

IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM
WITH QUICKMOUNT Q-BASE 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:

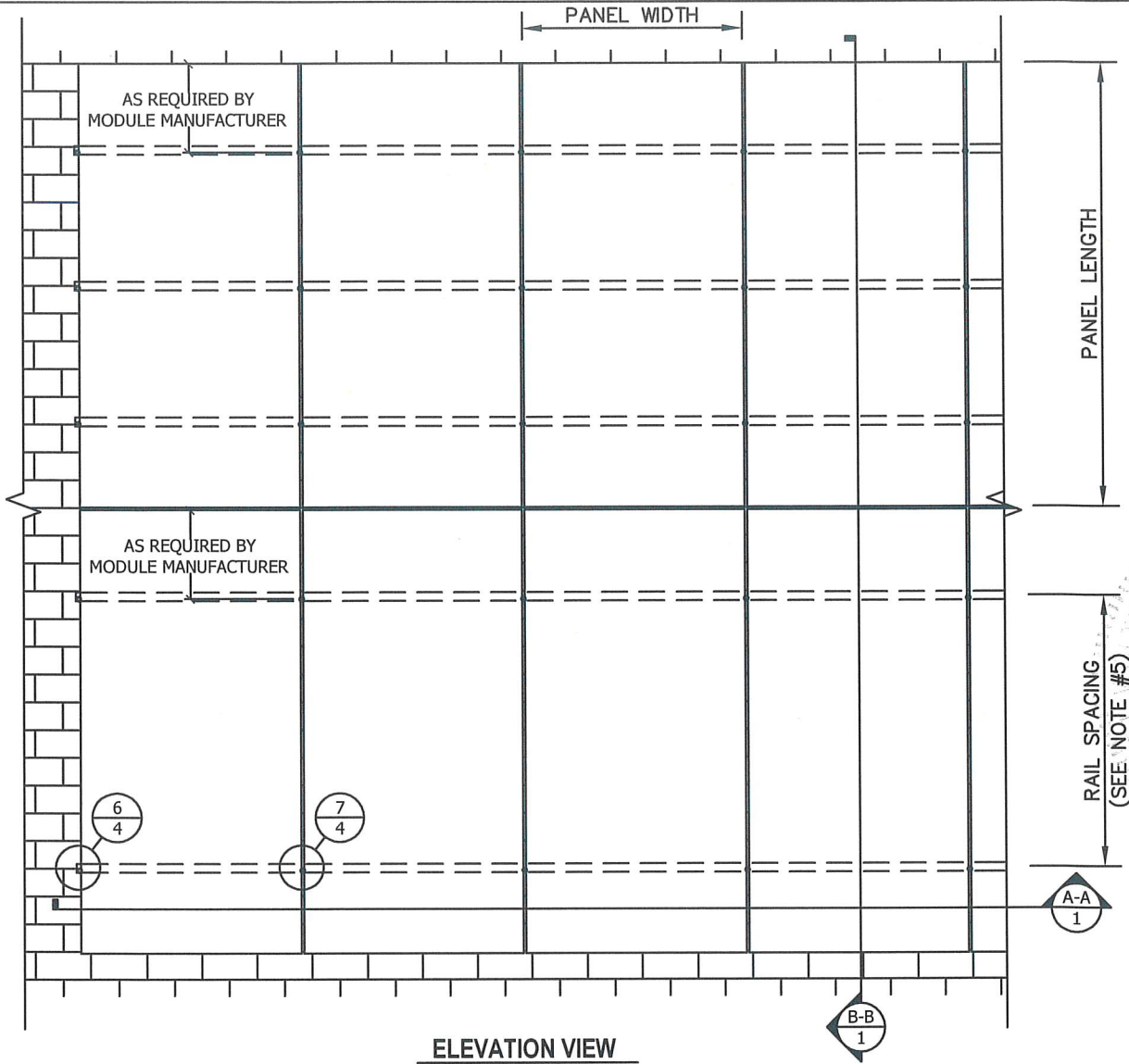
- 1. DESIGN WINDLOADS MUST BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT FOR EACH PROJECT, PER ASCE 7-22 SECTION 29.4.4. DESIGN (ASD) WINDLOADS MAY NOT EXCEED THE ALLOWABLE WINDLOADS SHOWN IN THIS CHART.
- 2. PANEL SYSTEM LOCATION, HEIGHT, AND SPACING MUST MEET THE REQUIREMENTS OF ASCE 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

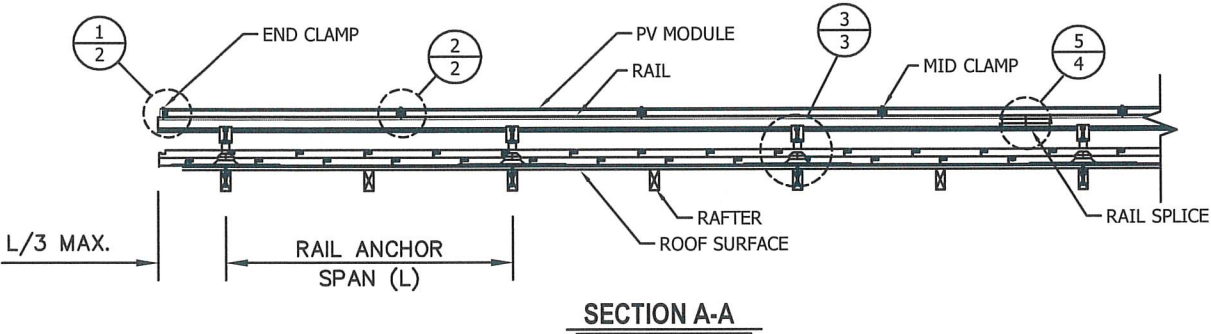
TWO RAIL SYSTEM						THREE RAIL SYSTEM						
PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (L) (in)	XR-10 RAIL (+/- psf)	XR-100 RAIL (+/- psf)	XR-1000 RAIL (+/- psf)	PANEL WIDTH (in)	PANEL LENGTH (in)	ANCHOR SPAN (L) (in)	XR-10 RAIL (+/- psf)	XR-100 RAIL (+/- psf)	XR-100 RAIL (+/- psf)	
45	67 1/2	16	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	75.9			64	42.2	96.3	113.9	
	80	72	23.7	54	66.1		80	72	35.6	81.0	99.2	
		16	75.9	75.9	75.9			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	
	86	64	23.7	54.2	64.1		86	64	35.6	81.3	96.2	
		72	20	45.6	55.7			72	30.0	68.4	83.6	
		16	70.6	70.6	70.6			92 1/2	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	59.6	64		33.0		75.6	89.4		
	92 1/2	72	18.6	42.4	51.9		92 1/2		72	27.9	63.6	77.9
		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	55.5	64		30.8		70.4	83.3		
	72	17.3	39.4	48.2	72		26.0		59.1	72.3		
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:

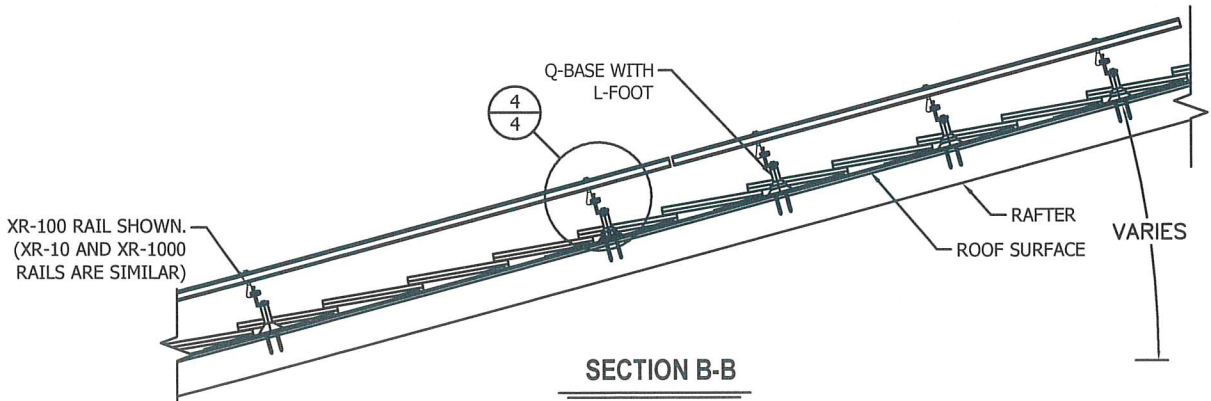
TWO RAIL SYSTEM:



ELEVATION VIEW



SECTION A-A



SECTION B-B

REVISION

3

4/24/25

REVISION

2

4/29/24

2023 CODE UPDATE

1

10/18/23

1ST SUBMITTAL

1

12/19/22

REV.#

DATE

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
(561) 225-1982

DWG:

XR-QB

SHEET:

