

IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM
WITH QUICKMOUNT L-MOUNT ROOF ATTACHMENTS

GENERAL NOTES:

- 1. THIS SYSTEM MEETS ALL OF THE REQUIREMENTS OF THE 8TH EDITION (2023) FLORIDA BUILDING CODE, INCLUDING THE HVHZ PROVISIONS.
- 2. THIS SYSTEM HAS BEEN TESTED PER TAS 100(A) AND ASTM D7147. IT IS NOT A PART OF THE BUILDING ENVELOPE, AND IMPACT RESISTANCE IS NOT REQUIRED.
- 3. THIS SYSTEM SHALL BE INSTALLED PER THE IRONRIDGE XR FLUSH MOUNT INSTALLATION MANUAL.
- 4. THE PV PANELS ARE BY OTHERS AND ARE NOT A PART OF THIS APPROVAL.
- 5. RAIL SPACING TO BE AS SPECIFIED BY THE PV PANEL MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 6. THE DESIGN OF THE ROOF SUBSTRATE IS THE RESPONSIBILITY OF THE ENGINEER OF RECORD OR OTHER SPECIALTY ENGINEER, AND IS NOT A PART OF THIS APPROVAL. THE SUBSTRATE MUST SAFELY TRANSMIT THE LOADS APPLIED TO THIS SYSTEM TO THE BUILDING STRUCTURE.
- 7. FIRE RATINGS OR FIRE RESISTANCE IS NOT A PART OF THIS REVIEW.
- 8. ALL ANCHORS SECURING THE SYSTEM TO PRESSURE TREATED WOOD SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE CHEMICALS IN THE WOOD.
- 9. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL BE PROTECTED PER FBC REQUIREMENTS.
- 10. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. Cd=1.6 WAS USED FOR WOOD SCREWS ONLY.

WINDLOAD NOTES:

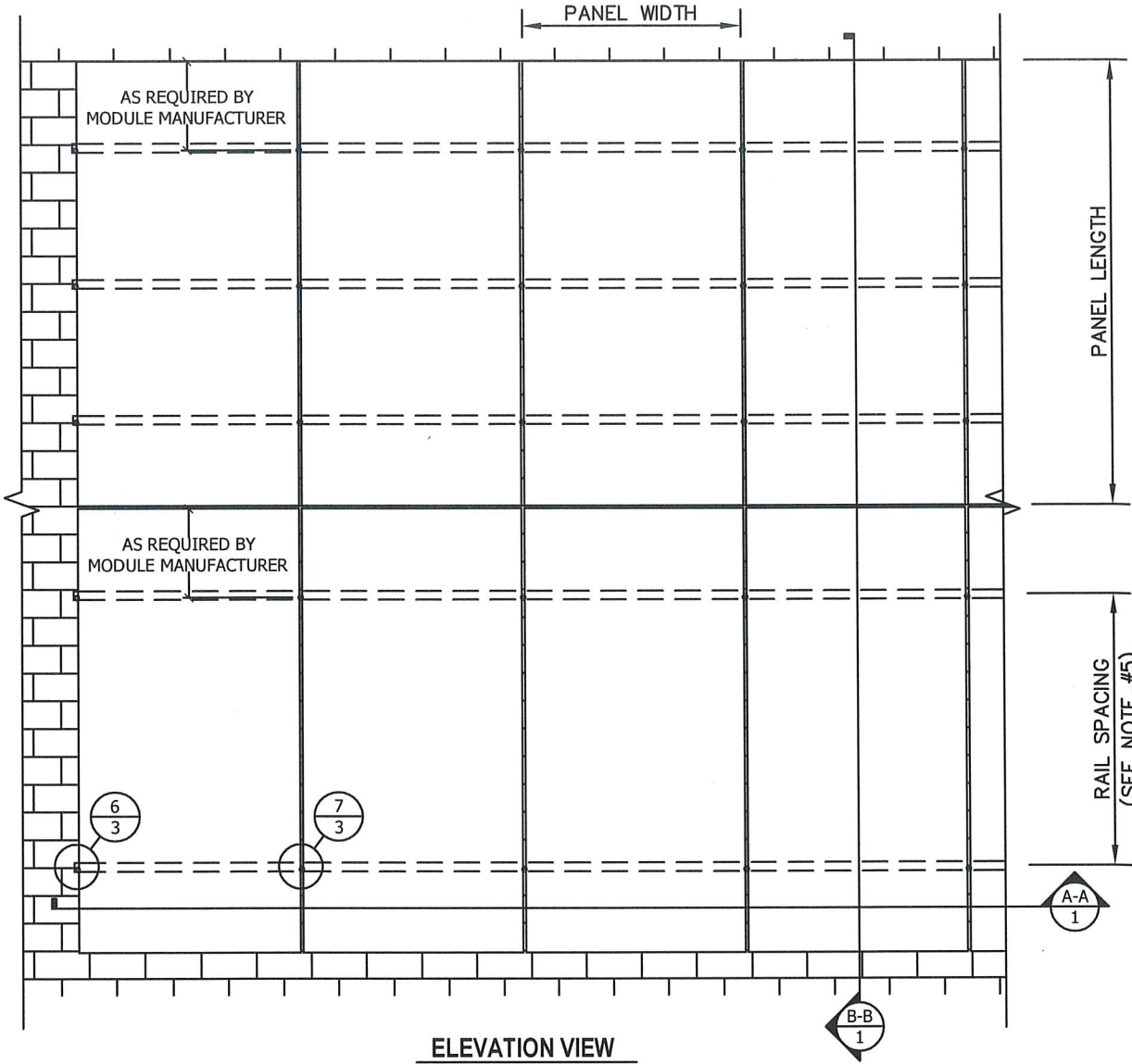
- 1. DESIGN WINDLOADS MUST BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT FOR EACH PROJECT, PER ASCE 7-22 SECTION 29.4.4. DESIGN (ASD) WINDLOADS MAY NOT EXCEED THE ALLOWABLE WINDLOADS SHOWN IN THIS CHART.
- 2. PANEL SYSTEM LOCATION, HEIGHT, AND SPACING MUST MEET THE REQUIREMENTS OF ASCE 7-22 SECTION 29.4.4. WINDLOADS ACT NORMAL TO THE SURFACE OF THE PV PANEL SYSTEM.
- 3. OTHER CONFIGURATIONS REQUIRE PROJECT SPECIFIC ANALYSIS BY A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT.
- 4. ALLOWABLE (ASD) WINDLOADS ARE BASED ON ANCHORING IN WOOD RAFTERS WITH S.G.=0.45 MIN.

