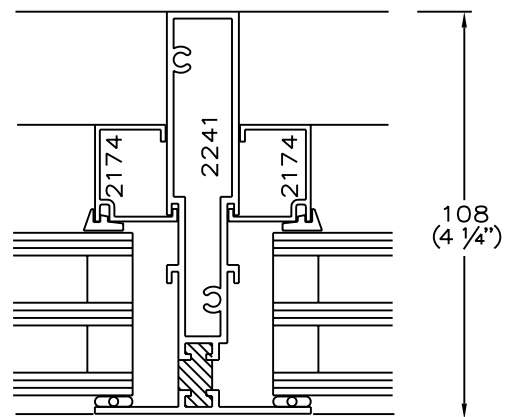
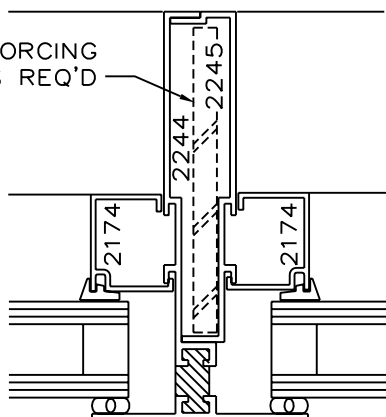
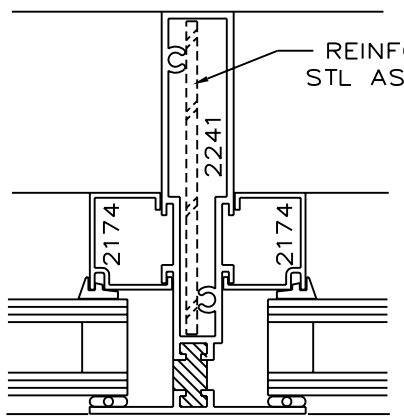
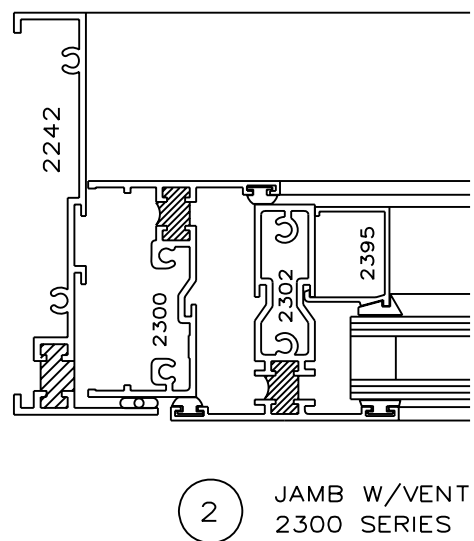
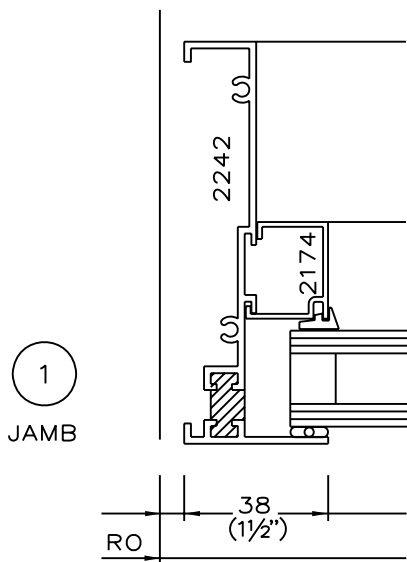
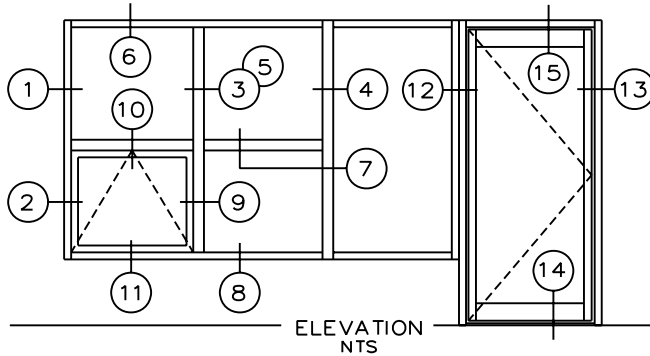
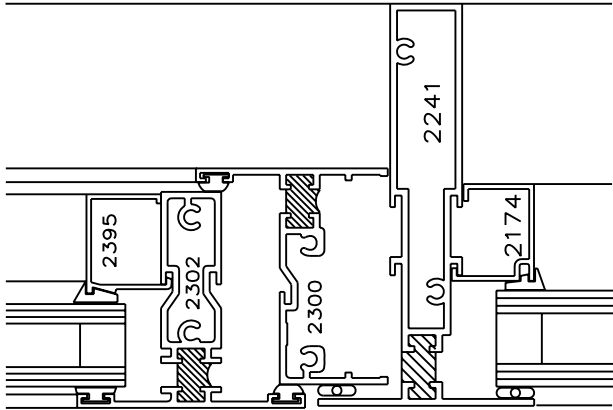


