

SYSTEM SUMMARY			MODULES										
	BRANCH #1	BRANCH #2	REF.	QTY.	MAKE AND MODEL	PMAX	PTC	ISC	IMP	VOC	VMP	TEMP. COEFF. OF VOC	FUSE RATING
INVERTERS PER BRANCH	8	8	PM1-16	16	HANWHA Q-CELLS Q.PEAK DUO BLK ML-G10+ 400	400W	371.50W	11.14A	10.77A	45.30V	10.77V	-0.122V/°C (-0.27%/°C)	20A
MAX AC CURRENT	11.60A	11.60A	INVERTERS										
MAX AC OUTPUT POWER	2,792W	2,792W	REF.	QTY	MAKE AND MODEL	AC VOLTAGE	GROUND	OCPD RATING	RATED POWER	MAX OUTPUT CURRENT	MAX INPUT CURRENT	MAX INPUT VOLTAGE	CEC WEIGHTED EFFICIENCY
ARRAY STC POWER	6,400W		11-16	16	ENPHASE IQ8A-72-2-US	240A	FLOATING	20A	349W	1.45A	15A	60V	97.5%
ARRAY PTC POWER	5,944W		DISCONNECTS										
MAX AC CURRENT	23.20A		REF.	QTY.	MAKE AND MODEL	RATED CURRENT		MAX RATED VOLTAGE					
MAX AC POWER	5,584W		SW1	1	SQUARE D DU221RB	30A		240V					
DERATED (CEC) AC POWER	5,584W		ASHRAE EXTREME LOW					32.2°C (90°F), SOURCE: FLINTBISHOP INTL (-83.75°; 42.97°)					
			ASHRAE 2% HIGH					32.2°C (90°F), SOURCE: FLINTBISHOP INTL (-83.75°; 42.97°)					
OCPDS													
REF.	QTY	RATED CURRENT		MAX VOLTAGE									
CB1-3	3	15A		240V									
CB4	1	30A		240V									
BILL OF MATERIAL													
CATEGORY	MAKE	MODEL NUMBER	REF	QTY	UNIT	QTY/UNIT	DESCRIPTION						
PV MODULE	HANWHA Q-CELLS	Q.PEAK DUO BLK ML-G10+ 400	PM1-16	16	PIECE	1	HANWHA Q-CELLS Q.PEAK DUO BLK ML-G10+ 400 400.0W, 6 × 22 MONOCRYSTALLINE Q.ANTUM SOLAR HALF CELLS						
INVERTER	ENPHASE	IQ8A-72-2-US	11-16	16	PIECE	1	ENPHASE IQ8A-72-2-US 349W MICROINVERTER						
DISCONNECT	SQUARE D	DU221RB	SW1	1	PIECE	1	SQUARE D DU221RB, NON-FUSED, 2-POLE, 30A, 240VAC, NEMA 3R OR EQUIVALENT						
AC COMBINER PANEL	ENPHASE	IQ COMBINER 4	EP1	1	PIECE	1	ENPHASE IQ COMBINER 4 125A COMBINER PANEL						
MONITORING	ENPHASE	ENPHASE-ENVOY	ENV1	1	PIECE	1	ENPHASE ENVOY						
WIRING	GENERIC	Q-12-10-240	WR1	68	FEET	1	ENPHASE Q-CABLE						
WIRING	GENERIC	GEN-6-AWG-BARE-CU	WR1	68	FEET	1	6 AWG BARE, COPPER (GROUND)						
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-RD	WR2-4	30	FEET	1	10 AWG THWN-2, COPPER, RED (LINE 1)						
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-BLK	WR2-4	30	FEET	1	10 AWG THWN-2, COPPER, BLACK (LINE 2)						
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-GR	WR2-4	30	FEET	1	10 AWG THWN-2, COPPER, GREEN (GROUND)						
WIRING	GENERIC	GEN-10-AWG-THWN-2-CU-WH	WR3-4	20	FEET	1	10 AWG THWN-2, COPPER, WHITE (NEUTRAL)						
WIREWAY	GENERIC	GEN-EMT-0.5"-DIA	WW2-4	30	FEET	1	EMT CONDUIT 0.5" DIA						
OCPD	GENERIC	GEN-CB-15A-240VAC	CB1-3	3	PIECES	1	CIRCUIT BREAKER, 15A, 240VAC						
OCPD	GENERIC	GEN-CB-30A-240VAC	CB4	1	PIECE	1	CIRCUIT BREAKER, 30A, 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: 6400.0 KWP

JO RESIDENCE

6339 SANTA FE TRAIL FLINT
TOWNSHIP,
MI 48532
APN: 0707-507-008

ENGINEER OF RECORD

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

ELECTRICAL PLAN

DATE: 2023-06-30

DESIGN BY: STRAWBERRY SOLAR

CHECKED BY: UKRDRAFTING

REVISIONS

A-102

(SHEET 1)

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
1	2	12 AWG THWN-2, COPPER, ENPHASE Q-CABLE	FREE AIR	N/A	N/A	6 AWG BARE, COPPER	0.96 (32.2°C)	1	11.6A	14.5A	30A	28.8A	75°C	25A
2	1	10 AWG THWN-2, COPPER	0.5" EMT	4	15A	10 AWG THWN-2, COPPER	0.96 (32.2°C)	0.8	11.6A	14.5A	40A	30.72A	75°C	35A
3	1	10 AWG THWN-2, COPPER	0.5" EMT	2	N/A	10 AWG THWN-2, COPPER	0.96 (32.2°C)	1	23.2A	29A	40A	38.4A	75°C	35A
4	1	10 AWG THWN-2, COPPER	0.5" EMT	2	30A	10 AWG THWN-2, COPPER	0.96 (32.2°C)	1	23.2A	29A	40A	38.4A	75°C	35A

String

String



JO RESIDENCE

ENGINEER OF RECORD

LINE DIAGRAM

CHECKED BY: UKRDRAFTING

E-601
(SHEET 2)