

SMR100 ROOF TOP PV MOUNTING SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).

THIS PRODUCT APPROVAL IS FOR THE ROOF TOP PV MOUNTING SYSTEM AS SHOWN ON THESE DRAWINGS. ROOF DETAILS, UPLIFT, SLOPE, ROOF TRUSSES AND OTHER ELEMENTS SHALL BE DESIGNED BY A FLORIDA REGISTERED ENGINEER AND REVIEWED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT.

ENGINEER OF RECORD TO VERIFY THAT ROOF MEMBERS CAN SUPPORT THE PV MODULE ARRAY UNDER ALL CODE LEVEL LOADING CONDITIONS. INSTALLER TO MAINTAIN THE WATERPROOF INTEGRITY OF THE ROOF.

INSTALLATION OF PV PANEL ACCESSORIES SHALL BE DONE IN ACCORDANCE WITH THE CURRENT EDITION OF FLORIDA BUILDING CODE AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER THE MANUFACTURERS'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND ROOF COVERING.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

SOLAR PANELS TO BE INSTALLED PARALLEL TO THE ROOF SURFACE WITH A TOLERANCE OF LESS THAN 2 DEGREES.

MAXIMUM ROOF SLOPE TO BE 45 DEGREES.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY THE BUILDING OFFICIAL.

Russell N Emery
2023.09.14
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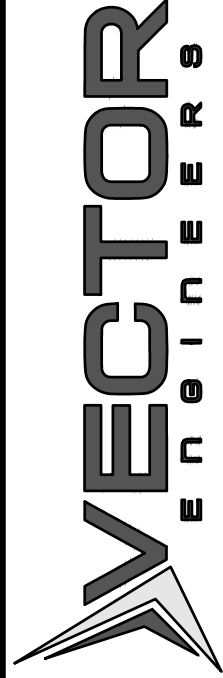
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PV PANELS AND ROOF MOUNTS ARE NOT PART OF THIS APPROVAL. FOR PANEL DETAILS, GENERAL NOTES, COMPONENT SIZES, FIRE AND ELECTRICAL SAFETY STANDARDS, PANEL CONNECTION TO MOUNTS AND INSTALLATION REQUIREMENTS / LIMITATIONS SEE CORRESPONDING FLORIDA APPROVAL DRAWINGS.

- A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THE PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE / SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- B- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

REV. #	DATE	BY:	ENG-MH	DWM-MH	CHK: RNE



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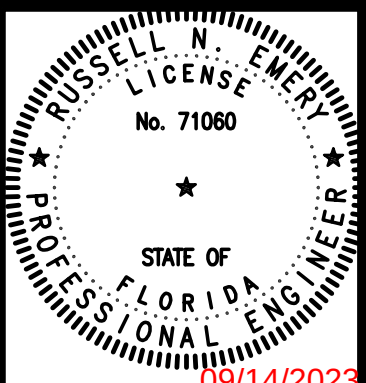
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SUNMODO CORP.

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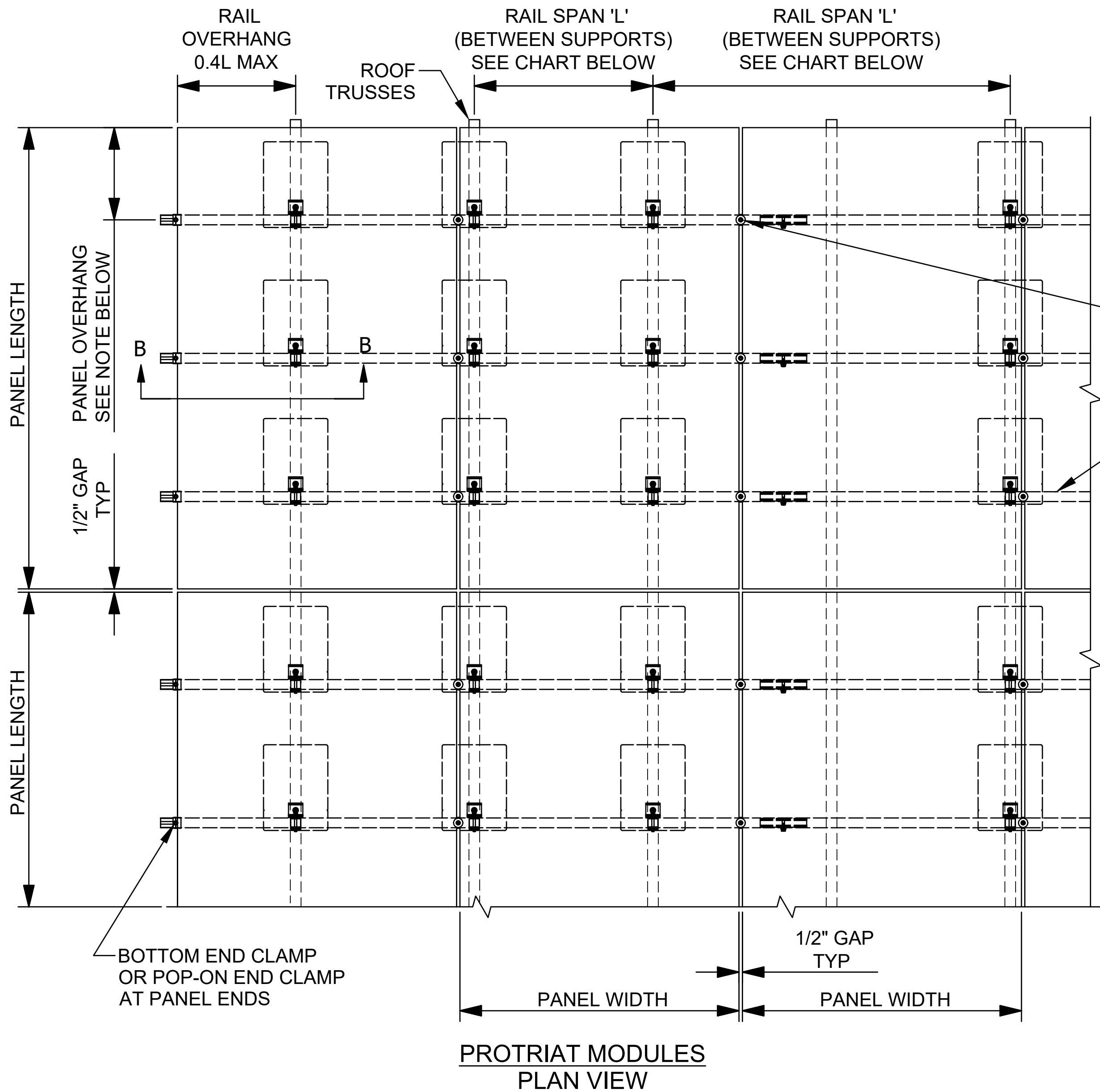
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U2716.0374.231

SHEET
1 OF 5



DESIGN LOAD CAPACITY (PSF) PORTRAIT MODULES		
NUMBER OF RAILS	SPAN 'L'	DESIGN LOAD (PSF)
2	16"	79.3*
	24"	79.3*
	32"	79.3*
	48"	61.6
	64"	35.2
	72"	28.2
3	16"	117.8*
	24"	117.8*
	32"	117.8*
	48"	91.1
	72"	41.1

SEE NOTES BELOW

NOTES:
PANEL OVERHANG AS PER PANEL MANUFACTURER'S INSTRUCTION. SHOULD BE EQUAL ON BOTH SIDES OF PANELS. FOR 3 RAILS SUPPORTED PANELS, OVERHANGS TO BE BETWEEN 12-15% OF PANEL LENGTH OR WIDTH.

