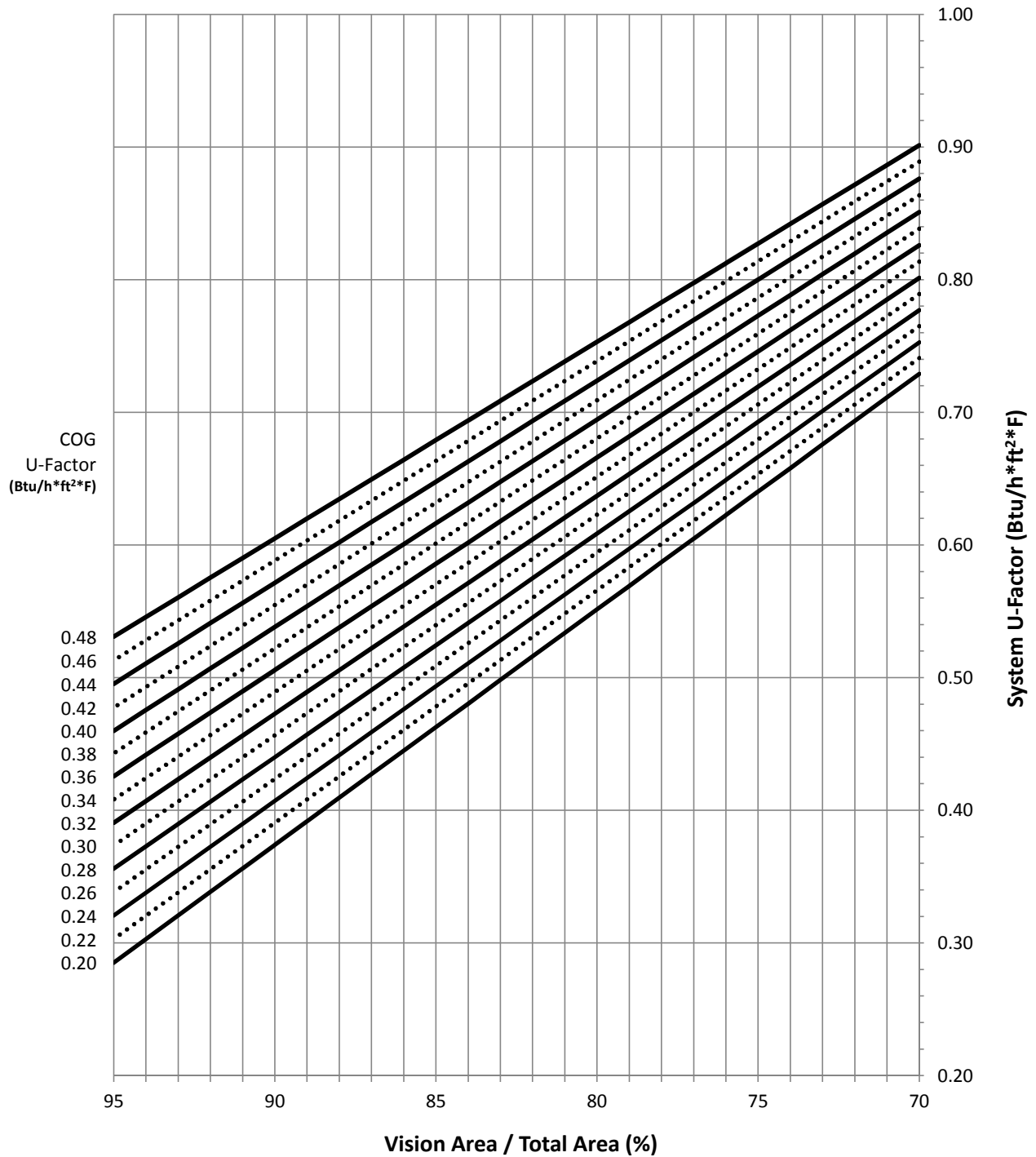
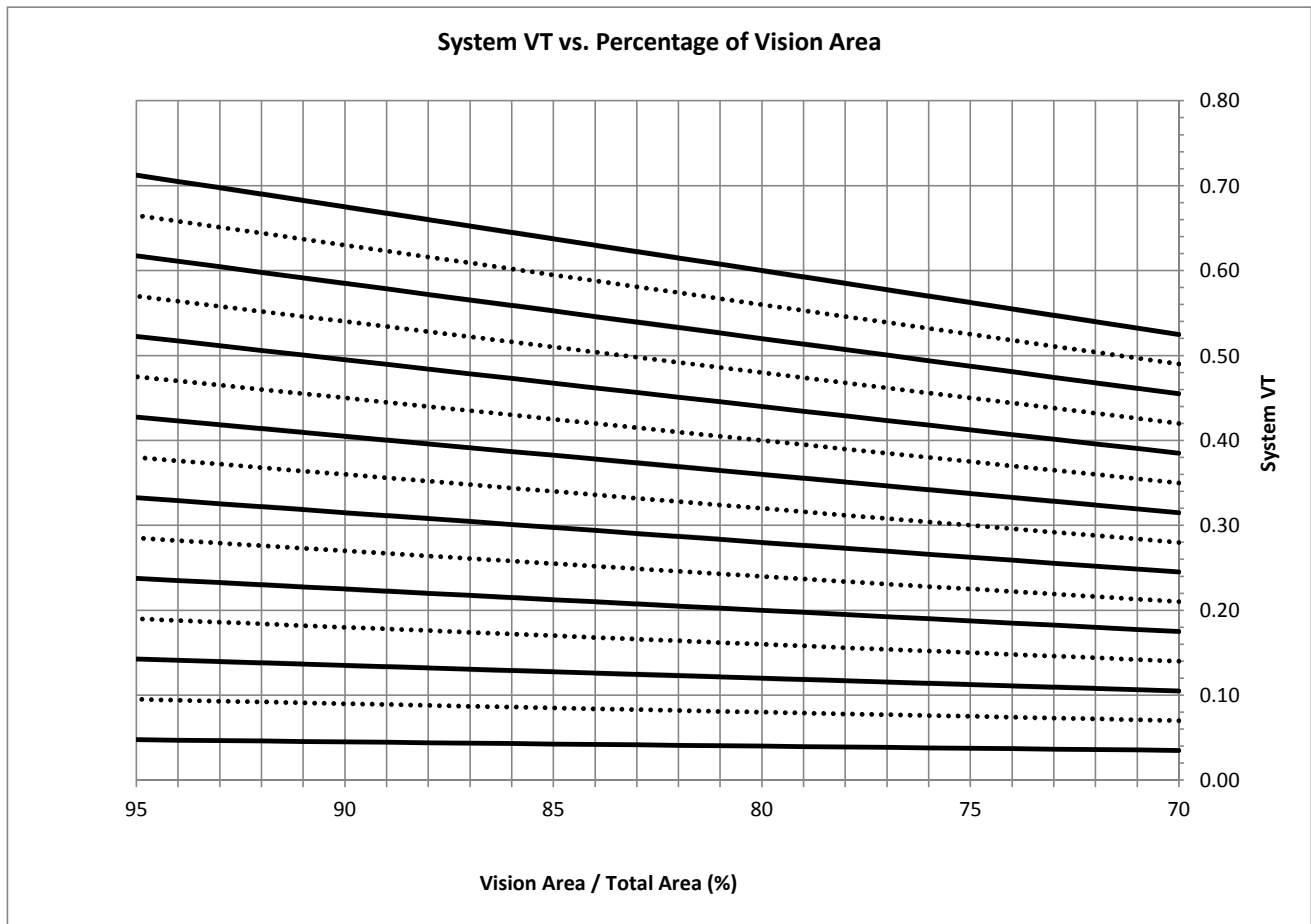
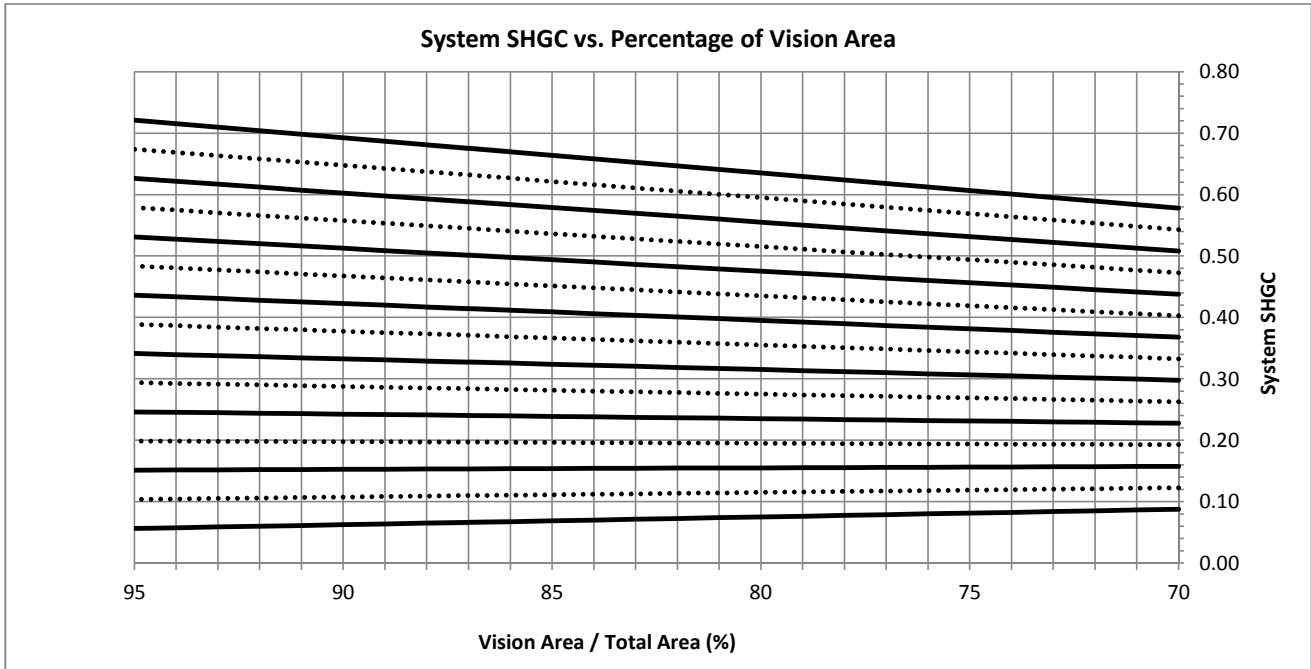


