

Part 1 - GENERAL**Scope**

Work included: Furnish materials, labour and equipment for the complete installation of aluminum entrance and window frames as detailed on the drawings and specified herein.

Work Not Included: Structural support of framing, interior building trims, and as specified by drawings and customer requirements per contract or purchase agreement.

Quality Assurance

Drawings and specification for work in this section are based upon Metro "HP2020" Series framing system.

Design & Performance

HP2020 Series Curtainwall framing system fully complies with AAMA/WDMA/CSA 101/I.S.2/A440-08 Standard/Specification for windows, doors, and unit skylights. See detail test report included in this section.

Maintenance and Warranty

Upon request, Metro will provide instructions for proper cleaning and maintenance. Metro Glass Metal Products come with a two year warranty which shall begin from the day the product is shipped or from substantial completion of the installation. The warranty covers materials and workmanship as specified by drawings and customer requirements per contract or purchase agreement.

Part 2 - PRODUCTS**Materials**

All materials to meet design and material specifications as applicable. Extruded aluminum is 6063 T5 alloy and temper. Any defects impairing strength, durability or appearance are not acceptable. Fasteners shall be of sufficient size and strength and made of corrosion-resistant compatible materials. Glazing gaskets shall be Polishim II Tape a 100% solid, highly adhesive and elastic, cross-linked butyl preformed tape with a continuous integral EPDM shim and extruded black santoprene designed and sized to perform their intended function.

Fabrication

Frame assembly to provide accurately fit tight hairline joints only. Extruded profiles to be of sizes and profiles indicated in the contract or the purchase agreement. Corner joints shall be secured with concealed shear blocks with fastening by means of anticorrosive steel screws, and as specified by drawings and customer requirements per contract or purchase agreement.

Finish - Anodized 6063 Material Code Identification

Exposed surfaces shall be finished as specified by customer:

Satin Clear 14 AA-M12C22A41

Satin Medium Bronze 30 AA-M12C22A44


Satin Black 29 AA-M12C22A44

Powdercoated and various other finishes (including shades of Bronze) available upon request.

Installation

Framing to be installed plumb, level and square and glazed by an experienced crew in prepared openings in accordance to the manufacturers instructions and approved shop drawings, and as specified by drawings and customer requirements per contract or purchase agreement.



 LAYTON CONSULTING LTD. <small>BRITISH COLUMBIA • ALBERTA • SASKATCHEWAN • ONTARIO NWT • WASHINGTON</small>	Project: Metro HP2020 CW U-value Report				Project No: 1256-15758	
	Sections: Metro HP2020 Curtainwall with Pressure Plate				Client: Metro Glass	
	Calc. by: TW	Date: July, 2020	Chk'd by: IC	Date: July, 2020	App'd by:	Page: 7

RESULTS

The windows are modelled in accordance to NFRC and the results are summarized in Table 2:

Table 2: Thermal Modelling Result

Frame Type	U-Value (W/m ² -K)	U-Value (Btu/h-ft ² -°F)	SHGC	VT
HP2020 2.75" PP	1.736	0.306	0.362	0.647
HP2020 4.00" PP	1.751	0.309	0.362	0.646
HP2020 5.25" PP	1.767	0.311	0.363	0.647

Insulated Glass Unit:

G1: SB60 Clear_6.VTA / 12.7mm 90% Ar / CLEAR_6.DAT

CONCLUSION

The results of the NFRC U-value calculation for the fenestration systems described above show that for the Standard NFRC sizes, the Metro 2020 Curtainwall with a pressure plate obtained a U-value of 1.736 to 1.767 W/m²-K depending on the depth of the back-section. The Solar Heat Gain Coefficient (SHGC) was calculated to be 0.36 and the Visible Transmittance was calculated to be 0.65.



TEST REPORT FOR METRO GLASS & ALUMINUM PRODUCTS LTD.

Report No.: 104394266COQ-001A

Date: 01/04/21

1500 Brigantine Drive
Coquitlam, BC, V3K 7C1

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SECTION 2

SUMMARY OF TEST RESULTS

A summary of results are as indicated in the table below:

Evaluation Property	Results
Air Leakage Resistance @ 75 Pa (1.6 psf)	US – Pass; Can – Fixed
Air Leakage Resistance @ 300 Pa (6.3 psf)	US – Pass; Can – Fixed
Water Penetration Resistance (Static & Cyclic)	720 Pa (15.0 psf)
Uniform Load – Deflection	3840 Pa (80.2 psf)
Uniform Load – Structural	5760 Pa (120.3 psf)
Forced Entry Resistance	Gr.40

Details of the tested results can be found in Section 7 of this report.

Primary and Secondary Designations are as indicated below:

HP2020 Series Fixed Combination Window

Class CW – PG80 – Size Tested 2000x 2000 mm (79 x 79 in) – Type FW

Secondary Designator

Positive Design Pressure = 3840 Pa (80.1 psf)

Negative Design Pressure = 3840 Pa (80.1 psf)

Water Penetration Resistance = 720 Pa (15.0 psf)

Canadian Air Leakage Resistance = Fixed

*HP2020 Series Fixed Combination Window had met/exceeded the minimum gateway performance requirements of Class CW. Refer to deviation within Section 5.9 of this report or for details about the larger specimen refer to Intertek Report No. 102654748OQ-001A.

Mullion Designation is as indicated below:

Aluminum Mullion:

Class CW – PG80 – MA: Size Tested 2000 mm span / 4.0 m2

Class CW – PG80 – MA: Size Tested 78.7 in. span / 43.1 ft2

SECTION 3

TEST METHOD(S)

The specimen was tested and evaluated in accordance with the following:

- ☐ AAMA/WDMA/CSA 101/I.S.2/A440-17, Standard/Specification for windows, doors, and unit skylights
- ☐ CSA A440S1-19, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights



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SECTION 7 TEST RESULTS

AIR LEAKAGE RESISTANCE

Air test data is indicated in the following table:

Property	Area m2 (ft2)	Infiltration Rate L/s*m2 (cfm/ft2)	Exfiltration Rate L/s*m2 (cfm/ft2)	Compliance US (CAN)
Overall Assembly @ 75 Pa	4.00 (43.06)	0.00 (0.00)	0.00 (0.00)	Pass (Fixed)
Overall Assembly @ 300 Pa		0.01 (0.00)	0.01 (0.00)	Pass (Fixed)
Allowable Leakage Rates				
Maximum allowable air leakage rate (US):			1.5 L/s*m2, 0.3 cfm/ft2	
Maximum allowable air leakage rate (CAN – Fixed):			0.2 L/s*m2, 0.04 cfm/ft2	

The overall system met the US and Canadian performance requirements as reported above when evaluated under NAFS-17 and A440S1-19.

CYCLIC WATER PENETRATION RESISTANCE

During the 24-minute test period, using a pressure differential of 720 Pa (15.0 psf), there was no water leakage observed. The system met the (CAN) PG100 Water Penetration Resistance performance requirements under NAFS-17 and A440S1-19.

STATIC WATER PENETRATION RESISTANCE

During the 15-minute test period, using a pressure differential of 720 Pa (15.0 psf), there was no water leakage observed. The system met the (CAN) PG100 Water Penetration Resistance performance requirements under NAFS-17 and A440S1-19.

UNIFORM LOAD – DEFLECTION & STRUCTURAL

Fixed Combination Uniform Load Structural data:

Mullion span, L = 2000 mm (78.74")

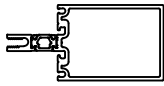
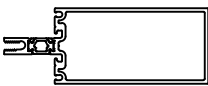
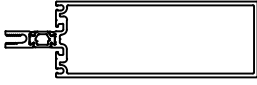
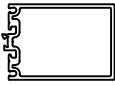


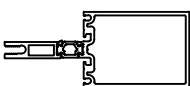
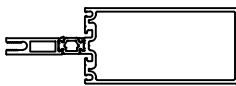
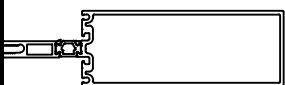
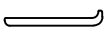



Deflection limit, L/175 = 11.43 mm (0.45")

Residual deflection limit, L*0.3% = 6.00 mm (0.24")

Test Pressure, Pa (psf)	Deflection Measurements, mm (in.)				Compliance
	Positive		Negative		
	Deflection	Residual	Deflection	Residual	
3840 (80.2)	9.36 (0.37)	0.78 (0.03)	8.87 (0.35)	0.68 (0.03)	Pass DP80
5760 (120.3)	n/a	0.90 (0.04)	n/a	1.03 (0.04)	

After the test loads were released, the specimen was inspected and there was found to be no failure or permanent deformation of any part of the window system that would cause any operational malfunction. The system met the overall DP80 Uniform Load performance requirements under NAFS-17.

HP2020 CURTAIN WALL PARTS

CROSS SECTION	PART #	DESCRIPTION	STOCK LENGTH	CLEAR ANODIZED	BRONZE ANODIZED	BLACK ANODIZED
	HP2020-1	2" x 2 3/4" BACK SECTION (50mm x 70mm)	7.315 m	✓	✓	✓
	HP2020-2	2" x 4" BACK SECTION (50mm x 102mm)	7.315 m	✓	✓	✓
	HP2020-3	2" x 5 1/4" BACK SECTION (50mm x 133.35mm)	7.315 m	✓	✓	✓
	HP2020-SSG1	2" x 2 3/4" BACK SECTION (50mm x 70mm)	7.315 m	✓	✓	✓
	HP2020-SSG2	2" x 4" BACK SECTION (50mm x 102mm)	7.315 m	✓	✓	✓
	HP2020-SSG3	2" x 5 1/4" BACK SECTION (50mm x 133.35mm)	7.315 m	✓	✓	✓
	HP2020-1TRG	2" x 2 3/4" BACK SECTION (50mm x 70mm)	7.315 m	✓	✓	✓
	HP2020-2TRG	2" x 4" BACK SECTION (50mm x 102mm)	7.315 m	✓	✓	✓
	HP2020-3TRG	2" x 5 1/4" BACK SECTION (50mm x 133.35mm)	7.315 m	✓	✓	✓
	HP2020 -SCSU	CAPTURED SILL CHAIR ON SU	4.6 m	MILL FINISH ALUMINUM ALLOY (CUT TO 100mm PIECES)		
	HP2020 -SCTG	CAPTURED SILL CHAIR ON TG	4.6 m			
	HP2020 SSG-SCSU	SEALED UNIT SILL CHAIR ON SSG	4.6 m			
	HP2020 SSG-SCTG	TRIPLE GLAZED SILL CHAIR ON SSG	4.6 m			

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HP2020 CURTAIN WALL PARTS

CROSS SECTION	PART #	DESCRIPTION	STOCK LENGTH	CLEAR ANODIZED	BRONZE ANODIZED	BLACK ANODIZED
	2.0-C	3/4" X 2" SNAP CAP (19mm X 50mm)	7.315 m	✓	✓	✓
	2.0-PP	PRE PUNCHED PRESSURE PLATE	7.315 m	MILL FINISH		
	D24	DOOR STOP BASE	4.6 m	✓		
	D26	1/2" DOOR STOP COVER	4.6 m	✓	✓	✓
	D27	5/8" DOOR STOP COVER	4.6 m	✓	✓	✓
	27078	DOOR STOP COVER BULB SEAL	150 m ROLLS	SILICONE		
	HP-SDA	25mm SURFACE DOOR ADAPTOR	4.6 m	✓	✓	✓
	TR 2543E	1/4" ROLL-IN GLAZING GASKET	150 m ROLLS	SILICONE		
	HP20-FDAC	FLUSH DOOR ADAPTOR CAP	4.6 m	✓	✓	✓
	HP20-FDA	FLUSH DOOR ADAPTOR BASE	4.6 m	✓	✓	✓
	C28	3.32 mm ALUMINUM INSTALLATION ANGLE	7.315 m	MILL FINISH		
	MG1	PRE PUNCHED 25mm x 65mm INSTALLATION ANGLE	3.05 m	14ga GALVANIZED		
	MG2	PRE PUNCHED 31mm x 90mm INSTALLATION ANGLE	3.05 m	14ga GALVANIZED		
	HP2020-SB1 HP2020-SB2 HP2020-SB3	PREP SHEAR BLOCK	4.6 m	MILL FINISH (CUT TO VARIABLE LENGTHS)		

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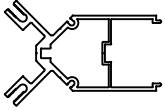
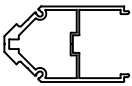


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CROSS SECTION	PART #	DESCRIPTION	STOCK LENGTH	CLEAR ANODIZED	BRONZE ANODIZED	BLACK ANODIZED
	2.0-CCA	90° CAPTURED CORNER ADAPTOR	7.315 m	✓	✓	✓
	2.0-SSGCA	90° SSG CORNER ADAPTOR	7.315 m	✓	✓	✓
1/4" - 20 x 11/16"		MACHINE SCREWS	100 pcs	PLATED		
	3/16" x 1 1/8"	4" SETTING BLOCK	EACH	EPDM		
N3015	3M	4" 6" VAPOR BARRIER	22.8 m ROLLS	POLY		
	TREMCO	1/8" POLY SHIM GLAZING TAPE	12.1 m ROLLS	POLY		

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

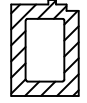





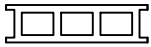








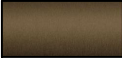






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HP2020 CURTAIN WALL PARTS

CROSS SECTION	PART #	DESCRIPTION	STOCK LENGTH	FINISH
	DAS #1	1/8" DOOR ADAPTOR SPACER	2.2 m	RIDGID BLACK PVC
	DAS #2	1/4" DOOR ADAPTOR SPACER	3.2 m	RIDGID BLACK PVC
	DAS #3	1" DOOR ADAPTOR SPACER FOR TRIPLE GLAZED SYSTEM	2.2 m	RIDGID BLACK PVC
	Q183H	INTERIOR GLAZING GASKET	125 m ROLLS	SILICONE BLACK - 60 DUROMETER
	EP1752H	EXTERIOR GLAZING GASKET	100 m ROLLS	EPDM BLACK - 70 DUROMETER
	EP1846H	THERMAL BREAK	3.65 m	EPDM BLACK - 70 DUROMETER
	EP2103H	CORNER BLOCK 36.5mm HEIGHT	EACH	EPDM BLACK - 70 DUROMETER
	EP2103H-TRG	TRG CORNER BLOCK 52mm HEIGHT	EACH	EPDM BLACK - 70 DUROMETER
	EP716N	SSG CORNER BLOCK 36.5mm HEIGHT	EACH	EPDM BLACK - 70 DUROMETER
	EP716N-TRG	SSG TRG CORNER BLOCK 55.2mm HEIGHT	EACH	EPDM BLACK - 70 DUROMETER
	AR 22	7/8" PVC ANTI-ROTATION	3.65 m	COLOR CODE BLUE 
	AR 27	1 1/16" PVC ANTI-ROTATION	3.65 m	COLOR CODE WHITE 
	AR 29	1 1/8" PVC ANTI-ROTATION	3.65 m	COLOR CODE BLACK 
	AR 30	1 3/16" PVC ANTI-ROTATION	3.65 m	COLOR CODE BROWN 
	AR 32	1 1/4" PVC ANTI-ROTATION	3.65 m	COLOR CODE GREY 
	AR 46	1 13/16" PVC ANTI-ROTATION	3.65 m	COLOR CODE GREEN 
	AR 49	1 15/16" PVC ANTI-ROTATION	3.65 m	COLOR CODE PINK 


