



# Testing Evaluation Laboratories, Inc.

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**AAMA/WDMA/CSA/101/I.S.2/A440-17**

## TEST REPORT SUMMARY

Test Report Issued To:

Fleetwood Windows and Doors  
1 Fleetwood Way  
Corona, CA 92879

**350-T ALUMINUM CASEMENT WINDOWS/3800-T FIXED WINDOWS**

Title	Summary of Results		
	Specimen 1	Specimen 2	Specimen 3
Primary Product Designator	Class LC - PG65 1118 x 2184 (44 x 86) – Type C	Class LC - PG65 1067 x 2134 (42 x 84)– Type C	Class LC - PG65 1067 x 2134 (42 x 84)– Type C
Design Pressure	+3112 /- 3112 Pa +65.0/ - 65.0 psf)	+3112 /- 3112 Pa +65.0/ - 65.0 psf)	+3112 /- 3112 Pa +65.0/ - 65.0 psf)
Operating Force	Pass	Pass	Pass
Air Infiltration	0.21 L/s/m <sup>2</sup> (0.041 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.00 L/s/m <sup>2</sup> (0.000 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.32 L/s/m <sup>2</sup> (0.064 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)
Air Exfiltration	0.97 L/s/m <sup>2</sup> (0.193 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.15 L/s/m <sup>2</sup> (0.029 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.92 L/s/m <sup>2</sup> (0.183 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)
Water Resistance	323 Pa (6.75 psf)	467 Pa (9.75 psf)	467 Pa (9.75 psf)
Structural Test Pressure	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)
Forced Entry	No Entry	No Entry	No Entry

Title	Summary of Results		
	Specimen 3b	Specimen 4	Specimen 5
Primary Product Designator	Class LC - PG65 1067 x 2134 (42 x 84)– Type C	Class LC - PG65 1067 x 2134 (42 x 84)– Type C	Class LC - PG65 1118 x 4572 (44 x 180) - Type C
Design Pressure	+3112 /- 3112 Pa +65.0/ - 65.0 psf)	+3112 /- 3112 Pa +65.0/ - 65.0 psf)	+3112 /- 3112 Pa +65.0/ - 65.0 psf)
Operating Force	Pass	Pass	Pass
Air Infiltration	0.13 L/s/m <sup>2</sup> (0.025 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.23 L/s/m <sup>2</sup> (0.045 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.09 L/s/m <sup>2</sup> (0.018 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)
Air Exfiltration	0.33 L/s/m <sup>2</sup> (0.065 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.20 L/s/m <sup>2</sup> (0.040 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)	0.97 L/s/m <sup>2</sup> (0.193 scfm/ft <sup>2</sup> ) @ 75 Pa (1.57 psf)
Water Resistance	467 Pa (9.75 psf)	467 Pa (9.75 psf)	467 Pa (9.75 psf)
Structural Test Pressure	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)
Forced Entry	No Entry	No Entry	No Entry

TEST REPORT SUMMARY (continued)

Title	Summary of Results
	Specimen 6
Primary Product Designator	Class LC -PG65 1118 x 4572 (44 x 180) - Type C
Design Pressure	+3112 /- 3112 Pa +65.0/ - 65.0 psf)
Operating Force	Pass
Air Infiltration	<i>See Specimen 5 of this report for these results.</i>
Air Exfiltration	<i>See Specimen 5 of this report for these results.</i>
Water Resistance	<i>See Specimen 5 of this report for these results.</i>
Structural Test Pressure	+4668 /- 4668 Pa (+97.5 / - 97.5 psf)
Forced Entry	No Entry

Reference should be made to Report No. TEL 01993389 for complete test specimen description and data. For corresponding data regarding ASTM E 1886-13a / ASTM E 1996-14a, reference should be made to Report No. TEL 01993390.

For Testing Evaluation Laboratories, Inc.



Vivian K. Wright,  
President





# Testing Evaluation Laboratories, Inc.

2002 Wood Court Suite 1 – Plant City, FL 33563  
Phone: 813-754-9887

## AAMA/WDMA/CSA/101/I.S.2/A440-17

### Test Report Issued To:

Fleetwood Windows and Doors  
1 Fleetwood Way  
Corona, CA 92879

IAS Lab Certification Number: TL-299

Report No: TEL 01993389  
Test Dates: October 19-28, 2021  
Report Date: December 14, 2021  
Revision Date: March 19, 2022

**Project Summary:** Testing Evaluation Laboratories, Inc. (TEL) was contracted to perform tests Fleetwood Windows and Doors' 350-T Aluminum Casement Windows/3800-T Fixed Windows at TEL's Plant City, FL test facility. The samples tested successfully and met the performance requirements for the following:

Class LC-PG65 1118 x 2184 (44 x 86) – C – Specimen 1  
Class LC-PG65 1067 x 2134 (42 x 84) – C – Specimens 2, 3, 3b, 4  
Class LC-PG65 1118 x 4572 (44 x 180) – C – Specimens 5, 6

Test specimen description and results are reported herein.

Test Specifications: The test specimens were evaluated in accordance with the following:

*AAMA/WDMA/CSA/101/I.S.2/A440-17, Standard Specification for Windows, Doors and Unit Skylights*

### Test Specimen Description:

Series / Model	350-T Aluminum Casement Window 350-T Aluminum Casement Window/3800-T Aluminum Fixed Window
Type:	Impact Aluminum Casement Window (X) - Specimens 1, 2, 3, 3b, 4 Impact Aluminum Casement Window (O/X/O) - Specimens 5, 6
Overall Size:	1026 mm (44.375") x 2194 mm (86.375") – Specimen 1 1067 mm (42.00") x 2134 mm (84.00") – Specimens 2, 3, 3b, 4 1026 mm (44.375") x 4572 mm (180.00") – Specimens 5, 6
Daylight Opening:	902 mm (35.50") x 1969 mm (77.50") – Specimen 1 902 mm (35.50") x 1969 mm (77.50") – Specimens 2, 3, 3b, 4 902 mm (35.50") x 1969 mm (77.50") – Specimens 5, 6 - Casement 1026 mm (44.375") x 794 mm (31.25") – Specimens 5, 6 – Upper Fixed Panel 1048 mm (41.25") x 1454 mm (57.25") – Specimens 5, 6 – Lower Fixed Panel
Glazing Details:	Insulated Glass (See Attached Drawings)
Finish:	Mill Finish

For Tested Elevations, Vertical Cross Sections, Horizontal Cross Sections, Components, Frame Anchoring, Glazing Detail and Bill of Materials, See Attached Drawings #L-9484, #L-9485, #L-9486, #L-9487, #L-9488, #L-9489 and #L-9490.

Test Results Spec 1: 1026 mm (44.375") x 2194 mm (86.375") – Aluminum Casement Window - X

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.1	Operating Force per ASTM E2068-00 Initiate Motion Maintain Motion Latches	20 N (4.5 lbf) 13 N (3.0 lbf) 36 N (8.0 lbf)	Report Only 45 N (10 lbf) 100 N (22.5 lbf)
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	0.21 L/s/m <sup>2</sup> 0.041 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.97 L/s/m <sup>2</sup> 0.193 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/I.S.2-97/A440-17 for air infiltration.</i>			
5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10 Test Disassembly Test B1 through B3 Sash Manipulation Test Lock Manipulation Test	No Entry No Entry No Entry No Entry	No Entry No Entry No Entry No Entry
5.3.6.4.3	Sash Vertical Deflection Test  270 N (60.0 lbf)	9.32 mm (0.367")	Report
5.3.6.6.2	Distributed Load Test  300 Pa (6.27 psf)	No Damage	No Damage

*Note #2: The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*

Test Results Spec 1 (Continued): 1026 mm (44.375") x 2194 mm (86.375") – Aluminum Casement Window - X

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>		<u>Allowed</u>	
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
		@ 323 Pa (6.75 psf)		No Leakage	No Leakage	
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	0.787 (0.031)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	2.921 (0.115)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	1.499 (0.059)	0.229 (0.009)	3.937 (0.155)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	1.524 (0.060)	0.203 (0.008)	3.937 (0.155)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at center of top rail.*

Test Results Spec 2: 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.2	Operating Force per ASTM E2068-00 Initiate Motion Maintain Motion Latches	22 N (5.0 lbf) 18 N (4.0 lbf) 36 N (8.0 lbf)	Report Only 45 N (10 lbf) 100 N (22.5 lbf)
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	0.00 L/s/m <sup>2</sup> 0.000 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.15 L/s/m <sup>2</sup> 0.029 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/I.S.2-97/A440-17 for air infiltration.</i>			
5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10 Test Disassembly Test B1 through B3 Sash Manipulation Test Lock Manipulation Test	No Entry No Entry No Entry No Entry	No Entry No Entry No Entry No Entry
5.3.6.4.3	Sash Vertical Deflection Test  270 N (60.0 lbf)	9.12 mm (0.359")	Report
5.3.6.6.2	Distributed Load Test  300 Pa (6.27 psf)	No Damage	No Damage

*Note #2: The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*

Test Results Spec 2 (Continued): 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>		<u>Allowed</u>	
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
		@ 467 Pa (9.75 psf)		No Leakage	No Leakage	
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	0.660 (0.026)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	2.921 (0.051)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	0.864 (0.034)	0.102 (0.004)	3.937 (0.155)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	1.575 (0.062)	0.508 (0.020)	3.937 (0.155)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at center of top rail.*

Test Results Spec 3: 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.3	Operating Force per ASTM E2068-00	<i>See Specimen 2 this report for these results.</i>	
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	0.32 L/s/m <sup>2</sup> 0.064 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.92 L/s/m <sup>2</sup> 0.183 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/I.S.2-97/A440-17 for air infiltration.</i>			
5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10		
	Test Disassembly	No Entry	No Entry
	Test B1 through B3	No Entry	No Entry
	Sash Manipulation Test	No Entry	No Entry
	Lock Manipulation Test	No Entry	No Entry
5.3.6.4.3	Sash Vertical Deflection Test		
	270 N (60.0 lbf)	11.81 mm (0.465")	Report
5.3.6.6.2	Distributed Load Test		
	300 Pa (6.27 psf)	No Damage	No Damage

*Note #2: The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*



Test Results Spec 3 (Continued): 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>		<u>Allowed</u>	
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
		@ 467 Pa (9.75 psf)		No Leakage	No Leakage	
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	2.261 (0.089)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	5.461 (0.215)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	2.565 (0.101)	0.127 (0.005)	5.410 (0.213)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	9.093 (0.358)	0.559 (0.022)	5.410 (0.213)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at top of sash at lock stile.*

Test Results Spec 3b: 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.4	Operating Force per ASTM E2068-00	<i>See Specimen 2 this report for these results.</i>	
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	0.13 L/s/m <sup>2</sup> 0.025 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.33 L/s/m <sup>2</sup> 0.065 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/I.S.2-97/A440-17 for air infiltration.</i>			
5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10		
	Test Disassembly	No Entry	No Entry
	Test B1 through B3	No Entry	No Entry
	Sash Manipulation Test	No Entry	No Entry
	Lock Manipulation Test	No Entry	No Entry
5.3.6.4.3	Sash Vertical Deflection Test		
	270 N (60.0 lbf)	10.69 mm (0.421")	Report
5.3.6.6.2	Distributed Load Test		
	300 Pa (6.27 psf)	<i>See Specimen 2 for these results.</i>	

*Note #2: The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*

Test Results Spec 3b (Continued): 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>		<u>Allowed</u>	
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
		@ 467 Pa (9.75 psf)		No Leakage	No Leakage	
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	1.219 (0.048)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	6.172 (0.243)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	1.245 (0.049)	0.025 (0.001)	5.410 (0.213)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	5.436 (0.214)	0.000 (0.000)	5.410 (0.213)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at top of sash at lock stile*

Test Results Spec 4: 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.5	Operating Force per ASTM E2068-00	<i>See Specimen 2 this report for these results.</i>	
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	0.23 L/s/m <sup>2</sup> 0.045 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.20 L/s/m <sup>2</sup> 0.040 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/1.S.2-97/A440-17 for air infiltration.</i>			
5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10		
	Test Disassembly	No Entry	No Entry
	Test B1 through B3	No Entry	No Entry
	Sash Manipulation Test	No Entry	No Entry
	Lock Manipulation Test	No Entry	No Entry
5.3.6.4.3	Sash Vertical Deflection Test		
	270 N (60.0 lbf)	<i>See Specimen 2 for these results.</i>	
5.3.6.6.2	Distributed Load Test		
	300 Pa (6.27 psf)	<i>See Specimen 2 for these results.</i>	

*Note #2: The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*

Test Results Spec 4 (Continued): 1067 mm (42.00") x 2134 mm (84.00") – Aluminum Casement Window - X

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>		<u>Allowed</u>	
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
		@ 467 Pa (9.75 psf)	No Leakage		No Leakage	
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	2.489 (0.098)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	6.477 (0.255)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	2.946 (0.116)	0.076 (0.003)	5.410 (0.213)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	11.786 (0.464)	1.219 (0.048)	5.410 (0.213)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at top of sash at lock stile*

Test Results Spec 5: 1026 mm (44.375") x 4572 mm (180.00") - Aluminum Casement/Fixed Windows – O/X/O

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.6	Operating Force per ASTM E2068-00	<i>See Specimen 1 this report for these results.</i>	
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	0.09 L/s/m <sup>2</sup> 0.018 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.97 L/s/m <sup>2</sup> 0.193 scfm/ft <sup>2</sup>	1.5 L/s/m <sup>2</sup> 0.30 scfm/ft <sup>2</sup>
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/I.S.2-97/A440-17 for air infiltration.</i>			
5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10		
	Test Disassembly	No Entry	No Entry
	Test B1 through B3	No Entry	No Entry
	Sash Manipulation Test	No Entry	No Entry
	Lock Manipulation Test	No Entry	No Entry
5.3.6.4.3	Sash Vertical Deflection Test		
	270 N (60.0 lbf)	<i>See Specimen 1 for these results.</i>	
5.3.6.6.2	Distributed Load Test		
	300 Pa (6.27 psf)	<i>See Specimen 1 for these results.</i>	

*Note #2: The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*



Test Results Spec 5 (Continued): 1026 mm (44.375") x 4572 mm (180.00") - Aluminum Casement /Fixed Windows – O/X/O

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>		<u>Allowed</u>	
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
	@ 467 Pa (9.75 psf)		No Leakage		No Leakage	
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	1.118 (0.044)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	0.000 (0.000)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	0.889 (0.035)	0.025 (0.001)	4.521 (0.178)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	1.092 (0.043)	0.000 (0.000)	4.521 (0.178)
			2	5.613 (0.221)	0.610 (0.024)	3.937 (0.155)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at center of mullion at transom  
Deflection/Set for Location 2 measured at top of sash at lock stile, negative direction*

Test Results Spec 6: 1026 mm (44.375") x 4572 mm (180.00") - Aluminum Casement/Fixed Windows – O/X/O

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test – Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.7	Operating Force per ASTM E2068-00	<i>See Specimen 1 this report for these results.</i>	
5.3.2.1	Air Infiltration per ASTM E283-04	<i>See Specimen 5 this report for these results.</i>	
	Air Exfiltration per ASTM E283-04	<i>See Specimen 5 this report for these results.</i>	

**Note #1:** *The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA/101/I.S.2-97/A440-17 for air infiltration.*

5.3.3.2	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
5.3.5	Forced Entry ASTM F588-04 Type B Grade 10		
	Test Disassembly	No Entry	No Entry
	Test B1 through B3	No Entry	No Entry
	Sash Manipulation Test	No Entry	No Entry
	Lock Manipulation Test	No Entry	No Entry

5.3.6.4.3	Sash Vertical Deflection Test		
	270 N (60.0 lbf)	<i>See Specimen 1 for these results.</i>	

5.3.6.6.2	Distributed Load Test		
	300 Pa (6.27 psf)	<i>See Specimen 1 for these results.</i>	

**Note #2:** *The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*

Test Results Spec 6 (Continued): 1026 mm (44.375") x 4572 mm (180.00") - Aluminum Casement /Fixed Windows – O/X/O

<u>Paragraph</u>	<u>Title of Test – Test Method</u>		<u>Results</u>	<u>Allowed</u>		
4.4.2.6	Optional Performance					
	Water Resistance per ASTM E 547-00					
	@ 467 Pa (9.75 psf)		<i>See Specimen 5 this report for these results.</i>			
Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	0.991 (0.039)	NA	See Note #3
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	0.000 (0.000)	NA	See Note #3
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	1.143 (0.045)	0.076 (0.003)	4.521 (0.178)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	1.346 (0.053)	0.229 (0.009)	4.521 (0.178)
			2	4.013 (0.158)	0.889 (0.035)	3.937 (0.155)

**Note #3:** *The deflections reported are not limited by /WDMA/CSA/101/I.S.2/A440-17 for this product designation. The deflection data is recorded in this report for special code compliance and information only. See Note #4 for deflection locations.*

**Note #4:** *Deflection/Set for Location 1 measured at center of mullion at transom  
Deflection/Set for Location 2 measured at top of sash at lock stile, negative direction*

**General Note:**

Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the tests.

**Drawing Reference:**

The test specimen drawings have been reviewed by TEL and are representative of the test specimens reported herein.

**Witnesses to Testing:**

Christian Seifried, TEL, Inc.  
Rick Wright, R. W. Building Consultants, Inc.  
Corey Jones, Fleetwood Windows and Doors

**Conditions, Terms, and General Notes Regarding These Tests**

The product tested Has Been compared to the detailed drawing, bill of materials and fabrication information supplied by the client so named herein. Our analysis, which includes dimensional and component description comparisons, indicate the tested product and engineering information supplied by the client "Are Equivalent".

The report and representative samples will be retained for four years from the date of initial test.

These test results were obtained by employing all requirements of the designated test methods with no Deviations unless explicitly noted in test report. The test results and specimen supplied for testing are in compliance with the reference.

The test results are specific to the product tested by this laboratory and of the sample supplied by the client named herein, and they relate to no other product either manufactured by the client, a fabricator of the client or of installed field performance.

This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.

Testing Evaluation Laboratories, Inc. makes no opinions or endorsements regarding this product and its performance. This report may not be reproduced or quoted in partial form without the expressed written approval of Testing Evaluation Laboratories, Inc.

Testing Evaluation Laboratories, Inc.'s letter, reports, its name or insignia or mark are for the exclusive use of the client so named herein and any other use is strictly prohibited. The report, letters and the name of Testing Evaluation Laboratories, Inc., its seal or mark shall not be used in any circumstance to the general public or in any advertising.

Limitation of liability: Due diligence was used in performing the tests and reporting the results. By acceptance of this report, this client agrees to hold harmless and indemnify Testing Evaluation Laboratories, Inc., its employees, subcontractors and officers and owners against all claims and demands of any kind whatsoever, which arise out of or in any manner connected with the performance of work referred to herein.

Testing Evaluation Laboratories, Inc.