SCALE 1:2



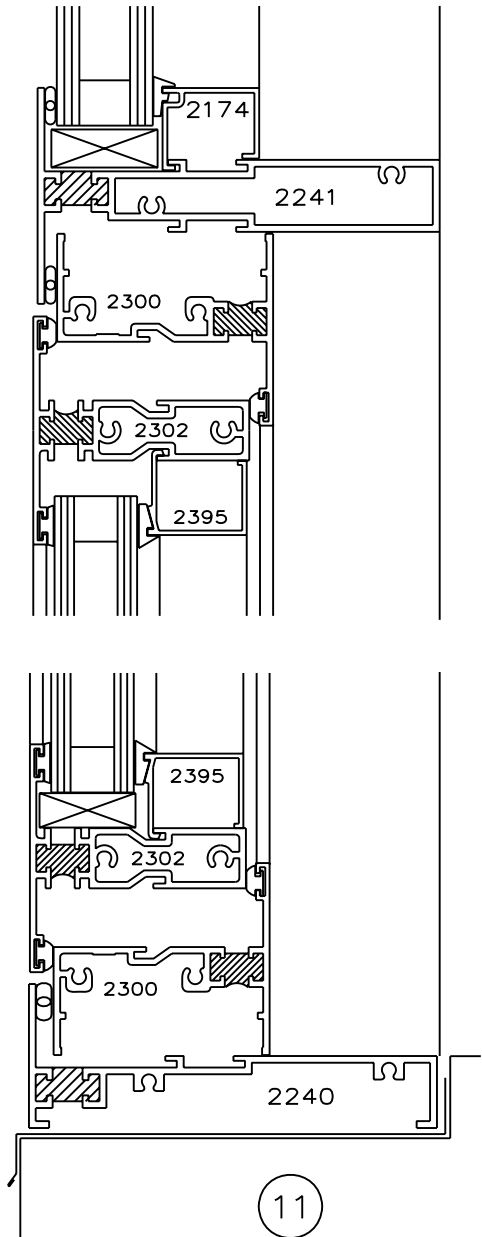
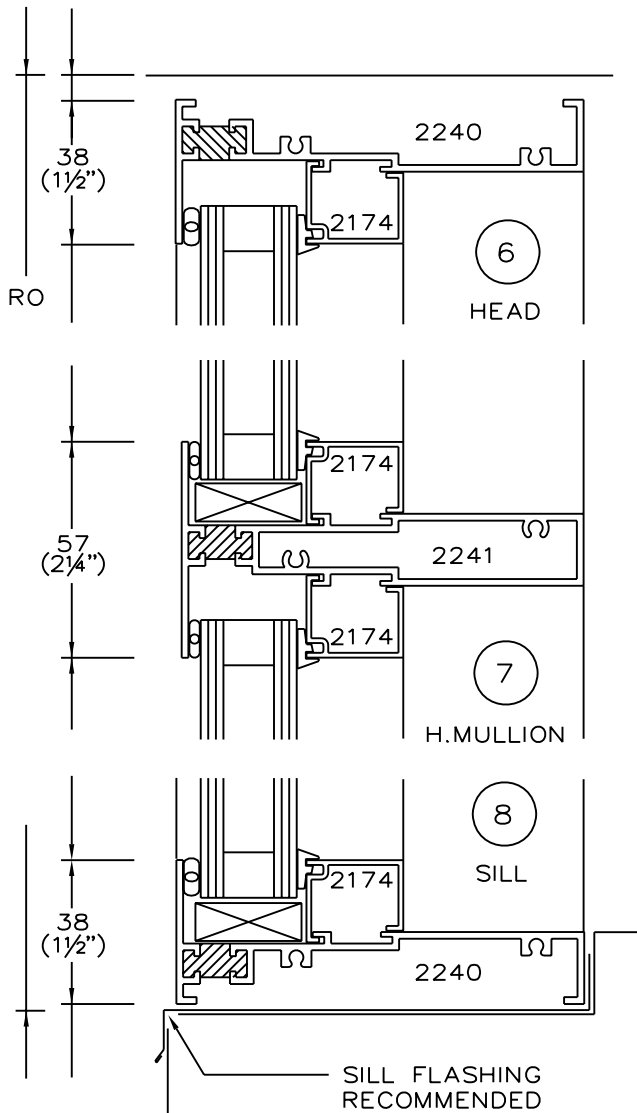
SCALE 1:2

