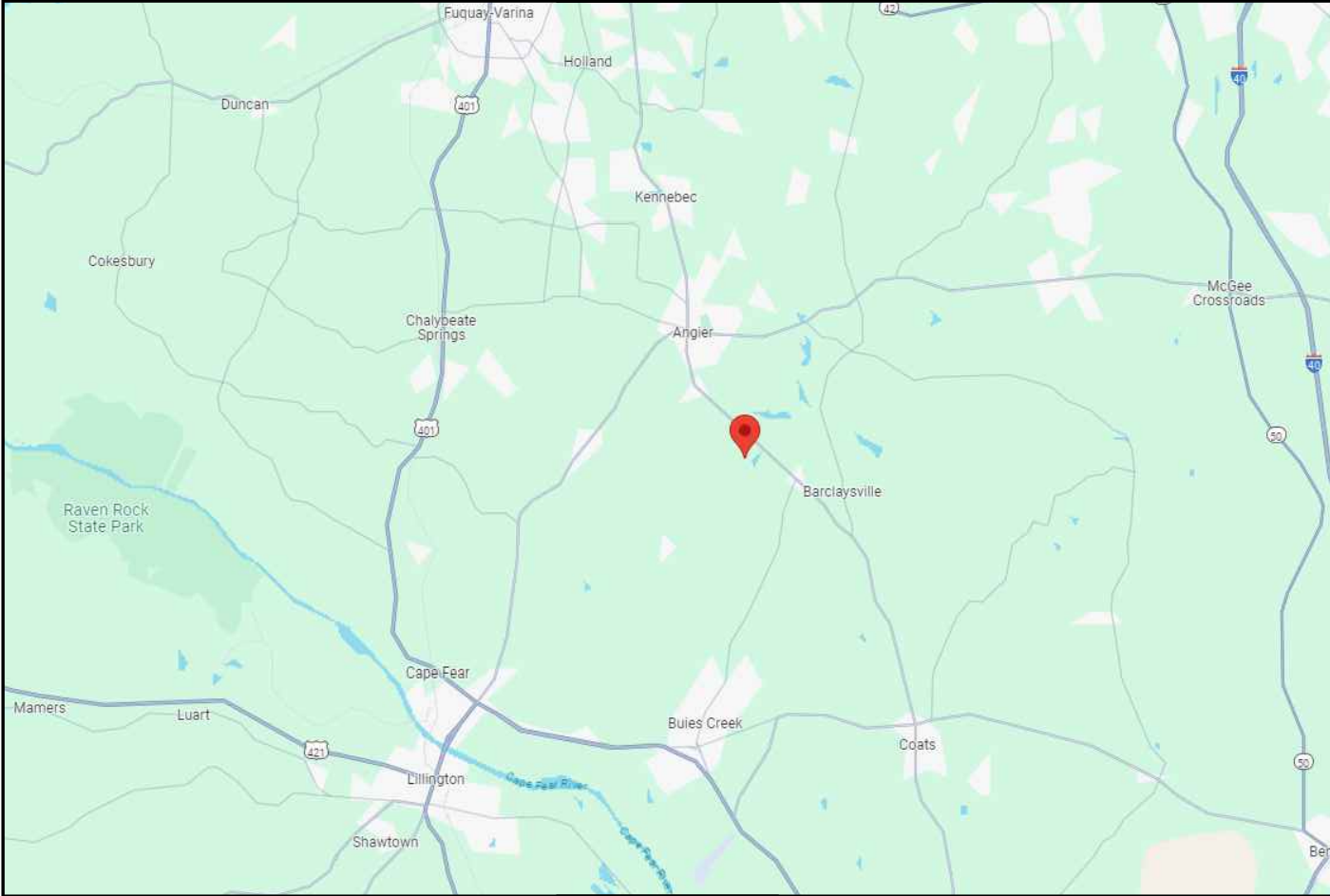