- 1.0 Product Manufacturer:** Coral Architectural Products
3010 Rice Mine Road
Tuscaloosa, AL 35406
- 2.0 Product Model:** PW257 Curtain Wall
- 3.0 Operator Type:** Glazed Wall Curtain Wall O-O
- 4.0 Simulations Performed:** Thermal simulations were performed in accordance with AAMA 507-07, *Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Buildings*, using NFRC-approved simulation programs WINDOW6.3 and THERM6.3, and current versions of NFRC 100-2014 and NFRC 200-2014.
- 5.0 Framing Type:** Painted aluminum with EPDM isolator gasket, creating a thermally improved interior condition (AU) all members.
- 6.0 Sash Type:** N/A
- 7.0 Grilles:** N/A
- 8.0 Weatherstripping:** N/A
- 9.0 Hardware:** N/A
- 10.0 Edge-of-Glass Construction:** Pressure-plate captured system with exterior EPDM glazing gasket and interior EPDM spacer with silicone wet glazing.
- 11.0 I.G. Spacer Type:** Generic aluminum box spacer, with 0.01" PIB primary seals between spacer and glass, and .181" depth silicone secondary sealant, was utilized for all simulations.
- 12.0 Grouping:** N/A
- 13.0 Simulation Software:** Simulations were performed using NFRC-approved simulation programs WINDOW6.3 and THERM6.3, in accordance with current versions of NFRC 100-2014, NFRC 200-2014, and NFRC 500-2014.
- 14.0 Drawings:** This report is incomplete if not accompanied by component and assembly drawings of the indicated product, provided by Coral, totaling 5 pages, bearing the initialed stamp of Turner Engineering & Consulting, Inc.
- 15.0 Simulation Results:** Please see the following charts and tables.

