



City of Belle Isle Job Site Card PLUMBING PERMIT 2019-04-026

PERMIT MUST BE POSTED ON SITE - A permit expires in 6 months if approved inspections are not recorded /scheduled within that time frame. You are responsible for scheduling and keeping track of all your inspections -

Permit Number: 2019-04-026

Issue Date: 04/09/2019

Site Address: 5302 Chiswick Cir 32812

Parcel #: 20-23-30-9373-00-260

Class: Residential **Subdivision:**

Description of Work: SOLAR

Issued: Superior Solar Systems LLC

Business Phone: 407 331 9077

Name: TRAVERSO, J L

Contractor License #: CVC56931

Payment Date & Method: 4 / 11 / 2019 Picked up or sent by TAMMY Emailed

Visa Master Card Amex Discover Check / Money Order # 27027

Schedule Inspections via Email at: BDscheduling@universalengineering.com

SCHEDULE INSPECTIONS BY 3:00 PM CUT OFF TIME

Inspection Results Will Be Sent Out the Following Business Day

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

PLUMBING	INSPECTOR	DATE	COMMENTS
600 Sewer			
610 Underground			
620 Rough			
630 Above Ceiling			
640 Irrigation Final			
650 Final			

Inspection requests are to be emailed to BDscheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. **Next-Day Inspection requests must be made by 3 pm.** Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed.

RECEIVED 3 - 8 2019

City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

RECEIVED APR - 8

RECEIVED APR

in person



APPLICATION FOR PLUMBING PERMIT

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

DATE OF APPLICATION: 4/3/19 PERMIT NUMBER: 2019-04-026
The undersigned hereby applies for a permit to make plumbing installations as indicated below. PLEASE PRINT

Project Address: 5302 Chiswick Cir, Belle Isle FL 32809 ✓ 32812

Property Owner: Shelia Walaszek Phone: 321 217 4889

Property Owner's Mailing Address: 5302 Chiswick Cir City: Belle Isle

State: FL Zip Code: 32812 Parcel Id Number: 20-23-30-9373-00-260

To obtain this information, please visit <http://www.ocpafl.org/Searches/ParcelSearch.aspx>

Class of Building: Old New Type of Building: Residential Commercial Other
Type of Work: New Alteration Addition Repair Type of System: Sewer Septic Re-pipe

YOU MAY BE REQUIRED TO PROVIDE SEPTIC SYSTEM VERIFICATION FOR NEW / ALTERED / ADDITION to Septic System - ORANGE COUNTY DOCUMENT 64E-6

VALUATION OF JOB (labor & materials) \$ 1900.00

FIXTURES	Quantity
Water Closets (Toilet)	
Bathtubs	
Urinals	
Disposals	
Washing Machines	
Water Heaters	
Sewer	
Catch Basins/Sumps	
Service Sink	
Lavatory (Bathroom Sink)	
Showers	
Sinks	

FIXTURES	Quantity
Dishwashers	
Laundry Tubs	
Floor Drains	
Grease Traps	
Trailer Connections	
Spa	
Solar	✓
Pool Piping	
*Irrigation: (# Systems / # Heads)	
Water Softener	
Re-pipe	
Miscellaneous (Specify)	

PAID
4-11-19
check
#127027

*Per FBC, Sec. 608, a Backflow Preventer must be installed & tested; the report must be posted with permit for Final Inspection.

Building Official: [Signature] Date: 4-9-19
Verified Contractor's Licenses & Insurance are on file [Signature] Date: 4-8-19

Permit Fee: 43.00
Review Fee: 21.50
3% State Surcharge (\$4.00 minimum): 1.40 - min
Total Permit Fee: 68.50

I hereby certify that the above is true and correct to the best of my knowledge and make Application for Permit as outlined above, and if same is granted I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable Town and/or State of Florida codes and/or ordinances.

LICENSE HOLDER SIGNATURE: [Signature] LICENSE #: CVC56931
LICENSE HOLDER NAME: Jacob Traversa COMPANY NAME: Superior Solar
Street Address: 925 Sunshine Lane
City: Alt. Spgs State: FL Zip Code: 32714 Phone Number: 4073319071
Email Address: permitting@superiorsolar.com

NOTE: The Building Permit Number is required if the Plumbing Installation is associated with any construction or alteration where a Building Permit has been issued.

tam5bello@yahoo.com when ready please

Building Permit Number: _____

37
6
43
21.50
64.50

141765

#2019-04-026

Permit Number: 20-23 30 931300 260
Folio/Parcel Identification Number:
Prepared by: Superior Solar-Lindsay



Return to: 925 Sunshine Lane
Alt Spgs Fl 32714

NOTICE OF COMMENCEMENT (2)

Belle Isle

State of Florida, County of Orange

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

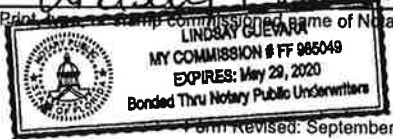
- Description of property** (legal description of the property, and street address if available)
Windsor place phase 1 30128 Wt 26, 5302 Chiswick Cir
- General description of improvement**
Solar Pool Heater & Solar electric panels
- Owner information or Lessee information if the Lessee contracted for the improvement**
Name Sheila Walaszek
Address 5302 Chiswick circle Belle Isle Fl
Interest in Property OWNER
Name and address of fee simple titleholder (if different from Owner listed above)
Name _____
Address _____
- Contractor**
Name Superior Solar Telephone Number 4073319077
Address 925 Sunshine Lane Alt Spgs Fl 32714
- Surety** (if applicable, a copy of the payment bond is attached)
Name _____ Telephone Number _____
Address _____ Amount of Bond \$ _____
- Lender**
Name _____ Telephone Number _____
Address _____
- Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by §713.13(1)(a)7, Florida Statutes.**
Name _____ Telephone Number _____
Address _____
- In addition to himself or herself, Owner designates the following to receive a copy of the Lienor's Notice as provided in §713.13(1)(b), Florida Statutes.**
Name _____ Telephone Number _____
Address _____
- Expiration date of notice of commencement** (the expiration date may not be before the completion of construction and final payment to the contractor, but will be 1 year from the date of recording unless a different date is specified)

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

Under penalty of perjury, I declare that I have read the foregoing notice of commencement and that the facts stated in it are true to the best of my knowledge and belief.