ALLOWABLE WINDLOADS

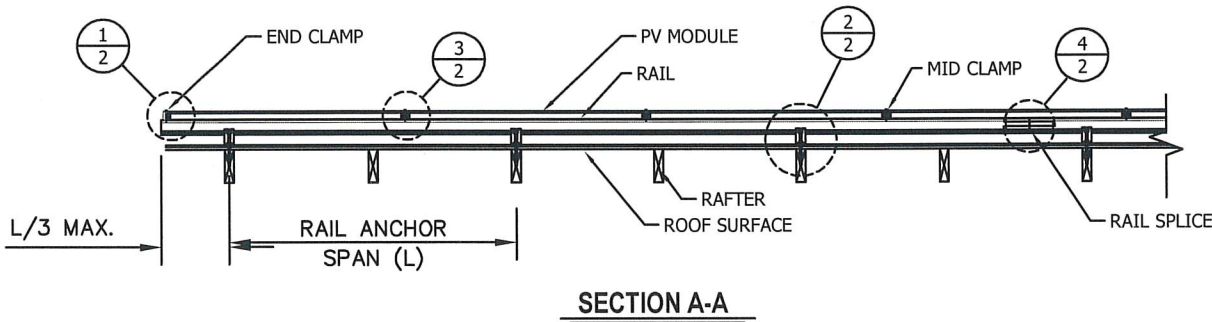
TWO RAIL SYSTEM							THREE RAIL SYSTEM					
PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (L) (in)	XR-10 RAIL (+/- psf)	XR-100 RAIL (+/- psf)	XR-1000 RAIL (+/- psf)		PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (L) (in)	XR-10 RAIL (+/- psf)	XR-100 RAIL (+/- psf)	XR-1000 RAIL (+/- psf)
45	67 1/2	16	90	90	90	45	67 1/2	16	135.0	135.0	135.0	
		24	65.4	90	90			24	98.1	135.0	135.0	
		32	56.1	90	90			32	84.2	135.0	135.0	
		36	49.9	90	90			36	74.9	135.0	135.0	
		48	37.4	85.6	90			48	56.1	128.4	135.0	
		64	28.1	64.2	68.4			64	42.2	96.3	102.6	
		72	23.7	54	59.5			72	35.6	81.0	89.3	
	80	16	75.9	75.9	75.9		80	16	113.9	113.9	113.9	
		24	55.2	75.9	75.9			24	82.8	113.9	113.9	
		32	47.3	75.9	75.9			32	71.0	113.9	113.9	
		36	42.1	75.9	75.9			36	63.2	113.9	113.9	
		48	31.6	72.2	75.9			48	47.4	108.3	113.9	
		64	23.7	54.2	57.7			64	35.6	81.3	86.6	
		72	20	45.6	50.2			72	30.0	68.4	75.3	
	86	16	70.6	70.6	70.6		86	16	105.9	105.9	105.9	
		24	51.3	70.6	70.6			24	77.0	105.9	105.9	
		32	44	70.6	70.6			32	66.0	105.9	105.9	
		36	39.1	70.6	70.6			36	58.7	105.9	105.9	
		48	29.4	67.2	70.6			48	44.1	100.8	105.9	
		64	22	50.4	53.7			64	33.0	75.6	80.6	
		72	18.6	42.4	46.7			72	27.9	63.6	70.1	
	92 1/2	16	65.7	65.7	65.7		92 1/2	16	98.6	98.6	98.6	
		24	47.7	65.7	65.7			24	71.6	98.6	98.6	
		32	40.9	65.7	65.7			32	61.4	98.6	98.6	
		36	36.4	65.7	65.7			36	54.6	98.6	98.6	
		48	27.3	62.5	65.7			48	41.0	93.8	98.6	
		64	20.5	46.9	49.9			64	30.8	70.4	74.9	
		72	17.3	39.4	43.4			72	26.0	59.1	65.1	
LANDSCAPE LAYOUT:												
45	92 1/2	16	65.7	65.7	65.7	45	92 1/2	16	98.6	98.6	98.6	
		24	52.9	65.7	65.7			24	79.4	98.6	98.6	
		32	40.8	65.7	65.7			32	61.2	98.6	98.6	
		36	36	65.7	65.7			36	54.0	98.6	98.6	
		48	24.2	55	65.7			48	36.3	82.5	98.6	
		64	20.5	46.9	65.7			64	30.8	70.4	98.6	
		72	18.2	41.7	65.7			72	27.3	62.6	98.6	

THREE RAIL SYSTEM:

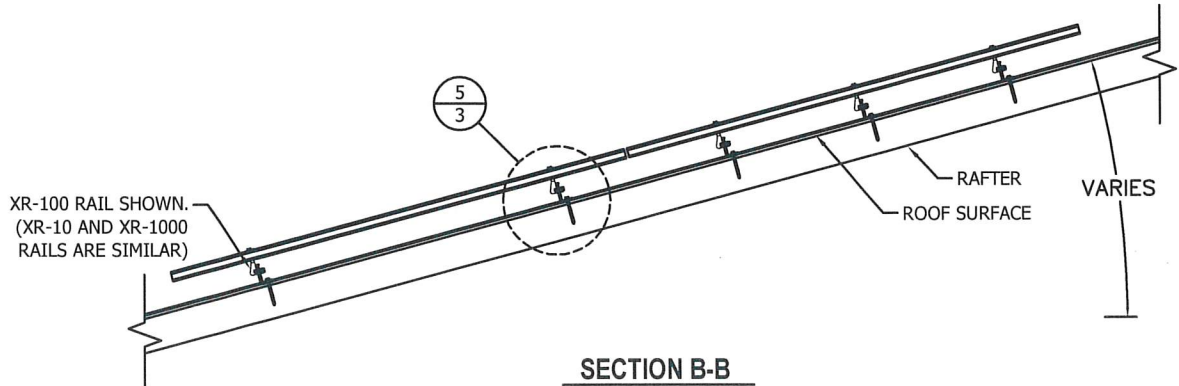
TWO RAIL SYSTEM:



ELEVATION VIEW



SECTION A-A



SECTION B-B

10/18/23

12/19/22

REV.#

DATE

2023 CODE UPDATE

1ST SUBMITTAL

PRINTS ISSUED FOR

SEAL: [Signature]

STATE OF FLORIDA

OCT 18 2023

PROFESSIONAL ENGINEER

SCOTT WOLTERS

FL PE# 62354

WOLTERS ENGINEERING

(COA# 27194)

15211 97TH ROAD N

WEST PALM BEACH, FL 33412

(561) 225-1982

IRONRIDGE

DWG: XR-LF

SHEET: 1/6

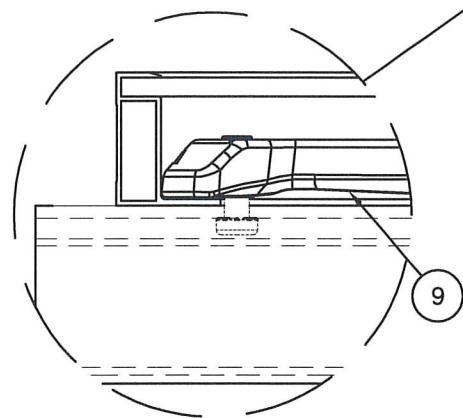
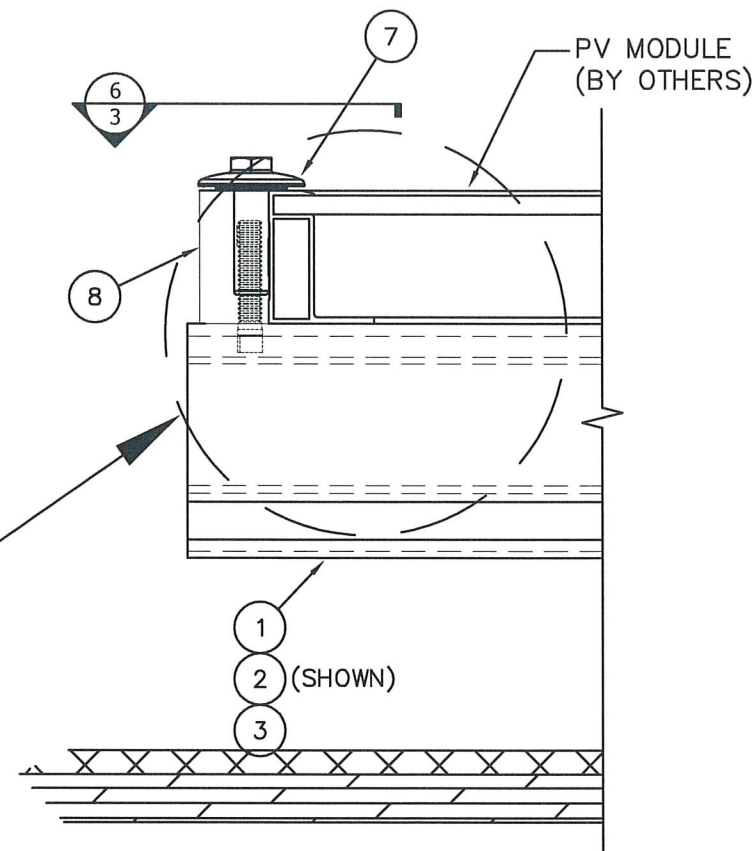
28357 INDUSTRIAL BLVD.