System U-Factor vs. Percentage of Vision Area





Size-Specific U-Factor (Btu/h-ft²-F) Matrix: NFRC Standard Size (78.740" x 78.740")

Glazing Option	Center-of-Glass U-Factor	Overall U-Factor
1	0.48	0.62
2	0.46	0.60
3	0.44	0.59
4	0.42	0.57
5	0.40	0.55
6	0.38	0.54
7	0.36	0.52
8	0.34	0.50
9	0.32	0.48
10	0.30	0.47
11	0.28	0.45
12	0.26	0.43
13	0.24	0.42
14	0.22	0.40
15	0.20	0.38

Size-Specific SHGC Matrix:
NFRC Standard Size (78.740" x 78.740")

Center-of-Glass SHGC	Overall SHGC
0.75	0.69
0.70	0.65
0.65	0.60
0.60	0.56
0.55	0.51
0.50	0.47
0.45	0.42
0.40	0.38
0.35	0.33
0.30	0.29
0.25	0.24
0.20	0.20
0.15	0.15
0.10	0.11
0.05	0.06

Size-Specific VT Matrix:
NFRC Standard Size (78.740" x 78.740")

Center-of-Glass VT	Overall VT
0.75	0.67
0.70	0.63
0.65	0.58
0.60	0.54
0.55	0.49
0.50	0.45
0.45	0.40
0.40	0.36
0.35	0.31
0.30	0.27
0.25	0.22
0.20	0.18
0.15	0.13
0.10	0.09
0.05	0.04

Glazing Option	NFRC COG U-Factor (Btu/h-ft2-F) *	NFRC COG Temperature (F) *	Frame Section	Frame Width (in.)	Frame U-factor (Btu/h-ft2-F)	Edge U-Factor (Btu/h-ft2-F)	Size Specific Data **		
							70% Vision Area	NFRC 100 Standard Size (89.7% Vision Area)	95% Vision Area
1	0.48	44.0	L Head	1.3791	1.9725	0.4263	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9455	0.4278	0.4881	0.4800	0.4591
			L Sill	1.3791	1.9655	0.4263	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9725	0.4263	0.90	0.62	0.53
			R Jamb	1.3796	1.9393	0.4280			
			R Sill	1.3791	1.9655	0.4263			
			Int. Vert.	2.7587	1.9424	0.4279			
2	0.46	45.0	L Head	1.3791	1.9708	0.4122	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9437	0.4136	0.4675	0.4600	0.4399
			L Sill	1.3791	1.9637	0.4122	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9708	0.4122	0.89	0.60	0.51
			R Jamb	1.3796	1.9374	0.4138			
			R Sill	1.3791	1.9637	0.4122			
			Int. Vert.	2.7587	1.9406	0.4137			
3	0.44	46.1	L Head	1.3791	1.9674	0.3979	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9403	0.3993	0.4467	0.4400	0.4210
			L Sill	1.3791	1.9603	0.3979	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9674	0.3979	0.88	0.59	0.50
			R Jamb	1.3796	1.9340	0.3995			
			R Sill	1.3791	1.9603	0.3979			
			Int. Vert.	2.7587	1.9372	0.3994			
4	0.42	47.1	L Head	1.3791	1.9640	0.3837	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9371	0.3851	0.4261	0.4200	0.4019
			L Sill	1.3791	1.9572	0.3837	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9640	0.3837	0.86	0.57	0.48
			R Jamb	1.3796	1.9308	0.3852			
			R Sill	1.3791	1.9572	0.3837			
			Int. Vert.	2.7587	1.9339	0.3851			
5	0.40	48.1	L Head	1.3791	1.9609	0.3696	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9340	0.3709	0.4057	0.4000	0.3832
			L Sill	1.3791	1.9541	0.3695	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9609	0.3696	0.85	0.55	0.46
			R Jamb	1.3796	1.9277	0.3711			
			R Sill	1.3791	1.9541	0.3695			
			Int. Vert.	2.7587	1.9309	0.3710			

* NFRC COG U-factor and Temperature are calculated at the standard NFRC size of 1 meter glazing height. The Size Specific COG U-factors are calculated at the actual product height.

** All product sizes and areas calculated using NFRC centerline approach on verticals.

Glazing Option	NFRC COG U-Factor (Btu/h-ft2-F) *	NFRC COG Temperature (F) *	Frame Section	Frame Width (in.)	Frame U-factor (Btu/h-ft2-F)	Edge U-Factor (Btu/h-ft2-F)	Size Specific Data **		
							70% Vision Area	NFRC 100 Standard Size (89.7% Vision Area)	95% Vision Area
							25.605" x 25.605"	78.740" x 78.740"	163.653" x 163.653"
6	0.38	49.2	L Head	1.3791	1.9580	0.3555	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9311	0.3568	0.3850	0.3800	0.3651
			L Sill	1.3791	1.9511	0.3555	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9580	0.3555	0.84	0.54	0.44
			R Jamb	1.3796	1.9248	0.3569			
			R Sill	1.3791	1.9511	0.3555			
			Int. Vert.	2.7587	1.9280	0.3568			
7	0.36	50.2	L Head	1.3791	1.9552	0.3415	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9283	0.3427	0.3645	0.3600	0.3467
			L Sill	1.3791	1.9483	0.3414	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9552	0.3415	0.83	0.52	0.43
			R Jamb	1.3796	1.9220	0.3429			
			R Sill	1.3791	1.9483	0.3414			
			Int. Vert.	2.7587	1.9252	0.3428			
8	0.34	51.3	L Head	1.3791	1.9526	0.3275	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9257	0.3287	0.3441	0.3400	0.3278
			L Sill	1.3791	1.9457	0.3275	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9526	0.3275	0.81	0.50	0.41
			R Jamb	1.3796	1.9194	0.3289			
			R Sill	1.3791	1.9457	0.3275			
			Int. Vert.	2.7587	1.9225	0.3288			
9	0.32	52.3	L Head	1.3791	1.9502	0.3137	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9232	0.3148	0.3237	0.3200	0.3091
			L Sill	1.3791	1.9432	0.3135	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9502	0.3137	0.80	0.48	0.39
			R Jamb	1.3796	1.9169	0.3149			
			R Sill	1.3791	1.9432	0.3135			
			Int. Vert.	2.7587	1.9200	0.3149			
10	0.30	53.4	L Head	1.3791	1.9477	0.2998	COG U-factors (Btu/h-ft2-F) *		
			L Jamb	1.3791	1.9207	0.3009	0.3031	0.3000	0.2907
			L Sill	1.3791	1.9407	0.2997	Total Product U-factors (Btu/h-ft2-F)		
			R Head	1.3791	1.9477	0.2998	0.79	0.47	0.37
			R Jamb	1.3796	1.9145	0.3010			
			R Sill	1.3791	1.9407	0.2997			
			Int. Vert.	2.7587	1.9176	0.3010			