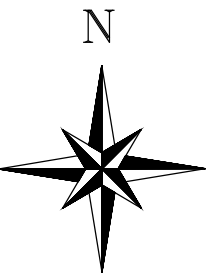
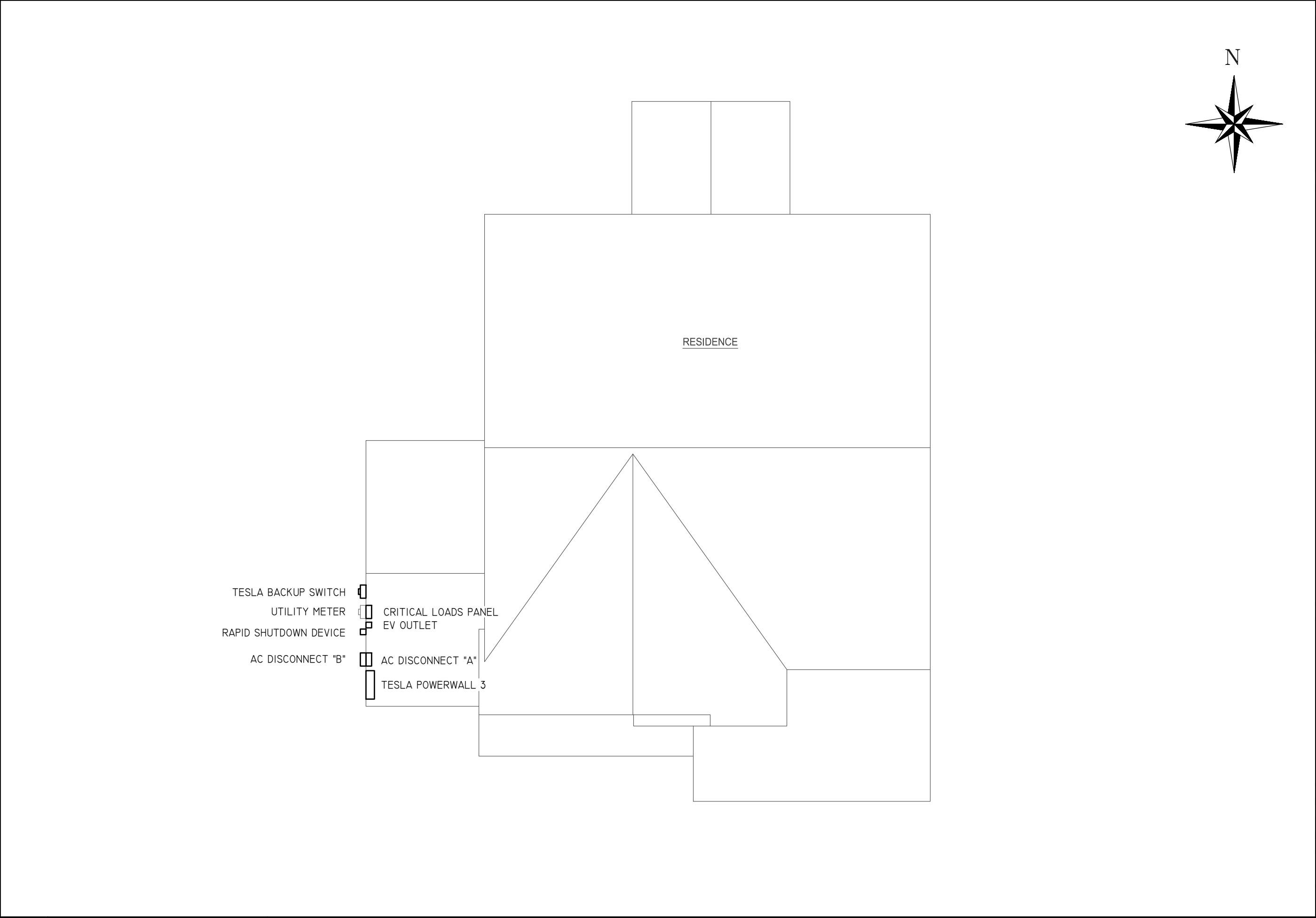