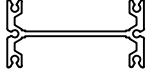
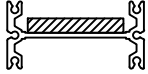
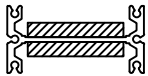
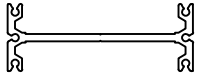
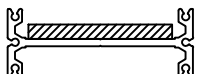
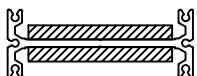
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	HP2020-1-S	SLIP/REINFORCEMENT ANCHOR (FOR 2 3/4" B.S.)	7.315 m	MILL FINISH ALUMINUM ALLOY
	HP2020-2-S	SLIP/REINFORCEMENT ANCHOR (FOR 4" B.S.)	7.315 m	MILL FINISH ALUMINUM ALLOY
	HP2020-2-S1	SLIP/REINFORCEMENT ANCHOR ILLUSTRATES 3/8" x 2 1/2" STEEL FLAT BAR 1 SIDE		
	HP2020-2-S2	SLIP/REINFORCEMENT ANCHOR ILLUSTRATES 3/8" x 2 1/2" STEEL FLAT BAR BOTH SIDES		
	HP2020-3-S	SLIP/REINFORCEMENT ANCHOR (FOR 5 1/4" B.S.)	7.315 m	MILL FINISH ALUMINUM ALLOY
	HP2020-3-S1	SLIP/REINFORCEMENT ANCHOR ILLUSTRATES 3/8" x 3 3/4" STEEL FLAT BAR 1 SIDE		
	HP2020-3-S2	SLIP/REINFORCEMENT ANCHOR ILLUSTRATES 3/8" x 3 3/4" STEEL FLAT BAR BOTH SIDES		

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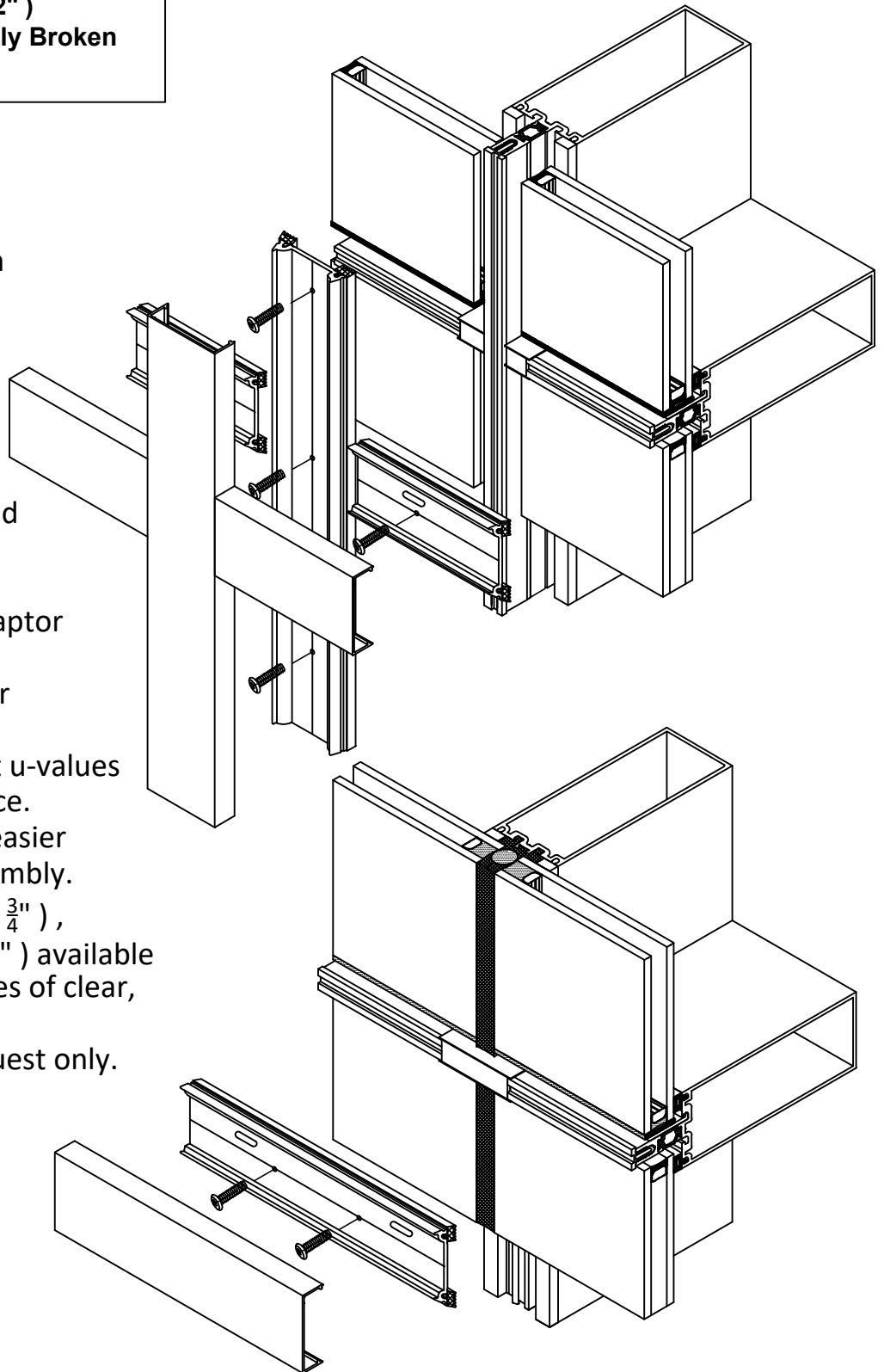
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**Metro HP2020 Series - 50mm (2")
Sight Line Profile True Thermally Broken
Curtain Wall System**

FEATURES & BENEFITS

- *A tested curtain wall system designed to accommodate a variety of double glazed and triple glazed options along with SSG structural silicone systems.
- *Glazing weight is transferred to main frame on cantilevered chair supports.
- *Comes with a thermally bridged 25mm (1") door adaptor or Flush door adaptor.
- *Designed for use with all our door and vent systems.
- *Will meet or exceed current u-values needed in todays market place.
- *System can be Pre-fab for easier transporting and on site assembly.
- *Mullion depths of 70mm (2 $\frac{3}{4}$ ") , 102mm (4") & 133mm (5 $\frac{1}{4}$ ") available
- *Available in **CLASS 1** finishes of clear, bronze and black anodized.
- *Custom paint colors on request only.



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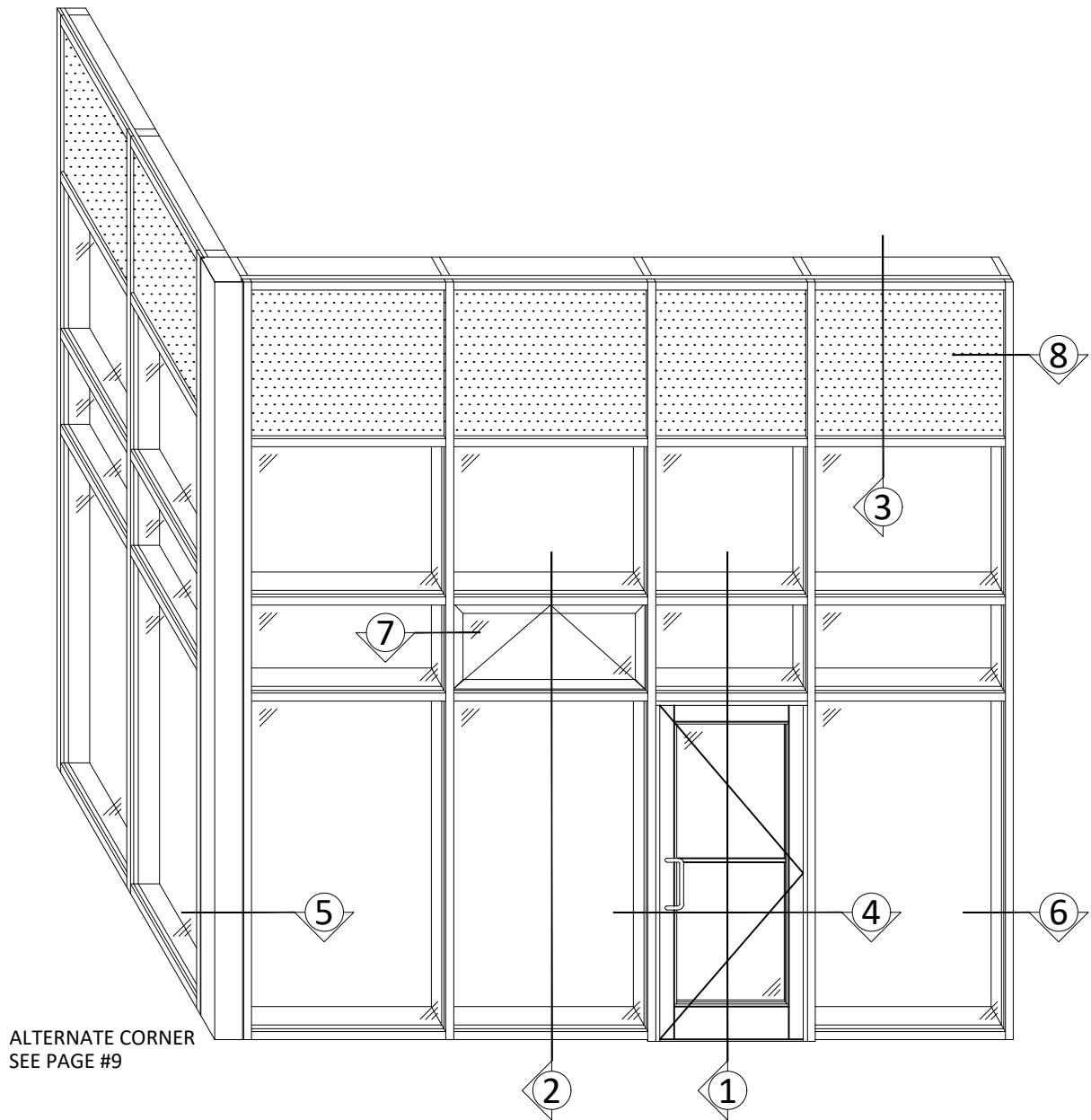
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HP2020 CURTAIN WALL SYSTEM

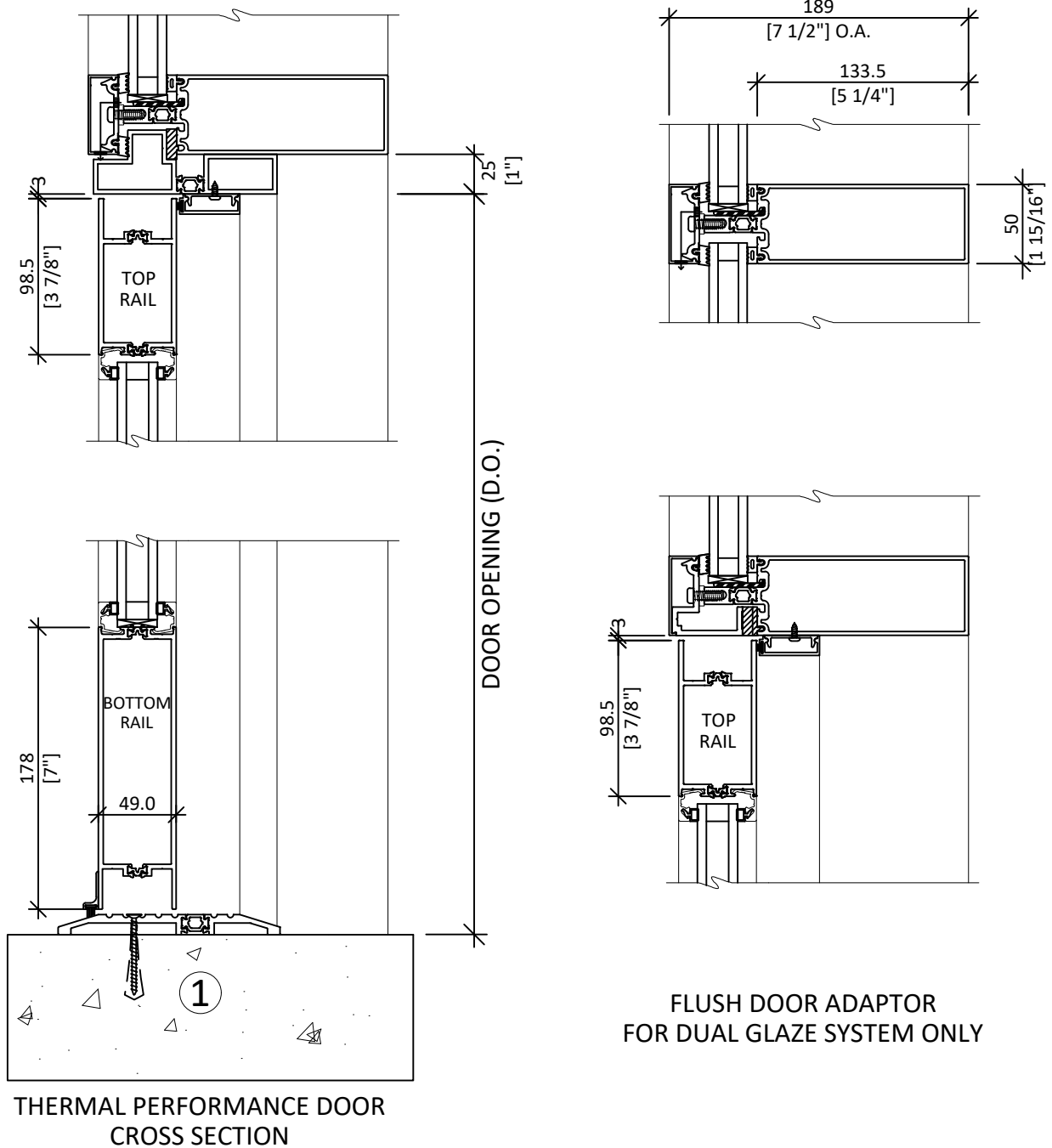
A HIGH PERFORMANCE DOUBLE OR TRIPLE GLAZED SYSTEM THAT BECOMES AN INTEGRAL PART OF THE BUILDING ENVELOPE. A NON STRUCTURAL, COST-EFFICIENT FRAMING SOLUTION INCORPORATING A 50mm (2") SIGHT LINE DESIGN FOR SINGLE OR MULTI STORY BUILDING APPLICATIONS. BACK SECTIONS ARE AVAILABLE IN VARIOUS DEPTHS TO MEET WINDLOADS REQUIREMENTS.