**2240 SERIES**  
**INSULATED WINDOW FRAMING**  
**114 mm (4.25")**

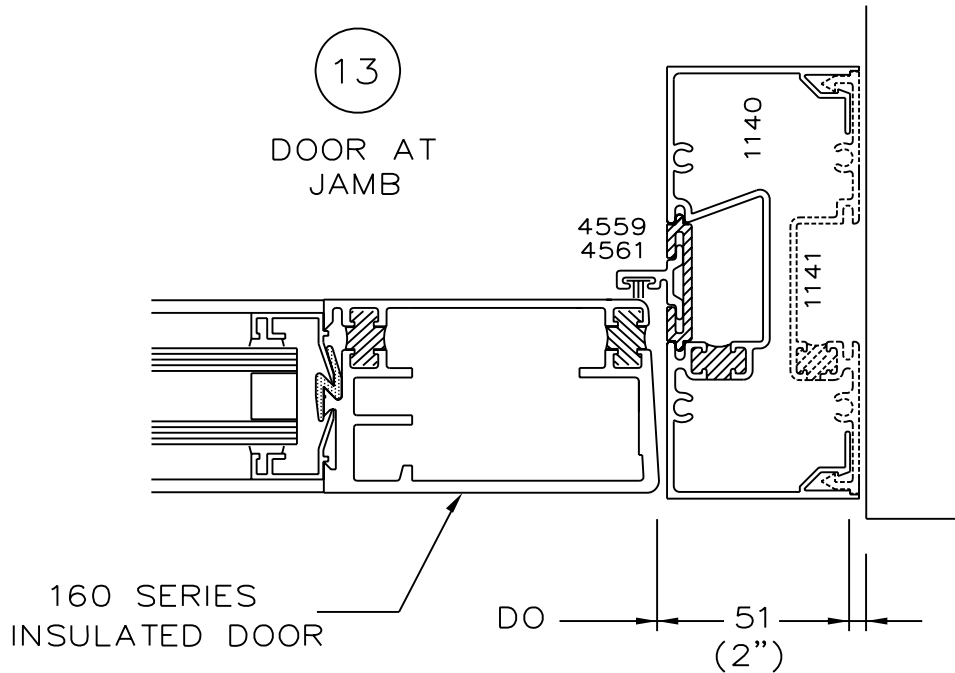
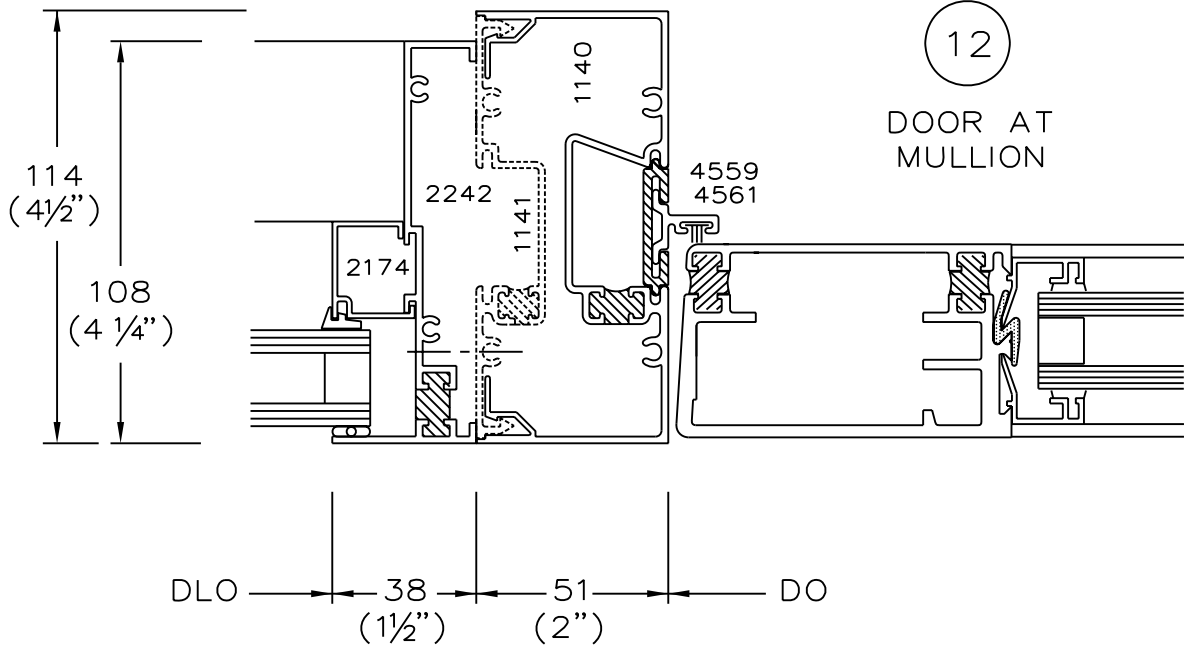