VICINITY MAP		PROPERTY MAP		SEAL:	
					
				ENGINEER:	
				MODEL ENERGY 300 FAYETTEVILLE ST. #1430 RALEIGH, NC 27602 919-274-9905 MODELENERGY.COM P-1194	
				JOB TITLE:	
				NEW BATTERY ADDITION MATTAMY HOMES RIVERFALL LOT 7 57 BERING CIRCLE ANGIER, NC 27501	
				CLIENT:	
					
				ISSUED FOR:	DATE:
				CONSTRUCTION	02/26/25
				PROJECT INFORMATION	
				PV1.1	
CONSTRUCTION NOTES		ABBREVIATIONS		CODE REFERENCES	
<div><div>1.</div><div>ALL WORK AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES</div></div> <div><div>2.</div><div>FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS, BEST PRACTICES, AND SPECIFICATIONS</div></div> <div><div>3.</div><div>WIRES SHALL BE RATED AND LABELED "SUNLIGHT RESISTANT" WHERE EXPOSED TO AMBIENT CONDITIONS</div></div> <div><div>4.</div><div>THE PHOTOVOLTAIC SYSTEM SHALL NOT EXCEED 600 VOLTS OR 800 AMPS</div></div> <div><div>5.</div><div>EACH ELECTRICAL APPLIANCE SHALL BE PROVIDED WITH A NAMEPLATE GIVING THE IDENTIFYING NAME AND THE RATING IN VOLTS AND AMPERES, OR VOLTS AND WATTS. IF THE APPLIANCE IS TO BE USED ON A SPECIFIC FREQUENCY OR FREQUENCIES, IT SHALL BE SO MARKED. WHERE MOTOR OVERLOAD PROTECTION EXTERNAL TO THE APPLIANCES IS REQUIRED, THE APPLIANCE SHALL BE SO MARKED</div></div> <div><div>6.</div><div>WHERE APPLICABLE, GROUNDING ELECTRODE CONDUCTOR TO BE CONTINUOUS. GROUNDING CRIMPS TO BE IRREVERSIBLE</div></div> <div><div>7.</div><div>IN ONE- AND TWO-FAMILY DWELLINGS, LIVE PARTS IN PHOTOVOLTAIC SOURCE CIRCUITS AND PHOTOVOLTAIC OUTPUT CIRCUITS OVER 150 VOLTS TO GROUND, SHALL ONLY BE ACCESSIBLE TO QUALIFIED PERSONS WHILE ENERGIZED.</div></div> <div><div>8.</div><div>PHOTOVOLTAIC SYSTEMS SHALL BE PERMANENTLY MARKED AT VARIOUS EQUIPMENT LOCATIONS TO IDENTIFY THAT A PHOTOVOLTAIC SYSTEM IS INSTALLED AND THAT VARIOUS DANGERS ARE PRESENT.</div></div> <div><div>9.</div><div>EACH PHOTOVOLTAIC SYSTEM DISCONNECTING MEANS SHALL BE PERMANENTLY MARKED TO IDENTIFY IT AS A PHOTOVOLTAIC SYSTEM DISCONNECT</div></div> <div><div>10.</div><div>WHERE ALL TERMINALS OF A DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION, A WARNING SIGN SHALL BE MOUNTED ON OR ADJACENT TO THE DISCONNECT</div></div> <div><div>11.</div><div>A PERMANENT LABEL FOR THE DIRECT-CURRENT PHOTOVOLTAIC POWER SOURCE SHALL BE PROVIDED BY THE INSTALLED AT THE DC DISCONNECT MEANS</div></div> <div><div>12.</div><div>A PERMANENT PLAQUE OR DIRECTORY, DENOTING ALL ELECTRIC POWER SOURCES SERVING THE PREMISES, SHALL BE INSTALLED AT EACH SERVICE EQUIPMENT LOCATION AND AT LOCATIONS OF ALL POWER PRODUCTION SOURCES.