RAILS CAN BE JOINED WITH 6.50" LONG SPLICE TO ACHIEVE REQUIRED LENGTHS. SPLICE JOINTS TO BE ANYWHERE ALONG RAIL EXCEPT THAT SPLICE OR SPLICE JOINT ARE TO BE ALONG NO PART OF THE RAIL CANTILEVERS.

DESIGN LOADS SHOWN IN THE TABLE ARE FOR 72 CELL PANELS (39.5" X 79"). DESIGN LOAD FOR DIFFERENT SIZED PANELS MAY BE CALCULATED AS FOLLOWS:

DESIGN LOAD = LOAD FROM TABLE X $\left(\frac{39.5"}{\text{NEW PANEL WIDTH}}\right) \times \left(\frac{79"}{\text{NEW PANEL LENGTH}}\right)$

DESIGN LOADS MARKED WITH AN ASTERISK (*) ARE GOVERNED BY CLAMP CAPACITY.

LINEAR INTERPOLATION BETWEEN TABULATED VALUES IS ALLOWED.

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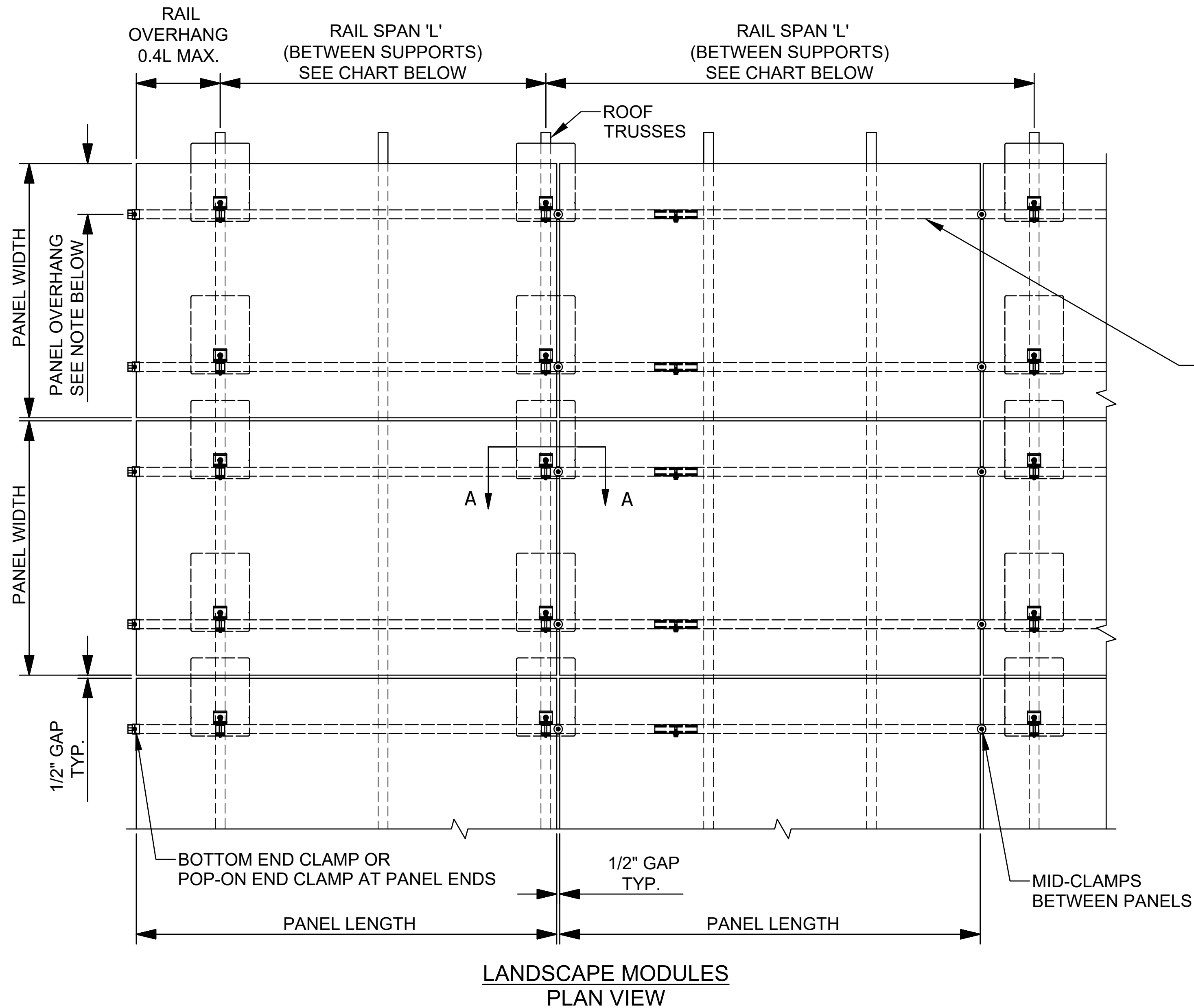
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SHEET
2 OF 5



DESIGN LOAD CAPACITY (PSF) LANDSCAPE MODULES		
NUMBER OF RAILS	SPAN 'L'	DESIGN LOAD (PSF)
2	16"	79.3*
	24"	79.3*
	32"	79.3*
	48"	79.3*
	64"	68.8
3	72"	54.6
	16"	117.8*
	24"	117.8*
	32"	117.8*
	48"	117.8*
	64"	102.0
	72"	80.7

SEE NOTES BELOW

NOTES:
PANEL OVERHANG AS PER PANEL MANUFACTURER'S INSTRUCTION. SHOULD BE EQUAL ON BOTH SIDES OF PANELS. FOR 3 RAILS SUPPORTED PANELS, OVERHANGS TO BE BETWEEN 12-15% OF PANEL LENGTH OR WIDTH.

RAILS CAN BE JOINED WITH 6.50" LONG SPLICE TO ACHIEVE REQUIRED LENGTHS. SPLICE JOINTS TO BE ANYWHERE ALONG RAIL EXCEPT THAT SPLICE OR SPLICE JOINT ARE TO BE ALONG NO PART OF THE RAIL CANTILEVERS.

