



Testing Evaluation Laboratories, Inc.
 2002 Wood Court Suite 1 – Plant City, FL 33563
 Phone: 813-754-9887

AAMA/WDMA/CSA 101/I.S.2/A440-08
 Canadian Supplement A440S1-09

TEST REPORT SUMMARY

Test Report Issued To:

Fleetwood Windows and Doors
 1 Fleetwood Way
 Corona, CA 92879

3300 Glacier Sliding Glass Door
 Impact Resistant

Title	Summary of Results	
	Specimen 1 - OXXO	Specimen 2 - OXO
Primary Product Designator	Class LC-PG40 6096 x 3048 (240 x 120) SD	Class LC-PG40 4572 x 3048 (180 x 120) SD
Design Pressure	+1915/- 1915 Pa (+40.0/ - 40.0 psf)	+1915/- 1915 Pa (+40.0/ - 40.0 psf)
Operating Force	Pass	Pass
Air Infiltration	1.31 L/s/m ² (0.262 scfm/ft ²)	1.035 L/s/m ² (0.207 scfm/ft ²)
Air Infiltration/Exfiltration (A440S1-09)	Level A2: < 1.5 L/s•m ²	Level A2: < 1.5 L/s•m ²
Water Resistance	287 Pa (6.00 psf) with 2" Sill 395 Pa (8.25 psf) with 3" Sill	287 Pa (6.00 psf) with 2" Sill 395 Pa (8.25 psf) with 3" Sill
Structural Test Pressure	+2873/- 2873 Pa (+60.0/ - 60.0 psf)	+2873/- 2873 Pa (+60.0/ - 60.0 psf)
Forced Entry	Grade 10	Grade 10

Title	Summary of Results	
	Specimen 7 - OOX	
Primary Product Designator	Class LC-PG35 4572 x 3048 (180 x 120) SD	
Design Pressure	+1676/- 1676 Pa (+35.0/ - 35.0 psf)	
Operating Force	See Specimen 2 for these results.	
Air Infiltration	See Specimen 2 for these results.	
Air Infiltration/Exfiltration (A440S1-09)	See Specimen 2 for these results.	
Water Resistance	See Specimen 2 for these results.	
Structural Test Pressure	+2514/- 2514 Pa (+52.5/ - 52.5 psf)	
Forced Entry	Grade 10	

Reference should be made to Report No. TEL 01991013 for complete test specimen description and data.

For Testing Evaluation Laboratories, Inc.

Vivian Wright
 Vivian K. Wright,
 President



Testing Evaluation Laboratories, Inc.
2002 Wood Court Suite 1 – Plant City, FL 33563
Phone: 813-754-9887

IAS Lab Certification Number: TL-299

Report No: TEL 01991013
Test Dates: January 16, 2014
through March 18, 2014
Report Date: March 21, 2014

Issued to:

Fleetwood Windows and Doors
1 Fleetwood Way
Corona, CA 92879

Project Summary: Testing Evaluation Laboratories, Inc. (TEL) was contracted by Fleetwood Windows and Doors to perform tests on the Norwood 3070-HI-WG Sliding Glass Door at TEL's Plant City, FL test facility. The samples tested successfully met the performance requirements for a Class LC-PG40 6096 x 3048 (240 x 120) SD (Specimen 1), Class LC-PG40 4572 x 3048 (180 x 120) SD (Specimen 2) and Class LC-PG35 4572 x 3048 (180 x 120) SD (Specimen 7) rating.

Test specimen description and results are reported herein. Samples provided by the client.

Test Specifications: The test specimen was evaluated in accordance with the following:

AAMA/WDMA/CSA 101/I.S.2/A440-08
Canadian Supplement A440S1-09

Test Specimen Description:

Series / Model: 3300 Glacier Sliding Glass Door

Type: Aluminum Sliding Glass Doors

Overall Size: 240.00" x 120.00" – Specimen 1- OXXO
180.00" x 120.00" – Specimen 2 - OXO
180.00" x 120.00" – Specimen 7 - OOX

Daylight Opening: 54.75 " x 112.75" – Specimen1 (End Panels)
54.63 " x 112.75" – Specimen 1 (Center Panels)
55.06" x 112.75" – Specimen 2 (All Panels)
55.06" x 112.75" – Specimen 7 (All Panels)

Glazing Detail: Laminated Monolithic Glass – (Specimen 1)
Insulated Laminated Glass – (Specimens 2 and 7)
(See attached drawing for details)

Frame Material: Aluminum

Finish: Mill Finish

For Tested Elevation, Vertical Cross Sections, Horizontal Cross Sections, Components, Frame Anchoring, Glazing Detail and Bill of Materials See Attached Drawing #L-7112, #L-7113, and #L-7114.

Test Results: Specimen 1: 6096 mm x 3048 mm (240.0" x 120.0") Aluminum Sliding Glass Door - OXXO

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	71 N (16.0 lbf)	135 N (30 lbf)
	Maintain Motion	40 N (9.0 lbf)	90 N (20 lbf)
5.3.1.1.3	Force to Latch	9 N (2.0 lbf)	100 N (22.5 lbf)
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	1.310 L/s/m ² 0.262 scfm/ft ²	1.5 L/s/m ² 0.30 scfm/ft ²
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	1.130 L/s/m ² 0.226 scfm/ft ²	1.5 L/s/m ² 0.30 scfm/ft ²
Note #1:	<i>The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2-97/A440-08 (A440-S1-09) for air infiltration/exfiltration.</i>		
5.3.3	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.2	Uniform Load Deflection per ASTM E 330-02	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
Note #2:	<i>The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".</i>		
5.3.5	Forced Entry ASTM F842 Type A Grade 10		
	Test A1 through A7	No Entry	No Entry
	Lock Hardware Manipulation Test	No Entry	No Entry
	Sash/Panel Manipulation Test	No Entry	No Entry
5.3.6.3	Deglazing Test per ASTM E987		
	In operating direction 320 N (70 lbs)		
	Right Stile	5.08 mm (0.20")	15.70 mm (0.618")
	Left Stile	4.57 mm (0.18")	15.70 mm (0.618")
	In remaining direction 222 N (50 lbs)		
	Top Rail	4.57 mm (0.18")	15.70 mm (0.618")
	Bottom Rail	4.06 mm (0.16")	15.70 mm (0.618")

