Architectural Testing

AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

UNITED STATES ALUMINUM

SERIES/MODEL: TT601 Top Notch Ribbon Wall
TYPE: Glazed Wall System

Report No: **B6092.03-116-45**
Report Date: **02/14/12**

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Architectural Testing

AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

UNITED STATES ALUMINUM
200 Singleton Road
Waxahachie, Texas 75165

Report No:	B6092.03-116-45
Report Date:	02/14/12
Simulation Date:	02/07/12

Project Summary:

Architectural Testing, Inc. was contracted by United States Aluminum to provide U-Factor and Solar Heat Gain Coefficient thermal performance ratings on the TT601 Top Notch Ribbon Wall Glazed Wall System. The thermal performance ratings were determined in accordance with AAMA 507-07, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Building.

Reference Documents:

AAMA 507-07, *Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Buildings*

NFRC 100-2010, *Procedure for Determining Fenestration Product U-Factors*

NFRC 200-2010, *Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*

Simulation Specimen Description:

Series/Model:	TT601 Top Notch Ribbon Wall
Product Groupings:	Material finish grouped per NFRC 100, Section 4.2.1 L
Type:	Glazed Wall System
Frame Material:	Aluminum Thermally Broken Framing System
Material Finish:	Painted Aluminum
Specimen Size:	2000mm wide by 2000mm high (78-3/4" by 78-3/4")
Configuration:	Single vision llte
Drawing Reference:	US Aluminum Drawings: TT601_SSG Horiz, & TT601_SSG Vert

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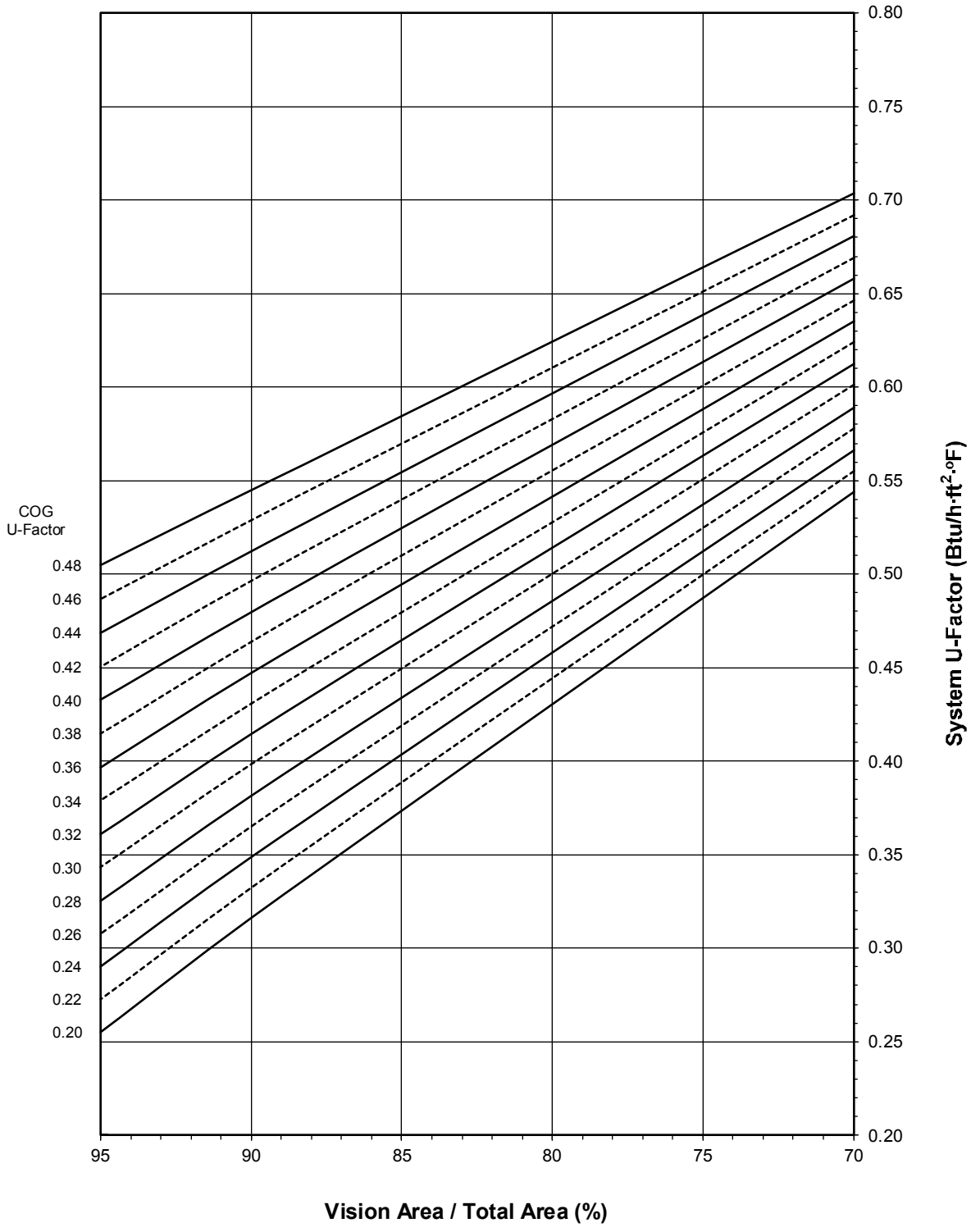
United States Aluminum
TT601 Top Notch Ribbon Wall - Glazed Wall System