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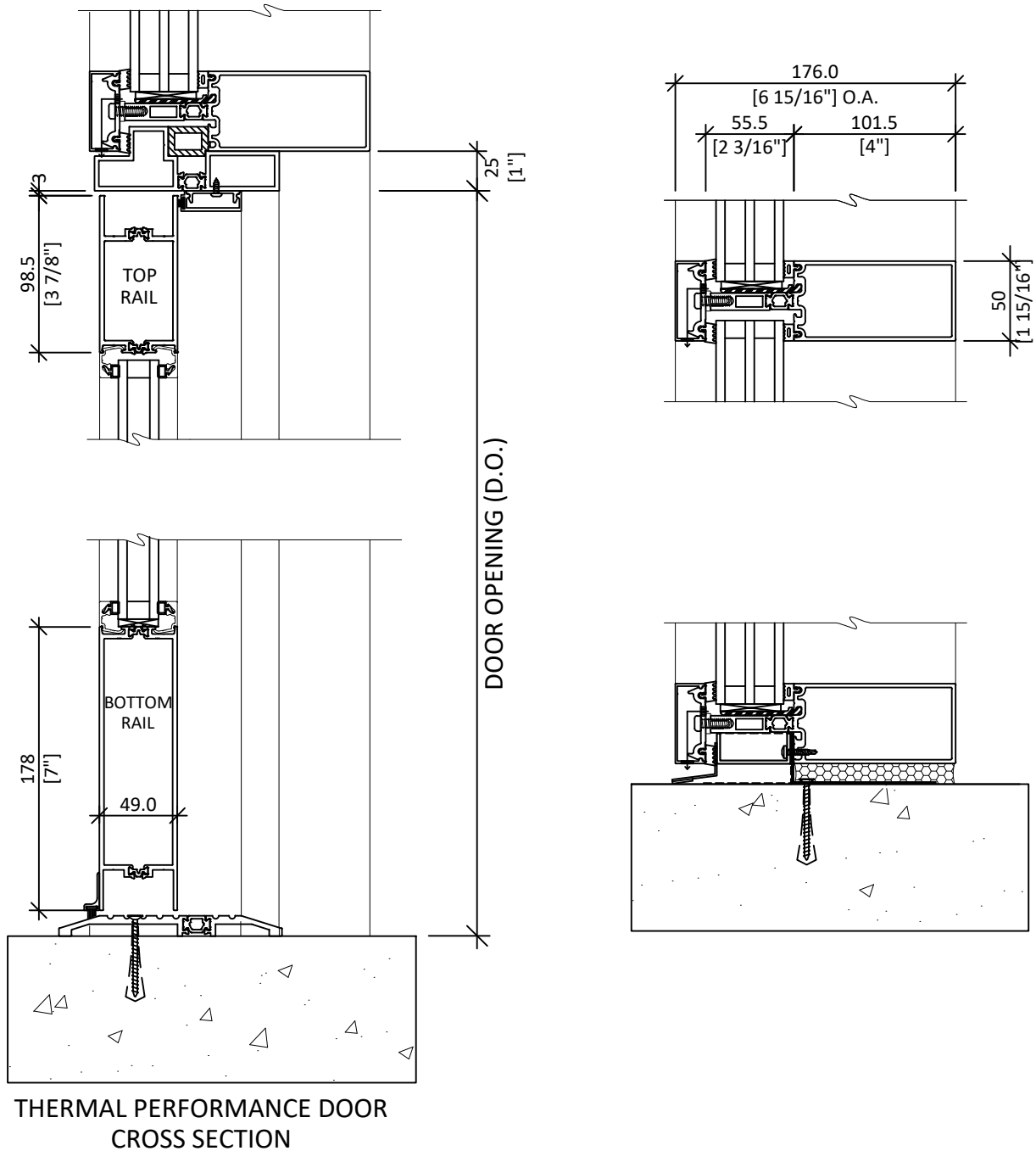
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HP2020 TRG CURTAIN WALL SECTION DETAILS



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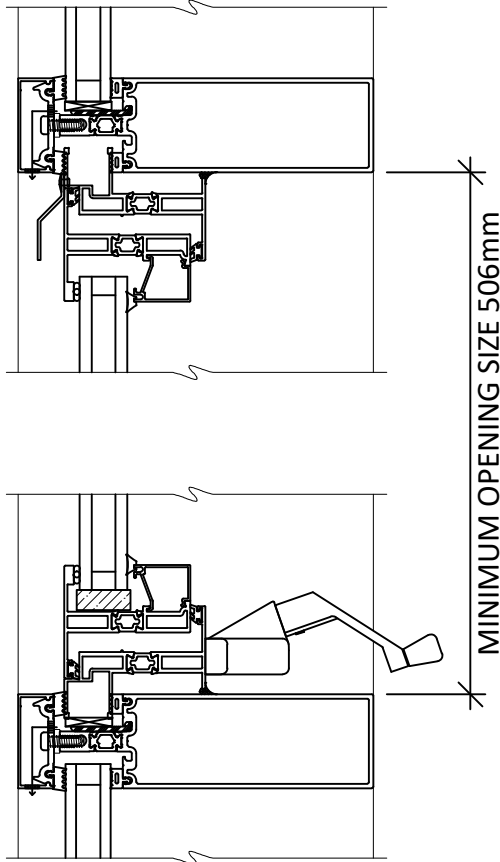
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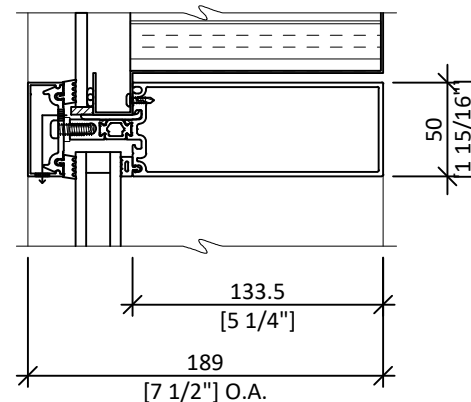
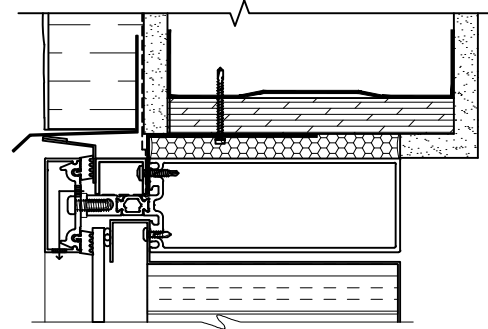
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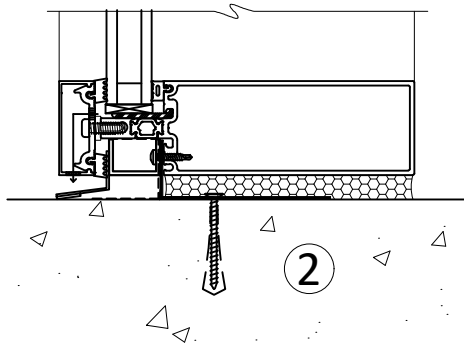
HP2020 CURTAIN WALL SECTION DETAILS

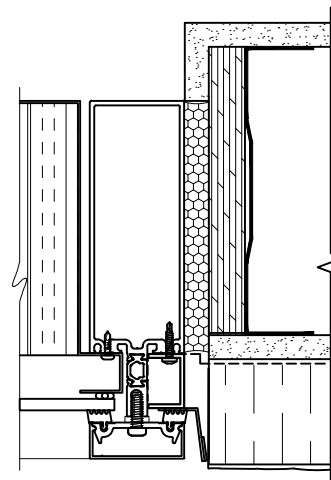
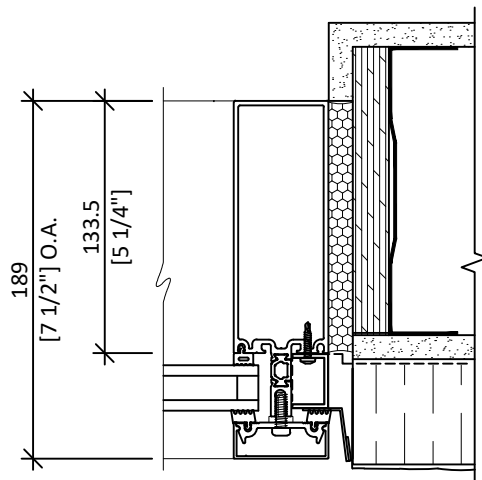
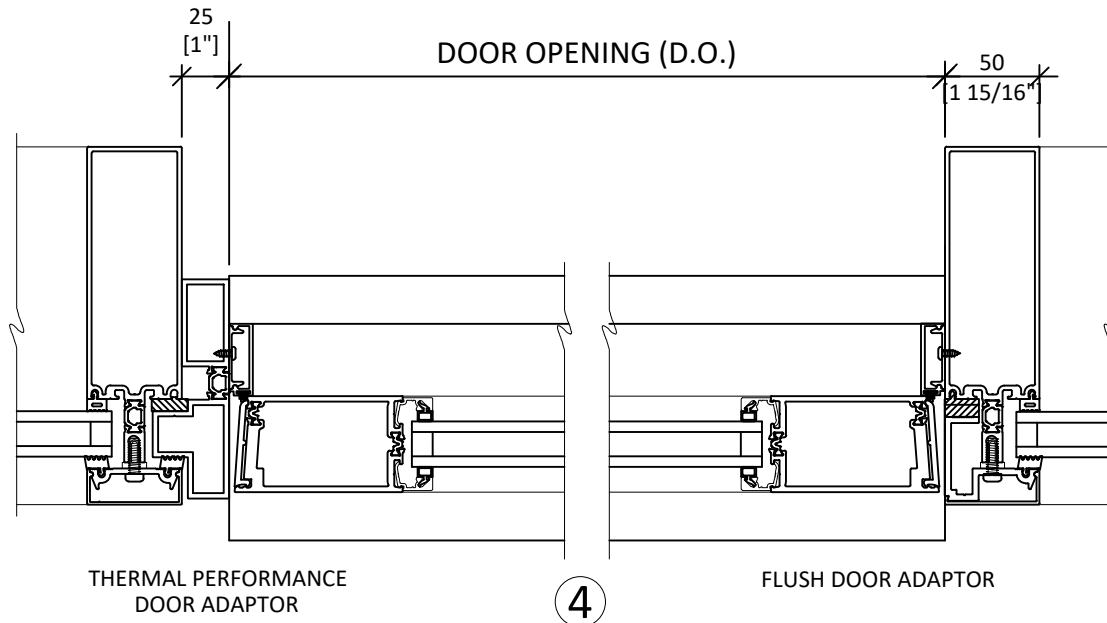