</div></div> <div><div>13.</div><div>A PERMANENT PLAQUE OR DIRECTORY SHALL BE PROVIDED DENOTING THE LOCATIONS OF THE SERVICE DISCONNECT MEANS AND THE PHOTOVOLTAIC SYSTEM DISCONNECT MEANS IF THEY ARE NOT LOCATED AT THE SAME LOCATION.</div></div> <div><div>14.</div><div>ALL MODULE GROUND CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH NEC SECTION 690.4 (C)</div></div>		<div><div>A</div><div>AMPERE</div></div> <div><div>AC</div><div>ALTERNATING CURRENT</div></div> <div><div>DC</div><div>DIRECT CURRENT</div></div> <div><div>EGC</div><div>EQUIPMENT GROUNDING CONDUCTOR</div></div> <div><div>EMT</div><div>ELECTRICAL METAL TUBING</div></div> <div><div>GALV</div><div>GALVANIZED</div></div> <div><div>GEC</div><div>GROUNDING ELECTRODE CONDUCTOR</div></div> <div><div>GND</div><div>GROUND</div></div> <div><div>I</div><div>CURRENT</div></div> <div><div>IMP</div><div>CURRENT AT MAXIMUM POWER</div></div> <div><div>ISC</div><div>SHORT-CIRCUIT CURRENT</div></div> <div><div>KVA</div><div>KILOVOLT AMPERE</div></div> <div><div>KW</div><div>KILOWATT</div></div> <div><div>MAX</div><div>MAXIMUM</div></div> <div><div>MIN</div><div>MINIMUM</div></div> <div><div>MCB</div><div>MAIN CIRCUIT BREAKER</div></div> <div><div>MLO</div><div>MAIN LUG ONLY</div></div> <div><div>NOM</div><div>NOMINAL</div></div> <div><div>NTS</div><div>NOT TO SCALE</div></div> <div><div>PNOM</div><div>NOMINAL POWER</div></div> <div><div>PV</div><div>PHOTOVOLTAIC</div></div> <div><div>PVC</div><div>POLYVINYL CHLORIDE</div></div> <div><div>SN</div><div>SOLAR NOON</div></div> <div><div>STC</div><div>STANDARD TEST CONDITIONS</div></div> <div><div>TYP</div><div>TYPICAL</div></div> <div><div>V</div><div>VOLT</div></div> <div><div>VMP</div><div>VOLTAGE AT MAXIMUM POWER</div></div> <div><div>Voc</div><div>OPEN-CIRCUIT VOLTAGE</div></div> <div><div>W</div><div>WATT</div></div>		<div>2017 NATIONAL ELECTRIC CODE</div> <div>2018 NORTH CAROLINA BUILDING CODE</div> <div>2018 NORTH CAROLINA RESIDENTIAL CODE</div> <div>2018 NORTH CAROLINA FIRE CODE</div>	
				SHEET INDEX	
				<div>PV1.1 - PROJECT INFORMATION</div> <div>PV2.1 - SITE INFORMATION</div> <div>PV3.1 - ELECTRICAL INFORMATION</div> <div>PV4.1 - EQUIPMENT LABELS</div>	
				SITE CONDITIONS	
				<div>ASCE 7-10 WIND SPEED - 115 MPH</div> <div>EXPOSURE CATEGORY - B</div> <div>RISK CATEGORY - II</div>	
				LEGEND	
				<div><div></div><div>DISCONNECT SWITCH</div></div> <div><div></div><div>FUSE</div></div> <div><div></div><div>CIRCUIT BREAKER</div></div> <div><div></div><div>EQUIP. GROUND</div></div>	