* NFRC COG U-factor and Temperature are calculated at the standard NFRC size of 1 meter glazing height. The Size Specific COG U-factors are calculated at the actual product height.

** All product sizes and areas calculated using NFRC centerline approach on verticals.

Glazing Option	NFRC COG U-Factor (Btu/h-ft ² -F) *	NFRC COG Temperature (F) *	Frame Section	Frame Width (in.)	Frame U-factor (Btu/h-ft ² -F)	Edge U-Factor (Btu/h-ft ² -F)	Size Specific Data **		
							70% Vision Area	NFRC 100 Standard Size (89.7% Vision Area)	95% Vision Area
11	0.28	54.4	L Head	1.3791	1.9456	0.2860	COG U-factors (Btu/h-ft ² -F) *		
			L Jamb	1.3791	1.9183	0.2870	0.2827	0.2800	0.2719
			L Sill	1.3791	1.9385	0.2859	Total Product U-factors (Btu/h-ft ² -F)		
			R Head	1.3791	1.9456	0.2860	0.78	0.45	0.36
			R Jamb	1.3796	1.9124	0.2872			
			R Sill	1.3791	1.9385	0.2859			
			Int. Vert.	2.7587	1.9154	0.2871			
12	0.26	55.5	L Head	1.3791	1.9435	0.2723	COG U-factors (Btu/h-ft ² -F) *		
			L Jamb	1.3791	1.9162	0.2733	0.2623	0.2600	0.2531
			L Sill	1.3791	1.9364	0.2721	Total Product U-factors (Btu/h-ft ² -F)		
			R Head	1.3791	1.9435	0.2723	0.76	0.43	0.34
			R Jamb	1.3796	1.9103	0.2735			
			R Sill	1.3791	1.9364	0.2721			
			Int. Vert.	2.7587	1.9132	0.2734			
13	0.24	56.5	L Head	1.3791	1.9414	0.2586	COG U-factors (Btu/h-ft ² -F) *		
			L Jamb	1.3791	1.9142	0.2595	0.2420	0.2400	0.2341
			L Sill	1.3791	1.9343	0.2585	Total Product U-factors (Btu/h-ft ² -F)		
			R Head	1.3791	1.9414	0.2586	0.75	0.42	0.32
			R Jamb	1.3796	1.9082	0.2596			
			R Sill	1.3791	1.9343	0.2585			
			Int. Vert.	2.7587	1.9112	0.2596			
14	0.22	57.6	L Head	1.3791	1.9396	0.2449	COG U-factors (Btu/h-ft ² -F) *		
			L Jamb	1.3791	1.9123	0.2459	0.2217	0.2200	0.2151
			L Sill	1.3791	1.9324	0.2448	Total Product U-factors (Btu/h-ft ² -F)		
			R Head	1.3791	1.9396	0.2449	0.74	0.40	0.30
			R Jamb	1.3796	1.9064	0.2460			
			R Sill	1.3791	1.9324	0.2448			
			Int. Vert.	2.7587	1.9093	0.2459			
15	0.20	58.7	L Head	1.3791	1.9379	0.2313	COG U-factors (Btu/h-ft ² -F) *		
			L Jamb	1.3791	1.9106	0.2321	0.2014	0.2000	0.1959
			L Sill	1.3791	1.9308	0.2311	Total Product U-factors (Btu/h-ft ² -F)		
			R Head	1.3791	1.9379	0.2313	0.73	0.38	0.29
			R Jamb	1.3796	1.9047	0.2323			
			R Sill	1.3791	1.9308	0.2311			
			Int. Vert.	2.7587	1.9077	0.2322			

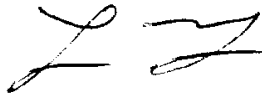
* NFRC COG U-factor and Temperature are calculated at the standard NFRC size of 1 meter glazing height. The Size Specific COG U-factors are calculated at the actual product height.

** All product sizes and areas calculated using NFRC centerline approach on verticals.

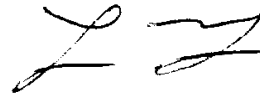
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17.0 Simulator: Lucas A. Turner, P.E.

18.0 Simulator in Responsible Charge: Lucas A. Turner, P.E., attests to the technical accuracy and content of this report.



