



TEST REPORT

Report No.: E8384.01-301-44

Rendered to:

FLEETWOOD WINDOWS AND DOORS
Corona, California

PRODUCT TYPE: Sliding Door
SERIES/MODEL: 3070-HI Corner Door/Pocket Door

SPECIFICATION(S): AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

Test Start Date: 07/16/15
Test End Date: 11/11/15
Report Date: 02/03/16
Revision 4 Date: 04/01/16
Test Record Retention End Date: 11/11/19

Summary of Results

Title	Summary of Results	
	Test Specimen #1	Test Specimen #2
	PXXXVXXXVXO 3070 HI	PXXXVXXXVXO 3070 HI
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	CW PG30 – SD 12,190 mm x 3658 mm (480" x 144") non-pocket dimension	LC PG50 – SD 12,190 mm x 3658 mm (480" x 144") non-pocket dimension
Design Pressure	+1440 Pa (±30.08 psf)	+2400 Pa (+50.13 psf)
Negative Design Pressure	-1680 Pa (±35.09 psf)	-2640 Pa (-55.14 psf)
Air Infiltration	0.6 L/s/m ² (0.12 cfm/ft ²)	0.6 L/s/m ² (0.12 cfm/ft ²)
Canadian Air Infiltration/Exfiltration Level	A2	A2
Water Penetration Resistance Test Pressure	220 Pa (4.59 psf) (1-3/4" tall sill pan)	440 Pa (9.19 psf) (2-3/4" tall sill pan)

Title	Summary of Results	
	Test Specimen #3	Test Specimen #4
	PXXXVXXXVXO 3070 HI	PXXXVXXXVXO 3070 HI
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	R PG20 – SD 12,190 mm x 3658 mm (480" x 144") non-pocket dimension	SD 12,190 mm x 3658 mm (480" x 144") non-pocket dimension. Does not meet minimum water required by AAMA.
Design Pressure	+2400 Pa (+50.13 psf)	+2400 Pa (+50.13 psf)
Negative Design Pressure	-2640 Pa (-55.14 psf)	-2640 Pa (-55.14 psf)
Air Infiltration	0.6 L/s/m ² (0.12 cfm/ft ²)	0.6 L/s/m ² (0.12 cfm/ft ²)
Canadian Air Infiltration/Exfiltration Level	A2	A2
Water Penetration Resistance Test Pressure	150 Pa (3.13 psf) (1-1/2" tall sill pan)	50 Pa (1.0 psf) (1" tall sill pan)

Summary of Results - Continued

Title	Summary of Results	
	Test Specimen #5	Test Specimen #6
	PXXXVXXXVXO 3070 HI	PXXXVXXXVXO 3070 HI
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	SD 12,190 mm x 3658 mm (480" x 144") non-pocket dimension. Does not meet minimum water required by AAMA.	LC PG40 – SD 12,190 mm x 3658 mm (480" x 144") non-pocket dimension
Design Pressure	+2400 Pa (+50.13 psf)	+2400 Pa (+50.13 psf)
Negative Design Pressure	-2640 Pa (-55.14 psf)	-2640 Pa (-55.14 psf)
Air Infiltration	0.6 L/s/m ² (0.12 cfm/ft ²)	0.6 L/s/m ² (0.12 cfm/ft ²)
Canadian Air Infiltration/Exfiltration Level	A2	A2
Water Penetration Resistance Test Pressure	0 Pa (0 psf) (3/4" sill pan)	290 Pa (6.06 psf) (2" tall sill pan)

Test Completion Date: 11/11/15

Reference must be made to Report No. E8384.01-301-44, dated 04/01/16 for complete test specimen description and detailed test results.

1.0 Client Identification:

- 1.1 Report Issued To:** Fleetwood Windows & Doors
 1 Fleetwood Way
 Corona, California 92879
- 1.2 Contact Person:** Joe Zammit

2.0 Laboratory Identification:

- 2.1 Test Laboratory:** Architectural Testing, Inc., an Intertek company
 ("Intertek-ATI")
 2524 East Jensen Avenue
 Fresno, California 93706
- 2.2 Phone Number:** (559) 233-8705

3.0 Project Summary:

- 3.1 Product Type:** Sliding Door
- 3.2 Series/Model:** 3070-HI Corner Door/Pocket Door
- 3.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test method(s). The specimens tested successfully met the performance requirements for the following ratings:

Test Specimen(s)	Title	Summary of Results
PXXXVXXXVXO 3070 HI		
Specimen #1	101/I.S.2/A440-08 and -11	CW PG30 – SD 12,190 mm x 3658 mm 220 Pa (4.59 psf) Water Test Pressure (1-3/4" tall sill pan)
Specimen #2	101/I.S.2/A440-08 and -11	LC PG50 – SD 12,190 mm x 3658 mm (480" x 144") Water Test Pressure 440 Pa (9.19 psf) (2-3/4" tall sill pan)
Specimen #3	101/I.S.2/A440-08 and -11	R PG20 – SD 12,190 mm x 3658 mm (480" x 144") Water Test Pressure 150 Pa (3.13 psf)(1-1/2" tall sill pan)
Specimen #4	101/I.S.2/A440-08 and -11	SD 12,190 mm x 3658 mm (480" x 144") Does not meet minimum water required by AAMA. Water Test Pressure 50 Pa (1.0 psf) (1" tall sill pan)
Specimen #5	101/I.S.2/A440-08 and -11	SD 12,190 mm x 3658 mm (480" x 144") Does not meet minimum water required by AAMA. Water Test Pressure 0 Pa (0 psf) (3/4" sill pan)

3.0 Project Summary: (Continued)

3.3 Compliance Statement: (Continued)

Test Specimen(s)	Title	Summary of Results
PXXXVXXXVXO 3070 HI		
Specimen #6	101/I.S.2/A440-08 and -11	LC PG40 – SD 12,190 mm x 3658 mm (480" x 144") (6.06 psf) (2" tall sill pan)

3.4 Test Dates: 07/15/15 - 11/11/15

3.5 Test Record Retention End Date: All test records for this report will be retained until November 11, 2019.

3.6 Test Location: Architectural Testing, Inc. test facility in Fresno, California.

3.7 Test Specimen Source: The test specimen(s) was provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of four years from the test completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix B and C. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Nathan Baker	Fleetwood
Dennis Janzen	Intertek-ATI
Tyler Westerling	Intertek-ATI

4.0 Test Specifications:

AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 22.8 m ² (243 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
MAX Pocket wall size	4,572	180	3,658	144
MAX 90 Degree Corner wall size	4,572	180	3,658	144
MAX 135 Degree Corner wall size	3,048	120	3,658	144
MAX Panel size	1,588	62-1/16	3,607	142

The following descriptions apply to all specimens.

5.2 Frame Construction:

Frame Member	Material	Description
Sill	Aluminum	One piece sill.
Sill pan	Aluminum	With an interior leg depending on test specimen. See summary table and test results.
Sill filler	Aluminum	Snapped in place where panels do not slide
Jamb	Aluminum	With snapped in jamb filler where panel is not engaged.
Head	Aluminum	With snapped in head filler where panel is not engaged.

	Joinery Type	Detail
All corners	Butt	Sealed with silicone and attached with three #10 x 3/4" Phillips pan head sheet metal screws.

5.0 Test Specimen Description: (Continued)

5.3 Panel Construction:

Panel Member	Material	Description
All	Aluminum	See drawings for details.

	Joinery Type	Detail
All corners	Butt	Sealed with silicone. Top corners fastened with one #10 x 2" Phillips head screw each. Bottom corners fastened with one #10 x 2". Two 1/4-20 x 1" Phillips head screws were fastened into each roller.

5.4 Weatherstripping:

Description	Quantity	Location
0.230 polypile with center fin	4	In sill contracting interior and exterior of each panel leg.
0.230 polypile with center fin	2	In head contracting interior and exterior of panel face.
0.290 Polypile with center fin	1	In each pocket interlock extrusion.
0.230 polypile with center fin	2	In interior and exterior meeting stile locking extrusion.
0.290 polypile with center fin	1	In each interlock extrusion.
Q-lon foam seal	1	In interior and exterior of jamb extrusion.
Panel corner air barrier	1	At each exposed panel bottom and top corner.

5.0 Test Specimen Description: (Continued)

5.5 Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

Glass Type	Glazing	Glazing Method
Monolithic	6mm clear/0.090 SGP/6mm clear	Channel glazed into frame. Dry glazed at all top and bottom rails and interlocks. Wet glazed at locking vertical stiles only.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
All Lights	8	1435 x 3454	56-1/2 x 136	5/8

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weep Notch	1" wide by 3/16" tall	6	6" from the end of each sill member

5.7 Hardware:

Description	Quantity	Location
Rollers, Tandem	2 tandem rollers each panel	Bottom panel rail
Archetype narrow Lock	2	Locking meeting panel
Archetype II Lock	1	Locking meeting panel

5.8 Reinforcement:

Drawing Number	Location	Material
37	All small interlock hallows	Aluminum
38	All small interlock hallows	Aluminum

5.9 Screen Construction: No screen was utilized.

6.0 Installation:

The specimen was installed into a Pine wood buck. The rough opening allowed for a 1/4" shim space. The exterior perimeter of the window was sealed with sealant. See drawing on sheet 8 of 12 for installation details.

7.0 Test Results: The temperature during testing was 21°C (70°F). The results are tabulated as follows:

Test Specimen #1 PXXXVXXXVXO 3070 HI: CW PG30 – SD

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 68 N (15 lbf) Maintain motion: 36 N (8 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.12 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m ² (0.14 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 220 Pa (4.59 psf) 1-3/4" Tall Sill	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 Deflections taken at Interlock +1440 Pa (+30.08 psf) -1680 Pa (-35.09 psf)	18 mm (0.72") 20 mm (0.77")	20 mm (0.79") max. 20 mm (0.79") max.	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +1440 Pa (+30.08 psf) -1680 Pa (-35.09 psf)	6 mm (0.24") 8 mm (0.30")	20 mm (0.79") max. 20 mm (0.79") max.	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +1440 Pa (+30.08 psf) -1680 Pa (-35.09 psf)	15 mm (0.59") 19 mm (0.76")	20 mm (0.79") max. 20 mm (0.79") max.	2,3

7.0 Test Results: (Continued)

Test Specimen #1 PXXXVXXXVXO 3070 HI: CW PG30 – SD (Continued)

Title of Test	Results	Allowed	Note
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 90 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	6.0 mm (0.24") 0.3 mm (0.01")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 135 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	0.8 mm (0.03") 6.0 mm (0.24")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Forced Entry Resistance, per ASTM F 842	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

7.0 Test Results: (Continued)

Test Specimen #2 PXXXVXXXVXO 3070 HI: LC PG50 – SD

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 68 N (15 lbf) Maintain motion: 36 N (8 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.12 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m ² (0.14 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 440 Pa (9.19 psf) 2-3/4" tall sill	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 Deflections taken at Interlock +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	29 mm (1.13") 35 mm (1.36")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	8 mm (0.33") 19 mm (0.73")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 135 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	23 mm (0.90") 33 mm (1.30")	Report Only	2,3

7.0 Test Results: (Continued)

Test Specimen #2 PXXXVXXXVXO 3070 HI: LC PG50 – SD (Continued)

Title of Test	Results	Allowed	Note
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 90 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	6.0 mm (0.24") 0.3 mm (0.01")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 135 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	0.8 mm (0.03") 6.0 mm (0.24")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Forced Entry Resistance, per ASTM F 842	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

7.0 Test Results: (Continued)

Test Specimen #3 PXXXVXXXVXO 3070 HI: R PG20 - SD

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 68 N (15 lbf) Maintain motion: 36 N (8 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.12 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m ² (0.14 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 150 Pa (3.13 psf) 1-1/2" tall sill	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 Deflections taken at Interlock +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	29 mm (1.13") 35 mm (1.36")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	8 mm (0.33") 19 mm (0.73")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 135 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	23 mm (0.90") 33 mm (1.30")	Report Only	2,3