1/10

IRONRIDGE

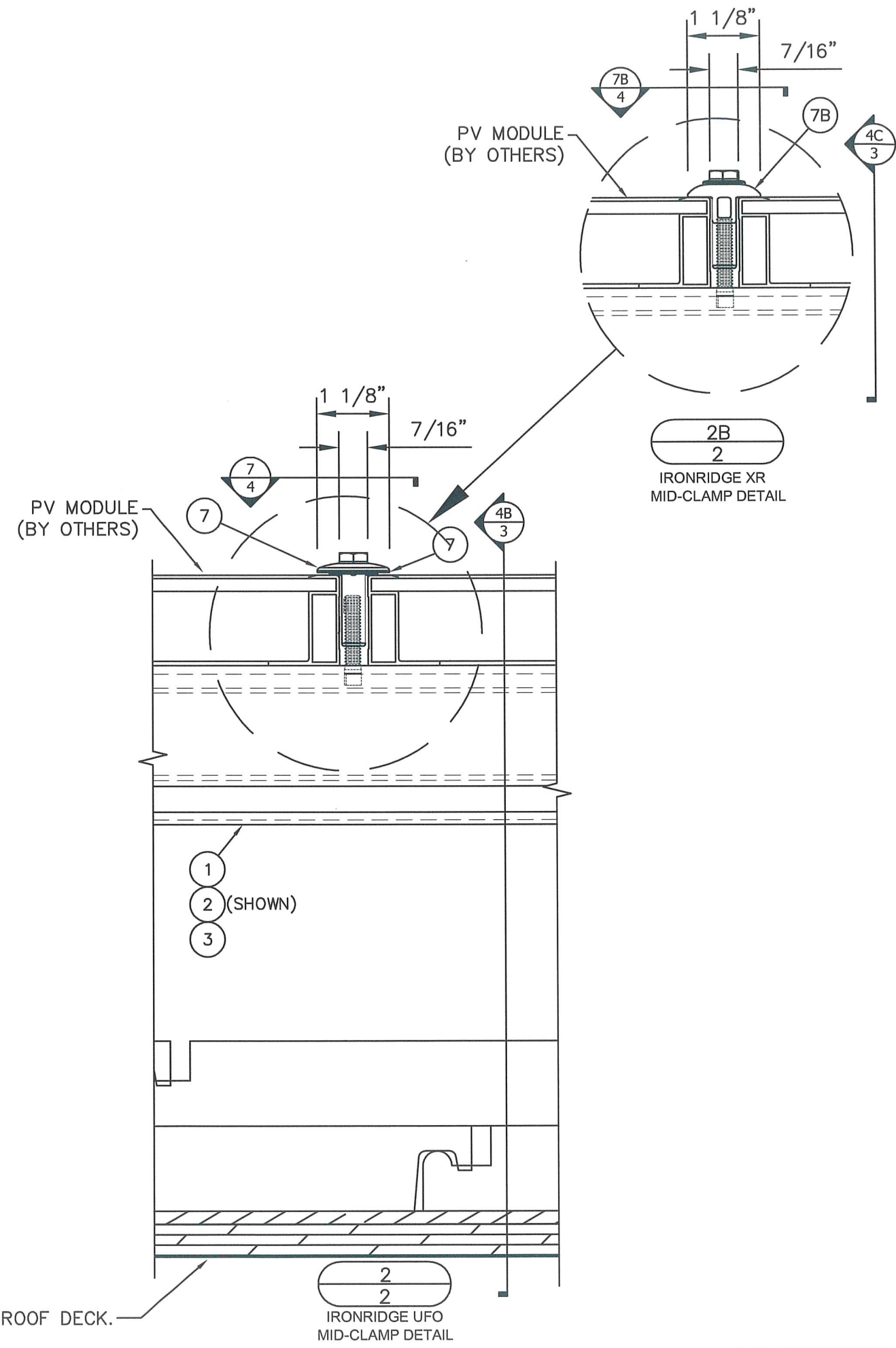
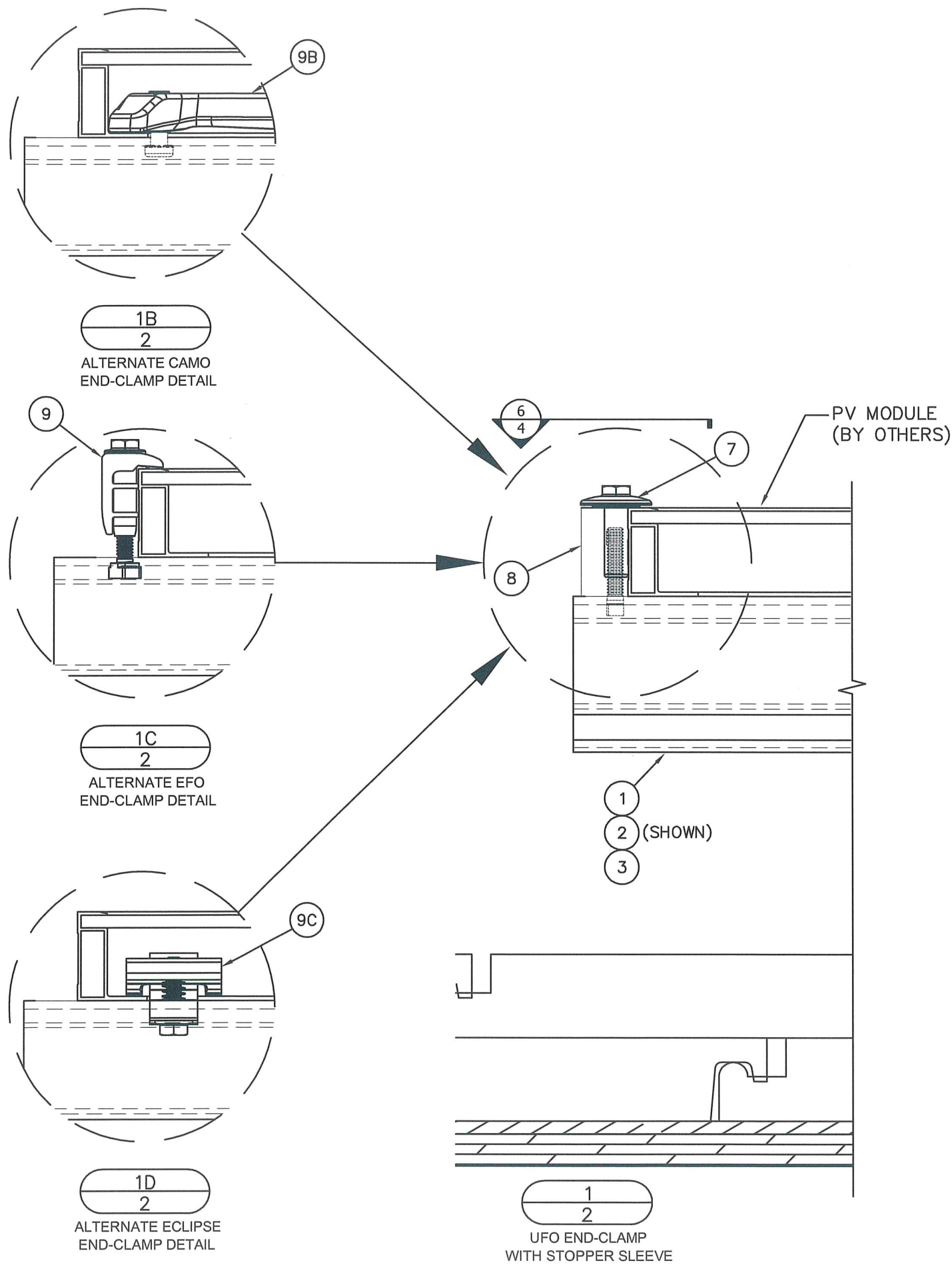
28357 INDUSTRIAL BLVD.
HAYWARD, CA 94545

PHONE: (800) 227-9523
info@ironridge.com

SEAL: [Signature]

STATE OF FLORIDA
APR 24 2025
PROFESSIONAL ENGINEER

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



REV#	DATE	PRINTS ISSUED FOR
1	12/19/22	
2	10/18/23	
3	4/29/24	
4	4/24/25	

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(COA# 27194)
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STATE OF FLORIDA

