ROOF MOUNT INSTALLATION OF
7.68 KW DC PHOTOVOLTAIC SYSTEM

PROJECT DATA

PROJECT ADDRESS	12016 ARLEE AVE, NORWALK, CA 90650		
OWNER	MAYRA MORALES		
SCOPE	7.68 KW DC		7.05 KW AC
	24	HANWHA 320W Q.PEAK DUO-G7 320	
	1	SOLAR EDGE SE7600H-US RGM SI1	
ELECTRICAL INFORMATION	NEW UPGRADED		1ϕ, 3W, 120/240V
	MAIN SERVICE PANEL BUSBAR RATING		200A
	MAIN SERVICE BREAKER RATING		200A
BUILDING INFORMATION:	ONE STORY BUILDING		
	CONSTRUCTION TYPE: V-B		
	OCCUPANCY: R		
	ROOF TYPE	COMPOSITION SHINGLE	
	TRUSSES	2"X4" @ 24" O.C	
RACKING INFORMATION	SNAPNRACK RACKING		
AHJ	CITY OF NORWALK		
APN	8024013017		
LOT AREA	5,617 SQFT		
LIVING AREA	1,425 SQFT		

CODE REFERENCES

THE INSTALLATION OF SOLAR ARRAYS AND PHOTOVOLTAIC POWER SYSTEMS SHALL COMPLY WITH THE FOLLOWING CODES:

2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA PLUMBING CODE

ALL OTHER ORDINANCE ADOPTED BY THE LOCAL GOVERNING AGENCIES

GENERAL NOTES

1. ALL ELECTRICAL MATERIALS SHALL BE NEW AND LISTED BY RECOGNIZED ELECTRICAL TESTING LABORATORY CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY
2. OUTDOOR EQUIPMENT SHALL BE AT LEAST NEMA 3R RATED
3. ALL METALLIC EQUIPMENT SHALL BE GROUNDED
4. ALL SPECIFIC WIRING IS BASED ON THE USE OF COPPER.
5. CONTRACTOR SHALL OBTAIN ELECTRICAL PERMITS PRIOR TO INSTALLATION AND SHALL COORDINATE ALL INSPECTIONS, TESTING COMMISSIONING AND ACCEPTANCE WITH THE CLIENT, UTILITY CO. AND CITY INSPECTORS AS NEEDED.
6. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF SERVICE POINTS AND SERVICE SIZES WITH THE SERVING UTILITY COMPANY AND COMPLY WITH ALL UTILITY COMPANIES REQUIREMENTS. IF THE SOLAR BACK FED BREAKER IS OVER THE BUSS SIZE 20% LIMIT, CONTRACTOR SHALL INCLUDE THE COST TO REPLACE MAIN BREAKER OR ENLARGE MAIN CAPACITY.
7. DRAWINGS ARE DIAGRAMMATIC ONLY, ROUTING OF RACEWAYS SHALL BE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES.
8. IF THE ROOF MATERIAL OR ROOF STRUCTURE NOT ADEQUATE FOR PV INSTALLATION, CALL ENGINEER PRIOR TO INSTALL. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THAT THE ROOF IS CAPABLE OF WITHSTANDING THE EXTRA WEIGHT.
9. IF THE DISTANCES FOR CABLE RUNS ARE DIFFERENT THAN SHOWN, THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL ENGINEER TO VALIDATE THE WIRE SIZE. FINAL DRAWINGS WILL BE RED-LINED AND UPDATED AS APPROPRIATE.
10. WHENEVER A DISCREPANCY IN QUALITY OF EQUIPMENT ARISES ON THE DRAWING OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE COMPLIANCE AND LONGEVITY OF THE OPERABLE SYSTEM REQUIRED BY THE ARCHITECT/ENGINEERS.
11. ALL BROCHURES, OPERATION MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE HANDED OVER TO OWNER'S REPRESENTATIVE AT THE COMPLETION OF WORK

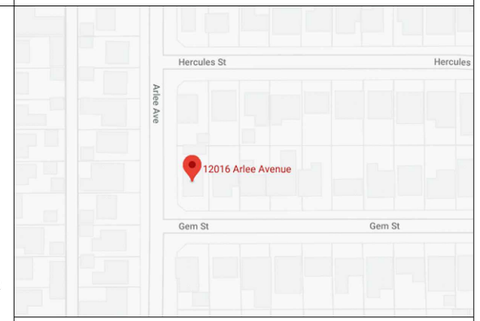
PHOTOVOLTAIC NOTES

1. ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED AND IDENTIFIED UL 1703.
2. SOLAR SYSTEM SHALL NOT COVER ANY PLUMBING OR MECHANICAL VENTS
3. MODULES AND SUPPORT STRUCTURES SHALL BE GROUNDED.
4. SOLAR INVERTER MUST HAVE A MANUFACTURE INSTALLED DISCONNECTING MEANS THAT PREVENTS PARALLEL FEEDING UTILITY LINES DURING POWER OUTAGE.
5. REMOVAL OF AN INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTORS.
6. ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM ANY PHYSICAL DAMAGE.
7. LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.
8 .INVERTER IS EQUIPPED W/ INTEGRATED GFDI, THUS PROVIDING GROUND FAULT PROTECTION
9. ALL CONDUCTORS SHALL BE COPPER AND 90 DEG RATED
10. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY A RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.
11. CONDUITS SHOULD BE PAINTED TO MATCH EXISTING ROOF AND WALL COLORS
12.ALL WORK SHALL BE IN ACCORD WITH THE 2019 CBC, 2019 CEC AND 2017 NEC WITH SPECIAL EMPHASIS ON ARTICLE 690
13. THE OUTPUT OF A UTILITY INTERACTIVE-INVERTER SHALL BE PERMITTED TO BE CONNECTED TO THE SUPPLY SIDE OF THE SERVICE DISCONNECTING MEANS AS PER 230.82(6)
14. A SINGLE CONDUCTOR SHALL BE PERMITTED TO BE USED TO PERFORM THE MULTIPLE FUNCTIONS OF DC GROUNDING, AC GROUNDING AND BONDING BETWEEN AC AND DC SYSTEMS SIZED AS PER SEC 250.122
15. EQUIPMENT GROUND CONDUCTOR REQUIRED IN RACEWAYS SIZED PER CEC 250-122.
16. PER ART 250.92. NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT SHALL BE EFFECTIVELY BONDED TOGETHER. BOND BOTH ENDS OF RACEWAYS