Vivian K. Wright  
President

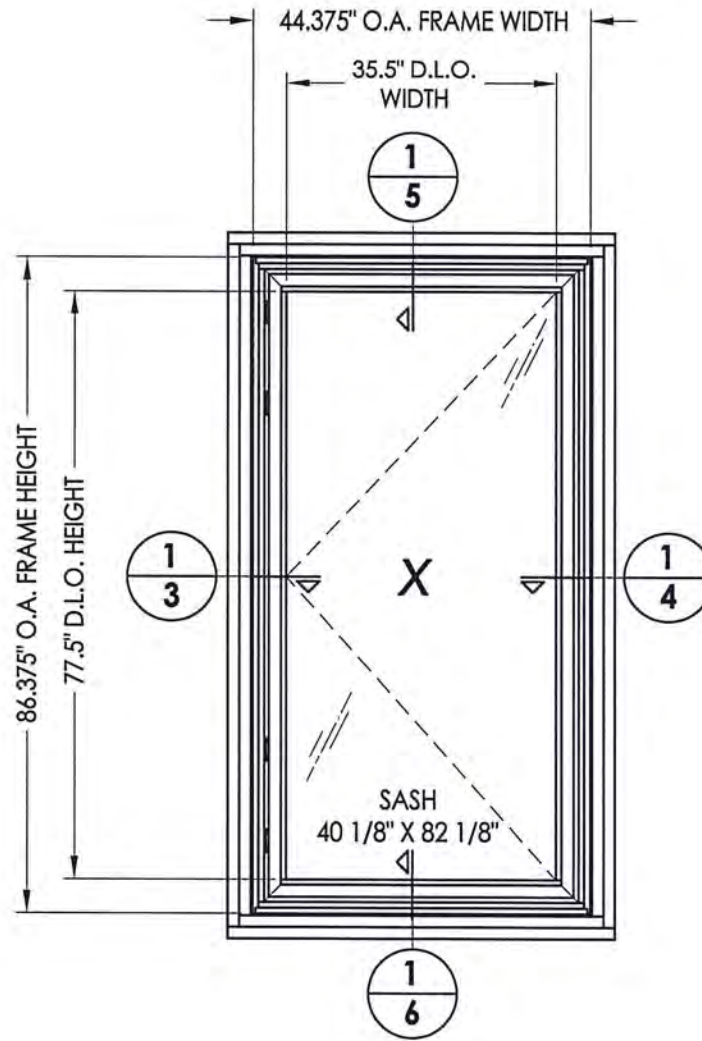
**Revision Log**

<b><u>Revision Number</u></b>	<b><u>Date</u></b>	<b><u>Page(s)</u></b>	<b><u>Revision(s)</u></b>
0	12/14/2021	NA	Original Report Issue
1	3/19/2022	Report Page 1, Cover sheet	Corrected product name




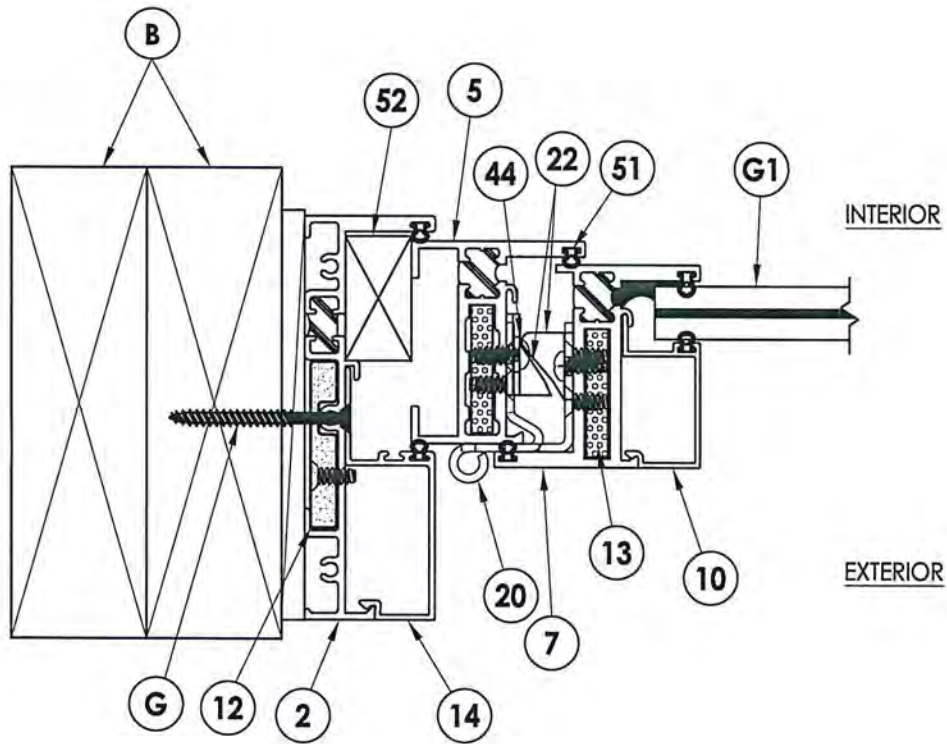






Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 1, 1a, 1b, 1c		PART OR ASSEMBLY: TEST ELEVATIONS	
NO.	DATE	REVISIONS	BY
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9484			
SHEET <u>2</u> OF <u>9</u>			



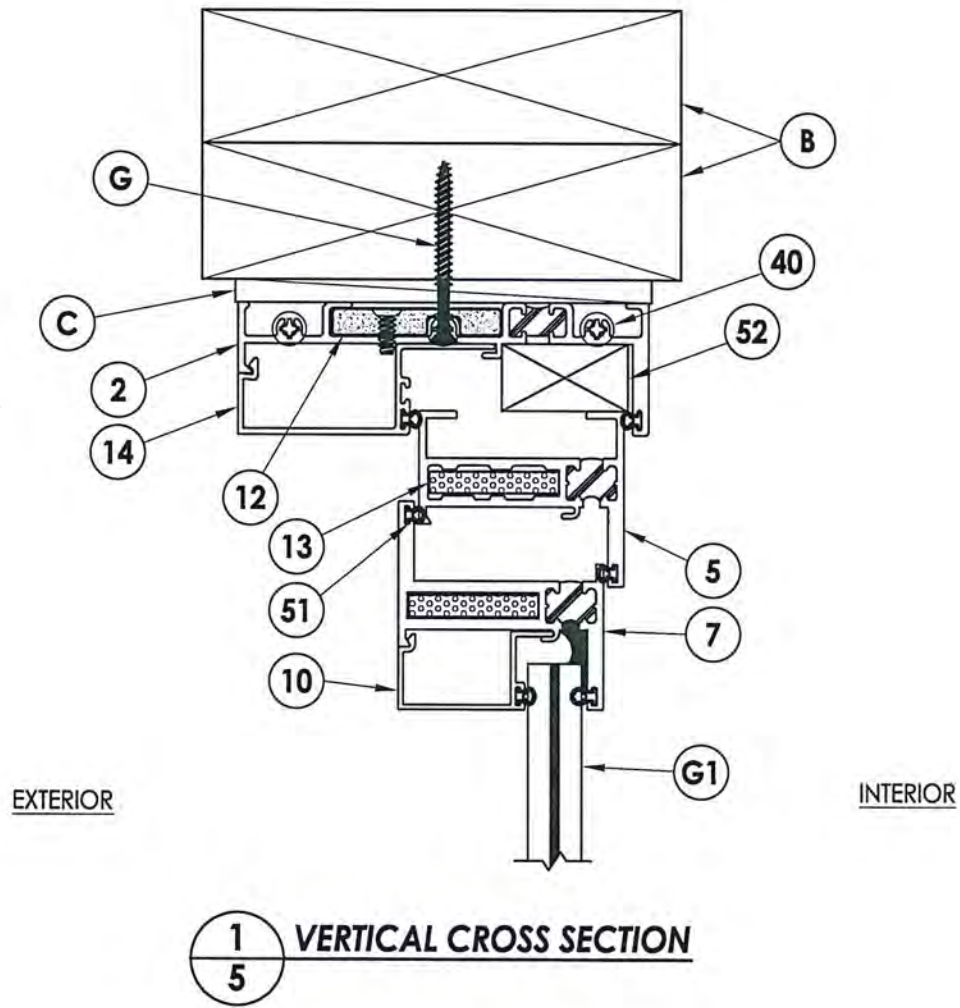
**1** HORIZONTAL CROSS SECTION  
**3**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 1, 1a, 1b, 1c	
PART OR ASSEMBLY:		CROSS SECTION	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9484			
SHEET 3 OF 9			

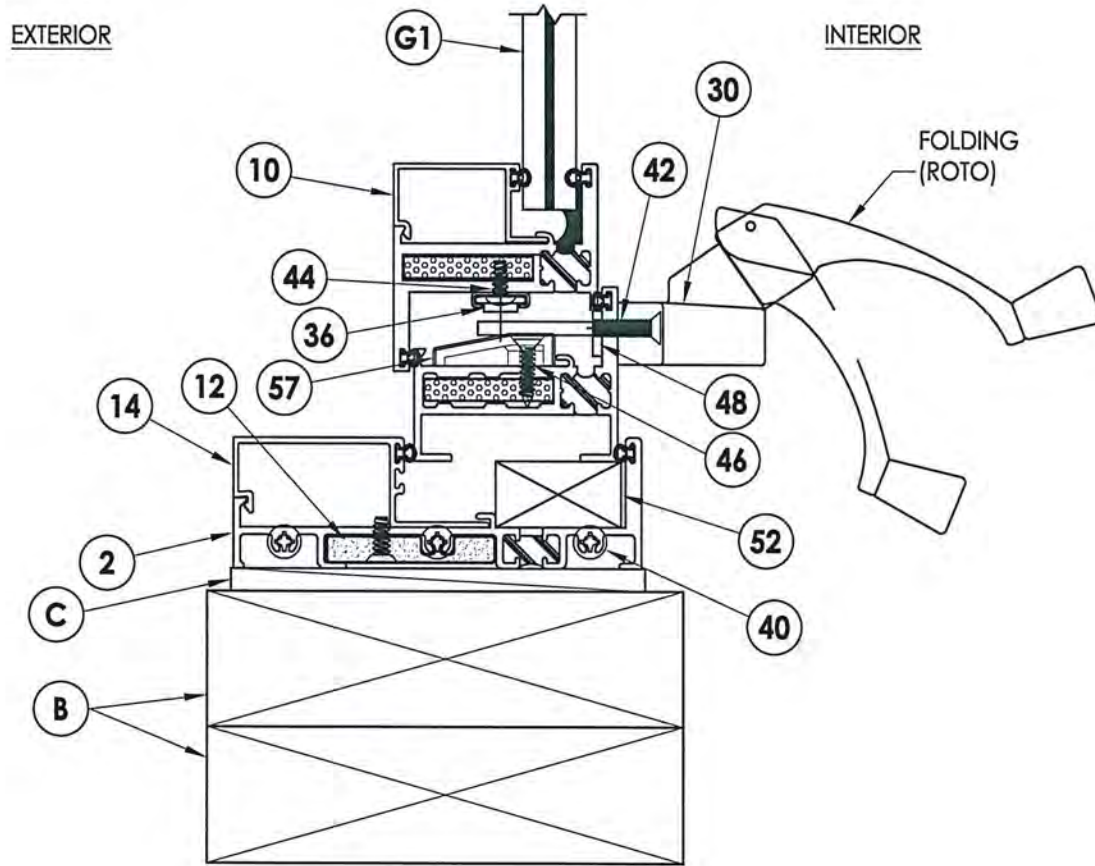






Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 1, 1a, 1b, 1c	PART OR ASSEMBLY: CROSS SECTION		
		NO.	DATE
		BY	REVISIONS
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9484			
SHEET <u>5</u> OF <u>9</u>			

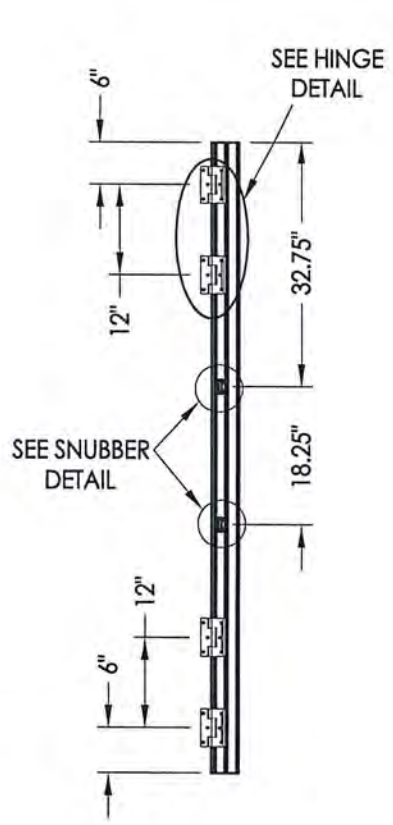


**1** VERTICAL CROSS SECTION  
**6**

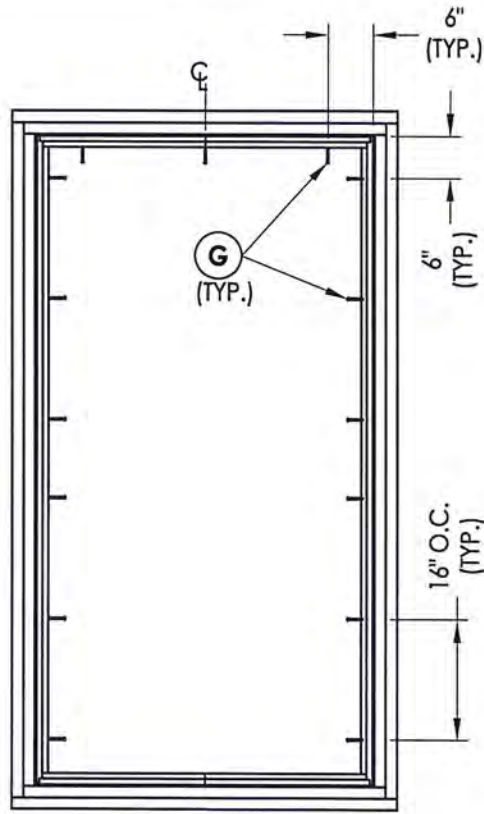
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 1, 1a, 1b, 1c	
PART OR ASSEMBLY:		CROSS SECTION	
NO.	DATE	REVISIONS	BY
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9484			
SHEET <u>6</u> OF <u>9</u>			

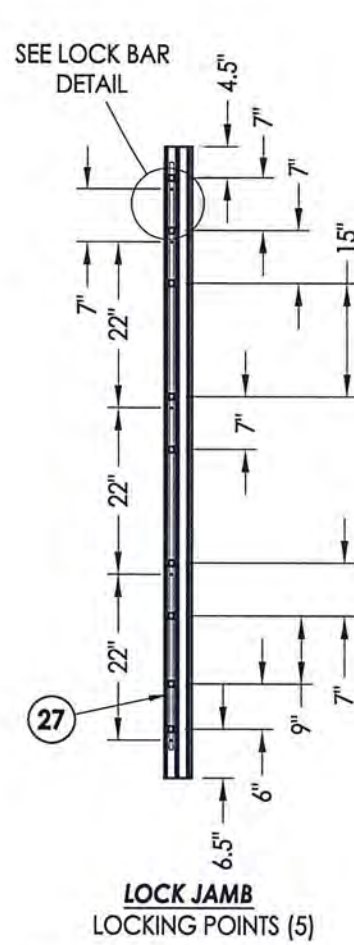




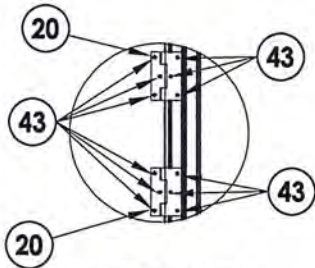
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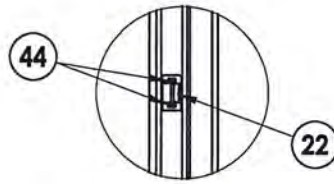
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2X TEST BUCK**



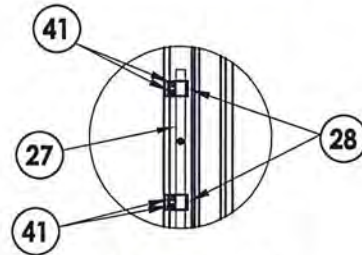
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LOCKING POINTS (5)**



**HINGE DETAIL**



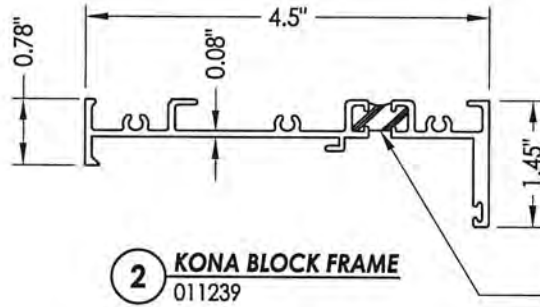
**SNUBBER DETAIL**



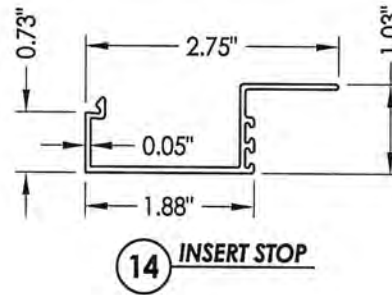
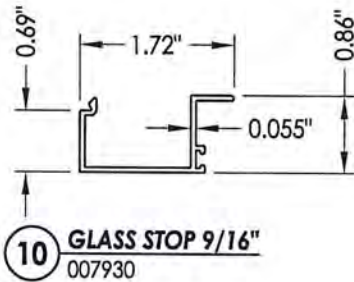
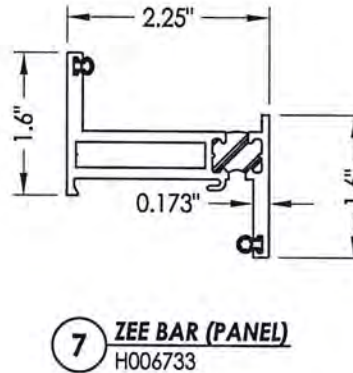
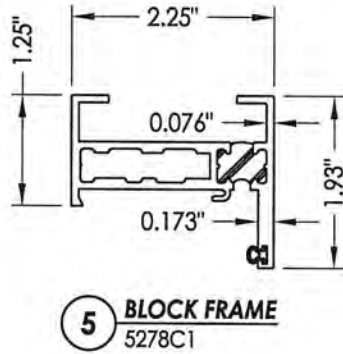
**LOCK BAR DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 1, 1a, 1b, 1c		PART OR ASSEMBLY: FRAME ANCHORING	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9484			
SHEET 7 OF 9			



THERMAL BREAK  
(LIQUID POLYURETHANE)  
BY AZON  
(TYP.)