9  
 V.MULLION  
 W/VENT  
 2300 SERIES

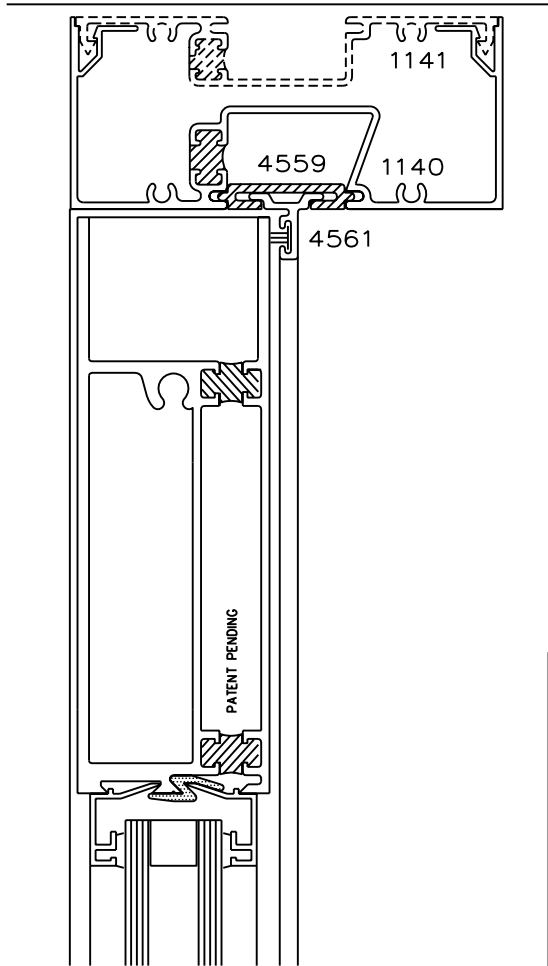
10  
 H.MULLION  
 W/VENT  
 2300 SERIES