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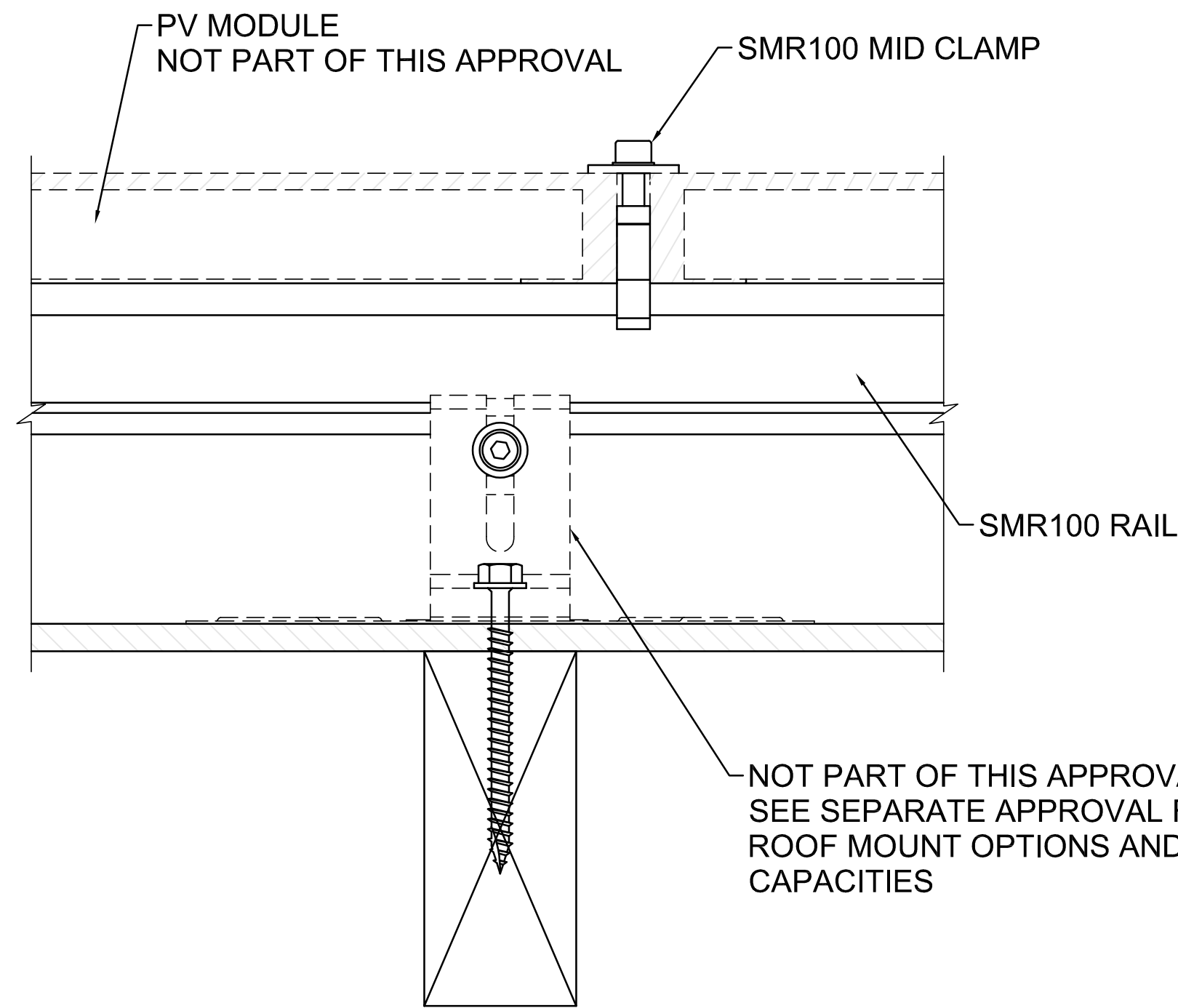
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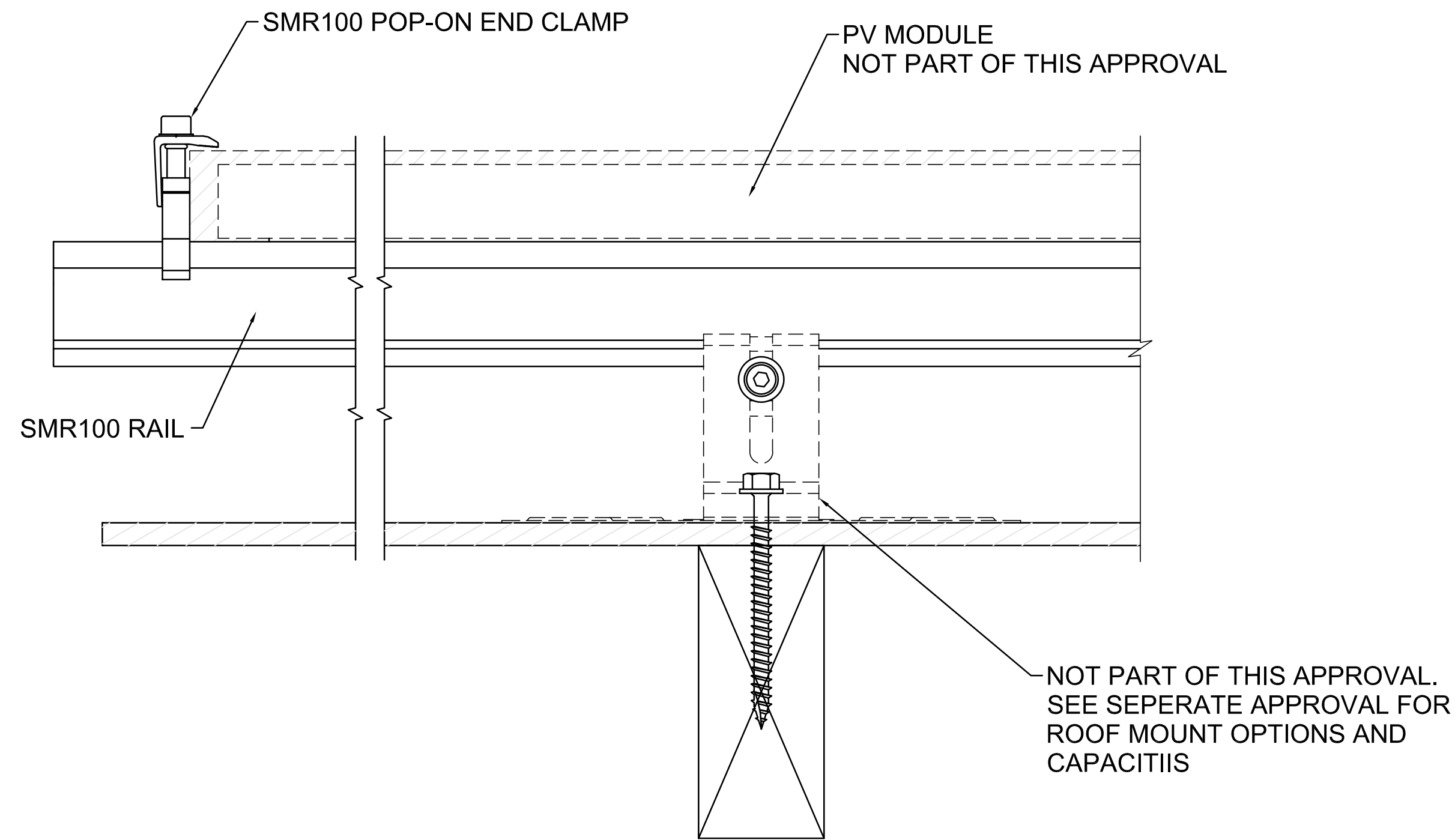
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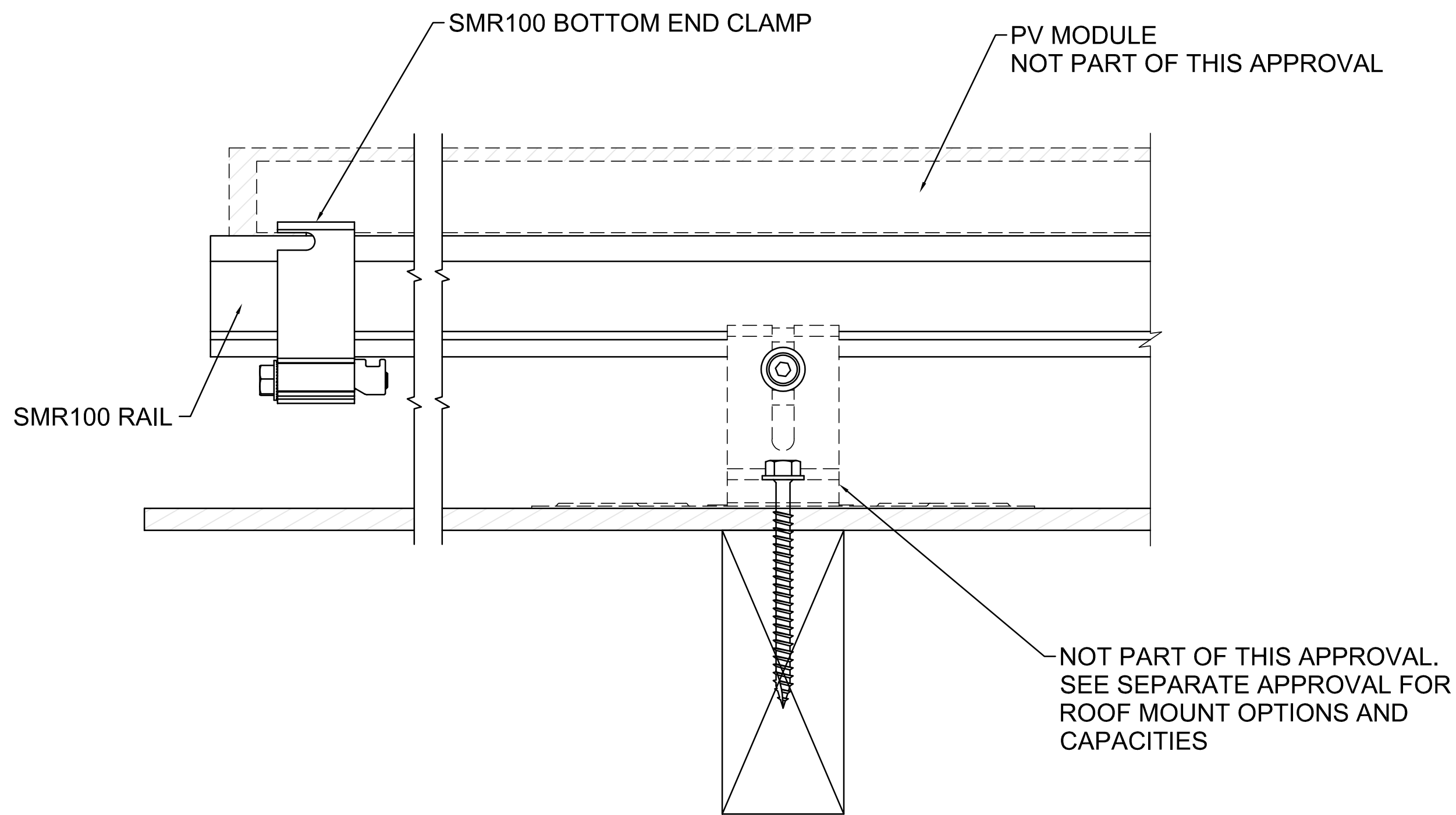
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3 OF 5