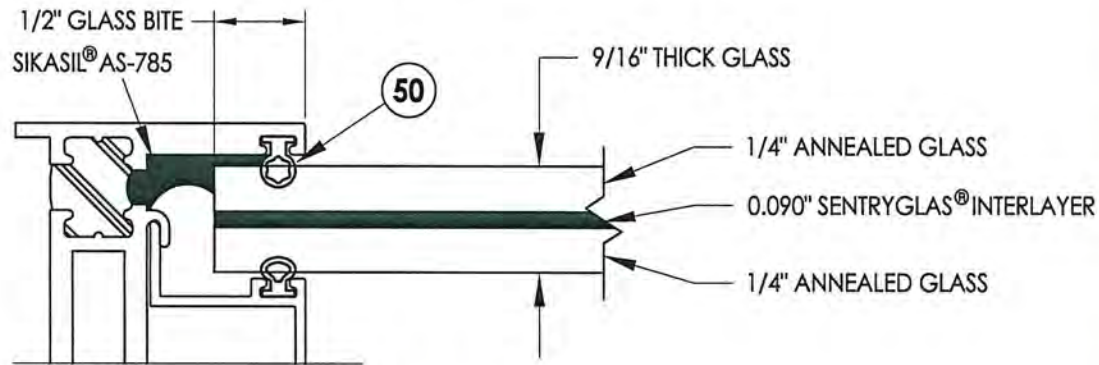


Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 1, 1a, 1b, 1c	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.:			
L-9484			
SHEET 8 OF 9			

**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
G	#10 X 2-1/2" PFH WOOD SCREW	STEEL
2	KONA BLOCK FRAME	6063-T6 ALUM
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
10	GLASS STOP 9/16"	6063-T6 ALUM
12	SHEAR BLOCK	6061-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
14	INSERT STOP	6063-T6 ALUM
20	SS. BUTT HINGE	SS
22	SNUBBER - COMMERCIAL PULL-IN BLOCK	SS
23	MULTIPOINT LOCK HANDLE	SS
27	5 POINTS LOCKING BAR	SS
28	TIE BAR GUIDE	-
29	KEEPER	SS
30	CASEMENT ROTOR GEAR	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
41	SCREW NO 8, PHP, .750"	STEEL
42	MACHINE SCREW NO 10-32, FHP .75"	STEEL
43	SCREW NO 10, UFHP .5"	STEEL
44	SCREW NO 10, PHP, .50"	STEEL
46	SCREW NO 8, FHP, .750"	STEEL
48	BACK UP NUTS	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
52	WOOD BLOCK (3/4" X 1-1/4")	-
57	PIVOT SHIM	-



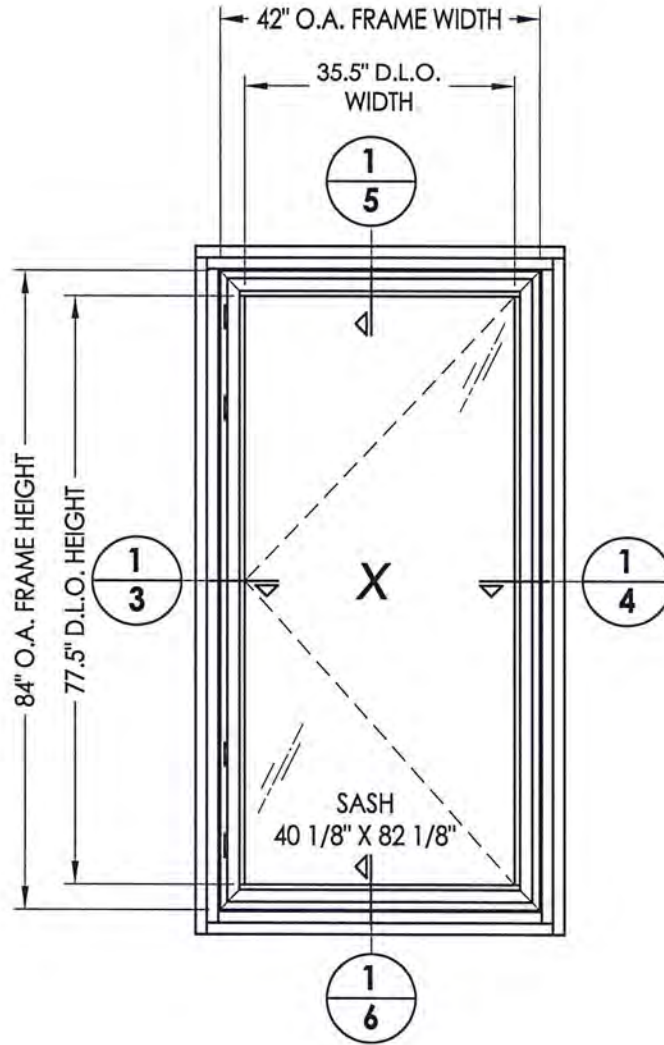
**G1 GLAZING DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 1, 1a, 1b, 1c	
PART OR ASSEMBLY:		COMPONENTS & GLAZING DETAILS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9484			
SHEET 9 of 9			

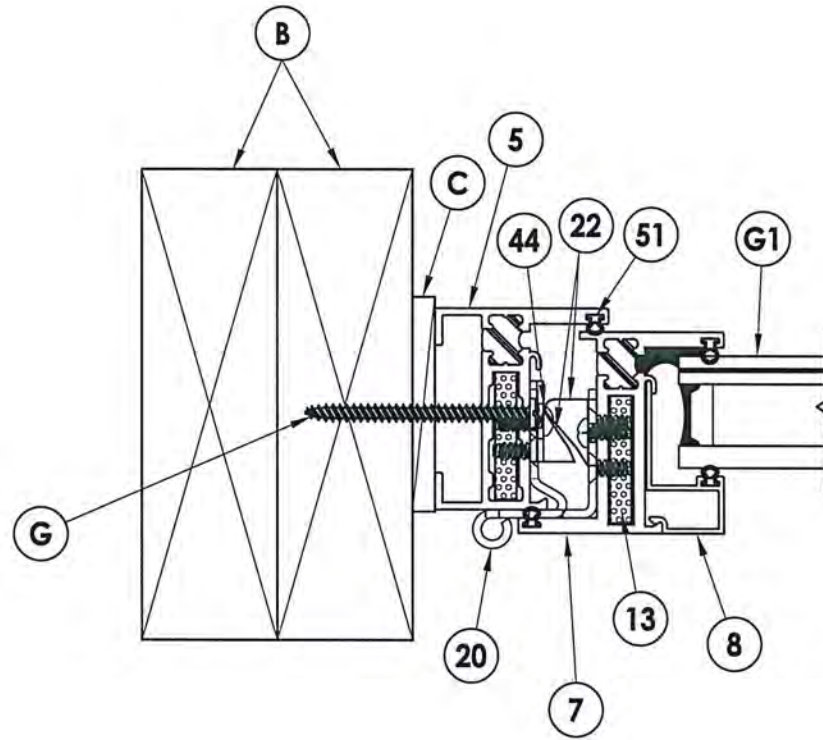







Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

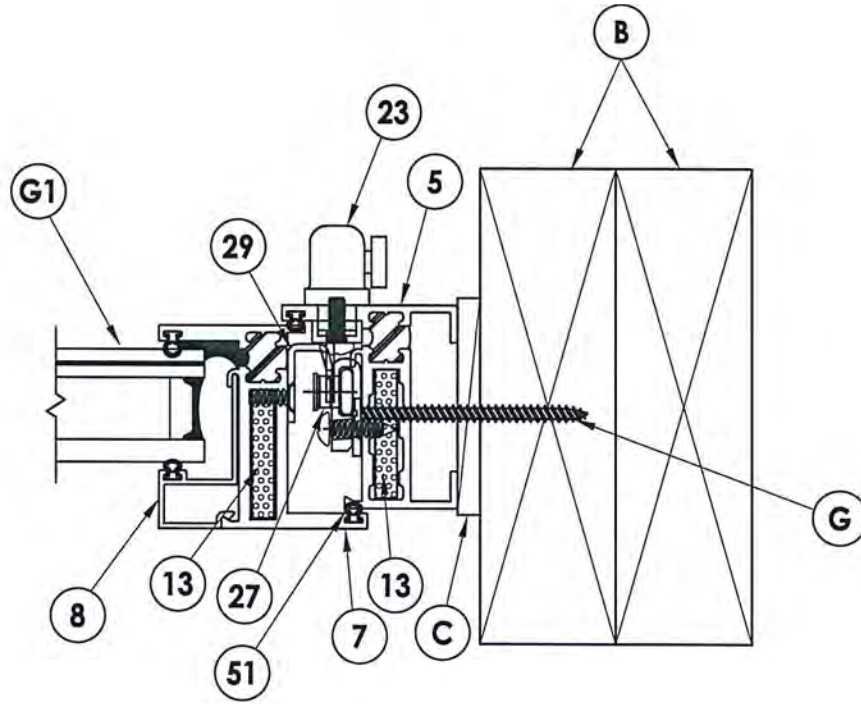
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NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9485			
SHEET <u>2</u> OF <u>9</u>			



**1** HORIZONTAL CROSS SECTION  
**3**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 2, 2a		PART OR ASSEMBLY: CROSS SECTION	
NO.	DATE	REVISIONS	BY
			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9485			
SHEET 3 OF 9			



**1**  
**4** HORIZONTAL CROSS SECTION

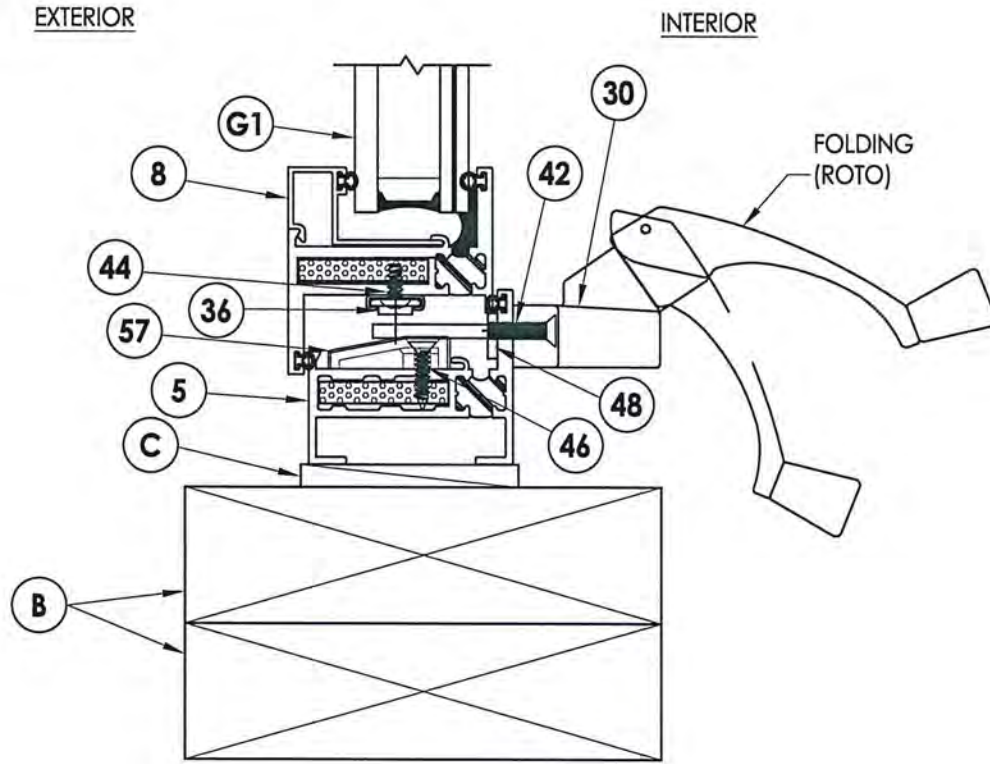
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 2, 2a		PART OR ASSEMBLY: CROSS SECTION	
NO.	DATE	BY	REVISIONS
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9485			
SHEET 4 OF 9			





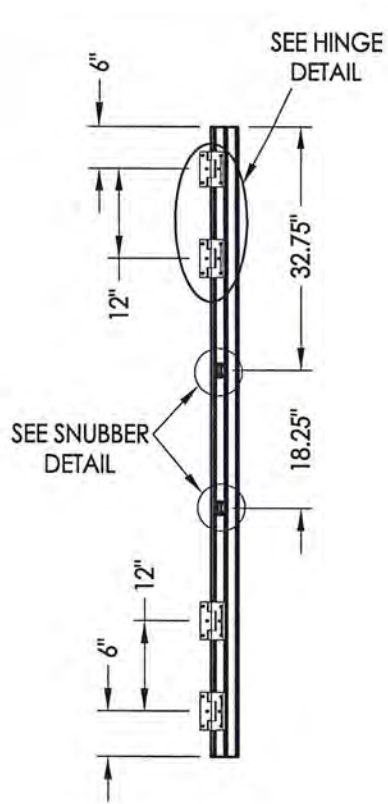




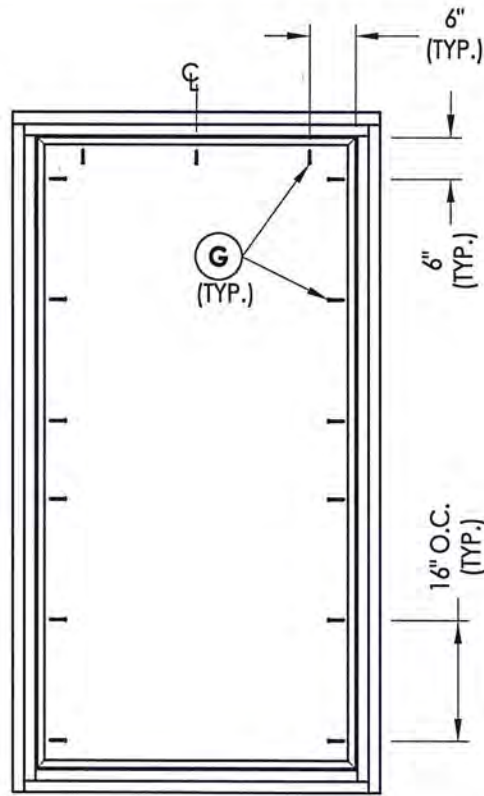
**1**  
**6** **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

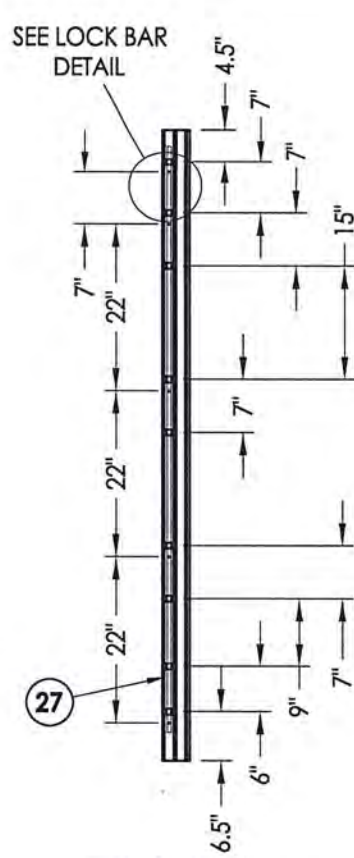
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NO.	DATE	REVISIONS	BY
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9485			
SHEET 6 OF 9			



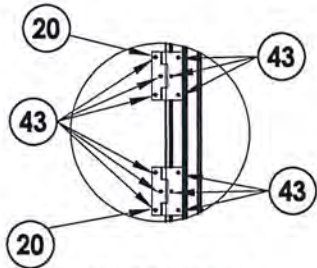
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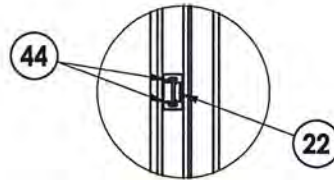
**FRAME ANCHORING  
2X TEST BUCK**



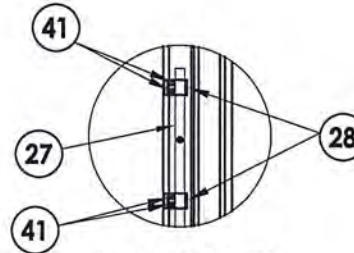
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LOCKING POINTS (5)**



**HINGE DETAIL**



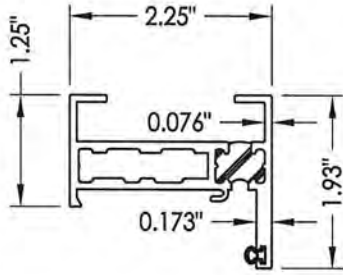
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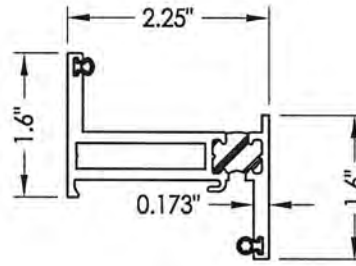
**LOCK BAR DETAIL**

Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

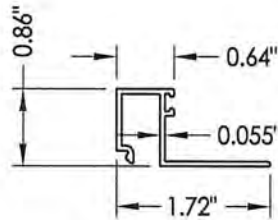
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NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9485			
SHEET 7 OF 9			



**5** **BLOCK FRAME**  
5278C1



**7** **ZEE BAR (PANEL)**  
H006733



**8** **GLASS STOP 1-1/4"**  
901487

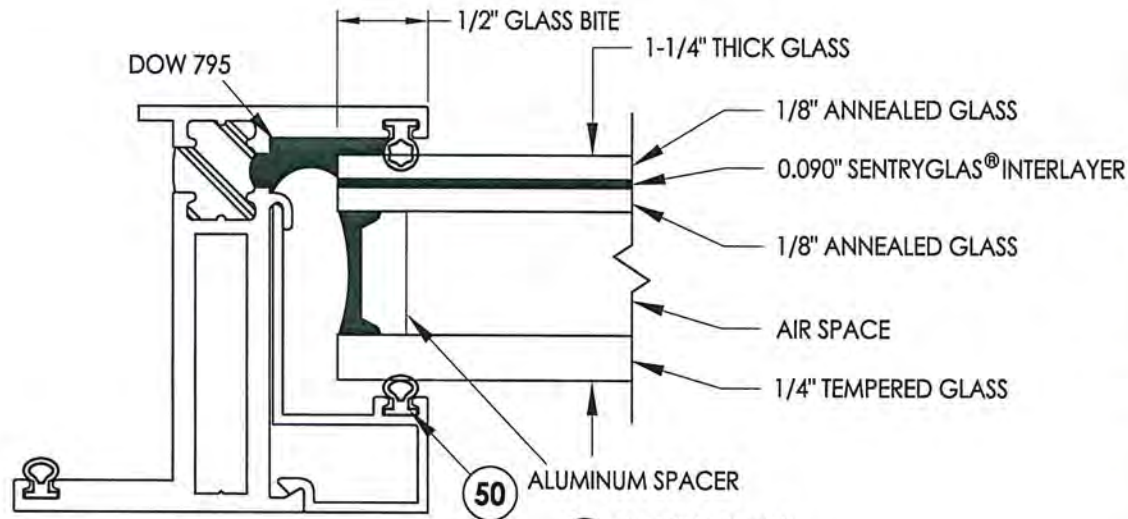
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 2, 2a	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-9485			
SHEET 8 OF 9			



**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
G	#10 X 2-1/2" PPH SMS	STEEL
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
8	GLASS STOP 1-1/4"	6063-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
20	SS. BUTT HINGE	SS
22	SNUBBER-COMMERCIAL PULL-IN BLOCK	SS
23	MULTIPOINT LOCK HANDLE	SS
27	5 POINTS LOCKING BAR	SS
28	TIE BAR GUIDE	-
29	KEEPER	SS
30	CASEMENT ROTOR GEAR	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
41	SCREW NO 8, PHP, .750"	STEEL
42	MACHINE SCREW NO 10-32, FHP .75"	STEEL
43	SCREW NO 10, UFHP .5"	STEEL
44	SCREW NO 8, PHP, .50"	STEEL
46	SCREW NO 8, FHP, .750"	STEEL
48	BACK UP NUTS	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
57	PIVOT SHIM	-



**G1 GLAZING DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 2, 2a

PART OR ASSEMBLY: COMPONENTS & GLAZING DETAILS

NO.	DATE	BY	REVISIONS

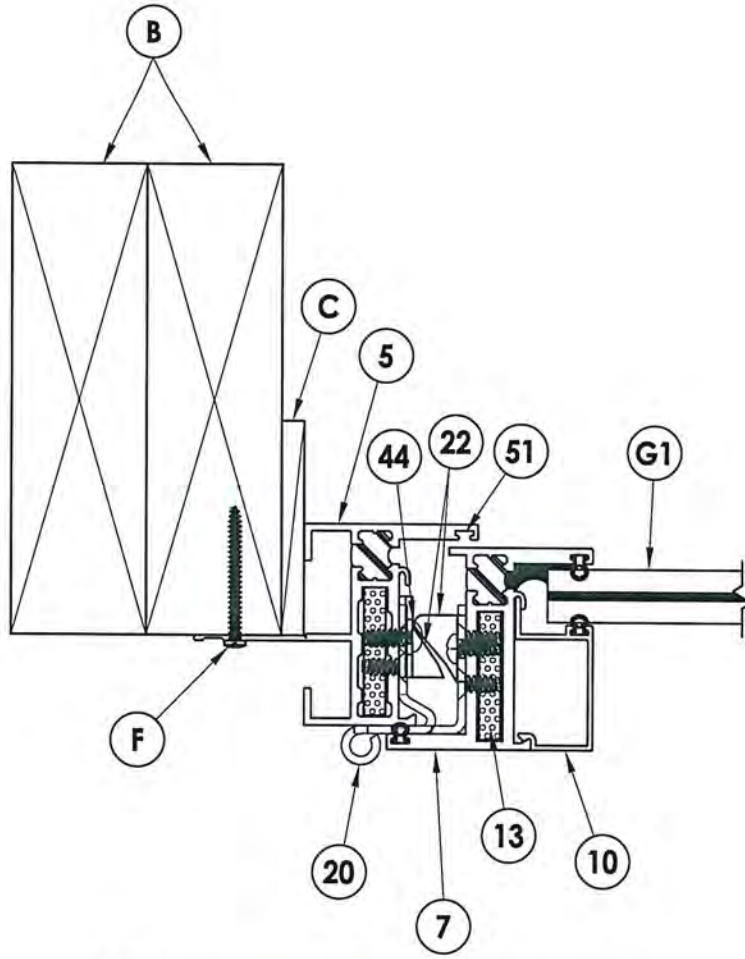
**RW** BUILDING CONSULTANTS, INC.  
 813.659.9197