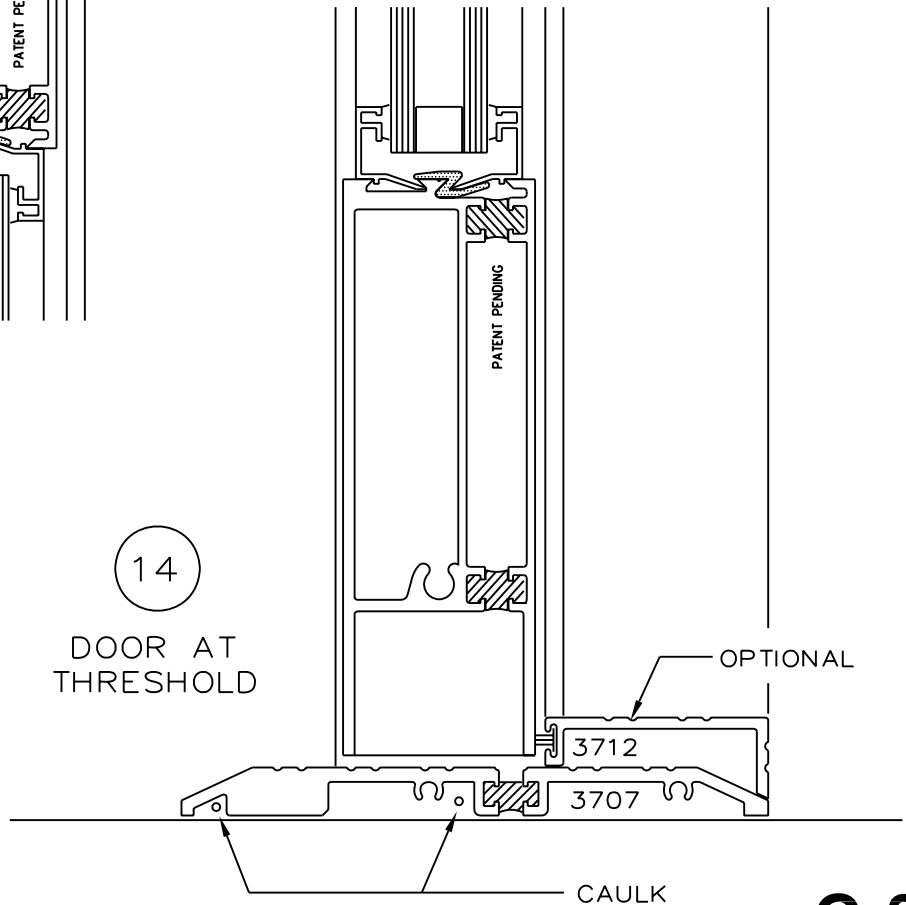
SCALE 1:2



SCALE 1:2



15  
DOOR AT  
HEAD



14  
DOOR AT  
THRESHOLD

SCALE 1:2

CAULK

**C-3.5**

SECTION-PAGE

**A.T.MARCK & ASSOCIATES**  
BUILDING SYSTEMS ENGINEERING LTD.  
TEL/FAX (604) 469-6566

PROFILE: <b>2241</b>	MATERIAL: AA 6063 T5
A= 587 mm <sup>2</sup> (0.91 IN <sup>2</sup> )	I= 722686 mm <sup>4</sup> (1.736 IN <sup>4</sup> )
C/L <sub>max</sub> = 59.9 mm (2.36 IN)	S= 12060 mm <sup>3</sup> (0.736 IN <sup>3</sup> )

SPACING	MAX. ALLOWABLE MULLION LENGTH (m/ft) FOR SPECIFIED WIND LOAD					
	0.72 kPa 15 PSF	0.96 kPa 20 PSF	1.20 kPa 25 PSF	1.44 kPa 30 PSF	1.68 kPa 35 PSF	1.91 kPa 40 PSF
	.45 m	4.10	3.70	3.45	3.15	2.90
1.5'	13.5	12.1	11.3	10.3	9.5	8.9
.60 m	3.70	3.30	2.95	2.70	2.50	2.35
2.0'	12.1	10.8	9.7	8.9	8.2	7.7
.75 m	3.45	2.95	2.65	2.40	2.25	2.10
2.5'	11.3	9.7	8.7	7.9	7.4	6.9
.90 m	3.15	2.70	2.40	2.20	2.05	1.90
3.0'	10.3	8.9	7.9	7.2	6.7	6.2
1.05 m	2.90	2.50	2.25	2.05	1.90	1.80
3.5'	9.5	8.2	7.4	6.7	6.2	5.9
1.20 m	2.70	2.35	2.10	1.90	1.75	1.65
4.0'	8.9	7.7	6.9	6.2	5.7	5.4
1.35 m	2.55	2.20	2.00	1.80	1.65	1.55
4.5'	8.4	7.2	6.6	5.9	5.4	5.1
1.50 m	2.40	2.10	1.90	1.70	1.60	1.50
5.0'	7.9	6.9	6.2	5.6	5.2	4.9
1.65 m	2.30	2.00	1.80	1.65	1.50	1.40
5.5'	7.5	6.6	5.9	5.4	4.9	4.6
1.80 m	2.20	1.90	1.70	1.55	1.45	1.35
6.0'	7.2	6.2	5.6	5.1	4.8	4.4
1.95 m	2.10	1.85	1.65	1.50	1.40	1.30
6.5'	6.9	6.1	5.4	4.9	4.6	4.3
2.10 m	2.05	1.75	1.60	1.45	1.35	1.25
7.0'	6.7	5.7	5.2	4.8	4.4	4.1
2.25 m	2.00	1.70	1.55	1.40	1.30	1.20
7.5'	6.6	5.6	5.1	4.6	4.3	3.9
2.40 m	1.90	1.65	1.50	1.35	1.25	1.15
8.0'	6.2	5.4	4.9	4.4	4.1	3.8

