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<u>GENERAL NOTES:</u>		SHEET INDEX	SCOPE OF WORK
(1) The contractor shall verify all existing conditions which will affect the installation of all new work. If discrepancies are discovered, engineer must be notified before proceeding with any modification to the approved documents.	PV - 1	COVER PAGE	SYSTEM SIZE:
(2) Installer shall assume full responsibility and liability for compliance with regulations per federal OSHA and local regulations pertaining to work practices, protection of workers and visitors to the site.	PV - 2	STRUCTURAL PLAN	(N) (35) MISS (N) (9) HOYM
 (3) All construction shall comply with all state, county, and local codes on their latest edition. (4) All materials shall be in new and unused condition. 	PV - 3	ELECTRICAL DIAGRAM & WARNING LABELS	(N) (1) 125A I
 (5) Inverter/s must be listed to UL-1741 "Utility interactive" (6) Manufacturer's material equipment, etc. Shall be installed per manufacturer's recommendations and instructions. (7) The contractor is non-particular to the solution of all structured contractors and instructions. 	PV - 4	DATA SHEETS	S-5! SOLARF
 (7) The contractor is responsible for the adequate bracing of all structural and nonstructural components during construction. (8) Any battery system installed in a location where they are subject to vehicle damage needs to be protected by approved barriers (safety bollards). (9) De net each drawings, written dimensions they proceedence over drawings. If each ar written dimensions de net evict, which are proceeding to another they are construction, the contractor is responsible for the adequate brack of the proceedence over drawings. 			
 (9) Do not scale drawings, whiten dimensions take precedence over drawings, in scale of whiten dimensions do not exist, which are necessary for construction, the contractor must contact the engineer to obtain the latest and most correct documents. (10) Information for the basic layout of this drawings was based on existing field dimensions, contractor must verify in field the actual conditions and policy engineer. 			DESIGN SPECIFIC OCCUPANCY:
(10) The constructor is solely responsible for the means and methods of construction and the safety of construction workers.			CONSTRUCTION: ZONING:
 (12) All work shall be performed by contractors possessing valid certifications of competency and occupational licenses recognized and accepted by the local government having jurisdiction or by owner. 			GROUND SNOW L WIND EXPOSURE
(13) To the best of my knowledge, the plans and specifications submitted herewith comply to all existing interpretations and provisions of the applicable building codes at the time of the plans perpetration. No warranty either expressed or implied is herewith given.			WIND SPEED:
(14) Contractor / owner shall verify all dimensions related to any part of construction prior to beginning work or ordering fabricated materials required for construction.			AUTHORITIES HAY
 (13) Solar contractor is responsible for an installations. Engineer retained on the project is responsible for design only. In case of leans, uplits, while damage, incorrect installation or otherwise; Engineer is not responsible for any and all damages to the owner's property. (16) Solar contractor will be responsible of sealing the penetrations to the roof substrate. Engineer is not responsible of any property damage caused by water 			BUILDING: COLUM ZONING: COLUME
			UTILITY: FPL

- (17) Installation by solar contractor shall be in compliance with Florida Fire Prevention Code (FFPC) 8th Edition, NFPA 1 & NFPA 101 (2021 edition).
- (18) Per NFPA 1 (11.12.1) Photovoltaic systems shall be in accordance with Section 11.12 and NFPA 70.
- (19) This permit is only for solar panels as shown herein. All other site improvements or structures shown in the approved plans, including portions of the structure where the solar panels are being installed is not a part of the scope of this permit and this permit does not evidence the legal or permitted status of the same. Approval of this part shall not be construed as evidence that any portion of the structure(s)/roof, except for the solar panels permitted by this permit (but including any portion of the structure below) is legally permitted or legally permitted by this permit.
- (20) The contractor is obliged to furnish the field inspector with the latest photographs that illustrate the Fire pathway clearance on the roof. These images should distinctly demonstrate compliance with the relevant code regulations, inclusive of appropriate measurements.
- (21) The contractor shall provide onsite an electric meter [amp-multimeter] to demonstrate with the field inspector that the rapid shutdown functions properly.

GN SPECIFICATION

UPANCY: STRUCTION: NG: UND SNOW LOAD: EXPOSURE: SPEED:

DING: COLUMBIA COUNTY NG: COLUMBIA COUNTY TY: FPL

APPLICABLE CODES & STANDARDS





2. ROOF VENTS, SKYLIGHTS, WILL NOT BE COVERED UPON PV INSTALLATION.

3. AC DISCONNECT IS LOCATED WITHIN 10FT FROM THE UTILITY METER.

NOTES

		ROOF SEC	TION(S)	
		MODULE	TILT	AZIMUTH
, AND NT TO	ROOF 1	17	25°	180°
BASED	ROOF 2	14	25°	360°
D ТО	ROOF 3	4	25°	360°

TRUSS/RAFTERS LOCATIONS ARE APPROXIMATE. ACTUAL

LOCATIONS MAY DIFFER AND

CONTRACTOR MAY NEED TO

ADJUST MOUNT LOCATIONS. IN NO CASE SHALL THE MOUNT SPACING EXCEED "MAX. MOUNT

SPACING"