Results: Specimen 1 – Continued

4.4.2.6 Optional Performance

Water Resistance per ASTM E 547-00 @ 287 Pa (6.00 psf) with 2" Sill	No Leakage	No Leakage
Water Resistance per ASTM E 547-00 @ 395 Pa (8.25 psf) with 3" Sill	No Leakage	No Leakage

Uniform Load Structural per ASTM E 330-02

Range	Time (Sec)	Load Pa (psf)	Location	Deflection mm (in.)	Allowable mm (in.)
Half Test Positive	10	958 (20.00)			
Test Positive	10	1915 (40.00)	1	17.86 (0.703)	See Note #3
Half Test Negative	10	958 (20.00)			
Test Negative	10	1915 (40.00)	1	11.379 (0.448)	See Note #3

Note #3: *The deflections reported are not limited by AAMA/WDMA/CSA101/I.S.2/A440-08 (A440-S1-09) 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.*

Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Proof Positive	10	1436 (30.00)				
Proof Positive	10	2873 (60.00)	1	36.88 (1.452)	0.00 (0.000)	11.79 (0.464)
			2	17.58 (0.692)	0.69 (0.027)	11.79 (0.464)
Half Proof Negative	10	1436 (30.00)				
Proof Negative	10	2873 (60.00)	1	33.66 (1.325)	0.46 (0.018)	11.79 (0.464)
			2	20.19 (0.795)	1.35 (0.053)	11.79 (0.464)

Note #4: *Deflection/Set for Location 1 measured at center of meeting stiles – Inactive/Active panels and Location 2 Measured at center of meeting stiles at latch.*

Test Results: Specimen 2: 4572 mm x 3048 mm (180.0" x 120.0") Aluminum Sliding Glass Door - OXO

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	89 N (20.0 lbf)	135 N (30 lbf)
	Maintain Motion	44 N (10.0 lbf)	90 N (20 lbf)
5.3.1.1.3	Force to Latch	13 N (3.0 lbf)	100 N (22.5 lbf)
5.3.2.1	Air Infiltration per ASTM E283-04 75 Pa (1.57 psf)	1.035 L/s/m ² 0.207 scfm/ft ²	1.5 L/s/m ² 0.30 scfm/ft ²
	Air Exfiltration per ASTM E283-04 75 Pa (1.57 psf)	0.995 L/s/m ² 0.199 scfm/ft ²	1.5 L/s/m ² 0.30 scfm/ft ²
Note #1:	<i>The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2-97/A440-08 (A440-S1-09) for air infiltration/exfiltration.</i>		
5.3.3	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.2	Uniform Load Deflection per ASTM E 330-02	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
Note #2:	<i>The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".</i>		
5.3.5	Forced Entry ASTM F842 Type A Grade 10		
	Test A1 through A7	No Entry	No Entry
	Lock Hardware Manipulation Test	No Entry	No Entry
	Sash/Panel Manipulation Test	No Entry	No Entry
5.3.6.3	Deglazing Test per ASTM E987 - See Specimen 1 of this report for these test results.		

Results: Specimen 2 – Continued

4.4.2.6 Optional Performance

Water Resistance per ASTM E 547-00 @ 287 Pa (6.00 psf) with 2”Sill	No Leakage	No Leakage
Water Resistance per ASTM E 547-00 @ 395 Pa (8.25 psf) with 3”Sill	No Leakage	No Leakage

Uniform Load Structural per ASTM E 330-02

Range	Time (Sec)	Load Pa (psf)	Location	Deflection mm (in.)	Allowable mm (in.)
Half Test Positive	10	958 (20.00)			
Test Positive	10	1915 (40.00)	2	18.01 (0.709)	See Note #3
Half Test Negative	10	958 (20.00)			
Test Negative	10	1915 (40.00)	2	11.86 (0.467)	See Note #3

Note #3: *The deflections reported are not limited by AAMA/WDMA/CSA101/I.S.2/A440-08 (A440-S1-09) 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.*

Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in.)	Set mm (in.)	Allowable mm (in.)
Half Proof Positive	10	1436 (30.00)				
Proof Positive	10	2873 (60.00)	1	41.25 (1.624)	1.30 (0.051)	11.79 (0.464)
			2	54.53 (2.147)	2.69 (0.106)	11.79 (0.464)
Half Proof Negative	10	1436 (30.00)				
Proof Negative	10	2873 (60.00)	1	48.11 (1.894)	1.45 (0.057)	11.79 (0.464)
			2	52.27 (2.058)	2.29 (0.090)	11.79 (0.464)

Note #4: *Deflection/Set for Location 1 measured at center of meeting stiles at latch and Location 2 Measured at center of meeting stiles, Inactive/Active panels.*

Test Results: Specimen 7: 4572 mm x 3048 mm (180.0" x 120.0") Aluminum Sliding Glass Door - OXO

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 of this report for these test results.</i>	
5.3.1.1.3	Force to Latch	<i>See Specimen 2 of this report for these test results.</i>	
5.3.2.1	Air Infiltration per ASTM E283-04	<i>See Specimen 2 of this report for these test results.</i>	
	Air Exfiltration per ASTM E283-04	<i>See Specimen 2 of this report for these test results.</i>	
Note #1:	<i>The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2-97/A440-08 (A440-S1-09) for air infiltration/exfiltration.</i>		
5.3.3	Water Resistance per ASTM E 547-00	See Note 2	
5.3.4.2	Uniform Load Deflection per ASTM E 330-02	See Note 2	
5.3.4.3	Uniform Load Structural per ASTM E 330-02	See Note 2	
Note #2:	<i>The client opted to start test at a pressure higher than the minimum required. Those results are listed under "Optional Performance".</i>		
5.3.5	Forced Entry ASTM F842 Type A Grade 10	<i>See Specimen 2 of this report for these test results.</i>	
5.3.6.3	Deglazing Test per ASTM E987	<i>See Specimen 1 of this report for these test results.</i>	
4.4.2.6	Optional Performance		
	Water Resistance per ASTM E 547-00	<i>See Specimen 2 of this report for these test results.</i>	
	Uniform Load Structural per ASTM E 330-02		