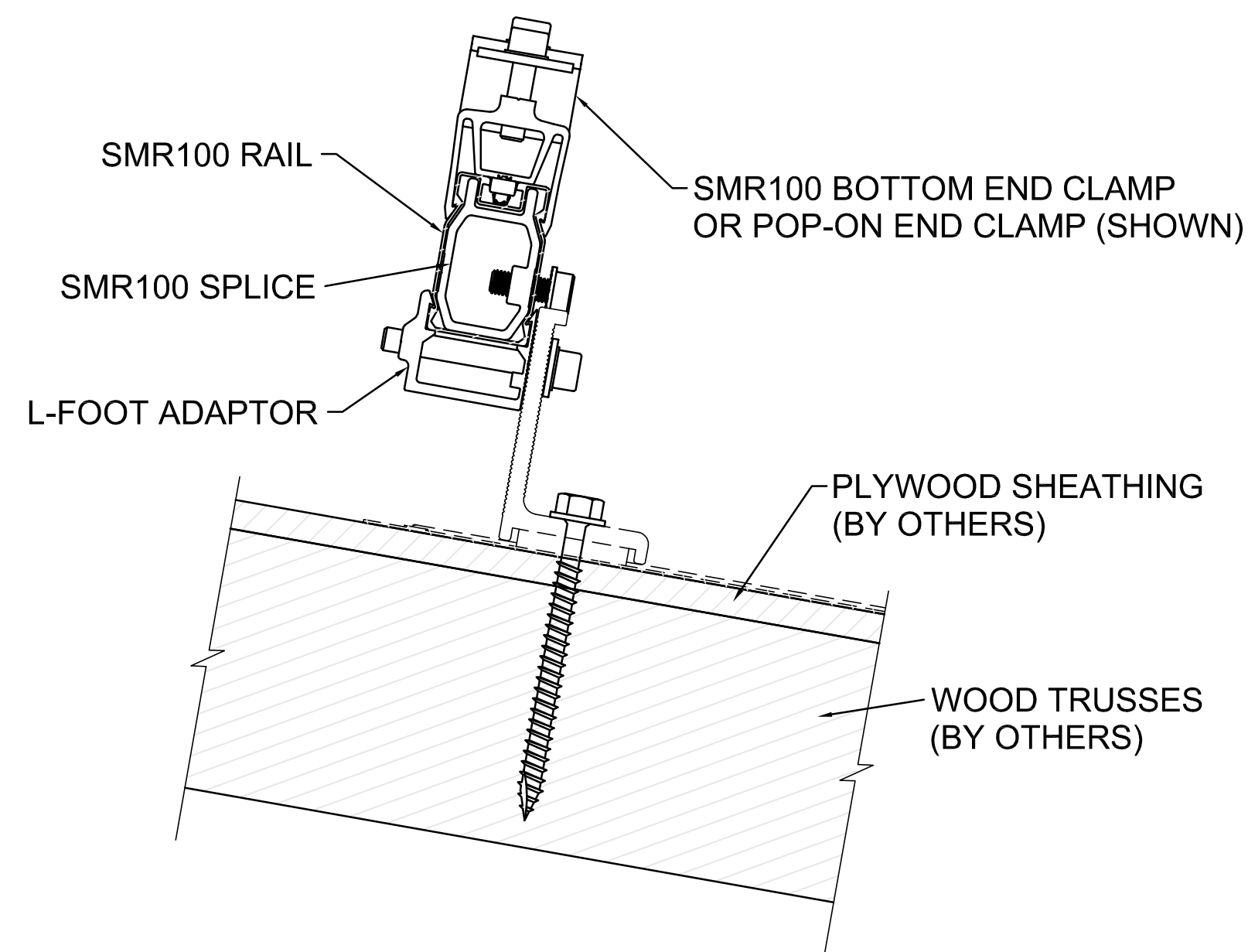
SECTION A-A



SECTION B-B



SECTION B-B
(ALTERNATE)