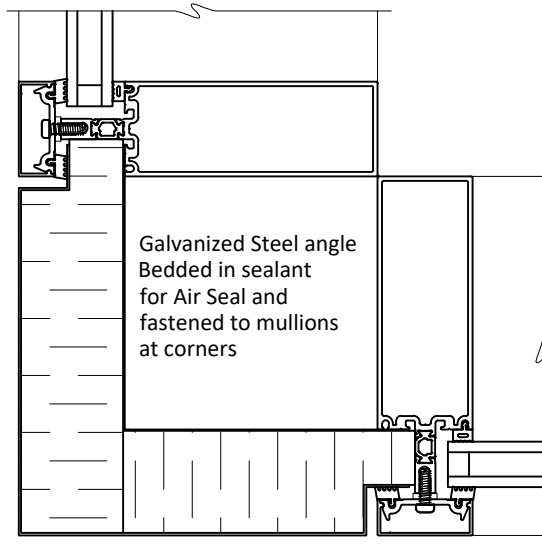
HP2020 SERIES WITH HP GOLIATH
SERIES VENT INSERT



③

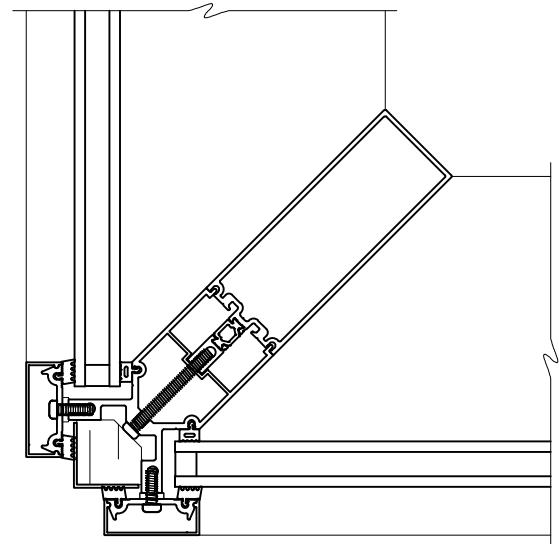




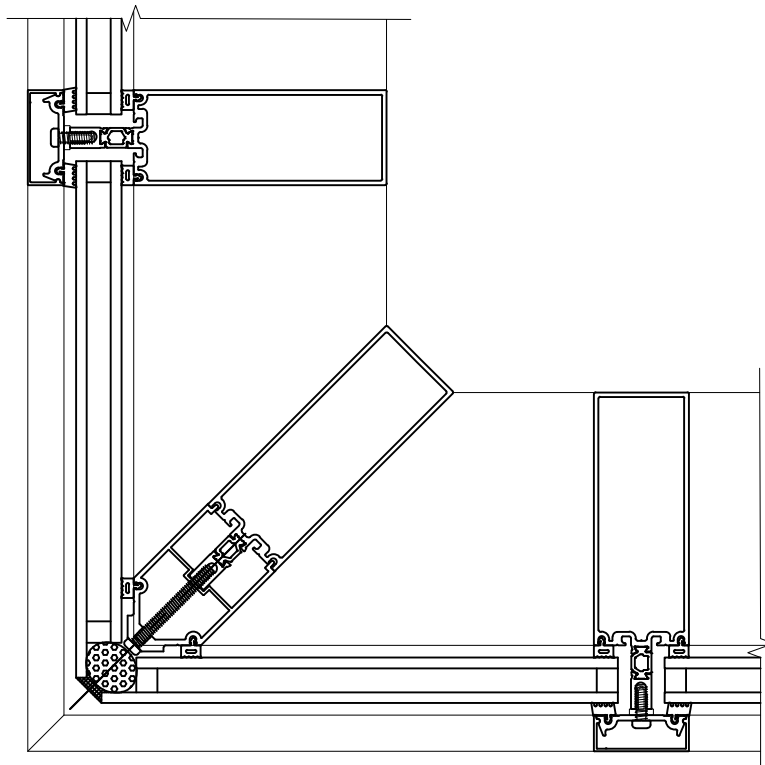


90° Corner Panel
c/w Styrofoam Insulation and
Flashing to match frame

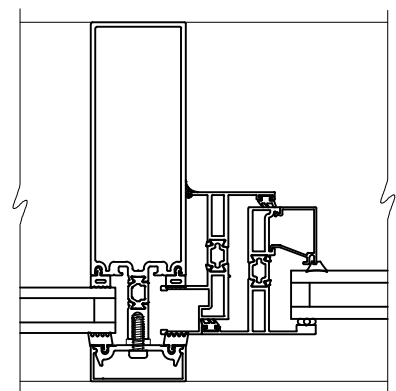
5



90° Corner Adaptor
c/w Styrofoam Insulation and
Flashing to match frame

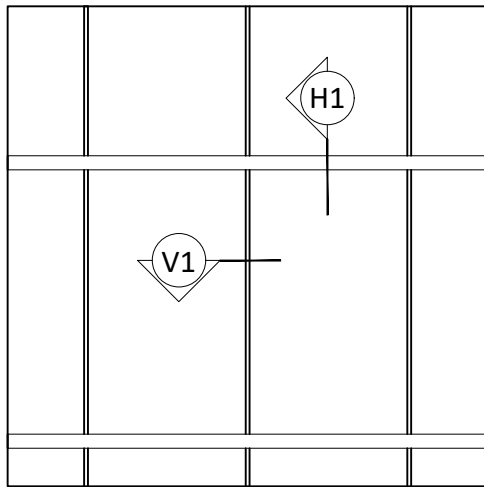


90° Corner Adaptor for SSG-2
w/ Silicone Sealant & Backer Rod

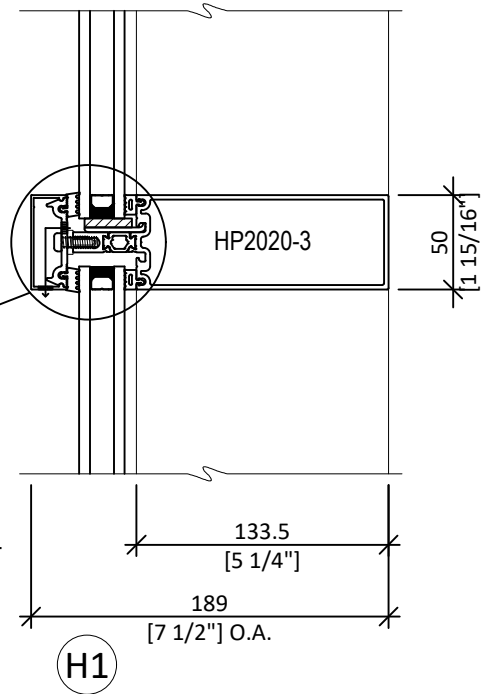
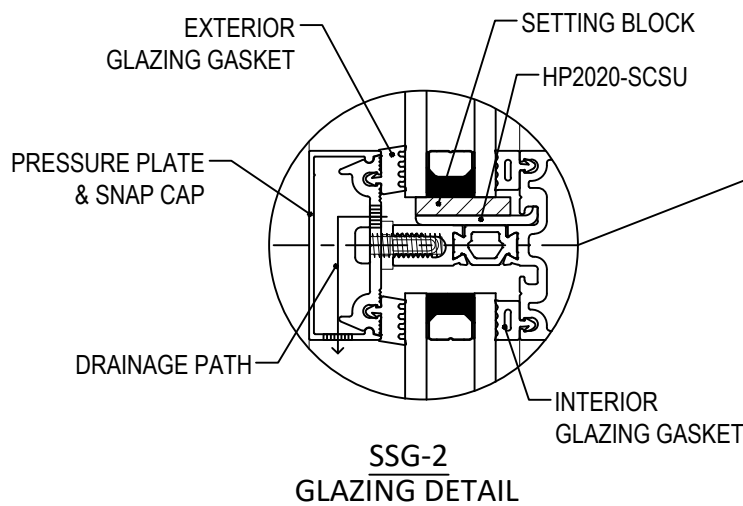
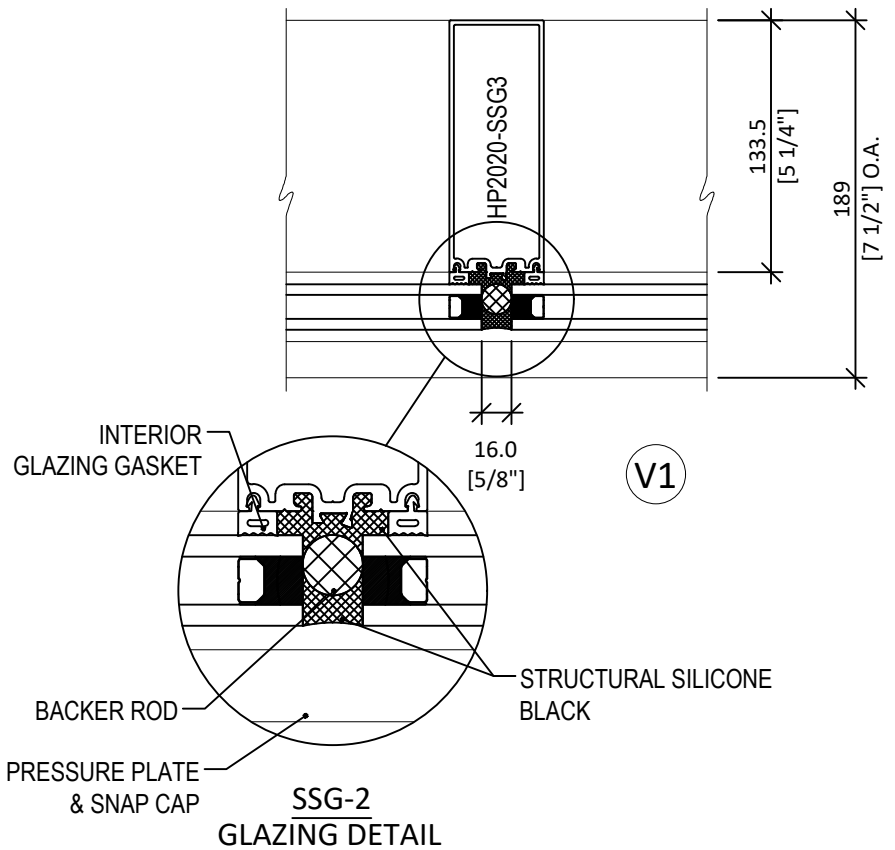


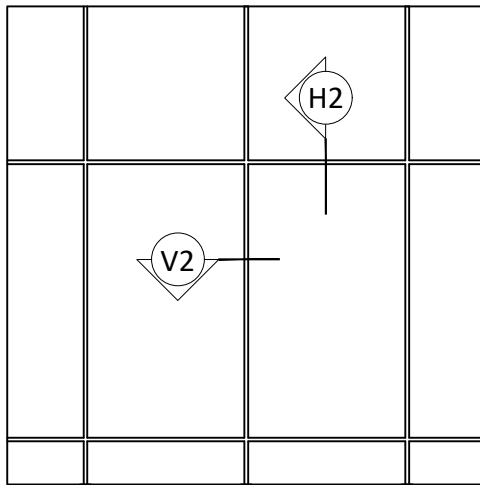
HP2020 SERIES WITH HP GOLIATH
SERIES VENT INSERT

7

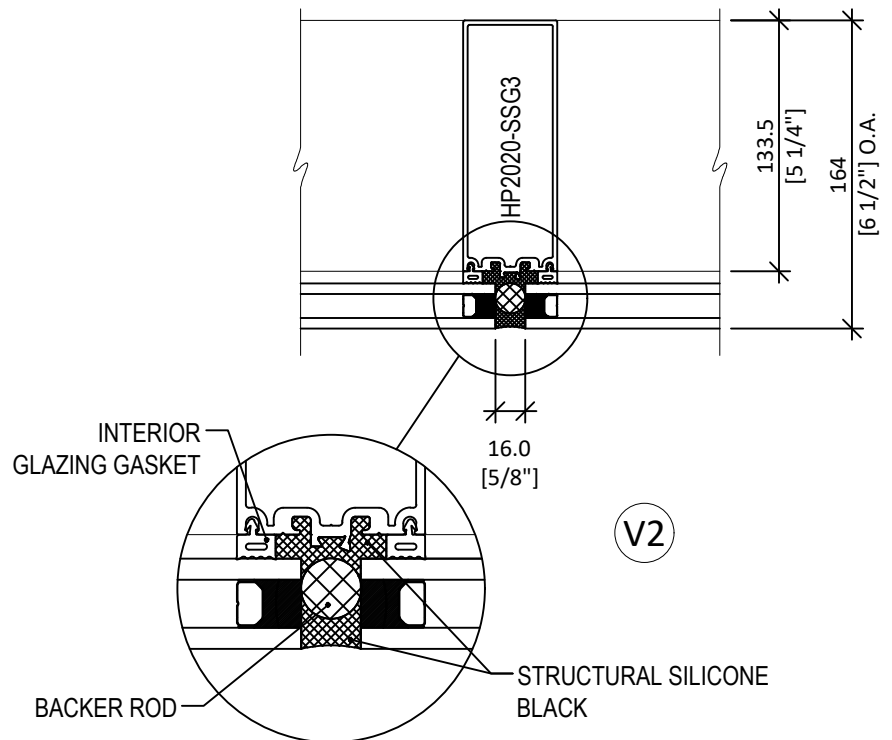


**2-SIDE STRUCTURAL
GLAZING**

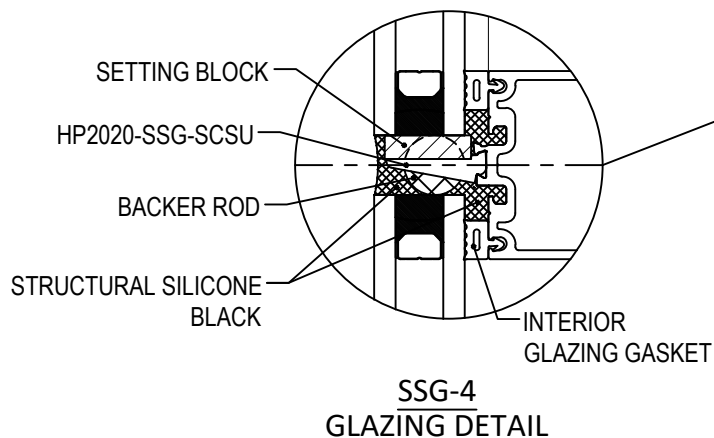




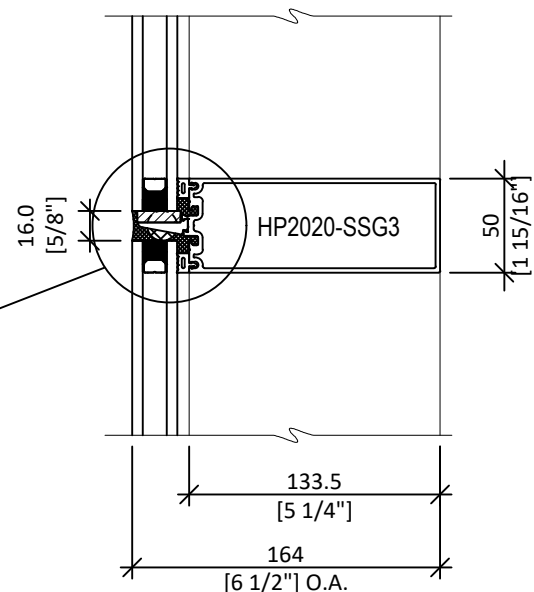
**4-SIDE STRUCTURAL
GLAZING**



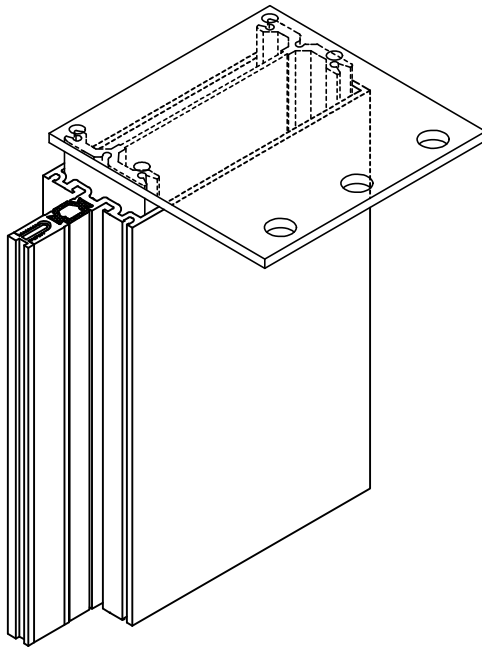
**SSG-4
GLAZING DETAIL**



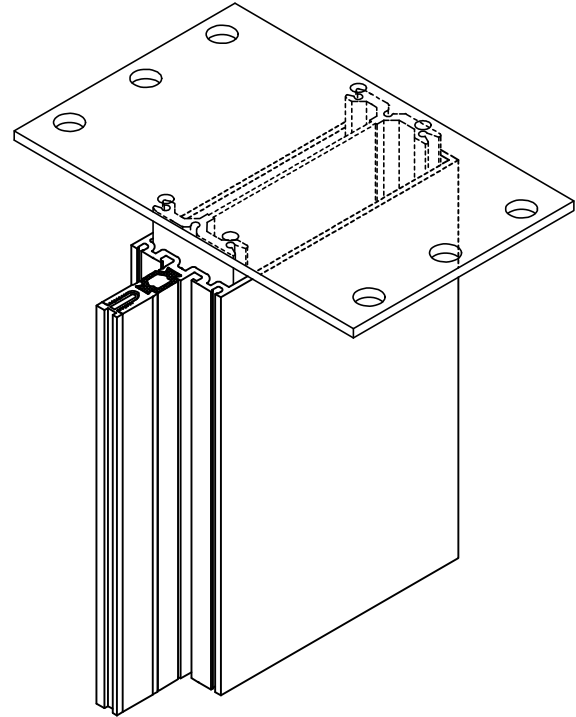
**SSG-4
GLAZING DETAIL**



H2



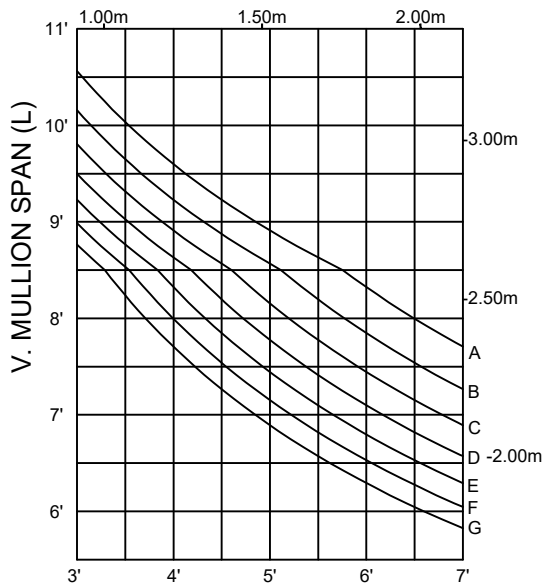
SIDE ANCHOR



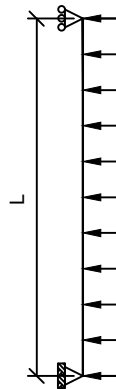
T ANCHOR

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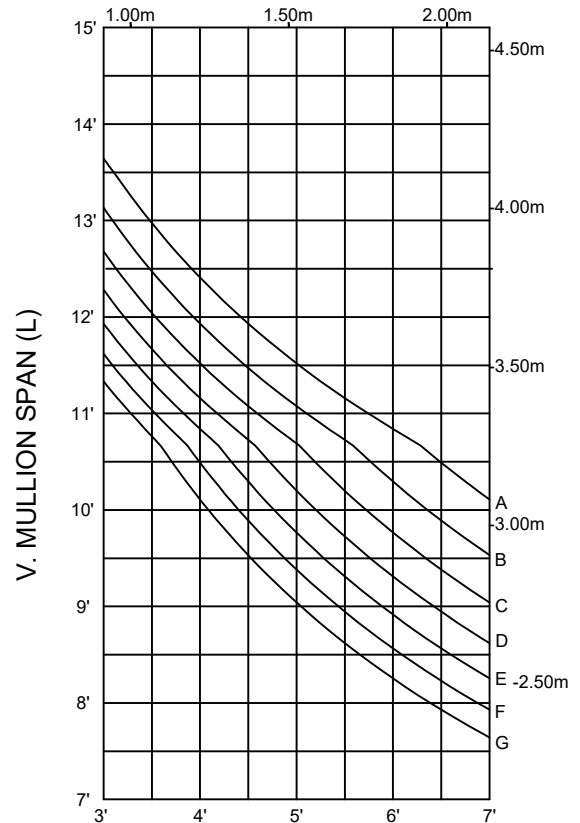
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2. IT IS ALSO ASSUMED THAT LATERAL BRACING IS PROVIDED IN THE CALCULATION.
3. A 95% CAPACITY WAS APPLIED TO COVER UNCERTAINTIES DUE TO CRIMPING OF POLYAMIDE AND ALUMINUM REGLET.