Range	Time (Sec)	Load Pa (psf)	Location	Deflection mm (in.)	Allowable mm (in.)
Half Test Positive	10	838 (17.50)			
Test Positive	10	1676 (35.00)	2	30.33 (1.194)	See Note #3
Half Test Negative	10	838 (17.50)			
Test Negative	10	1676 (35.00)	2	23.44 (0.923)	See Note #3

Note #3: *The deflections reported are not limited by AAMA/WDMA/CSA101/I.S.2/A440-08 (A440-S1-09) 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.*

Results: Specimen 7 – Continued

4.4.2.6 Optional Performance

Uniform Load Structural per ASTM E 330-02

Range	Time (seconds)	Load Pa (psf)	Location	Deflection mm (in).	Set mm (in.)	Allowable mm (in.)
Half Proof Positive	10	1257 (26.25)				
Proof Positive	10	2514 (52.50)	1	46.99 (1.850)	4.55 (0.179)	12.04 (0.474)
			2	43.84 (1.726)	0.99 (0.039)	11.99 (0.472)
Half Proof Negative	10	1257 (26.25)				
Proof Negative	10	2514 (52.50)	1	46.81 (1.843)	2.11 (0.083)	12.04 (0.474)
			2	37.67 (1.483)	0.43 (0.017)	11.99 (0.472)

Note #4: Deflection/Set for Location 1 measured at center of meeting stiles at latch and Location 2 Measured at center of meeting stiles, Inactive/Inactive panels.

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, sub-contractors 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.

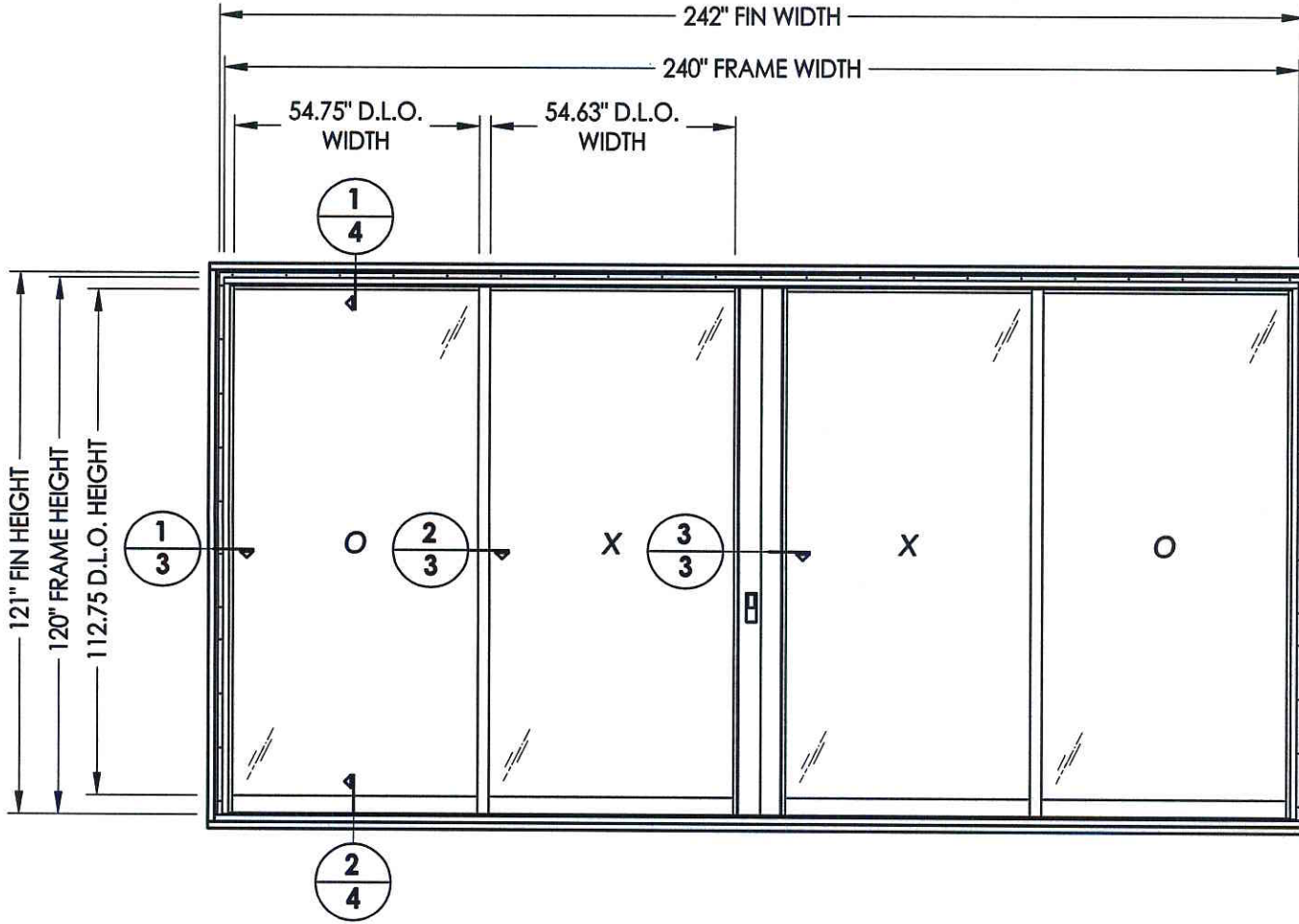
Testing Evaluation Laboratories, Inc.