HAYWARD, CA 94545


PHONE: (800) 227-9523

info@ironridge.com


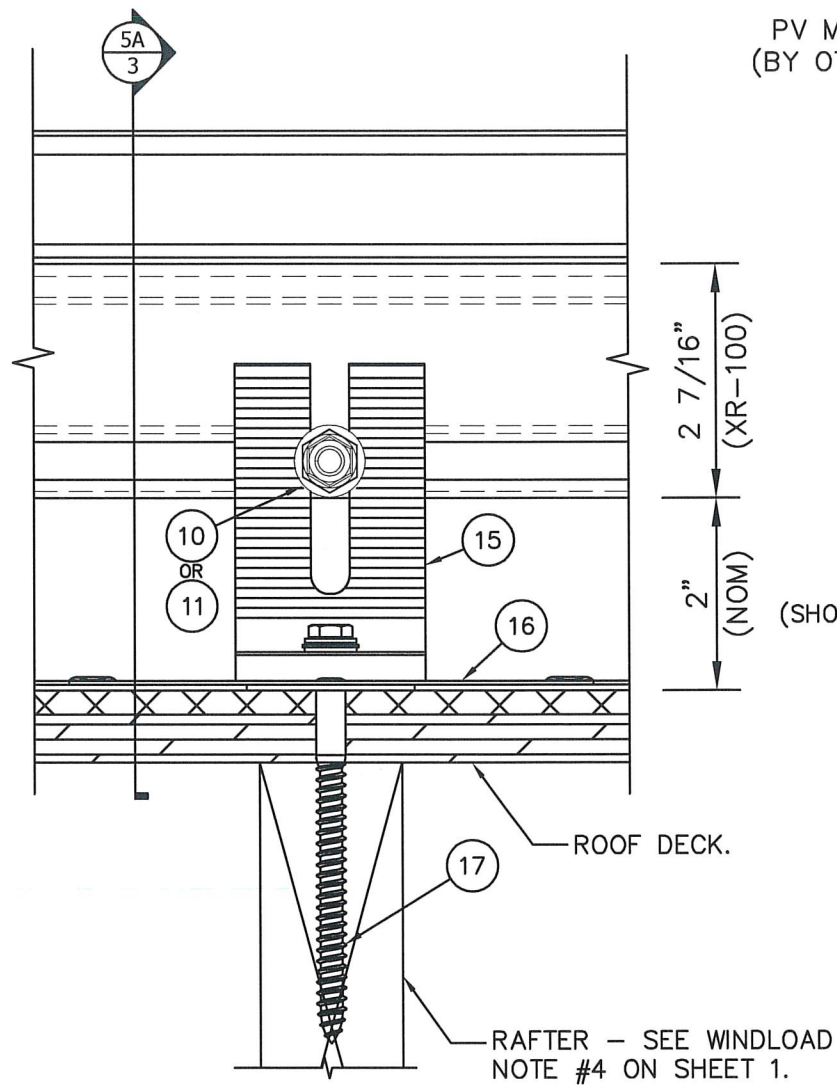
IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM WITH QUICKMOUNT L-MOUNT ROOF ATTACHMENTS