Simulator Signature




Simulator in Responsible Charge Signature

Drawing Appendix

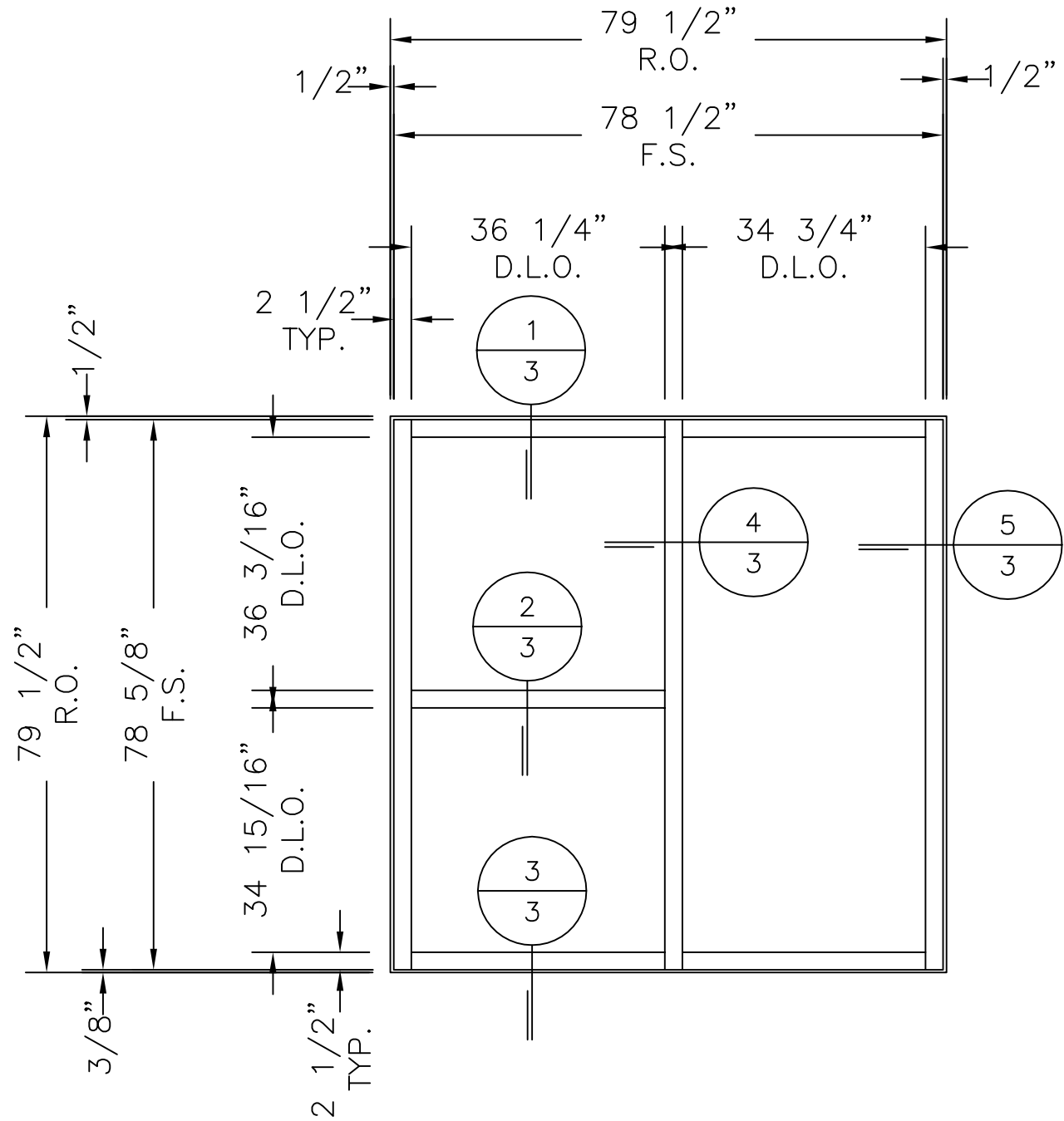
**Following drawings and data provided
by Client, totaling 5 pages**

PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS

INDEX TO DRAWINGS	
1	INDEX TO DRAWINGS AND NOTES
2	STANDARD FRAMING ELEVATION
3	STANDARD FRAMING DETAILS
4	BILL OF MATERIALS
5	DIE DRAWINGS

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	Initials: <i>ZZ</i>	

<p>PW257 AAMA 507 NFRC CMAST SUBMITTAL DRAWINGS</p> <p>INDEX TO DRAWINGS AND NOTES</p>	<p>C:\CAD\JOBS\4400\CAP Logo.jpg</p>
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TYPICAL ELEVATION FOR PW257 AAMA 507 NFRC CMAST