7.0 Test Results: (Continued)

Test Specimen #3 PXXXVXXXVXO 3070 HI: R PG20 - SD (Continued)

Title of Test	Results	Allowed	Note
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 90 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	6.0 mm (0.24") 0.3 mm (0.01")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 135 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	0.8 mm (0.03") 6.0 mm (0.24")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Forced Entry Resistance, per ASTM F 842	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

Test Specimen #4 PXXXVXXXVXO 3070 HI: No AAMA Performance Grade

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 68 N (15 lbf) Maintain motion: 36 N (8 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.12 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m ² (0.14 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1

7.0 Test Results: (Continued)

Test Specimen #4 PXXXVXXXVXO 3070 HI: No AAMA Performance Grade

Title of Test	Results	Allowed	Note
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 50 Pa (1.0 psf) 1" tall sill	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 Deflections taken at Interlock +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	29 mm (1.13") 35 mm (1.36")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	8 mm (0.33") 19 mm (0.73")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 135 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	23 mm (0.90") 33 mm (1.30")	Report Only	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 90 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	6.0 mm (0.24") 0.3 mm (0.01")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 135 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	0.8 mm (0.03") 6.0 mm (0.24")	15 mm (0.58") max. 15 mm (0.58") max.	2,3

7.0 Test Results: (Continued)

Test Specimen #4 PXXXVXXXVXO 3070 HI: No AAMA Performance Grade (Continued)

Title of Test	Results	Allowed	Note
Forced Entry Resistance, per ASTM F 842	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

Test Specimen #5 PXXXVXXXVXO 3070 HI: No AAMA Performance Grade

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 68 N (15 lbf) Maintain motion: 36 N (8 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.12 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m ² (0.14 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 0 Pa (0 psf) 3/4" tall sill	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 Deflections taken at Interlock +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	29 mm (1.13") 35 mm (1.36")	Report Only	2,3

7.0 Test Results: (Continued)

Test Specimen #5 PXXXVXXXVXO 3070 HI: No AAMA Performance Grade (Continued)

Title of Test	Results	Allowed	Note
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	8 mm (0.33") 19 mm (0.73")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 135 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	23 mm (0.90") 33 mm (1.30")	Report Only	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 90 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	6.0 mm (0.24") 0.3 mm (0.01")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 135 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	0.8 mm (0.03") 6.0 mm (0.24")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Forced Entry Resistance, per ASTM F 842	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

7.0 Test Results: (Continued)

Test Specimen #6 PXXXVXXXVXO 3070 HI: LC PG40 – SD

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 68 N (15 lbf) Maintain motion: 36 N (8 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.6 L/s/m ² (0.12 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.7 L/s/m ² (0.14 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	A2	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 290 Pa (6.06 psf) 2" tall sill	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 Deflections taken at Interlock +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	29 mm (1.13") 35 mm (1.36")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 90 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	8 mm (0.33") 19 mm (0.73")	Report Only	2,3
Uniform Load Deflection, per ASTM E 330 Deflections taken at 135 degree corner +2400 Pa (+50.13 psf) -2640 Pa (-55.14 psf)	23 mm (0.90") 33 mm (1.30")	Report Only	2,3

7.0 Test Results: (Continued)

Test Specimen #6 PXXXVXXXVXO 3070 HI: LC PG40 – SD (Continued)

Title of Test	Results	Allowed	Note
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 90 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	6.0 mm (0.24") 0.3 mm (0.01")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Uniform Load Structural, per ASTM E 330 Permanent sets taken at 135 degree corner +3600 Pa (+75.19 psf) -3960 Pa (-82.71 psf)	0.8 mm (0.03") 6.0 mm (0.24")	15 mm (0.58") max. 15 mm (0.58") max.	2,3
Forced Entry Resistance, per ASTM F 842	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

7.0 Test Results: (Continued)

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440 for air leakage resistance.

Note 2: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

Note 3: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

Architectural Testing will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by Architectural Testing, Inc. for the entire test record retention period.

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 so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

Dennis Janzen
Technician

Tyler Westerling, P.E.
Senior Project Engineer

TW: ss

Attachments (pages): This report is complete only when all attachments listed are included.
Appendix A: Drawings (12)

This report produced from controlled document template ATI 00651, revised 07/08/15.

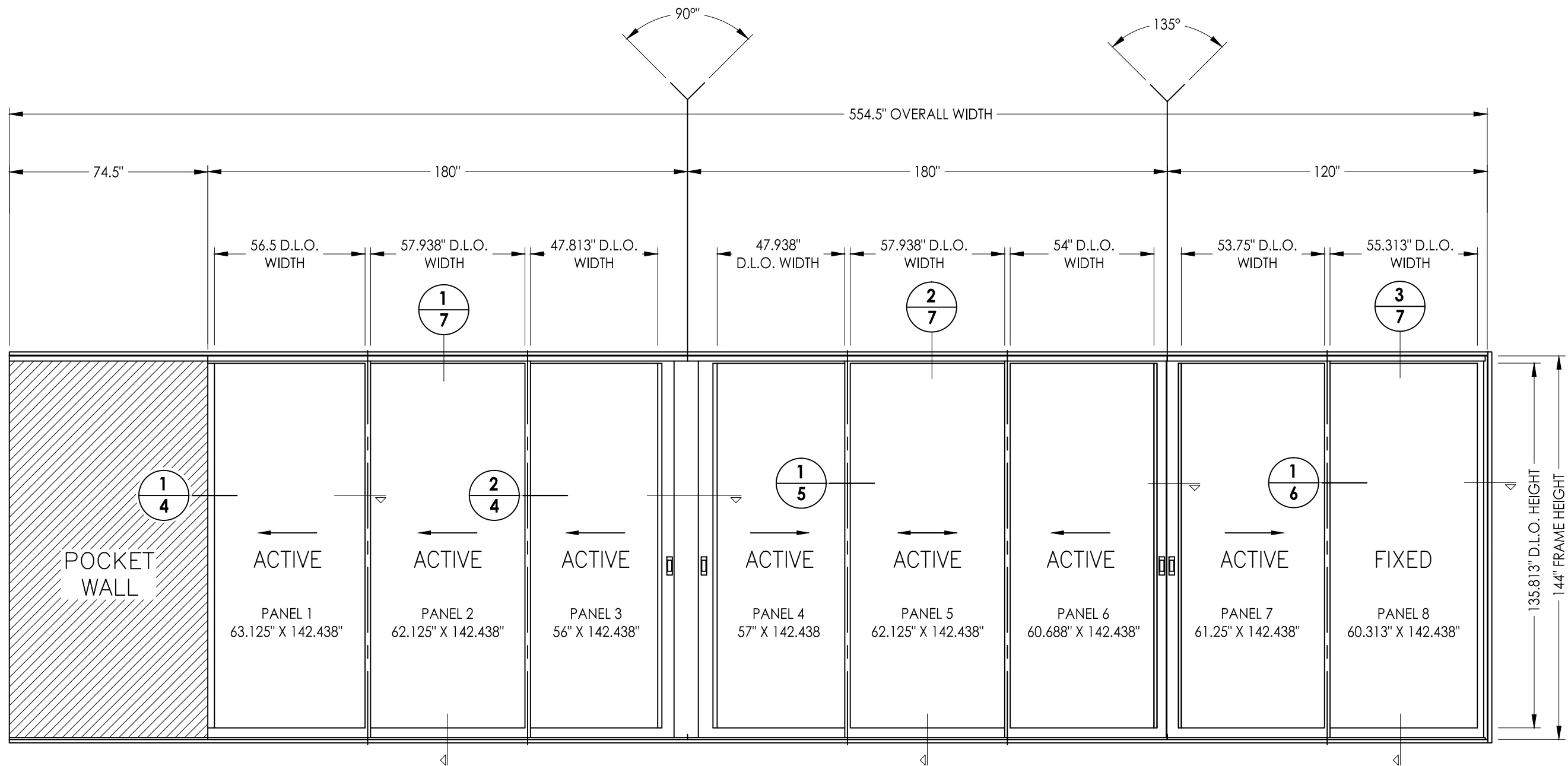
Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	02/03/16	N/A	Original report issue.
1	02/09/16	Appendix A	Revised drawings.
2	02/12/16	Cover, 1, 11	Revised Spec 3 water infiltration pressure and rating.
3	03/08/16	1	Revised Spec 3 summary of results.
4	04/01/16	4	Corrected panel corner detail.
4	04/01/16	3	Corrected installation details.
4	04/01/16	Appendix A	Updated drawing package.

This report produced from controlled document template ATI 00651, revised 07/08/15.


Appendix A


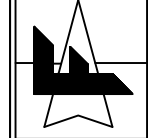
Drawings

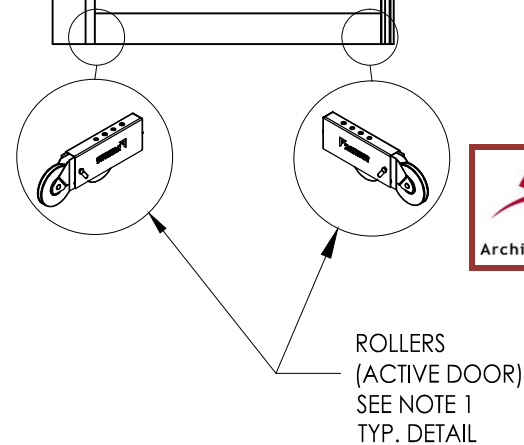
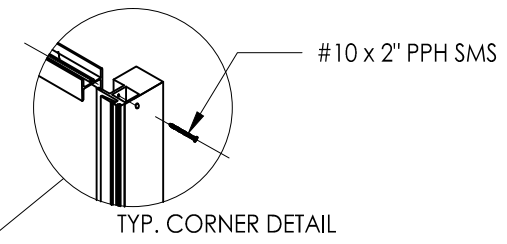
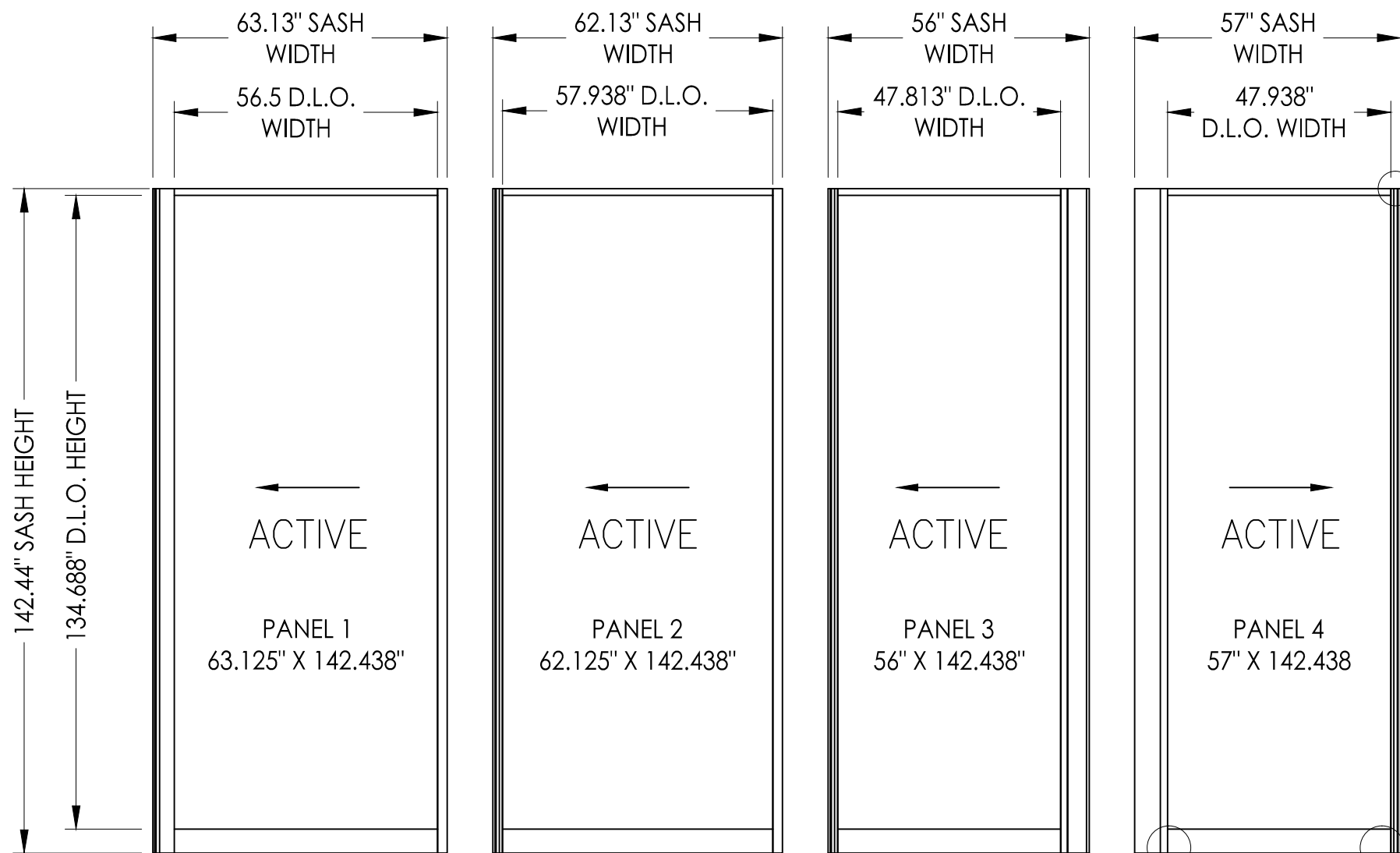