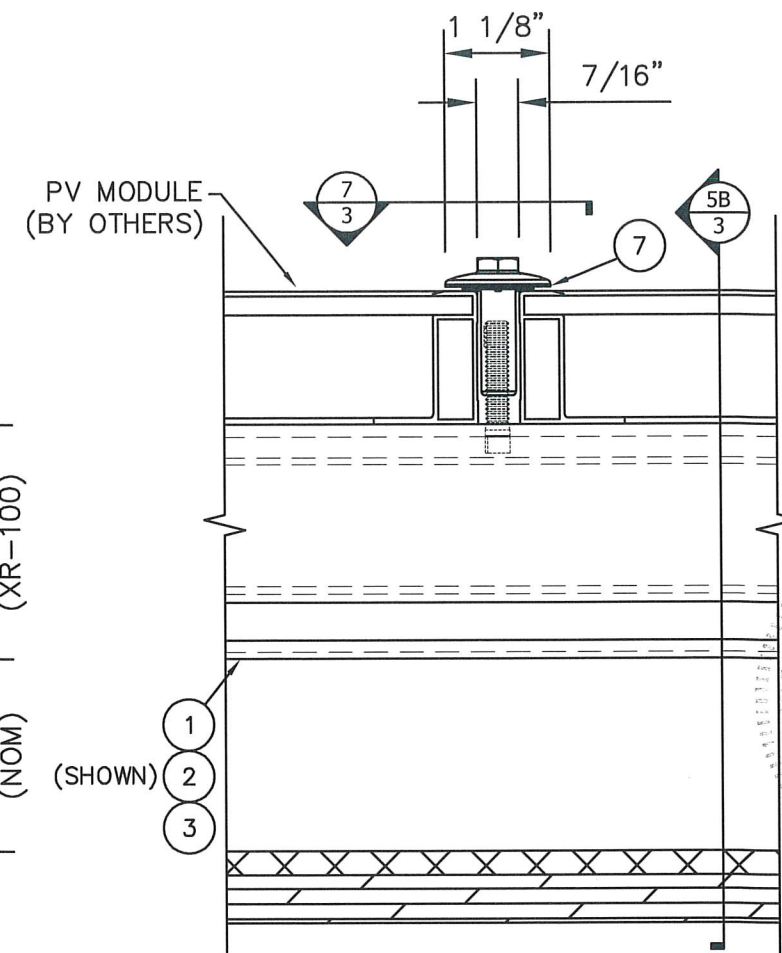
ALTERNATE CAMO
END-CLAMP DETAIL



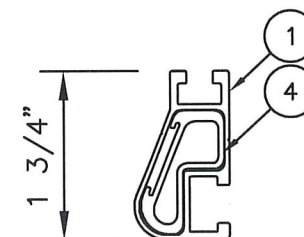
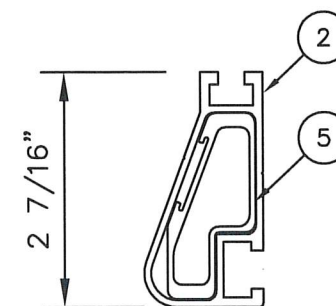
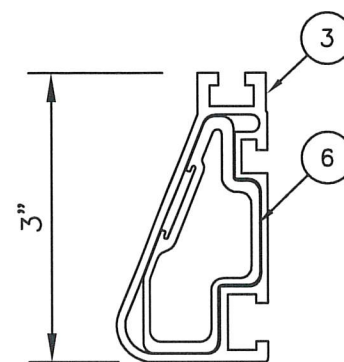
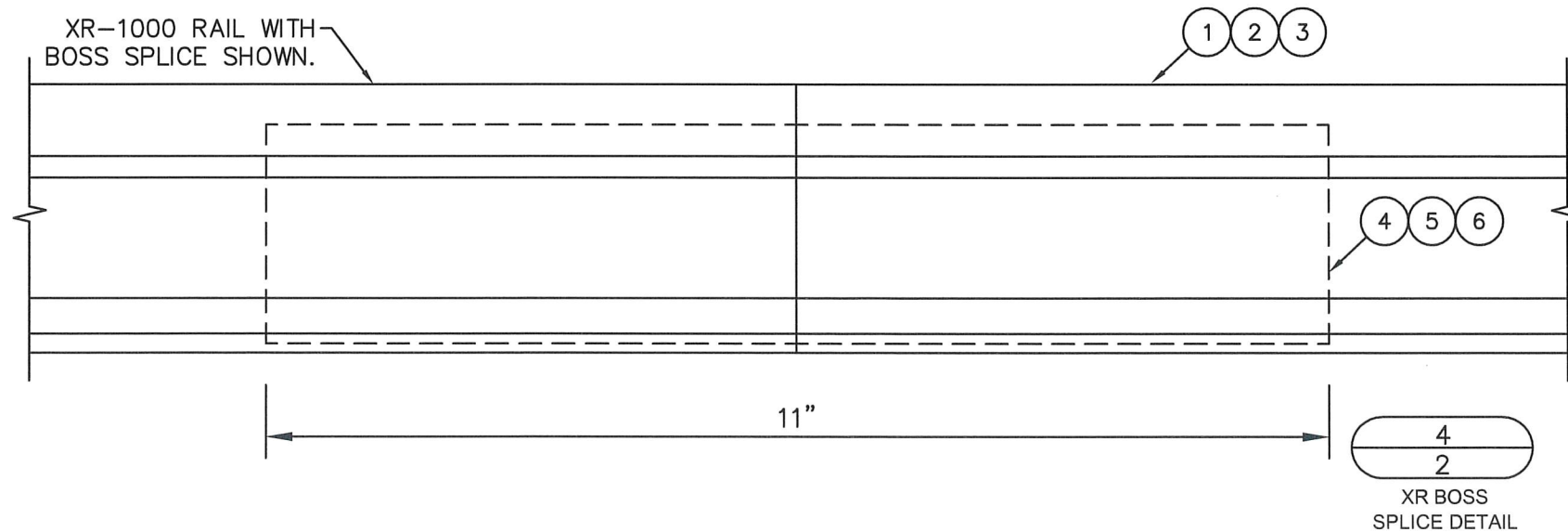
UFO END-CLAMP
WITH STOPPER SLEEVE




L-MOUNT DETAIL



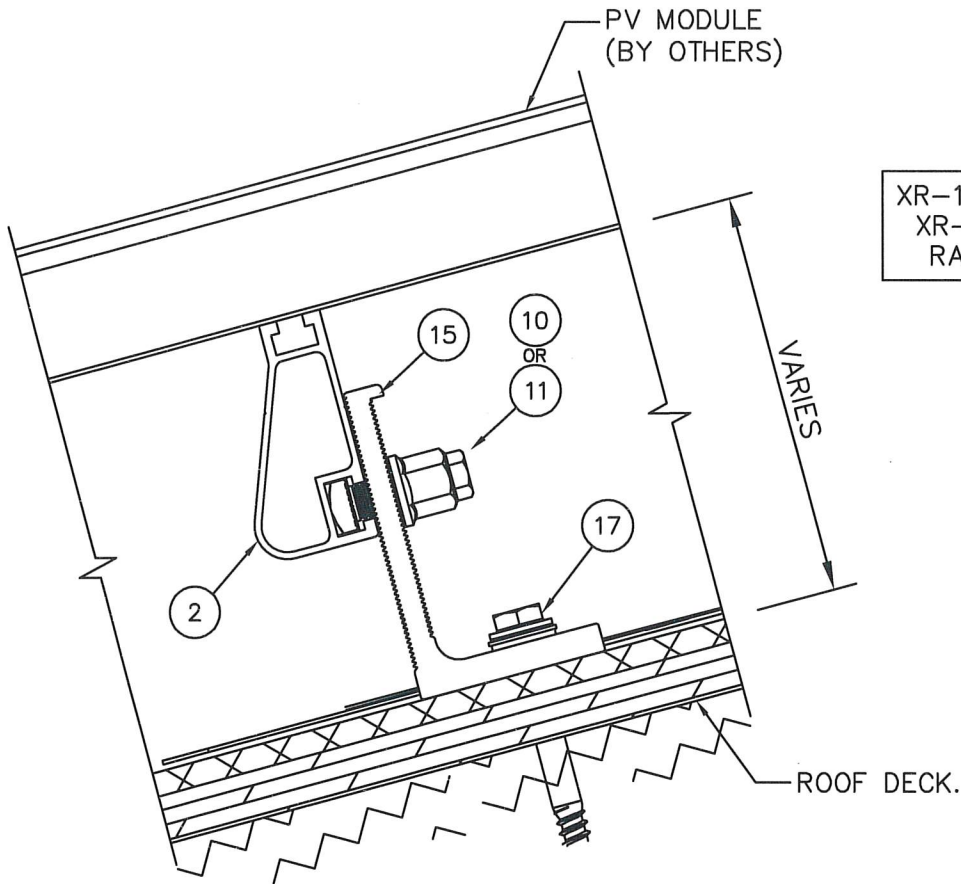
IRONRIDGE UFO
MID-CLAMP DETAIL



SPLICE MAY NOT BE
LOCATED IN A CANTILEVER.