Sheila Walaszek
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager
owner
Signatory's Title/Office

The foregoing Instrument was acknowledged before me this 3 day of 3/19 by Sheila Walaszek
as owner for owner
Type of authority, e.g., officer, trustee, attorney in fact
Name of party on behalf of whom instrument was executed
Windsor Guevara
Signature of Notary Public - State of Florida
Print Name of Notary Public
LINDSAY GUEVARA



Personally Known CR Produced ID drivers license
Type of ID Produced

State of FLORIDA, County of ORANGE
I hereby certify that this is a true copy of the document as reflected in the Official Records
PHIL DIAMOND, COUNTY COMPTROLLER
BY: [Signature] P.O.
DATED 04-09-19





RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD**

THE SOLAR CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

TRAVERSO, JACOB LOUIS

SUPERIOR SOLAR
925 SUNSHINE LANE SUITE 1010
ALTAMONTE SPRINGS FL 32714

LICENSE NUMBER: CVC56931

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridalicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

CITY OF ALTAMONTE SPRINGS
225 NEWBURYPORT AVENUE
ALTAMONTE SPRINGS, FLORIDA 32701-3697
407-571-8116

SUPERIOR SOLAR SYSTEMS LLC
925 SUNSHINE LN, STE 1010
ALTAMONTE SPRINGS, FL 32714

DO NOT PAY - THIS IS NOT A BILL
Below Certificate must be displayed at Business Location



CITY OF ALTAMONTE SPRINGS
225 NEWBURYPORT AVENUE
ALTAMONTE SPRINGS, FLORIDA 32701-3697
407-571-8116

Fiscal Year
2018-2019

BUSINESS TAX RECEIPT

Business Number: 31112

Expires: September 30, 2019

Business Name: SUPERIOR SOLAR SYSTEMS LLC

Business Address: 925 SUNSHINE LN, 1010
ALTAMONTE SPRINGS, FL 32714

RECEIPT NO.	CLASS DESCRIPTION	FEE
BTR-002746-2019	Seminole County – Regulated	\$45.00
BTR-002746-2019	Contractor - All others/State Licensed	\$120.75
TOTAL BUSINESS TAX PAID:		\$165.75

Restrictions: Home Occ.–No commercial vehicles or storage
Office Use Only

City Clerk



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/23/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

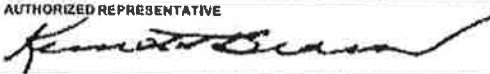
PRODUCER Insurance by Ken Brown, Inc. 707 Pennsylvania Ave Ste 1300 Altamonte Springs FL 32701	CONTACT NAME: PHONE (A/C, No, Ext): 321-397-3870 FAX (A/C, No): 321-397-3888 E-MAIL ADDRESS: certificates@insbykenbrown.com	
	INSURER(S) AFFORDING COVERAGE	
INSURED TEVAA-1 Teva Alternative Energy, LLC Superior Solar Systems LLC DBA Superior Solar 925 Sunshine Lane, Suite 1010 Altamonte Springs FL 32714	INSURER A: Amerisure Mutual Ins. Co NAIC # 23396	
	INSURER B: Amerisure Ins Company 19488	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER: 1654439790** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			CPP20924520462	6/1/2018	6/1/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea. occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY			CA20924490401	6/1/2018	6/1/2019	COMBINED SINGLE LIMIT (Ea. accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 60			CU20924500402	6/1/2018	6/1/2019	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$
B	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N	WC208856205	6/1/2018	6/1/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER City of Belle Isle 1600 Nela Avenue Belle Isle FL 32809	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

Design 1

Preferences

Saved < >

Showing Array



Mechanical



Keypoints



Electrical



Advanced

Field Segments

New

Field segments cast shadows

Description

Modules

Action

Field Segment 1 12 (4kW)

Reviewed

Compliance
Universal Engineering
Sciences

Field Segment 2 6 (2kW)