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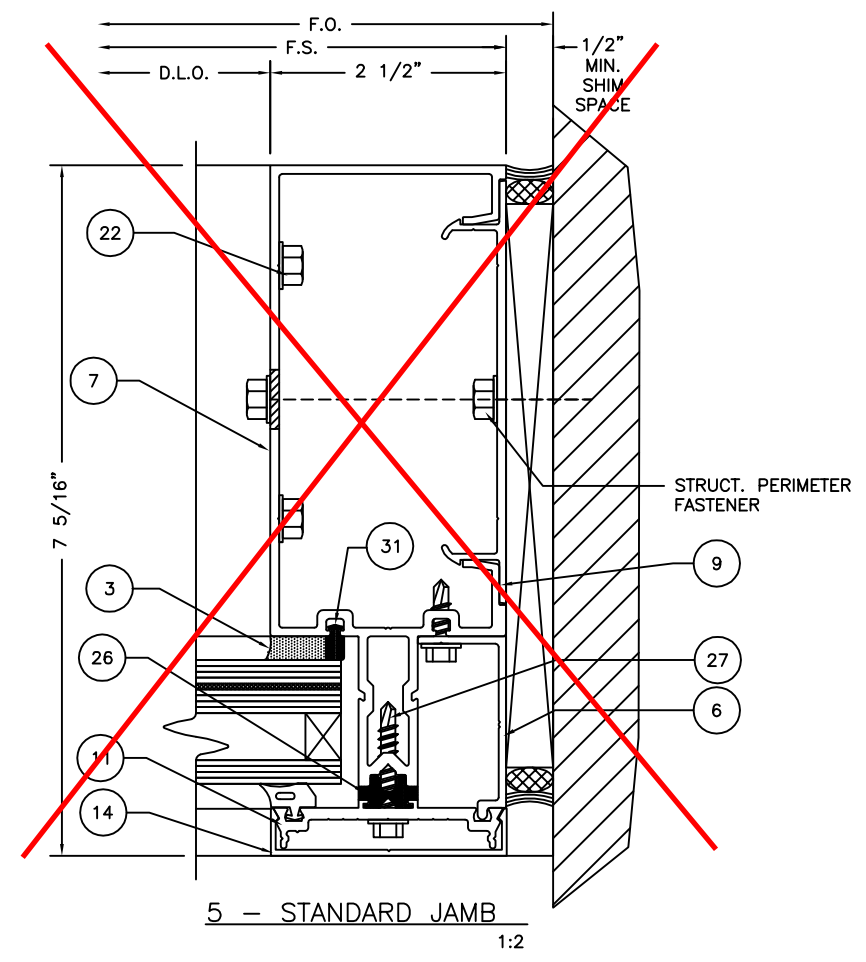
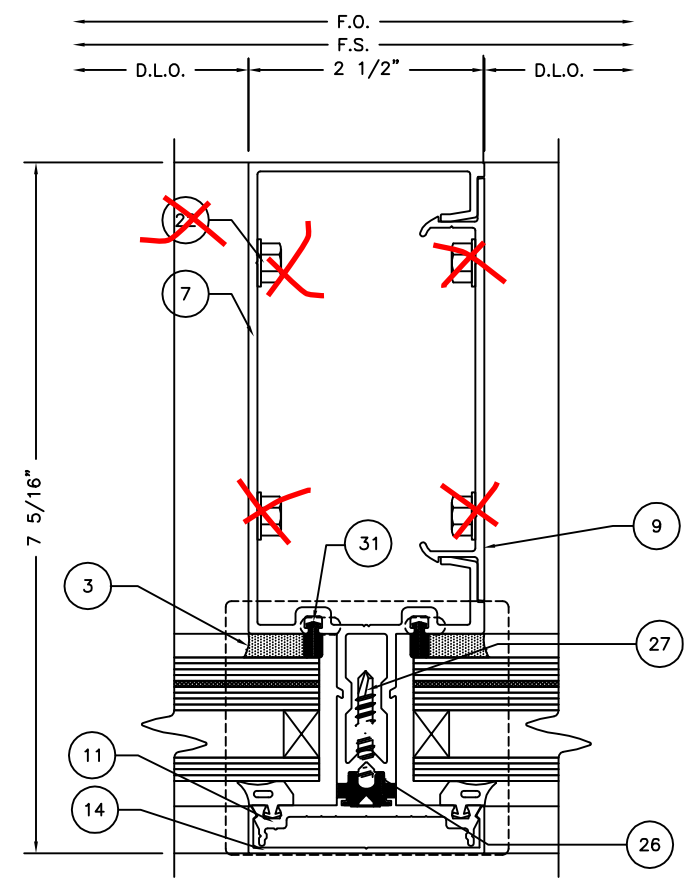
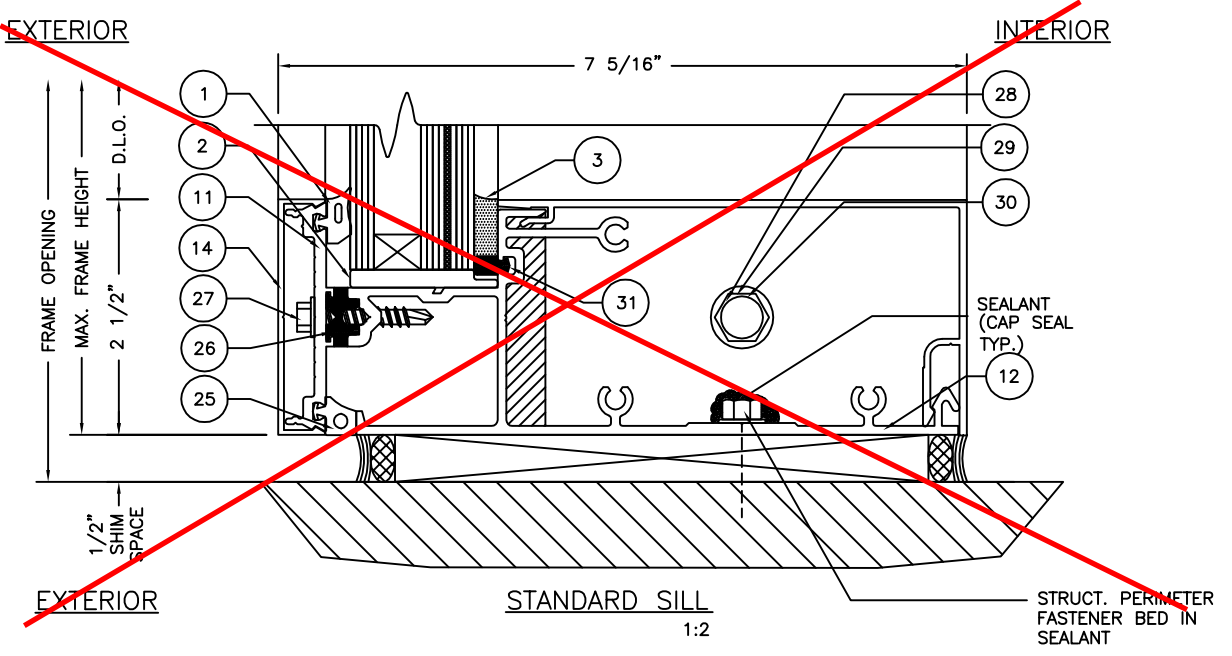
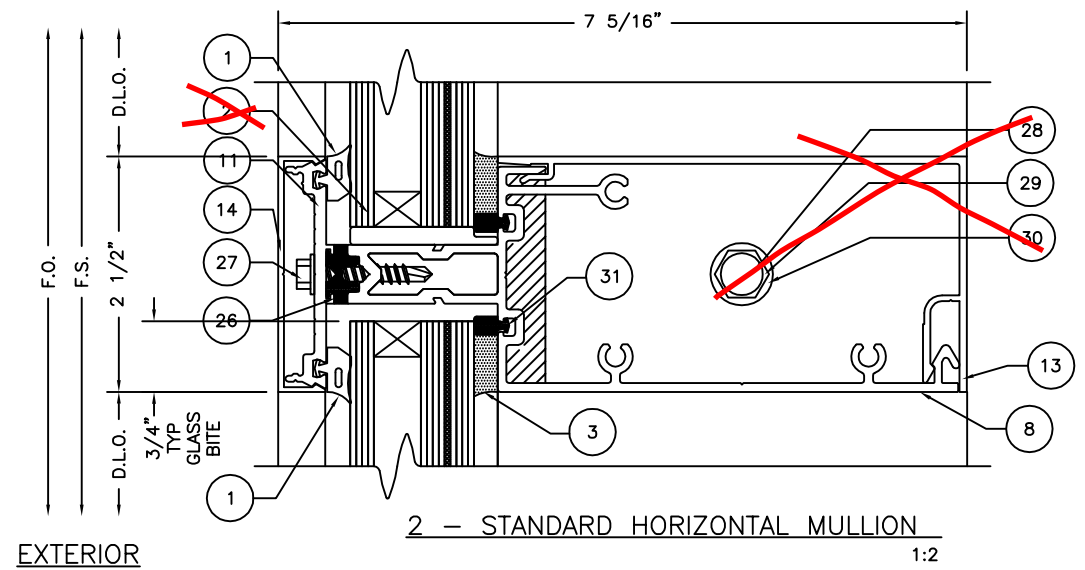
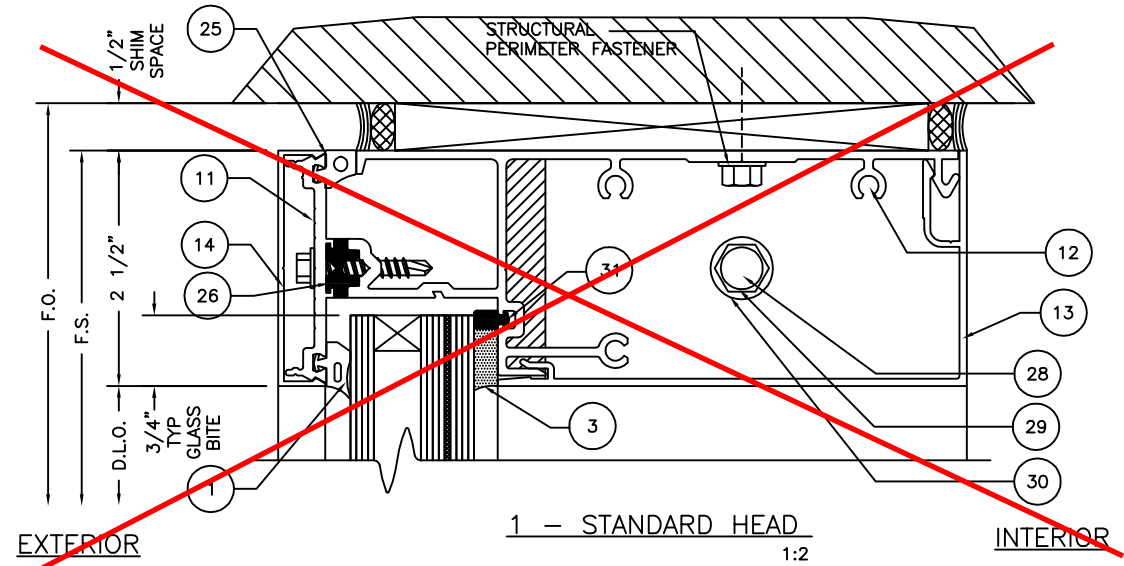
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**PW257 AAMA 507
NFRC CMAST
SUBMITTAL DRAWINGS**
FRAMING ELEVATION