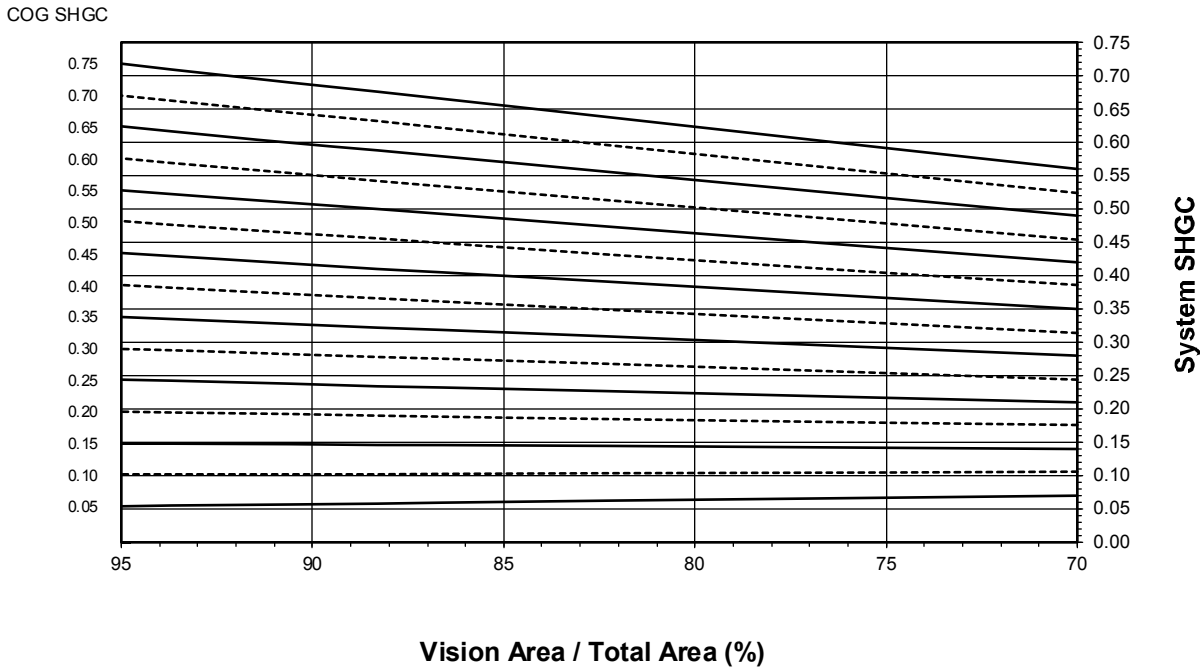
System U-Factor vs. Percentage of Vision Area



