

LEGEND

X	- MODULE STRING ID	LC	- LOAD CENTER
(E)	- EXISTING	SP	- SUBPANEL
(N)	- NEW	JB	- JUNCTION BOX
M	- UTILITY METER	SCT	- STRING CENTER TAP
MSP	- MAIN SERVICE PANEL	---	- CONDUIT
ACD	- AC DISCONNECT	BAT	- ENERGY STORAGE
CB	- COMBINER BOX	ICD	- INTERCONNECTION DEVICE
		BUL	- BACK UP LOADS PANEL

- WARNING**
ELECTRIC SHOCK HAZARD

**EMERGENCY RESPONDER
SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN**

**WARNING: PHOTOVOLTAIC
POWER SOURCE**

PHOTOVOLTAIC

LABEL LOCATION:
CONDUIT/ RACEWAY/ ENCL
COMBINER BOX/ AC DISCON
PER CODE: NEC2017, 690.31(

LABEL LOCATION:

RATED AC OUTPUT CURRENT	23.0 A	AC DISCONNECT
NOMINAL OPERATING AC VOLTAGE	240 V	PER CODE: NEC2017, 690.54
RAPID SHUTDOWN		LABEL LOCATION:

WARNING

DUAL POWER SOURCE

SOURCES: UTILITY GRID AND
SOLAR SYSTEM

LABEL LOCATION:
POINT OF INTERCONNECTION
PER CODE: NEC 2017, 705.12

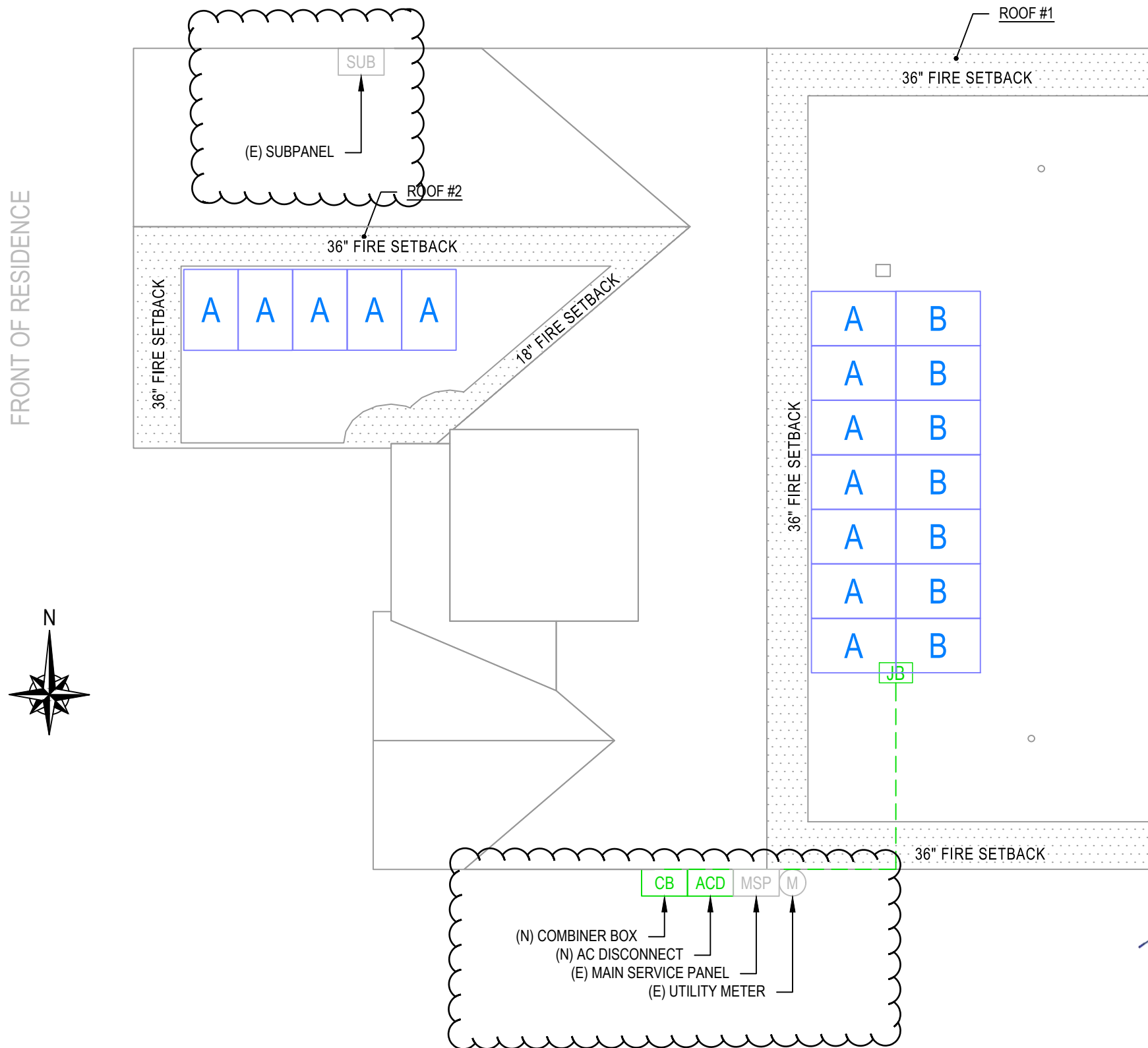
DO NOT RELOCATE THIS
OVERCURRENT DEVICE.