Vivian K. Wright,
President

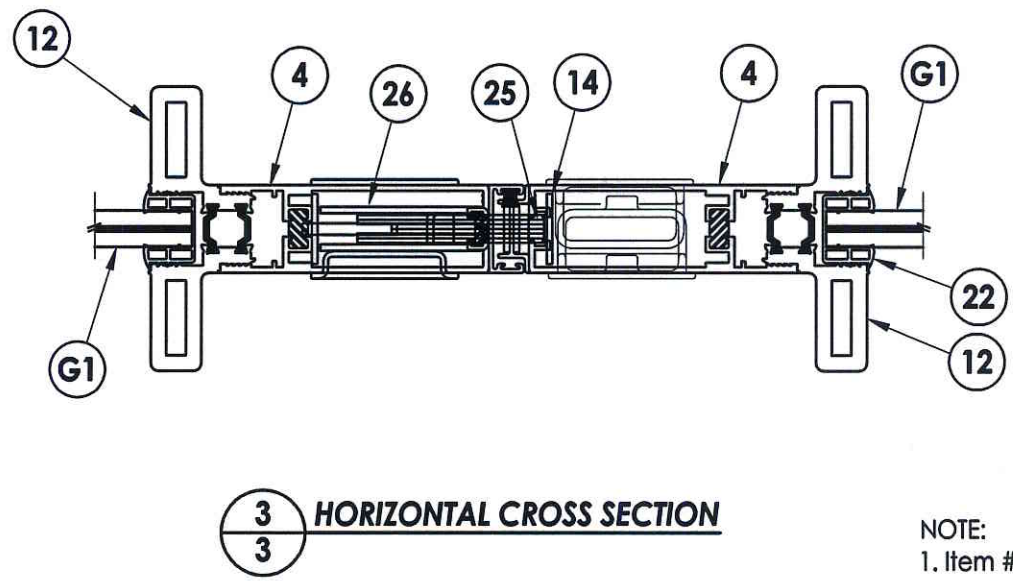
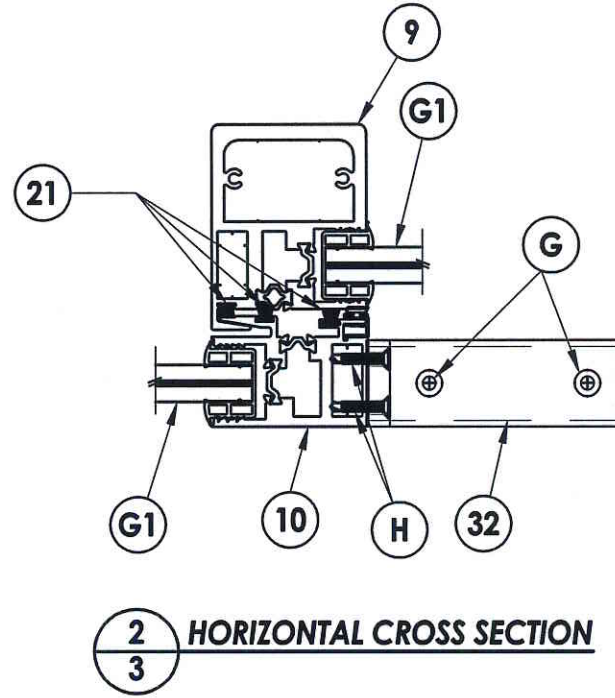
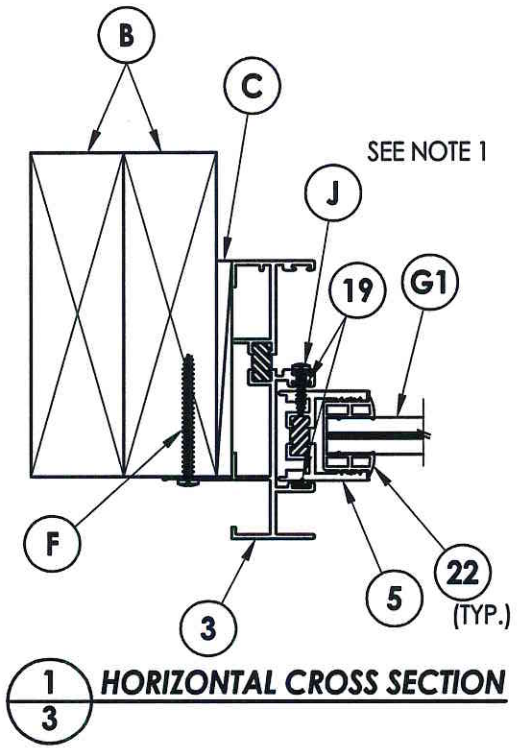
Revision Log

Rev No.	Date	Page(s)	Revision(s)
0	3/21/2014	NA	Original Report Issue



Testing Evaluation Laboratories Inc
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 Date 3/21/14 Verified by [Signature]

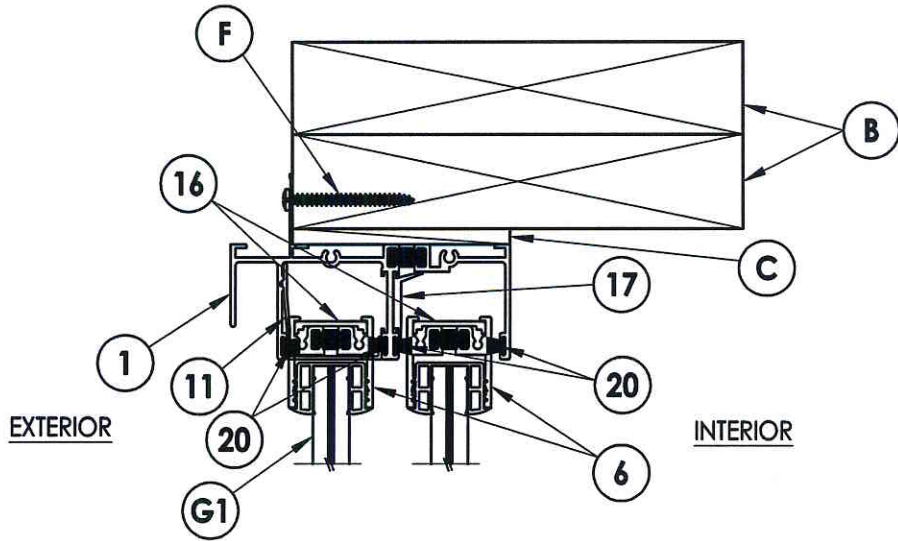
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PART OR ASSEMBLY: TEST ELEVATION	
REVISIONS	
NO.	DATE
BY	
R.W. BUILDING CONSULTANTS, INC. 813.659.9197	
DATE: 1/21/14	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: L-7113	
SHEET 2 OF 9	