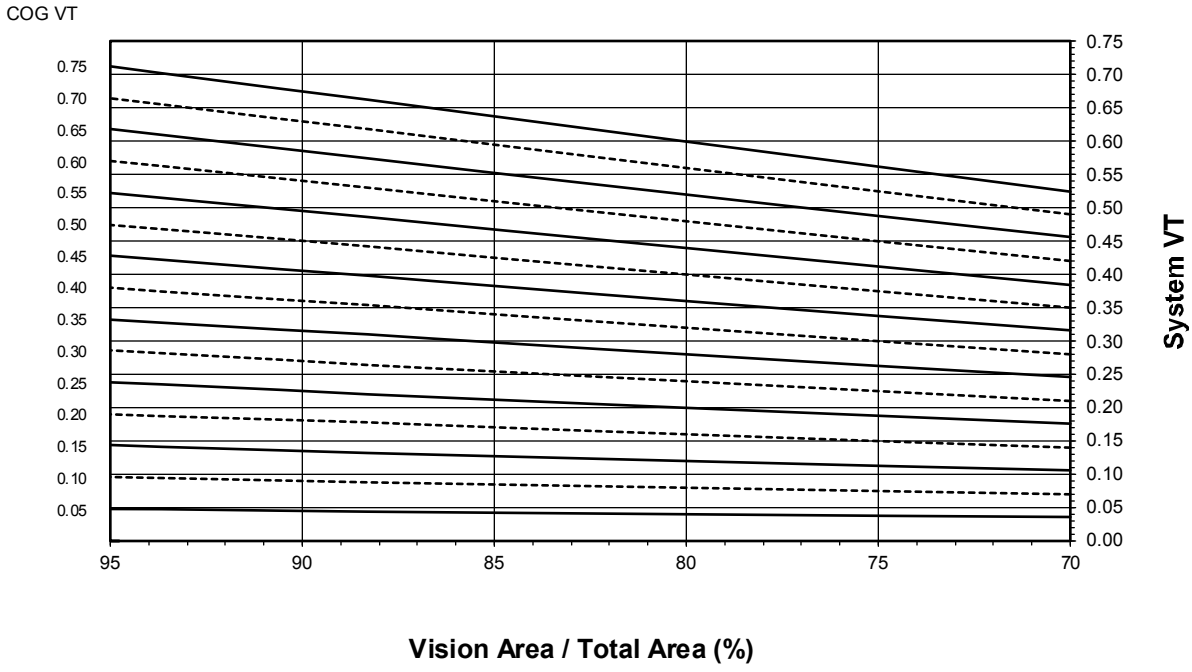
Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer

United States Aluminum
TT601 Top Notch Ribbon Wall - Glazed Wall System

System SHGC vs. Percentage of Vision Area



System VT vs. Percentage of Vision Area



United States Aluminum
TT601 Top Notch Ribbon Wall - Glazed Wall System

Size Specific U-Factor Matrix*

Glazing Option	Center of Glass U-Factor	Overall U-Factor
1	0.48	0.56
2	0.46	0.54
3	0.44	0.53
4	0.42	0.51
5	0.40	0.50
6	0.38	0.48
7	0.36	0.46
8	0.34	0.45
9	0.32	0.43
10	0.30	0.42
11	0.28	0.40
12	0.26	0.38
13	0.24	0.37
14	0.22	0.35
15	0.20	0.34

Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer

Size Specific SHGC Matrix*

Center of Glass SHGC	Overall SHGC
0.75	0.68
0.70	0.63
0.65	0.59
0.60	0.54
0.55	0.50
0.50	0.45
0.45	0.41
0.40	0.37
0.35	0.32
0.30	0.28
0.25	0.23
0.20	0.19
0.15	0.15
0.10	0.10
0.05	0.06