Reviewed

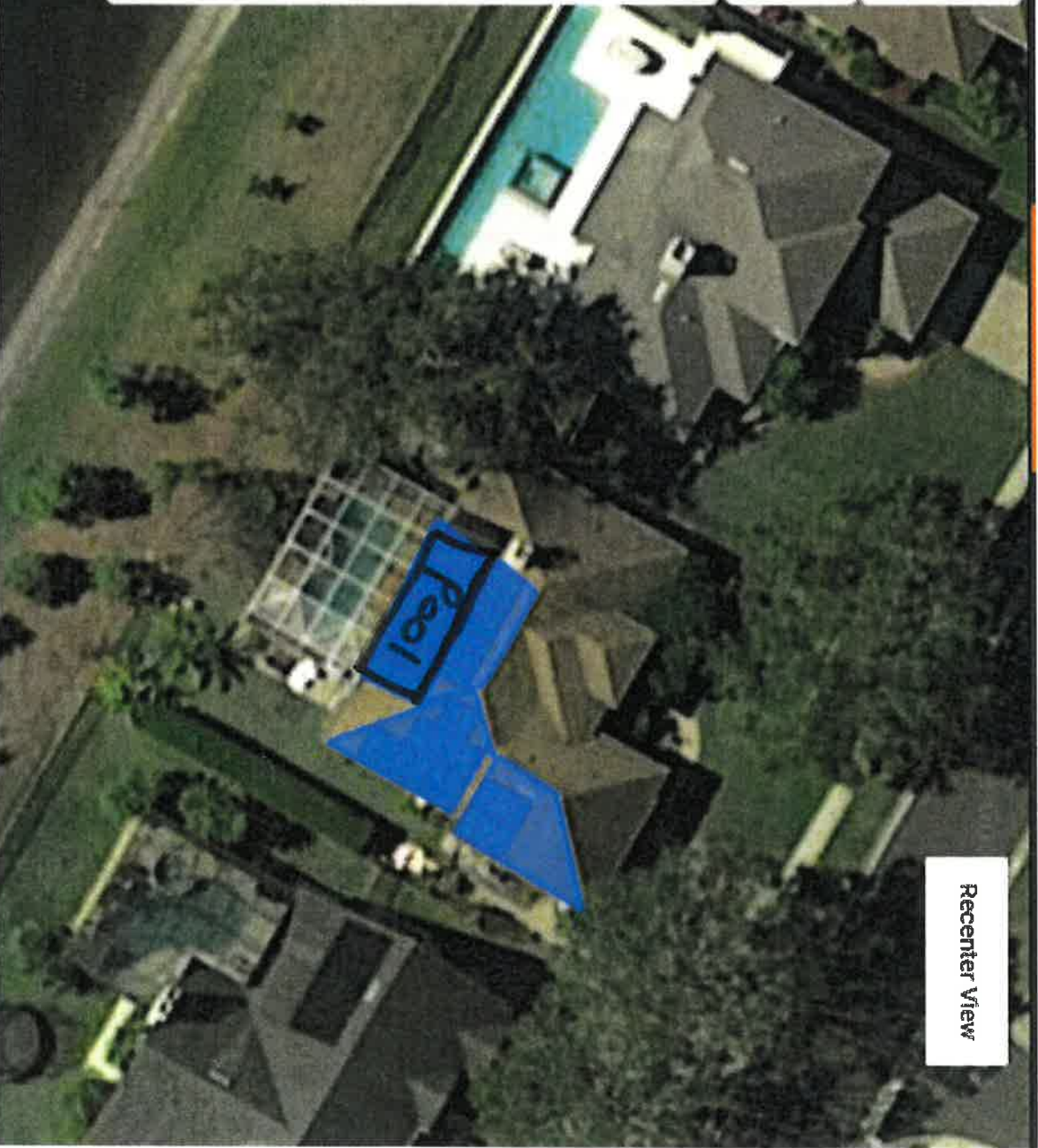
Field Segment 4 7 (10kW)

Reviewed

Field Segment 5 7 (3kW)

Reviewed

32 Modules, 9.0kWp



Recenter View



CERTIFIED SOLAR THERMAL COLLECTOR

SUPPLIER:
 Helicol USA, Inc.
 950 Sunshine Lane
 Altamonte Springs, FL 32714 USA
 www.helicol.com

MODEL: Helicol 50
THERMAL COLLECTOR TYPE: Unglazed Flat Plate
CERTIFICATION #: 98002
Original Certification: February 02, 2009
Expiration Date: February 02, 2029

This solar collector was evaluated by the Florida Solar Energy Center (FSEC) in accordance with prescribed methods and was found to meet the minimum standards established by FSEC. This evaluation was based on solar collector tests performed by an FSEC approved laboratory. The purpose of the tests is to verify initial performance conditions and quality of construction only. The resulting certification is not a guarantee of long term performance or durability. This collector has been rated for energy output on measured performance and an assumed standard day. Total solar energy available for the standard day is 5045 Watt-hour/m² (1600 Btu/ft²) distributed over a 10 hour period.

COLLECTOR THERMAL PERFORMANCE RATING (Collector Tested per ASHRAE 96)							
Kilowatt-hours (thermal) Per m ² Per Day				Thousands of Btu Per ft ² Per Day			
Category Inlet	Low 30°C	Intermediate 50°C	High 100°C	Category Inlet	Low 86°F	Intermediate 122°F	High 212°F
ENERGY OUTPUT	3.0	1.1	0.0	ENERGY OUTPUT	1.0	0.3	0.0

COLLECTOR SPECIFICATIONS					
Gross Area:	4.488 m ²	48.30 ft ²	Dry Weight:	11 kg	24 lb
Net Aperture Area:	4.481 m ²	48.23 ft ²	Fluid Capacity:	14.4 liter	3.8 gal
Absorber Area:	4.488 m ²	48.30 ft ²	Test Pressure:	1103 kPa	160 psi

TECHNICAL INFORMATION	Tested in accordance with: ASHRAE 96
Efficiency Equation [NOTE: Based on gross area and (P)=TI-Ta]	
SI UNITS:	Wind speed (u) < 1.5 m/s, Temperature (Ti - Ta) In °C, Radiation (G) in W/m ² $\eta = 0.837 - 18.440(P/G) - 50.690(P^2/G)$
IP UNITS:	Wind speed (u) < 3 mph, Temperature (Ti - Ta) In °F, Radiation (G) in Btu/hr-ft ² $\eta = 0.837 - 3.250(P/G) - 4.959(P^2/G)$

IAM Coefficient:	1 - 0.11	
Test Fluid:		
Test Mass Flow Rate:	kg/(s m ²)	lb/(hr ft ²)