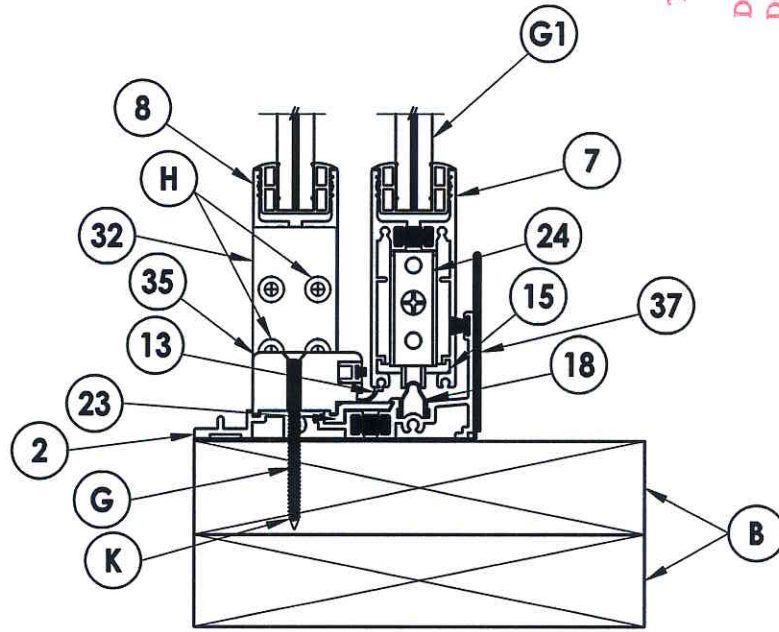
Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted. TEL # 0199 1013
 Date 3/21/14 Verified by *[Signature]*

NOTE:
 1. Item #J located six inches from
 each end then 12" o.c.

PRODUCT: FLEETWOOD GLACIER 3300 (OXXO)		PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
NO.	DATE	REVISIONS	BY
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 1/21/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
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SHEET 3 OF 9			



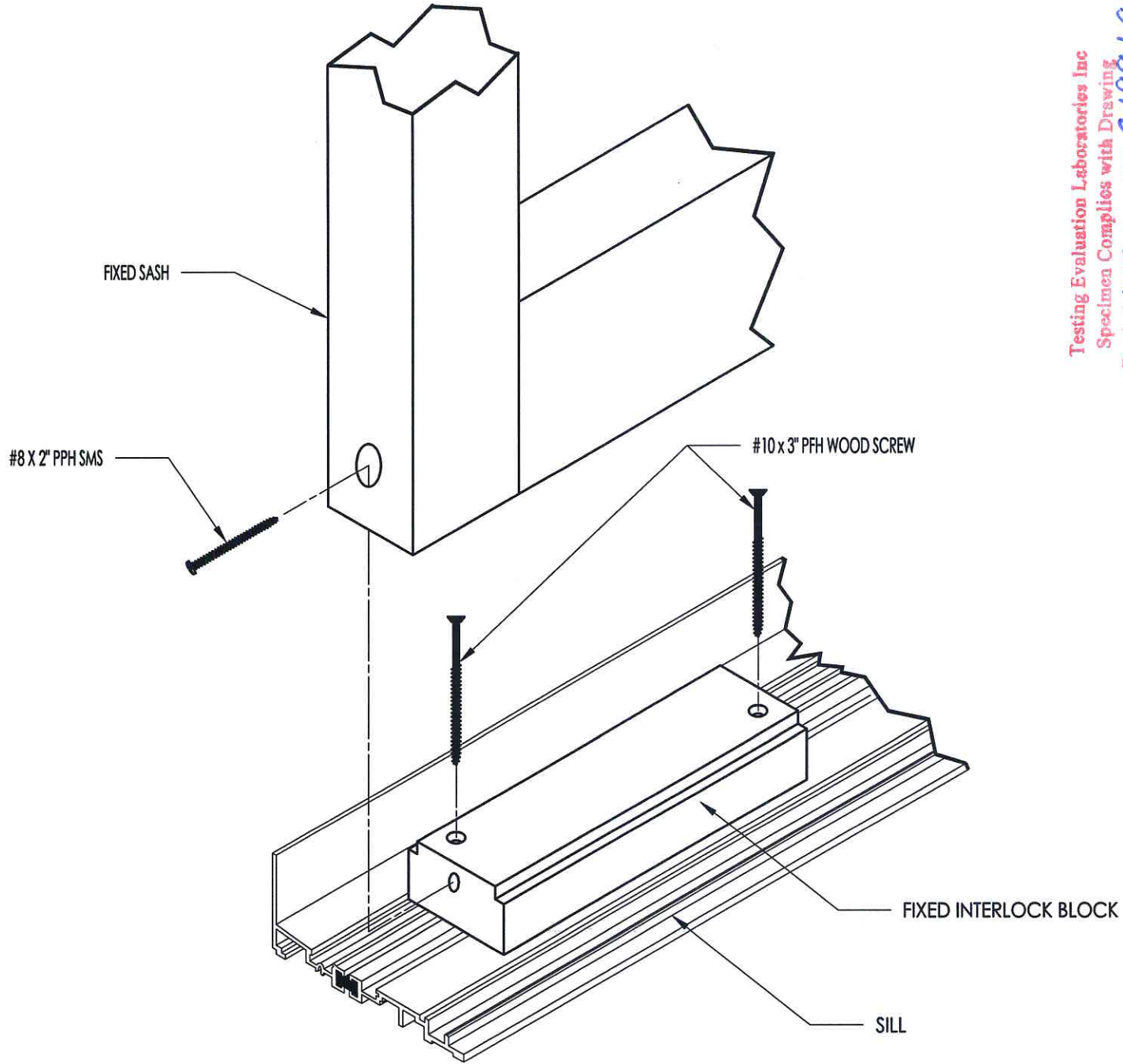
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4 VERTICAL CROSS SECTION