MAIN SERVICE DISCONNECT
PER CODE: NEC 705.12(B)(2)(c)

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Wyssling Consulting, PLLC
76 N Meadowbrook Drive, Alpine UT 84004
Florida COA #34912
Signed 5/19/2023

1	ROOF PLAN WITH STRING LAYOUT
E-1	SCALE: NTS



**AKE
SOLAR**

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Lumio 
PROJECT NAME & ADDRESS

NANCY TURNER
RESIDENCE
PROJECT # P-0074750
123 NW NOVEMBER CT
LAKE CITY, FL 32055

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REVISIONS		
DESCRIPTION	DATE	REV
MSP UPDATE	5/18/23	A

Drawn by: C.M.

Date: 4/18/2023

SHEET NAME

STRING LAYOUT & SIGNAGE

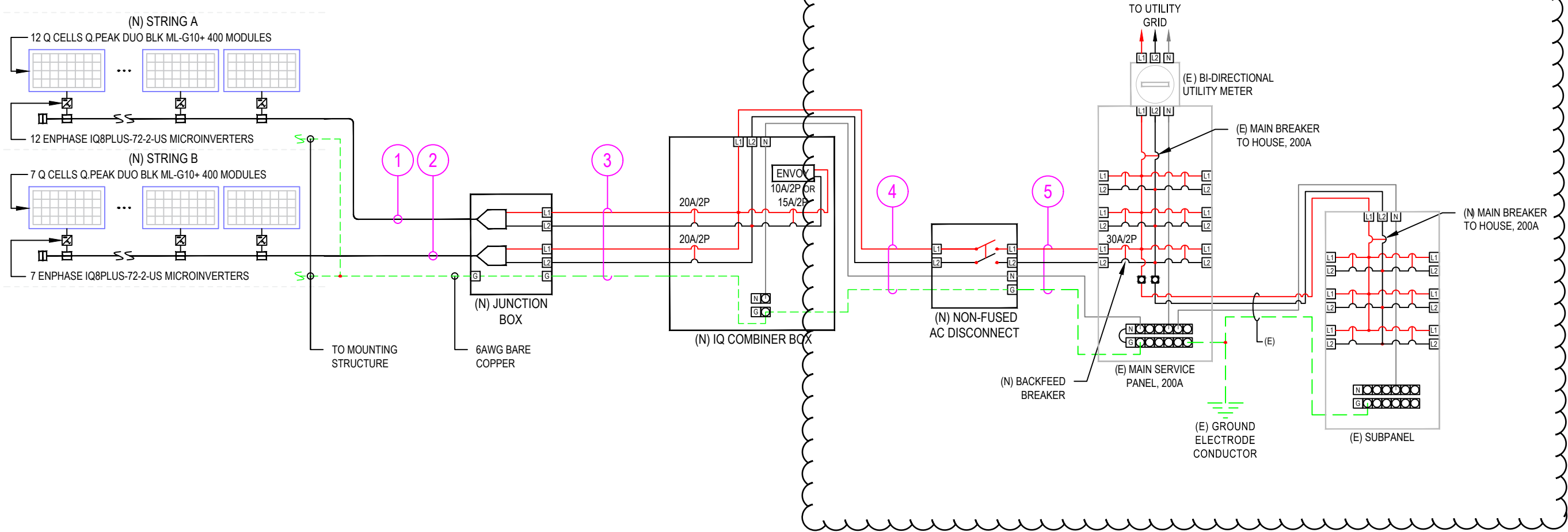
SHEET NUMBER

E-1

ID	INITIAL CONDUCTOR LOCATION	FINAL CONDUCTOR LOCATION	MIN. CONDUCTOR SIZE (AWG)		MIN. DIA CONDUIT SIZE (IN.)	# OF PARALLEL CIRCUITS	CURRENT-CARRYING CONDUCTORS IN CONDUIT	OCPD (A)	MIN. EGC SIZE (AWG)		TEMP. CORR. FACTOR		CONDUIT FILL FACTOR	CONT. CURRENT (A)	MAX. CURRENT (A)	BASE AMP. (A)	DERATED AMP. (A)	TERM. AMP. RATING (A)	LENGTH (FT)	VOLTAGE DROP (%)
1	STRING A	JUNCTION BOX	12	Q CABLE	N/A	1	2	N/A	6	BARE COPPER	0.76	55°C	N/A	14.52	18.15	30	N/A	N/A	65.00	0.63
2	STRING B	JUNCTION BOX	12	Q CABLE	N/A	1	2	N/A	6	BARE COPPER	0.76	55°C	N/A	8.47	10.59	30	N/A	N/A	23.00	0.32
3	JUNCTION BOX	COMBINER BOX	10	THWN-2 COPPER	0.75 LTNM	2	4	20	10	THWN-2 COPPER	0.76	55°C	0.8	14.52	18.15	40	24.3	35	36.00	0.54