SIDE VIEW

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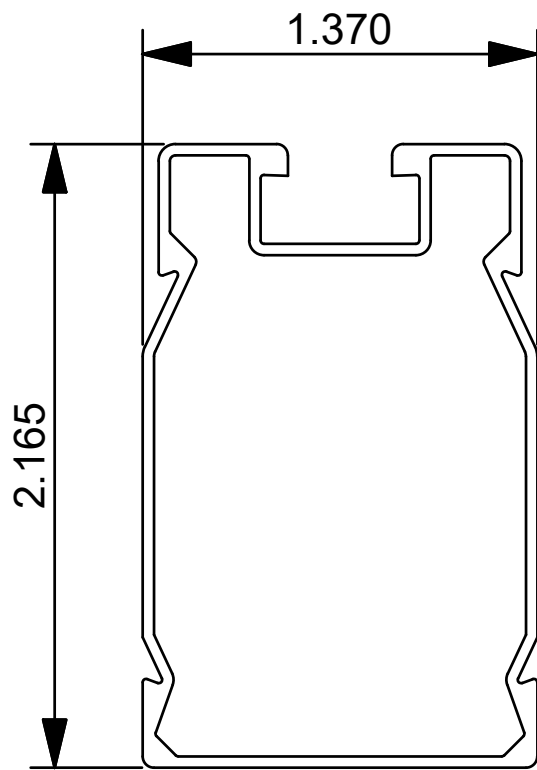
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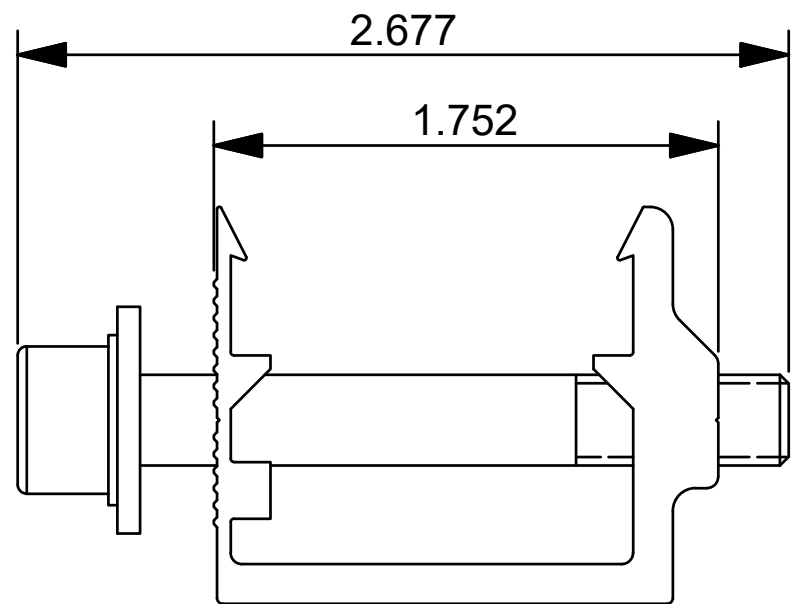
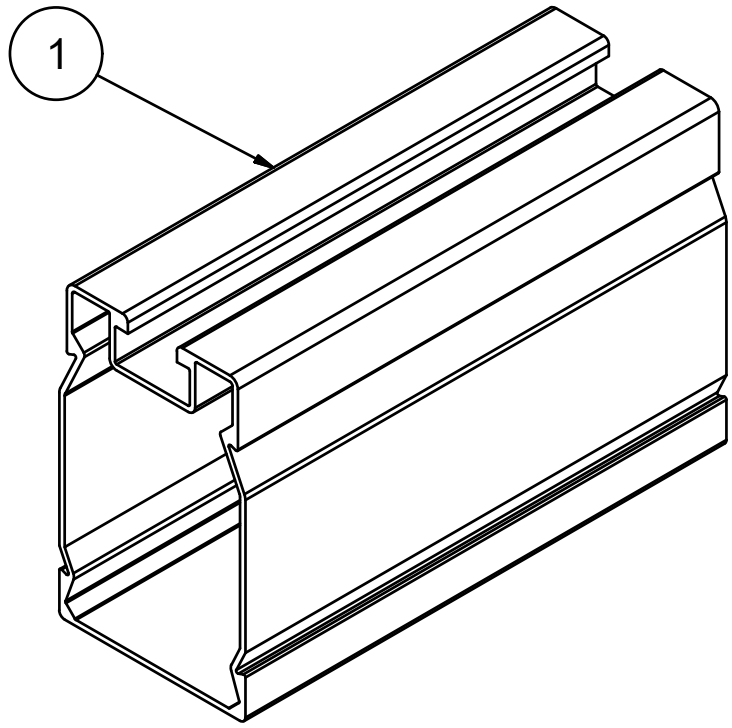
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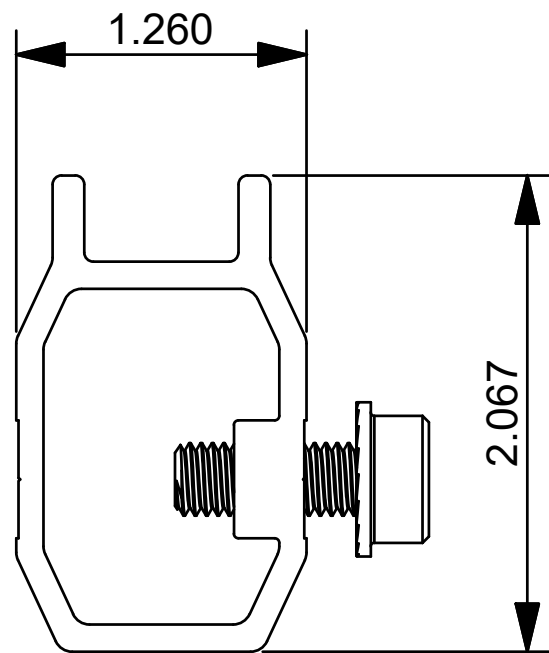
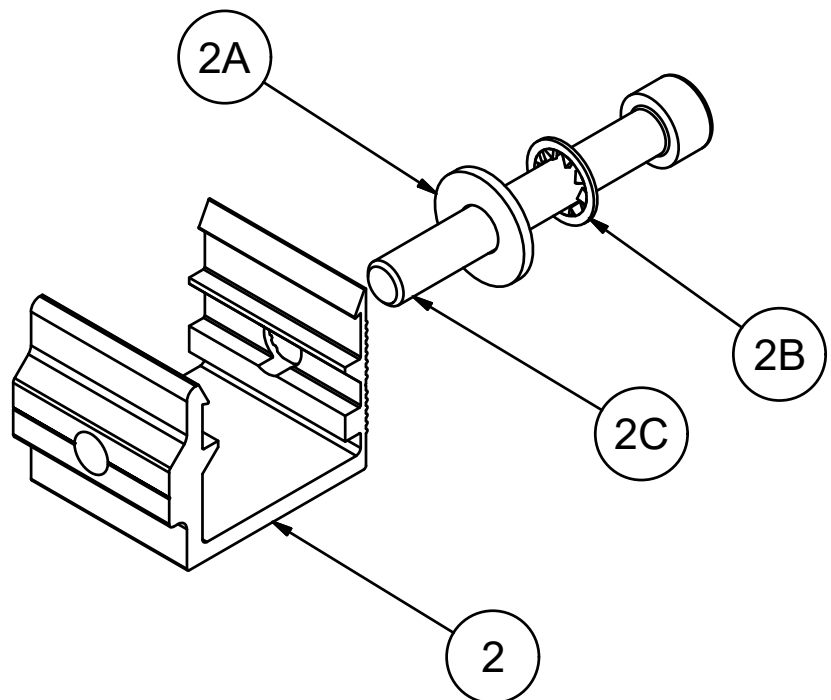
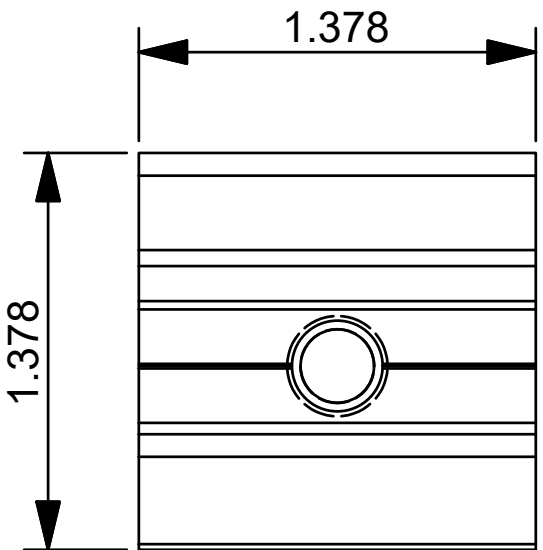
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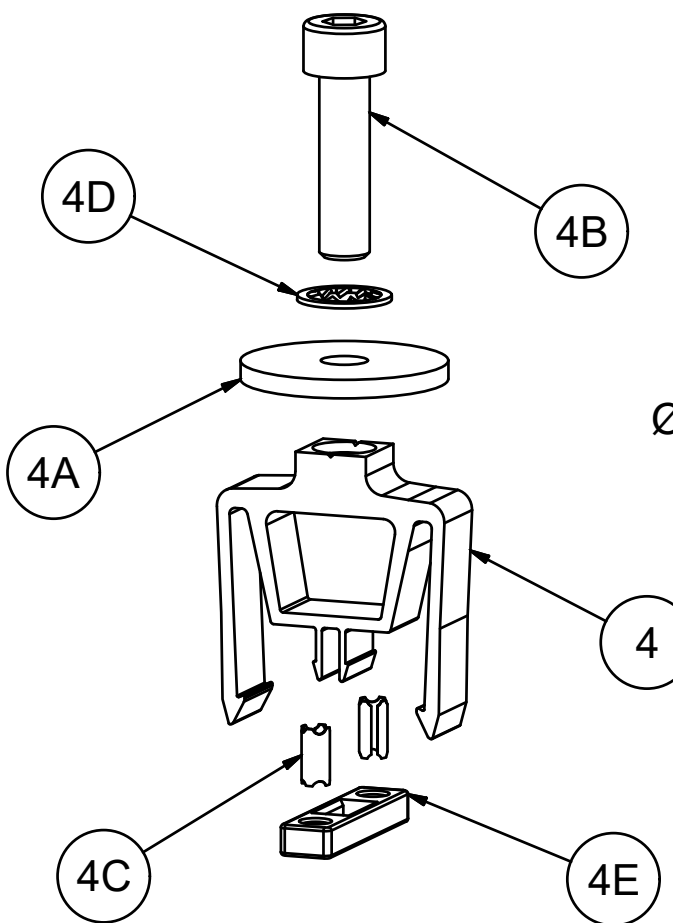
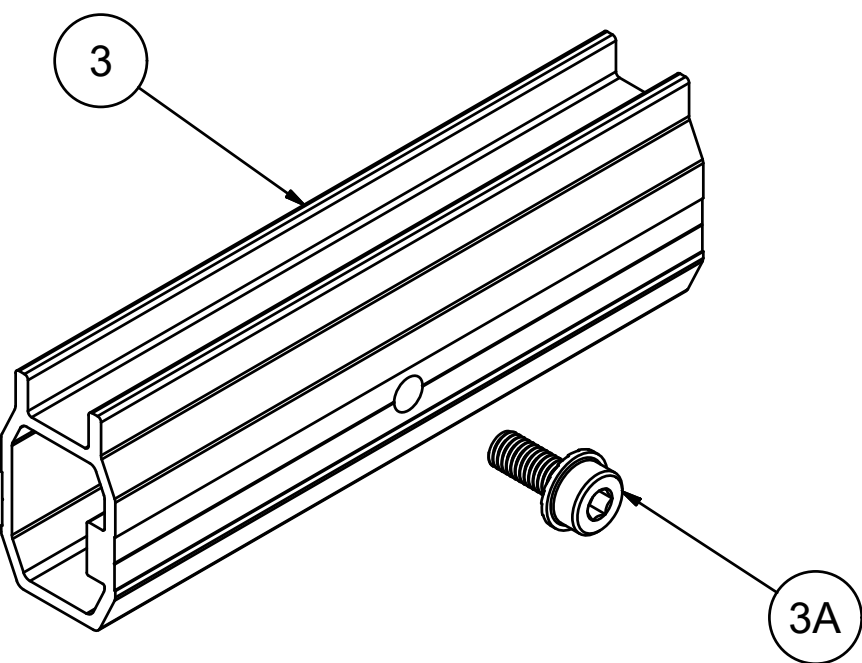
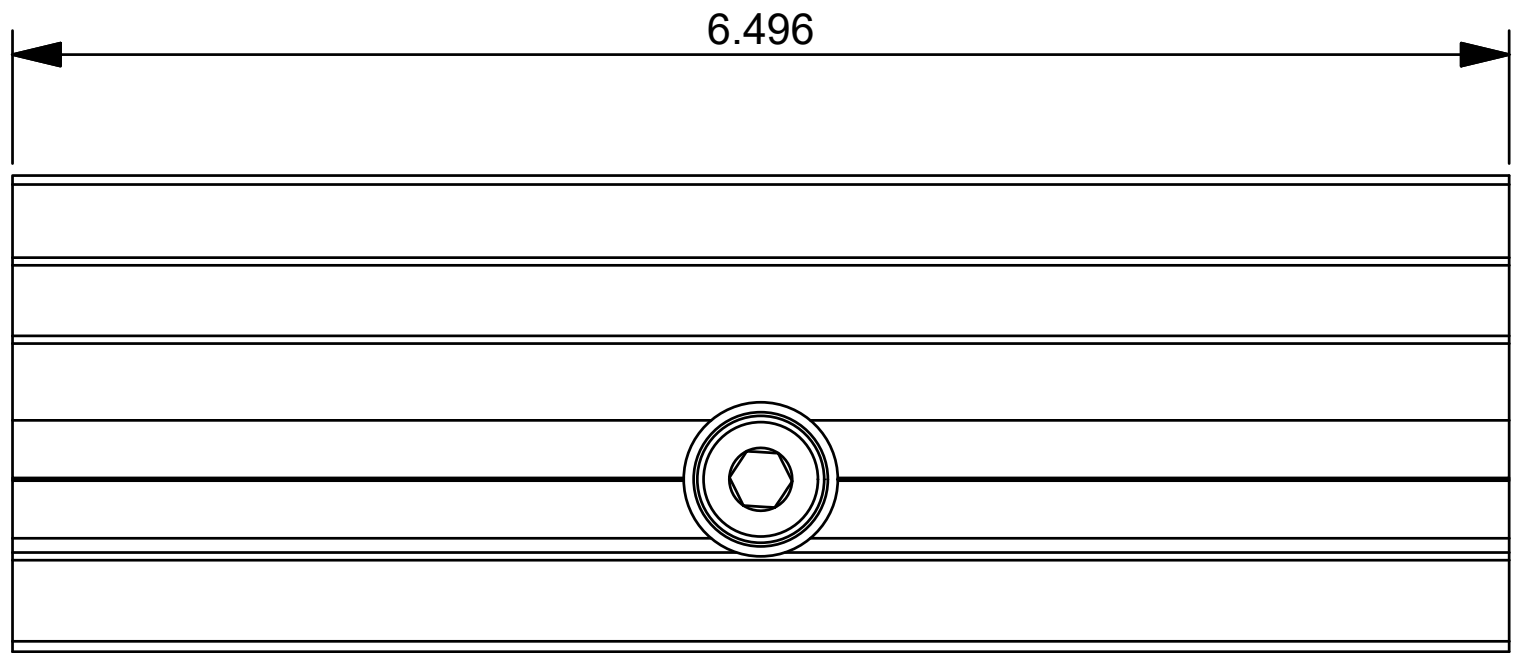
SMR100 RAIL
A20422