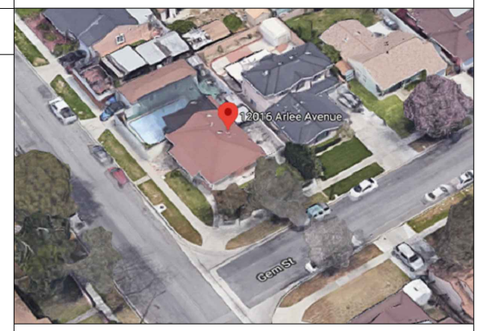
UNIT INDEX

MSP	Main Service Panel	SSP	Service Sub Panel		Micro Inverter / Optimizer
UM	Utility Meter	PV	PV Load Center		
PM	Production Meter	PVS6	Sunpower PV Supervisor		Solar Module
IM	Itron Meter	IQ	IQ Combiner Box		
INV	Inverter	J/B	Junction Box		36" Setback
ACD	AC Disconnect	EV	EV Outlet		
RSC	Rapid Shutdown Controller	LGB	LG Chem Battery Backup		18" Setback
RSB	Rapid Shutdown Box	AT	Solar Edge Auto Transformer		EMT / FMT / PVC / RMC Type Conduit
		SEM	Solar Edge Meter Enclosure		
		DP	Distribution Panel		

VICINITY MAP



SATELLITE VIEW



SHEET INDEX

COVER PAGE

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YOUR COMPANY INFORMATION

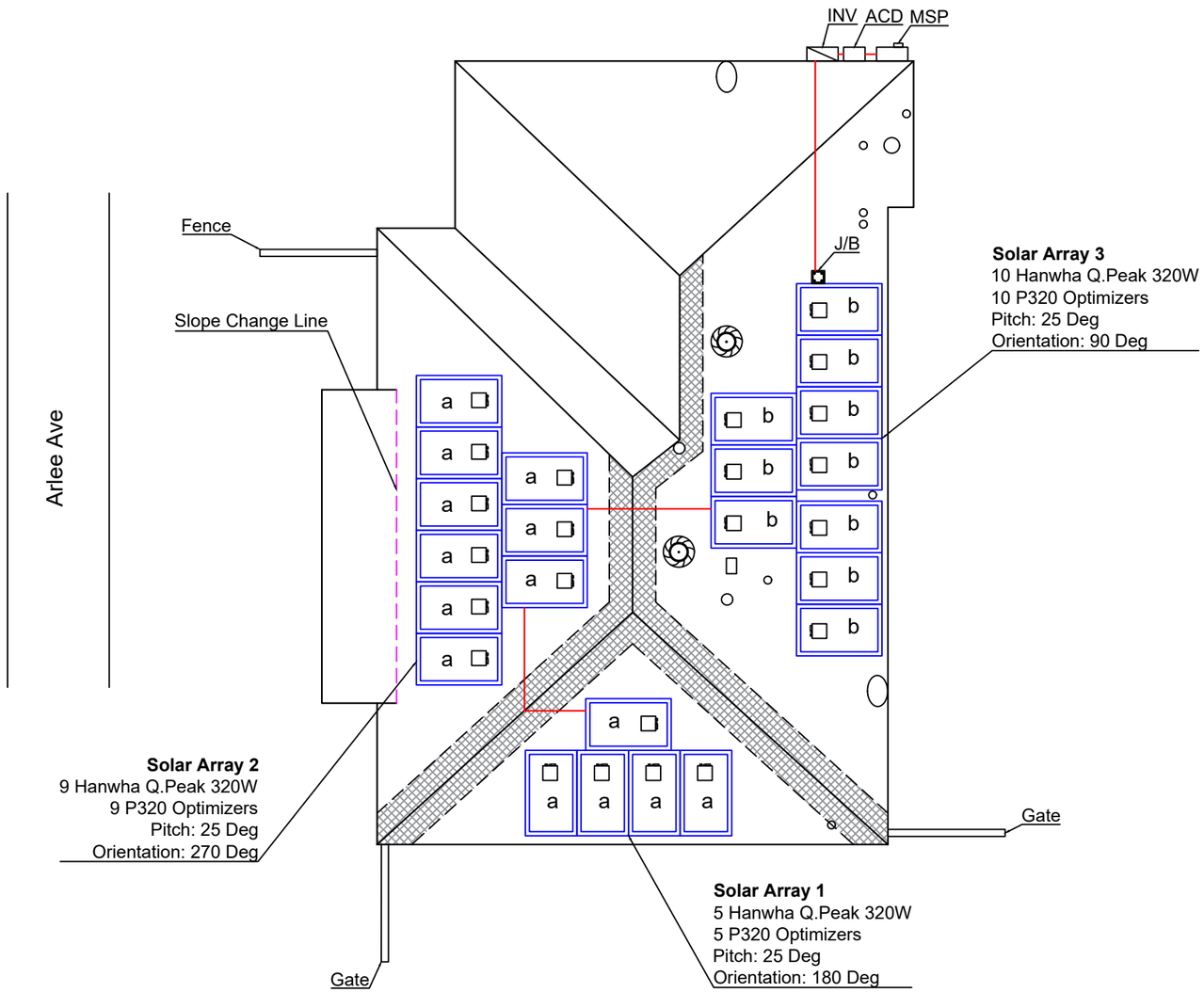
12016 ARLEE AVE,
NORWALK, CA 90650

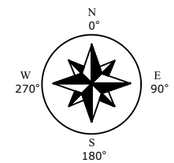
OCTOBER 6, 2020
AS INDICATED
PV SYSTEM

0

PHOTOVOLTAIC SYSTEM 7.68 KW DC	
24	Hanwha 320W Modules (Q.PEAK DUO-G7 320)
24	Solar Edge P320 Power Optimizers
1	Solar Edge 7.6 Kw Inverter (SE7600H-US RGM SI1)

FROM JUNCTION BOX TO ROOF EAVE EMT TYPE CONDUIT WILL RUN OVER THE ROOF AT 1 1/2" HEIGHT, THEN UNDER THE EAVE TO PV EQUIPMENT