SPACING	MAX. ALLOWABLE MULLION LENGTH (m/ft) FOR SPECIFIED WIND LOAD					
	0.72 kPa 15 PSF	0.96 kPa 20 PSF	1.20 kPa 25 PSF	1.44 kPa 30 PSF	1.68 kPa 35 PSF	1.91 kPa 40 PSF
	.45 m	3.85	3.45	3.05	2.80	2.60
1.5'	12.6	11.3	10.0	9.2	8.5	8.0
.60 m	3.45	2.95	2.65	2.40	2.25	2.10
2.0'	11.3	9.7	8.7	7.9	7.4	6.9
.75 m	3.05	2.65	2.35	2.15	2.00	1.90
2.5'	10.0	8.7	7.7	7.1	6.6	6.2
.90 m	2.80	2.40	2.15	2.00	1.85	1.70
3.0'	9.2	7.9	7.1	6.6	6.1	5.6
1.05 m	2.60	2.25	2.00	1.85	1.70	1.60
3.5'	8.5	7.4	6.6	6.1	5.6	5.2
1.20 m	2.40	2.10	1.90	1.70	1.60	1.50
4.0'	7.9	6.9	6.2	5.6	5.2	4.9
1.35 m	2.30	2.00	1.75	1.60	1.50	1.40
4.5'	7.5	6.6	5.7	5.2	4.9	4.6
1.50 m	2.15	1.90	1.70	1.55	1.40	1.35
5.0'	7.1	6.2	5.6	5.1	4.6	4.4
1.65 m	2.05	1.80	1.60	1.45	1.35	1.25
5.5'	6.7	5.9	5.2	4.8	4.4	4.1
1.80 m	2.00	1.70	1.55	1.40	1.30	1.20
6.0'	6.6	5.6	5.1	4.6	4.3	3.9
1.95 m	1.90	1.65	1.45	1.35	1.25	1.15
6.5'	6.2	5.4	4.8	4.4	4.1	3.8
2.10 m	1.85	1.60	1.40	1.30	1.20	1.10
7.0'	6.1	5.2	4.6	4.3	3.9	3.6
2.25 m	1.75	1.55	1.35	1.25	1.15	1.10
7.5'	5.7	5.1	4.4	4.1	3.8	3.6
2.40 m	1.70	1.50	1.35	1.20	1.10	1.05
8.0'	5.6	4.9	4.4	3.9	3.6	3.4

- 1/ UNIFORM (RECTANGULAR) LOAD DISTRIBUTION
- 2/ BASED ON L/175 MAX ALLOWABLE DEFLECTION  
OR F<sub>y</sub> = 110 MPa FOR AA 6063 T5
- WHICHEVER IS LESS - CONFORMING TO CAN3-S157-M83
- 3/ FOR ESTIMATING PURPOSES ONLY

PROFILE: <b>2244+2245</b> WITH <b>7.9x76.2mm STL BAR (5/16"x3")</b>	MATERIAL: AA 6063 T5 REINFORCING MATERIAL: STEEL 250W
A=1140 mm <sup>2</sup> (1.767 IN <sup>2</sup> )	I= 1429340 mm <sup>4</sup> (3.434 IN <sup>4</sup> )
C/L <sub>max</sub> = 52.7mm (2.07 IN)	S= 27120 mm <sup>3</sup> (1.655 IN <sup>3</sup> )