Size Specific VT Matrix*

Center of Glass VT	Overall VT
0.75	0.66
0.70	0.62
0.65	0.57
0.60	0.53
0.55	0.49
0.50	0.44
0.45	0.40
0.40	0.35
0.35	0.31
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.13
0.10	0.09
0.05	0.04

*Size Specific U-Factor, SHGC, and VT Matrices are based on the standard Glazed Wall System specimen size of 2000mm wide by 2000mm high (78-3/4" by 78-3/4"). This represents 88.3% Vision Area / Total Area.

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	*NFRC 100-2010*	*95% Vision Area*
							29.18" by 29.18"	*78.74" by 78.74"*	*188.08" by 188.08"*
1	0.48	43.7	Head	2.3481	1.1995	0.4904	0.7037	0.5589	0.5049
			L. Jamb	2.3481	1.1995	0.4904			
			R. Jamb	2.4243	1.2835	0.4941			
			Mullion	1.2122	1.2821	0.4948			
			Sill	2.3376	1.0591	0.4872			
2	0.46	44.8	Head	2.3481	1.1997	0.4782	0.6922	0.5431	0.4867
			L. Jamb	2.3481	1.1997	0.4782			
			R. Jamb	2.4243	1.2822	0.4816			
			Mullion	1.2122	1.2808	0.4824			
			Sill	2.3376	1.0589	0.4749			
3	0.44	45.8	Head	2.3481	1.1999	0.4661	0.6807	0.5273	0.4687
			L. Jamb	2.3481	1.1999	0.4661			
			R. Jamb	2.4243	1.2809	0.4691			
			Mullion	1.2122	1.2795	0.4699			
			Sill	2.3376	1.0588	0.4626			
4	0.42	46.8	Head	2.3481	1.2002	0.4539	0.6693	0.5116	0.4507
			L. Jamb	2.3481	1.2002	0.4539			
			R. Jamb	2.4243	1.2797	0.4567			
			Mullion	1.2122	1.2783	0.4575			
			Sill	2.3376	1.0587	0.4504			
5	0.40	47.9	Head	2.3481	1.2004	0.4419	0.6579	0.4958	0.4327
			L. Jamb	2.3481	1.2004	0.4419			
			R. Jamb	2.4243	1.2786	0.4443			
			Mullion	1.2122	1.2772	0.4451			
			Sill	2.3376	1.0586	0.4381			
6	0.38	48.9	Head	2.3481	1.2007	0.4299	0.6465	0.4800	0.4147
			L. Jamb	2.3481	1.2007	0.4299			
			R. Jamb	2.4243	1.2775	0.4321			
			Mullion	1.2122	1.2761	0.4329			
			Sill	2.3376	1.0585	0.4261			
7	0.36	50.0	Head	2.3481	1.2010	0.4179	0.6352	0.4641	0.3968
			L. Jamb	2.3481	1.2010	0.4179			
			R. Jamb	2.4243	1.2764	0.4196			
			Mullion	1.2122	1.2751	0.4205			
			Sill	2.3376	1.0585	0.4139			
8	0.34	51.0	Head	2.3481	1.2013	0.4061	0.6239	0.4483	0.3789
			L. Jamb	2.3481	1.2013	0.4061			
			R. Jamb	2.4243	1.2755	0.4075			
			Mullion	1.2122	1.2741	0.4083			
			Sill	2.3376	1.0586	0.4019			
9	0.32	52.0	Head	2.3481	1.2016	0.3941	0.6126	0.4324	0.3610
			L. Jamb	2.3481	1.2016	0.3941			
			R. Jamb	2.4243	1.2745	0.3952			
			Mullion	1.2122	1.2731	0.3960			
			Sill	2.3376	1.0586	0.3898			