SCALE

0 1 5 10ft

ROOF PLAN

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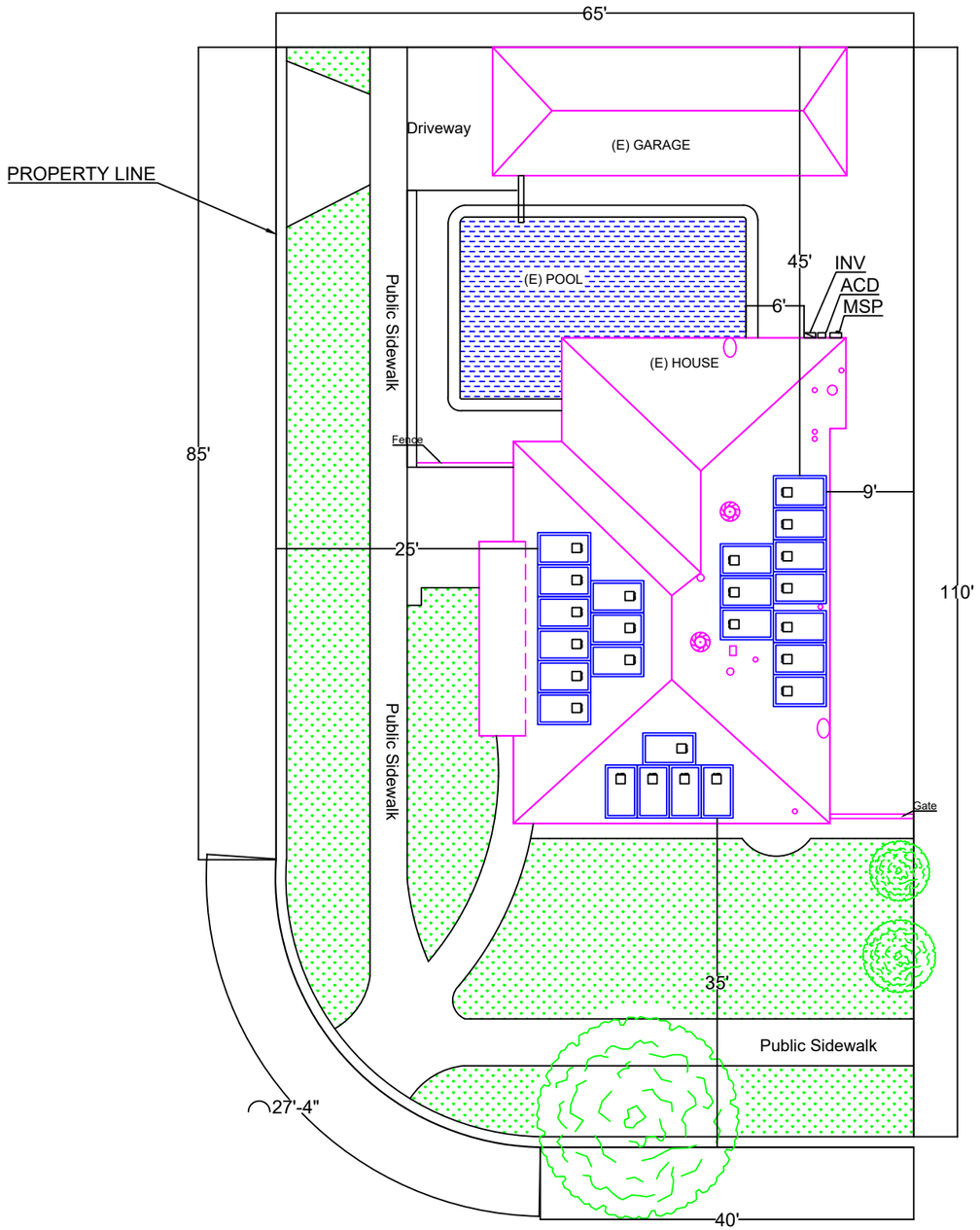
12016 ARLEE AVE, NORWALK, CA 90650

OCTOBER 6, 2020

AS INDICATED

PV SYSTEM

1



N
0°
W
270°
E
90°
S
180°

SCALE

0 5 10 20ft

SITE PLAN

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INFORMATION

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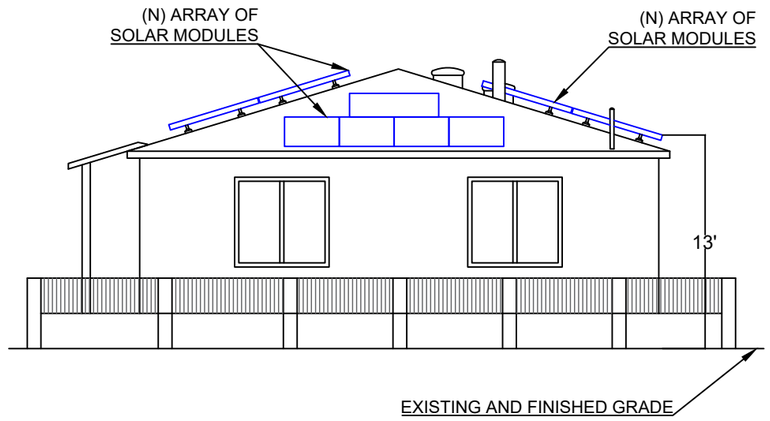
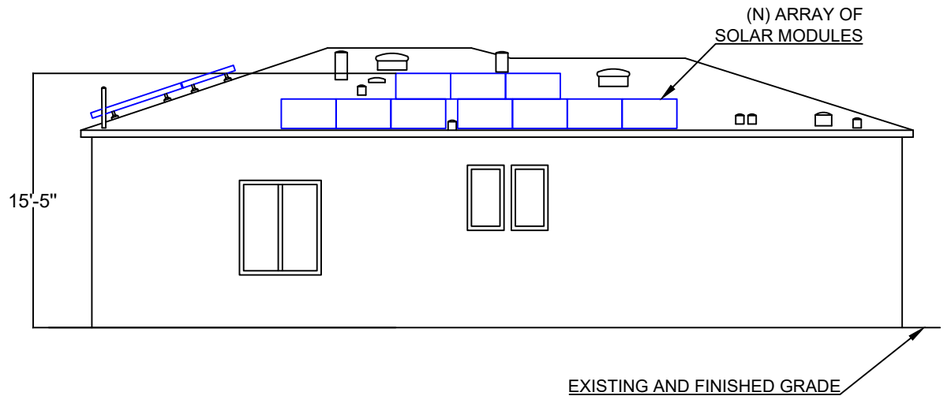
NORWALK, CA 90650

