

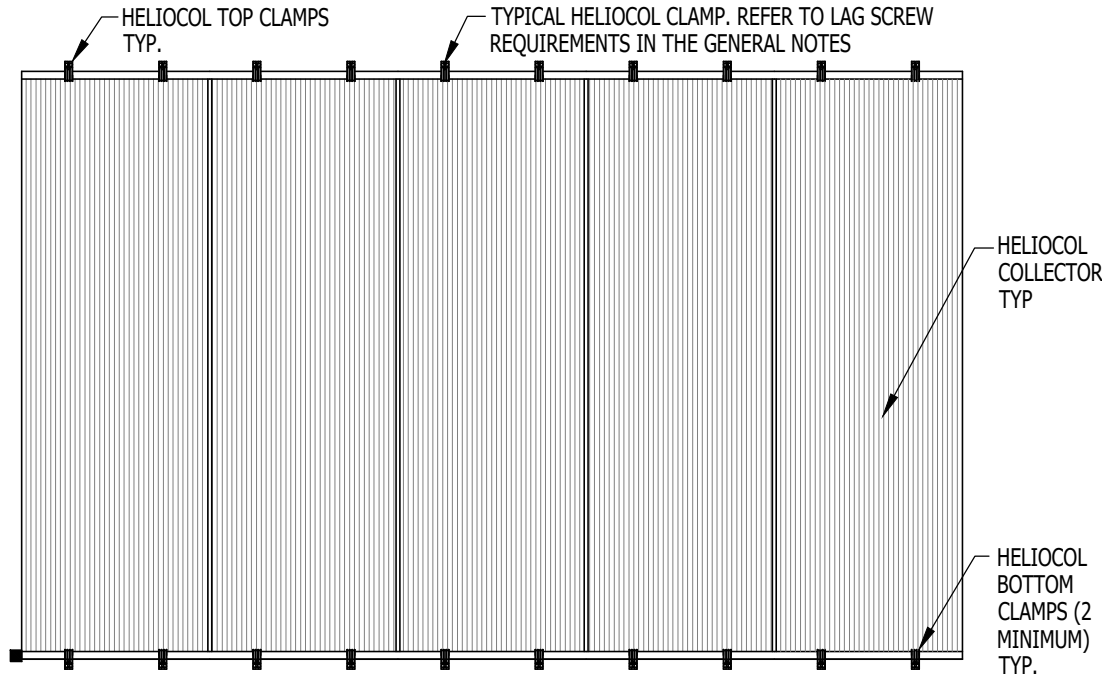
HELIOCOL COLLECTOR GENERAL NOTES:

- 1. APPLICABLE CODE: 2020 FLORIDA RESIDENTIAL CODE (7TH EDITION) & ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.
- 2. BOLT DIAMETER AND EMBEDMENT LENGTHS ARE DESIGNED PER 2020 FLORIDA BUILDING CODE (7TH EDITION) REQUIREMENTS. ALL BOLT CAPACITIES ARE BASED ON A SOUTHERN YELLOW PINE (SYP) RESIDENTIAL WOOD ROOF TRUSS AS EMBEDMENT MATERIAL.
- 3. 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 WITH A MEAN ROOF HEIGHT NOT EXCEEDING 30 FT AND RISK CATEGORY II. SEE WIND PRESSURE TABLE BELOW.
- 4. WIND TUNNEL TEST DATA FOR THIS COLLECTOR MAY BE REQUESTED THROUGH UMA SOLAR, INC. AND HAS BEEN COMPILED BY PRI CONSTRUCTION AND MATERIAL TESTING, INC.
- 5. ROOF SEALANTS SHALL CONFORM TO ASTM C920 AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PILOT FILL ALL HOLES PRIOR TO INSTALLATION OF BOLTS.
- 6. THE CONTRACTOR SHALL REFER TO THE HELIOCOL INSTALLATION MANUAL FOR ALL INSTALLATION INSTRUCTIONS FOR THE HELIOCOL COLLECTOR.
- 7. LAG SCREW SHALL BE ASTM A276 TYPE 304 STAINLESS STEEL UNLESS OTHERWISE NOTED AND CONTRACTOR SHALL EMBED LAG SCREW 2.5" OF THREADED EMBEDMENT INTO THE TRUSS.
- 8. ALL HELIOCOL COLLECTOR MODELS MAY BE INSTALLED PER THIS STRUCTURAL CONNECTION DRAWING.
- 9. CONTRACTOR SHALL ENSURE ALL ROOF PENETRATIONS TO BE WATERTIGHT AND SEALED PER 2020 FLORIDA BUILDING CODE (7TH EDITION) OR LOCAL GOVERNING CODE.
- 10. THE ADDITION OF THE HELIOCOL COLLECTOR SYSTEM ADDS APPROXIMATELY 1 PSF TO THE ROOF STRUCTURE AND WILL NOT ADVERSELY AFFECT THE STRUCTURAL INTEGRITY OF THE BUILDING.