4	COMBINER BOX	AC DISCONNECT	10	THWN-2 COPPER	0.75 LTNM	1	3	N/A	10	THWN-2 COPPER	0.96	34°C	1	22.99	28.74	40	38.4	35	5.00	0.12
5	AC DISCONNECT	MSP	10	THWN-2 COPPER	0.75 LTNM	1	3	30	10	THWN-2 COPPER	0.96	34°C	1	22.99	28.74	40	38.4	35	5.00	0.12

Digitally signed by Gregory Elvestad, PE
DN: C=US, SN="Elvestad, PE", G=Gregory, E=gelvestad@wysslingconsulting.com, CN="Gregory Elvestad, PE"
Reason: I have reviewed this document
Location: your signing location here
Date: 2023.05.19 16:40:44-06'00'
Foxit PDF Editor Version: 11.1.0

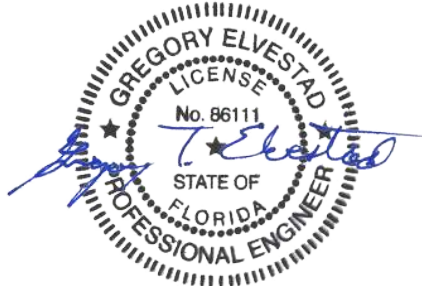
Gregory Elvestad, PE



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1 | ELECTRICAL LINE DIAGRAM
E-2 | SCALE: NTS

I, GREGORY ELVESTAD, PE#86111, AN ENGINEER PURSUANT TO CHAPTER 471, CERTIFY THAT THE PV ELECTRICAL SYSTEM AND ELECTRICAL COMPONENTS ARE DESIGNED AND APPROVED USING THE STANDARDS CONTAINED IN THE MOST RECENT VERSION OF THE FLORIDA BUILDING CODE, FBC 107.



Wyssling Consulting, PLLC
76 N Meadowbrook Drive, Alpine UT 84004
Florida COA #34912
Signed 5/19/2023

NOTE:		LEGEND	
1. LTNM OR EQUIVALENT TYPE CONDUIT		(E) - EXISTING	(N) - NEW
DESIGN TEMPERATURE SPECIFICATIONS			
RECORD LOW TEMP		-5°C	
AMBIENT TEMP. (HIGH TEMP. 2%)		34°C	
CONDUIT HEIGHT		1.0"	
CONDUCTOR TEMP. RATE (ROOF)		55°C	

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DESCRIPTION	DATE	REV
MSP UPDATE	5/18/23	A

Drawn by: C.M.
Date: 4/18/2023

SHEET NAME
ELECTRICAL LINE
DIAGRAM & CALCS.
SHEET NUMBER

E-2