



SYSTEM SUMMARY					MODULES										
	BRANCH #1	BRANCH #2	BRANCH #3	BRANCH #4	REF.	QTY.	MAKE AND MODEL	PMAX	PTC	ISC	IMP	VOC	VMP	TEMP. COEFF. OF VOC	FUSE RATING
INVERTERS PER BRANCH	8	8	8	10	PM1-34	34	JINKO EAGLE 72M G2 JKM375M-72L-V	375W	344.90W	9.68A	9.33A	48.70V	9.33V	-0.141V/°C (-0.29%/°C)	20A
MAX AC CURRENT	9.68A	9.68A	9.68A	12.10A											
MAX AC OUTPUT POWER	2,320W	2,320W	2,320W	2,900W											
ARRAY STC POWER	12,750W														
ARRAY PTC POWER	11,727W														
MAX AC CURRENT	41.14A														
MAX AC POWER	9,860W														
DERATED (CEC) AC POWER	9,860W														
					INVERTERS										
	REF.	QTY	MAKE AND MODEL	AC VOLTAGE	GROUND	OCPD RATING	RATED POWER	MAX OUTPUT CURRENT	MAX INPUT CURRENT	MAX INPUT VOLTAGE	CEC WEIGHTED EFFICIENCY				
	I1-34	34	ENPHASE IQ7PLUS-72-2-US	240A	FLOATING	20A	290W	1.21A	20A	60V	97.0%				
					DISCONNECTS				OCPDS						
	REF.	QTY.	MAKE AND MODEL	RATED CURRENT	MAX RATED VOLTAGE	REF.	QTY	RATED CURRENT	MAX VOLTAGE						
	SW1	1	SQUARE D D222NRB	60A	240V	CB1-4	4	20A	240V						
						CB5	1	15A	240V						
						FU1-2	2	60A	240V						
	ASHRAE EXTREME LOW		33.7°C (92.7°F), SOURCE: ESSEX CO (-74.28°; 40.88°)												
	ASHRAE 2% HIGH		33.7°C (92.7°F), SOURCE: ESSEX CO (-74.28°; 40.88°)												
BILL OF MATERIAL															
CATEGORY	MAKE	MODEL NUMBER	REF	QTY	UNIT	QTY/UNIT	DESCRIPTION								
PV MODULE	JINKO	EAGLE 72M G2 JKM375M-72L-V	PM1-34	34	PIECE	1	JINKO EAGLE 72M G2 JKM375M-72L-V 375W 72 CELLS, MONOCRYSTALLINE SILICON								
INVERTER	ENPHASE	IQ7PLUS-72-2-US	I1-34	34	PIECE	1	ENPHASE IQ7PLUS-72-2-US 290W MICROINVERTER								
DISCONNECT	SQUARE D	D222NRB	SW1	1	PIECE	1	SQUARE D D222NRB, FUSED, 2-POLE, 60A, 240VAC, NEMA 3R OR EQUIVALENT								
AC COMBINER PANEL	ENPHASE	IQ COMBINER 3-ES	EP1	1	PIECE	1	ENPHASE IQ COMBINER 3-ES 125A COMBINER PANEL								
PRODUCTION METER	GENERIC	GENERIC PV METER	PVM1	1	PIECE	1	GENERIC PV METER								
MONITORING	ENPHASE	ENPHASE-ENVOY	ENV1	1	PIECE	1	ENPHASE ENVOY								
WIRING	GENERIC	Q-12-10-240	WR1	145	FEET	1	ENPHASE Q-CABLE								
WIRING	GENERIC	GEN-6-AWG-BARE-CU	WR1	145	FEET	1	6 AWG BARE, COPPER (GROUND)								
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-RD	WR2	10	FEET	1	10 AWG THWN-2, COPPER, RED (LINE 1)								
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-BLK	WR2	10	FEET	1	10 AWG THWN-2, COPPER, BLACK (LINE 2)								
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-GR	WR2	10	FEET	1	10 AWG THWN-2, COPPER, GREEN (GROUND)								
WIRING	GENERIC	GEN-4-AWG-THWN-2-CU-RD	WR3-5	30	FEET	1	4 AWG THWN-2, COPPER, RED (LINE 1)								
WIRING	GENERIC	GEN-4-AWG-THWN-2-CU-BLK	WR3-5	30	FEET	1	4 AWG THWN-2, COPPER, BLACK (LINE 2)								
WIRING	GENERIC	GEN-4-AWG-THWN-2-CU-GR	WR3-5	30	FEET	1	4 AWG THWN-2, COPPER, GREEN (GROUND)								
WIRING	GENERIC	GEN-4-AWG-THWN-2-CU-WH	WR3-5	30	FEET	1	4 AWG THWN-2, COPPER, WHITE (NEUTRAL)								
WIREWAY	GENERIC	GEN-EMT-0.5"-DIA	WW2	10	FEET	1	EMT CONDUIT 0.5" DIA								
WIREWAY	GENERIC	GEN-EMT-1.0"-DIA	WW3-5	30	FEET	1	EMT CONDUIT 1.0" DIA								
OCPD	GENERIC	GEN-CB-20A-240VAC	CB1-4	4	PIECES	1	CIRCUIT BREAKER, 20A, 240VAC								
OCPD	GENERIC	GEN-CB-15A-240VAC	CB5	1	PIECE	1	CIRCUIT BREAKER, 15A, 240VAC								
OCPD	GENERIC	GEN-FU-60A-240VAC	FU1-2	2	PIECES	1	FUSE, 60A, 240VAC								
TRANSITION ENCLOSURE	GENERIC	GEN-AWB-TB-4-4X	JB1	1	PIECE	1	TRANSITION/PASS-THROUGH BOX, WITH 4 TERMINAL BLOCKS								