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	*NFRC 100-2010*	*95% Vision Area*
							29.18" by 29.18"	*78.74" by 78.74"*	*188.08" by 188.08"*
10	0.30	53.1	Head	2.3481	1.2020	0.3823	0.6013	0.4165	0.3432
			L. Jamb	2.3481	1.2020	0.3823			
			R. Jamb	2.4243	1.2736	0.3831			
			Mullion	1.2122	1.2722	0.3839			
			Sill	2.3376	1.0586	0.3779			
11	0.28	54.2	Head	2.3481	1.2024	0.3704	0.5889	0.4001	0.3251
			L. Jamb	2.3481	1.2024	0.3704			
			R. Jamb	2.4243	1.2647	0.3708			
			Mullion	1.2122	1.2632	0.3717			
			Sill	2.3376	1.0587	0.3659			
12	0.26	55.2	Head	2.3481	1.2027	0.3586	0.5777	0.3842	0.3075
			L. Jamb	2.3481	1.2027	0.3586			
			R. Jamb	2.4243	1.2639	0.3587			
			Mullion	1.2122	1.2624	0.3596			
			Sill	2.3376	1.0588	0.3539			
13	0.24	56.3	Head	2.3481	1.2031	0.3469	0.5665	0.3683	0.2902
			L. Jamb	2.3481	1.2031	0.3469			
			R. Jamb	2.4243	1.2632	0.3466			
			Mullion	1.2122	1.2616	0.3475			
			Sill	2.3376	1.0589	0.3421			
14	0.22	57.3	Head	2.3481	1.2035	0.3352	0.5553	0.3524	0.2729
			L. Jamb	2.3481	1.2035	0.3352			
			R. Jamb	2.4243	1.2623	0.3345			
			Mullion	1.2122	1.2608	0.3355			
			Sill	2.3376	1.0590	0.3303			
15	0.20	58.4	Head	2.3481	1.2040	0.3235	0.5442	0.3364	0.2554
			L. Jamb	2.3481	1.2040	0.3235			
			R. Jamb	2.4243	1.2616	0.3226			
			Mullion	1.2122	1.2601	0.3235			
			Sill	2.3376	1.0592	0.3185			

Detailed drawings, datasheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period such materials shall be discarded without notice and the service life of this report by Architectural Testing will expire. Results obtained are simulated values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client named herein and relates only to the specimen(s) simulated. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.:

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Eric Barilar
Simulation Technician

REVIEWED BY:

Digitally Signed by: Kevin Louder

Kevin S. Louder
Project Engineer

EAB:EAB
B6092.03-116-45

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix A: Drawings and Bills of Material (8)

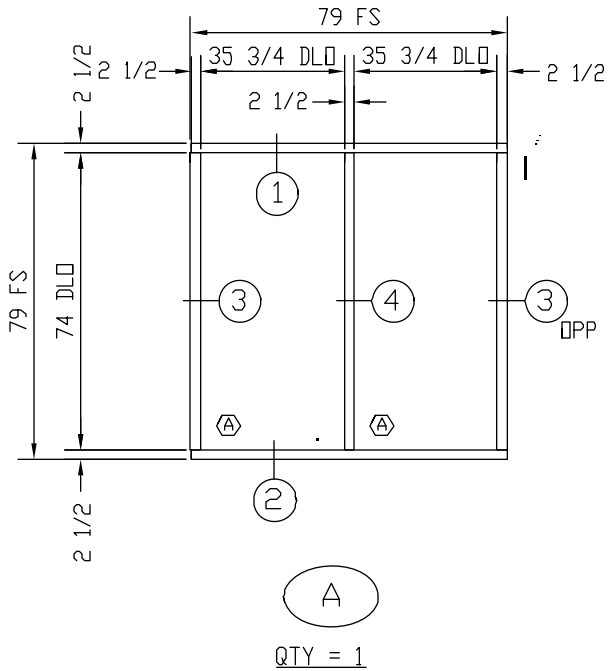
Revision Log

Rev. #	Date	Page(s)	Revision(s)
.03R0	2/14/2012	All	Original Report Issue

All drawings and Bills of Material used in simulating this product are enclosed in this Appendix.