SEAL:	
ENGINEER:	
MODEL ENERGY 300 FAYETTEVILLE ST. #1430 RALEIGH, NC 27602 919-274-9905 MODELENERGY.COM P-1194	
JOB TITLE:	
NEW BATTERY ADDITION MATTAMY HOMES RIVERFALL LOT 7 57 BERING CIRCLE ANGIER, NC 27501	
CLIENT:	
ISSUED FOR:	DATE:
CONSTRUCTION	02/26/25
SITE INFORMATION	
PV2.1	

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DC/AC INVERTER & BATTERY	
MAKE	POWERWALL3
MODEL #	I707000-XX-Y
TECHNOLOGY	TRANS-LESS
NOMINAL BATTERY ENERGY	13.5 kWh
DC INPUT:	
MAX. POWER	20000 WATTS
MAX. VOLT	600 VDC
NOM. VOLT.	60-550 VDC
MAX. CURRENT	13 AMPS
MAX. SCC	15 AMPS
STRINGS INPUTS	6 STRINGS
AC OUTPUT:	
MAX CONT. DISCHARGE POWER	11500 WATTS
MAX CONT. CHARGE POWER	5000 WATTS
NOM. VOLT.	240 VOLTS
MAX. CURR.	48 AMPS
GFP (Y/N)	YES
RPP (Y/N)	YES
GFCI (Y/N)	YES
AFCI (Y/N)	YES
DC DISC. (Y/N)	YES
RAPID SHUTDOWN	AUTOMATIC
PROTECT. RATING	NEMA 4X

CONDUCTOR SCHEDULE													
TAG	CURRENT CARRYING CONDUCTORS				GROUNDING CONDUCTORS				CONDUIT/RACEWAY				NOTES
	QTY.	SIZE	MATERIAL	INSULATION	QTY.	SIZE	MATERIAL	INSULATION	QTY.	SIZE	MATERIAL	LOCATION	
C1	3	6 AWG	COPPER	THWN	1	10 AWG	COPPER	THWN	1	3/4"	NOTE 5	EXT	2,4,5
C2	3	4 AWG	ALUMINUM	THHN	1	8 AWG	ALUMINUM	THHN	1	4/4/4/8	SER	INTERIOR	2,4,5
C3	3	4/0	ALUMINUM	THHN	-	-	-	-	1	%4,%4,%3	SER	EXT/INT	2,4,5
XC	-	-	-	-	-	-	-	-	-	-	-	-	3

NOTES:

- MANUFACTURER PROVIDED, UL LISTED WIRING HARNESS FOR USE ON EXPOSED ROOFS
- CONDUIT SIZE SHOWN IS CODE MINIMUM. LARGER SIZES ARE ALLOWED.
- EXISTING CONDUCTORS, FIELD VERIFY
- EQUIPMENT TERMINAL RATING SHALL BE A MINIMUM OF 75°C AT BOTH END OF CONDUCTOR
- PVC, EMT, ROMEX, LFNMC & FMC ARE ACCEPTABLE WHEN USED IN ACCORDANCE WITH ARTICLES 330, 334, 348, 350, 352, 356, & 358 OF THE 2017 NEC

CRITICAL LOADS PANEL (NEW)	
MAKE	SPAN
MODEL	I-00800-XX
ENCL. RATING	NEMA 3R
VOLT. RATING	240 VOLTS
BUS RATING	225 AMPS
UL LIST. (Y/N)	YES
MAIN BREAKER (Y/N)	YES
BREAKER RATING	200 AMPS

NOTES:

- BACKFEED POWERWALL 3 VIA (1) 60 AMP BREAKER AT THE OPPOSITE END OF THE BUSBAR FROM THE MAIN BREAKER.
- PROVIDE (1) 50 AMP BREAKER FOR EV OUTLET CIRCUIT.
- MAIN BREAKER SERVES AS SERVICE DISCONNECT SWITCH.