OCTOBER 6, 2020	1.1
AS INDICATED	
PV SYSTEM	

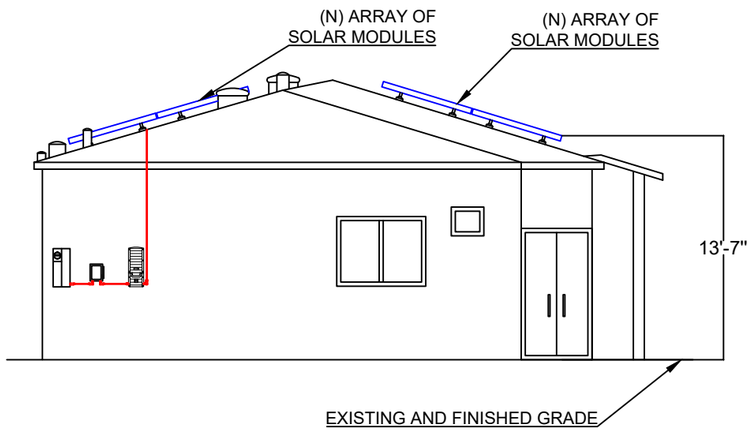
(Right Side) South View

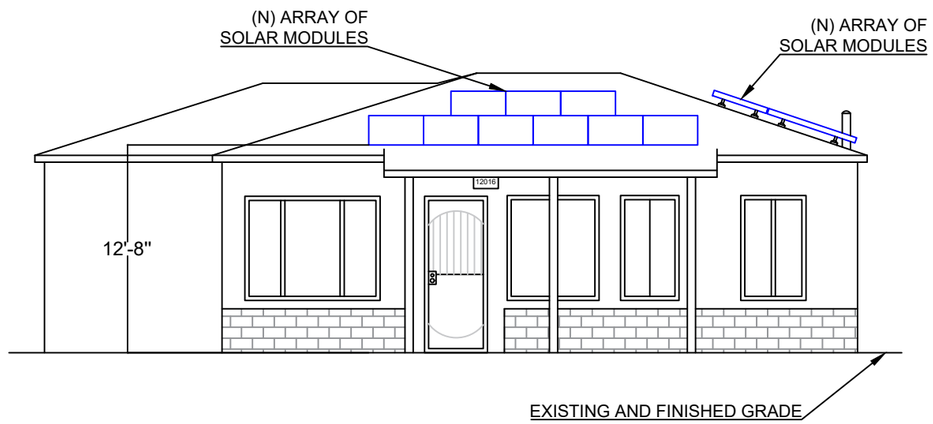


(Rear Side) East View



(Left Side) North View





SITE ELEVATION

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NORWALK, CA 90650

OCTOBER 6, 2020

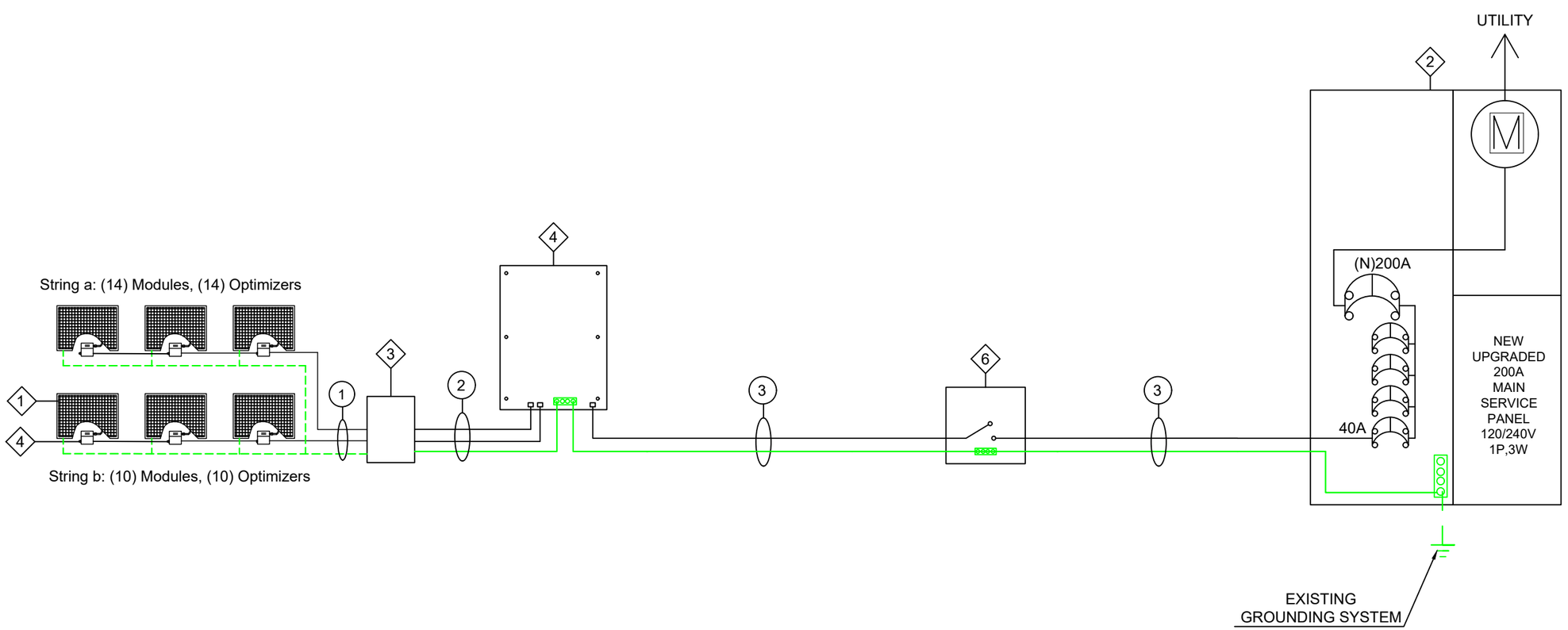
AS INDICATED

PV SYSTEM

1.2

#	ITEM	DESCRIPTION			QTY
1	PV MODULE	HANWHA 320W	Isc = 10.04A	Voc = 40.10V	24
		Q.PEAK DUO-G7 320	Imp = 9.56A	Vmp = 33.47V	
2	NEW UPGRADED MAIN SERVICE PANEL	MAIN SERVICE PANEL & UTILITY METER	BUSBAR RATING	200A	1
			BREAKER RATING	200A	1
3	PVC JUNCTION BOX	4"x4"x2" UL LISTED WATER TIGHT NEMA TYPE 3			1
4	INVERTER	SOLAREDGE SE7600H-US RGM SI1 (240V)			1
		PEAK PWR TRACKING VOLTAGE		400 V	
		CEC EFFICIENCY		99.0 %	
		ENCLOSURE :		NEMA 3R	
		MAXIMUM INPUT CURRENT		20.0 A	
		MAXIMUM OUTPUT CURRENT		32.0 A	
		MAXIMUM INPUT POWER		11,800 W	
		MAXIMUM OUTPUT POWER		7,600 W	