IRONRIDGE

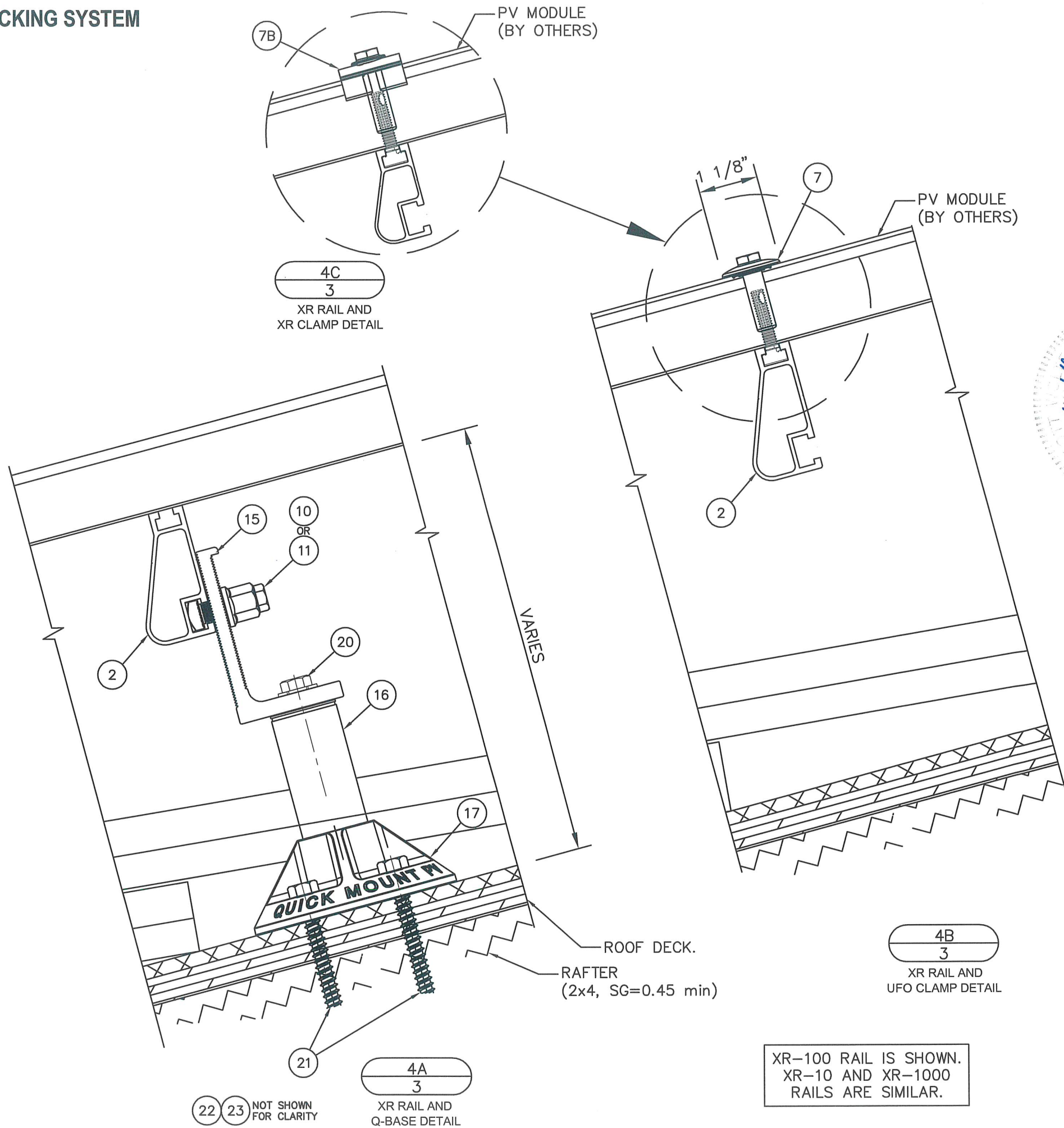
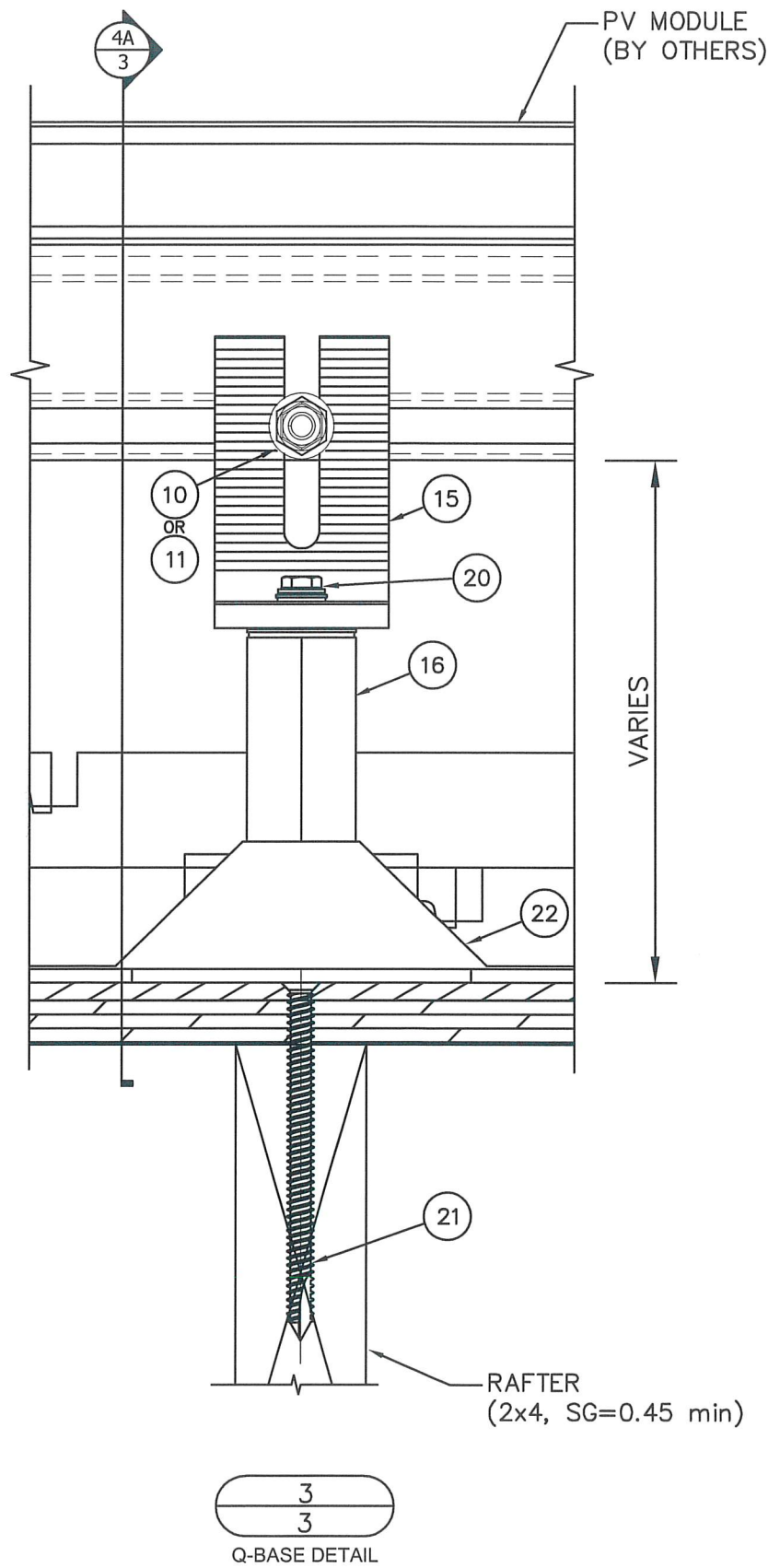
28357 INDUSTRIAL BLVD.
HAYWARD, CA 94545

PHONE: (800) 227-9523
info@ironridge.com

DWG: XR-QB

SHEET: 2/10

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REVISION	DATE	REV#	DATE
3	4/24/25	1	12/19/22
2	4/29/24	2	10/18/23
1	2023 CODE UPDATE	1	10/18/23
JST SUBMITTAL		PRINTS ISSUED FOR	

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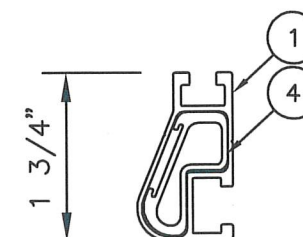
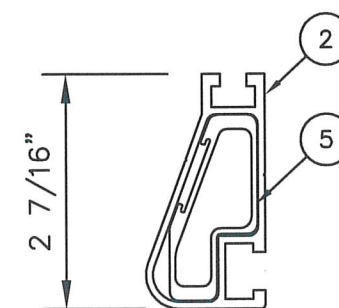
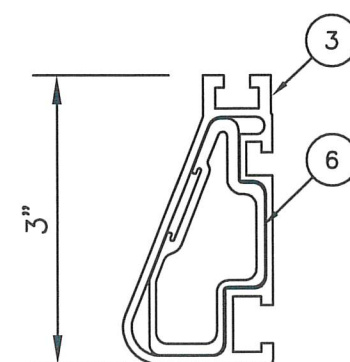
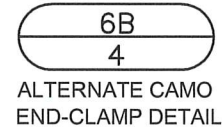
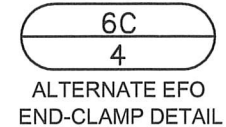
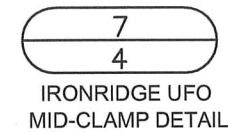
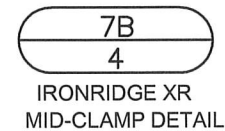
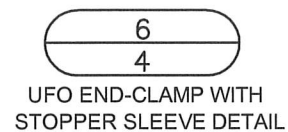
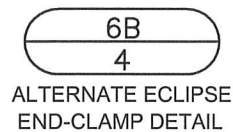
28357 INDUSTRIAL BLVD.
HAYWARD, CA 94545

PHONE: (800) 227-9523
info@ironridge.com

DWG: **XR-QB**

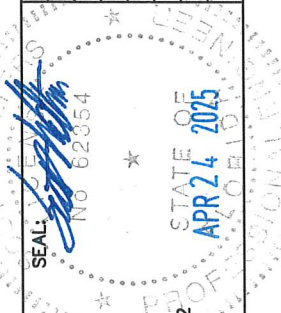
SHEET: **3/10**

IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM WITH IRONRIDGE FLASHVUE ROOF ATTACHMENTS



SPLICE MAY NOT BE
LOCATED IN A CANTILEVER.

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—	—	—
—	—	—
—	—	—
REVISION	3	4/24/25
REVISION	2	4/29/24
2023 CODE UPDATE	1	10/18/23
1ST SUBMITTAL	—	12/19/22
PRINTS ISSUED FOR	REV.#	DATE



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(COA# 27194)
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(561) 225-1982


IRONBRIDGE

PHONE: (800) 227-9523
info@ironridge.com

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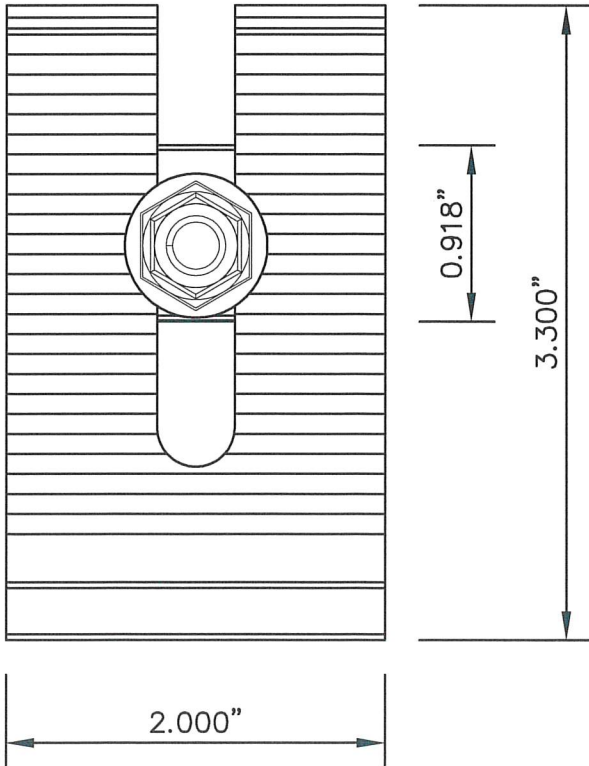
DWG:	XR-QB
SHEET:	4/10