Appendix A

MU2011-001-01



A

QTY = 1

SYMBOL KEY			
SYMBOL	DESCRIPTION	QTY	COMMENTS
(A)	36.625 X 74.875	2	1 INS = INSULATED GLASS

REV	REV_DESCRIPTION	DATE	XXX
SYM	REVISION	DATE	BY

2109 E. 38TH STREET VERNON, CA 90058
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DATE: 12/20/2011

SCALE: 3/8"=1"

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SERIES_TT601

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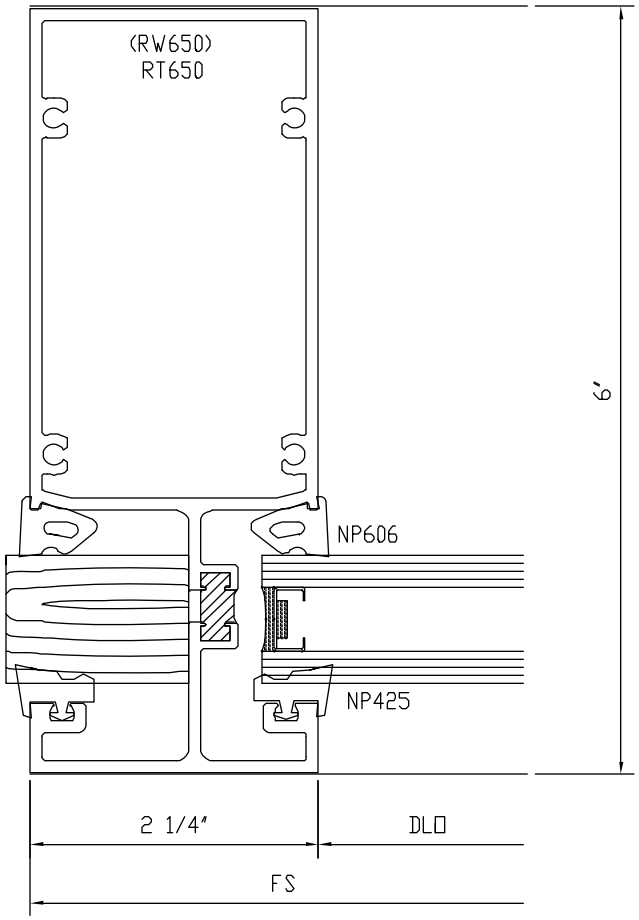
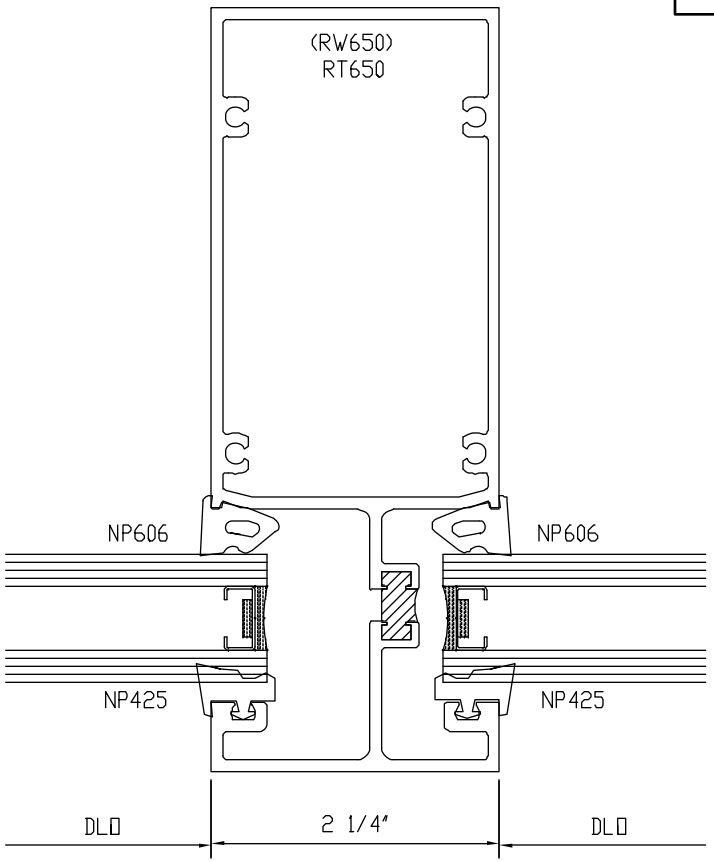
MU2011-001-03