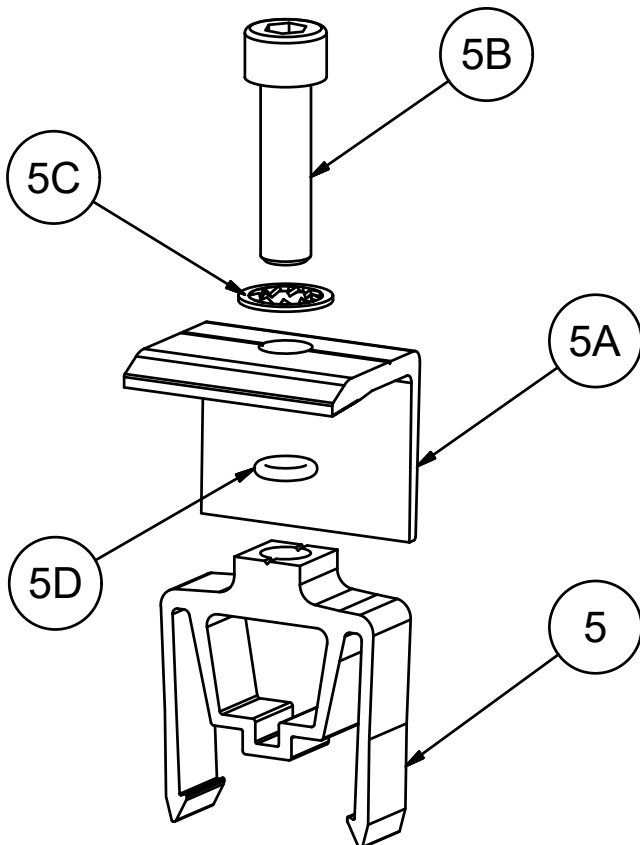
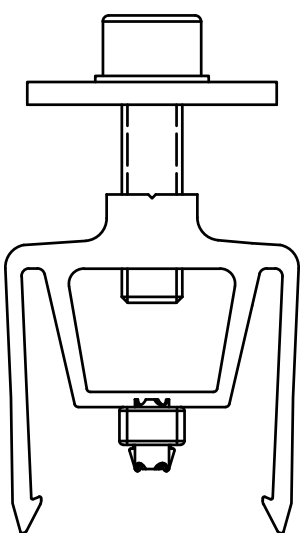
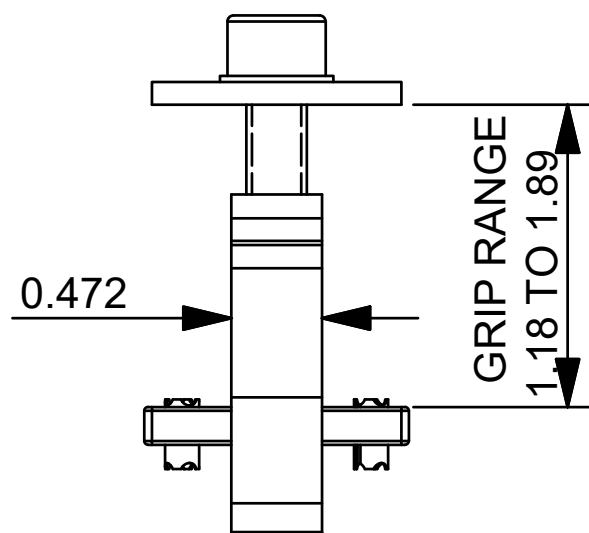
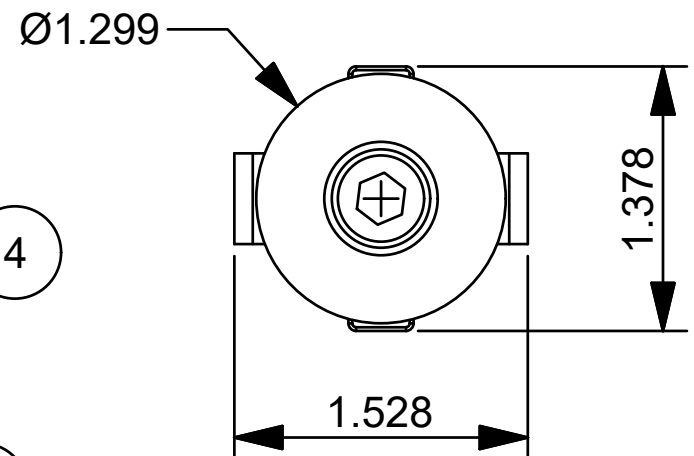
SMR100 L-FOOT ADAPTOR
K10433-BK1