XR-QE

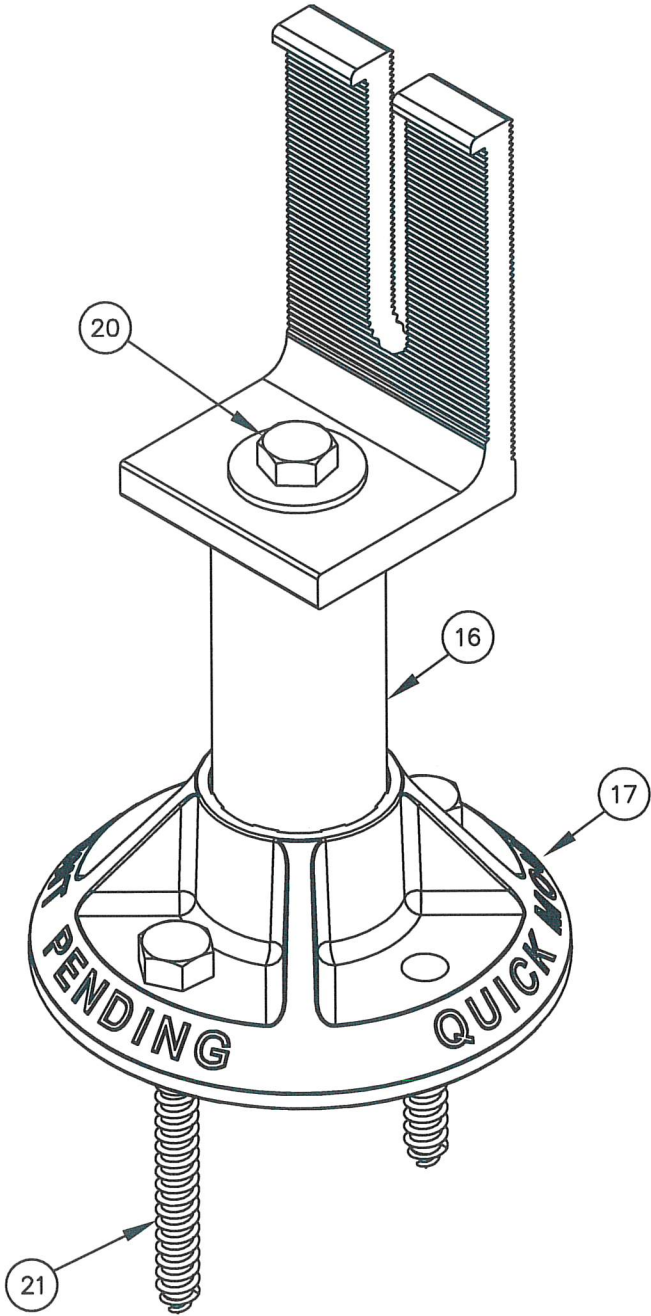
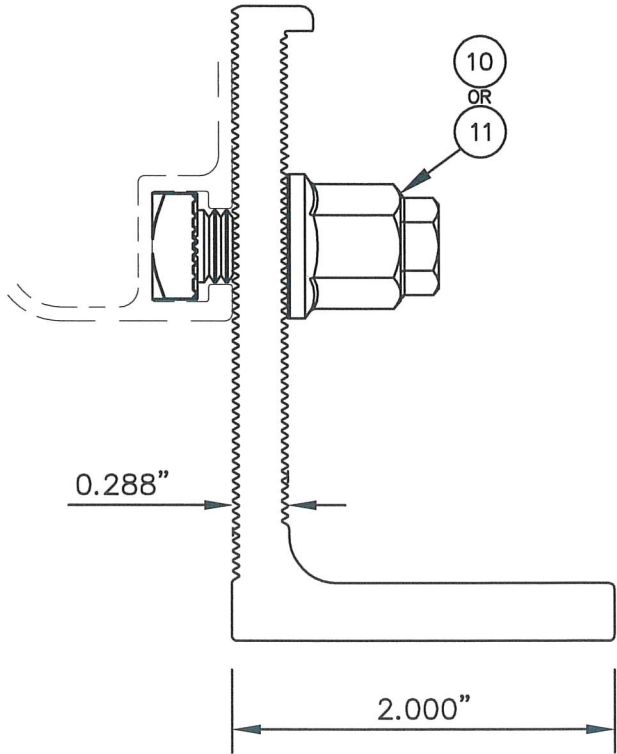
SHEET: 4/10

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

BILL OF MATERIALS- QuickMount Q-Base		
#	DESCRIPTION	MATERIALS/NOTES
15	OPEN SLOT L-FOOT, MILL OR BLACK	6000 SERIES AL
16	1 1/4" DIAMETER POST (3 1/4" MIN 12" MAX)	6000 SERIES AL
17	QBASE BASE	300 SERIES AL
18	5/16" X 3/4" CAP SCREW, HEX	COATED STEEL
19	5/16" X 1 1/4" OD WASHER	300 SERIES SS & EPDM
20	5/16" X 1" CAP SCREW, HEX	300 SERIES SS
21	5/16" X 3" HEX HEAD LAG SCREW	300 SERIES SS
22	QBASE FLASHING	3000 SERIES AL
23	COUNTER-FLASHING CAP	EPDM



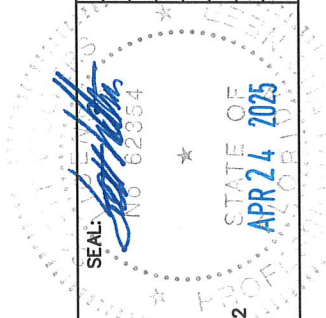
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DWG: XR-QB
SHEET: 5/10

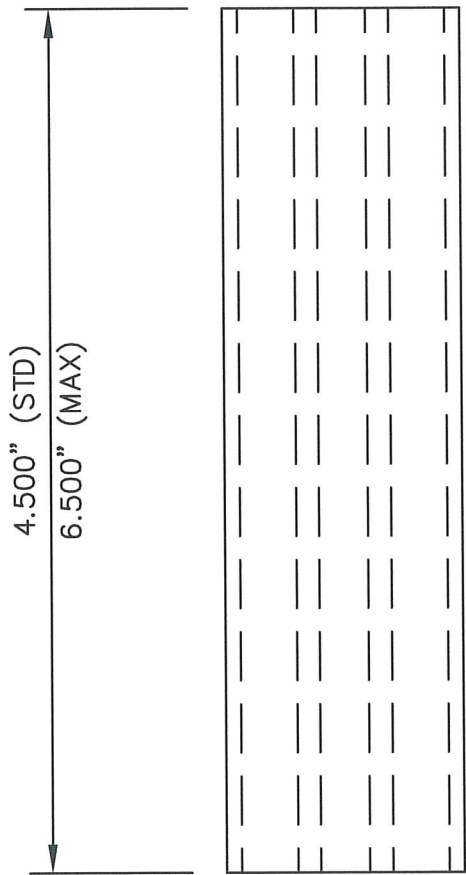
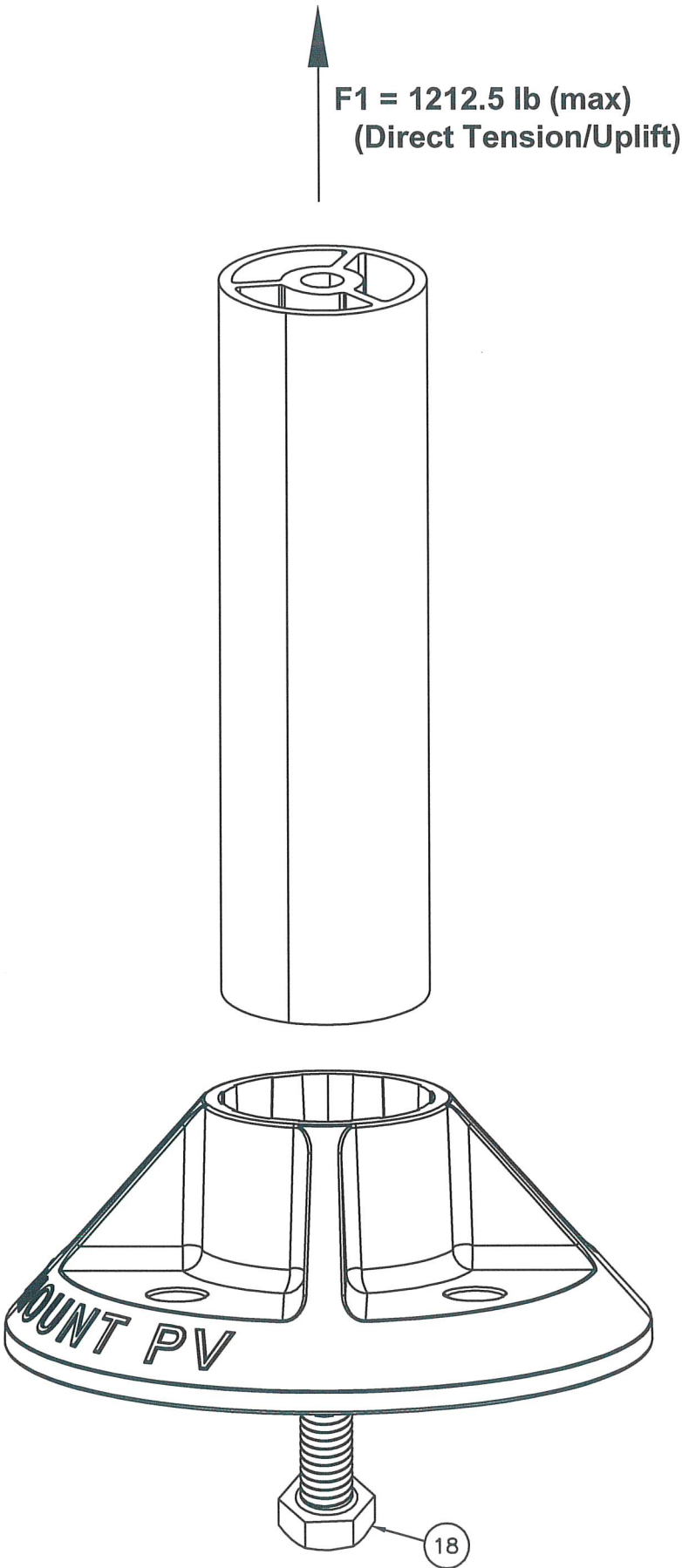
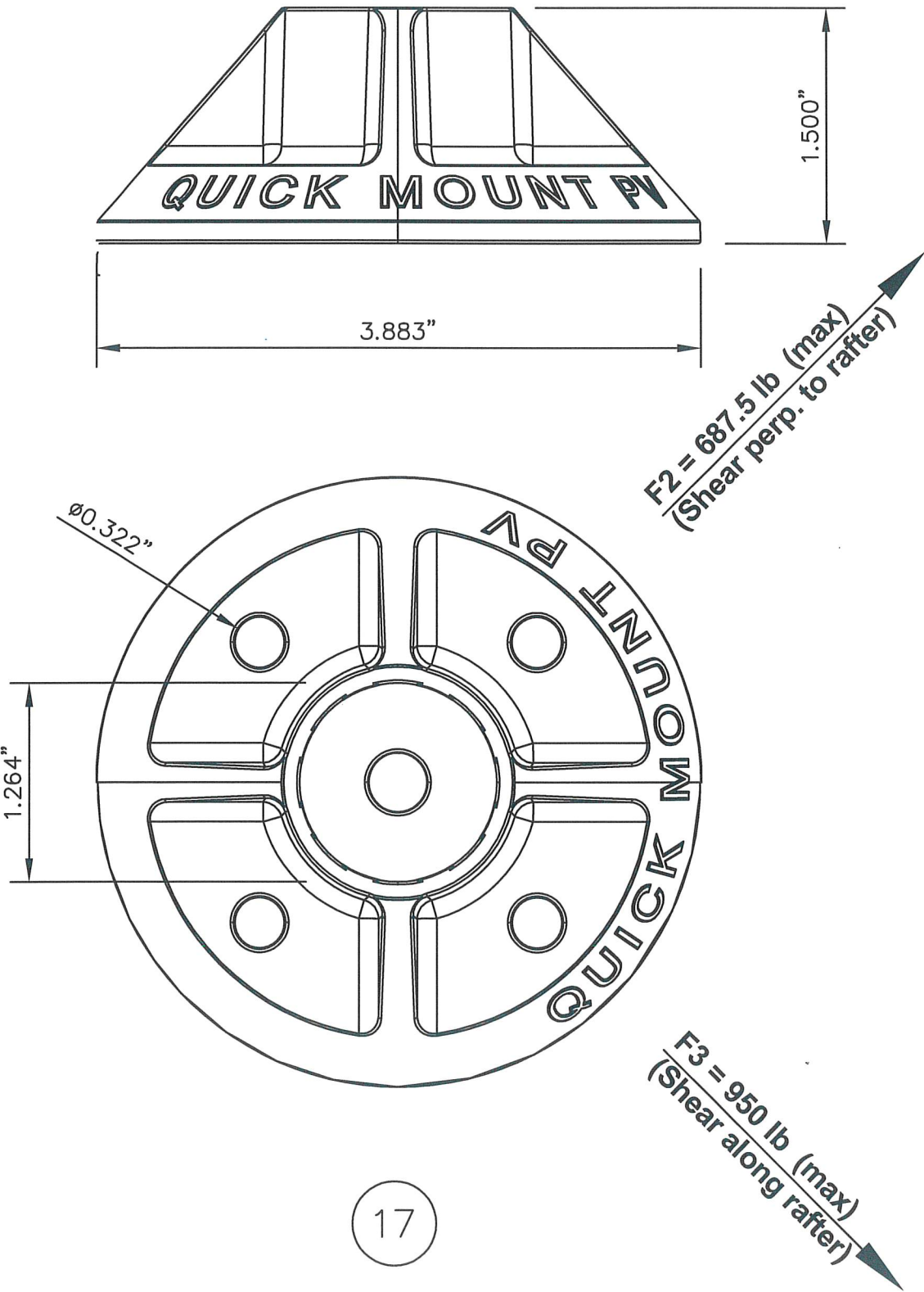
28357 INDUSTRIAL BLVD.
HAYWARD, CA 94545
PHONE: (800) 227-9523
info@ironridge.com