#	ITEM	DESCRIPTION		QTY
5	POWER OPTIMIZER	SOLAREDGE POWER OPTIMIZER	P320	24
		RATED DC INPUT POWER	320W	
		MAXIMUM INPUT VOLTAGE	48 Vdc	
		MPPT RANGE	8 to 48 Vdc	
		MAXIMUM INPUT CURRENT	13.75 Adc	
		MAXIMUM OUTPUT CURRENT	15 Adc	
		OPTIMIZER WEIGHT	1.4 Lbs	
		MAXIMUM POWER PER STRING	6000W	
6	AC DISCONNECT	NON FUSED AC DISCONNECT LOCKABLE, BLADE TYPE, NEMA 3R, 120/240V	60A	1



FOR WIRE SIZE CALCULATIONS PLEASE SEE PAGE #3

SINGLE LINE DIAGRAM

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AS INDICATED

PV SYSTEM

2

WIRE CHART

1	**FROM PV MODULES TO JBOX**		
	(4)	#10 AWG PV-WIRE	
	(1)	#6 AWG BARE CU EGC, FREE IN THE AIR, 3/4" EMT TYPE CONDUIT BETWEEN ARRAYS	
2	**FROM JBOX TO INVERTER**		
	(4)	#10 AWG THWN-2	
	(1)	#8 AWG CU EGC , 3/4" EMT TYPE CONDUIT	
	MAX NUMBER OF MODULES IN STRING		14
	MAXIMUM POWER (W)		320
	PEAK PWR TRACKING VOLTAGE (V)		400
	CONSIDER CONTINUOUS COEFFICIENT		1.25
	CONSIDER CONTINUOUS COEFFICIENT		1.25
	RACEWAY HEIGHT FROM ROOF		1 1/2"
	(TEMP - 39 + 22 = 61C)		0.58
	ADJST. FACTOR (4 thru 6 WIRES)		0.8
	SHORT CIRCUIT CURRENT (A)	14* 320 / 400 * 1.25*1.25	17.5
	ADJUSTED CONDUCTOR AMPACITY (A)	17.5 / 0.58/0.8	37.7

WIRE CHART

3	**FROM INVERTER TO MAIN SERVICE PANEL**		
	(3)	#8 AWG THWN-2	
	(1)	#8 AWG CU EGC, 3/4" EMT TYPE CONDUIT	
	MAXIMUM INVERTER OUTPUT CURRENT (A)		32.0
	CONSIDER CONTINUOUS COEFFICIENT		1.25
	CONSIDER CONTINUOUS (A)	32.0 * 1.25	40.0
	TEMPERATURE FACTOR		0.91
	TEMPERATURE ADJUSTMENT (A)	32.0 * 1.25 / 0.91	44.0

OUTPUT CALCULATIONS				**MAIN SERVICE PANEL RATING**	
1	SOLAR EDGE SE7600H-US RGM SI1 (CEC)		99 %	BUSBAR RATING	200A
24	Q.PEAK DUO-G7 320		320 W	MAIN BREAKER	200A
	Pmax (PTC Rating)		296.9 W	PV BACKFEED BREAKER SIZE	40A
PV SYSTEM MAX DC OUTPUT	24 * 320		7.68 KW	**120% RULE**:	
				MAX ALLOWED FEED	200A
PV SYSTEM MAX AC OUTPUT	24*296.9*0.99		7.05 KW	200 "MB" + 40 "SOLAR" = 240A <=240A MAX	

WIRE SIZE CALCULATIONS

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YOUR COMPANY INFORMATION

12016 ARLEE AVE,
NORWALK, CA 90650

OCTOBER 6, 2020

AS INDICATED

PV SYSTEM

3

JB BOX

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

NEC 690.13(B)

WARNING
TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

NEC 110.27(C) & OSHA 1910.145(f)(7)

PM METER

WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

NEC 705.12(D)(3) & NEC 690.59

Inverter / PV Load

WARNING
THE DISCONNECTION OF THE GROUNDING CONDUCTOR(S) MAY RESULT IN OVERVOLTAGE ON THE EQUIPMENT

NEC 690.31(I)

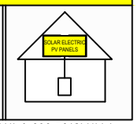
PHOTOVOLTAIC AC DISCONNECT

RATED AC OUTPUT CURRENT:	32.0 A MAX
NOMINAL OPERATING AC VOLTAGE:	240 Vac

NEC 690.54

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH ON THE "OFF" POSITION TO SHUTDOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN ARRAY



IFC 605.11.3.1(1) & 690.56(C)(1)(a)

FOR PV SYSTEMS THAT SHUT DOWN THE ARRAY AND CONDUCTORS LEAVING THE ARRAY: SIGH TO BE LOCATED ON OR NO MORE THAN 3 FT AWAY FROM SERVICE DISCONNECTING MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED AND SHALL INDICATE THE LOCATION OF ALL IDENTIFIED RAPID SHUTDOWN SWITCHES IF NOT AT THE SAME LOCATION. [CEC 690.56(C)(1)(A)]

DC Disconnect

WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
DC VOLTAGE IS ALWAYS PRESENT WHEN SOLAR MODULES ARE EXPOSED TO SUNLIGHT

NEC 690.13(B)

MAXIMUM VOLTAGE	480 V
MAXIMUM CIRCUIT CURRENT	15.0 A
MAX RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED)	15 A

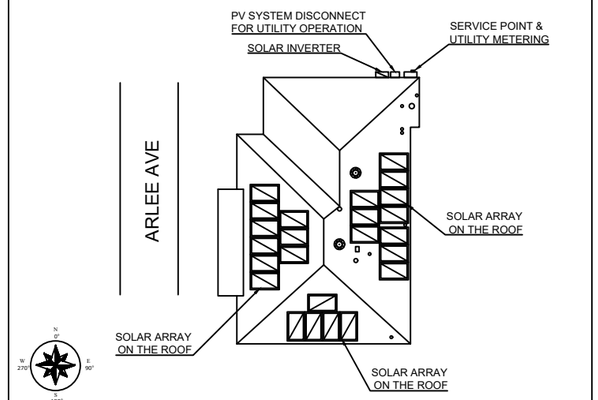
NEC 690.53

PHOTOVOLTAIC
DC DISCONNECT

NEC 690.13(B)

CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN:



NEC 705.10(B) & NEC 690.56(B)

AC Disconnect

PHOTOVOLTAIC AC DISCONNECT

RATED AC OUTPUT CURRENT:	32.0 A MAX
NOMINAL OPERATING AC VOLTAGE:	240 Vac

NEC 690.54

NOMINAL OPERATING AC VOLTAGE	240 Vac
NOMINAL OPERATING AC FREQUENCY	59.3-60-60.5
MAXIMUM AC POWER	7600 W
MAXIMUM AC CURRENT	32.0 A
MAX OVERCURRENT DEVICE RATING FOR AC MODULE PROTECTION	40 A

NEC 690.52

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

NEC 690.13(B)

PHOTOVOLTAIC
AC DISCONNECT

NEC 690.13(B)

Permanent directory or plaque providing location of service disconnecting means and photovoltaic system disconnecting means, if not located at the same location. (Plaques shall be metal or plastic, with engraved or machine printed letters, or electro-photo plating, in a contrasting color to the plaque. Plaques shall be permanently attached to the equipmenq or in the required location using an approved method that is suitable to withstand the environment to which it is exposed. Plaques and signage shall meet legibility, defacemet, exposure and adhesion requirements of Underwriters Laboratories marking and labeling system 969(UL969).
Plaques will have red background & white lettering.

Main/Sub Panel

PHOTOVOLTAIC AC DISCONNECT

RATED AC OUTPUT CURRENT:	32.0 A MAX
NOMINAL OPERATING AC VOLTAGE:	240 Vac

NEC 690.54

WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

NEC 705.12(D)(3) & NEC 690.59

MAIN PHOTOVOLTAIC SYSTEM DISCONNECT

NEC 690.13(B)

WARNING
TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

NEC 110.27(C) & OSHA 1910.145(f)(7)

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

NEC 690.13(B)

CAUTION
PHOTOVOLTAIC SYSTEM CIRCUIT IS BACKFED

NEC 690.13 (F), NEC 705.12(B)(3-4) & NEC 690.59

WARNING
POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE.

NEC 705.12 (B)(2)(c)

WARNING
SINGLE 120-VOLT SUPPLY DO NOT CONNECT MULTIWIRE BRANCH CIRCUIT

NEC 710.15(C) & 692.9 (C)

DO NOT DISCONNECT UNDER LOAD

NEC 690.15 (C) & NEC 690.33(E)(2)

RAPID SHUT DOWN SWITCH FOR SOLAR PV SYSTEM

NEC 690.56(C)(3)

CONDUIT

WARNING
PHOTOVOLTAIC POWER SOURCE
DO NOT REMOVE UNLESS REPLACED IN EXACT LOCATION - PV POWER CIRCUIT DIRECTLY BELOW

NEC 690.31(G)(1)

WARNING: PHOTOVOLTAIC POWER SOURCE

NEC 690.31(G)(3)(4)

LABELING REQUIREMENTS FOR ARTICLE 690

NEC 690.13(B) Each PV system disconnecting means shall plainly indicate whether in the open (off) or closed (on) position and be permanently marked "PV SYSTEM DISCONNECT" or equivalent. Additional markings shall be permitted based upon the specific system configuration. For PV system disconnecting means where the line and load terminals may be energized in the open position, the device shall be marked with the following words or equivalent.
NEC 690.13(F) Type of Disconnect. A dc PV system disconnecting means shall be marked for use in PV systems or be suitable for backfeed operation.
NEC 690.15(C) An isolating device shall be rated to open the maximum circuit current under load or be marked "Do Not Disconnect Under Load" or "Not for Current Interrupting."
NEC 690.31(B)(1) PV system circuit conductors shall be identified at all accessible points of termination, connection and splices. The means of identification shall be permitted by separate color coding, marking tape, tagging or other approved means.
NEC 690.31(G)(1) Where circuits are embedded in build up, laminate or membrane roofing materials not covered by PV modules and associated equipment, the location of the circuits shall be clearly marked.
NEC 690.31(G)(4) PV dc system circuit labels shall appear on every section of the wiring system that is separated by enclosures, walls, partitions, ceilings, or floors. Spacing between labels or markings, or between a label and a marking, shall not be more than 3 m (10 ft). Labels required in this section shall be suitable for the environment where they are installed.
NEC 690.31(I) Solidly-grounded bipolar PV systems shall be clearly marked with a permanent, legible warning notice indicating that the disconnection of the grounded conductor(s) may result in overvoltage on the equipment.
NEC 690.33(E)(2) Interruption of Circuit. Connectors shall be a type that requires the use of a tool to open and marked "Do Not Disconnect Under Load" or "Not for Current Interrupting." NEC 690.52 Alternating-current modules shall be marked with identification of terminals or leads and with identification of the following ratings.
NEC 690.53A permanent label for the dc PV power source indicating items (1) through (3) shall be provided by the installer at dc PV system disconnecting means and at each dc equipment disconnecting means required by 690.15. Where a disconnecting means has more than one dc PV power source, the values in 690.53 (1) through (3) shall be specified for each source.
NEC 690.54 All interactive system(s) points of interconnection with other sources shall be marked as an accessible location at the disconnecting means as a power source and with the rated ac output current and the nominal operating ac voltage.
NEC 690.55 The PV system output circuit conductors shall be marked to indicate polarity where connected to energy storage systems.
NEC 690.56(B)Plaques or directories shall be installed in accordance with 705.10.
NEC 690.56(C)(3) A rapid shutdown switch shall have a label located on or no more than 1 meter (3 ft) from the switch that includes the following wording.
NEC 690.56(C)(1)(a-b) The type of PV system shall be labeled as described in a) or b):
NEC 690.59 PV systems connected to other sources shall be installed in accordance with Parts I and II of Article 705.

CODE REQUIRED SIGNAGE

Designed By:

design & engineering
INTER SOLAR CAD

CONTRACTOR

YOUR COMPANY INFORMATION

12016 ARLEE AVE, NORWALK, CA 90650

OCTOBER 6, 2020

AS INDICATED

PV SYSTEM

4

	ROOF PITCH	ROOFING LAYERS	ROOFING TYPE	RACKING TYPE	ATTACHMENT TYPE	FRAMING TYPE	FRAMING SIZE	PENETRATION PATTERN	MAX PENETRATION SPACING
Roof	25°	1 Layer	Comp Shingle	SnapNrack 100	SnapNrack L Foot	Truss	2"X4" @ 24" O.C	Stacked	72"

WIND SPEED	110 MPH	EXPOSURE	C	ASCE 7-16	ROOF SHEATHED WITH 1/2" PLYWOOD AND UPPER SURFACE IS FACED WITH FELT PAPER
SNOW LOAD	20 PSF	LAG BOLTS	5/16" X 3.5"	MIN 2.5" EMBEDMENT	MOUNTS AND MOUNTING HARDWARE WILL BE SEALED WITH CHEM LINK SEALANT OR EQUIVALENT.