DATE: 10/19/21  
 SCALE: N.T.S.  
 DWG. BY: LFS  
 CHK. BY: RW  
 DRAWING NO.: L-9485  
 SHEET 9 of 9





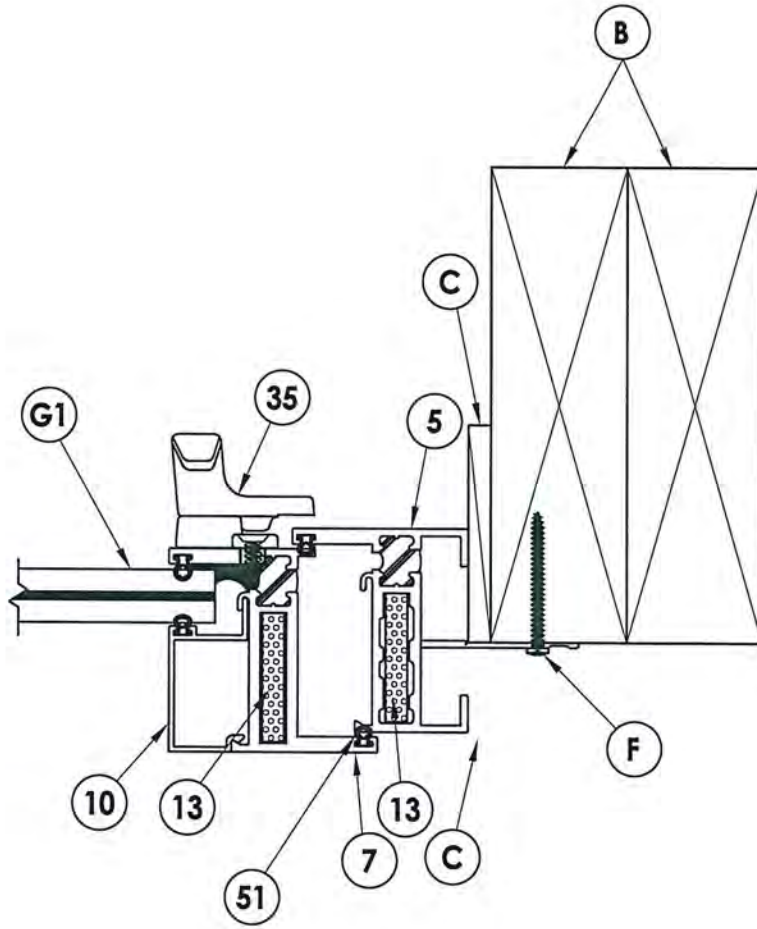




**1** HORIZONTAL CROSS SECTION  
**3**


Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 3, 3a	
PART OR ASSEMBLY:		CROSS SECTION	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9486			
SHEET 3 OF 9			



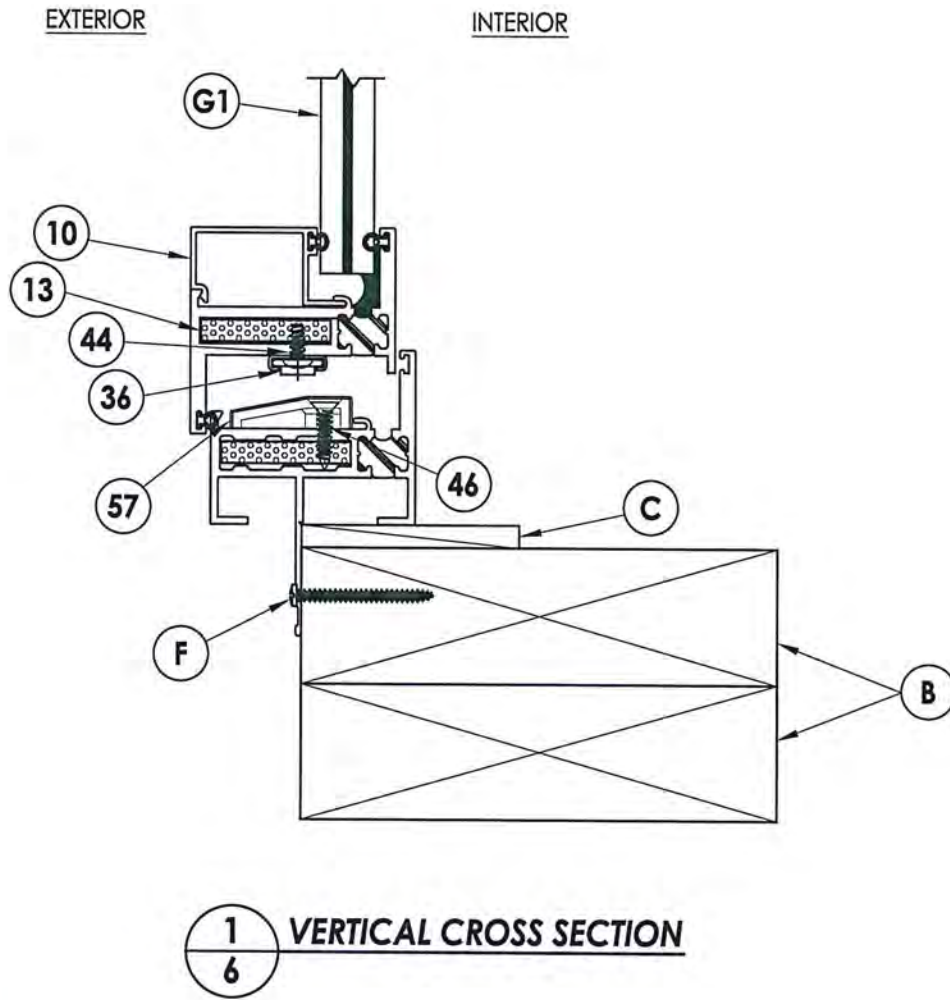
**1**  
**4** **HORIZONTAL CROSS SECTION**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 3, 3a		PART OR ASSEMBLY: CROSS SECTION	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9486			
SHEET 4 OF 9			

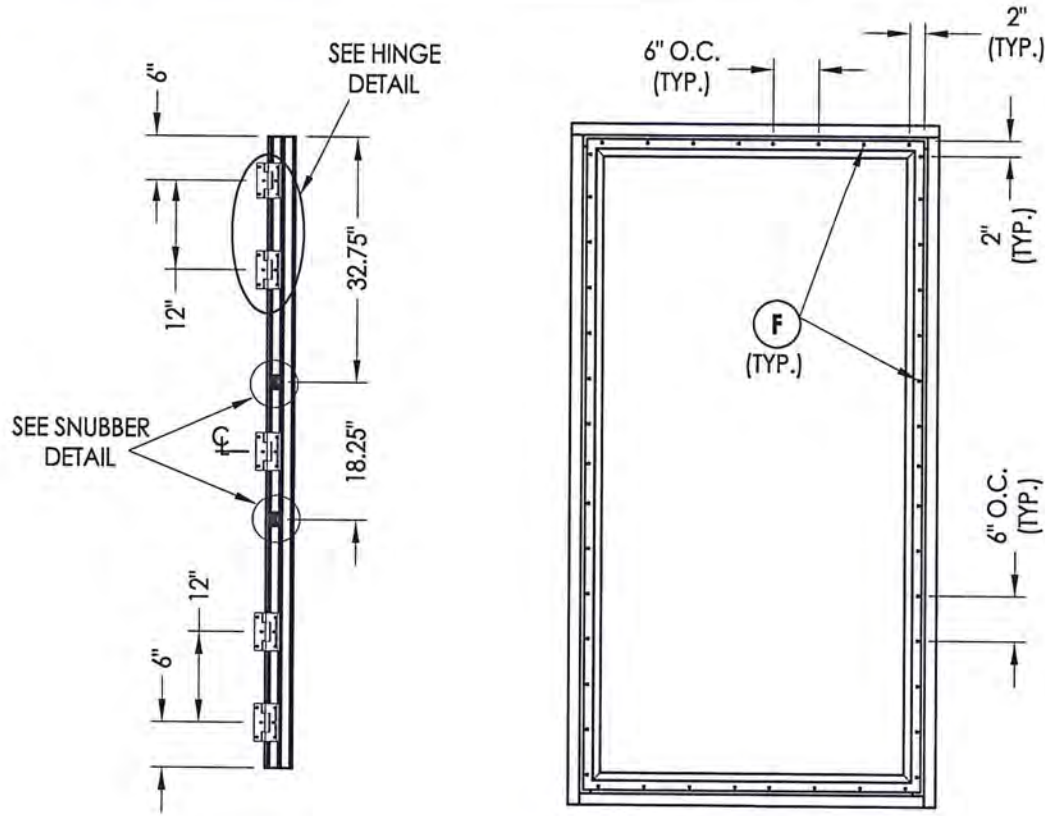






Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

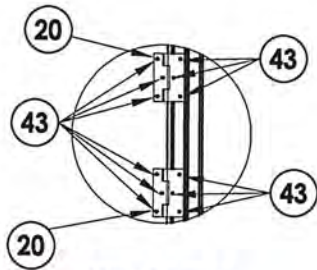
PRODUCT:		FLEETWOOD SPEC. 3, 3a	
PART OR ASSEMBLY:		CROSS SECTION	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.:			
L-9486			
SHEET 6 OF 9			



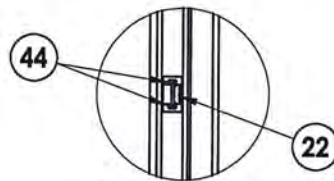
**HINGE JAMB**

**FRAME ANCHORING  
2X TEST BUCK**

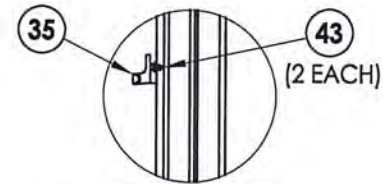
**LOCK JAMB  
CAM LOCKING POINTS (4)**



**HINGE DETAIL**



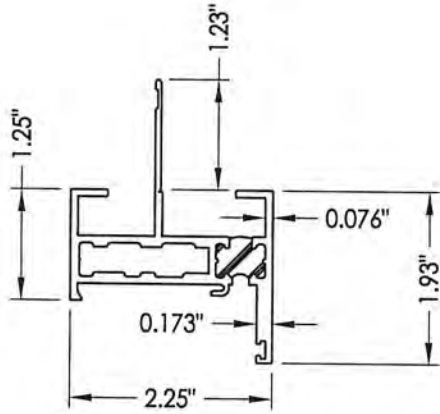
**SNUBBER DETAIL**



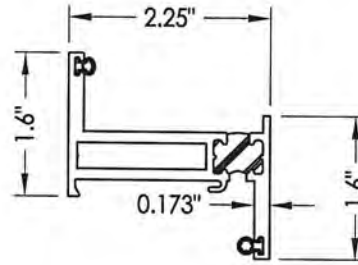
**CAM LOCK DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

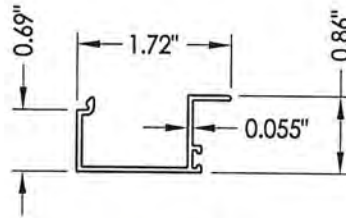
PRODUCT: FLEETWOOD SPEC. 3, 3a		PART OR ASSEMBLY: FRAME ANCHORING	
NO.		DATE	BY
REVISIONS			
		DATE: 10/19/21	
		SCALE: N.T.S.	
		DWG. BY: LFS	
		CHK. BY: RW	
		DRAWING NO.: L-9486	
SHEET 7 OF 9			



**5** **BLOCK FRAME**  
5278C1



**7** **ZEE BAR (PANEL)**  
H006733



**10** **GLASS STOP 9/16"**  
007930

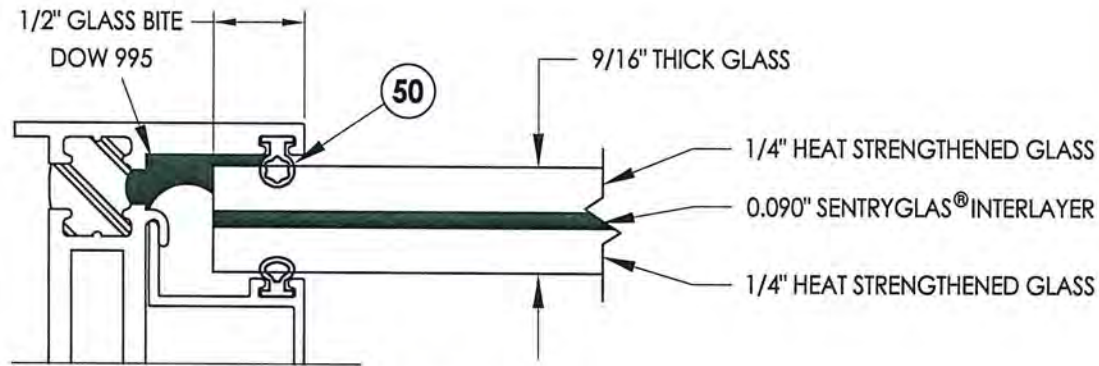
Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 3, 3a	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.:			
L-9486			
SHEET 8 OF 9			



**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#8 X 1-1/2" PPH SMS	STEEL
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
10	GLASS STOP 9/16"	6063-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
20	SS. BUTT HINGE	SS
22	SNUBBER-COMMERCIAL PULL-IN BLOCK	SS
35	CAM HANDLE / STRIKE PLATE	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
43	SCREW NO 10 , UFHP 0.5"	STEEL
44	SCREW NO 8, PHP, 0.5"	STEEL
46	SCREW NO 8, FHP, 0.75"	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
57	PIVOT SHIM	-



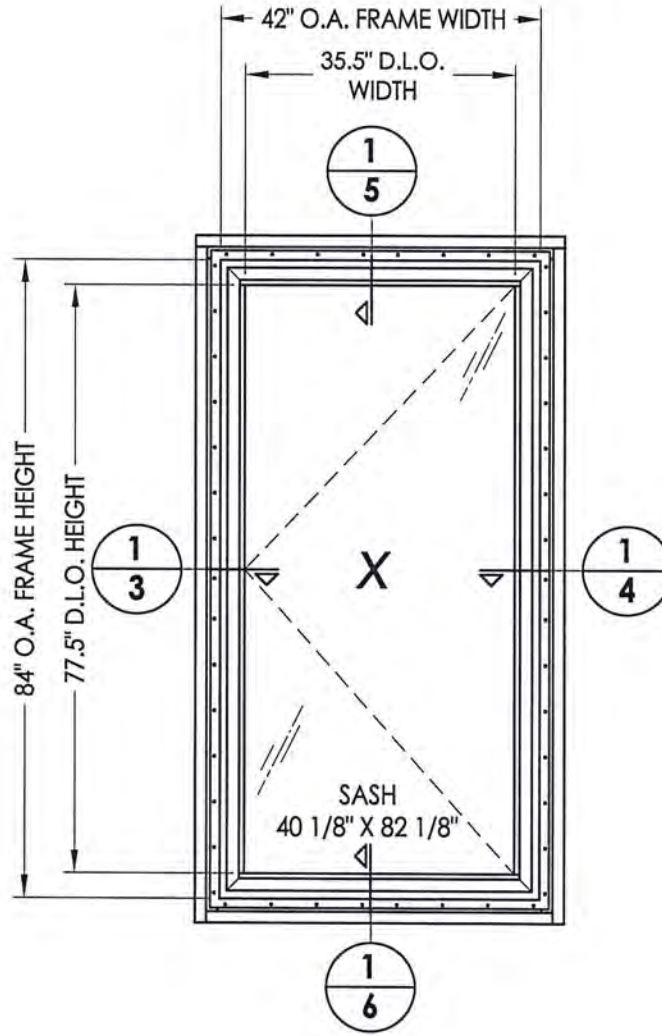
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

**G1** **GLAZING DETAIL**

PRODUCT:		FLEETWOOD SPEC. 3, 3a	
PART OR ASSEMBLY:		COMPONENTS & GLAZING DETAILS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9486			
SHEET 9 OF 9			







Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

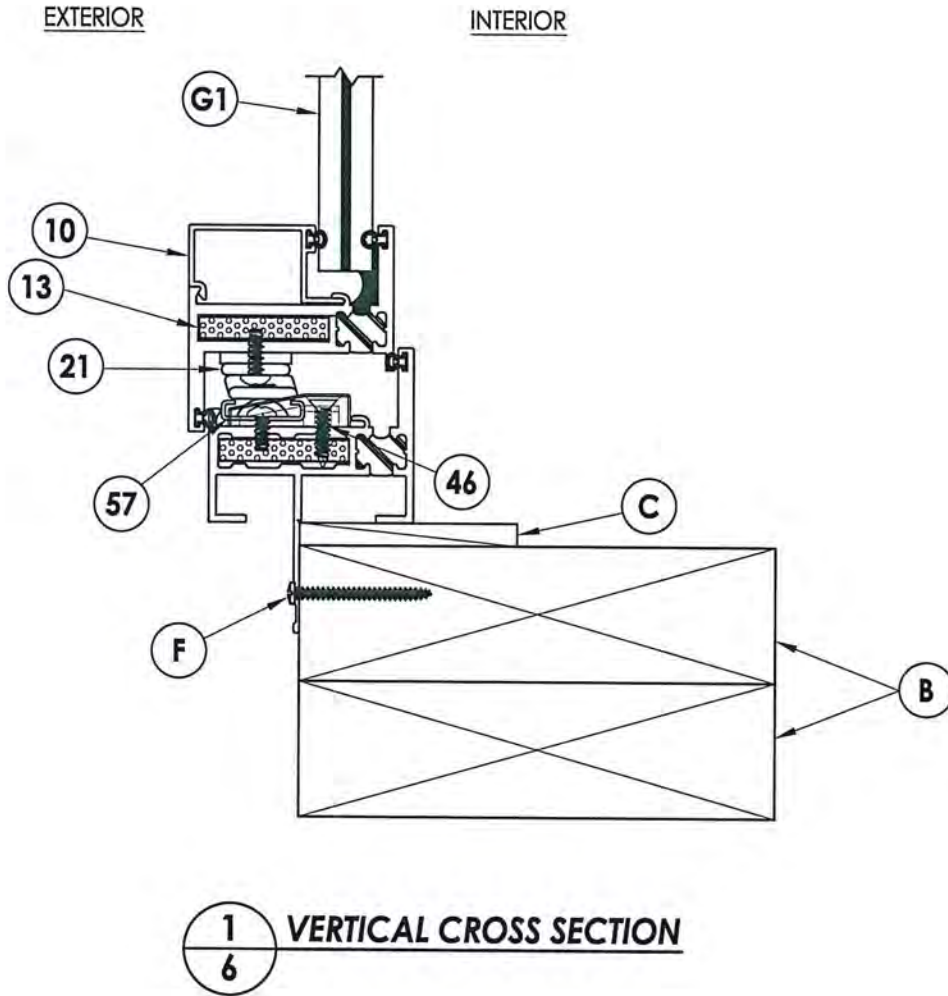
PRODUCT: FLEETWOOD SPEC. 3b, 3c		PART OR ASSEMBLY: TEST ELEVATIONS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9487			
SHEET <u>2</u> OF <u>9</u>			