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MU2011-001-02

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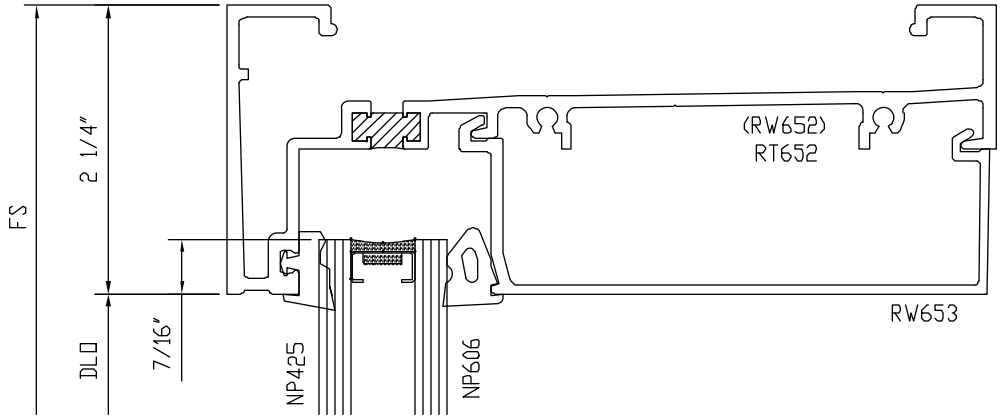

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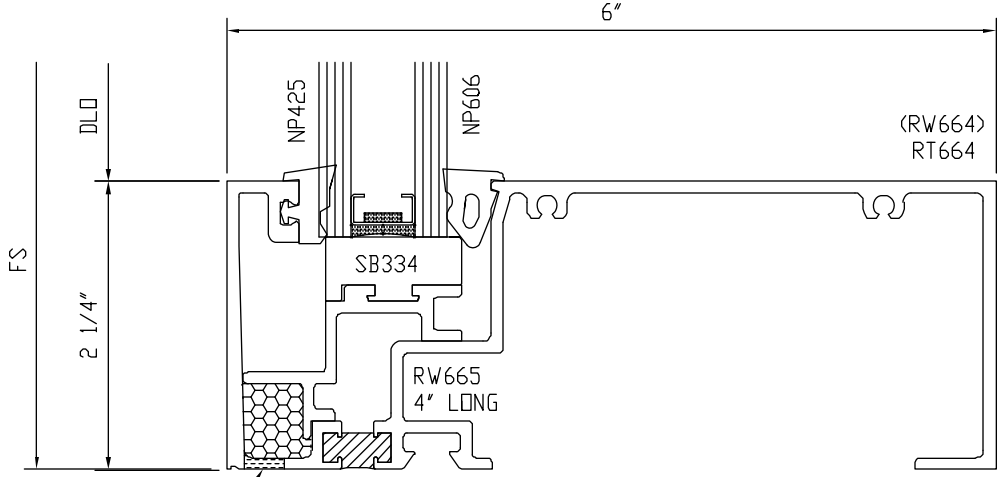

5/16" DIA WEEP
W/UB625 BAFFLE

REV	REV_DESCRIPTION	DATE	XXX
SYM	REVISION	DATE	BY

CRL

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SCALE: FULL

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SERIES_TT601

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MU2011-001-02