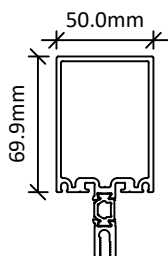
H. MULLION SPACING (x)



A = 20 psf
B = 22.5 psf
C = 25 psf
D = 27.5 psf
E = 30 psf
F = 32.5 psf
G = 35 psf



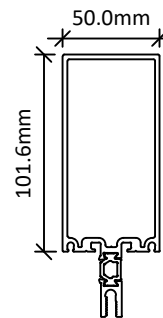
H. MULLION SPACING (x)



1 HP2020-1
2 3/4" B.S.

$I_x = 1.805 \text{ in}^4$
 $S_x = 0.828 \text{ in}^3$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



2 HP2020-2
4" B.S.

$I_x = 3.900 \text{ in}^4$
 $S_x = 1.425 \text{ in}^3$

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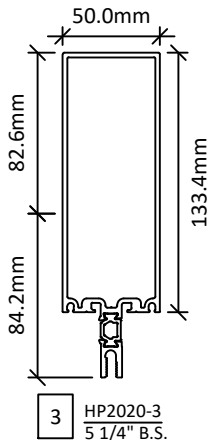
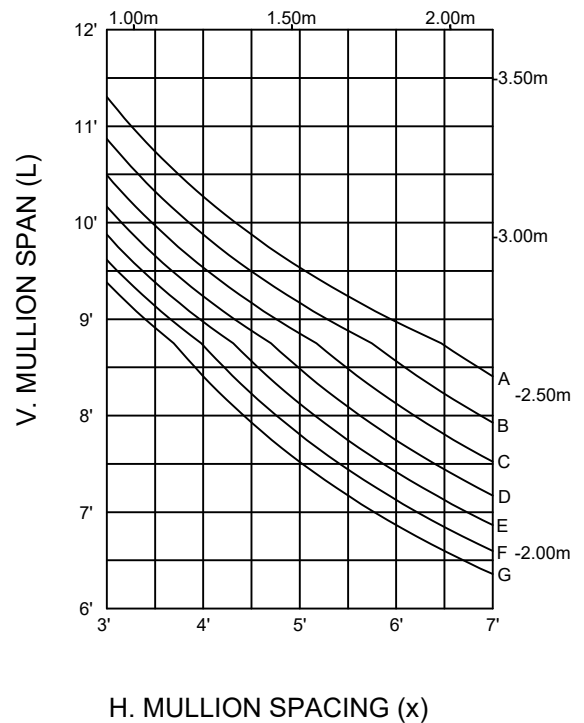
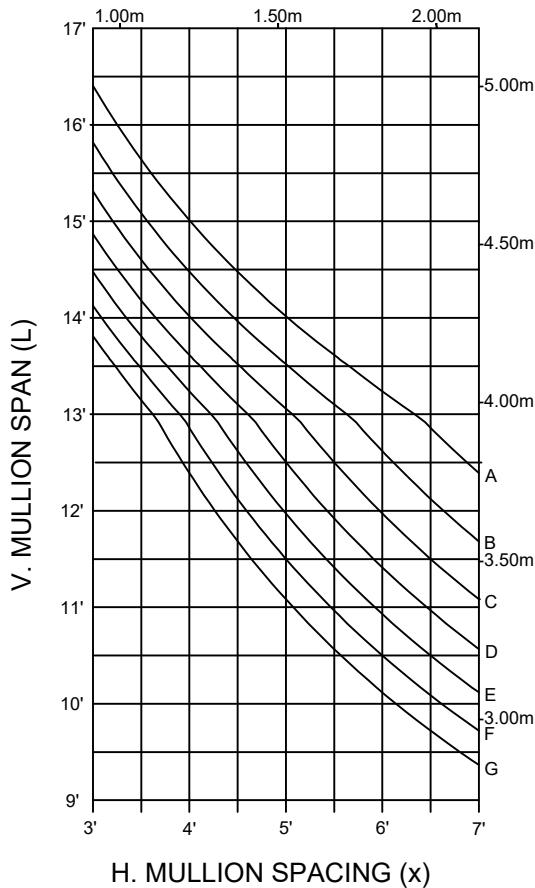
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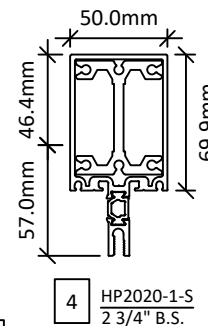
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3. A 95% CAPACITY WAS APPLIED TO COVER UNCERTAINTIES DUE TO CRIMPING OF POLYAMIDE AND ALUMINUM REGLET.



$$I_x = 7.110 \text{ in}^4$$

$$S_x = 2.145 \text{ in}^3$$



$$I_x = 2.212 \text{ in}^4$$

$$S_x = 0.986 \text{ in}^3$$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"

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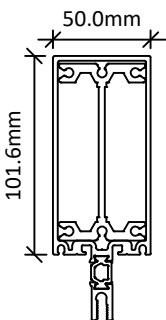
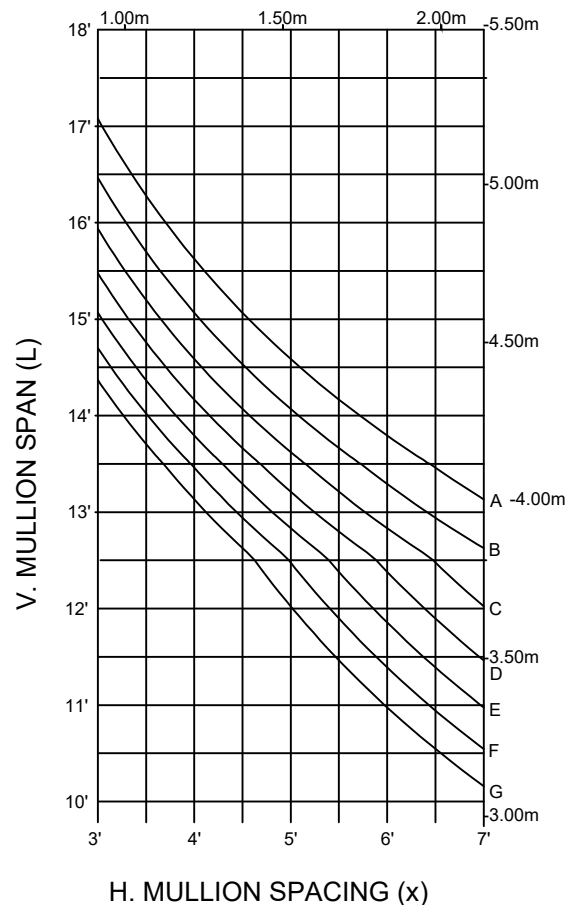
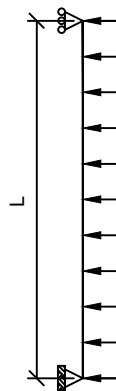
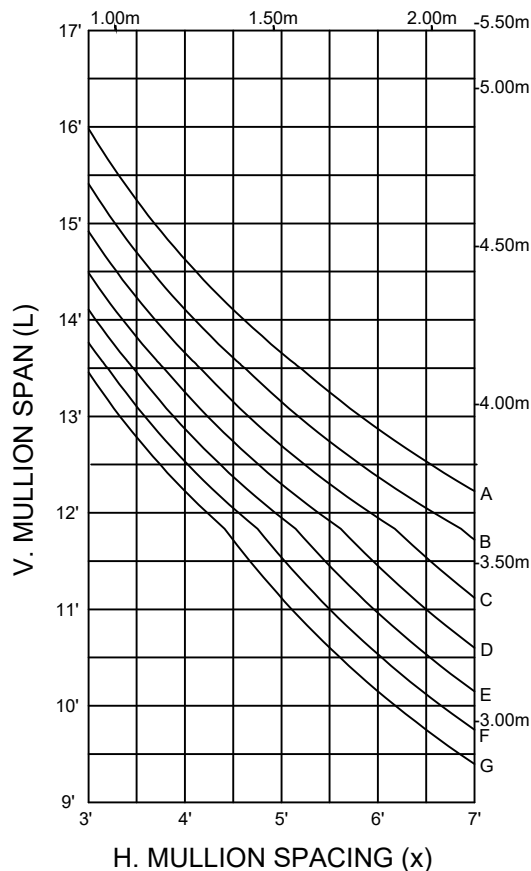
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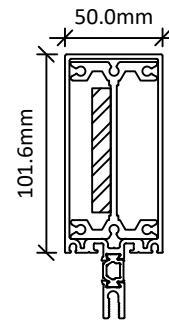


$$I_x = 6.528 \text{ in}^4$$

$$S_x = 2.155 \text{ in}^3$$

5 HP2020-2-S
4" B.S.

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$$I_x = 8.088 \text{ in}^4$$

$$S_x = 2.520 \text{ in}^3$$

6 HP2020-2-S1
4" B.S.

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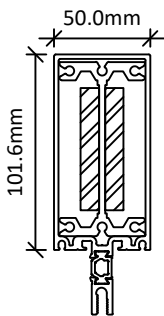
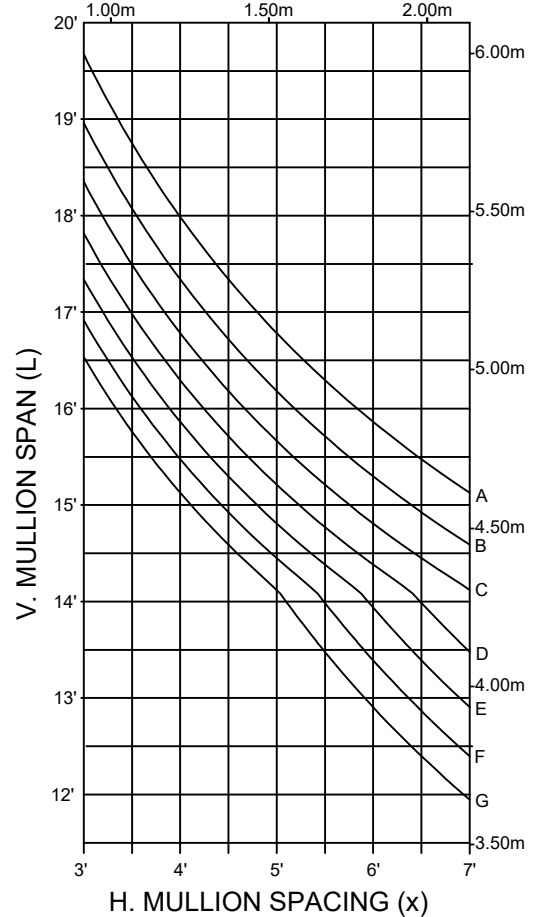
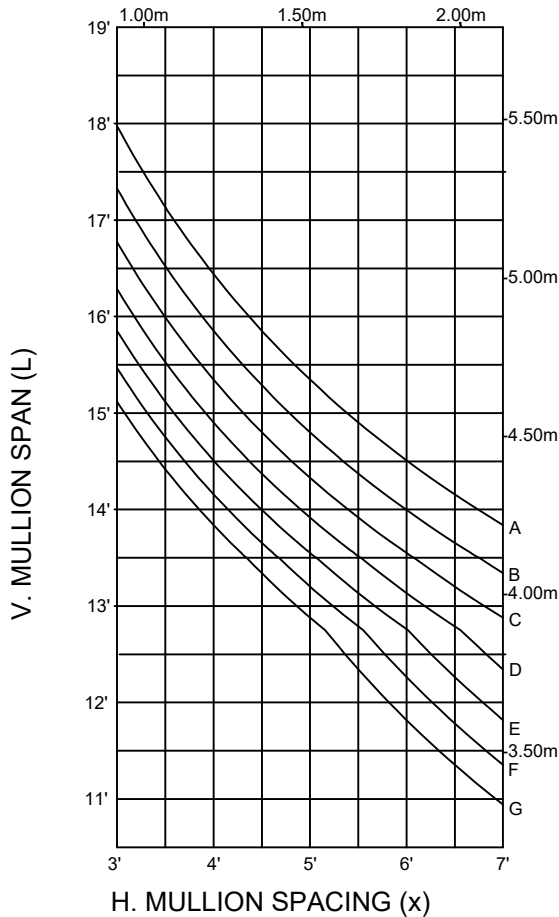
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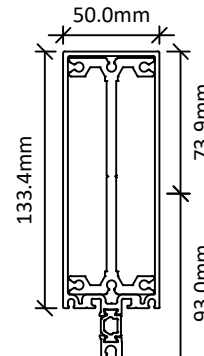
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$I_x = 9.546 \text{ in}^4$
 $S_x = 2.923 \text{ in}^3$

7 HP20202-2-S2
4\" B.S.

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$I_x = 12.745 \text{ in}^4$
 $S_x = 3.483 \text{ in}^3$