2
4 VERTICAL CROSS SECTION

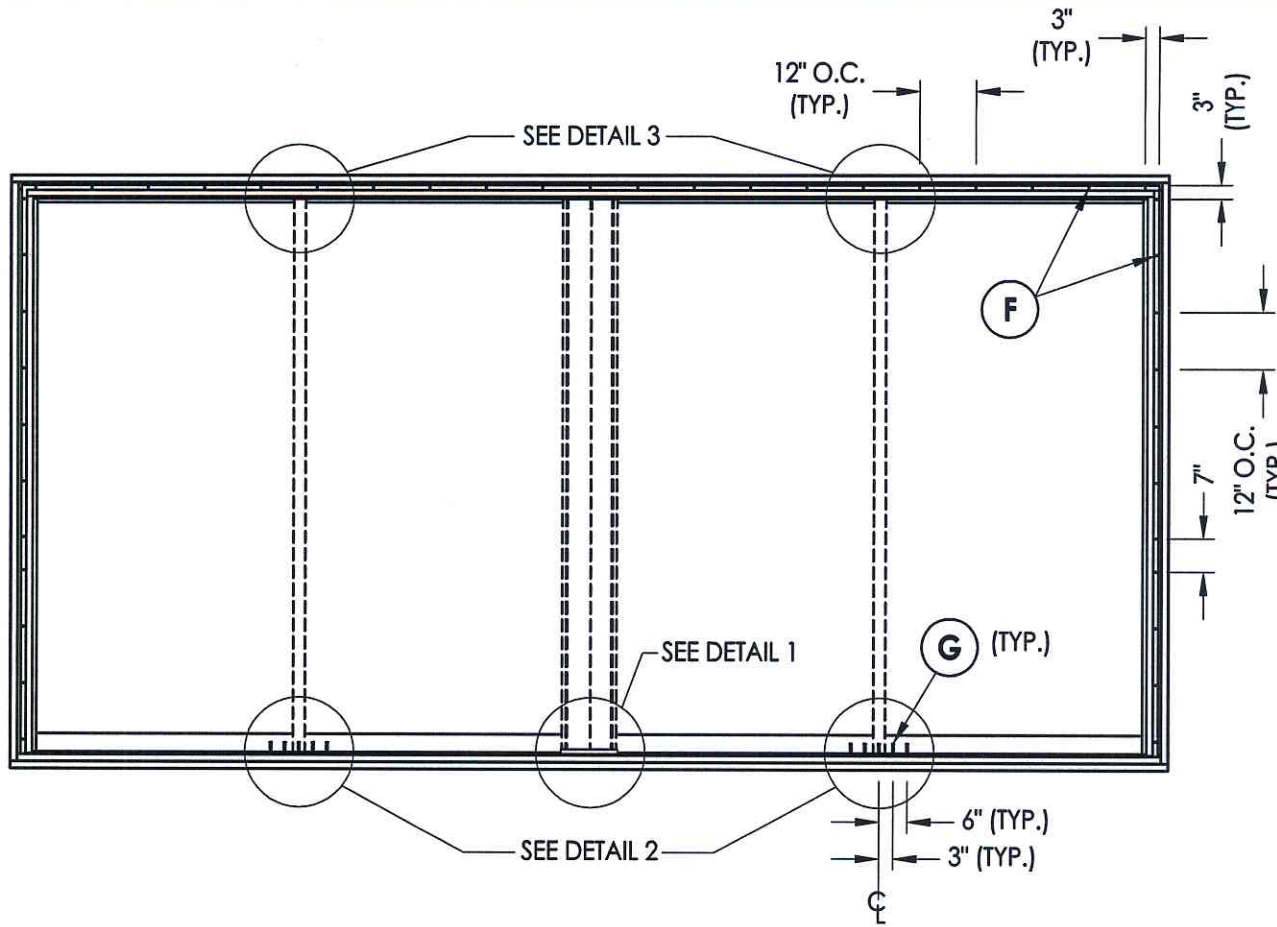
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 Date 3/21/14 verified by *[Signature]*

PRODUCT: FLEETWOOD GLACIER 3300 (OXXO)		PART OR ASSEMBLY: VERTICAL CROSS SECTIONS	
NO.	DATE	REVISIONS	BY
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 1/21/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7113			
SHEET 4 OF 9			



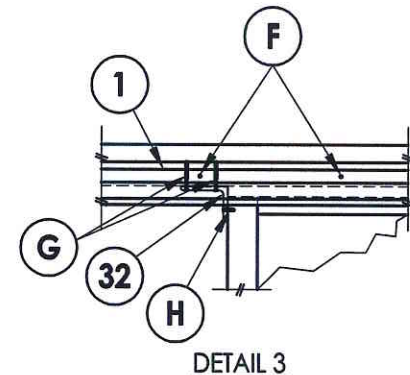
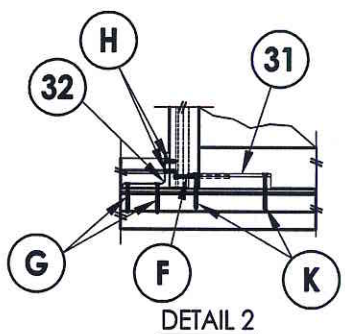
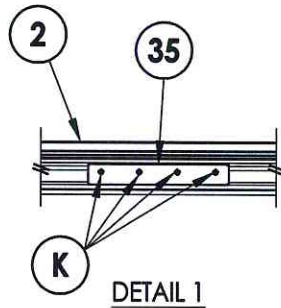
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 Date 2/21/14 Verified by *[Signature]*