SCOTT WOLTERS
FL PE# 62354
WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
(561) 225-1982



REV.#	DATE	PRINTS ISSUED FOR
1	12/19/22	1ST SUBMITTAL
2	10/18/23	2023 CODE UPDATE
3	4/29/24	REVISION
4	4/24/25	REVISION

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



ANCHOR CAPACITY:

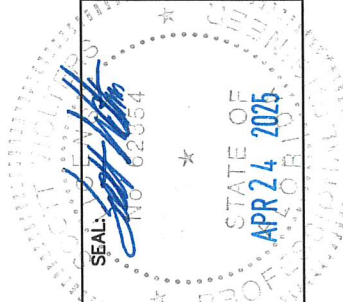
ANCHOR CAPACITIES LISTED ARE
PER FLPA# 29846.



DWG: XR-QB
SHEET: 6/10

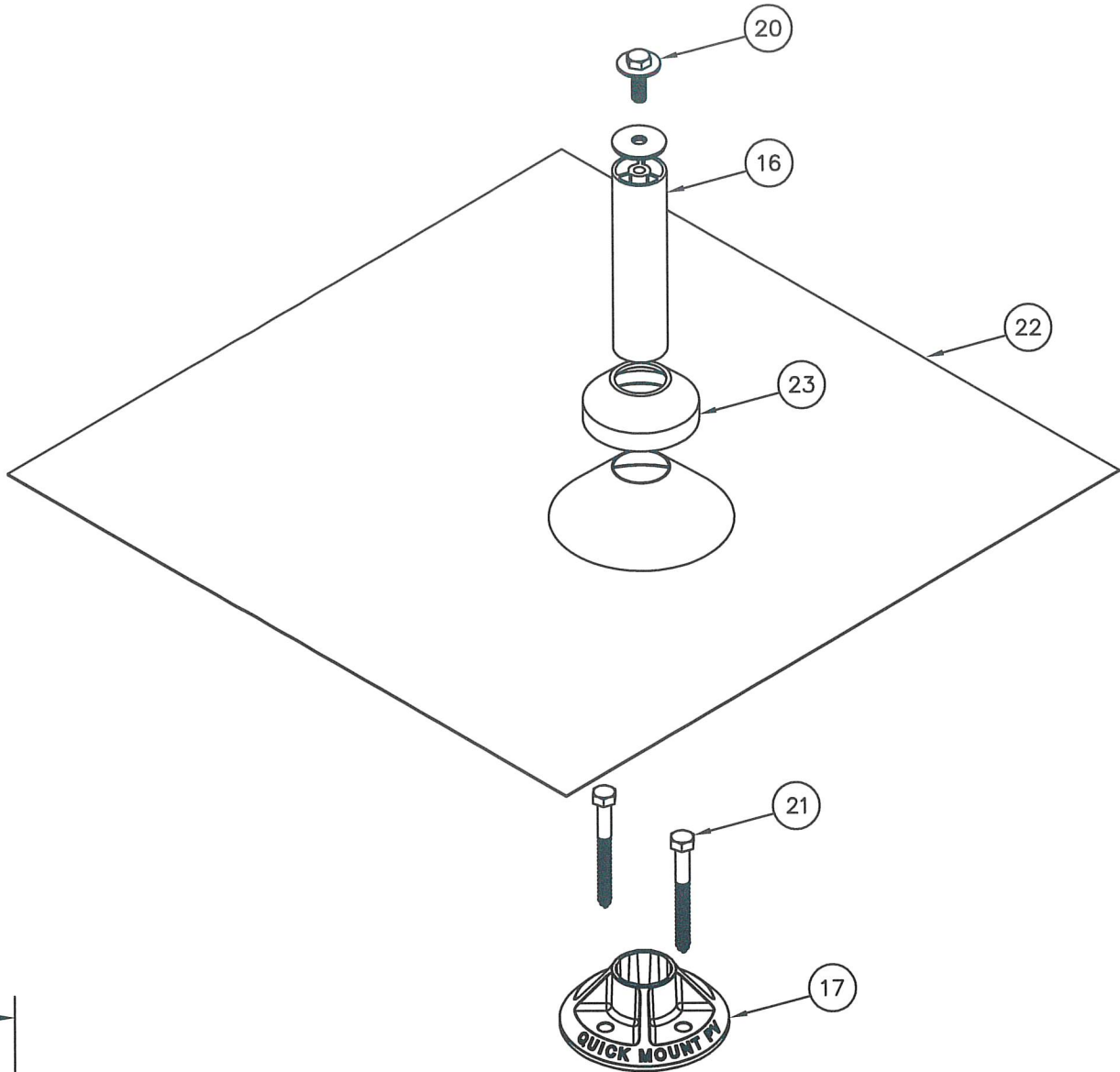
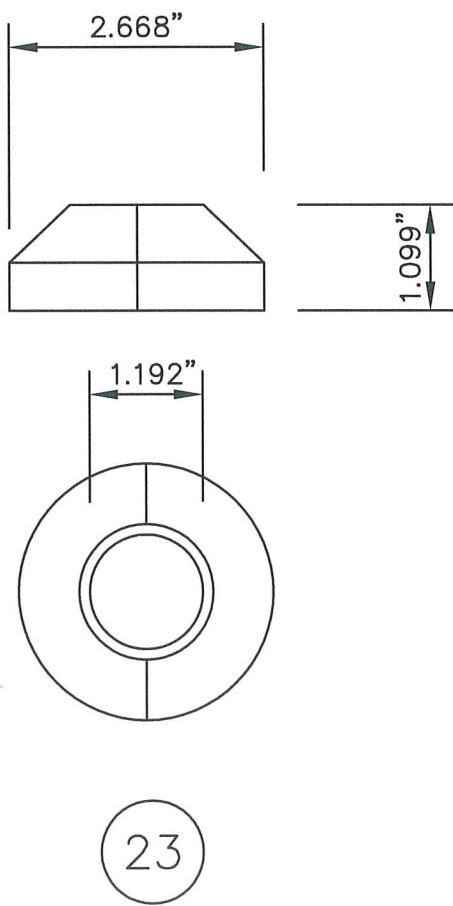
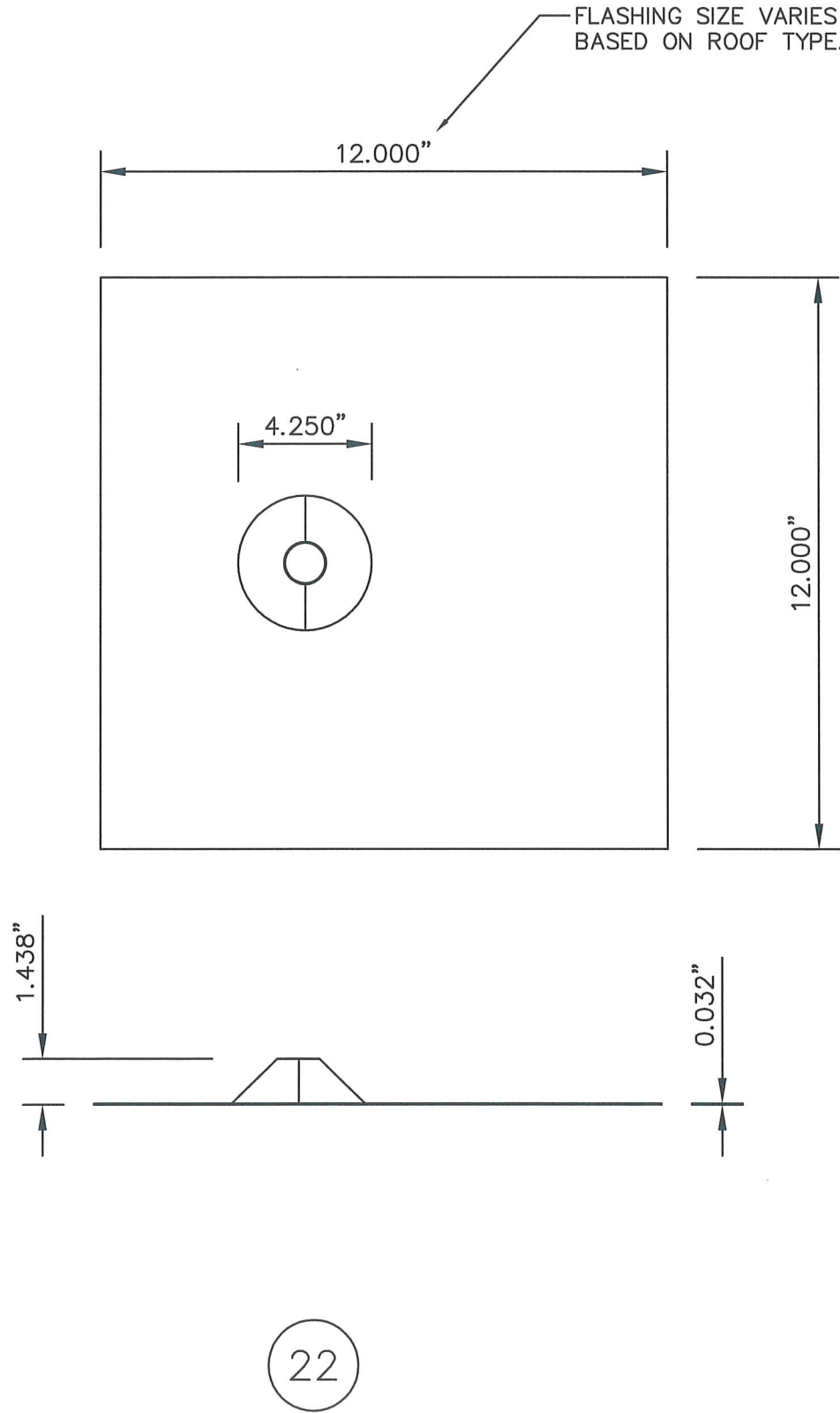
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REV.#	DATE	PRINTS ISSUED FOR
1	10/18/23	2023 CODE UPDATE
2	4/29/24	REVISION
3	4/24/25	REVISION
1	12/19/22	1ST SUBMITTAL