REMARKS:

Joseph Walters
 Technical Director

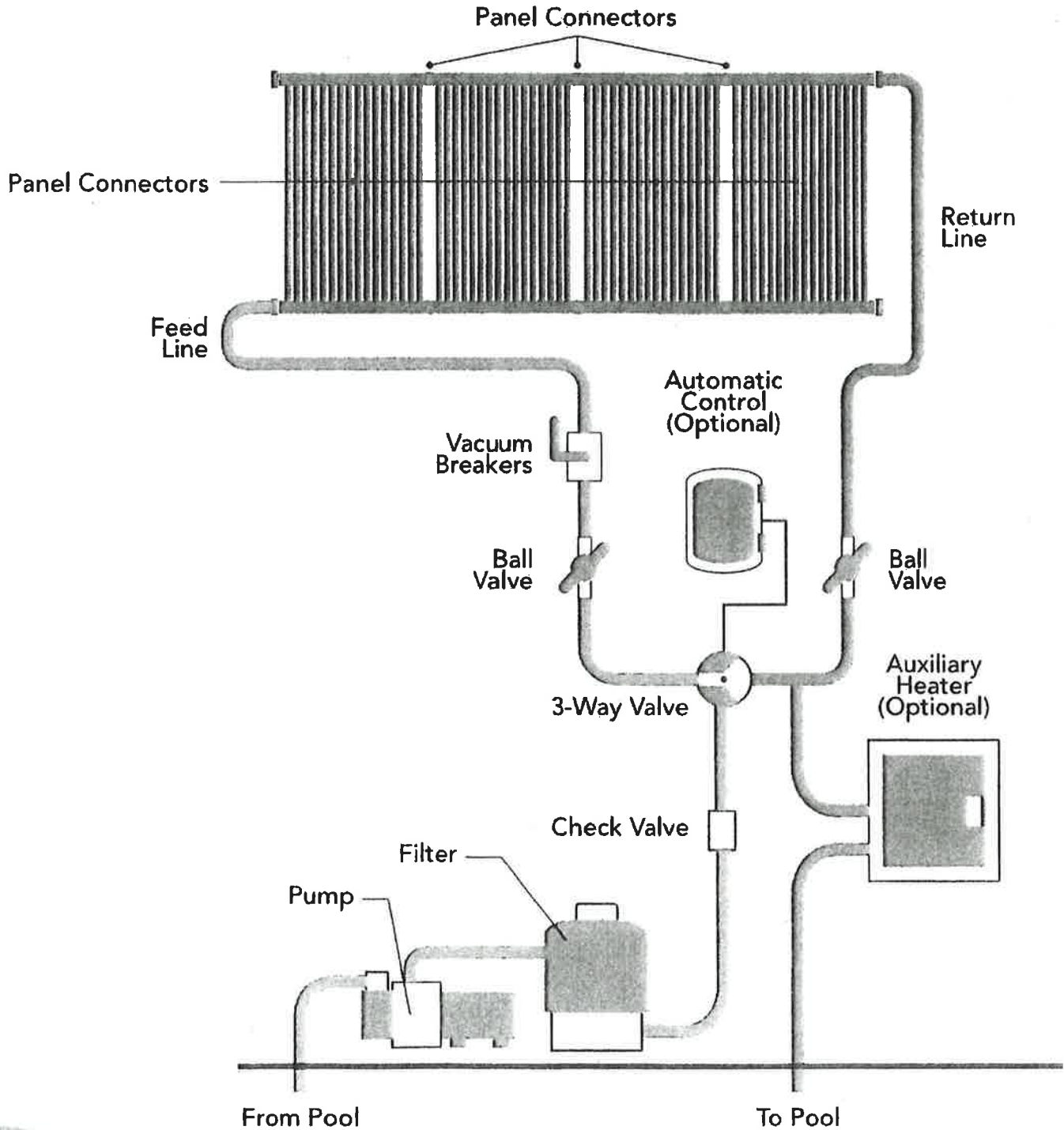
Reviewed for Code Compliance
 Universal Engineering Sciences



Print Date: September, 2017
 © 2014 University of Central Florida.

FSEC/UCF ♦ 1679 Clearlake Road ♦ Cocoa, Florida 32922 ♦ (321) 638-1426 ♦ Fax (321) 638-1010 ♦ www.fsec.ucf.edu

System Schematic



Reviewed for Code
Compliance
Universal Engineering
Sciences

Enjoy
Year-Round
Leisure Living.

8. Mounting the Solar Panels Using Gator Clamps.

The beauty of the "gator clamp" installation method is its simplicity it can be used on just about any type of roof or rack installation.