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PW257 AAMA 507
NFRC CMAST
SUBMITTAL DRAWINGS
STANDARD FRAMING DETAILS

BILL OF MATERIALS

ITEM NO.	P/N	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1	NG10	GLAZING GASKET	.561 x .350	EPDM	VARIES	USED ON EXT. AND INT.
2	SB18	SETTING BLOCK	0.188 X 1.561 X 0.084	EPDM	VARIES	
3	795	JOINT/PERIMETER SEALANT	VARIABLE SPACE	SILICONE	DOW	
7	PW650	VERTICAL MULLION/JAMB	2.50 X 5 X .078	6063-T6 ALUMINUM	CORAL	
8	PW655	HORIZONTAL MULLION	6.480 X 2.390	6063-T6 ALUMINUM	CORAL	
9	PW202	VERTICAL FILLER	4.484 X .681	6063-T6 ALUMINUM	CORAL	
11	PW204	PRESSURE BAR	2.427 X .433	6063-T6 ALUMINUM	CORAL	
12	PW652	HEAD/SILL JAMB	2.390 X 6.387 X .078	6063-T6 ALUMINUM	CORAL	
13	PW203	SILL/HEAD/HORIZONTAL COVER	2.50 X 4.460	6063-T6 ALUMINUM	CORAL	
14	PW205	PRESSURE PLATE COVER	2.50 X .500	6063-T6 ALUMINUM	CORAL	
22	AS16	TYPICAL SPLINE SCREW	#14 X 1" HHSTS	STEEL	VARIES	TYPICAL SPLINE SCREW
25	NG11	GASKET	.340 x .403	EPDM	VARIES	
26	NG12	ISOLATER GASKET	.625 x .35	EPDM	VARIES	
27	AS32	SCREW	#12 x 1-1/4"	ZINC PLATED STEEL	VARIES	USED AT HEAD, SILL, AND HORIZONTAL
28	AS53	HEX CAP BOLT SCREW	1/4-20 X 3"	STAINLESS STEEL	VARIES	
29	AS54	FLAT WASHER	1/4"	STAINLESS STEEL	VARIES	
30	AS55	LOCK NUT WITH NYLON INSERT	1/4"-20	STAINLESS STEEL	VARIES	
31	NG14	SPACER GASKET	.3125 x .25	EPDM	VARIES	