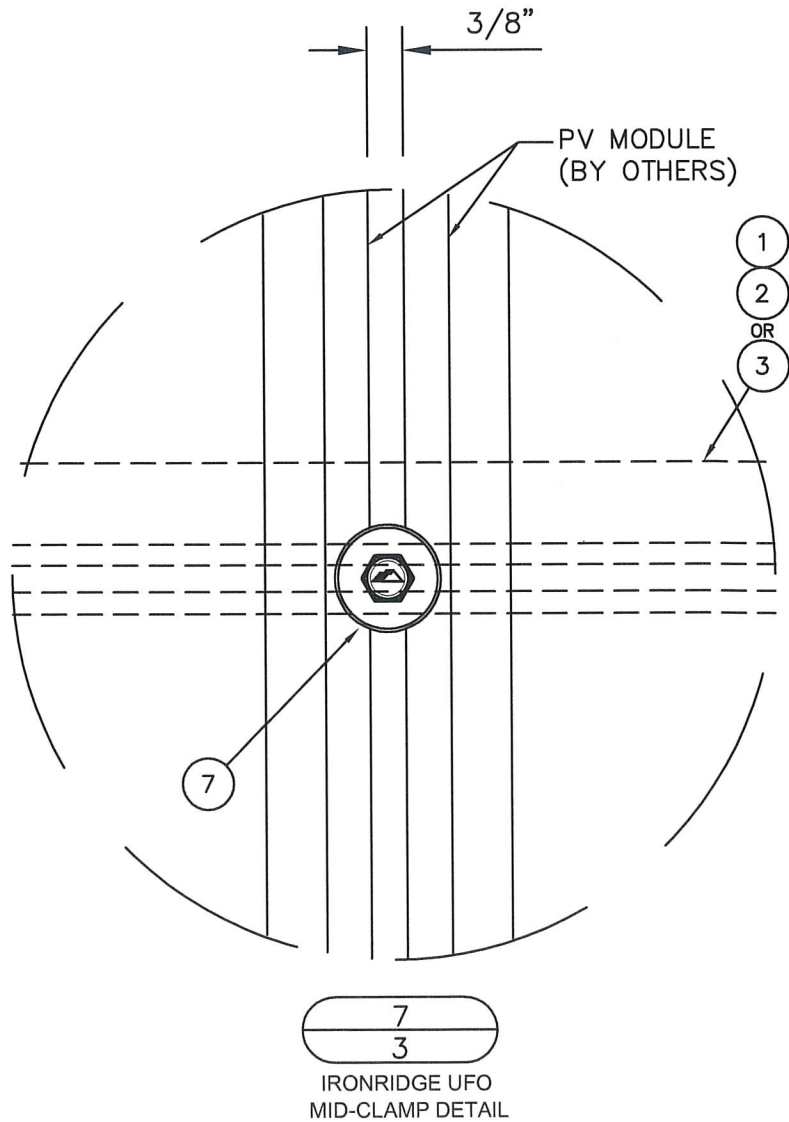
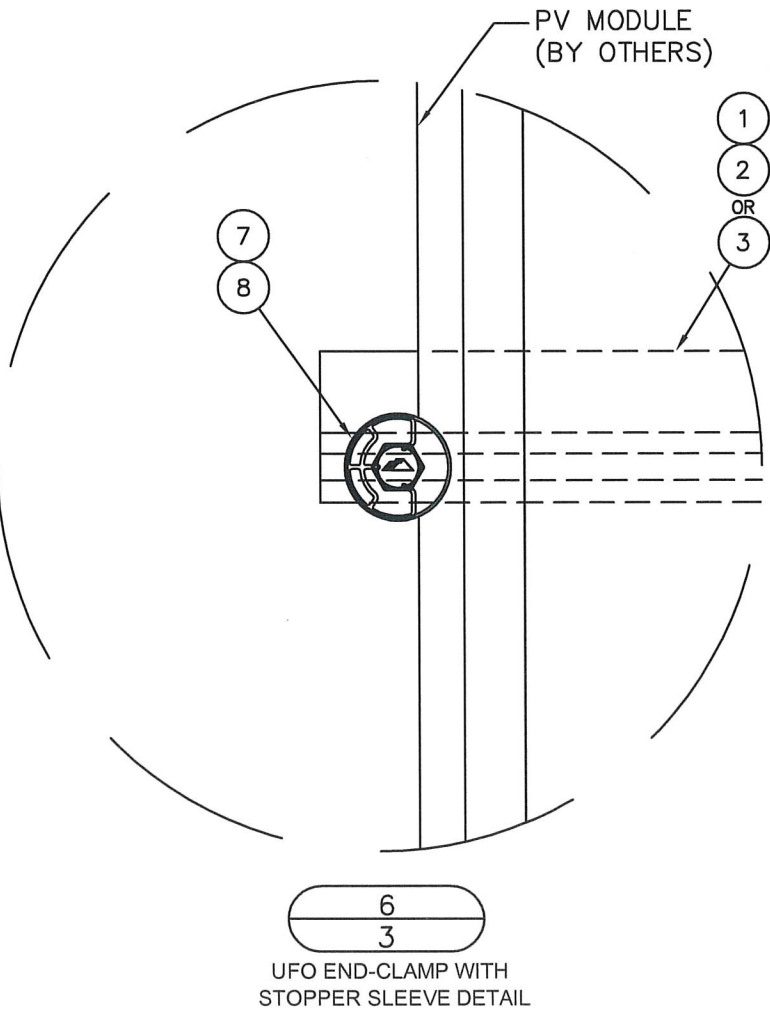
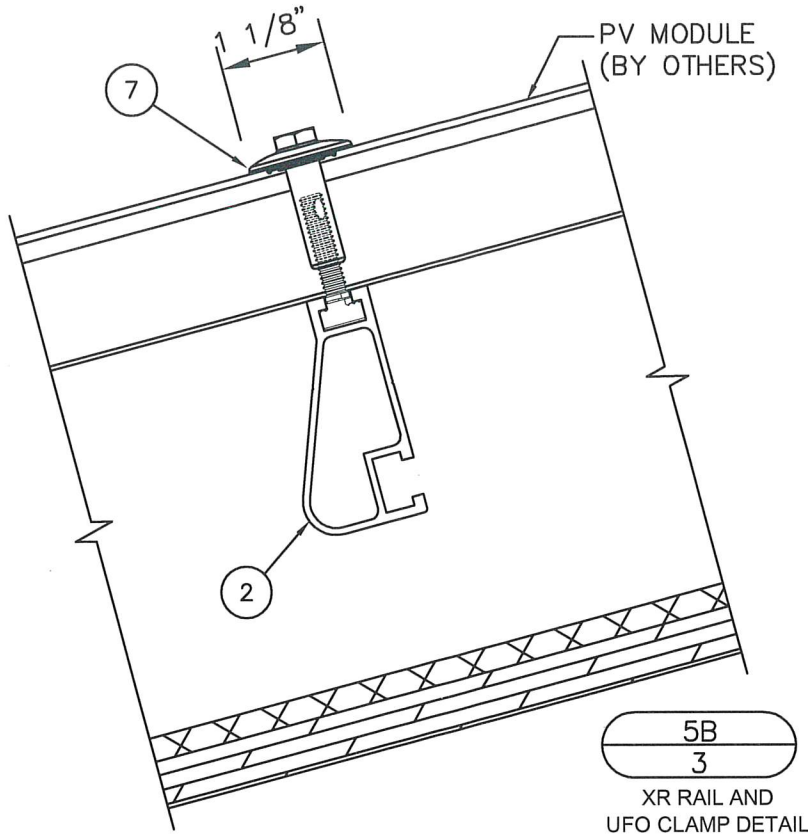
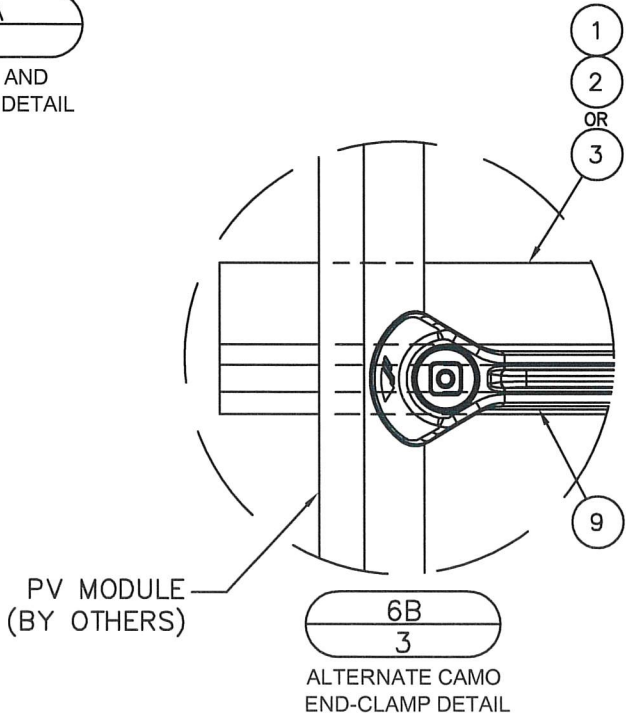
 <p>IRONRIDGE</p> <p>28357 INDUSTRIAL BLVD. HAYWARD, CA 94545 PHONE: (800) 227-9523 info@ironridge.com</p>	DWG:	2/6
	SHEET:	2/6
	<p>SCOTT WOLTERS FL PE# 62354</p> <p>WOLTERS ENGINEERING (COA# 27194) 15211 97TH ROAD N WEST PALM BEACH, FL 33412 (561) 225-1982</p>	
	SEAL:	NO 62354
	2023 CODE UPDATE	1
	1ST SUBMITTAL	12/19/22
	PRINTS ISSUED FOR	REV#
	DATE	DATE

IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM
WITH QUICKMOUNT L-MOUNT ROOF ATTACHMENTS



XR-100 RAIL IS SHOWN.
XR-10 AND XR-1000
RAILS ARE SIMILAR.

5A
3
XR RAIL AND
L-MOUNT DETAIL



DWG: XR-LF
SHEET: 3/6

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SEAL: [Signature]
No. 62354

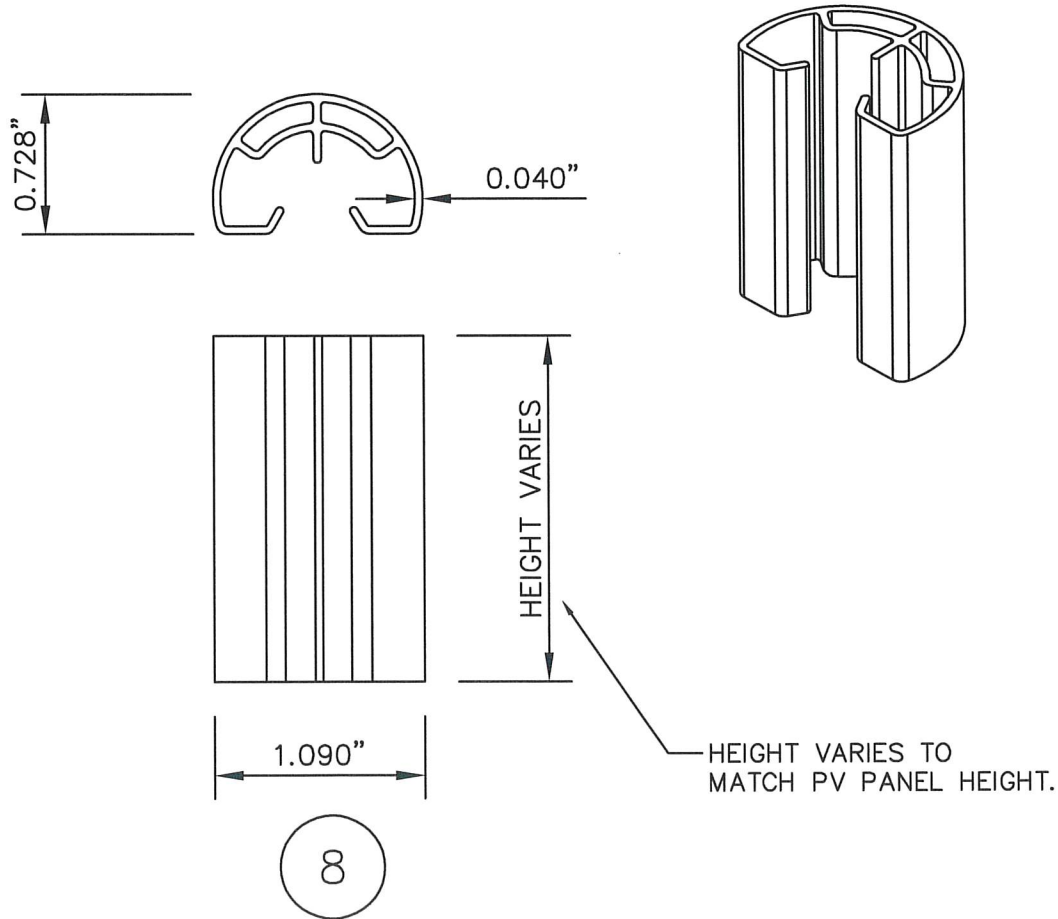
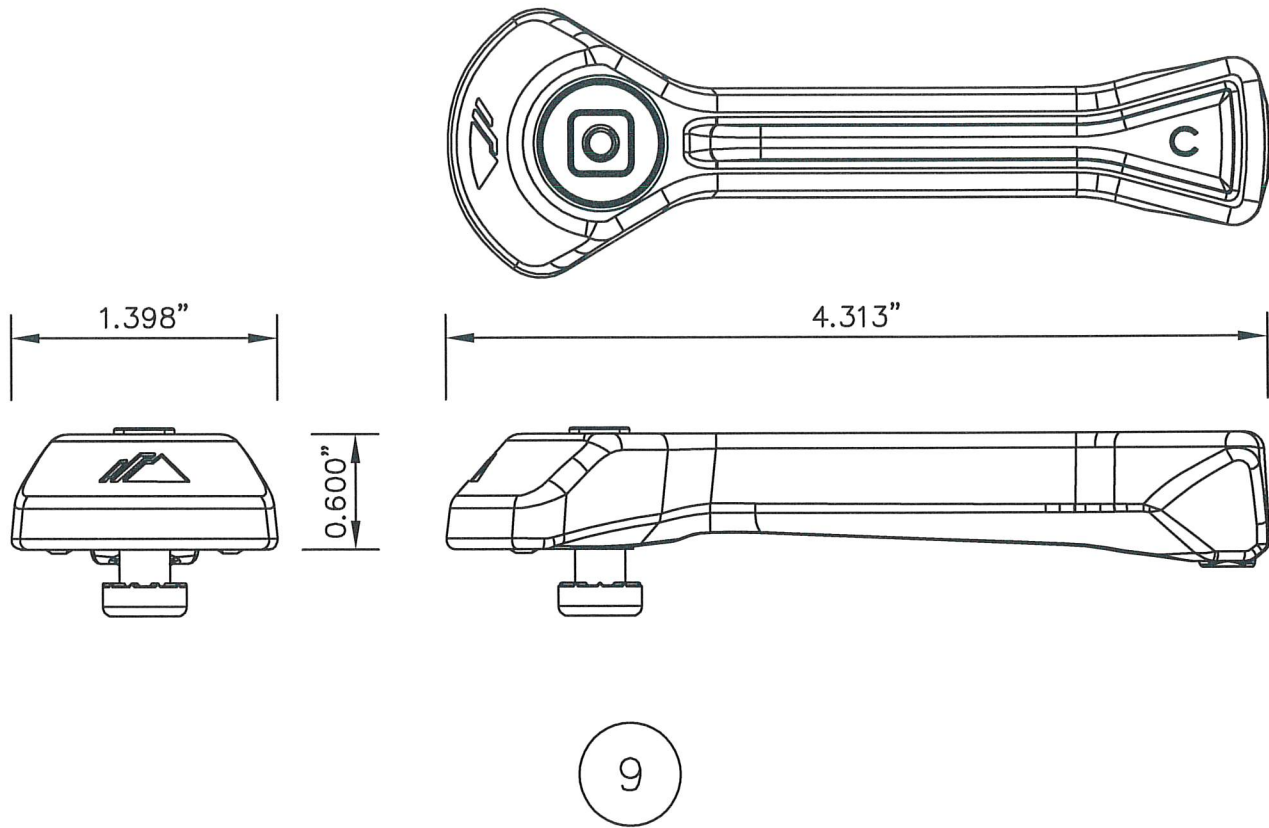
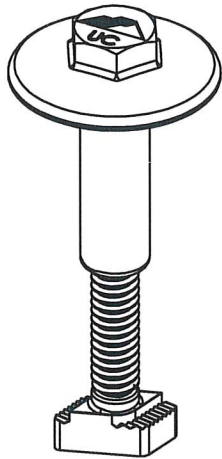
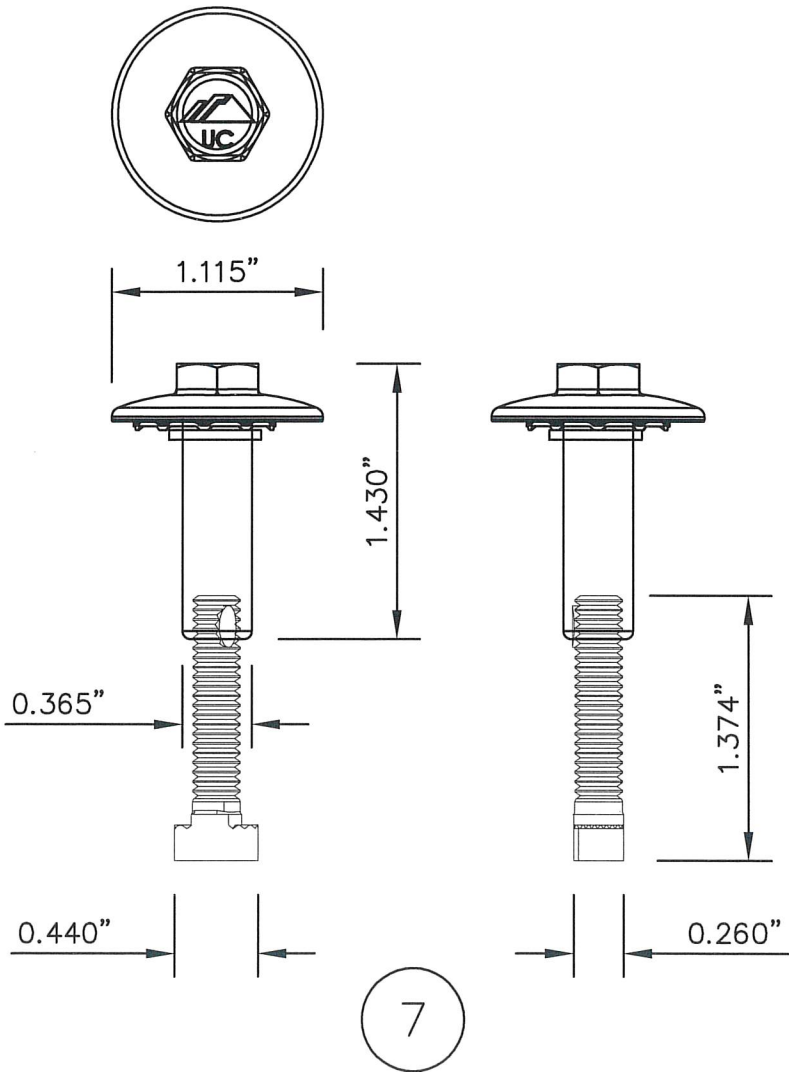
STATE OF FLORIDA
OCT 18 2023
PROFESSIONAL ENGINEER