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



**IRONRIDGE**

DWG: **XR-QB**
SHEET: **7/10**

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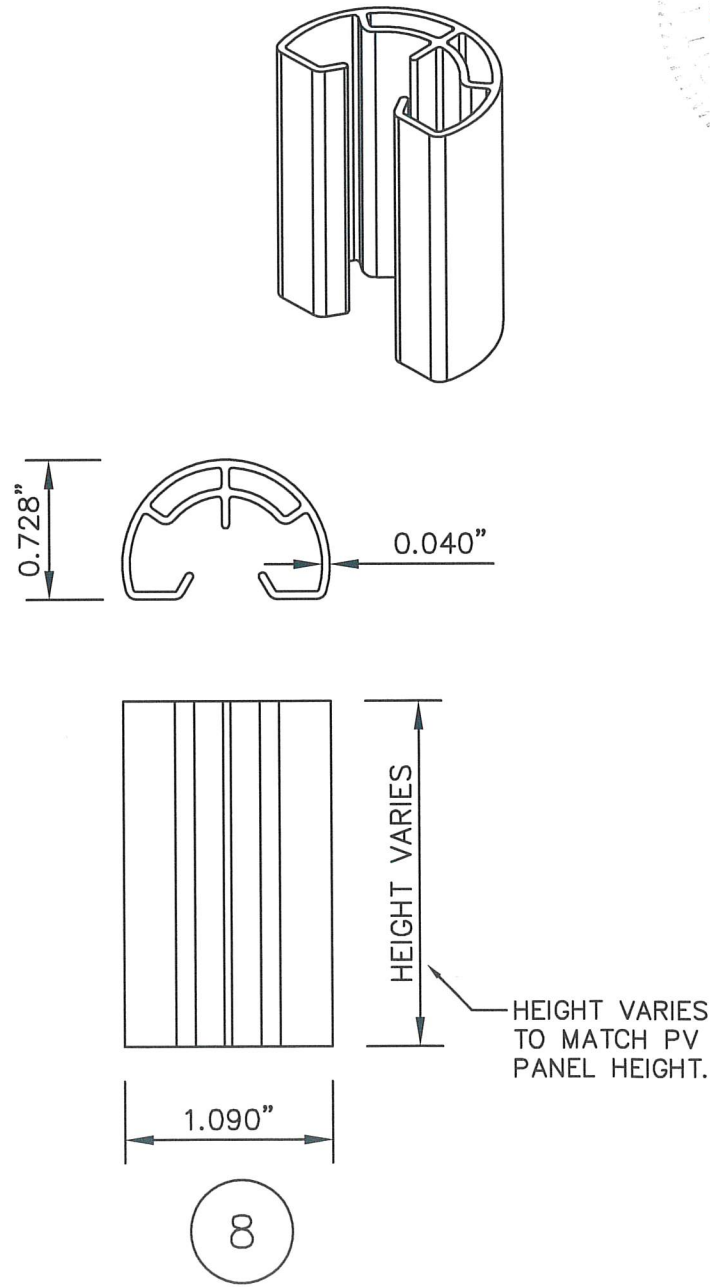
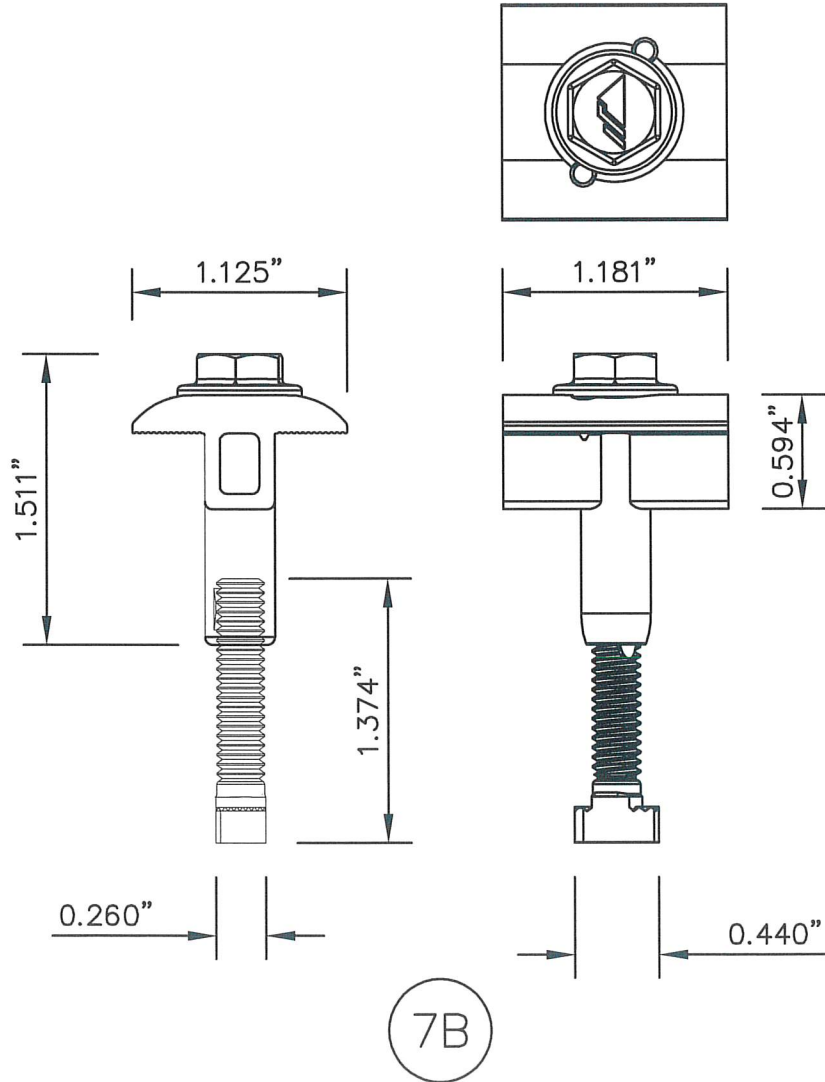
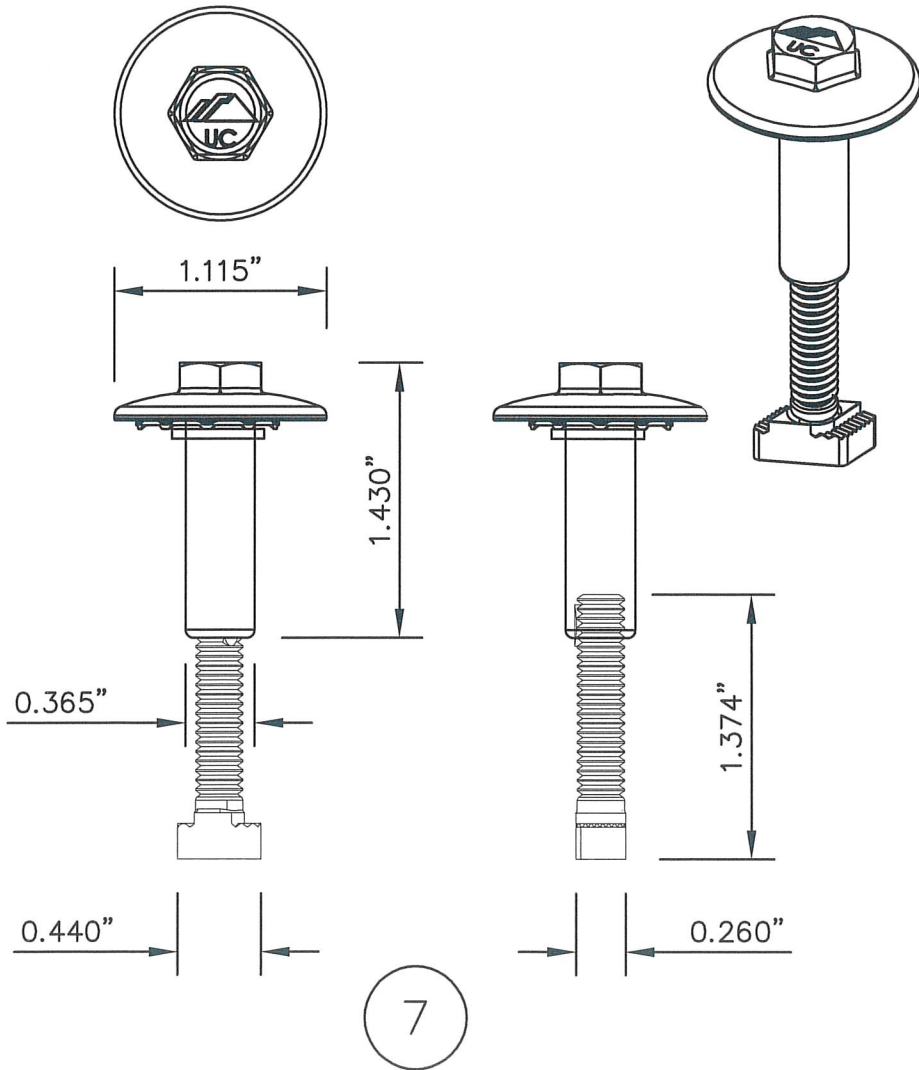
REV.#	DATE	PRINTS ISSUED FOR
1	4/24/25	2
2	4/29/24	1
3	10/18/23	1
4	12/19/22	1