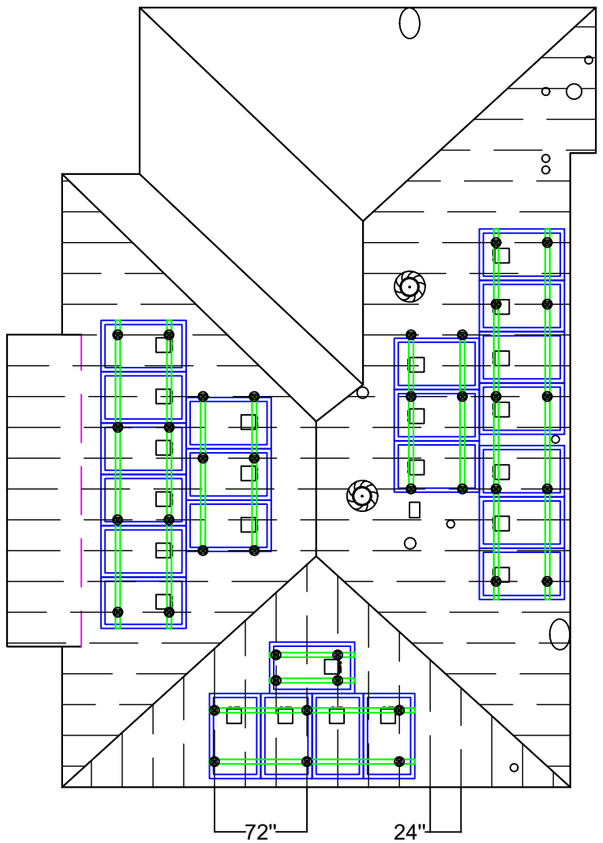
STRUCTURAL STAMP

WEIGHT LOAD CALCULATION

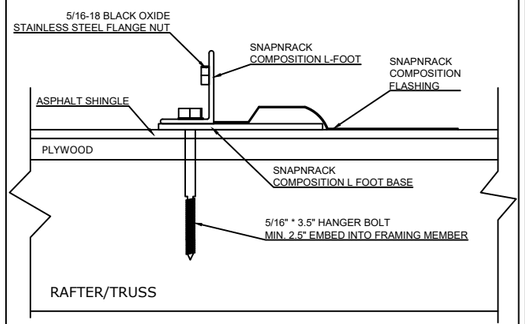
MODULE WEIGHT (LBS)	41.2
# OF MODULES	24
TOTAL MODULE WEIGHT (LBS)	989
RACK WEIGHT (LBS)	198
OPTIMIZERS WEIGHT (LBS)	34
TOTAL SYSTEM WEIGHT (LBS)	1220
# OF STANDOFFS	40
LOADING PER STANDOFF (LBS)	30.5
TOTAL MODULE AREA (SQ.FT.)	432
LOADING (PSF)	2.82
TOTAL ROOF AREA (Sq. FT)	1600
% OF COVERED AREA	27.0
PV MODULE MODEL #	Q.PEAK DUO-G7 320

INDEX

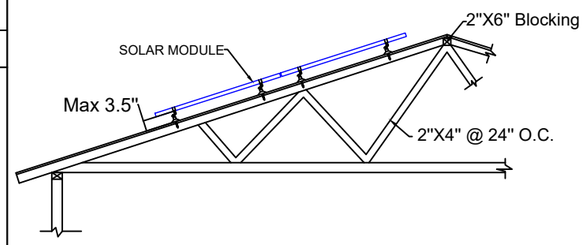
RACKING RAIL			
ATTACHMENT			
ROOF FRAMING			



ATTACHMENT DETAILS



ROOF



ATTACHMENT LAYOUT

Designed By:

design & engineering
INTER SOLAR CAD

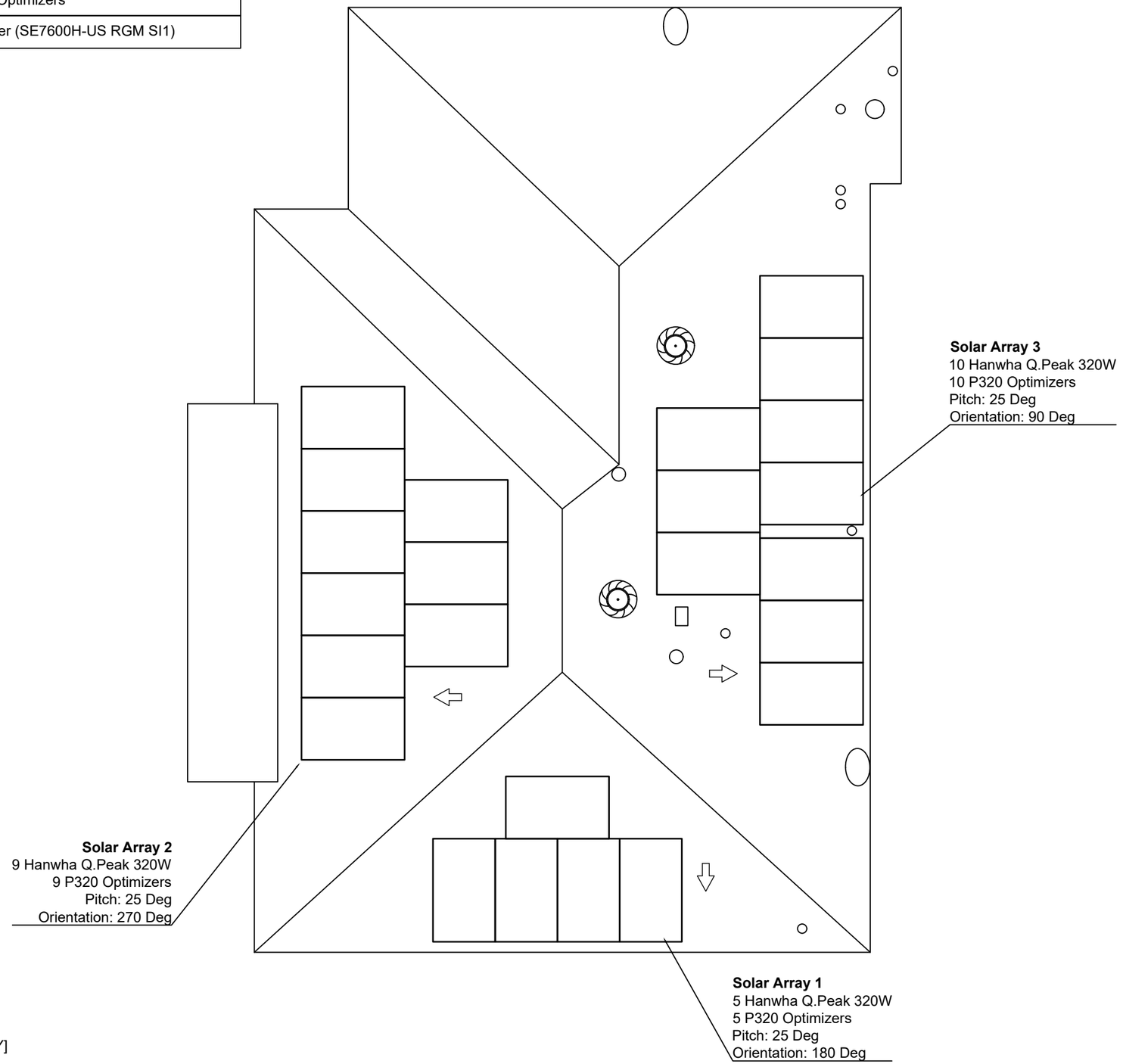
CONTRACTOR

YOUR COMPANY INFORMATION

12016 ARLEE AVE, NORWALK, CA 90650

OCTOBER 6, 2020	5
AS INDICATED	
PV SYSTEM	

PHOTOVOLTAIC SYSTEM 7.68 KW DC	
24	Hanwha 320W Modules (Q.PEAK DUO-G7 320)
24	Solar Edge P320 Power Optimizers
1	Solar Edge 7.6 Kw Inverter (SE7600H-US RGM SI1)



[FOR INSTALLER USE ONLY]

MODULE MAP

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12016 ARLEE AVE,
NORWALK, CA 90650

OCTOBER 6, 2020

AS INDICATED

PV SYSTEM

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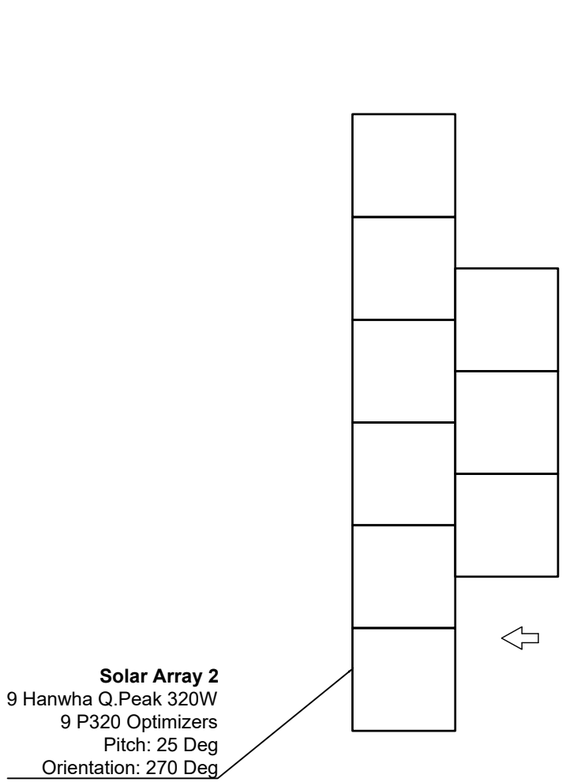
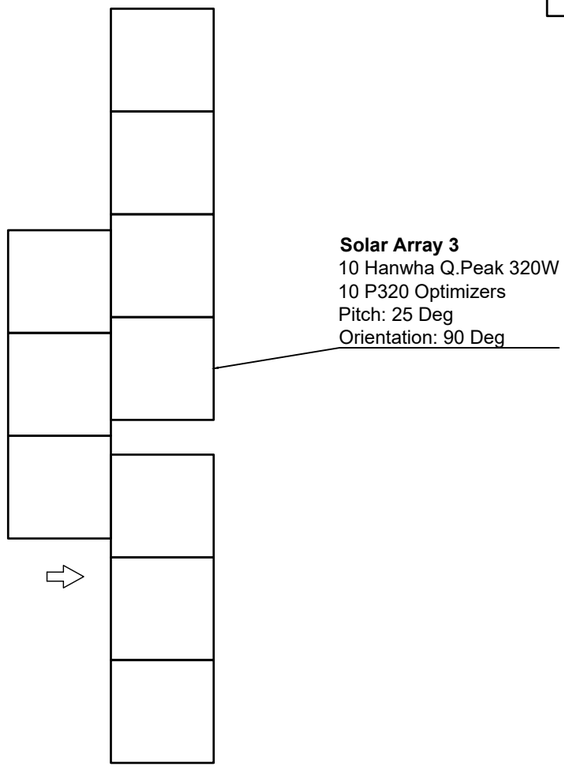
PHOTOVOLTAIC SYSTEM	7.68 KW DC
24	Hanwha 320W Modules (Q.PEAK DUO-G7 320)
24	Solar Edge P320 Power Optimizers
1	Solar Edge 7.6 Kw Inverter (SE7600H-US RGM SI1)

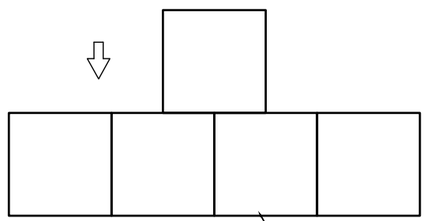
INVERTER



Solar Array 2
9 Hanwha Q.Peak 320W
9 P320 Optimizers
Pitch: 25 Deg
Orientation: 270 Deg



Solar Array 3
10 Hanwha Q.Peak 320W
10 P320 Optimizers
Pitch: 25 Deg
Orientation: 90 Deg



Solar Array 1
5 Hanwha Q.Peak 320W
5 P320 Optimizers
Pitch: 25 Deg
Orientation: 180 Deg

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INVERTER MAP

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INTER SOLAR CAD

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OCTOBER 6, 2020
AS INDICATED
PV SYSTEM

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