TEST ELEVATION (SILL PAN NOT SHOWN)

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Table of contents and test elevation
2	Panel details
3	Panel details
4	Horizontal cross section
5	Horizontal cross section
6	Horizontal cross section
7	Vertical cross sections
8	Frame anchoring
9	Hardware components
10	Hardware components
11	Components
12	Bill of materials, components and glazing details


 Report #: E8384-301-44
 Date: 04/01/16
 Verified by: *[Signature]*

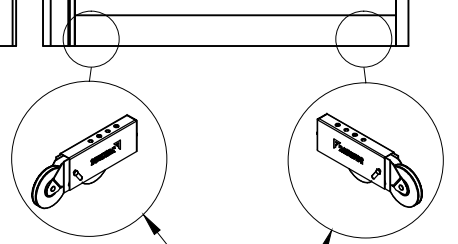
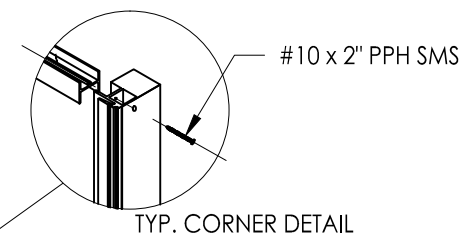
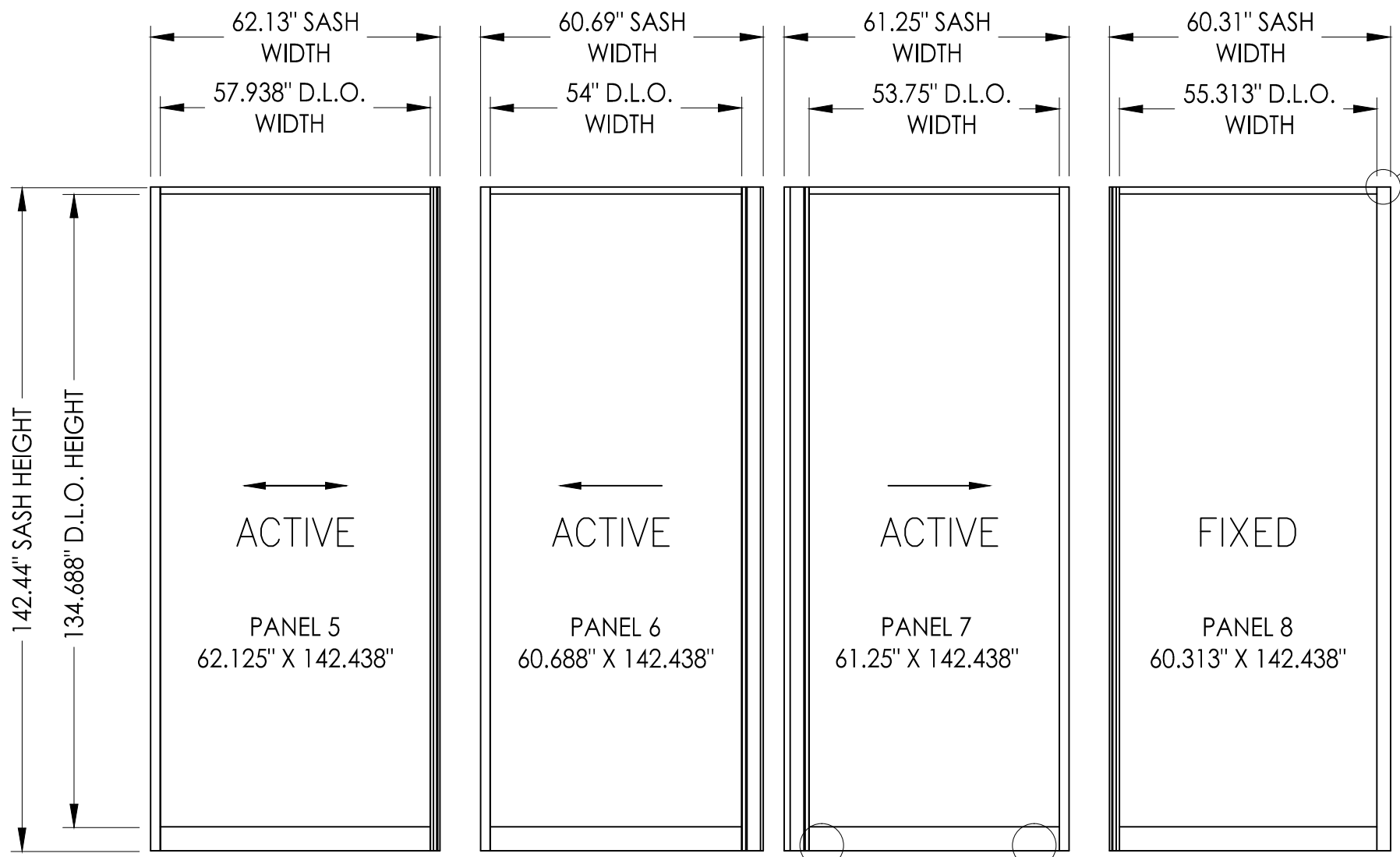
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DATE	
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DRAWN BY: BL	JOB NUMBER: 385199-V2
MATERIAL: SERIES 3070-HI	CUSTOMER: FLEETWOOD WINDOWS AND DOORS
	JOB NAME: FLEETWOOD TAS & AAMA TEST
	
	
SCALE: DO NOT SCALE	
DRAWING NO. #	
SHEET 1 OF 12	



Report #: E8384-301-44
 Date: 04/01/16
 Verified by: *[Signature]*

Note:
 1. Roller attached to bottom rail utilizing (2) 1/4-20 x 1/2\"/>

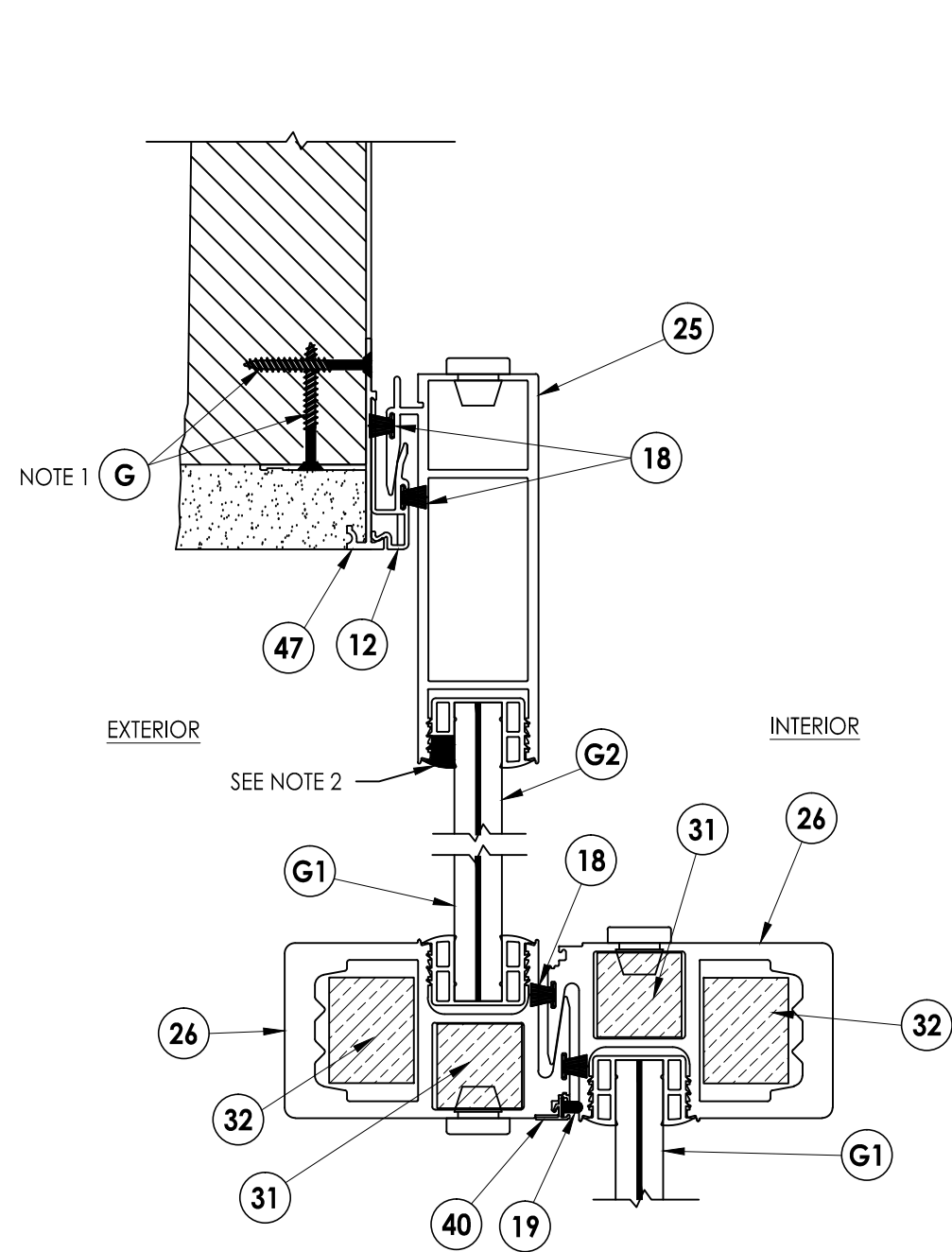
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CUSTOMER:	FLEETWOOD WINDOWS AND DOORS			
JOB NAME:	FLEETWOOD TAS & AAMA TEST			
FLEETWOOD WINDOWS AND DOORS <small>1 FLEETWOOD WAY CORONA, CALIFORNIA 92709 - www.fleetwoodusa.com</small>				
				