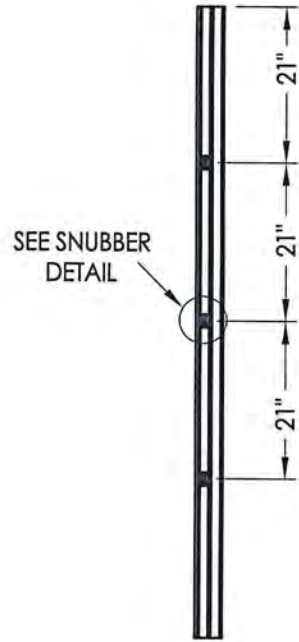




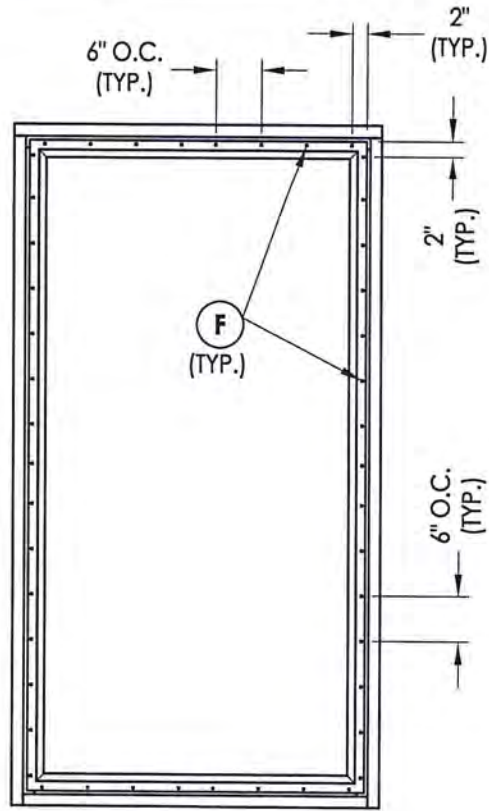


Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

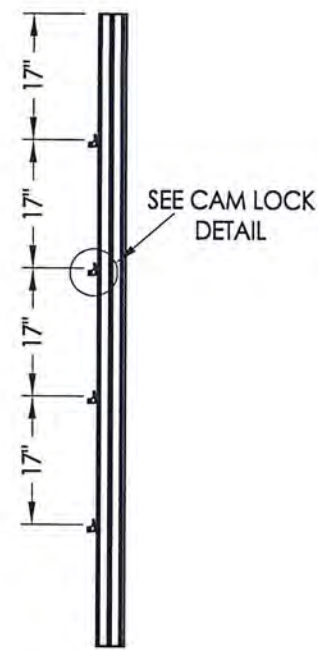
PRODUCT:		FLEETWOOD SPEC. 3b, 3c	
PART OR ASSEMBLY:		CROSS SECTION	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9487			
SHEET 6 OF 9			



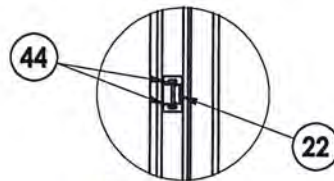
**SNUBBERS JAMB**



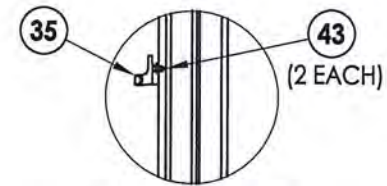
**FRAME ANCHORING**  
2X TEST BUCK



**LOCK JAMB**  
CAM LOCKING POINTS (4)



**SNUBBER DETAIL**

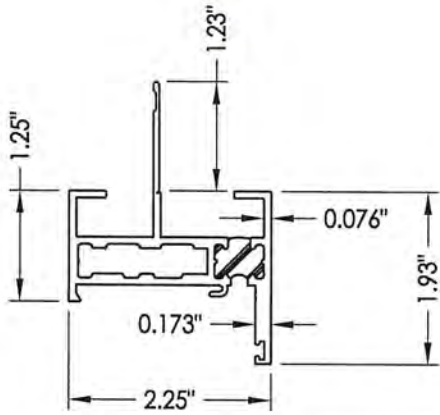


**CAM LOCK DETAIL**

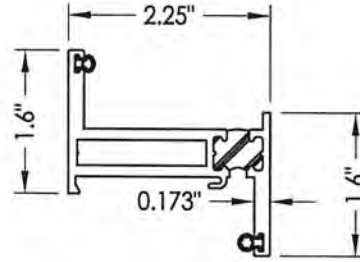
Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 3b, 3c		PART OR ASSEMBLY: FRAME ANCHORING	
			BY
			REVISIONS
			DATE
		NO.	
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9487			
SHEET 7 OF 9			

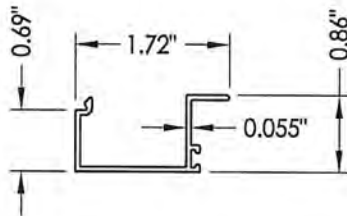




**5** **BLOCK FRAME**  
5278C1



**7** **ZEE BAR (PANEL)**  
H006733



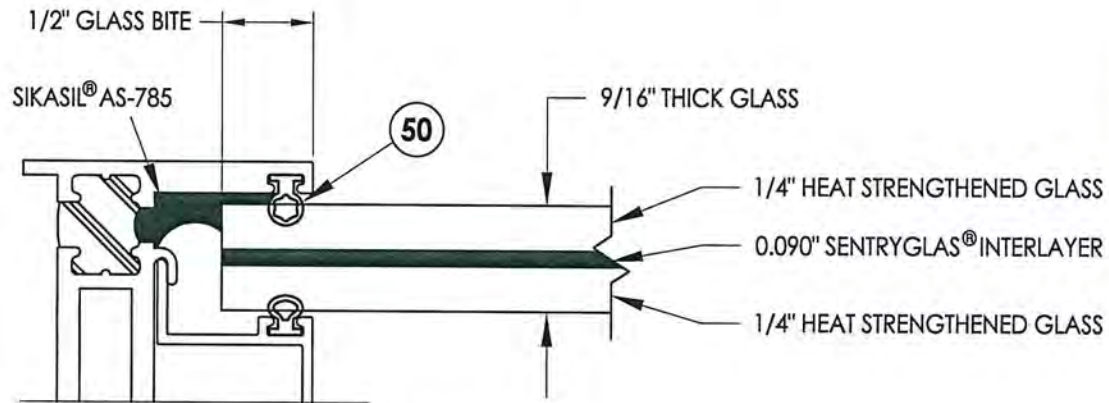
**10** **GLASS STOP 9/16"**  
007930

Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 3b, 3c	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-9487			
SHEET 8 OF 9			

**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#8 X 1-1/2" PPH SMS	STEEL
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
10	GLASS STOP 9/16"	6063-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
21	4 BAR HINGE	SS
22	SNUBBER-COMMERCIAL PULL-IN BLOCK	SS
35	CAM HANDLE / STRIKE PLATE	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
43	SCREW NO 10 , UFHP 0.5"	STEEL
44	SCREW NO 8, PHP, 0.5"	STEEL
46	SCREW NO 8, FHP, 0.75"	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
57	PIVOT SHIM	-

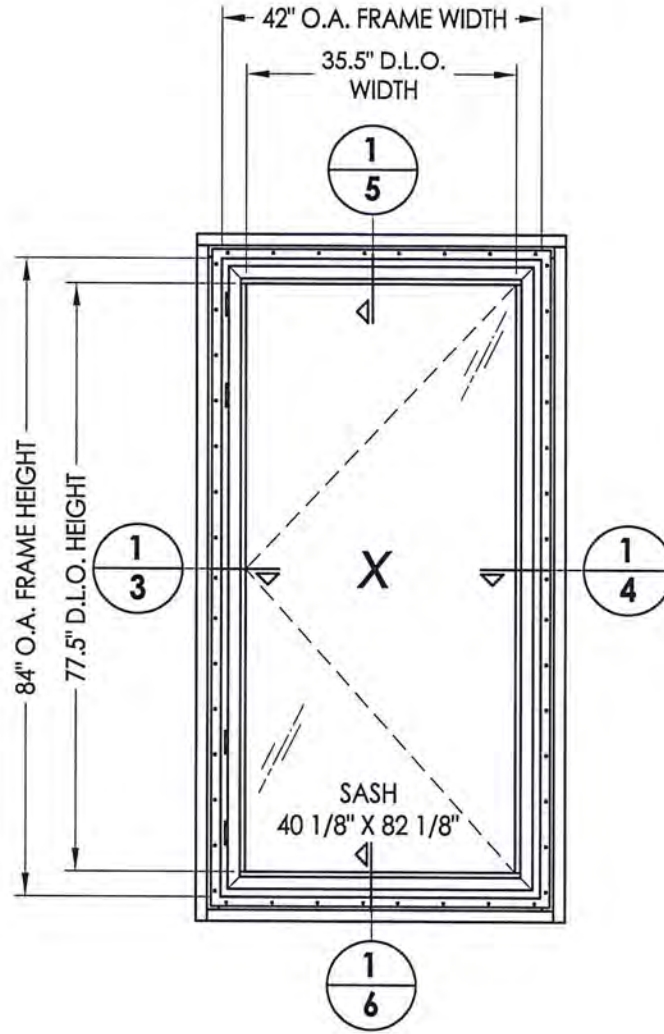


**G1 GLAZING DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 3b, 3c		PART OR ASSEMBLY: COMPONENTS & GLAZING DETAILS	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9487			
SHEET 9 of 9			





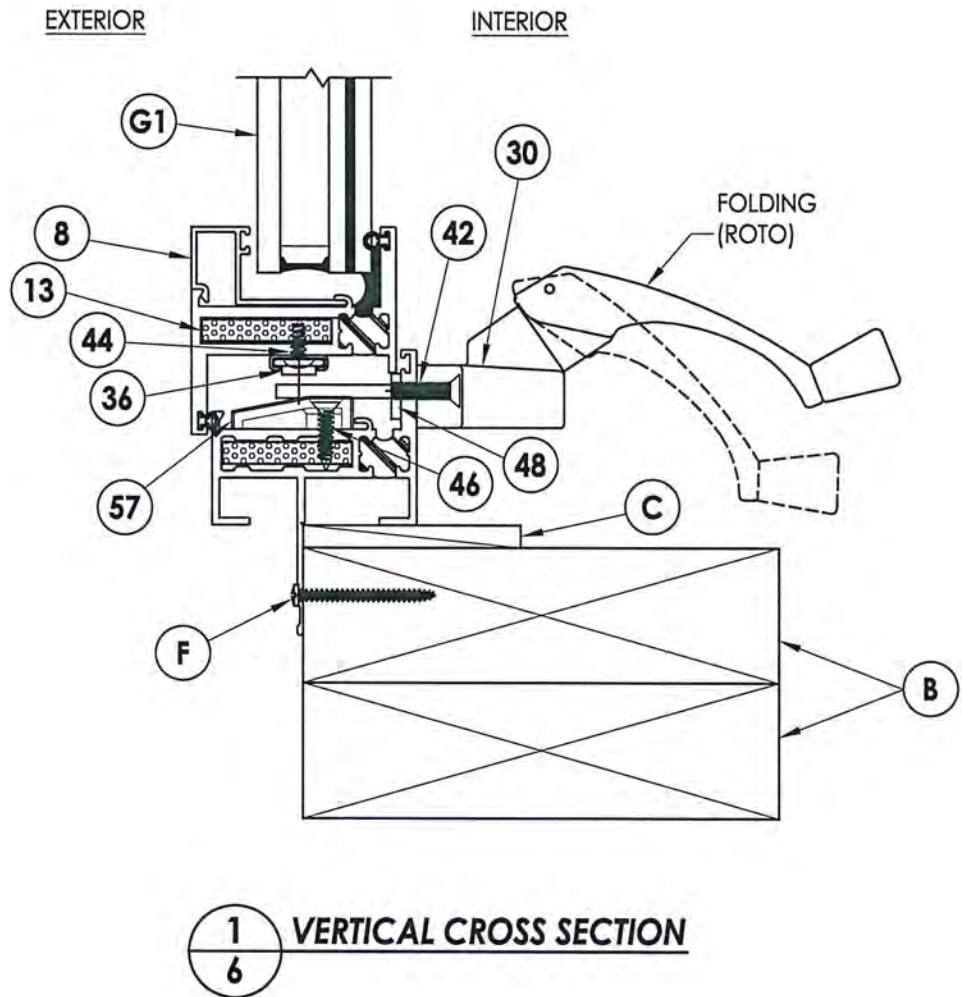
Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW









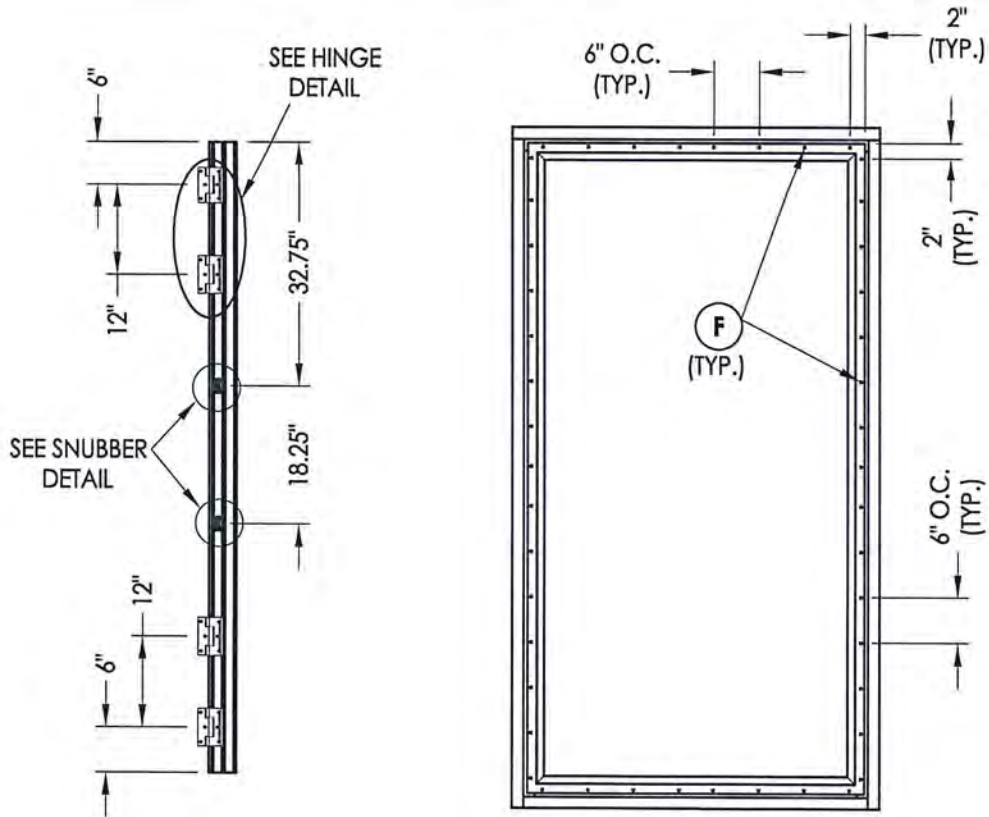


**1** VERTICAL CROSS SECTION  
**6**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 4, 4a		PART OR ASSEMBLY: CROSS SECTION	
NO.	DATE	REVISIONS	BY
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9488			
SHEET <u>6</u> OF <u>9</u>			

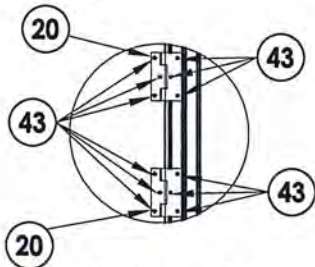




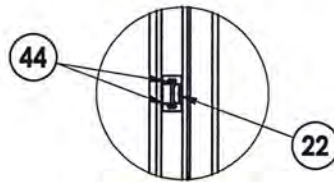
**HINGE JAMB**

**FRAME ANCHORING  
2X TEST BUCK**

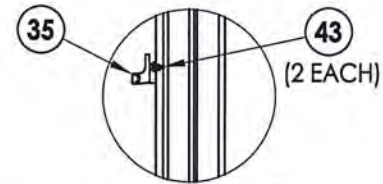
**LOCK JAMB  
CAM LOCKING POINTS (4)**



**HINGE DETAIL**



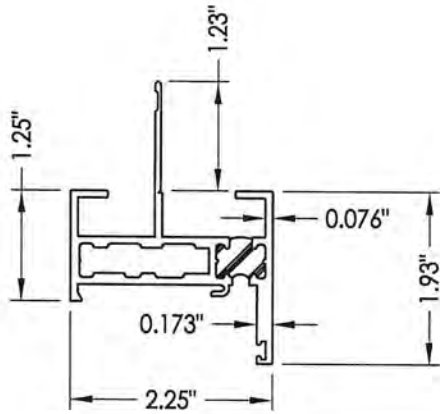
**SNUBBER DETAIL**



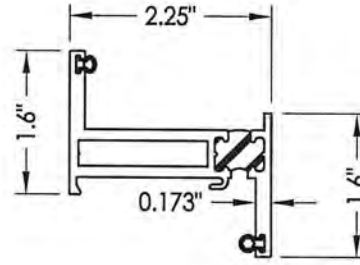
**CAM LOCK DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

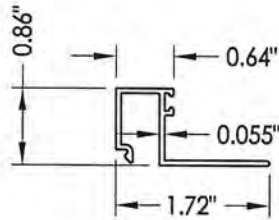
PRODUCT: FLEETWOOD SPEC. 4, 4d		PART OR ASSEMBLY: FRAME ANCHORING	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9488			
SHEET 7 OF 9			



**5** **BLOCK FRAME**  
5278C1



**7** **ZEE BAR (PANEL)**  
H006733



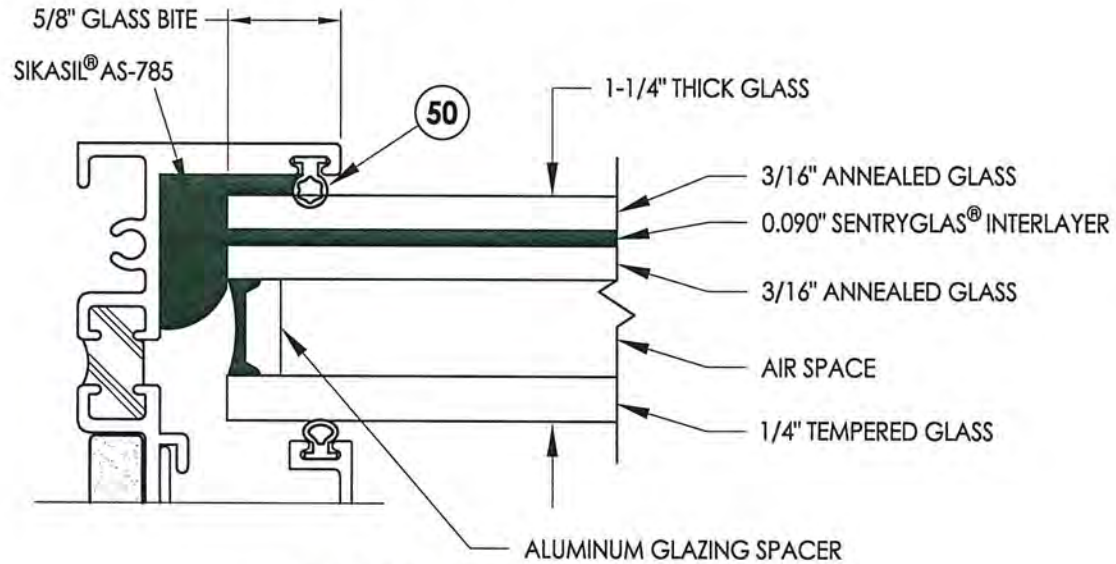
**8** **GLASS STOP 1-1/4"**  
901487

Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 4, 4a	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.:			
L-9488			
SHEET 8 OF 9			