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IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM
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BILL OF MATERIALS- XR System		
#	DESCRIPTION	MATERIALS/NOTES
1	XR-10 RAIL	6000 SERIES AL
2	XR-100 RAIL	6000 SERIES AL
3	XR-1000 RAIL	6000 SERIES AL
4	XR-10 BOSS SPLICE	6000 SERIES AL & 300 SERIES SS
5	XR-100 BOSS SPLICE	6000 SERIES AL & 300 SERIES SS
6	XR-1000 BOSS SPLICE	6000 SERIES AL & 300 SERIES SS
7	UFO UNIVERSAL MODULE CLAMP	300 SERIES SS
8	STOPPER SLEEVE	6000 SERIES AL
9	CAMO HIDDEN END CAM	300 SERIES AL & 300 SERIES SS
10	3/8" X 1" SQUARE BOLT BONDING HARDWARE	300 SERIES SS
11	3/8" X 1" T-BOLT BONDING HARDWARE	300 SERIES SS
12	XR-10 RAIL END CAP (OPTIONAL)	POLYMERIC
13	XR-100 RAIL END CAP (OPTIONAL)	POLYMERIC
14	XR-1000 RAIL END CAP (OPTIONAL)	POLYMERIC

FOR 6000 SERIES EXTRUSIONS F_{UT} =38 ksi min, F_y =34 ksi min.
FOR 300 SERIES STAINLESS STEEL F_y =65 ksi min.