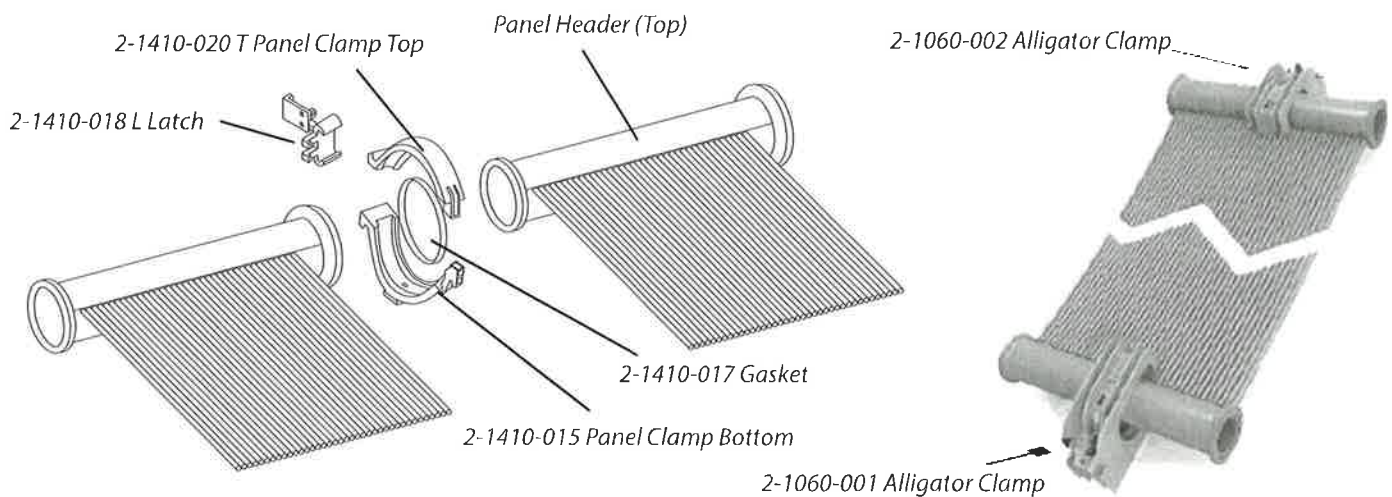


Fig. 8.1

For rack systems, asphalt shingle roofs, or tile roofs follow these simple steps:

1. Snap a chalk line across the roof or rack where you want the top edge of the collectors to be located. The panels should slope slightly down toward the feed end of the array for proper drainage.
2. Position the first gator clamp on the chalk line 6" from the top corner of the first panel. The first panel will be the one that is connected to the feed line at the bottom header.
3. Subsequent gator clamps should be spaced out evenly along the chalk line every 24". Each gator clamp can be located anywhere along the top header to match up to the spacing of the roof rafters **as long as there is a 2" space between the edge of the gator clamp and the ribs on the panel header that exist every one foot**. This allows for horizontal expansion and contraction. For barrel tile roofs, each gator clamp needs to be positioned so that it is centered on the top ridge of a tile.
4. Since normal horizontal expansion and contraction of an array of panels takes place every day as panels heat up and cool down, it is preferable to lock the center of each array in place so that the expansion and contraction takes place evenly to the left and right of this center point. The center panel of an array may be locked in place by locating the gator clamps on that panel adjacent to the left and right of **one** of the header ribs (see Fig. 8.3, page 15). These gators should be attached using (2) lag bolts as opposed to (1). **Do not use this procedure more than once on any array of panels.**

8. Mounting the Solar Panels Using Gator Clamps. - Cont.

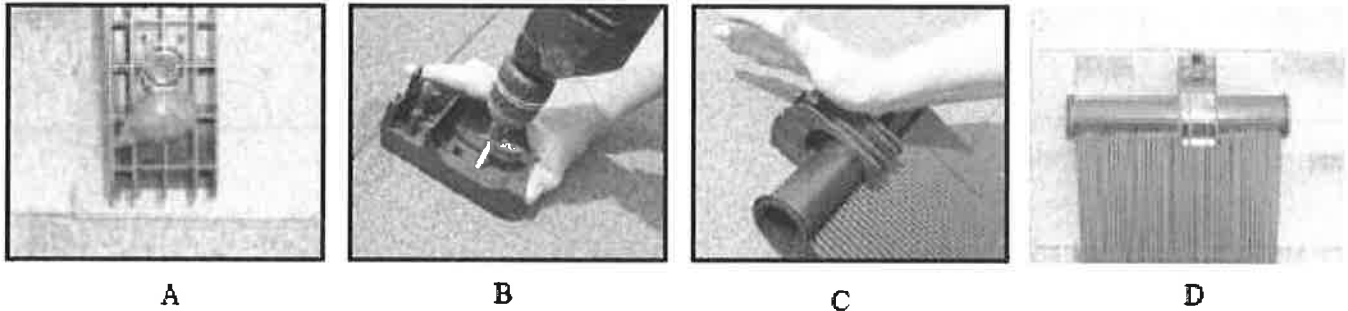


Fig. 8.4

NOTE: *Additional gator clamps are required for surfaces with a pitch of 10/12 or greater.

NOTE: To allow for vertical expansion and contraction, any gators installed on the bottom header must be positioned so that the header is in the middle of the cradle. (Fig. 8.6).