**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#8 X 1-1/2" PPH SMS	STEEL
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
8	GLASS STOP 1-1/4"	6063-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
20	SS. BUTT HINGE	SS
22	SNUBBER-COMMERCIAL PULL-IN BLOCK	SS
30	CASEMENT ROTOR GEAR	SS
35	CAM HANDLE / STRIKE PLATE	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
42	MACHINE SCREW NO 10-32, FHP 0.75"	STEEL
43	SCREW NO 10, UFHP 0.5"	STEEL
44	SCREW NO 8, PHP, 0.5"	STEEL
46	SCREW NO 8, FHP, 0.75"	STEEL
48	BACK UP NUTS	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
57	PIVOT SHIM	-



**G1 GLAZING DETAIL**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

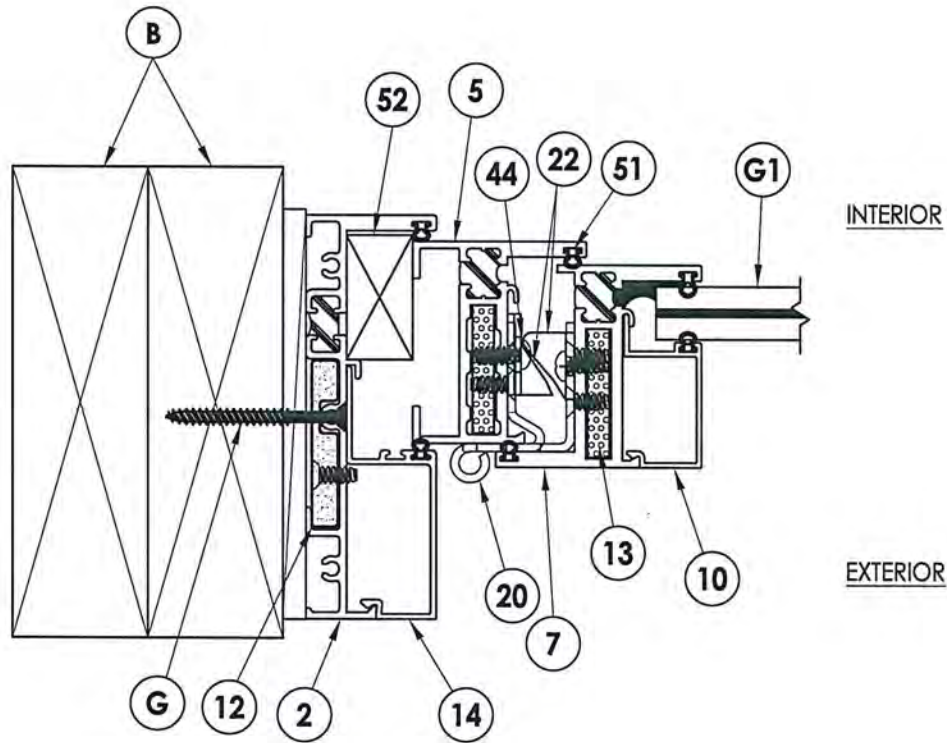
PRODUCT: FLEETWOOD SPEC. 4, 4a		PART OR ASSEMBLY: COMPONENTS & GLAZING DETAILS	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9488			
SHEET 9 OF 9			








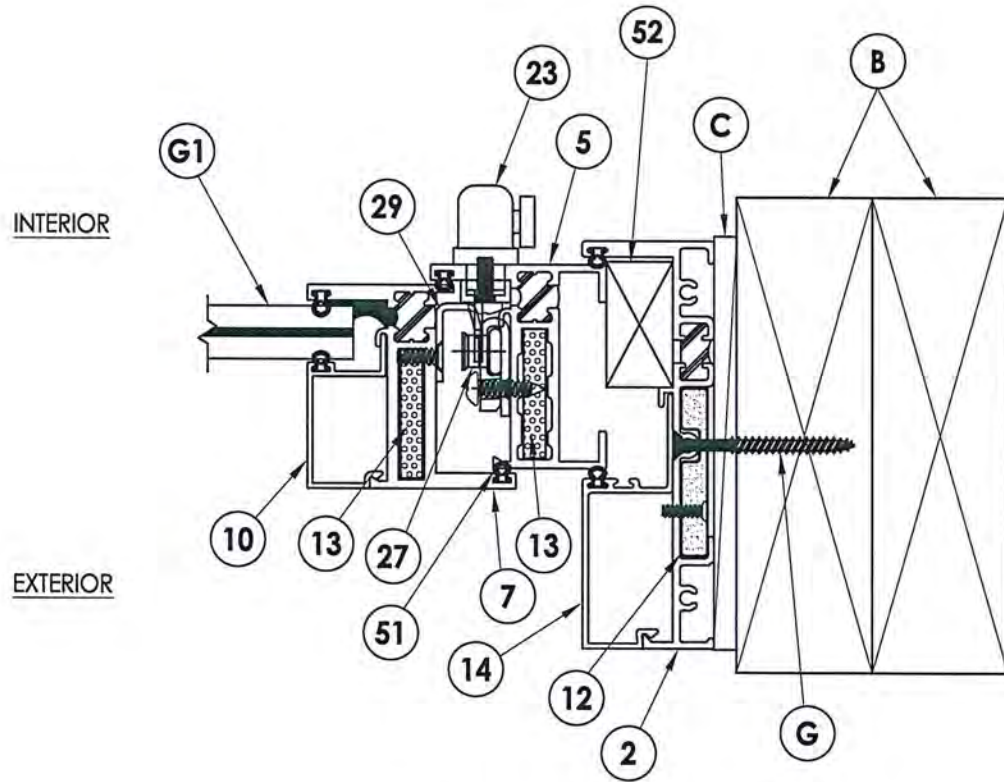




**1** HORIZONTAL CROSS SECTION  
**3**

Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 5, 5a		PART OR ASSEMBLY: HORIZONTAL CROSS SECTION	
NO.	DATE	REVISIONS	BY
			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9489			
SHEET 3 OF 11			

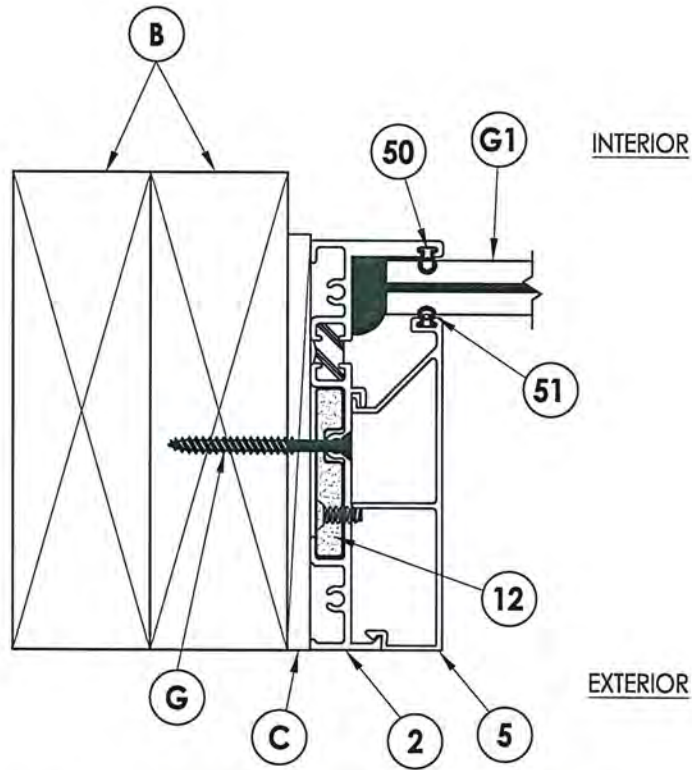


**1**  
**4** HORIZONTAL CROSS SECTION

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 5, 5a		PART OR ASSEMBLY: HORIZONTAL CROSS SECTION	
NO.	DATE	REVISIONS	BY
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9489			
SHEET 4 OF 11			



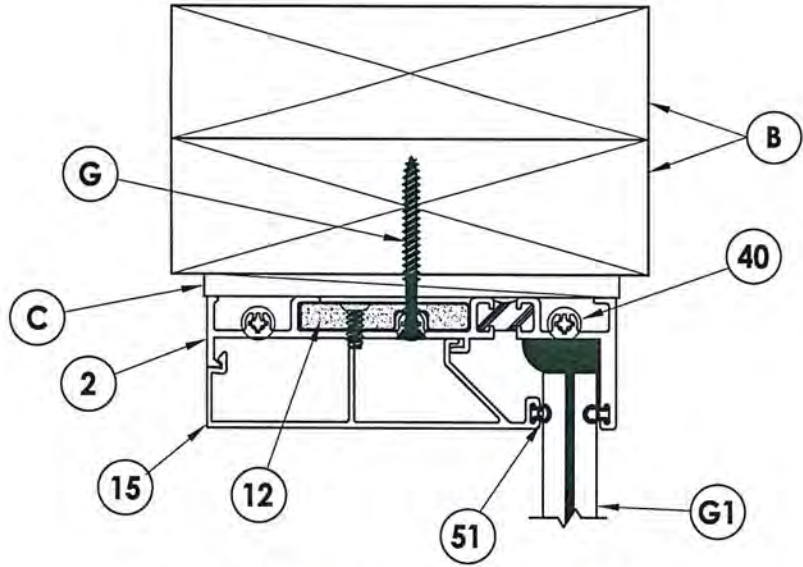


**1**  
**5** **HORIZONTAL CROSS SECTION**

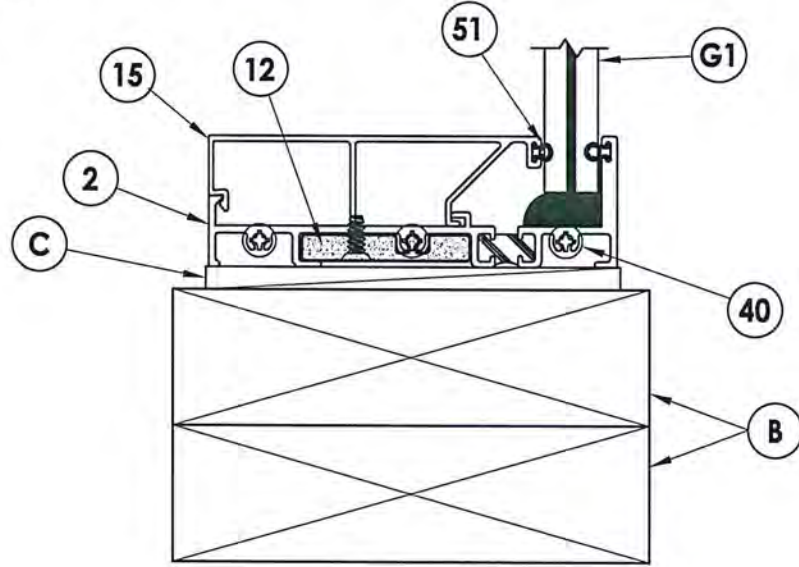
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 5, 5a		PART OR ASSEMBLY: HORIZONTAL CROSS SECTION	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9489			
SHEET 5 OF 11			





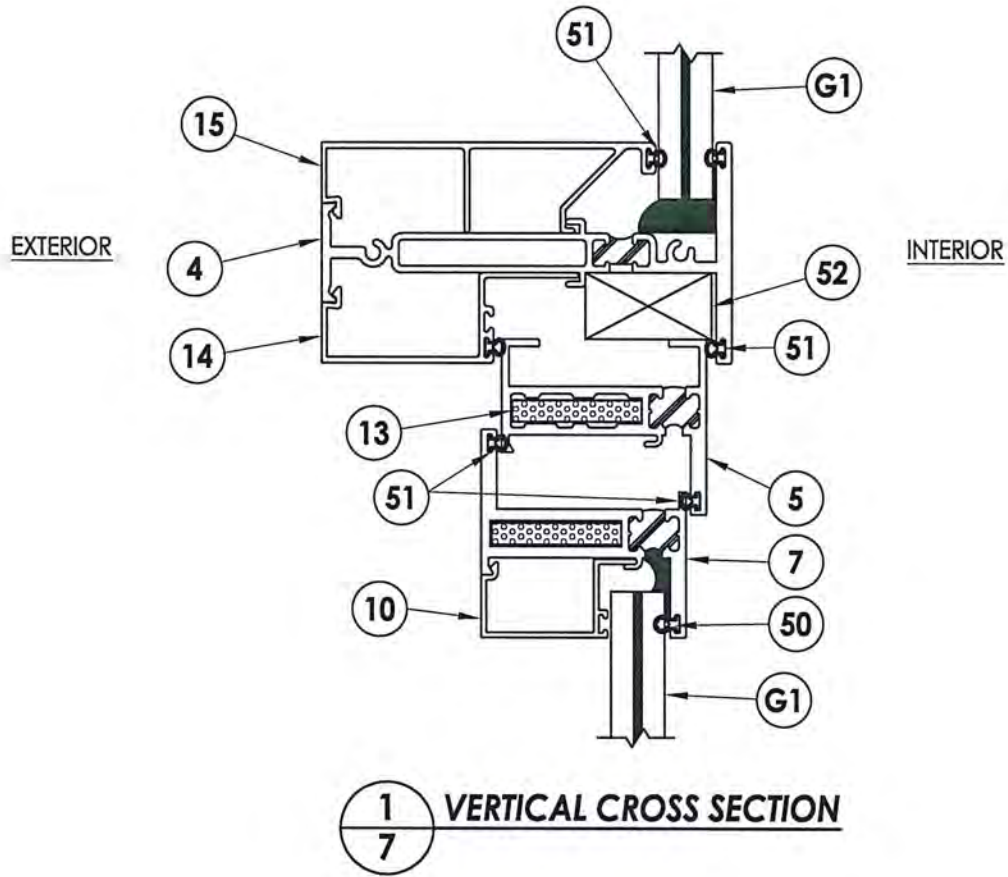
**1**  
**6** VERTICAL CROSS SECTION



**2**  
**6** VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 5, 5a	
PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9489			
SHEET 6 OF 11			

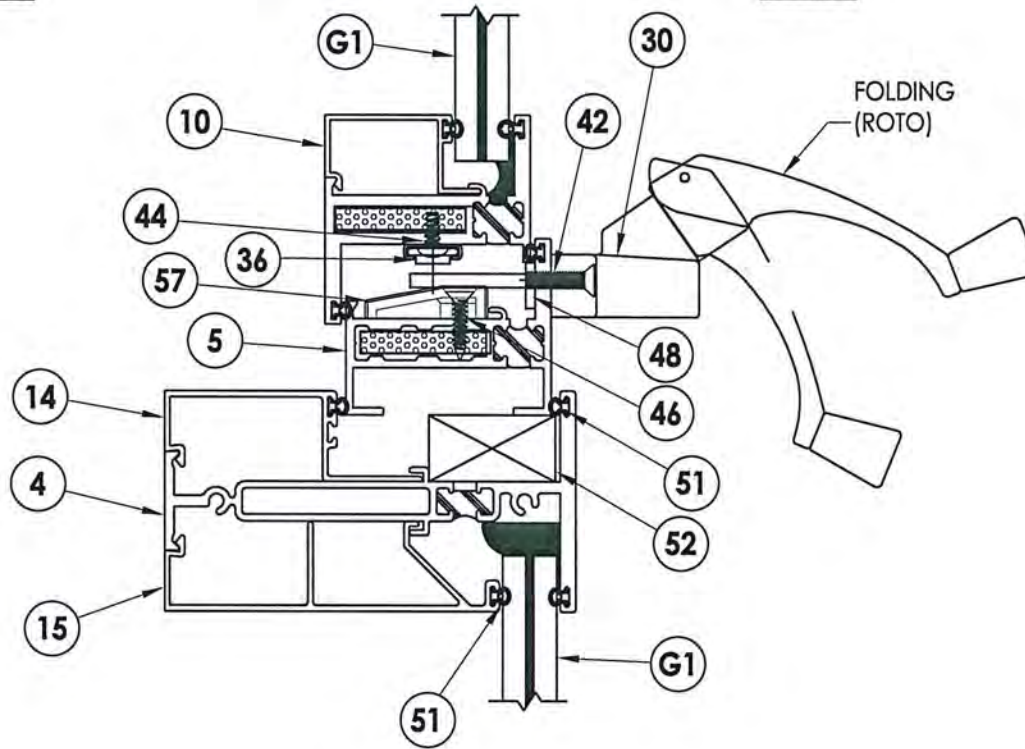


Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

<b>PRODUCT:</b>	FLEETWOOD SPEC. 5, 5a		
<b>PART OR ASSEMBLY:</b>	VERTICAL CROSS SECTION		
			BY
			REVISIONS
		NO.	DATE
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.:			
L-9489			
SHEET <u>7</u> OF <u>11</u>			

EXTERIOR

INTERIOR

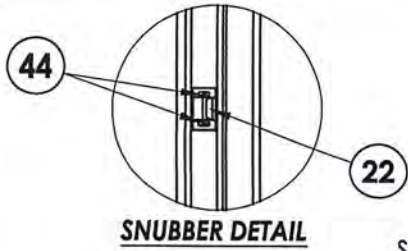


**1** VERTICAL CROSS SECTION  
**8**

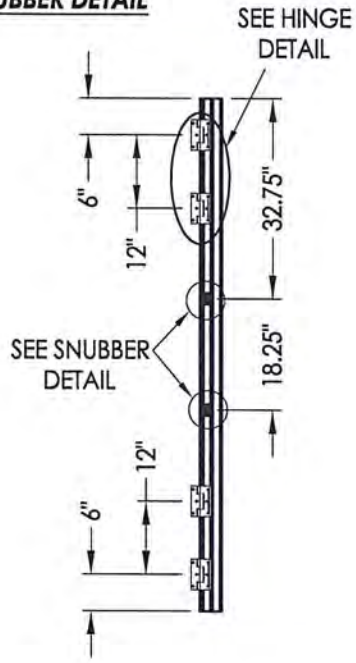
Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 5, 5a		PART OR ASSEMBLY: VERTICAL CROSS SECTION	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9489			
SHEET 8 OF 11			