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

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
7B	XR MID CLAMP (30-40MM), US PRODUCTION	6000 SERIES AL & 300 SERIES SS
8	STOPPER SLEEVE	6000 SERIES AL
9	EFO UNIVERSAL END CLAMP	300 SERIES AL & 300 SERIES SS
9B	CAMO HIDDEN END CAM	300 SERIES AL & 300 SERIES SS
9C	ECLIPSE HIDDEN END CLAMP ASSEMBLY	6000 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

28357 INDUSTRIAL BLVD.
HAYWARD, CA 94545

DWG: XR-QB

SHEET: 8/10

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SEAL:
No. 62354
APR 24 2025

REVISION

3 4/24/25

REVISION

2 4/29/24

2023 CODE UPDATE

1 10/18/23

1ST SUBMITTAL

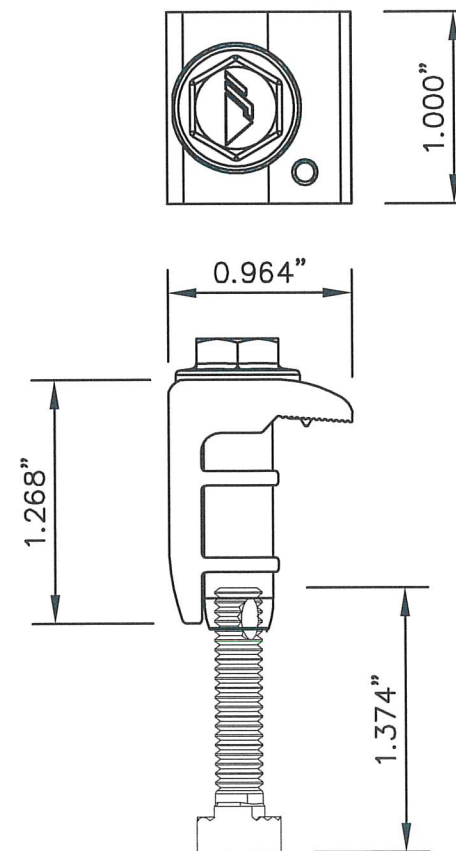
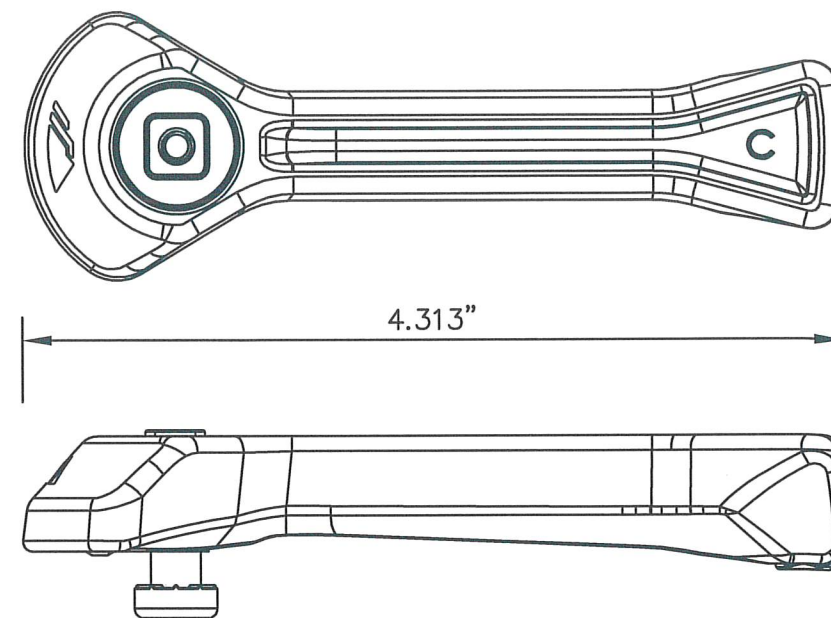
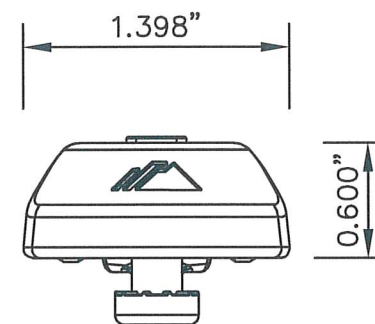
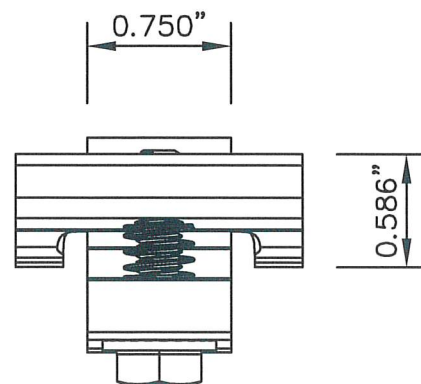
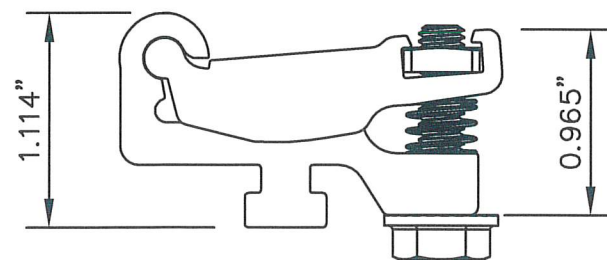
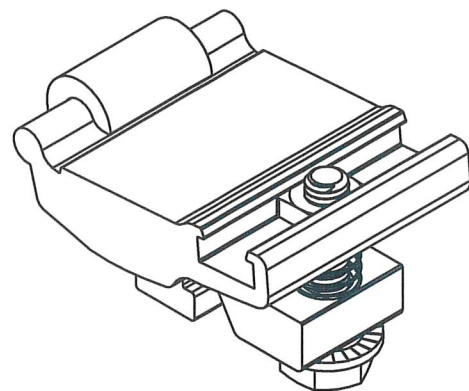
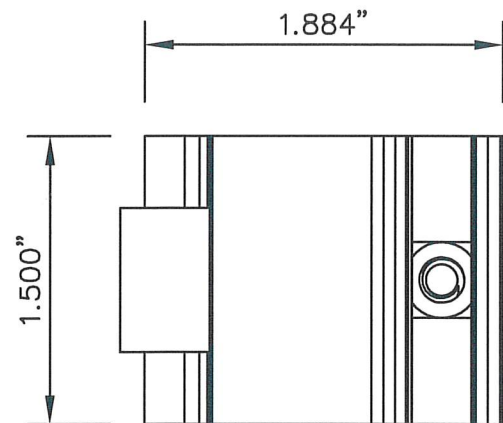
12/19/22

REV.#

DATE

PRINTS ISSUED FOR

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



(9B)