AC DISCONNECT "A"	
MAKE	EATON
MODEL	N/A
ENCL. RATING	NEMA 3R
VOLT. RATING	240 VOLTS
AMP RATING	60 AMPS
UL LIST. (Y/N)	YES
FUSED (Y/N)	YES
FUSE RATING	60 AMPS

NOTES:

- LOAD-BREAK RATED
- VISIBLE OPEN
- LOCKABLE IN OPEN POSITION
- INSTALL ADJACENT TO METER
- DISCONNECT TO BE READILY ACCESSIBLE TO UTILITY COMPANY PERSONNEL AT ALL TIMES

AC DISCONNECT "B"	
MAKE	EATON
MODEL	N/A
ENCL. RATING	NEMA 3R
VOLT. RATING	240 VOLTS
AMP RATING	60 AMPS
UL LIST. (Y/N)	YES
FUSED (Y/N)	NO
FUSE RATING	N/A

NOTES:

- LOAD-BREAK RATED
- VISIBLE OPEN
- LOCKABLE IN OPEN POSITION
- INSTALL ADJACENT TO METER
- DISCONNECT TO BE READILY ACCESSIBLE TO UTILITY COMPANY PERSONNEL AT ALL TIMES

BACKUP SWITCH (NEW)	
MAKE	TESLA
MODEL	BACKUP SWITCH
ENCL. RATING	NEMA 3R
VOLT. RATING	120/240 VOLTS
AMP RATING	200 AMPS
UL LIST. (Y/N)	YES
SHORT CIRCUIT RATING	NO
COMMUNICATION	CAN

NOTES:

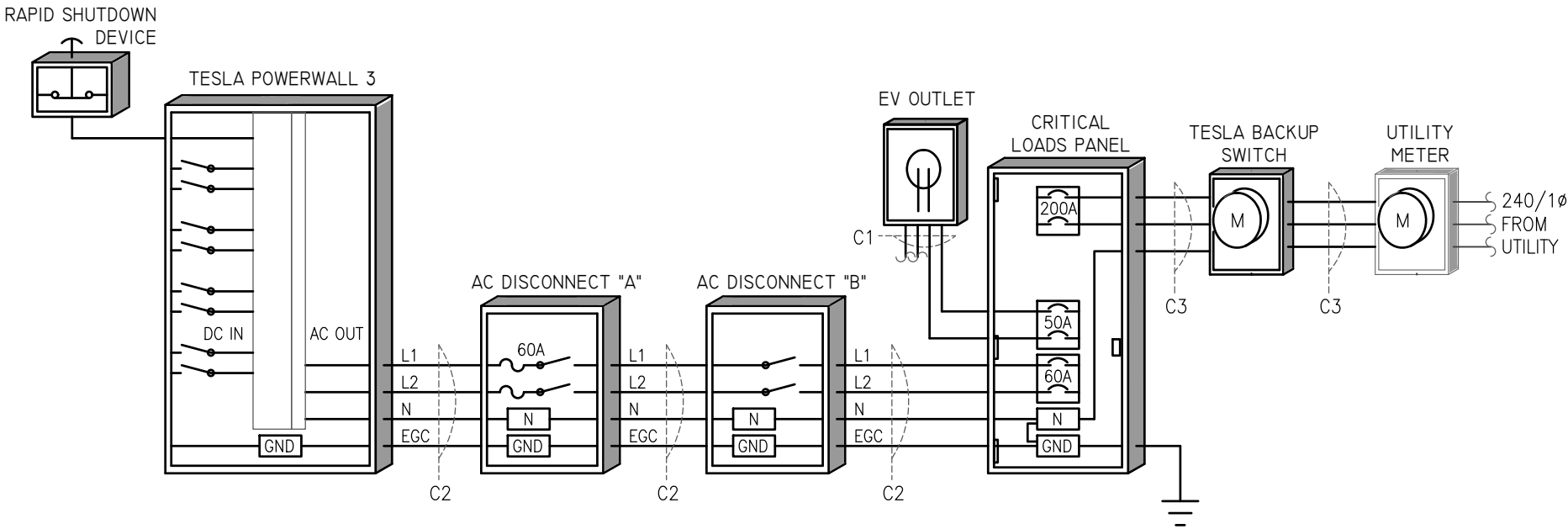
- PROVIDE NEW METER BASE TO CONNECT BACKUP SWITCH DEVICE.