MAX. ALLOWABLE MULLION LENGTH (m/ft)  
FOR SPECIFIED WIND LOAD

SPACING	0.72 kPa	0.96 kPa	1.20 kPa	1.44 kPa	1.68 kPa	1.91 kPa
	15 PSF	20 PSF	25 PSF	30 PSF	35 PSF	40 PSF
.45 m	5.15	4.65	4.35	4.05	3.85	3.70
1.5'	16.9	15.3	14.3	13.3	12.6	12.1
.60 m	4.65	4.25	3.95	3.70	3.50	3.35
2.0'	15.3	13.9	13.0	12.1	11.5	11.0
.75 m	4.35	3.95	3.65	3.45	3.25	3.15
2.5'	14.3	13.0	12.0	11.3	10.7	10.3
.90 m	4.05	3.70	3.45	3.25	3.05	2.90
3.0'	13.3	12.1	11.3	10.7	10.0	9.5
1.05 m	3.85	3.50	3.25	3.05	2.85	2.65
3.5'	12.6	11.5	10.7	10.0	9.4	8.7
1.20 m	3.70	3.35	3.10	2.85	2.65	2.50
4.0'	12.1	11.0	10.2	9.4	8.7	8.2
1.35 m	3.55	3.25	2.95	2.70	2.50	2.35
4.5'	11.6	10.7	9.7	8.9	8.2	7.7
1.50 m	3.45	3.10	2.80	2.55	2.40	2.25
5.0'	11.3	10.2	9.2	8.4	7.9	7.4
1.65 m	3.35	3.00	2.70	2.45	2.25	2.15
5.5'	11.0	9.8	8.9	8.0	7.4	7.1
1.80 m	3.25	2.85	2.55	2.35	2.15	2.05
6.0'	10.7	9.4	8.4	7.7	7.1	6.7
1.95 m	3.15	2.75	2.45	2.25	2.10	1.95
6.5'	10.3	9.0	8.0	7.4	6.9	6.4
2.10 m	3.05	2.65	2.40	2.15	2.00	1.90
7.0'	10.0	8.7	7.9	7.1	6.6	6.2
2.25 m	2.95	2.55	2.30	2.10	1.95	1.80
7.5'	9.7	8.4	7.5	6.9	6.4	5.9
2.40 m	2.85	2.50	2.20	2.05	1.90	1.75
8.0'	9.4	8.2	7.2	6.7	6.2	5.7

m  
ft

DEAD LOAD CAPACITY FOR 25mm (1") UNITS WITH TWO 6mm (1/4") GLASS PANES  
MAXIMUM DEFLECTION 3.2mm (1/8")

HORIZONTAL MULLION PROFILE:	<b>2241</b>	I= 59547 mm <sup>4</sup> (0.143 IN <sup>4</sup> )	S=2069 mm <sup>3</sup> (0.126 IN <sup>3</sup> )					
VERTICAL MULLION SPACING	0.75m 2.5'	0.90m 3.0'	1.05m 3.5'	1.20m 4.0'	1.35m 4.5'	1.50m 5.0'	1.65m 5.5'	1.80m 6.0'
1 GLASS HEIGHT	3.65	2.11	1.14	0.67	0.42	0.27		
SUPPORT Ø 1/4"	12.00	6.92	3.74	2.19	1.37	0.90		
2 GLASS HEIGHT	3.65	3.65	2.13	1.25	0.78	0.51	0.35	0.25
SUPPORT Ø 1/8"	12.00	12.00	7.00	4.10	2.56	1.68	1.15	0.81

m  
ft  
m  
ft

- 1 SETTING BLOCKS CENTERED AT GLASS WIDTH QUARTER POINTS
- 2 SETTING BLOCKS CENTERED AT GLASS WIDTH ONE-EIGHT POINTS

SETTING BLOCKS ARE EQUIDISTANT FROM THE GLASS CENTER LINE

- 1/ UNIFORM (RECTANGULAR) LOAD DISTRIBUTION
- 2/ BASED ON L/175 MAX ALLOWABLE DEFLECTION  
OR F<sub>y</sub> = 110 MPa FOR AA 6063 T5  
- WHICHEVER IS LESS - CONFORMING TO CAN3-S157-M83
- 3/ FOR ESTIMATING PURPOSES ONLY