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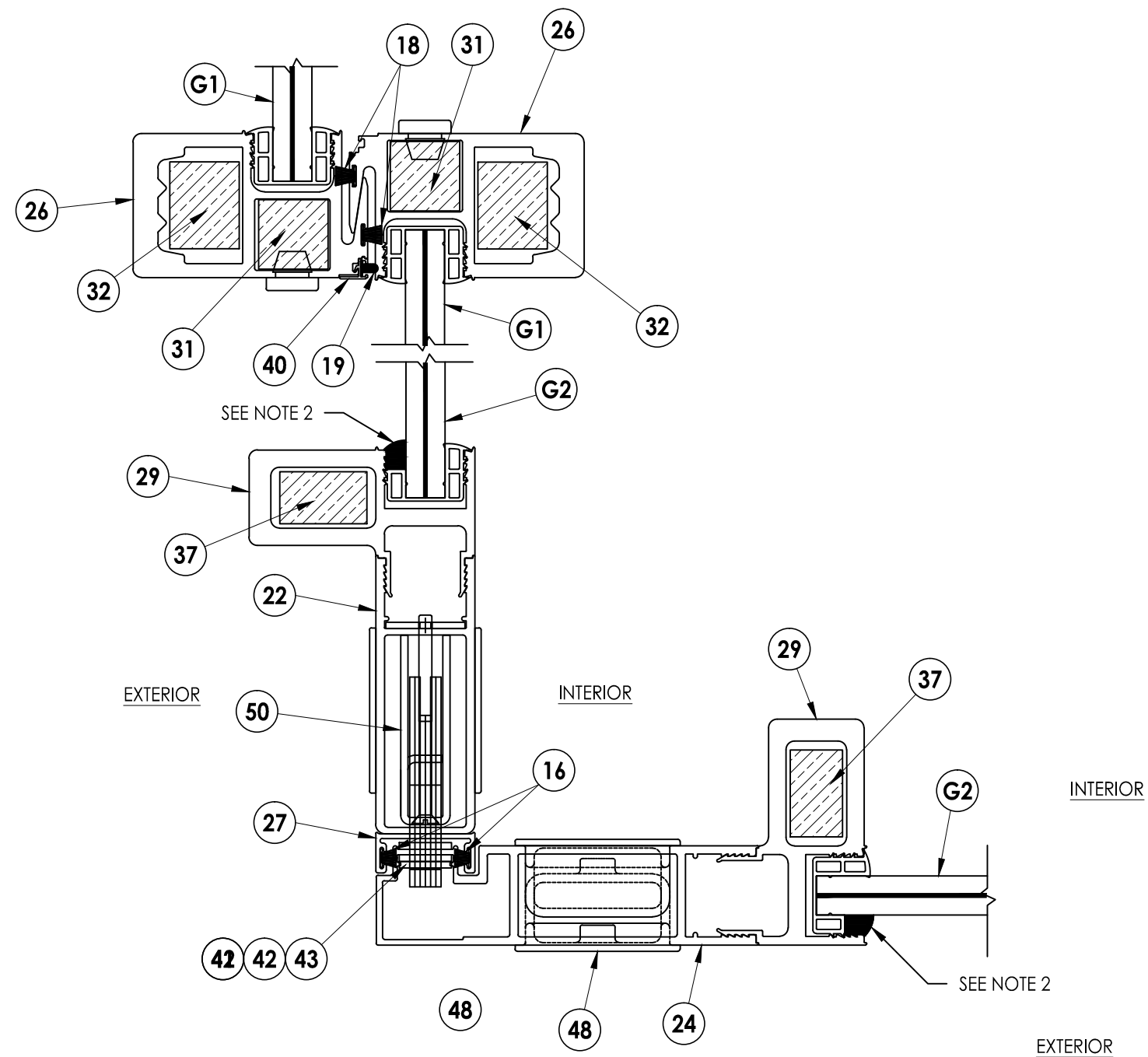
Note:
 1. Roller attached to bottom rail utilizing (2) 1/4-20 x 1/2\"/>

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	Date:	04/01/16
	Verified by:	<i>[Signature]</i>

REVISIONS	DATE	DRAWN BY	COMMENTS
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		JOB NAME: FLEETWOOD TAS & AAMA TEST	
DATE:	6/22/15	JOB NUMBER:	385199-V2
DRAWN BY:	BL		
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SHEET 3 OF 12			



1
4 HORIZONTAL CROSS SECTION

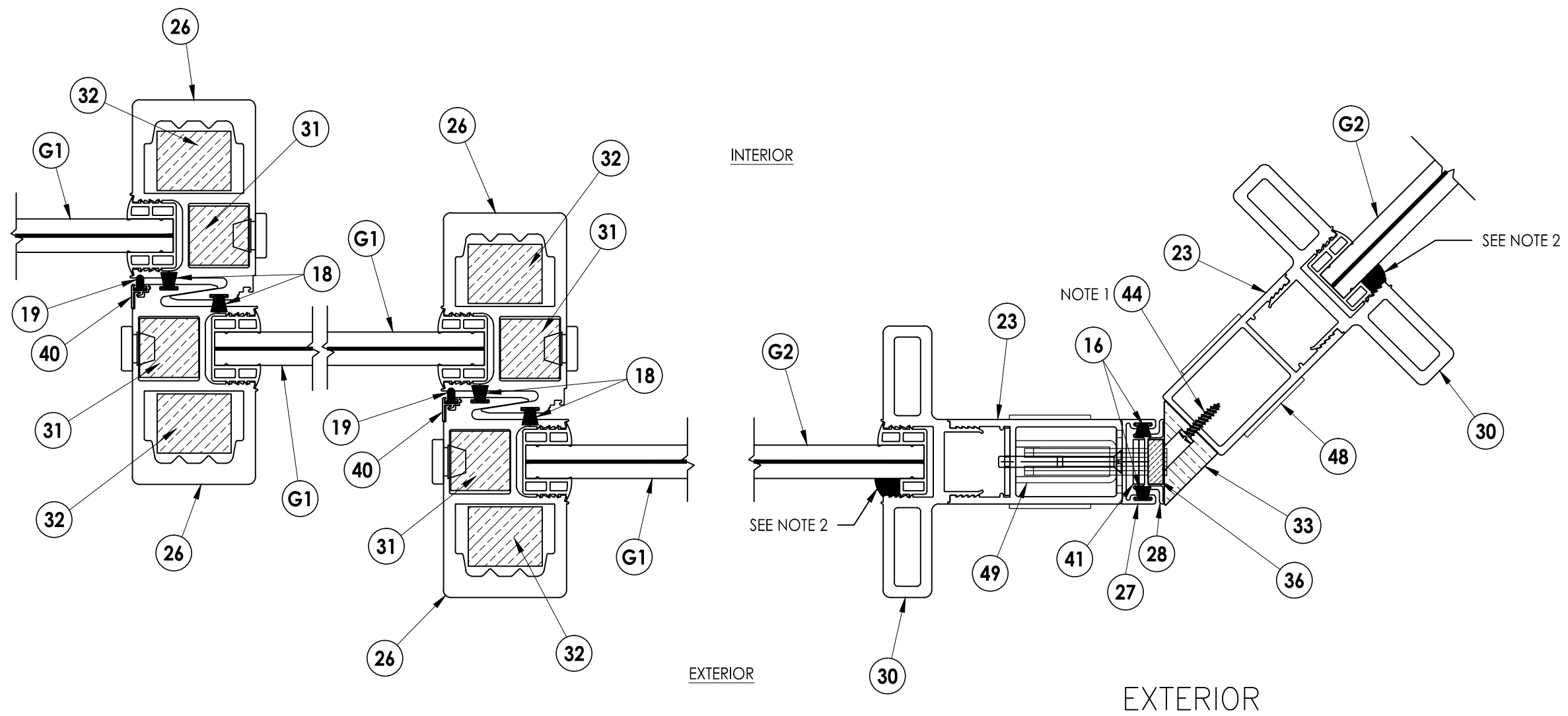


2
4 HORIZONTAL CROSS SECTION

NOTE:
 1. 8" from each end then 12" on center
 2. Interior or exterior (gasket cut 2" from top rail and bottom rail on stile).


Report #: E8384-301-44
 Date: 04/01/16
 Verified by: *[Signature]*

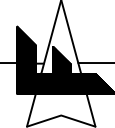
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JOB NUMBER:	385199-V2				
MATERIAL:	SERIES 3070-HI				
CUSTOMER:	FLEETWOOD WINDOWS AND DOORS				
JOB NAME:	FLEETWOOD TAS & AAMA TEST				
FLEETWOOD WINDOWS AND DOORS 1 FLEETWOOD WAY CORONA, CALIFORNIA 92709 - www.fleetwoodusa.com					
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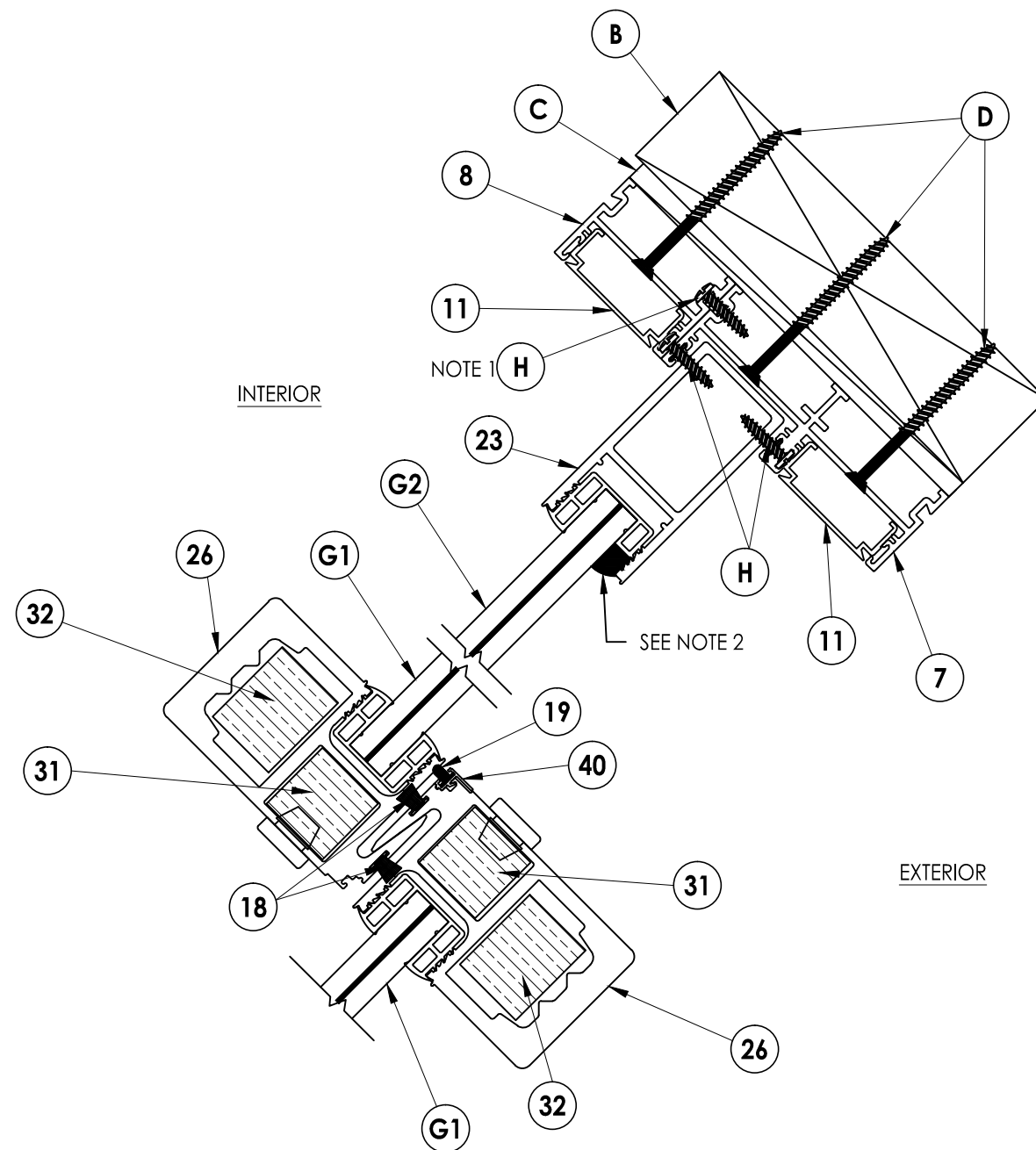


1
5 HORIZONTAL CROSS SECTION

NOTE:
 1. 6" from each end then 18" on center
 2. Interior or exterior (gasket cut 2" from top rail and bottom rail on stile).