**CONTRACTOR**

STRAWBERRY SOLAR

PHONE: (313)-960-7900  
ADDRESS: 4444 2ND AVENUE WAYNE COUNTY DETROIT, MI 48201

LIC.NO.: 2101211279

HIC.NO.:

ELE.NO.:

UNAUTHORIZED USE OF THIS DRAWING SET WITHOUT WRITTEN PERMISSION FROM CONTRACTOR IS IN VIOLATION OF U.S. COPYRIGHT LAWS AND WILL BE SUBJECT TO CIVIL DAMAGES AND PROSECUTIONS.

NEW PV SYSTEM: 12750.0 KWP

**BARONE RESIDENCE**

31 SCUDDERS RD SPARTA, NJ 07871  
APN: 1826001000000004

**ENGINEER OF RECORD**

PAPER SIZE: 11" x 17" (ANSI B)

**ELECTRICAL PLAN**

DATE: 2023-09-14

DESIGN BY: L. Bi

CHECKED BY: UKRDRAFTING

REVISIONS



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E-601  
(SHEET 2)

CONDUCTOR AND CONDUIT SCHEDULE W/ELECTRICAL CALCULATIONS																		
ID	TYPICAL	CONDUCTOR	CONDUIT	CURRENT-CARRYING CONDUCTORS IN CONDUIT	OCPD	EGC	TEMP. CORR. FACTOR	CONDUIT FILL FACTOR	CONT CURRENT	MAX CURRENT (125%)	BASE AMP	DERATED AMP	TERM. TEMP. RATING	AMP TERMINAL	VOLTAGE	VOLTAGE DROP, V	VOLTAGE DROP, %	LENGTH
1	4	12 AWG THWN-2, COPPER, ENPHASE Q-CABLE	FREE AIR	N/A	N/A	6 AWG BARE, COPPER	0.96 (33.7°C)	1	12.1A	15.12A	30A	28.8A	75°C	25A	240V	1.12V	0.47%	43FT
2	1	10 AWG THWN-2, COPPER	0.5" EMT	8	20A	10 AWG THWN-2, COPPER	0.96 (33.7°C)	0.7	12.1A	15.12A	40A	26.88A	75°C	35A	240V	0.25V	0.11%	10FT
3	1	4 AWG THWN-2, COPPER	1" EMT	2	N/A	4 AWG THWN-2, COPPER	0.96 (33.7°C)	1	41.14A	51.42A	95A	91.2A	75°C	85A	240V	0.24V	0.1%	10FT
4	1	4 AWG THWN-2, COPPER	1" EMT	2	60A	4 AWG THWN-2, COPPER	0.96 (33.7°C)	1	41.14A	51.42A	95A	91.2A	75°C	85A	240V	0.24V	0.1%	10FT
5	1	4 AWG THWN-2, COPPER	1" EMT	2	N/A	4 AWG THWN-2, COPPER	0.96 (33.7°C)	1	41.14A	51.42A	95A	91.2A	75°C	85A	240V	0.24V	0.1%	10FT