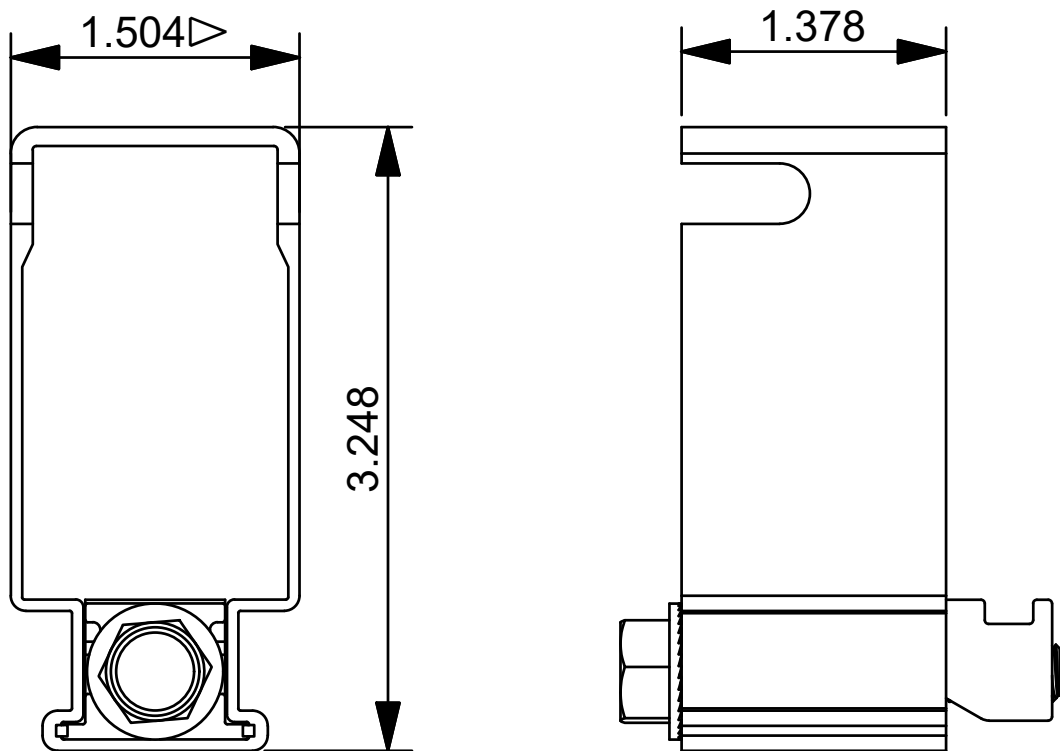
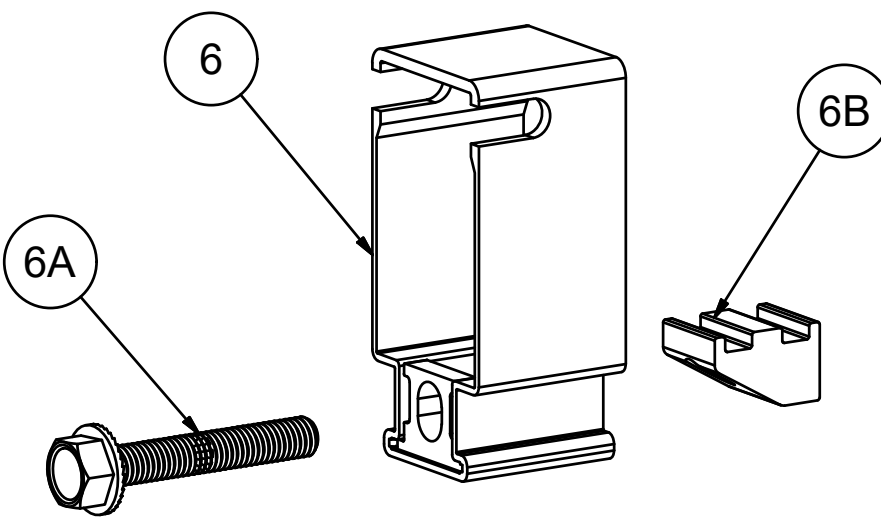
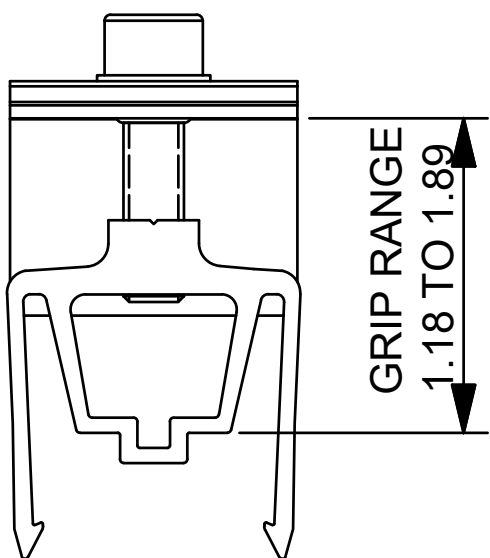
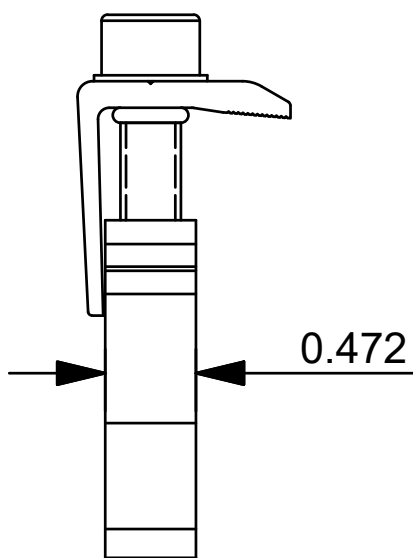
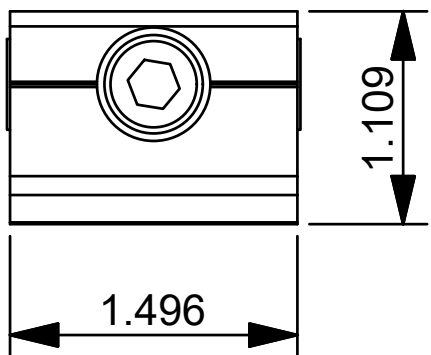
SMR100 SPLICE
K10421-002