 Architectural Testing	Report #:	E8384-301-44
	Date:	04/01/16
	Verified by:	<i>[Signature]</i>

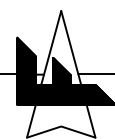
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FLEETWOOD WINDOWS AND DOORS <small>1 FLEETWOOD WAY CORONA, CALIFORNIA 92779 - www.fleetwoodusa.com</small>			
			
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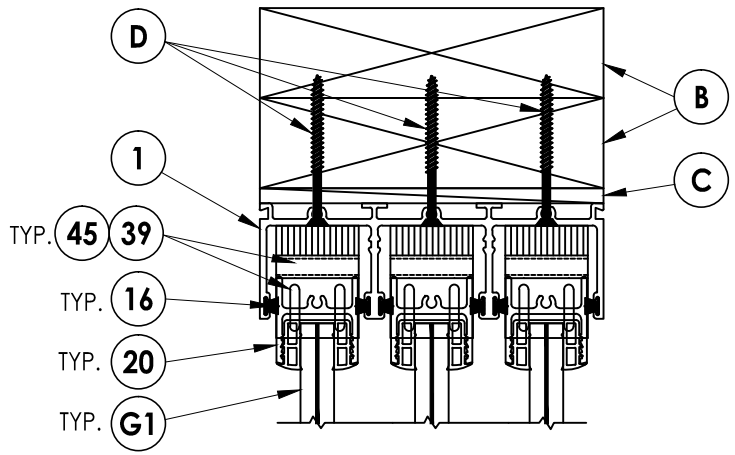
1
6 **HORIZONTAL CROSS SECTION**

- NOTE:
1. 1" from each end then 60" on center
 2. Interior or exterior (gasket cut 2" from top rail and bottom rail on stile).

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	Verified by:	<i>[Signature]</i>

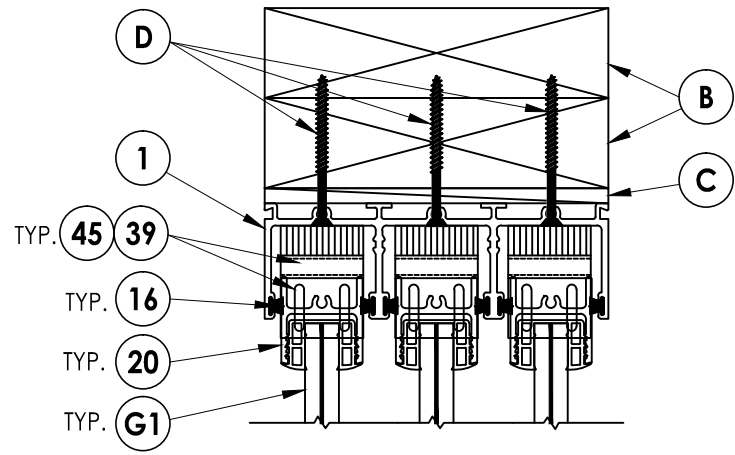
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		SHEET :		6 OF 12	

NOTE:
1. 1" from each end then
60" on center



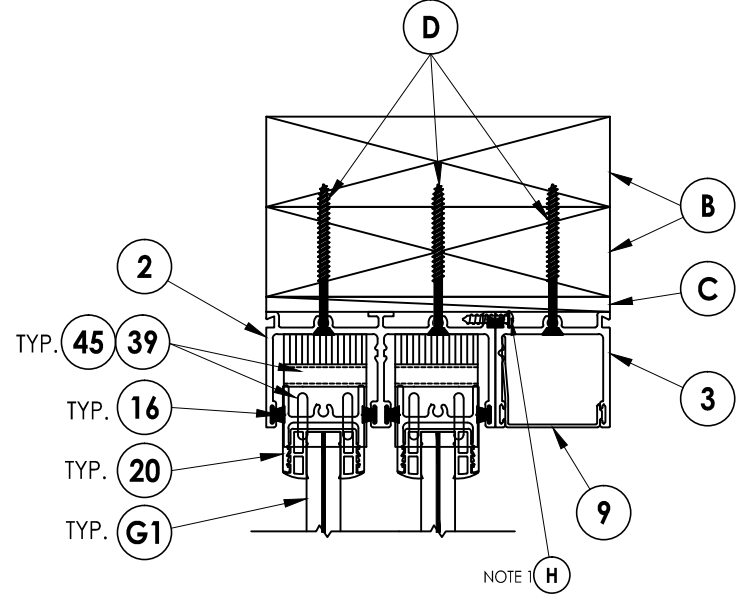
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INTERIOR



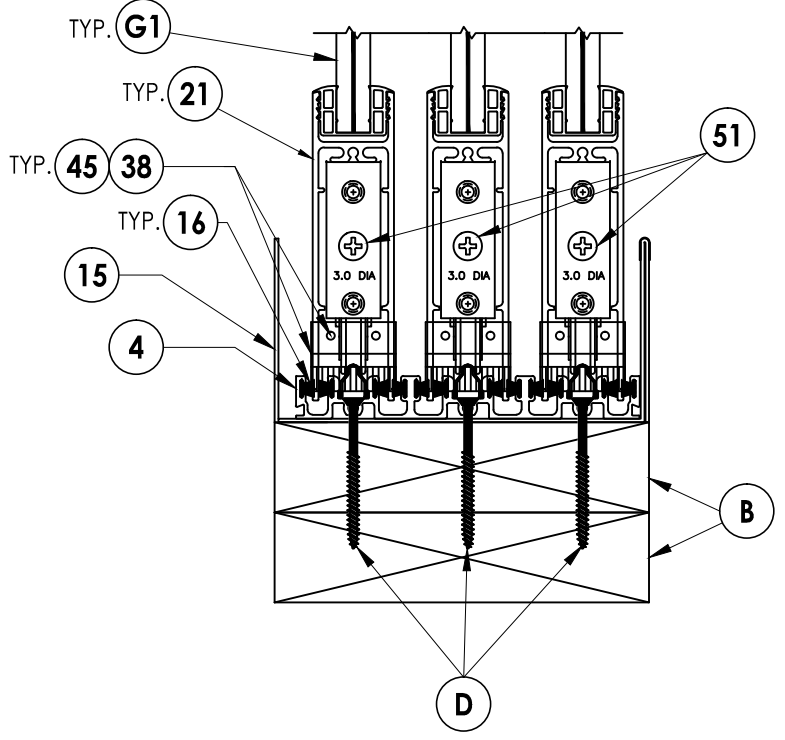
EXTERIOR

INTERIOR

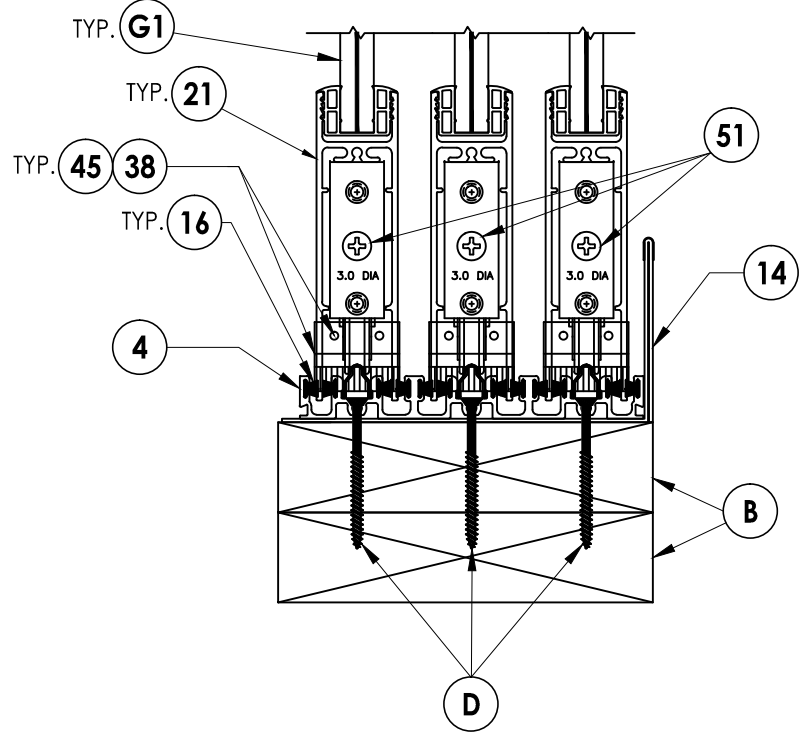


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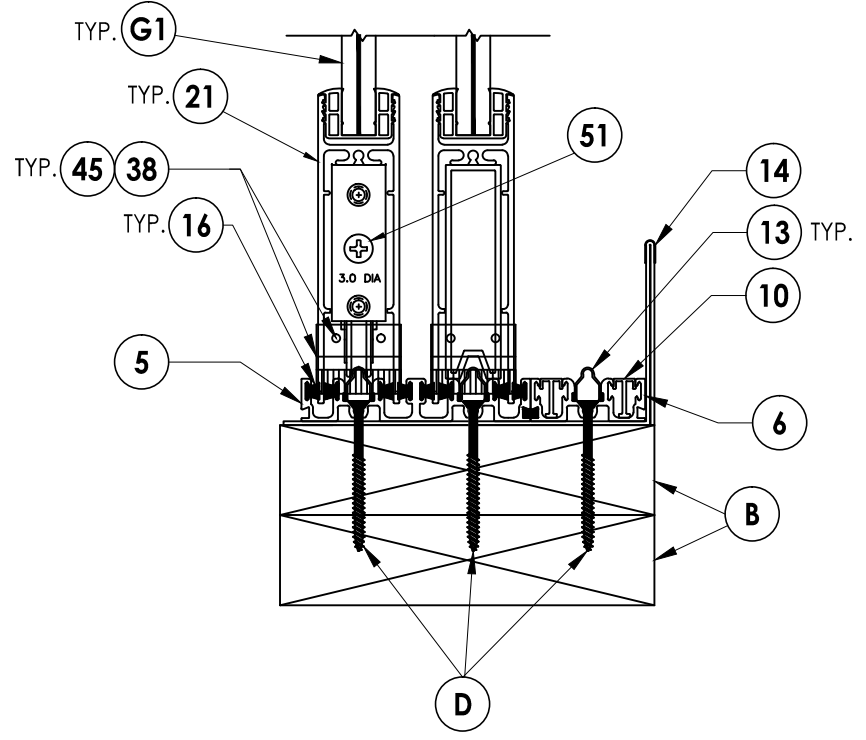
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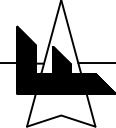
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7