EXPOSURE C - p _{wind} Pressures - Gable Roof > 7 to 27 Degrees - 10 ft ² Tributary Area							
Wind (MPH)	Roof Pitch	GROUP 1		GROUP 2		GROUP 3	
		1, 2a		2b, 2r, 3a		3r	
140	7-20°	22.4	-54.7	22.4	-79.9	22.4	-94.9
	20-27°	22.4	-42.2	22.4	-67.2	22.4	-85.7

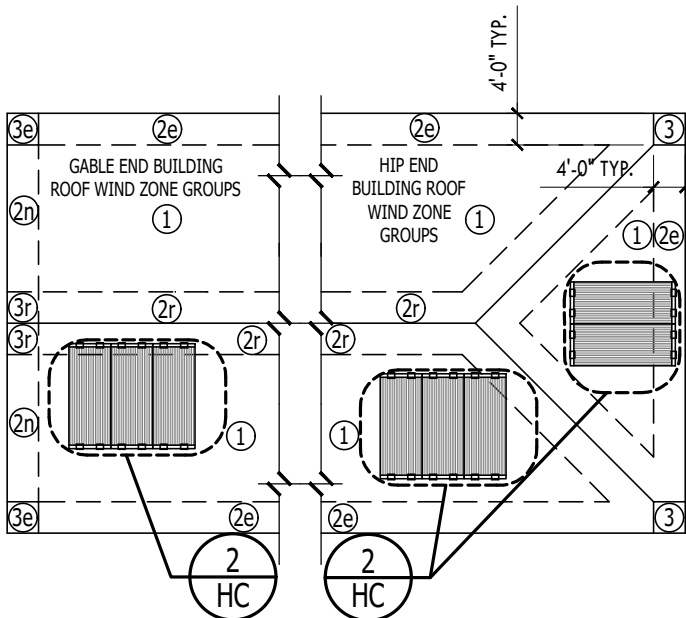
EXPOSURE C - p _{wind} Pressures - Hip Roof > 7 to 27 Degrees - 10 ft ² Tributary Area							
Wind (MPH)	Roof Pitch	GROUP 1		GROUP 2		GROUP 3	
		1		2r		2b, 3	
140	7-20°	22.4	-49.7	22.4	-64.8	22.4	-69.8
	20-27°	22.4	-39.7	22.4	-54.7	22.4	-54.7

TABLE ABOVE REFLECTS COMPONENTS AND CLADDING (ASD) PRESSURES FROM SECTION 30 OF THE ASCE 7-16 AS REQUIRED BY THE 2020 FLORIDA RESIDENTIAL CODE (7TH EDITION) SECTION R324.2 (SOLAR THERMAL SYSTEMS).



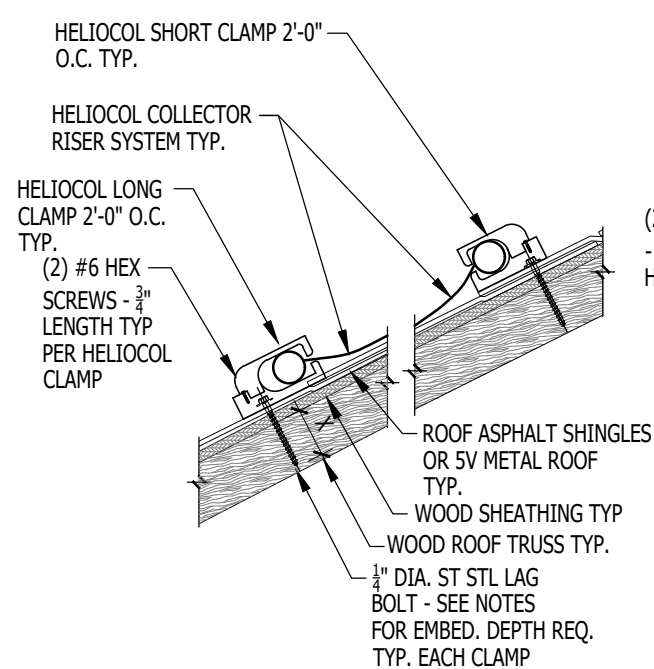
TYPICAL MULTIPLE COLLECTOR ARRAY PLAN

SCALE: N.T.S.