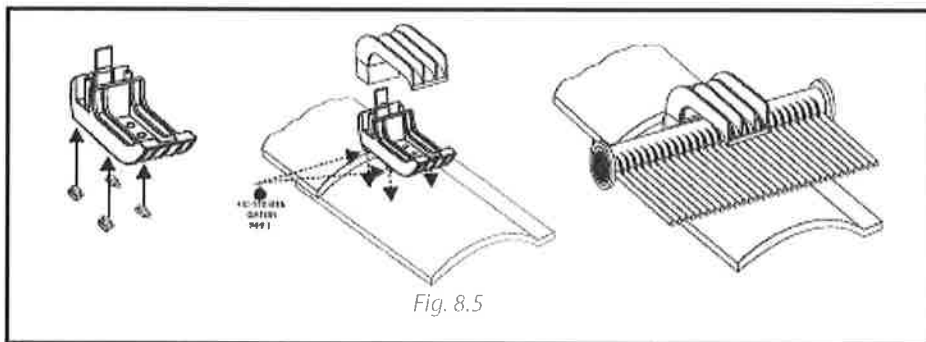


Fig. 8.5

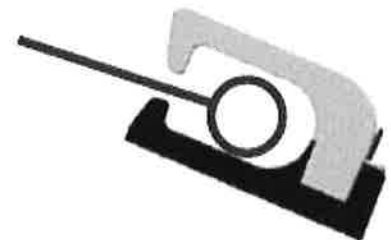


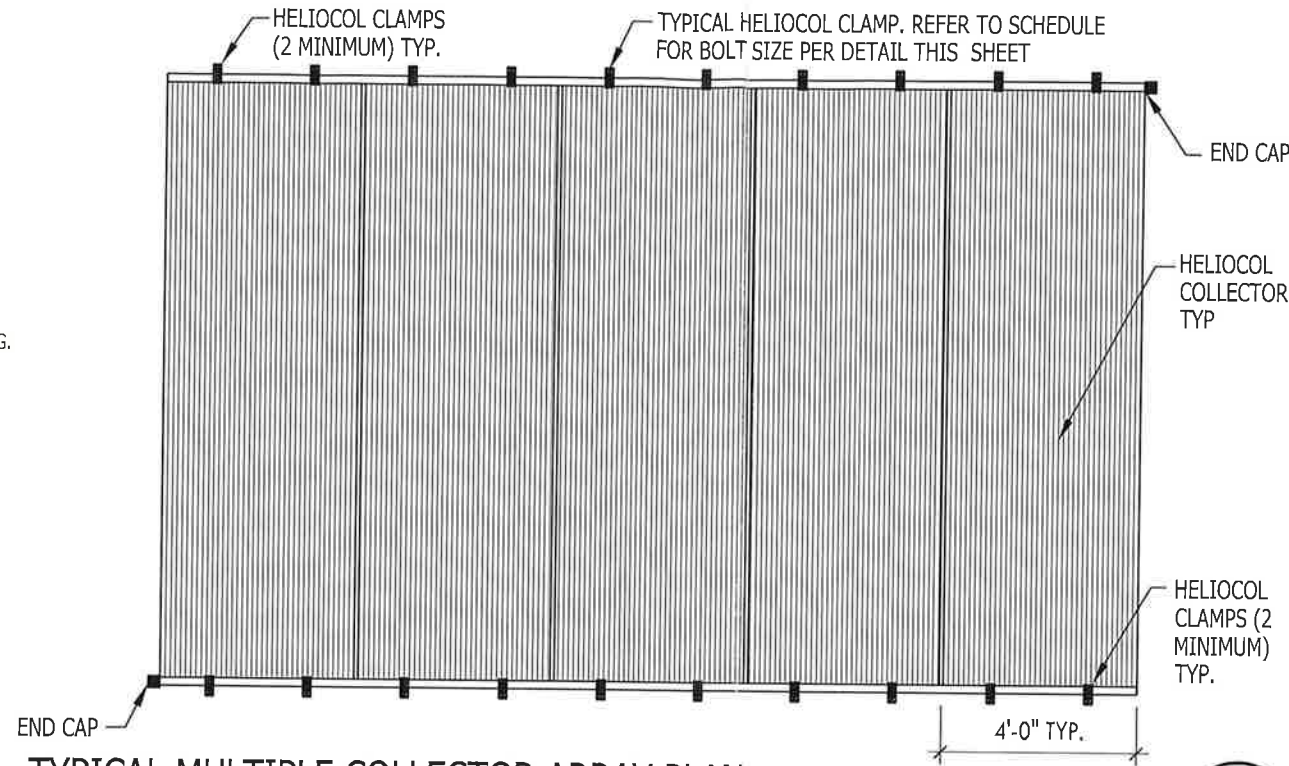
Fig. 8.6

HELIOCOL COLLECTOR GENERAL NOTES:

1. APPLICABLE CODE: 2017 FLORIDA RESIDENTIAL CODE (6TH EDITION) & ASCE-7-10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.
2. BOLT DIAMETER AND EMBEDMENT LENGTHS ARE DESIGNED PER 2017 FLORIDA BUILDING CODE (6TH EDITION) REQUIREMENTS. ALL BOLT CAPACITIES ARE BASED ON A SOUTHERN YELLOW PINE (SYP) RESIDENTIAL WOOD ROOF TRUSS 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 EXCEED 30'-0" MEAN ROOF HEIGHT.
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 ASTM 6511, AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO PILOT FILL ALL HOLES.
6. THIS SHEET REFLECTS STRUCTURAL CONNECTIONS ONLY. REFER TO HELIOCOL INSTALLATION MANUAL FOR ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SOLAR SPECS.
7. LAG BOLTS SHALL BE ASTM A276 TYPE 304 STAINLESS STEEL UNLESS OTHERWISE NOTED.
8. ALL HELIOCOL COLLECTOR MODELS MAY BE INSTALLED PER THIS STRUCTURAL CONNECTION DRAWING.
9. PVC PIPE RISER/SPACER IS REQUIRED FOR PIPE CLAMPS WHERE PIPE ELEVATION VARIES.
10. CONTRACTOR SHALL ENSURE ALL ROOF PENETRATIONS TO BE INSTALLED AND SEALED PER 2017 FLORIDA RESIDENTIAL CODE (6TH EDITION) OR LOCAL GOVERNING CODE.