9C

9

DWG:	XR-QB
SHEET:	9/10



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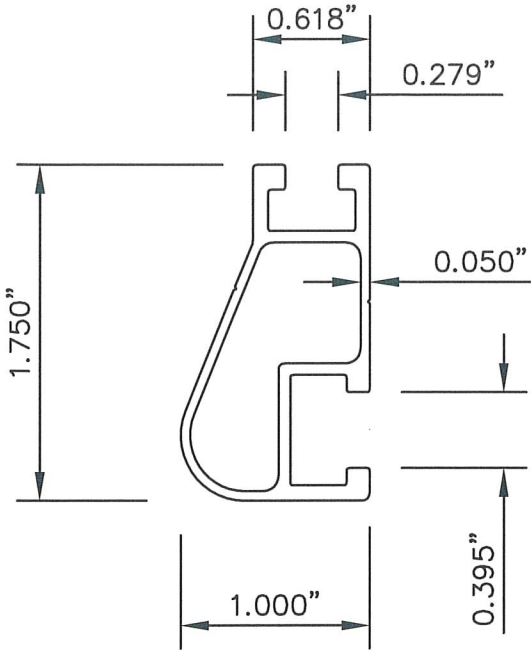
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FL PE# 62354

SEAL: *[Signature]*

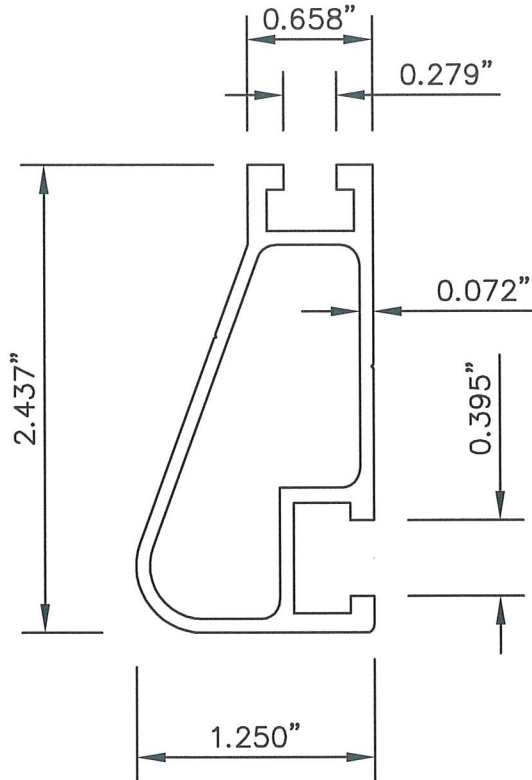
STATE OF
APR 24 2025

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REVISION	3	4/24/25
REVISION	2	4/29/24
2023 CODE UPDATE	1	10/18/23
1ST SUBMITTAL	—	12/19/22
PRINTS ISSUED FOR	REV.#	DATE

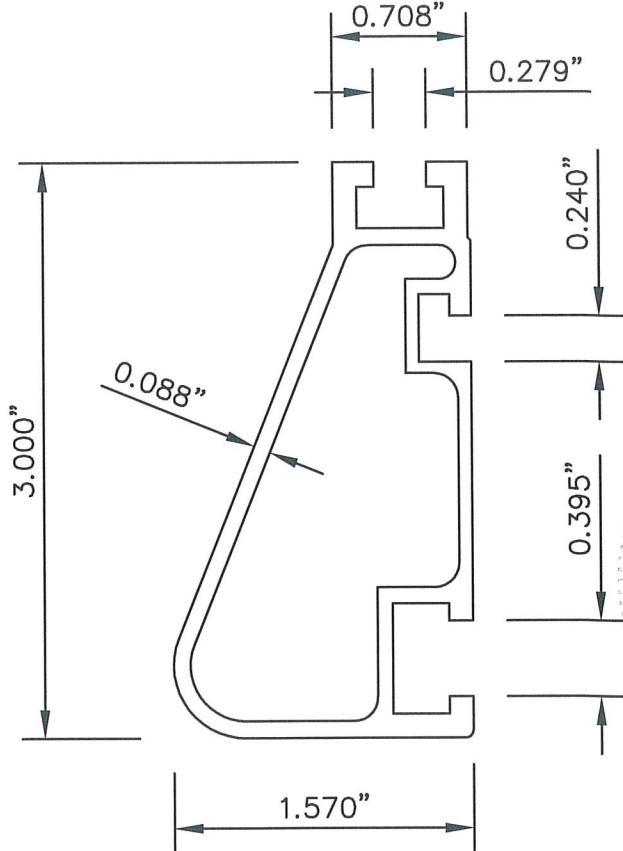
IRONRIDGE XR FLUSH MOUNT PHOTOVOLTAIC PANEL RACKING SYSTEM
WITH QUICKMOUNT Q-BASE ROOF ATTACHMENTS



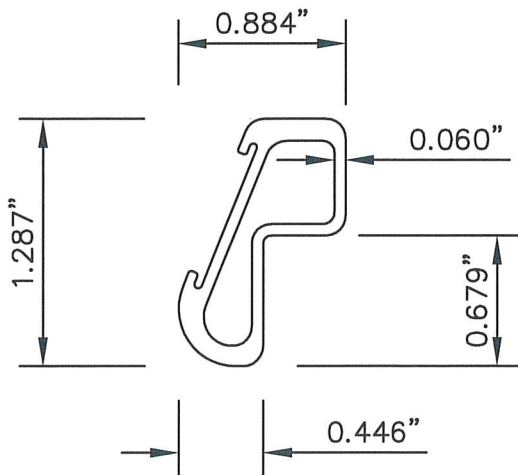
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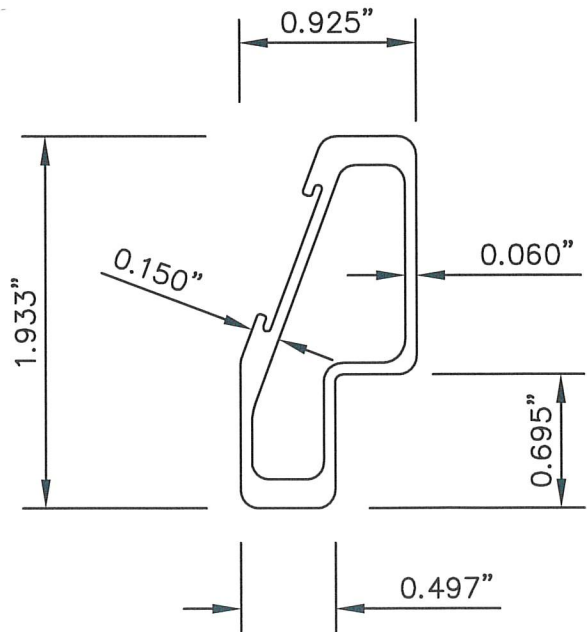
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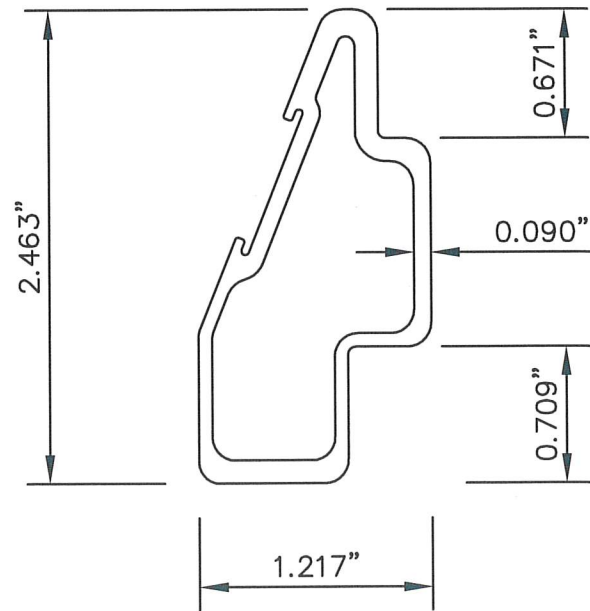
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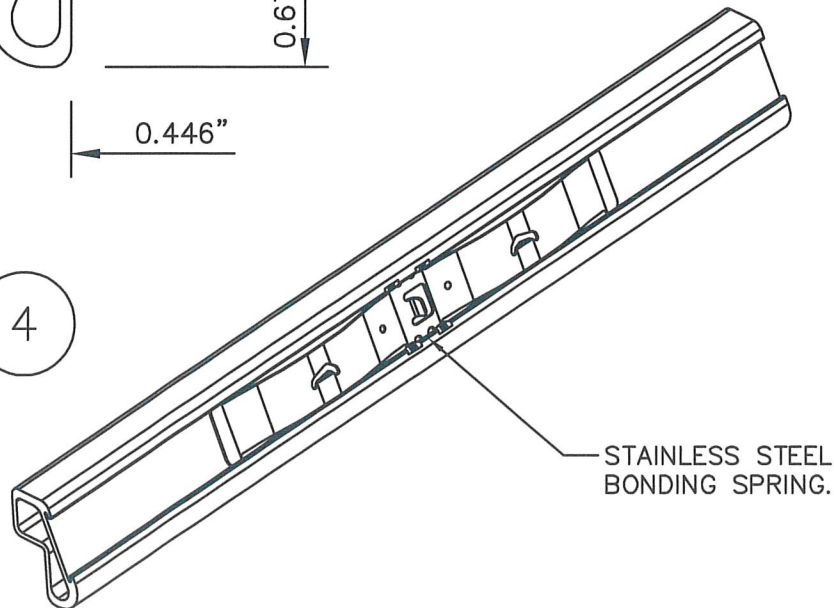
4



5



6



STAINLESS STEEL
BONDING SPRING.



28357 INDUSTRIAL BLVD.
HAYWARD, CA 94545

DWG: XR-QB

SHEET: 10/10

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
(561) 225-1982

SEAL: [Signature]
NO 62354

STATE OF FLORIDA
APR 24 2025

REV.#	DATE	PRINTS ISSUED FOR
1	10/18/23	2023 CODE UPDATE
2	4/29/24	REVISION
3	4/24/25	REVISION