PRODUCT:		FLEETWOOD GLACIER 3300 (OXXO)	
PART OR ASSEMBLY:		SILL MEETING STILE BLOCK DETAILS	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 1/21/14			
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SHEET 5 OF 9			

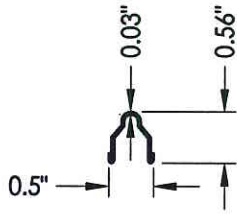


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 Date 3/21/14 Verified by WLee

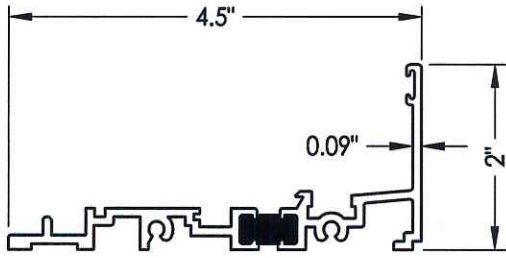
FRAME ANCHORING
 2X buck construction



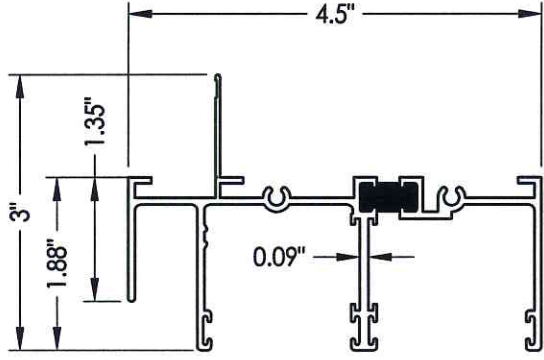
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REVISIONS		BY	
NO.		DATE	
REVISIONS		BY	
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 1/21/14			
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CHK. BY: LFS			
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SHEET 6 OF 9			



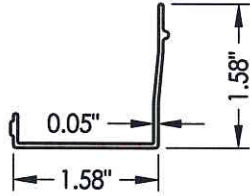
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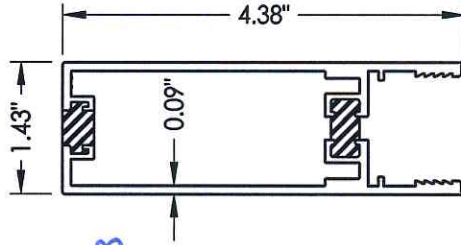
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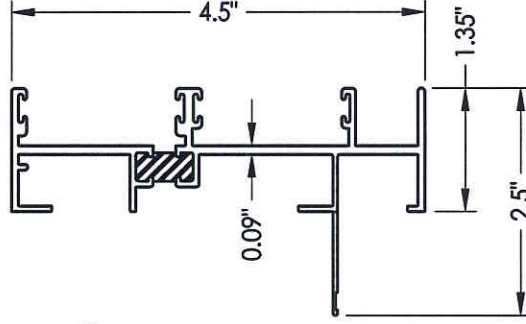
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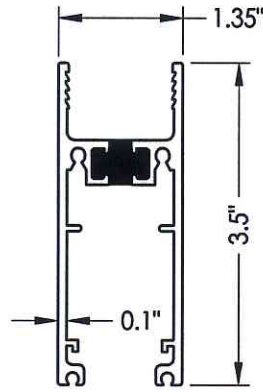
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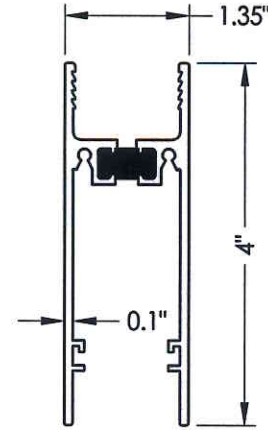
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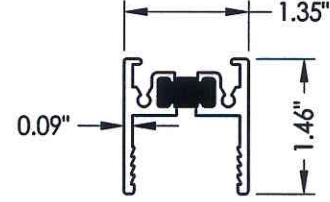
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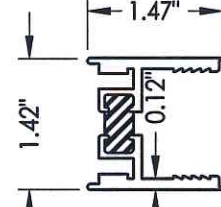
7 SLIDING BOTTOM RAIL



8 FIXED BOTTOM RAIL



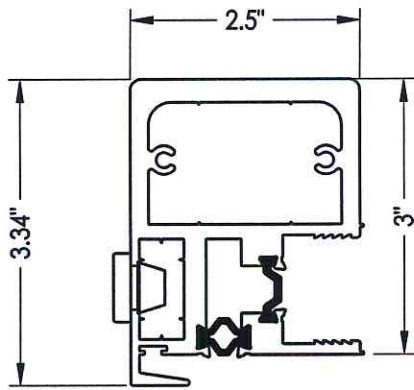
6 TOP RAIL



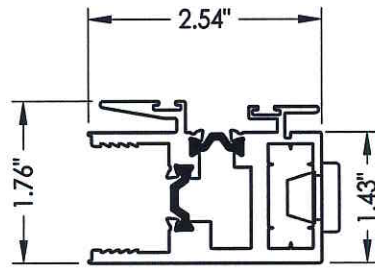
5 FIXED STILE

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted: TEL # 0199 1913
 Date 3/21/14 Verified by *[Signature]*

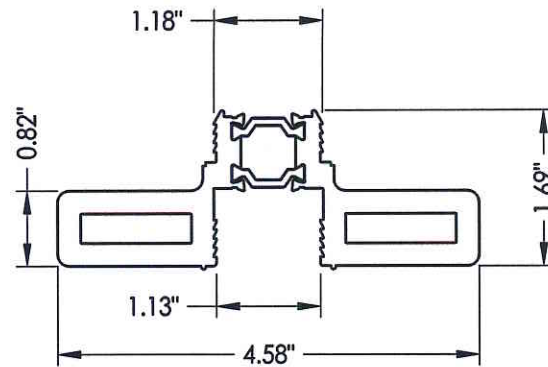
PRODUCT:		FLEETWOOD GLACIER 3300 (OXXO)	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	REVISIONS	BY
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7113			
SHEET 7 OF 9			