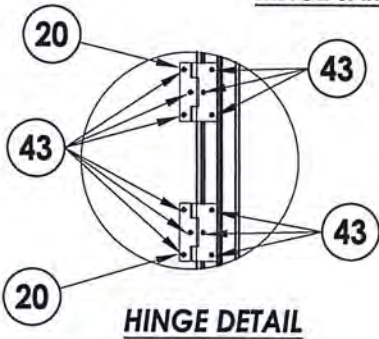




**SNUBBER DETAIL**

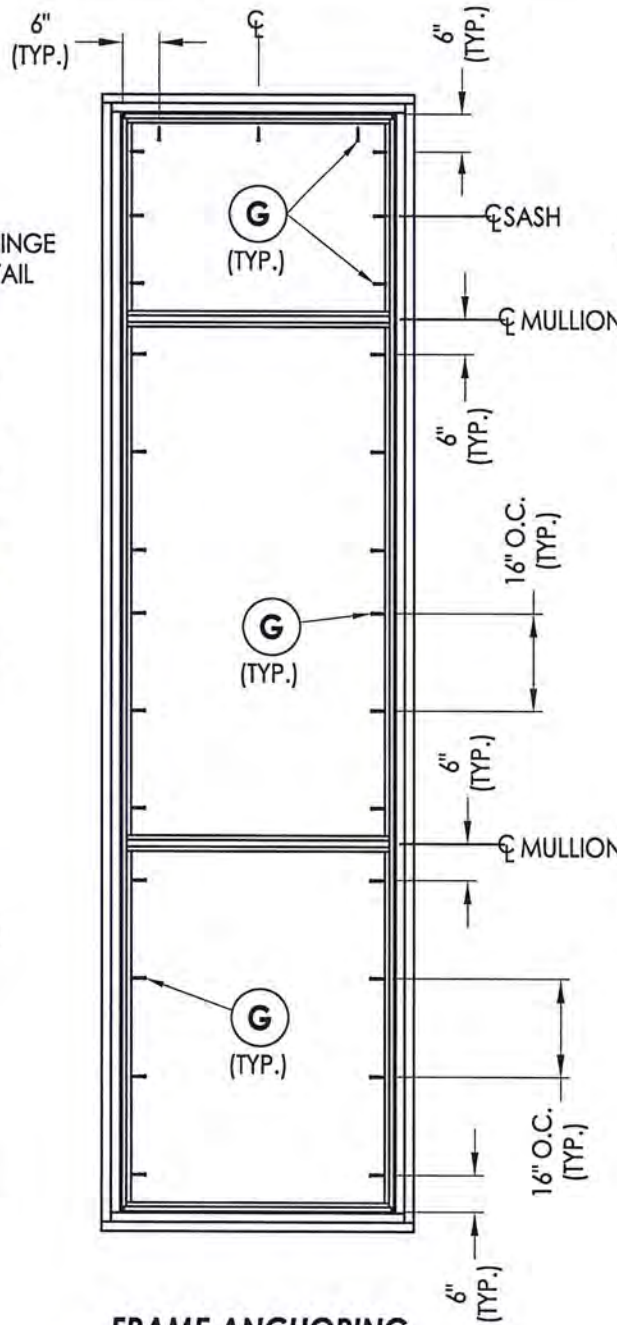


**HINGE JAMB**

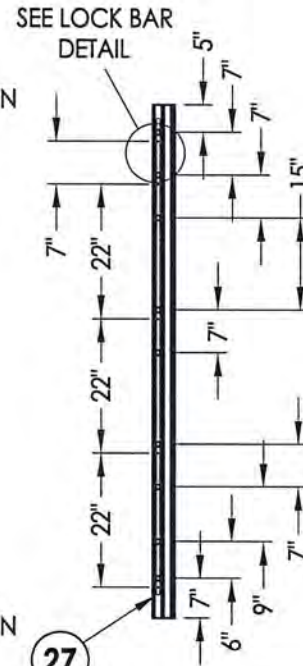


**HINGE DETAIL**

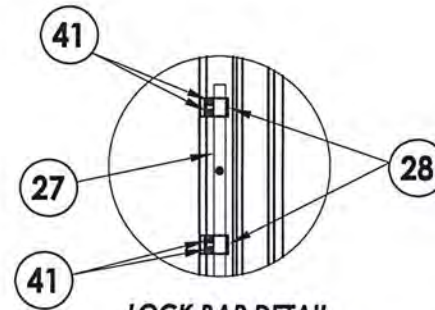
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW



**FRAME ANCHORING**  
 2X TEST BUCK



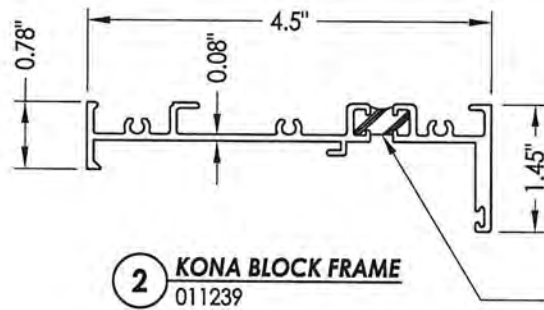
**LOCK JAMB**  
 LOCKING POINTS (5)



**LOCK BAR DETAIL**

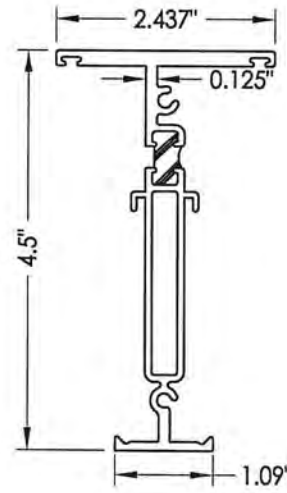
PRODUCT:		FLEETWOOD SPEC. 5, 5a	
PART OR ASSEMBLY:		TEST ELEVATIONS	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9489			
SHEET 9 OF 11			



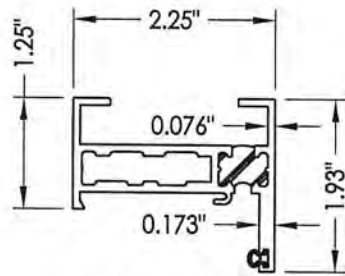


**2 KONA BLOCK FRAME**  
011239

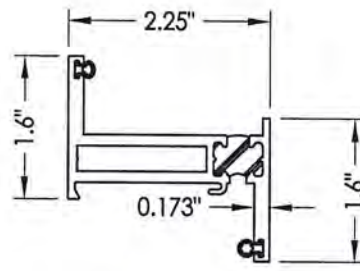
THERMAL BREAK  
(LIQUID POLYURETHANE)  
BY AZON  
(TYP.)



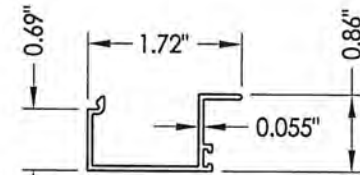
**4 MULLION**  
H011241



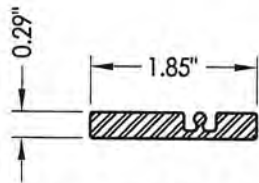
**5 BLOCK FRAME**  
5278C1



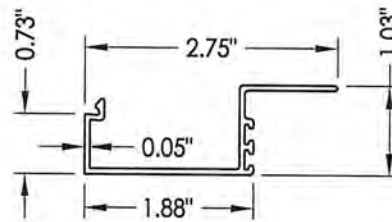
**7 ZEE BAR (PANEL)**  
H006733



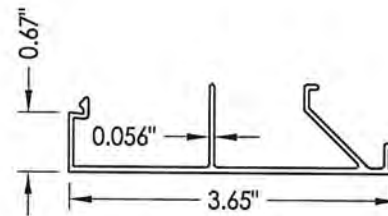
**10 GLASS STOP 9/16\"**  
007930



**12 SHEAR BLOCK**



**14 INSERT STOP**

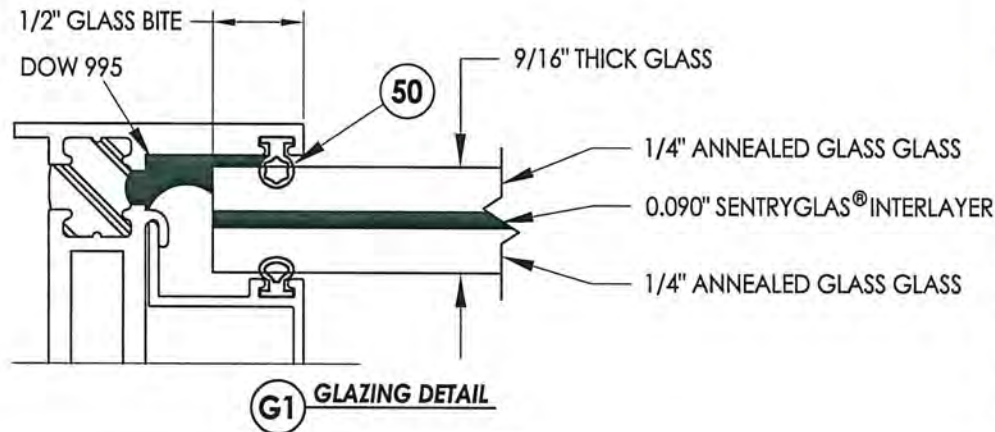


**15 GLASS STOP 9/16\"**

PRODUCT:		FLEETWOOD SPEC. 5, 5a	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-9489			
SHEET 10 OF 11			

Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
G	#10 X 2" PFH WOOD SCREW	STEEL
2	KONA BLOCK FRAME	6063-T6 ALUM
4	MULLION	6063-T6 ALUM
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
10	GLASS STOP 9/16"	6063-T6 ALUM
12	SHEAR BLOCK	6061-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
14	INSERT STOP	6063-T6 ALUM
15	GLASS STOP 9/16"	6063-T6 ALUM
20	SS. BUTT HINGE	SS
22	SNUBBER-COMMERCIAL PULL-IN BLOCK	SS
23	MULTIPOINT LOCK HANDLE	SS
27	5 POINTS LOCKING BAR	SS
28	TIE BAR GUIDE	-
29	KEEPER	SS
30	CASEMENT ROTOR GEAR	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
41	SCREW NO 8, PHP, .750"	STEEL
42	MACHINE SCREW NO 10-32, FHP .75"	STEEL
43	SCREW NO 10, UFHP .5"	STEEL
44	SCREW NO 8, PHP, .50"	STEEL
46	SCREW NO 8, FHP, .750"	STEEL
48	BACK UP NUTS	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
52	WOOD BLOCK (3/4" X 1-1/4")	-
57	PIVOT SHIM	-



Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

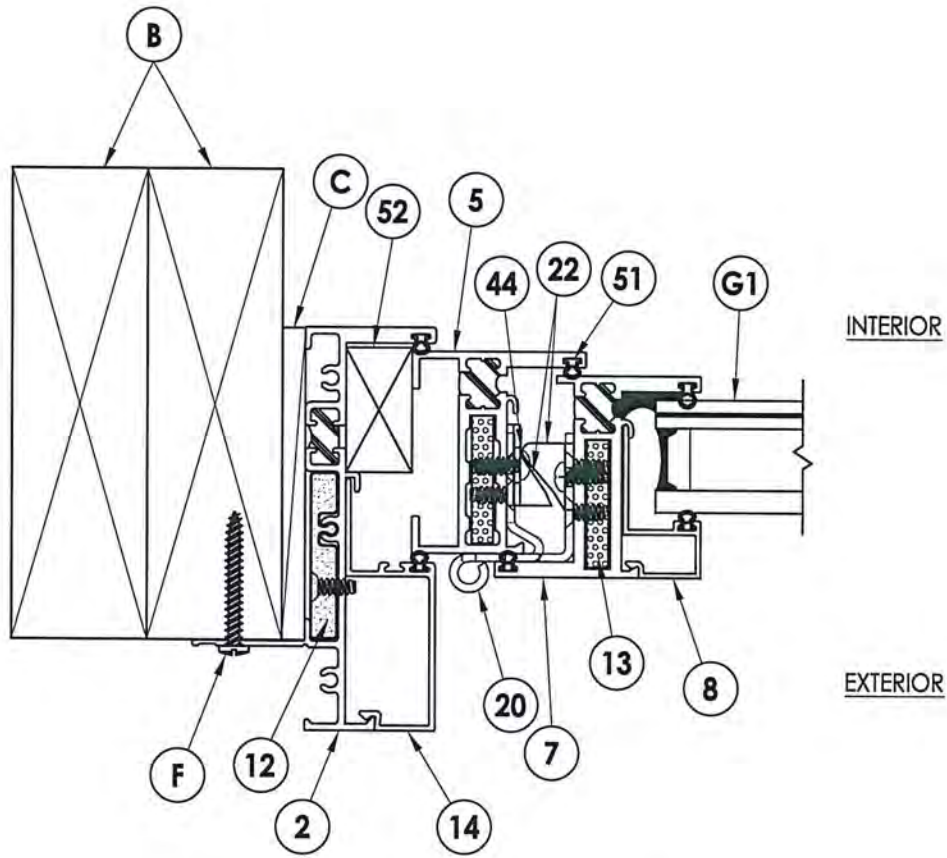
PRODUCT:	FLEETWOOD SPEC. 5, 5a	
	PART OR ASSEMBLY:	
NO.	COMMENTS & GLAZING DETAILS	
	DATE	BY
REVISIONS		
DATE: 10/19/21		
SCALE: N.T.S.		
DWG. BY: LFS		
CHK. BY: RW		
DRAWING NO.: L-9489		
SHEET 11 OF 11		








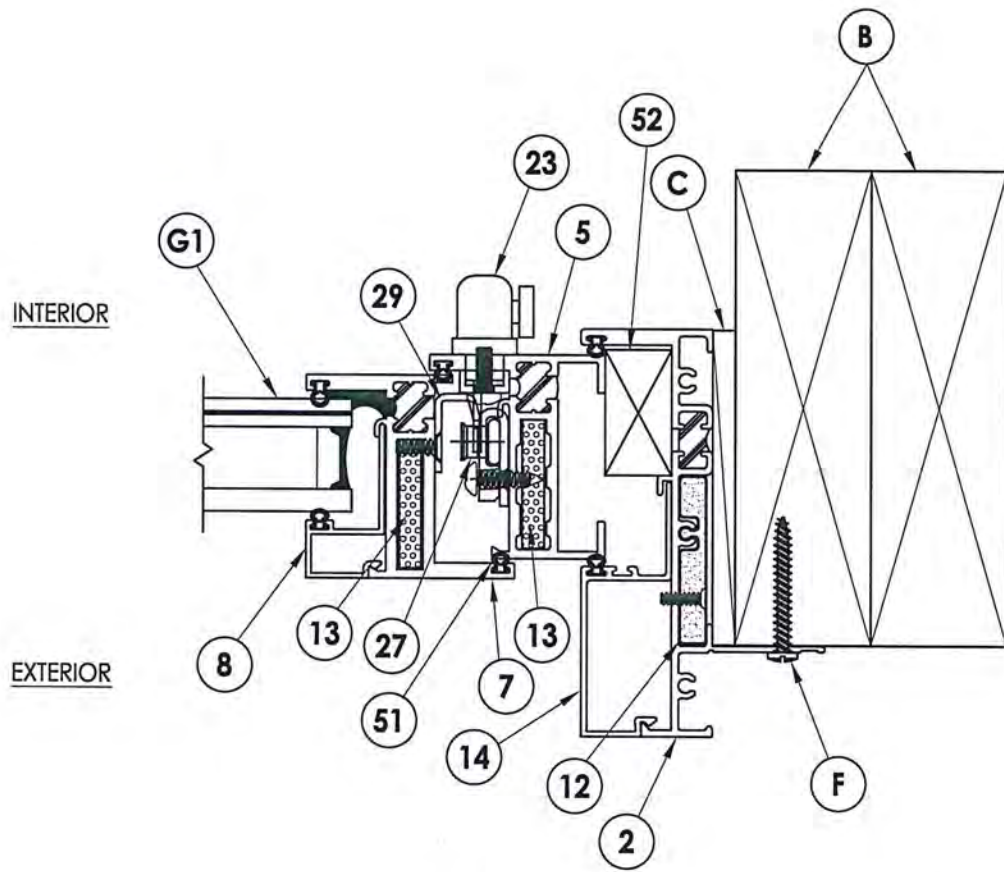




**1**  
**3** HORIZONTAL CROSS SECTION


Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

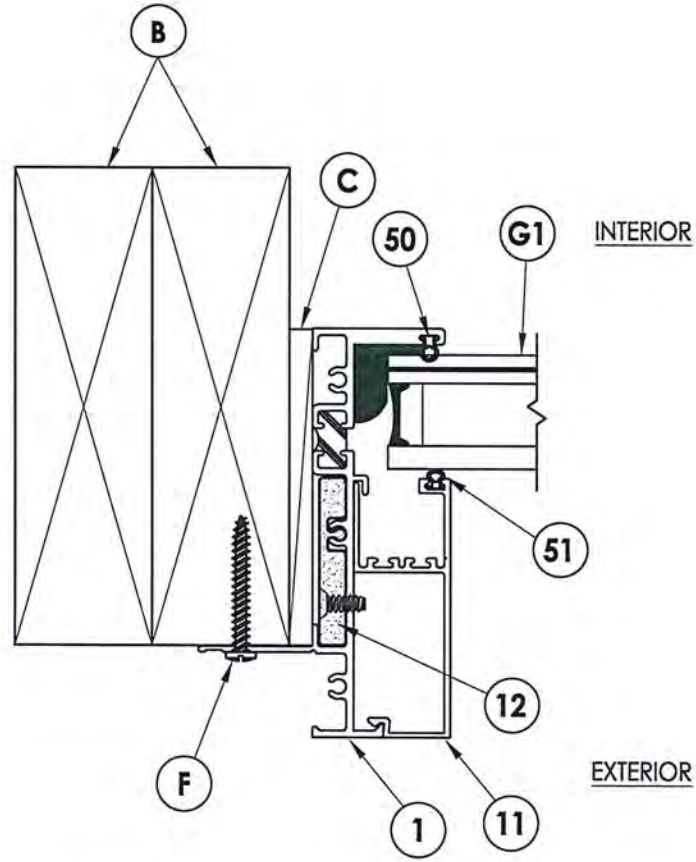
PRODUCT: FLEETWOOD SPEC. 6, 6a		PART OR ASSEMBLY: HORIZONTAL CROSS SECTION	
NO.	DATE	REVISIONS	BY
			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET 3 OF 11			



**1**  
**4** HORIZONTAL CROSS SECTION

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 6, 6a		PART OR ASSEMBLY: HORIZONTAL CROSS SECTION	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET 4 OF 11			

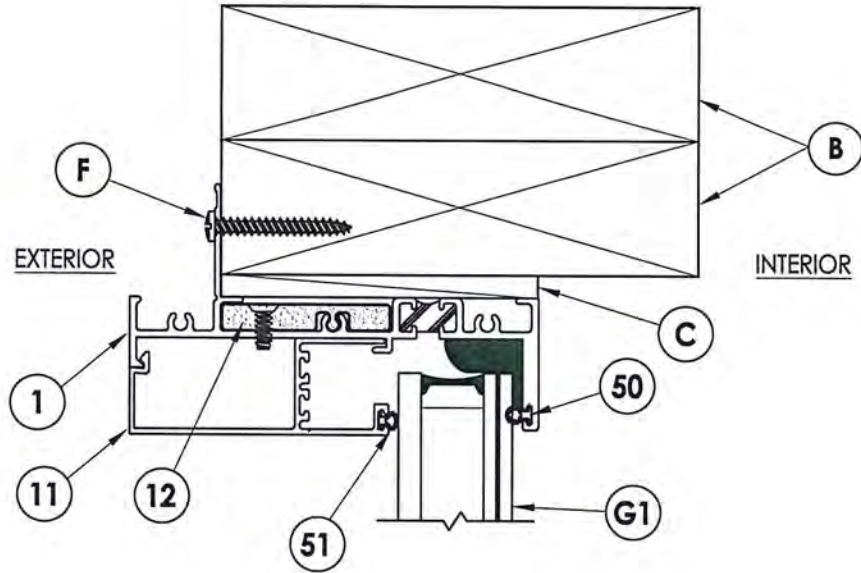


**1** HORIZONTAL CROSS SECTION  
**5**

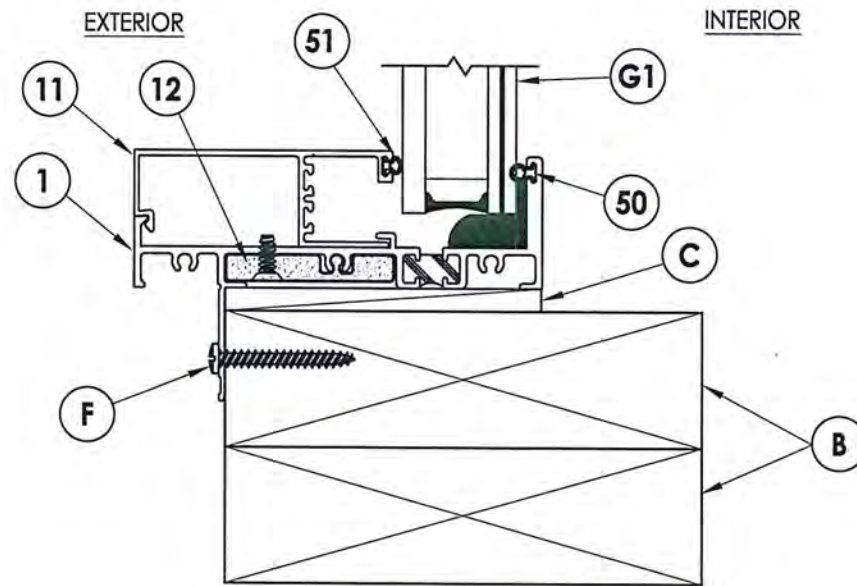
Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 6, 6a		PART OR ASSEMBLY: HORIZONTAL CROSS SECTION	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET <u>5</u> OF <u>11</u>			