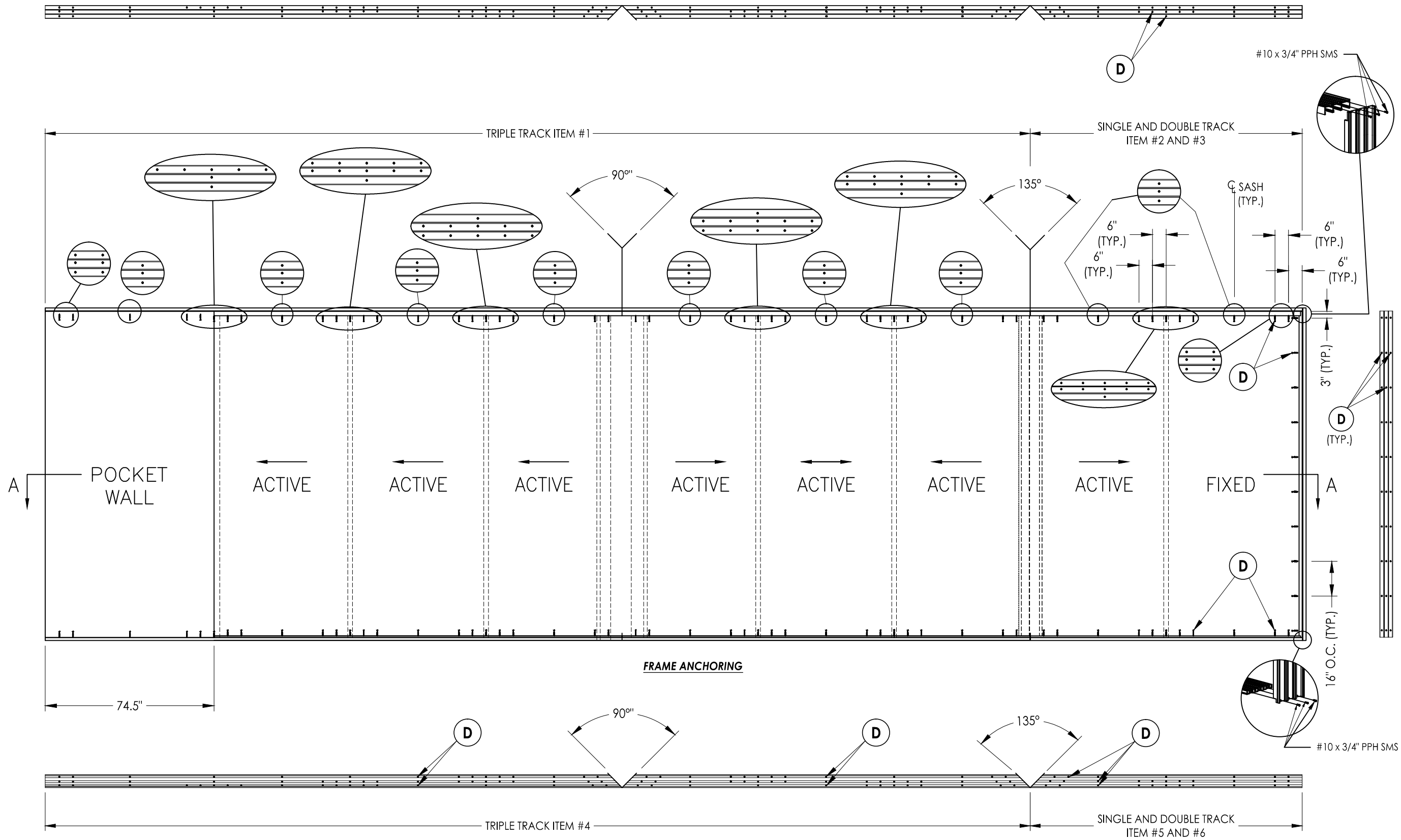


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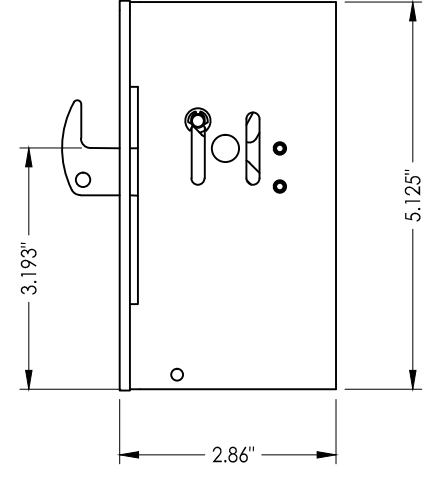
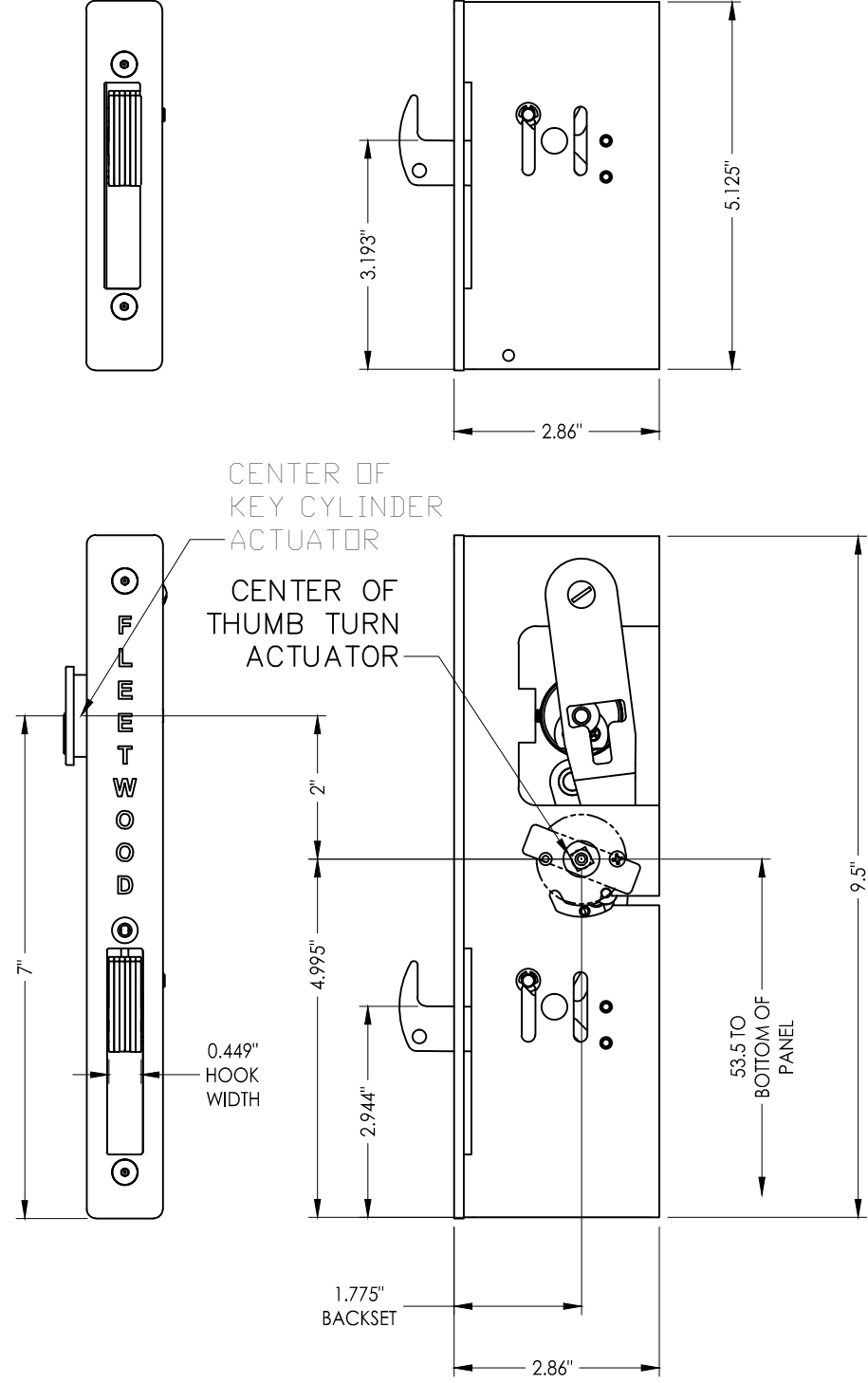


3 VERTICAL CROSS SECTION
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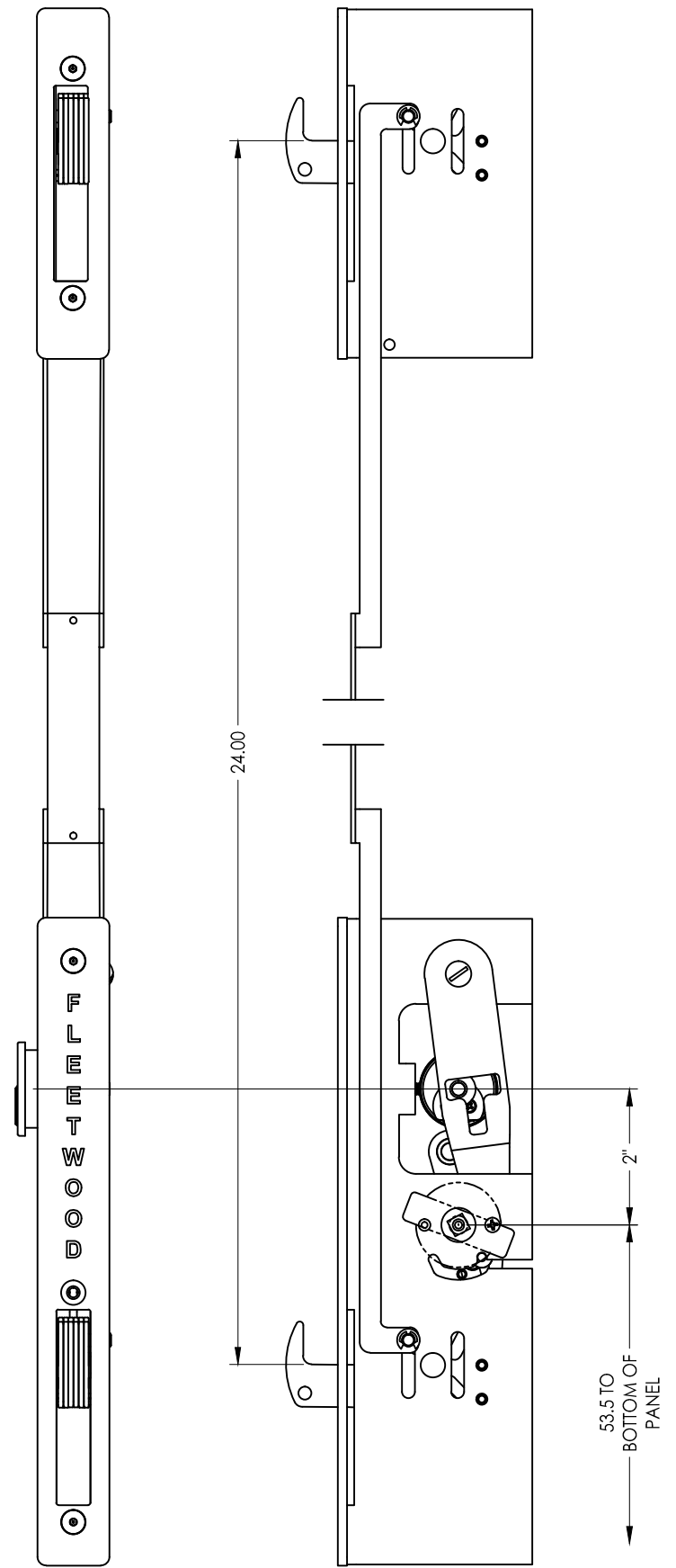
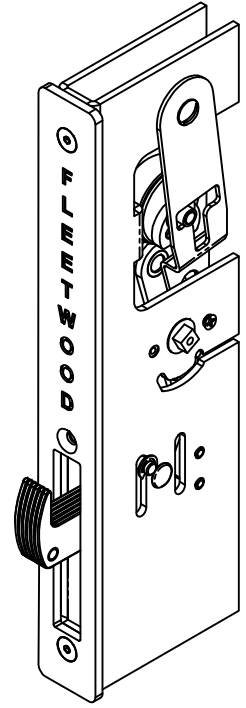
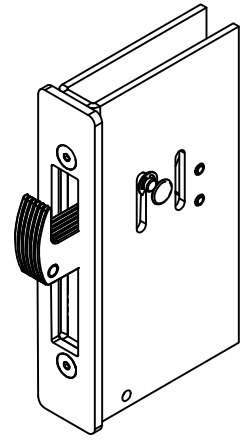
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MATERIAL:	SERIES 3070-HI
CUSTOMER:	FLEETWOOD WINDOWS AND DOORS
JOB NAME:	FLEETWOOD TAS & AAMA TEST
FLEETWOOD WINDOWS AND DOORS <small>1 FLEETWOOD WAY CORONA, CALIFORNIA 92719 - www.fleetwoodusa.com</small>	
	