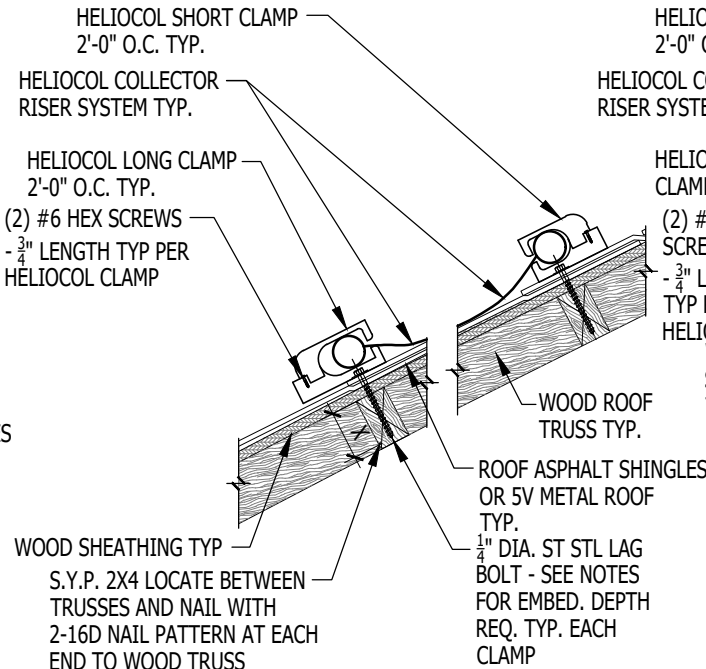
TYPICAL COLLECTOR PITCHED ROOF LAYOUT - WIND ZONES - SCHEDULE - PLAN

SCALE: NONE



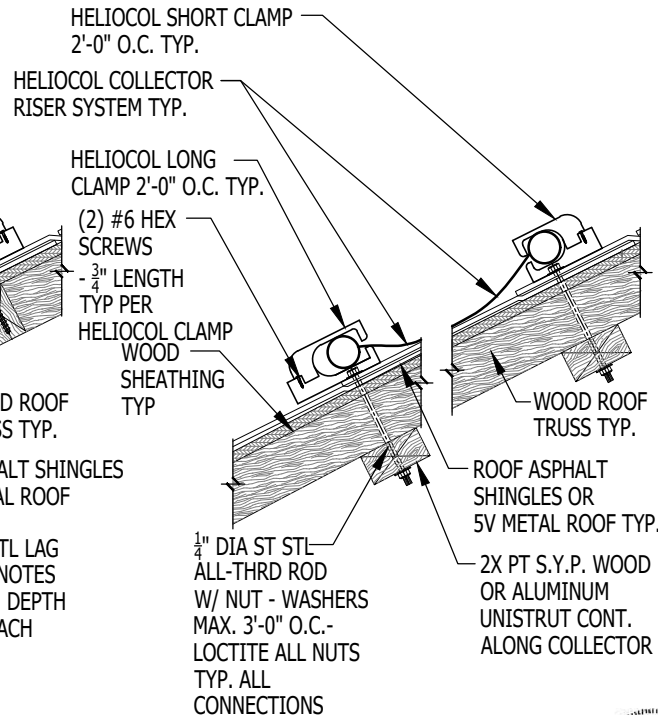
TYP TOP - BOTTOM ASPHALT - METAL SHINGLE CONNECTION DETAIL

SCALE: 1"=1'-0"



OPTIONAL WOOD SPANNER OPTION CONNECTION DETAIL

SCALE: 1"=1'-0"



OPTIONAL ALL THREAD CONNECTION DETAIL

SCALE: 1"=1'-0"

BOATRIGHT RESIDENCE

SOLAR POOL SYSTEM RETROIT

248 SW RED MAPLE WAY LAKE CITY, FL 32024

SOLAR POOL SYSTEM IMPROVEMENT

CONSTRUCTION DOCUMENT

DO NOT SCALE DRAWINGS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATION FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.

APPROVED

REVISIONS DESCRIPTION

DATE

JEFFREY A. TORRES, P.E. FL PE #80379

SUNSMART ENGINEERING LLC
FL COA #35170
925 SUNSHINE LANE
SUITE #1010
ALTAMONTE SPRINGS FL, 32714

Digitally signed by Jeffrey A Torres
Date: 2023.02.16 07:06:24 -05'00'

Date: 2/16/2023

Sheet 1 of 1