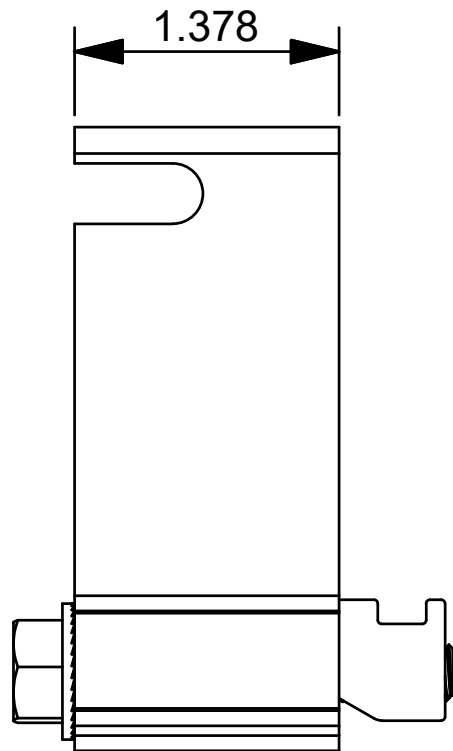
SMR100 MID CLAMP
K10417-BK3



SMR100 END CLAMP
K10418-BK3



SMR100 BOTTOM END CLAMP
K10505-BK1



6B	A20499-001	PANEL CLAMP WEDGE-B	STAINLESS STEEL
6A	B10095-BK7	SERRATED-FLANGE SOCKET HEAD SCRWE M8X50	STAINLESS STEEL
6	K10505-101-BK	SMR100 BOTTOM CLAMP	6000 SERIES AL*
5D	C10035-002	O RING ID6.0	SILICONE
5C	B50040-BK1	M8 INTERNAL-TOOTH LOCK WASHER	STAINLESS STEEL
5B	B10054-BK1	SOCKET HEAD SCREW	STAINLESS STEEL
5A	A50108-BK1	END CLAMP WITH ONE LEG	6000 SERIES AL*
5	A20472-BK1	SMR POP-ON CLAMP BODY	6000 SERIES AL*
4E	C10049-001	SMR BONDING PIN HOLDER	PA+40%GF
4D	B50040-BK1	M8 INTERNAL-TOOTH LOCK WASHER	STAINLESS STEEL
4C	B20018-002	GROUNDING PIN	6063-T5
4B	B10054-BK1	SOCKET HEAD SCREW M8X30mm	STAINLESS STEEL
4A	B10036-BK3	SMR MID CLAMP WASHER	STAINLESS STEEL
4	A20471-BK1	SMR POP-ON CLAMP BODY	6000 SERIES AL*
3A	B10095-003	SERRATED-HEAD SOCKET HEAD SCREW M8X20	STAINLESS STEEL
3	A20425-001	SMR100 STRUCTURE SPLICE, L=165mm	6000 SERIES AL*
2C	B10054-BK6	SOCKET HEAD SCREW M8X60mm	STAINLESS STEEL
2B	B50040-BK1	M8 INTERNAL-TOOTH LOCK WASHER	STAINLESS STEEL
2A	B10036-BK2	M8 FENDER WASHER	STAINLESS STEEL
2	A20424-BK1	SMR100 L-FOOT POP-ON CLIP	6000 SERIES AL*
1	A20422	SMR100 RAIL	6000 SERIES AL*
ITEM	PART NUMBER	DESCRIPTION	MATERIAL

*: MIN REQUIRED ALUMINUM YIELD STRENGTH, Fty = 35 KSI. MIN REQUIRED ALUMINUM ULTIMATE STRENGTH, Ftu = 38 KSI. MAXIMUM TENSION COEFFICEINT, Kt = 1.0.

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