ULTIMATE WIND SPEED V_{ult} (MPH)	V_{asd} WIND PRESSURES ZONE 1 (PSF)	V_{asd} WIND PRESSURES ZONE 2 (PSF)	V_{asd} WIND PRESSURES ZONE 3* (PSF)	QUANTITY OF LAG BOLTS - CLAMPS PER COLLECTOR	EMBEDMENT DEPTH REQ.
140	17.2, -27.9	17.2, -48.6	17.2, -71.8*	(4) 1/4" DIA. - (4) CLAMPS	2" **

- PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM SURFACES, RESPECTIVELY.
 - SCHEDULE REFLECTS COMPONENTS AND CLADDING (C&C) NOMINAL WIND SPEED PRESSURES WITH EXPOSURE "C", RISK CATEGORY II, ENCLOSED BUILDING AND $h < 60'-0"$ PER ASCE 7-10 "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES" AND 2017 FLORIDA BUILDING CODE.
 - EFFECTIVE DESIGN WIND AREA IS 12.5 SF PER COLLECTOR FOR HC-50.
 - MINIMUM V_{asd} WIND PRESSURE SHALL BE 16.0 PSF AND -16.0 PSF PER ASCE 7-10 SECTION 30.2.2.
 * IF COLLECTOR IS LOCATED IN WIND ZONE 3, 3" EMBEDMENT DEPTH IS REQUIRED.
 ** LAG BOLT DEPTH REQUIRED IN WOOD MEMBER SHALL EXCLUDE ANY ROOF DECKING THICKNESS

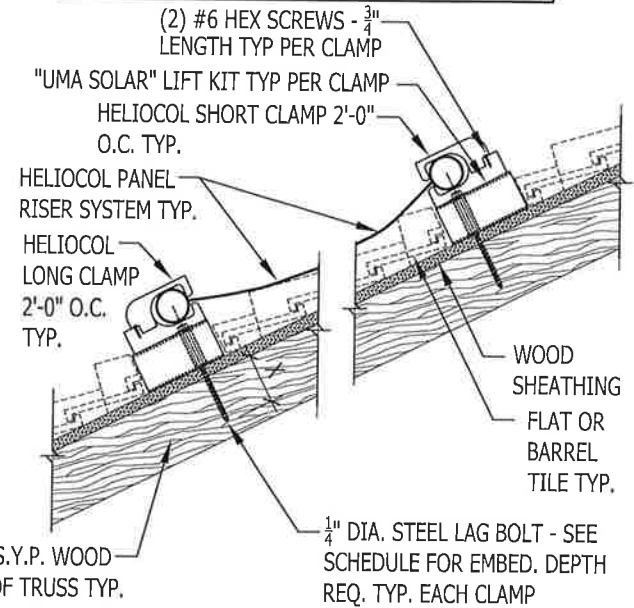


TYPICAL MULTIPLE COLLECTOR ARRAY PLAN

SCALE: 1/4"=1'-0"

2
HC-2

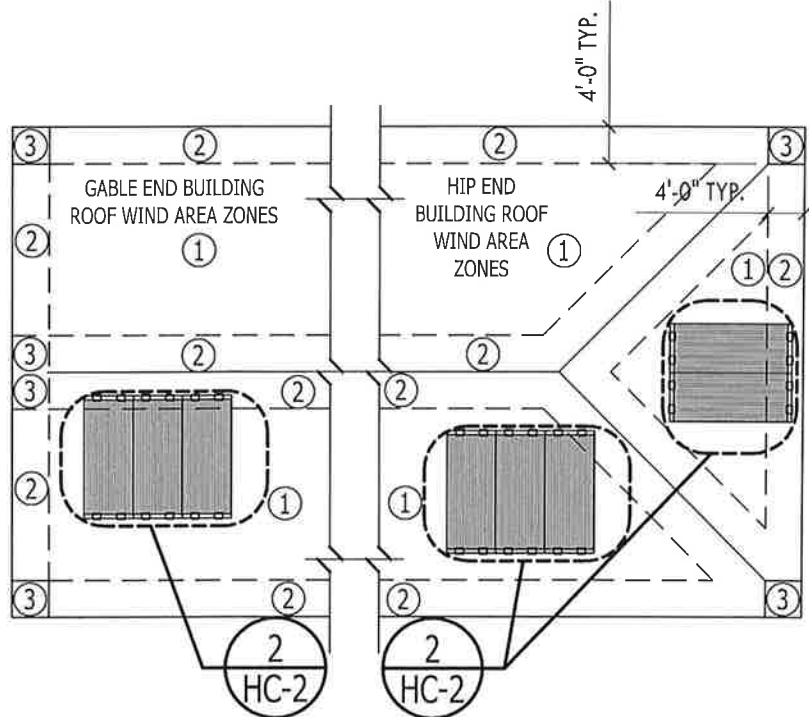
CUT OUT OR REMOVE TILE TO INSTALL "LIFT KIT" ASSEMBLY. RE-INSTALL, RE-FILL AND RE-SEAL TILES AFFECTED WITH APPROVED ROOF MATERIALS
 REFER TO SCHEDULE FOR REQUIRED EMBEDMENT DEPTH LABELED "X" IN THIS DETAIL



OPTIONAL FLAT TILE - BARREL TILE ROOF CLAMP TOP CONNECTION DETAIL

SCALE: 1"=1'-0"