IRONRIDGE

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SHEET: 5/6

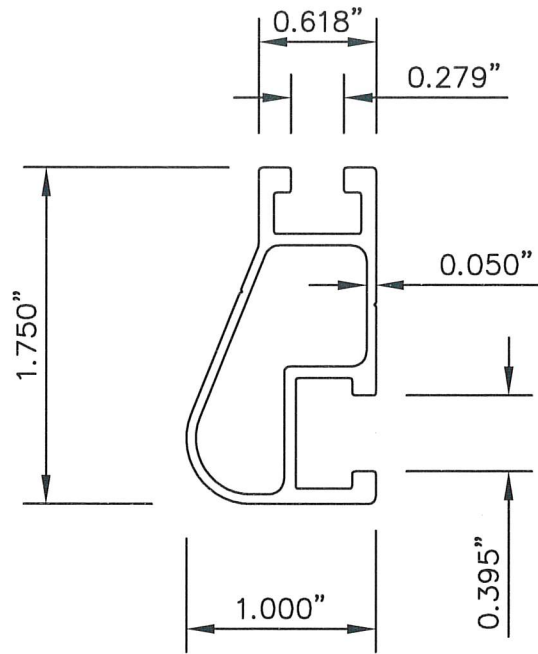
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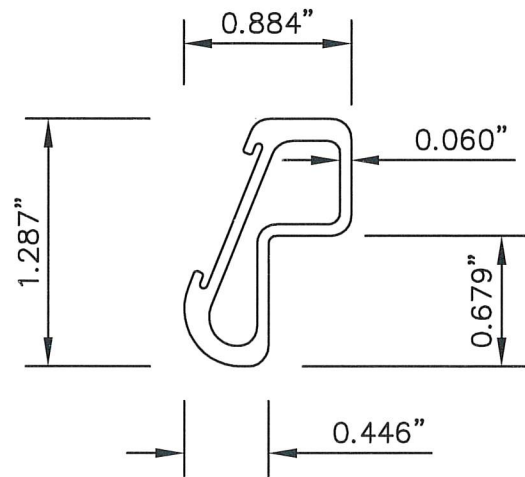
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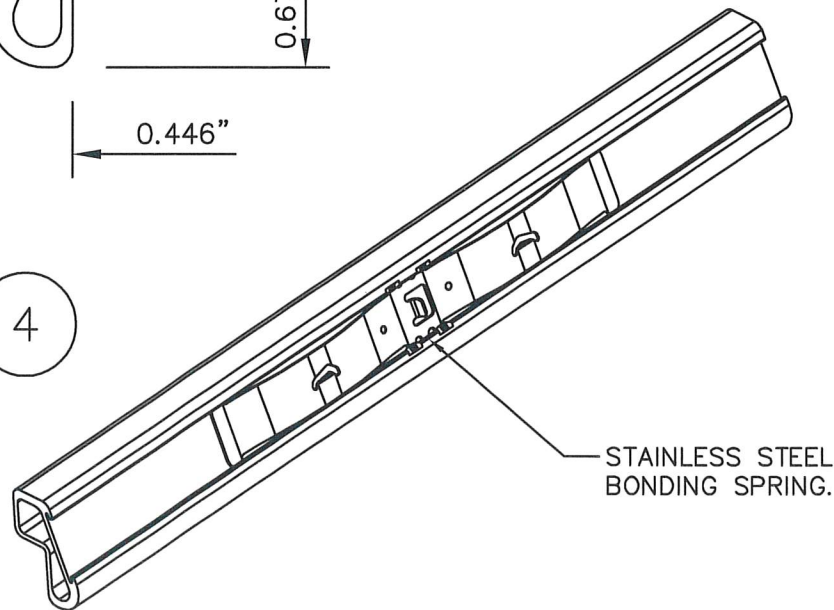
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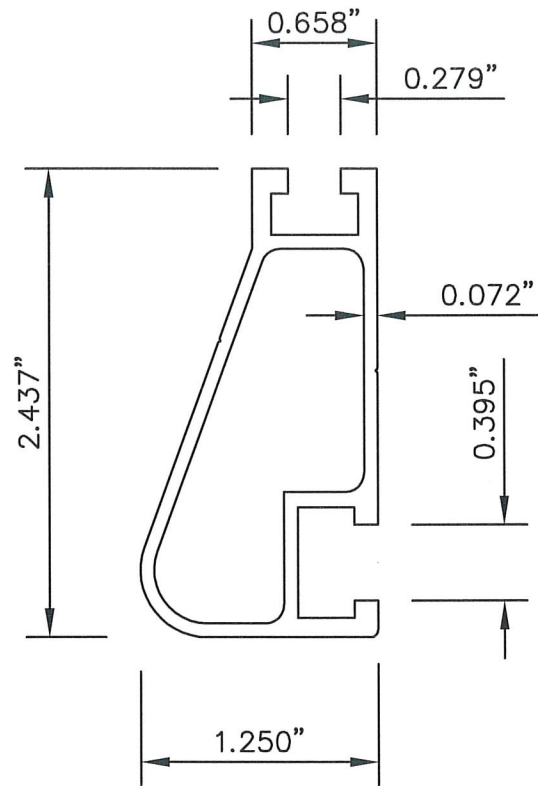
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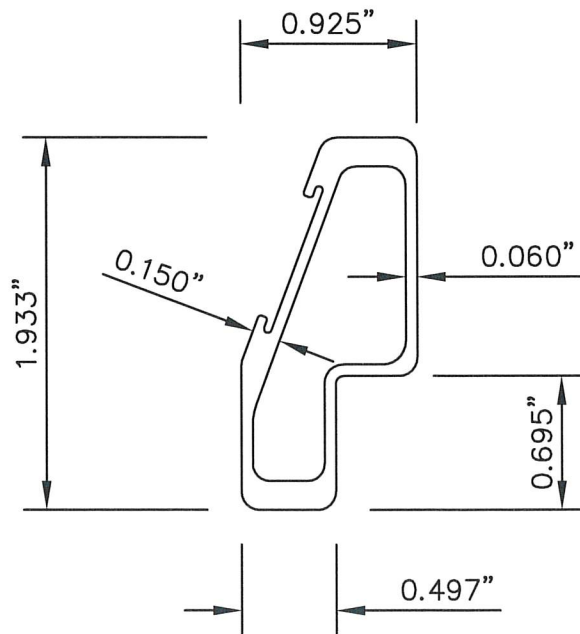
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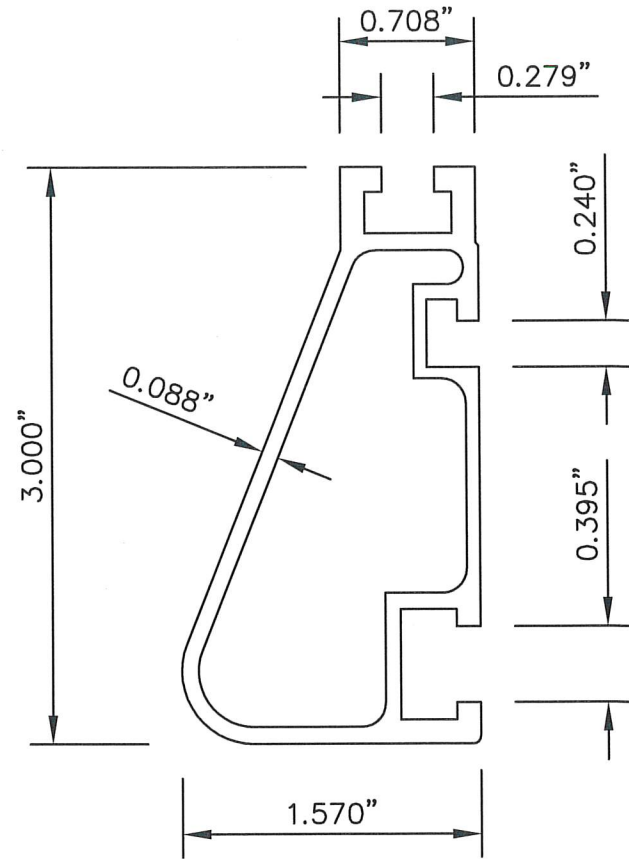
STAINLESS STEEL
BONDING SPRING.



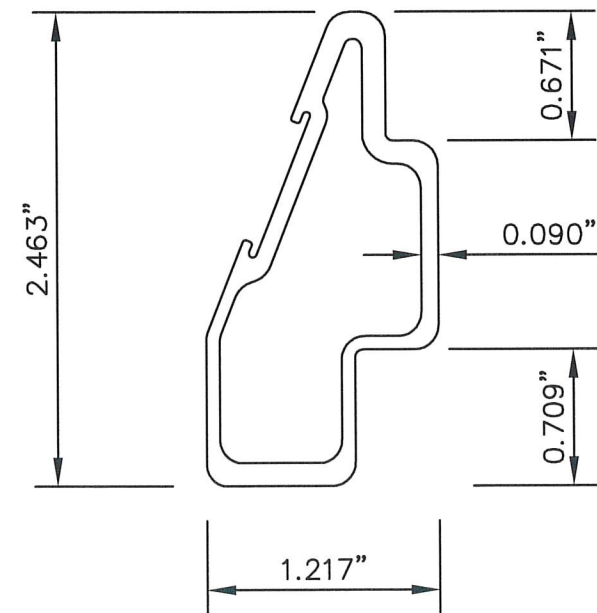
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4



5



6



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1	10/18/23	2023 CODE UPDATE
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