**1**  
**6** **VERTICAL CROSS SECTION**

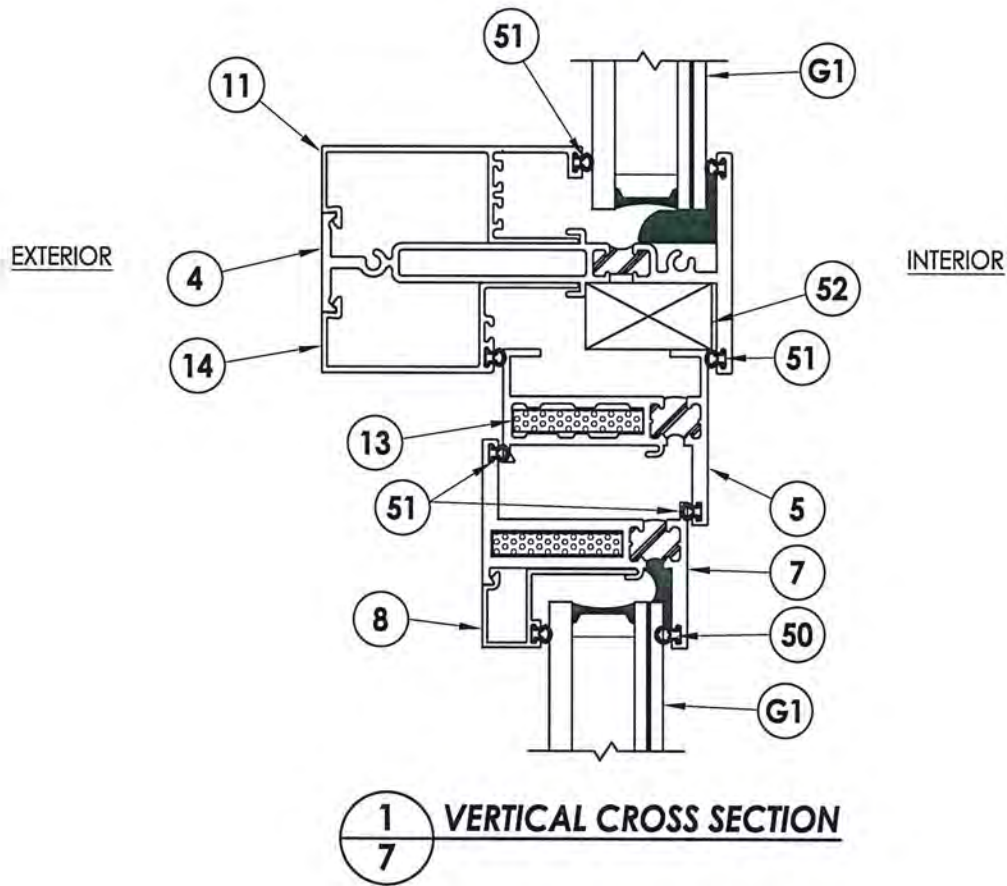


**2**  
**6** **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 6, 6a		PART OR ASSEMBLY: VERTICAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET 6 OF 11			





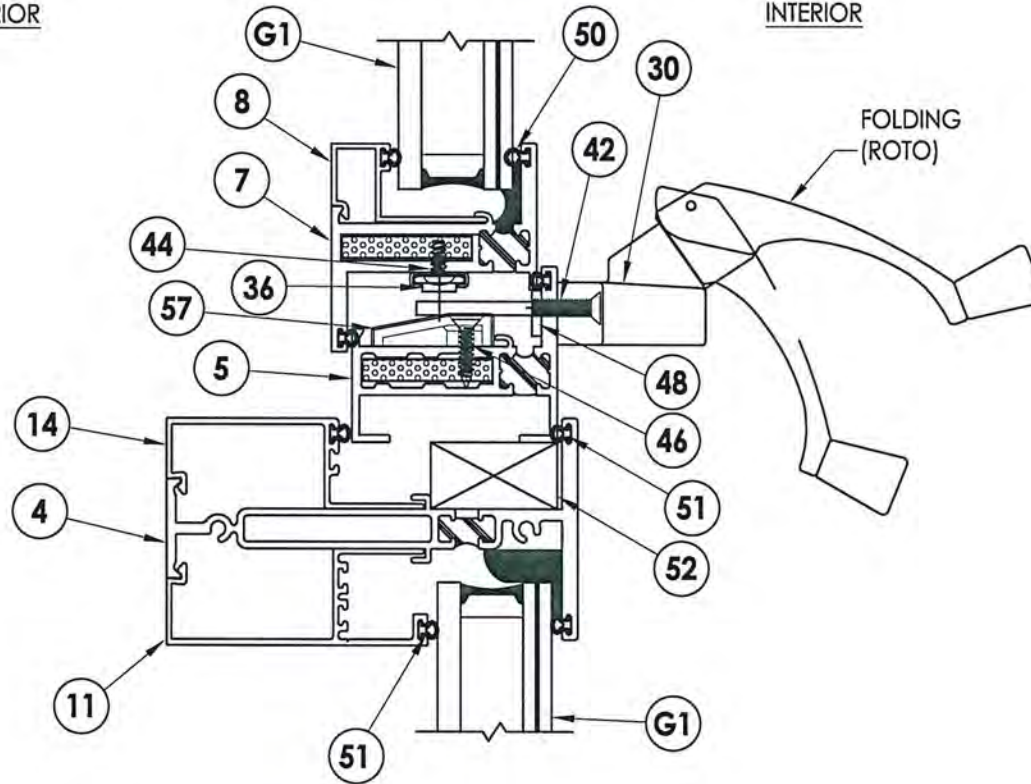
**1** / **7** **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 6, 6a	
PART OR ASSEMBLY:		VERTICAL CROSS SECTION	
NO.	DATE	BY	REVISIONS
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET 7 OF 11			

EXTERIOR

INTERIOR



**1**  
**8** VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:  
 FLEETWOOD  
 SPEC. 6, 6a

PART OR ASSEMBLY:  
 VERTICAL CROSS SECTION

NO.	DATE	REVISIONS	BY

**RW** BUILDING  
 CONSULTANTS, INC.  
 813.659.9197

DATE: 10/19/21

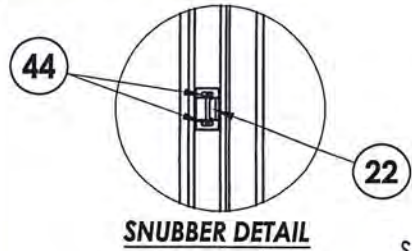
SCALE: N.T.S.

DWG. BY: LFS

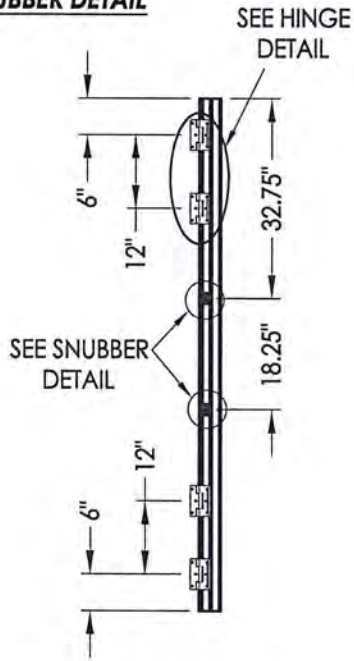
CHK. BY: RW

DRAWING NO.:  
 L-9490

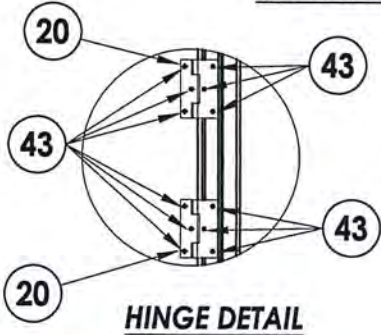
SHEET 8 OF 11



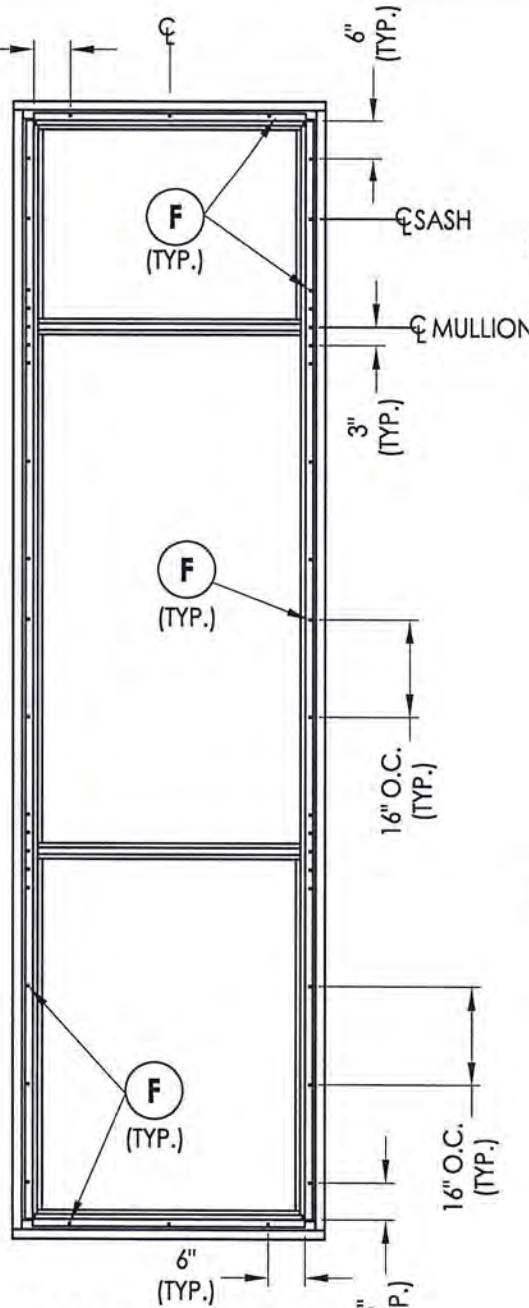
**SNUBBER DETAIL**



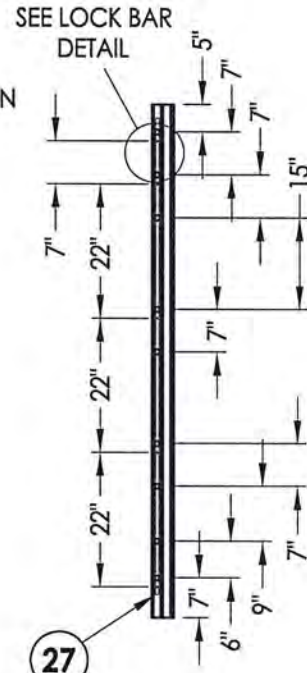
**HINGE JAMB**



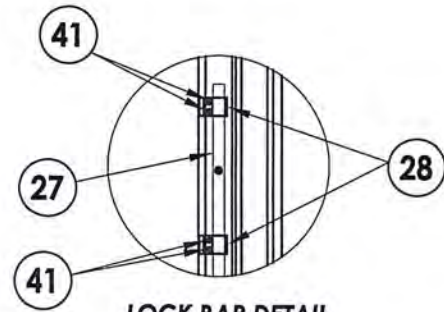
**HINGE DETAIL**



**FRAME ANCHORING**  
2X TEST BUCK



**LOCK JAMB**  
LOCKING POINTS (5)

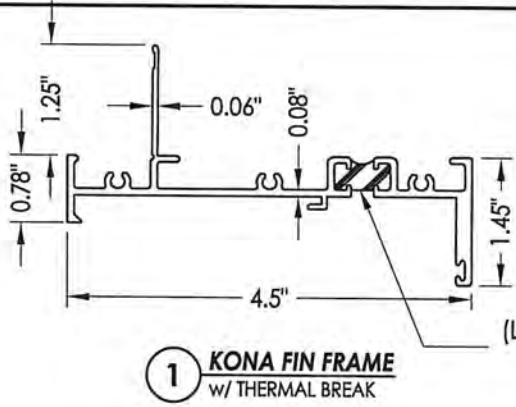


**LOCK BAR DETAIL**

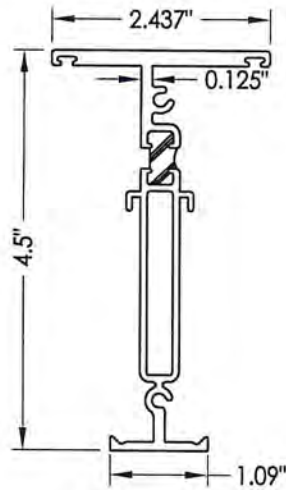
Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 6, 6a	
PART OR ASSEMBLY:		TEST ELEVATIONS	
NO.	DATE	REVISIONS	BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET 9 OF 11			

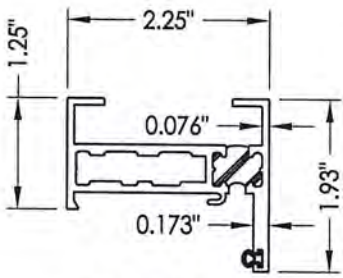




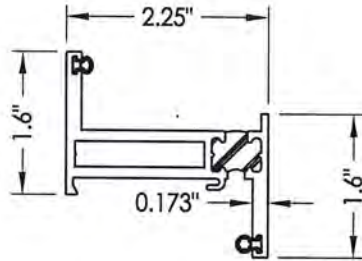
**1 KONA FIN FRAME**  
w/ THERMAL BREAK



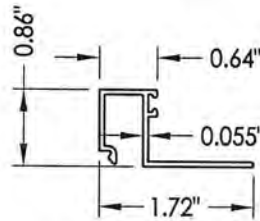
**4 MULLION**  
H011241



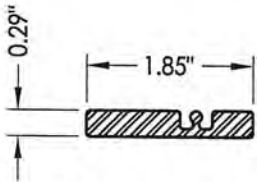
**5 BLOCK FRAME**  
5278C1



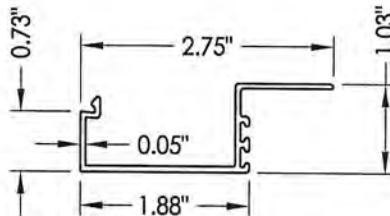
**7 ZEE BAR (PANEL)**  
H006733



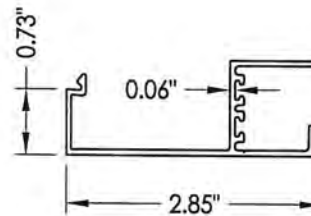
**8 GLASS STOP 1-1/4"**  
901487



**12 SHEAR BLOCK**



**14 INSERT STOP**  
011448



**11 GLASS STOP 1-1/4"**

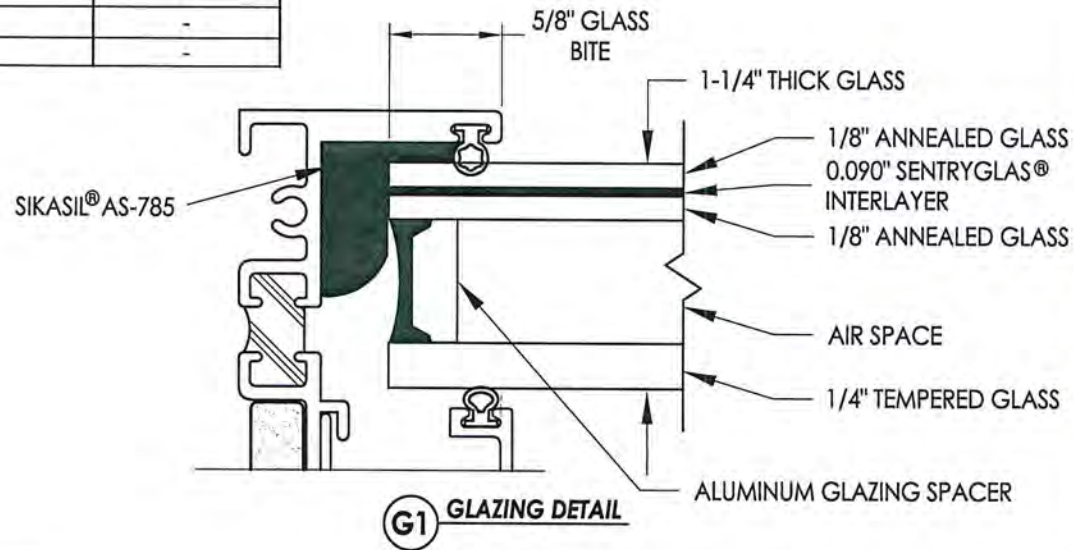
Testing Evaluation Laboratories Inc.  
Specimen Complies with Drawing  
Deviations Noted - TEL# 01993389  
Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 6, 6a	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	REVISIONS	
			BY
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-9490			
SHEET 10 OF 11			



**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#8 X 1-1/2" PPH SMS	STEEL
1	KONA FIN FRAME	6063-T6 ALUM
5	WESTWOOD BLOCK FRAME	6063-T6 ALUM
7	WESTWOOD ZEE BAR (PANEL)	6063-T6 ALUM
8	GLASS STOP (1-1/4")	6063-T6 ALUM
11	GLASS STOP (1-1/4")	6063-T6 ALUM
12	SHEAR BLOCK	6061-T6 ALUM
13	CORNER KEY	6063-T6 ALUM
14	INSERT STOP	6063-T6 ALUM
20	SS. BUTT HINGE	SS
22	SNUBBER-COMMERCIAL PULL-IN BLOCK	SS
23	MULTIPOINT LOCK HANDLE	SS
27	5 POINTS LOCKING BAR	SS
28	TIE BAR GUIDE	-
29	KEEPER	SS
30	CASEMENT ROTOR GEAR	SS
36	CASEMENT SS. TRACK	SS
40	#10 X 1" PPH SMS	STEEL
41	SCREW NO 8, PHP, .750"	STEEL
42	MACHINE SCREW NO 10-32, FHP .75"	STEEL
43	SCREW NO 10, UFHP .5"	STEEL
44	SCREW NO 8, PHP, .50"	STEEL
46	SCREW NO 8, FHP, .750"	STEEL
48	BACK UP NUTS	STEEL
50	BULB VINYL (EPDM 70 DUROMETER)	-
51	MINI BULB VINYL (EPDM 70 DUROMETER)	-
52	WOOD BLOCK (3/4" X 1-1/4")	-
57	PIVOT SHIM	-



Testing Evaluation Laboratories Inc.  
 Specimen Complies with Drawing  
 Deviations Noted - TEL# 01993389  
 Date 11/01/2021 Verified by VKW

PRODUCT:		FLEETWOOD SPEC. 6, 6a	
PART OR ASSEMBLY:		COMPONENTS & GLAZING DETAILS	
NO.	DATE	BY	REVISIONS
DATE: 10/19/21			
SCALE: N.T.S.			
DWG. BY: LFS			
CHK. BY: RW			
DRAWING NO.: L-9490			
SHEET 11 OF 11			