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DRAWING NO.	#
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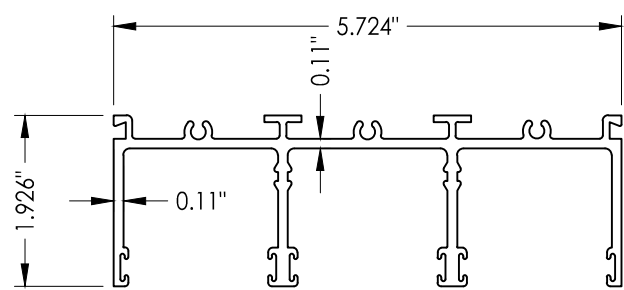
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JOB NAME:	FLEETWOOD TAS & AAMA TEST				
FLEETWOOD WINDOWS AND DOORS <small>1 FLEETWOOD WAY CORONA, CALIFORNIA 92709 - www.fleetwoodusa.com</small>					
					
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SHEET ↓ 8 OF 12					



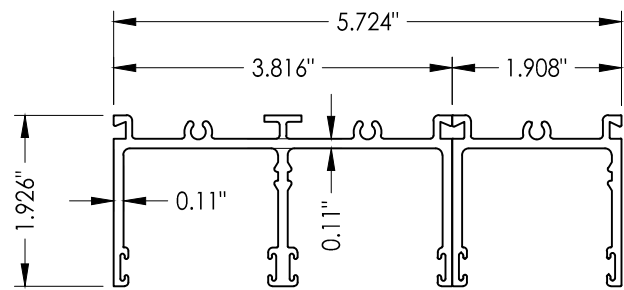
50 ARCHETYPE LOCK



MATERIAL: SERIES 3070-HI		DATE: 6/22/15	REVISIONS	DATE	DRAWN BY	COMMENTS
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JOB NAME: FLEETWOOD TAS & AAMA TEST						
 FLEETWOOD WINDOWS AND DOORS <small>1 FLEETWOOD WAY CORONA, CALIFORNIA 92779 - www.fleetwoodusa.com</small>						
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SHEET 10 OF 12						

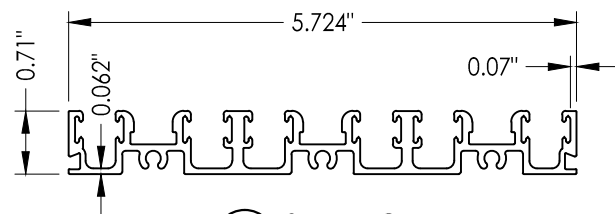


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(3 Track)

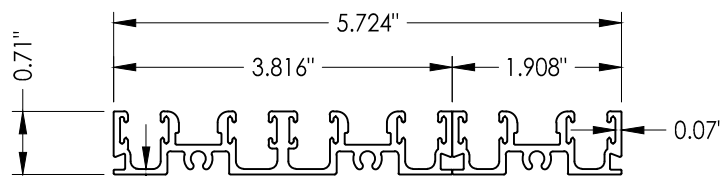


2 HEAD TRACK
(2 Track)

3 HEAD TRACK
(Single Track)

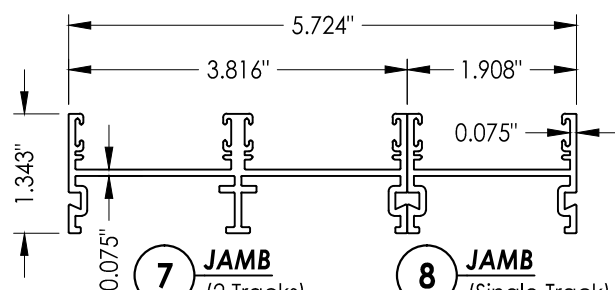


4 SILL TRACK
(3 Tracks)



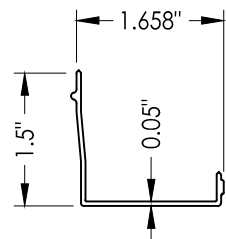
5 SILL TRACK
(2 Tracks)

6 SILL TRACK
(Single Track)

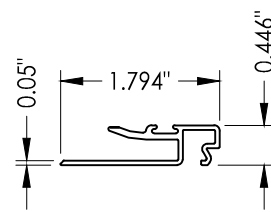


7 JAMB
(2 Tracks)

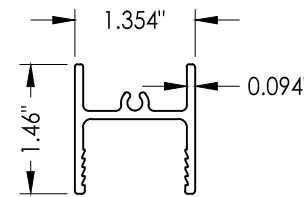
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(Single Track)



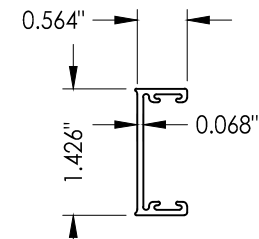
9 HEAD FILLER



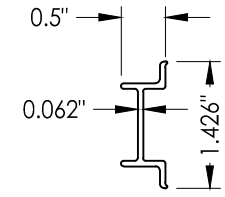
12 J-TYPE POST INTERLOCK



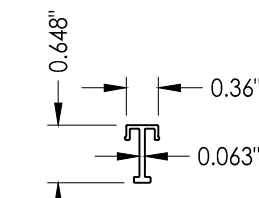
20 TOP RAIL



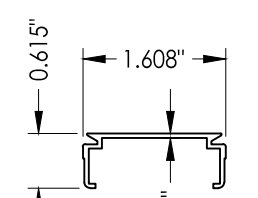
27 FEMALE YOKE



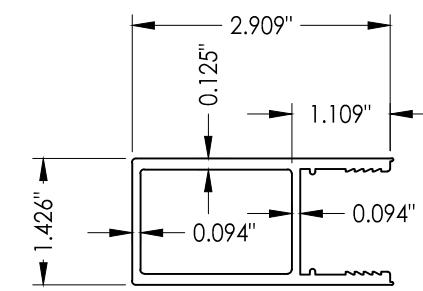
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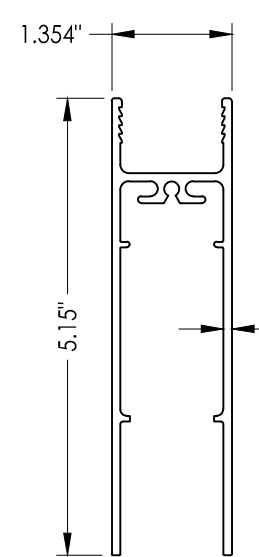
10 SILL FILLER



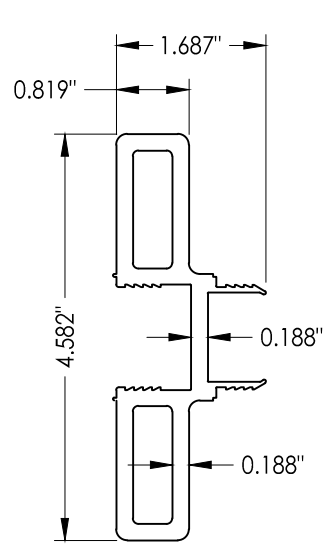
11 JAMB FILLER



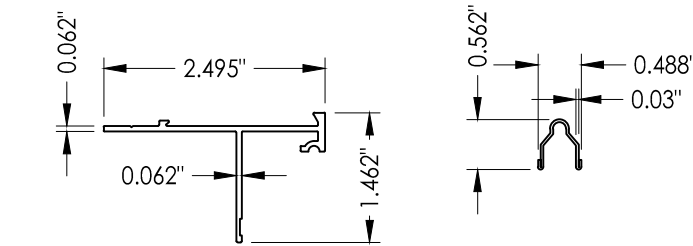
23 NARROW LOCK STILE/ WIDE FIXED STILE



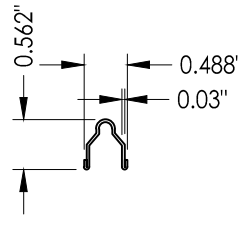
21 BOTTOM RAIL



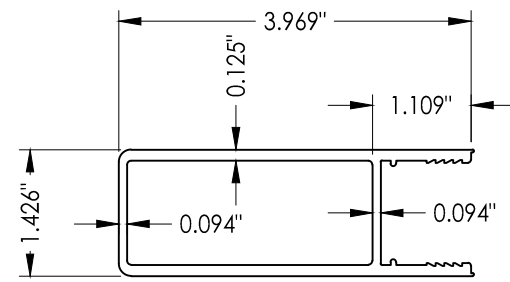
30 HP ADAPTOR



47 POST INTERLOCKER NAIL-FIN

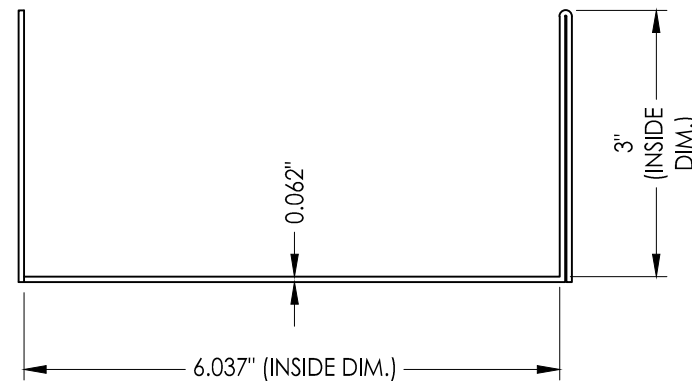


13 TRACK

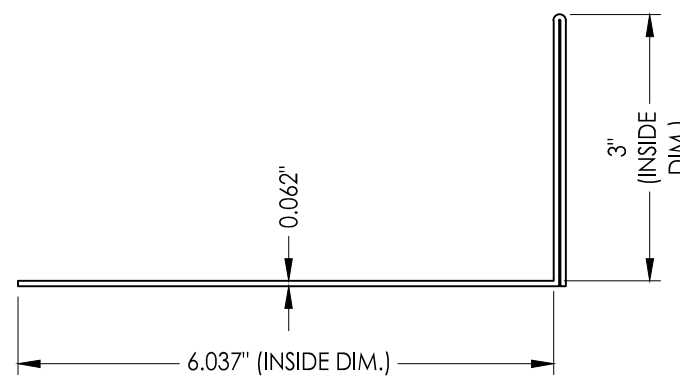


22 LOCK STYLE

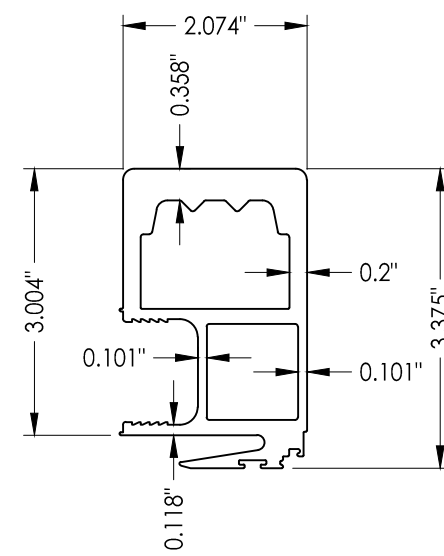
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	Date:	04/01/16
	Verified by:	<i>[Signature]</i>