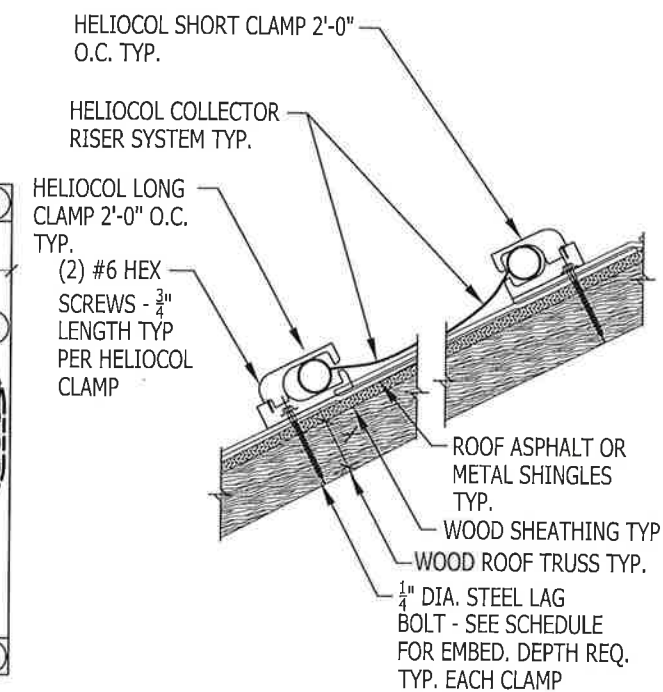
3
HC-2



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

SCALE: NONE

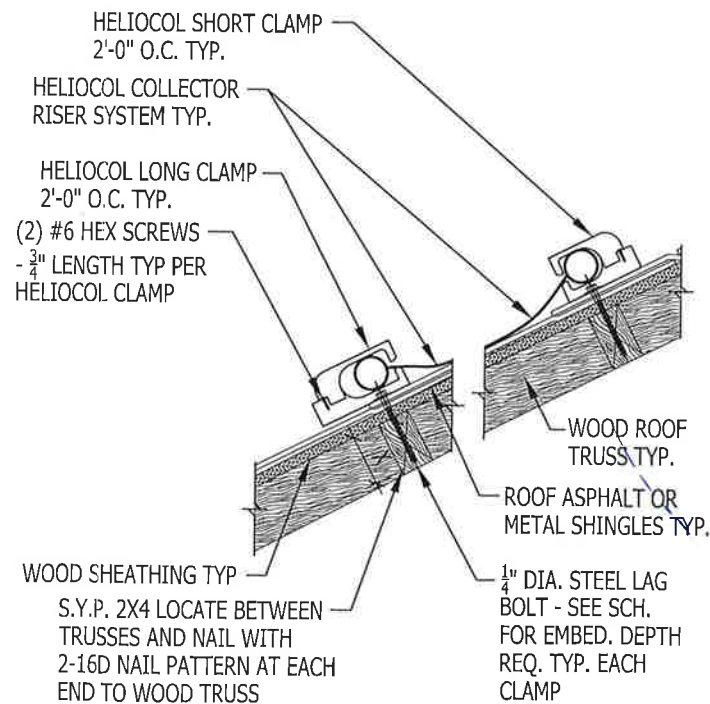
1
HC-2



TYP TOP - BOTTOM ASPHALT - METAL SHINGLE CONNECTION DETAIL

SCALE: 1"=1'-0"

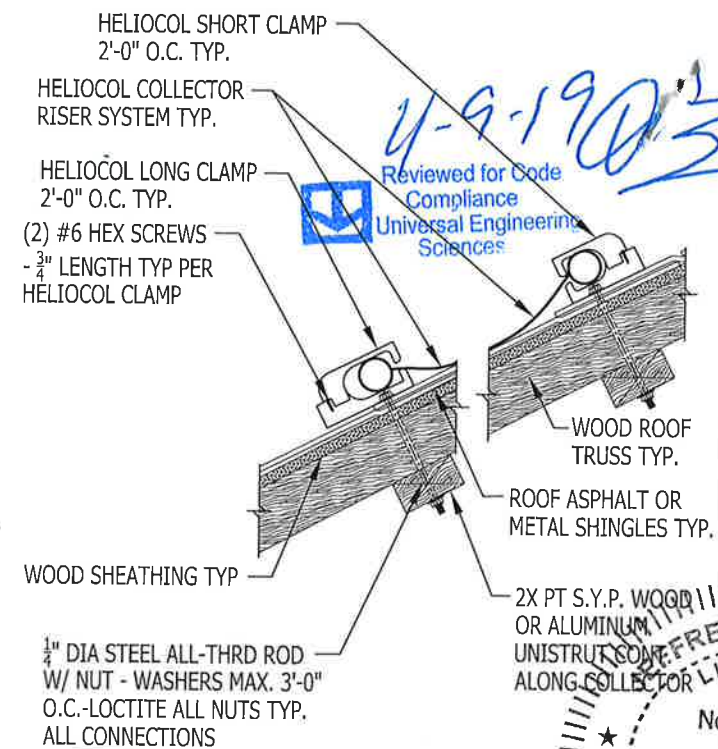
4
HC-2



OPTIONAL WOOD SPANNER OPTION CONNECTION DETAIL

SCALE: 1"=1'-0"

5
HC-2



OPTIONAL ALL THREAD CONNECTION DETAIL

SCALE: 1"=1'-0"

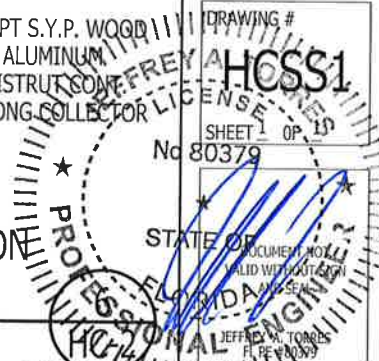


REV	DATE	REMARK
1		
2		
3		
4		
5		

PROJECT: HELIOCOL COLLECTOR - EXPOSURE C - RESIDENTIAL PITCHED WOOD ROOF - ASPHALT/METAL SHINGLE AND ROOF TILE FLUSH MOUNT CONNECTIONS
 PROJECT ADDRESS: PROJECT CITY-STATE:

DATE: 1-8-18
 DRAWN BY: JAT
 CHKD BY: JAT
 REC. NO. #: 29127
 SCALE: AS NOTED

DRAWING # HCSS1
 SHEET 1 OF 15
 No 80379



MAR 20 2019

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