		ROOF SE
NOTES:		
1. LOCATION OF JUNCTION BOX(ES), AC		MODULE
DISCONNECT(S), AC COMBINER PANEL(S), AND	ROOF 1	17
PV INSTALLATION SUBJECT TO CHANGE BASED	ROOF 2	14
ON SITE CONDITIONS.	ROOF 3	4

2. SETBACKS AT RIDGES CAN BE REDUCE 18 INCHES IF TOTAL PV AREA IS WITHIN 33% OF TOTAL ROOF AREA IN COMPLIANCE WITH IBC 2023: TOTAL ROOF AREA = 2117 SOFT

TOTAL PV AREA = 35(75.08" X 41.5")/(144 IN^2)
= 757.40 SQFT
(757.40 SQFT/2117 SQFT)100 = 35.78%
TOTAL PV AREA POPULATES 35.78% OF TOTAL
ROOF AREA







MODULE TYPE, DIMENSIONS & WEIGHT:

NUMBER OF PANELS IN ARRAY = 35 MODULES MODULE TYPE = MISSION SOLAR MSE395SX9R PV MODULES NUMBER OF CONNECTIONS TO ROOF = 121 WEIGHT OF INDIVIDUAL PANEL = 48.5 LBS / 22.00 KG MOUNTING SYSTEM WEIGHT: 1.5 LBS PER MODULE TOTAL WEIGHT OF ARRAY: 1697.50 LBS WEIGHT AT EACH CONNECTION: 1697.50 LBS / 121 = 14.03 LBS SOLAR PANEL AREA = 75.08" X 41.5" = 21.64 SQFT TOTAL ARRAY AREA = 35X21.64 = 757.40 SQFT DISTRIBUTED LOAD = 1697.50/757.40 = 2.24 PSF

PHOTOVOLTAIC MODULE GENERAL NOTES

- 1. APPLICABLE CODE: 2023 FLORIDA BUILDING CODE 8th ED. & ASCE 7-22 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES
- 2. BOLT DIAMETER AND EMBEDMENT LENGTHS ARE DESIGNED PER NDS(2023) REQUIREMENTS. ALL BOLT CAPACITIES ARE BASED ON A WOOD ROOF RAFTER AS EMBEDMENT MATERIAL
- 3. ALL WIND DESIGN CRITERIA AND PARAMETERS ARE FOR HIP AND GABLE RESIDENTIAL ROOFS, CONSIDERING FROM A 7° TO A MAXIMUM 27° (2/12 TO A MAXIMUM 6/12 PITCH) ROOF IN SCHEDULE. ALL RESIDENTIAL ROOFS SHALL NOT EXCEEN 30'-0" MEAN ROOF HEIGHT.
- 4. ROOF SEALANTS SHALL CONFORM TO ASTM C920 AND ASTM 6511
- 5. THIS SHEET REFLECTS STRUCTURAL CONNECTIONS ONLY. REFER TO MANUFACTURER'S MANUAL FOR ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND SOLAR SPECS.
- 6. ALL ALUMINUM COMPONENTS SHALL BE ANODIZED ALUMINUM 6105-T5 UNLESS OTHERWISE NOTED.
- OTHERWISE NOTED
- 8. ALL RAILING AND MODULES SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
- COMPLIANCE WITH FBC: BUILDING CHAPTER 16 AND FBC: RESIDENTIAL CHAPTER 3. BUILDING STRUCTURE WILL SAFELY ACCOMMODATE CALCULATED WIND LATERAL AND UPLIFT FORCES, AND EQUIPMENT DEAD LOADS







SITE PLAN SCALE: 1/16" = 1'-0"

"ALL EXPOSED PV ROOFTOP CONDUCTORS THAT ARE NOT LOCATED UNDER THE ARRAY MODULES, SHALL INCLUDE LISTED JUNCTION BOXES AT BOTH ENDS OF THE RACEWAY TO TRANSITION FROM EXPOSED CONDUCTORS TO THE LISTED RACEWAYS."

PHOTOVOLTAIC INSTALLATION ELECTRICAL DIAGRAM RATED 13,825 DC WATTS UNDER (STC)

- (2)BRANCHED CIRCUITS OF 12 MODULES
- (1) BRANCHED CIRCUITS OF 11 MODULES

ADDITIONAL NOTES

MARKING IS REQUIRED ON ALL INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, AND JUNCTION BOXES TO ALERT THE FIRE SERVICE TO AVOID CUTTING THEM. MARKING SHOULD BE PLACED ON ALL INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES, AT A MINIMUM OF EVERY 10 FEET, AT TURNS AND ABOVE AND OR BELOW PENETRATIONS AND ALL DC COMBINER AND JUNCTION BOXES

AMBIENT	TEMPERATURE SPECS	
RECORD LOW TEMP		35°
AMBIENT TEMP (HIGH TEMP 2%)		37°
CONDUCTOR HEIGHT		0.5"
CONDUCTOR TEMPERATURE RA	ATE	90°
PERCENT OF VALUES	NUMBER OF CURREN CARRYING CONDUCTOR EMT	T S IN
.80	4-6	
.70	7-9	
.50	10-20	