8 HP2020-3-S
5 1/4\" B.S.

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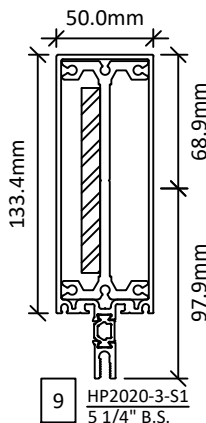
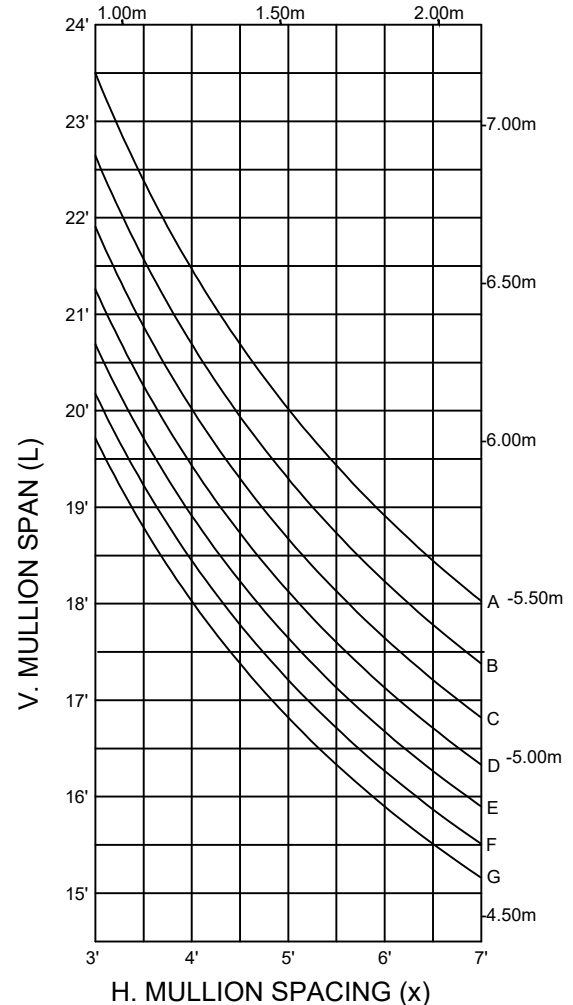
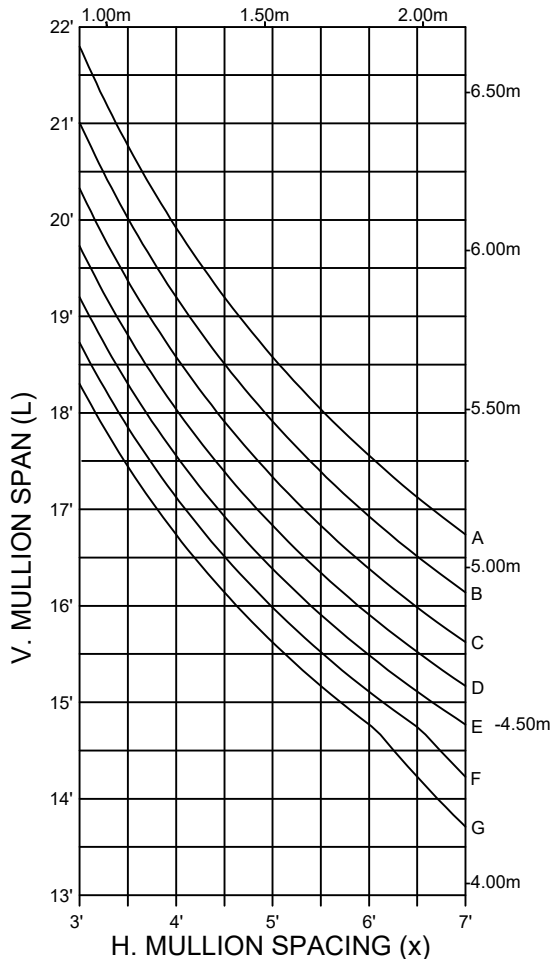
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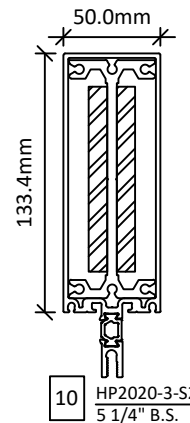
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$I_x = 17.685 \text{ in}^4$
 $S_x = 4.586 \text{ in}^3$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$I_x = 22.471 \text{ in}^4$
 $S_x = 5.741 \text{ in}^3$

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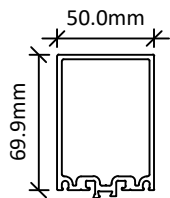
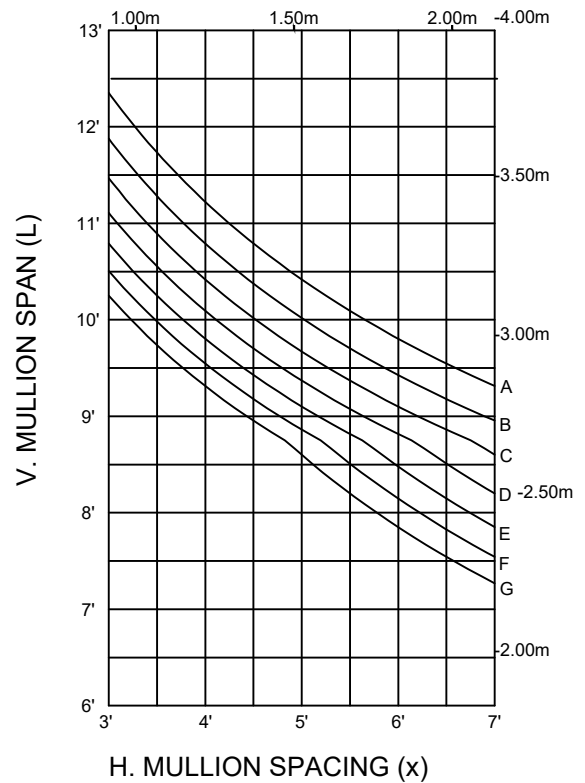
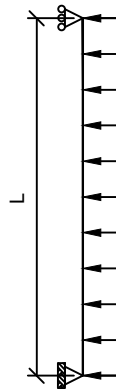
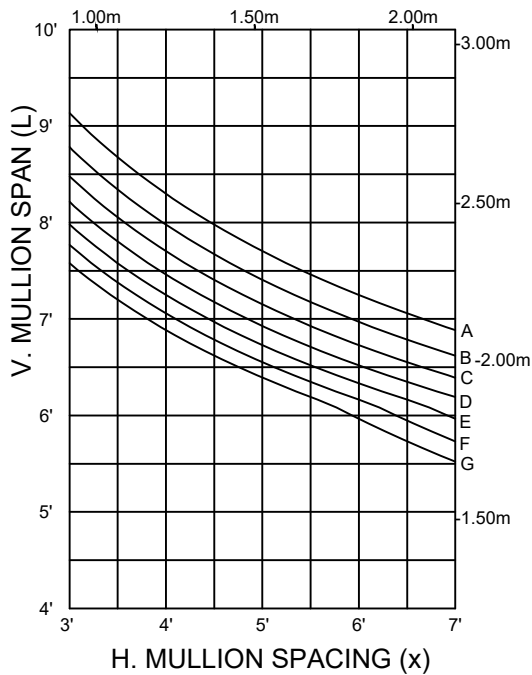
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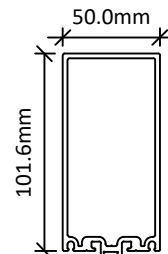
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$$I_x = 1.108 \text{ in}^4$$

$$S_x = 0.707 \text{ in}^3$$

11 HP2020 - SSG1
2 3/4" B.S.



$$I_x = 2.741 \text{ in}^4$$

$$S_x = 1.225 \text{ in}^3$$

12 HP2020 - SSG2
4" B.S.

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"

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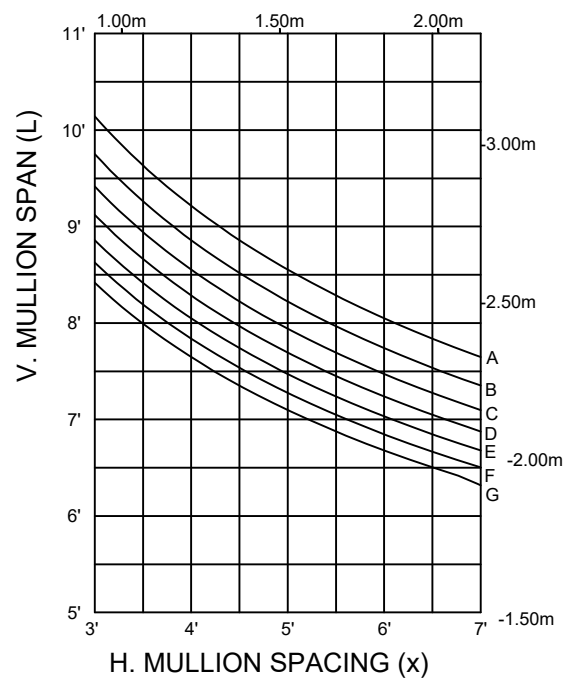
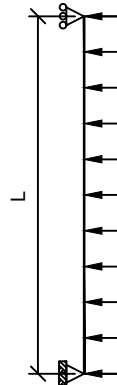
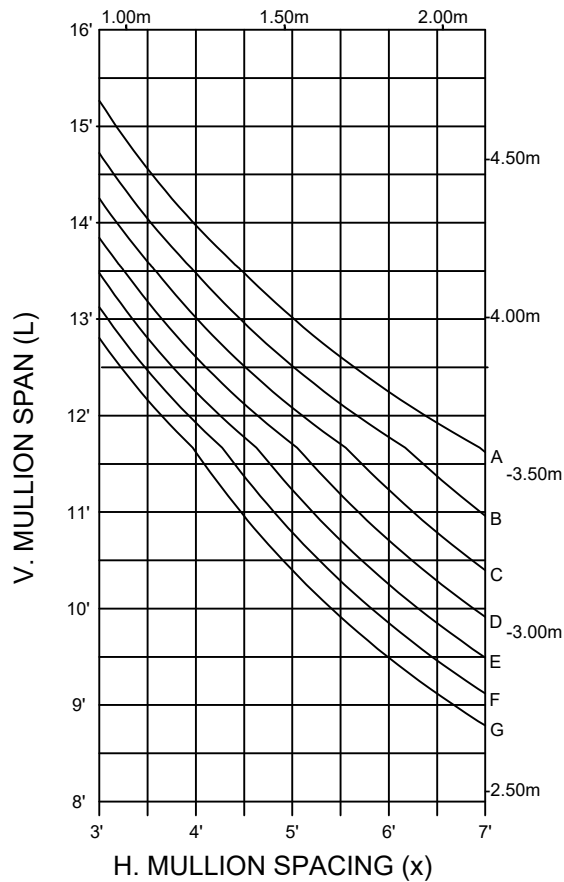
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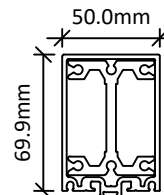


$$I_x = 5.344 \text{ in}^4$$

$$S_x = 1.846 \text{ in}^3$$

13 HP2020-SSG3
5 1/4" B.S.

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$$I_x = 1.517 \text{ in}^4$$

$$S_x = 0.925 \text{ in}^3$$

14 HP2020-SSG1-S
2 3/4" B.S.

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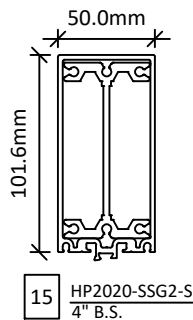
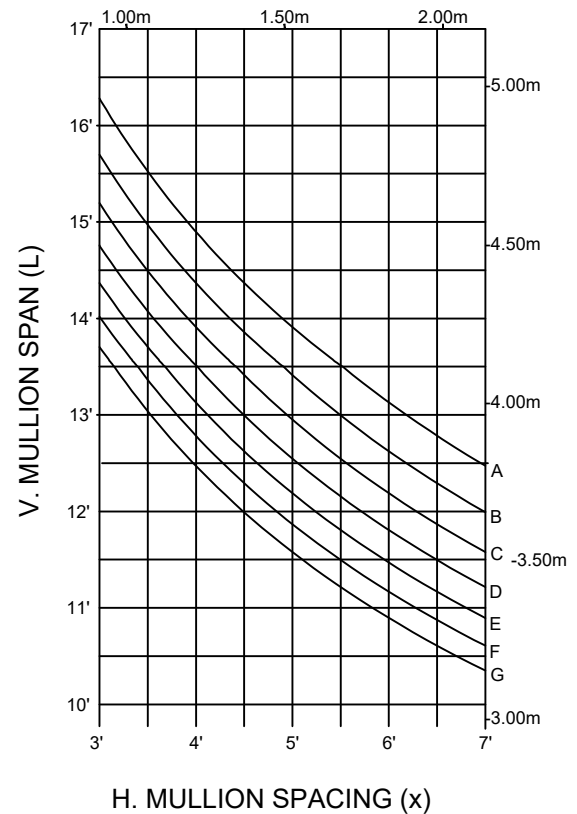
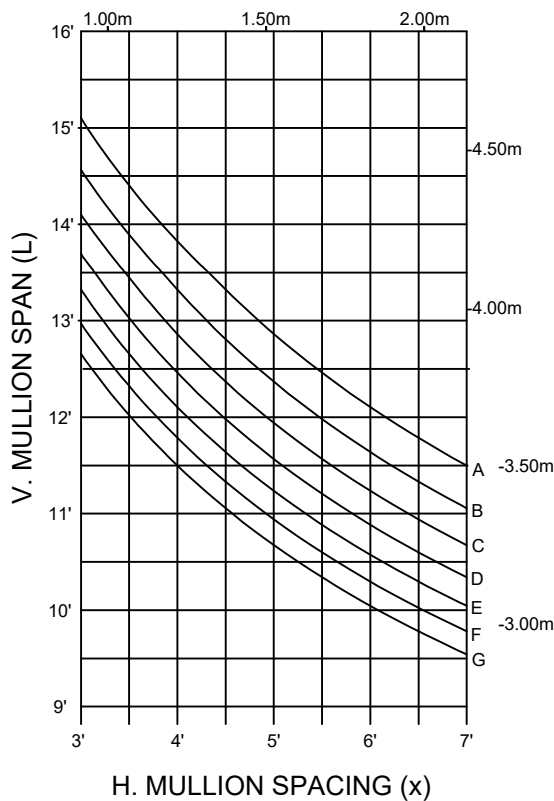
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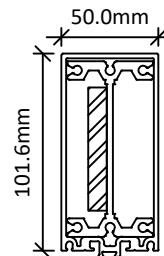
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$I_x = 5.159 \text{ in}^4$
 $S_x = 2.465 \text{ in}^3$



$I_x = 6.584 \text{ in}^4$
 $S_x = 3.274 \text{ in}^3$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"