15 SILLPAN - 3 TRACK
(Pocket)



14 SILLPAN - 3 TRACK



26 HP INTERLOCKER

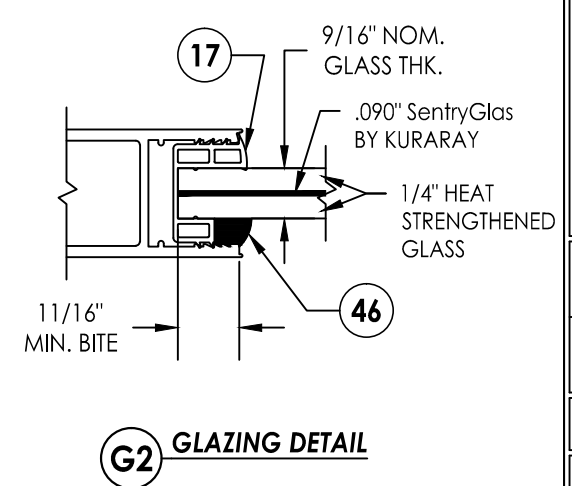
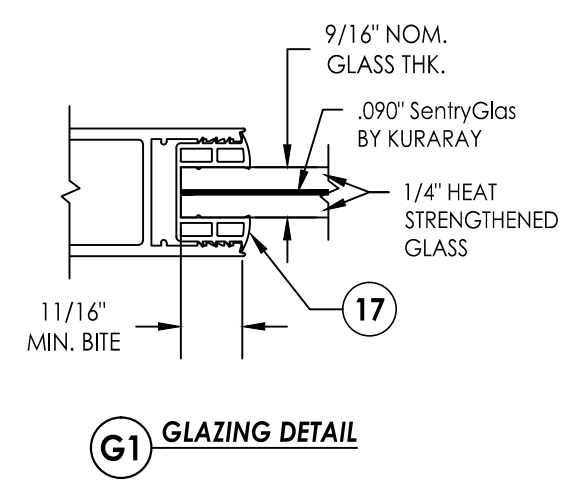
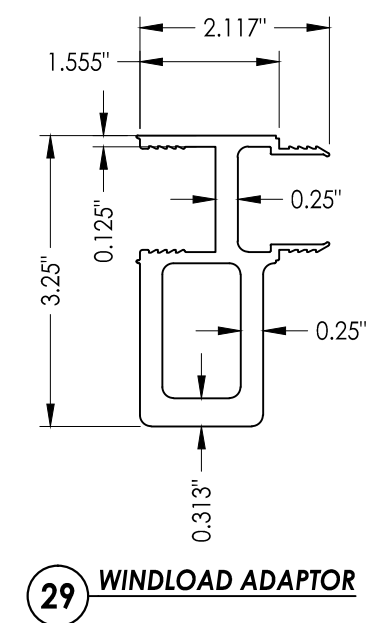
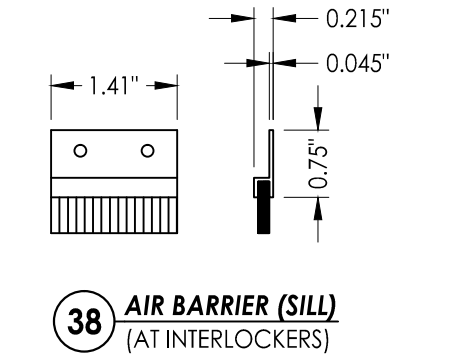
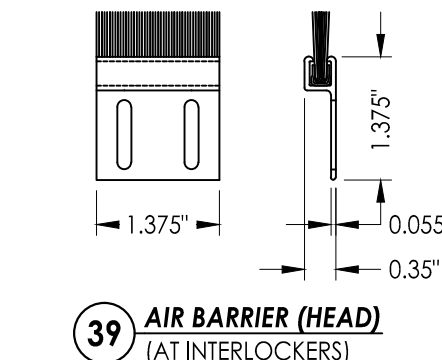
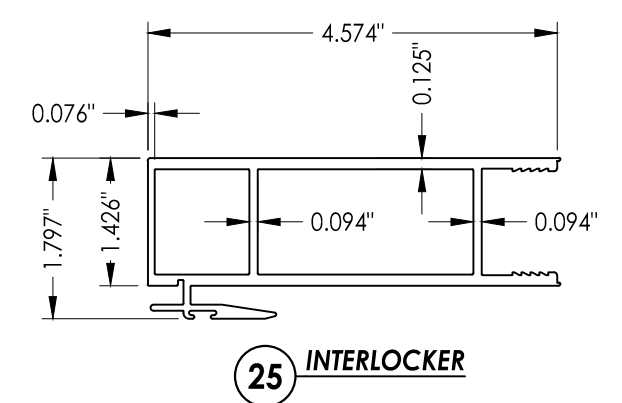
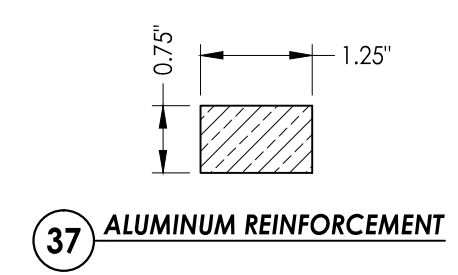
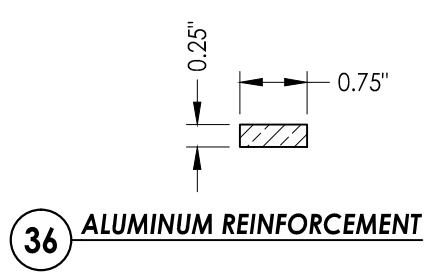
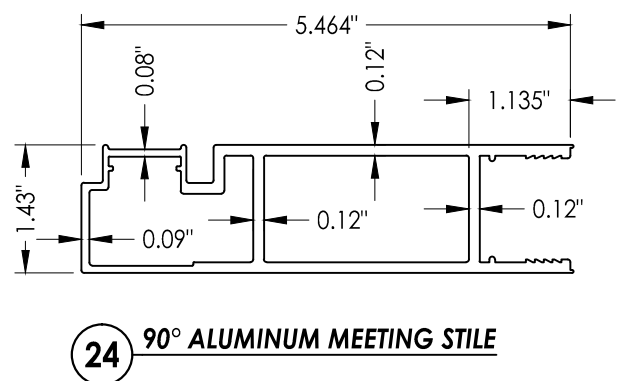
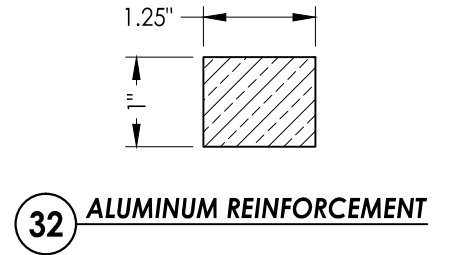
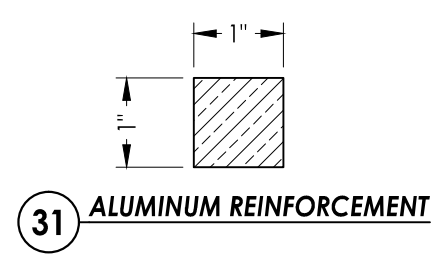
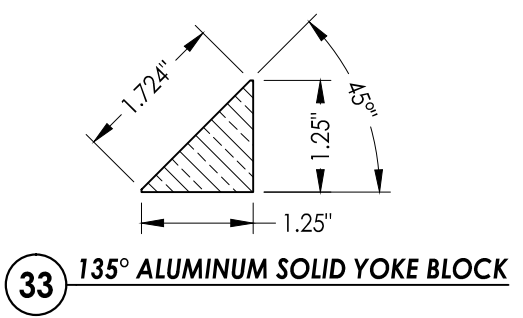
REVISIONS	DATE	DRAWN BY	COMMENTS

MATERIAL:	SERIES 3070-HI
CUSTOMER:	FLEETWOOD WINDOWS AND DOORS
JOB NAME:	FLEETWOOD TAS & AAMA TEST
DRAWN BY:	BL
DATE:	6/22/15
JOB NUMBER:	385199-V2

FLEETWOOD WINDOWS AND DOORS <small>1 FLEETWOOD WAY CORONA, CALIFORNIA 92709 - www.fleetwoodusa.com</small>	
SCALE	↓
DO NOT SCALE	↓
DRAWING NO. :	#
SHEET :	#
11	OF 12

BILL OF MATERIALS			
ITEM #	DESCRIPTION	PART#	MATERIAL
B	2X BUCK SG >= 0.55	N/A	WOOD
C	1/4" MAX. SHIM SPACE	N/A	-
D	#10 x 2-1/2" PFH WOOD SCREW	N/A	STEEL
F	#10 x 2" PPH WOOD SCREW	N/A	STEEL
G	#8 x 1-1/2" PFH WOOD SCREW	N/A	STEEL
H	#8 x 3/4" PPH SMS	N/A	STEEL
1	M/S HEAD (3 TRACK)	3703	6063-T6 ALUM
2	M/S HEAD (2 TRACK)	3702	6063-T6 ALUM
3	M/S HEAD (SINGLE TRACK)	3046	6063-T6 ALUM
4	M/S SILL (3 TRACK)	3743	6063-T6 ALUM
5	M/S SILL (2 TRACK)	3742	6063-T6 ALUM
6	M/S SILL (SINGLE TRACK)	3741	6063-T6 ALUM
7	JAMB (2 TRACK)	3712	6063-T6 ALUM
8	JAMB (1 TRACK)	3048	6063-T6 ALUM
9	HEAD FILLER	3014	STAINLESS STEEL
10	SILL FILLER	3747	STAINLESS STEEL
11	JAMB FILLER	3710	STAINLESS STEEL
12	J-POST INTERLOCKER SNAP-IN	3755	STAINLESS STEEL
13	S.S. TRACK	FW1020	-
14	SILL PAN (3-TRACK)	3720-3	-
15	SILL PAN (3-TRACK)(POCKET)	3720-3	-
16	SMALL FIN SEAL .230	19118	6063-T6 ALUM
17	9/16" GLAZING VINYL (ASTM C864)	25033	6063-T6 ALUM
18	LARGE FIN SEAL .290	19117	6063-T6 ALUM
19	Q-LON (U5212)	19120	6063-T6 ALUM
20	TOP RAIL	3004	6063-T6 ALUM
21	BOTTOM RAIL	3027	6063-T6 ALUM
22	LOCK STILE	3767	6063-T6 ALUM
23	NARROW LOCK STILE/WIDE FIXED STILE	3005	6061-T6 ALUM
24	90° MEETING STILE	3771	6061-T6 ALUM
25	2-1/2" POCKET SIGHTLINE INTERLOCKER	3704	6061-T6 ALUM
26	HP INTERLOCKER	3034	6061-T6 ALUM
27	FEMALE YOKE	3040	6061-T6 ALUM
28	MALE YOKE	3039	6061-T6 ALUM
29	WINDLOAD ADAPTOR	3715	6061-T6 ALUM
30	HP ADAPTOR	3716	STAINLESS STEEL
31	1" X 1" SOLID ALUMINUM	N/A	6061-T6 ALUM
32	1" X 1.25" SOLID ALUMINUM	N/A	6061-T6 ALUM
33	135° SOLID YOKE BLOCK (ALUMINUM)	N/A	6061-T6 ALUM
36	.25" X .75" SOLID ALUMINUM	N/A	6061-T6 ALUM
37	.75" X 1.25" SOLID ALUMINUM	N/A	6061-T6 ALUM
38	AIR BARRIER (SILL)	25383	-
39	AIR BARRIER (HEAD)	24097	-
40	6" AIR BARRIER FOR HP INTERLOCKER	25562	-
41	STRIKE PLATE	24980	STEEL
42	BACK UP PLATE	24981	STEEL
43	10-32 X .5" FHP	N/A	STEEL
44	#10 X 1" PHP	N/A	STEEL
45	#8 TEK X 1/2"	N/A	STEEL
46	DOW 995 SILICONE	N/A	-
47	POST INTERLOCKER NAIL-FIN	3756	6061-T6 ALUM
48	FLUSH PULL	-	S.S.
49	ARCHETYPE NARROW LOCK	-	-
50	ARCHETYPE LOCK	-	-
51	ARCHETYPE ROLLERS	-	-


 Report #: E8384-301-44
 Date: 04/01/16
 Verified by: *[Signature]*



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