								WIRE SCHEDUL	E			
TAG	со	NDUCTOR DETAILS			GROUND DETAILS		CONDUIT SIZE	CONDUCTOR RATING	AMBIENT TEMP	DEGREE COLUMN	TEMP DERATE	# OF (
#	(2) #12 PV	CABLE CU	(1) #6	A٧	/G BARE CU		FREE AIR	30 A	37°C	90°C	0.91	
2	(6) #10 AW	/G THHN/THWN-2, CU	(1) #8	A٧	/G THWN-2, CU		3/4" EMT OR PVC	40 A	37°C	90°C	0.91	
3	(3) #4 AW0	G THWN-2, CU	(1) #8	A٧	/G THWN-2, CU		1" EMT OR PVC	95 A	37°C	90°C	0.91	
	SOLAR	MODULE SPECIFICATIONS			INVE	RTER S	PECIFICATIONS					
MANUFACTU	RER / MODEL	MISSION SOLAR MSE395SX9R (395W) MODULES	PV		MANUFACTURER / MODEL	HOYM	MILES HMS-1600-4T-NA OINVERTERS					
VMP		36.99 V			MAXIMUM OUTPUT POWER	1440	W					
IMP		10.68 A			NOMINAL VOLTAGE	240 A	1					
VOC		45.18 V			NOMINAL OUTPUT CURRENT	6 A						



NOTE

1. SUBJECT PV SYSTEM HAS BEEN DESIGNED TO MEET THE REQUIREMENT OF THE NEC 2023, NFPA 70 AND THOSE SET FORTH BY THE FLORIDA SOLAR ENERGY CENTER CERTIFICATION, INCLUDING MAXIMUM NUMBER OF MODULE STRINGS, MAXIMUM NUMBER OF MODULES PER STRING, MAXIMUM OUTPUT, MODULE MANUFACTURER AND MODEL NUMBER, INVERTER MANUFACTURER AND MODEL NUMBER, AS APPLICABLE.

2. PROVIDE TAP BOX IN COMPLIANCE WITH 312.8 IF PANEL GUTTER SPACE IS INADEQUATE.

GROUNDING & GENERAL NOTES

- 1. PV INVERTER IS UNGROUNDED, TRANSFORMER-LESS TYPE
- 2. DC EGC AND AC EGC TO BE SPLICED TO EXISTING ELECTRODE 3. ANY EXISTING WIRING INVOLVED WITH PV SYSTEM CONNECTION
- THAT IS FOUND TO BE INADEQUATE PER CODE SHALL BE CORRECTED PRIOR TO FINAL INSPECTION
- 4. JUNCTION BOX QUANTITIES, AND PLACEMENT SUBJECT TO CHANGE IN THE FIELD - JUNCTION BOXES DEPICTED ON ELECTRICAL DIAGRAM REPRESENT WIRE TYPE TRANSITIONS
- 5. AC DISCONNECT NOTED IN EQUIPMENT SCHEDULE OPTIONAL IF OTHER AC DISCONNECTING MEANS IS LOCATED WITHIN 10' OF SERVICE DISCONNECT
- 6. SIZING OF OVERCURRENT PROTECTION DEVICES ARE ROUNDED TO THE NEAREST WHOLE AMPERE WITH DECIMAL FRACTIONS SMALLER THAN 0.5 DROPPED ACCORDING TO 220.5(B)

INTERCONNECTION NOTES

- 1. INTERCONNECTION SIZING, LIMITATIONS AND COMPLIANCE DETERMINED IN ACCORDANCE WITH [NEC 705.12]
- 2. GROUND FAULT PROTECTION IN ACCORDANCE WITH [NEC 215.9], [NEC 230.95] AND [NEC 690.41]
- 3. ALL EQUIPMENT TO BERATED FOR BACKFEEDING 4. PV BREAKER TO BE POSITIONED AT THE OPPOSITE END OF THE
- BUSBAR RELATED TO THE MAIN BREAKER

DISCONNECT NOTES

- 1. DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS)
- 2. AC DISCONNECT MUST BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL. BE LOCKABLE. AND BE A VISIBLE-BREAK SWITCH







RACKING RAILS



ROOF ATTACHMENT



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		AMERICAN SOLAR INSTALLATION COMPANY 3241 NW 38th St. Miami, FL 33142	
PROJECT NAME & ADDRESS	YVONNE JACKSON	776 NW FAIRWAY DRIVE, LAKE CITY, FL 32055	
* *	AH CENS CENS CENS CENS CENS CONAL CO	J STAMP Digitally sign by Matthew Craig Reason: I ar approving th document. Date: 2025.03.12 05:30:43-04	n is
SYSTEM SIZE	(N) 13.825 KW DC (N) 12.960 KW AC		
REVISIONS	REV DESCRIPTION DATE		
DRAV DRAV REVII	L 22 SHE DATA NN DATE NN BY EWED BY SHE P	ET TITLE SHEETS 03/11/2025 JC - ET TITLE V - 4	