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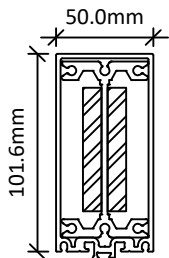
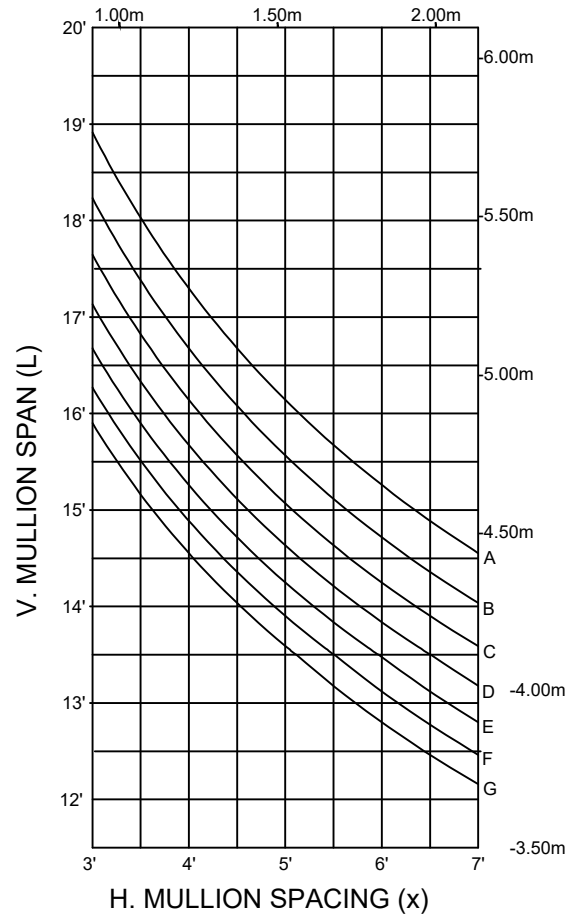
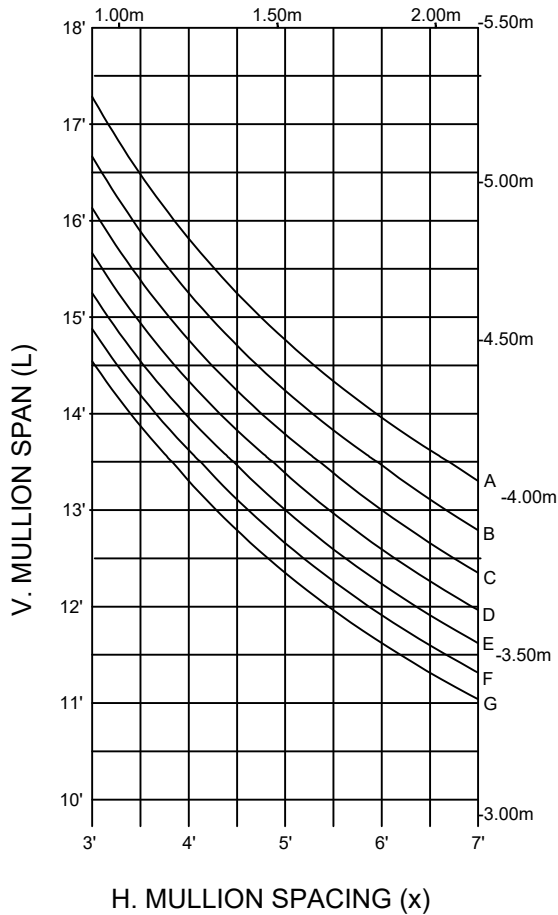
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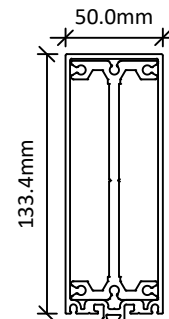
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$$I_x = 7.989 \text{ in}^4$$

$$S_x = 3.967 \text{ in}^3$$

17 HP2020-SSG2-S2
4" B.S.



$$I_x = 10.675 \text{ in}^4$$

$$S_x = 3.930 \text{ in}^3$$

18 HP2020-SSG3-S
5 1/4" B.S.

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"

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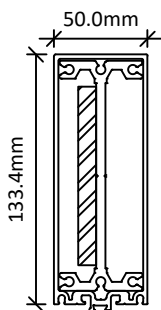
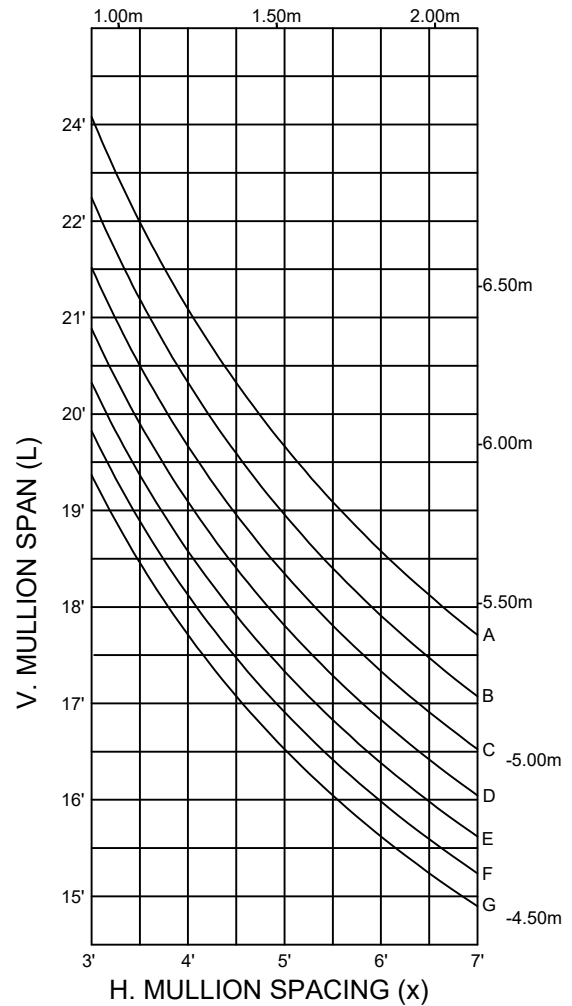
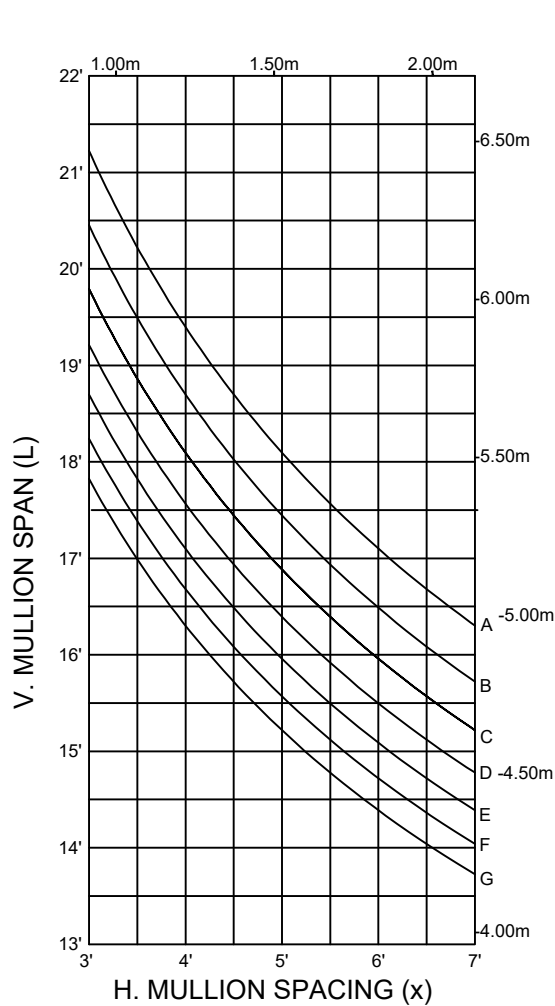
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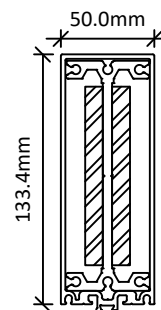
GENERAL NOTES:

1. REFERENCES IN CALCULATING THE WIND LOAD CHART ARE BASED ON THE NATIONAL BUILDING CODE OF CANADA, AAMA TIR-A11 AND CAN/CSA S157.
2. IT IS ALSO ASSUMED THAT LATERAL BRACING IS PROVIDED IN THE CALCULATION.



$I_x = 15.430 \text{ in}^4$
 $S_x = 5.874 \text{ in}^3$

19 HP2020-SSG3-S1
 5 1/4" B.S.



$I_x = 20.152 \text{ in}^4$
 $S_x = 7.599 \text{ in}^3$

20 HP2020-SSG3-S2
 5 1/4" B.S.

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"

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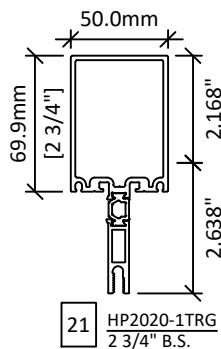
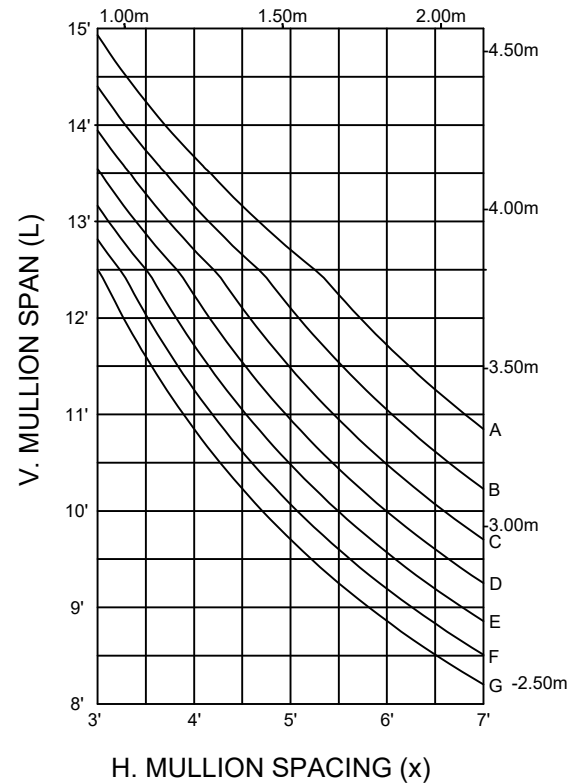
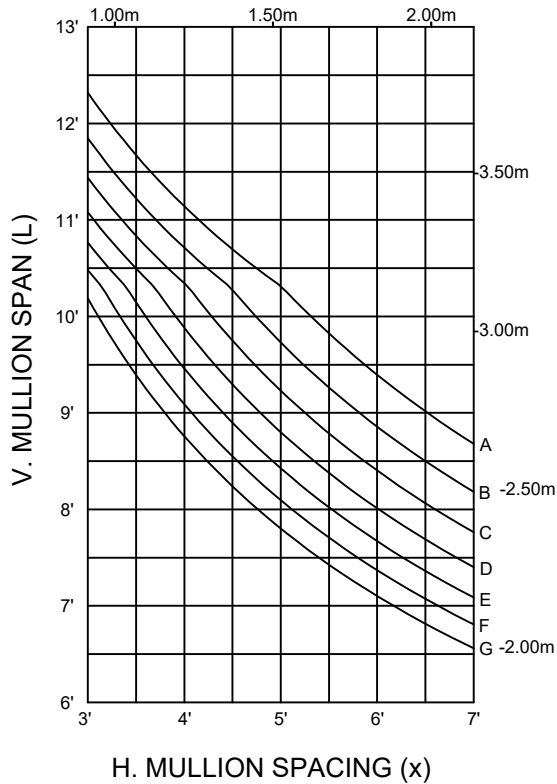
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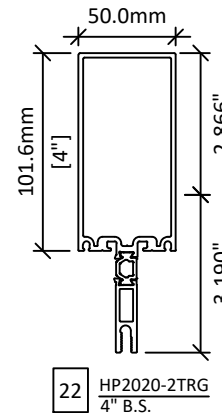
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$I_x = 2.706 \text{ in}^4$
 $S_x = 1.026 \text{ in}^3$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$I_x = 5.236 \text{ in}^4$
 $S_x = 1.641 \text{ in}^3$

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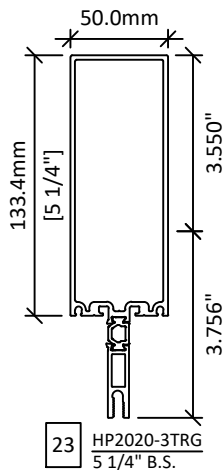
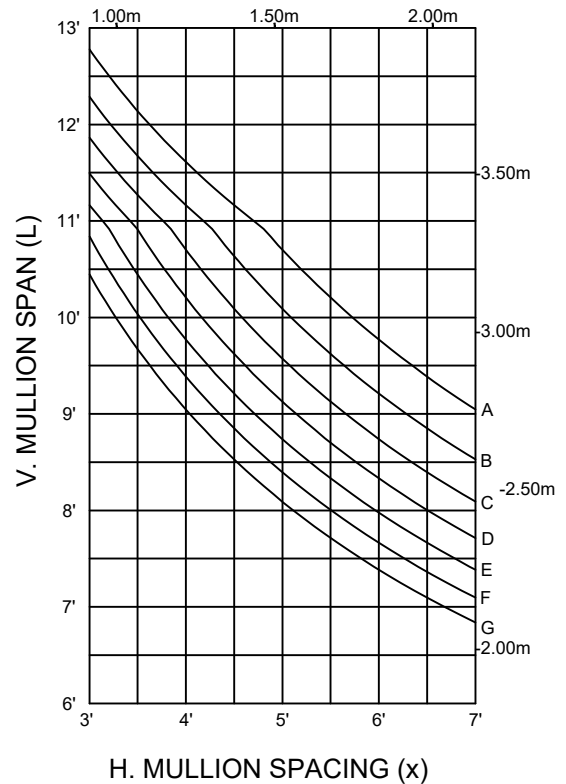
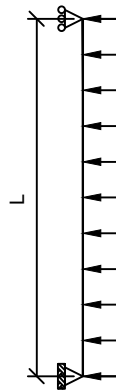
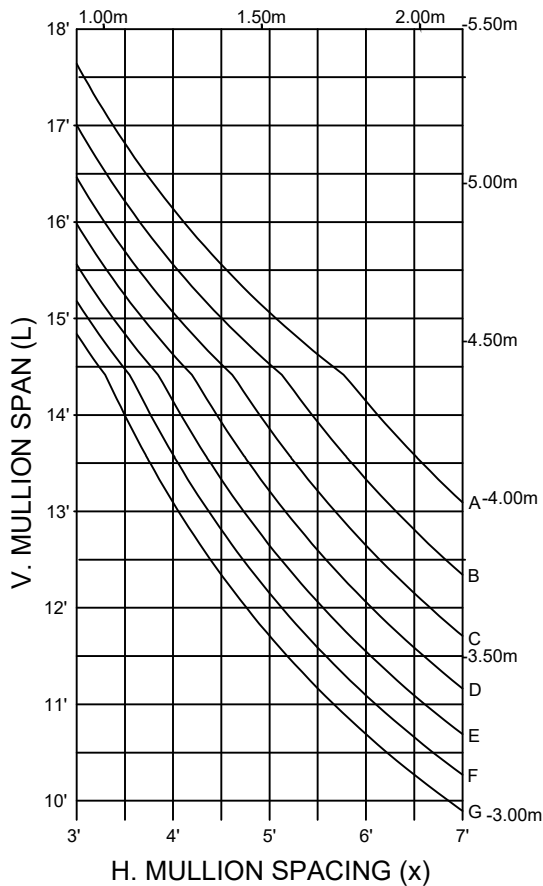
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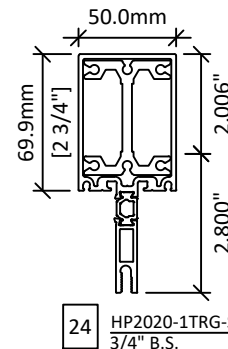
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$$I_x = 8.978 \text{ in}^4$$