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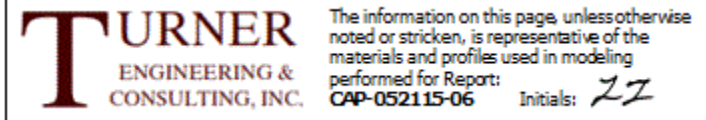
PW257 AAMA 507
NFRC CMAST
SUBMITTAL DRAWINGS
BILL OF MATERIALS

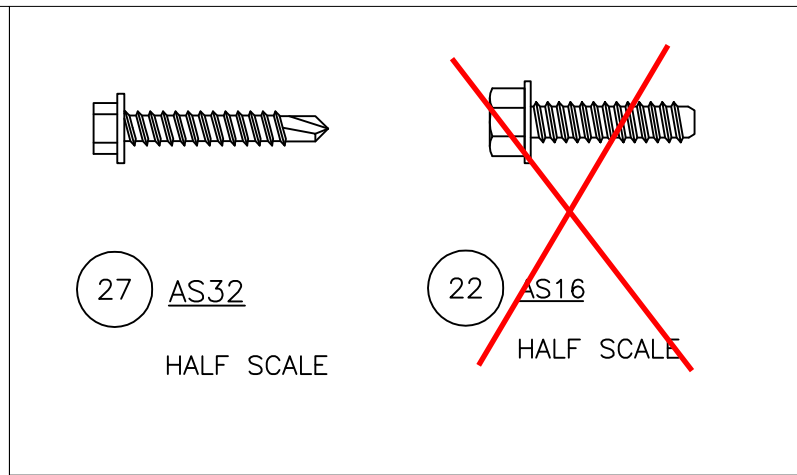
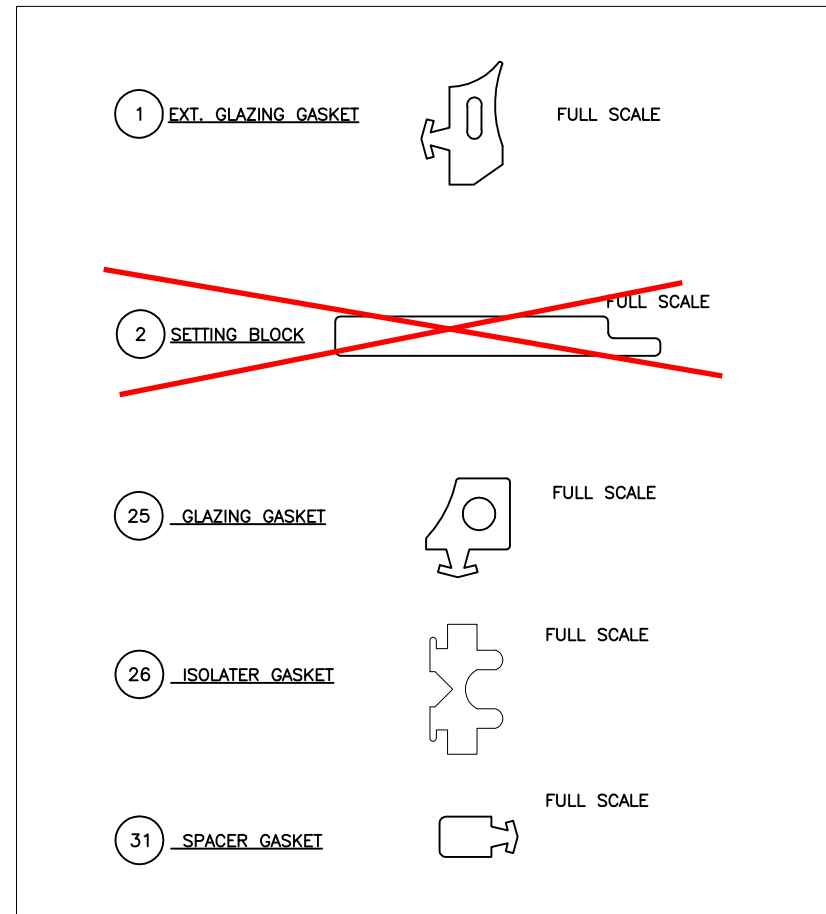
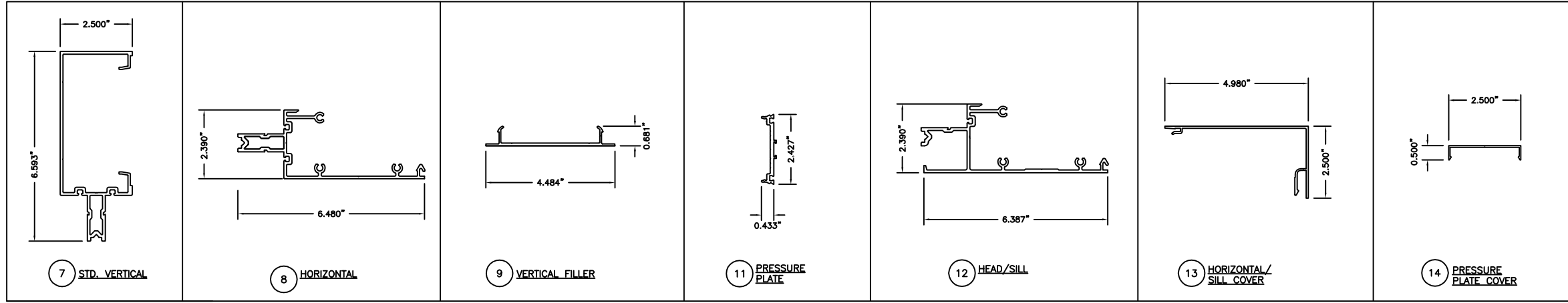
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