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

03/06/2025





SEAL:



ENGINEER:

MODEL ENERGY

300 FAYETTEVILLE ST.
#1430
RALEIGH, NC 27602
919-274-9905
MODELENERGY.COM

P-1194

JOB TITLE:

NEW BATTERY ADDITION

MATTAMY HOMES
RIVERFALL LOT 7
57 BERING CIRCLE
ANGIER, NC 27501

CLIENT:



ISSUED FOR:

DATE:

CONSTRUCTION

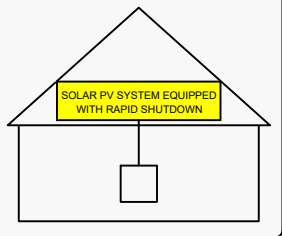
02/26/25

ELECTRICAL
INFORMATION

PV3.1

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



NEC 690.56 (C)(1)(a)
PLACE WITHIN 3FT OF SERVICE DISCONNECTING MEANS TO
WHICH THE PV SYSTEMS ARE CONNECTED AND SHALL
INDICATE THE LOCATIONS OF RAPID SHUTDOWN SWITCHES

WARNING
DUAL POWER SUPPLY

SOURCES: UTILITY GRID
AND PV SOLAR ELECTRIC SYSTEM

NEC 705.12 (B)(3)
PLACE ON ALL EQUIPMENT THAT IS SUPPLIED
BY BOTH POWER SOURCES

PCS CONTROLLED
CURRENT SETTING: 200 AMPS

THE MAXIMUM OUTPUT CURRENT FROM
THIS SYSTEM TOWARDS THE MAIN PANEL IS
CONTROLLED ELECTRICALLY. REFER TO
THE MANUFACTURER'S INSTRUCTIONS FOR
MORE INFORMATION.

NEC 705.13
PLACE ON PANELS CONNECTED TO GATEWAY

WARNING

FED BY MULTIPLE POWER SOURCES

TOTAL RATING OF ALL
OVERCURRENT DEVICES EXCLUDING
UTILITY OVERCURRENT
DEVICE SHALL NOT EXCEED
AMPACITY OF BUSBAR

NEC 705.12 (B)(2)(3)(c)
PLACE ADJACENT TO BACK-FED BREAKER

WARNING

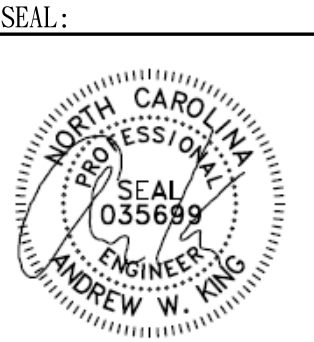
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

NEC 690.13 (B)
PLACE ON PV SYSTEM DISCONNECTING MEANS.

WARNING

POWER SOURCE
OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

NEC 705.12 (B)(2)(3)(b)
PLACE ADJACENT TO BACK-FED BREAKER



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RIVERFALL LOT 7
57 BERING CIRCLE
ANGIER, NC 27501

CLIENT:



ISSUED FOR: DATE:
CONSTRUCTION 02/26/25

EQUIPMENT
LABELS

PV4.1

EQUIPMENT LABEL NOTES

1. LABELS SHOWN ARE 1/2 THEIR ACTUAL
REQUIRED SIZE.
2. LABEL MATERIAL SHALL BE SUITABLE
FOR THE EQUIPMENT ENVIRONMENT.
3. CONDUIT SHALL BE MARKED WITH
REQUIRED LABEL EVERY 10 FEET.