$$S_x = 2.390 \text{ in}^3$$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$$I_x = 3.195 \text{ in}^4$$

$$S_x = 1.141 \text{ in}^3$$

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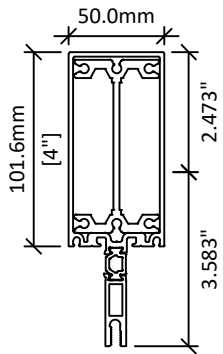
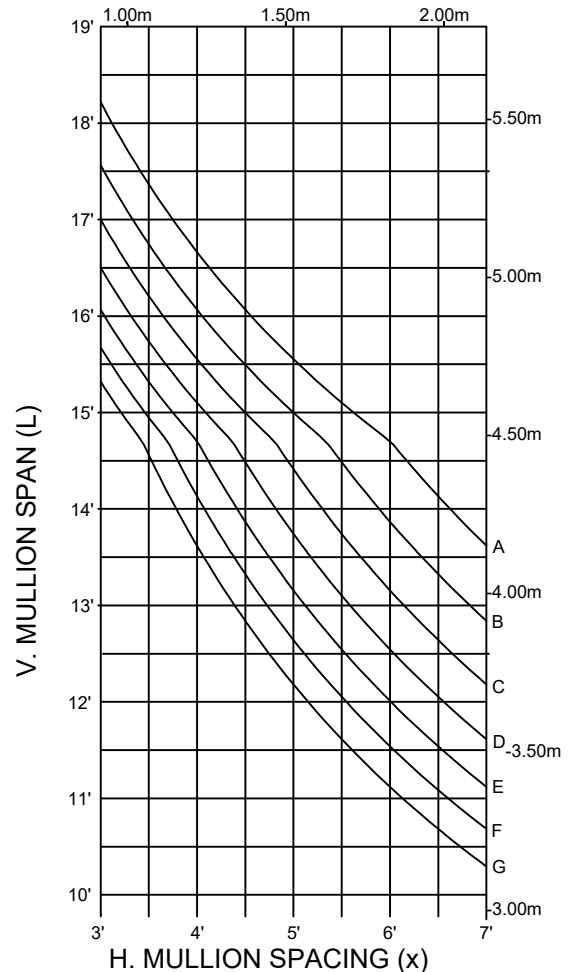
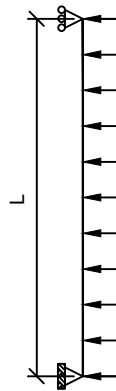
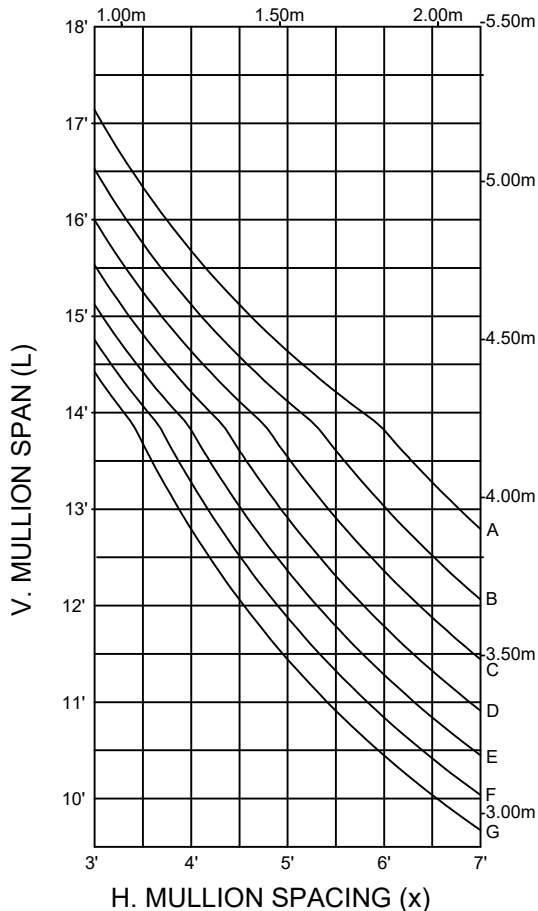
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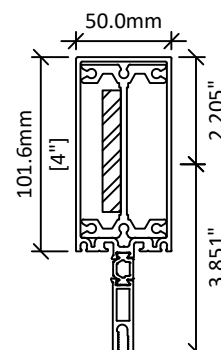
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25 HP2020-2TRG-S
4" B.S.

$I_x = 8.179 \text{ in}^4$
 $S_x = 2.283 \text{ in}^3$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



26 HP2020-2TRG-S1
4" B.S.

$I_x = 9.960 \text{ in}^4$
 $S_x = 2.586 \text{ in}^3$

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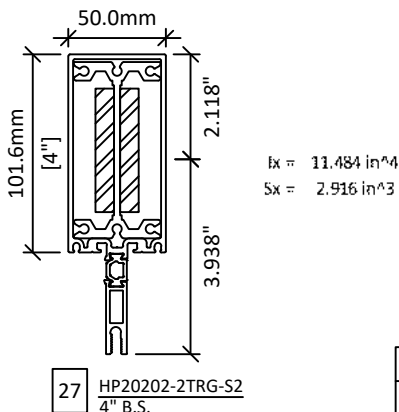
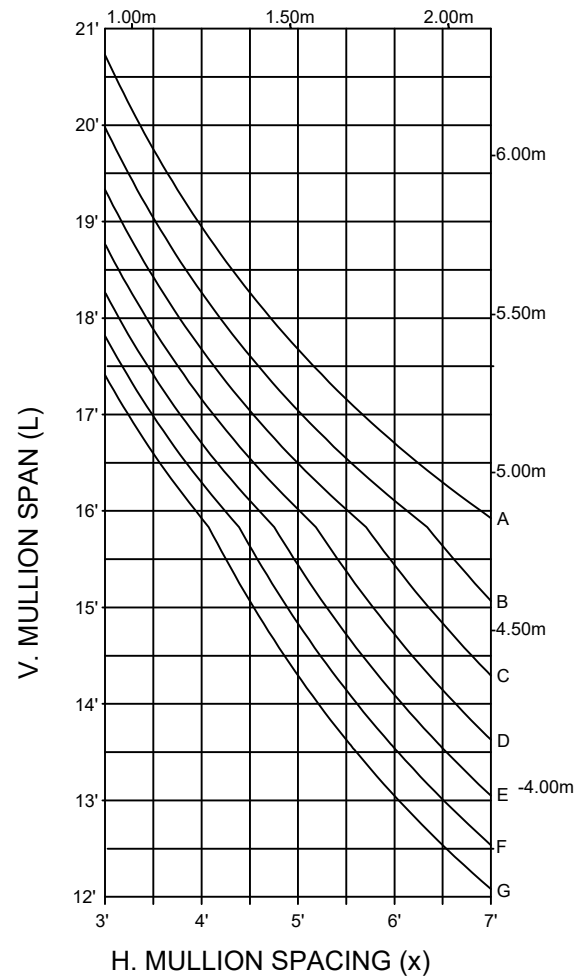
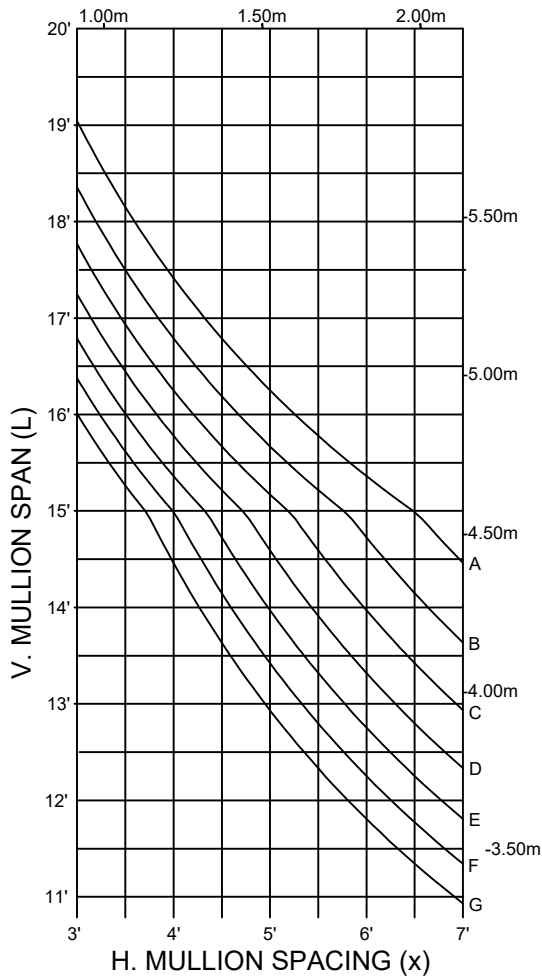
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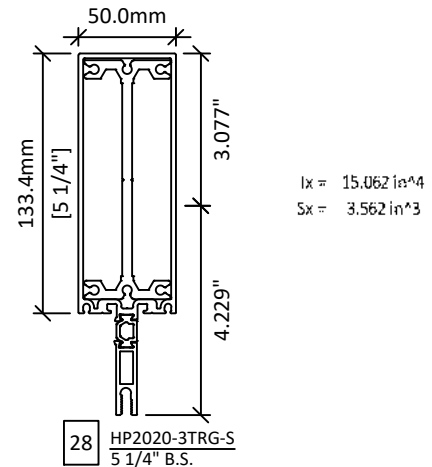
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MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



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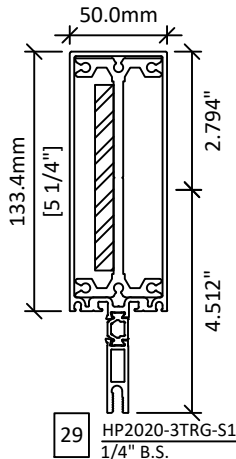
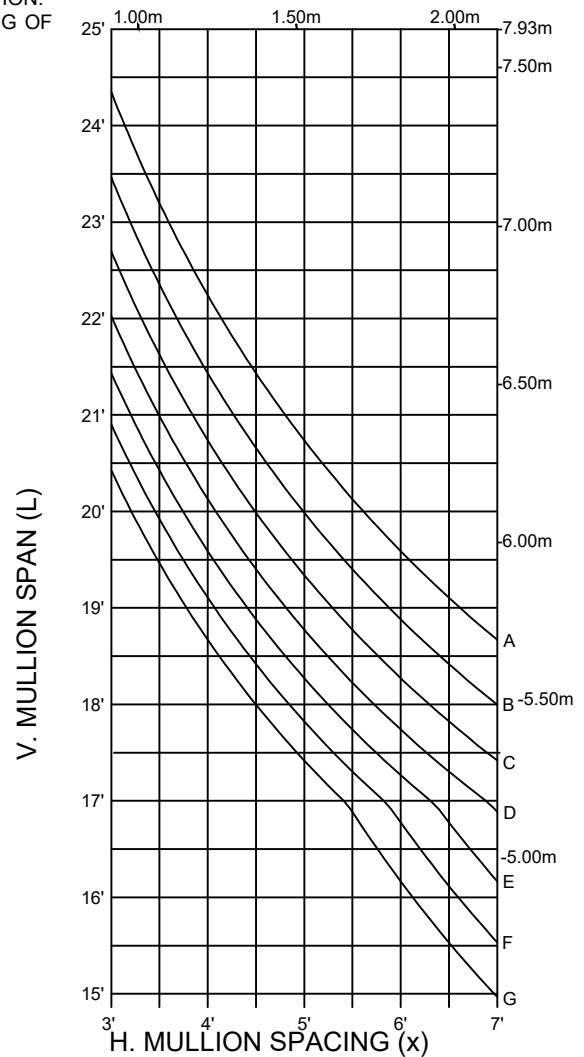
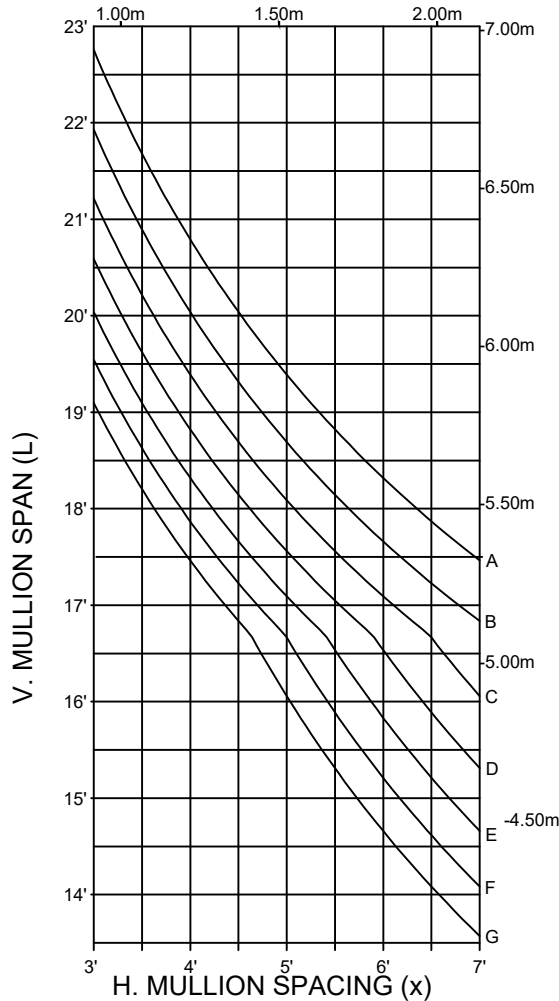
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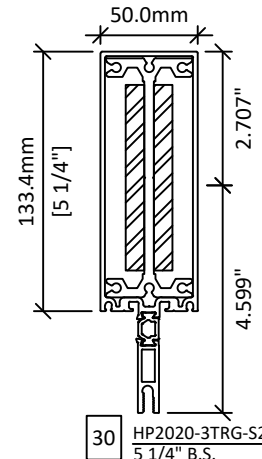
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$I_x = 20.280 \text{ in}^4$
 $S_x = 4.495 \text{ in}^3$

MATERIAL	ALUMINUM ALLOY 6063-T6
DEFLECTION LIMIT	L/175 & L/240+1/4"



$I_x = 25.144 \text{ in}^4$
 $S_x = 5.467 \text{ in}^3$

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