9 HP INTERLOCK

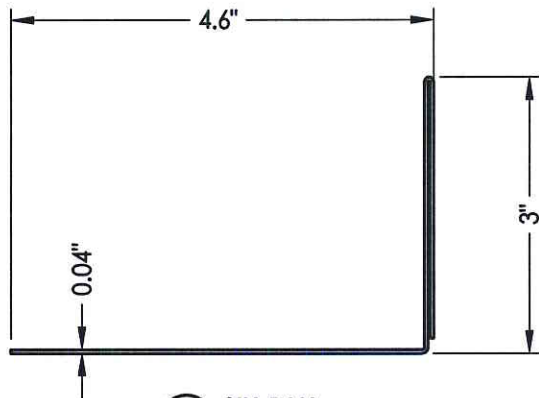


10 FIXED INTERLOCK

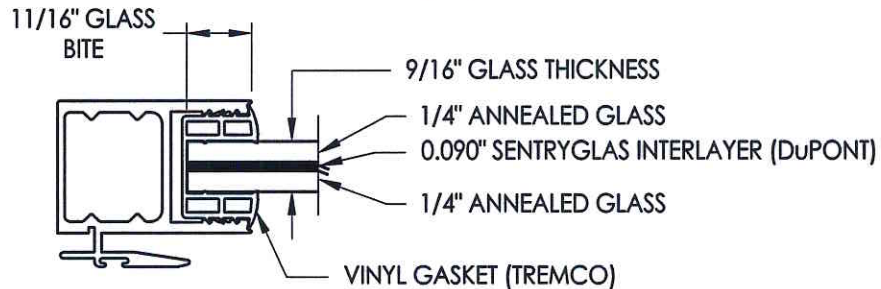


12 HP THERMAL ADAPTOR - DOUBLE WING

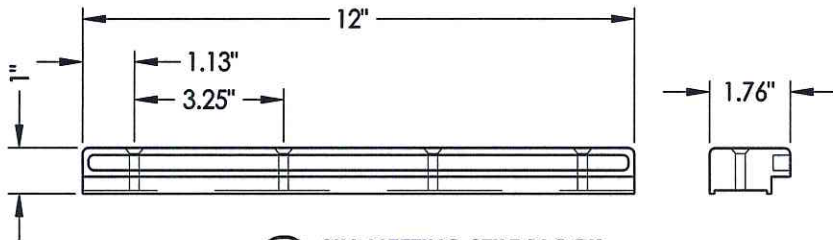
Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 01991013
 Date 3/21/14 Verified by *WLeo*



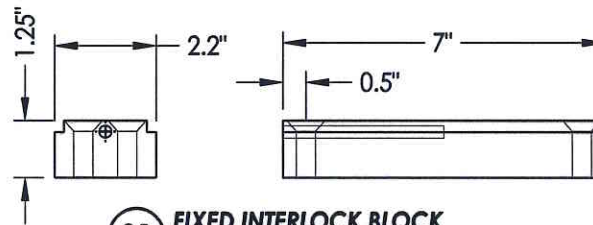
37 SILL PAN



G1 GLAZING DETAIL



35 SILL MEETING STILE BLOCK



31 FIXED INTERLOCK BLOCK

PRODUCT:		FLEETWOOD GLACIER 3300 (OXXO)	
PART OR ASSEMBLY:		COMPONENTS AND GLAZING DETAIL	
NO.	DATE	REVISIONS	BY
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7113			
SHEET 8 OF 9			

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#10 X 2" PPH SMS	STEEL
G	#10 X 2-1/2" PPH SMS	STEEL
H	#10 X 1" PFH SMS	STEEL
J	#8 X 3/4" PPH SELF-DRILLING SMS	STEEL
K	#10 X 3" PFH WS	STEEL
L	1/4-20 X 1/2" MACHINE SCREW	STEEL
1	HEAD W/ NAIL FIN	6063-T6 ALUM
2	SILL	6063-T6 ALUM
3	JAMB W/ NAIL FIN	6063-T6 ALUM
4	LOCK STILE	6063-T6 ALUM
5	FIXED STILE	6063-T6 ALUM
6	TOP RAIL	6063-T6 ALUM
7	SLIDING BOTTOM RAIL	6063-T6 ALUM
8	FIXED BOTTOM RAIL	6063-T6 ALUM
9	HP INTERLOCK	6063-T6 ALUM
10	FIXED INTERLOCK	6063-T6 ALUM
11	HEAD CLOSER	6063-T6 ALUM
12	HP THERMAL ADAPTOR - DOUBLE WING	6063-T6 ALUM
13	SLIDING BOTTOM RAIL WEATHERSTRIP	-
14	LOCK STILE SPREADER	6063-T6 ALUM
15	BOTTOM RAIL SPREADER	6063-T6 ALUM
16	TOP RAIL ISOLATOR	6063-T6 ALUM
17	ISOLATOR	6063-T6 ALUM
18	S.S. TRACK	SS
19	2 FINGER VINYL	-
20	SMALL FINSEAL	-
21	LARGE FINSEAL	-
22	GLAZING VINYL 1" SCR-900, 80 DUROMETER	-
23	SILL ISOLATOR	6063-T6 ALUM
24	ROLLER ASSEMBLY	6063-T6 ALUM
25	STRIKE PLATE ASSY.(JAMB)	6063-T6 ALUM
26	LATCH ASSY.(JAMB)	6063-T6 ALUM
31	FIXED INTERLOCK BLOCK	6063-T6 ALUM
32	3" X 4" L-BRACKET	6063-T6 ALUM
35	SILL MEETING STILE BLOCK	6063-T6 ALUM
37	SILL PAN	-

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 0199 1013
 Date 3/21/14 certified by *slw*


PRODUCT: FLEETWOOD GLACIER 3300 (OXXO)	PART OR ASSEMBLY: BILL OF MATERIALS
NO. DATE BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197	
DATE: 2/24/14	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: L-7113	
SHEET 9 OF 9	

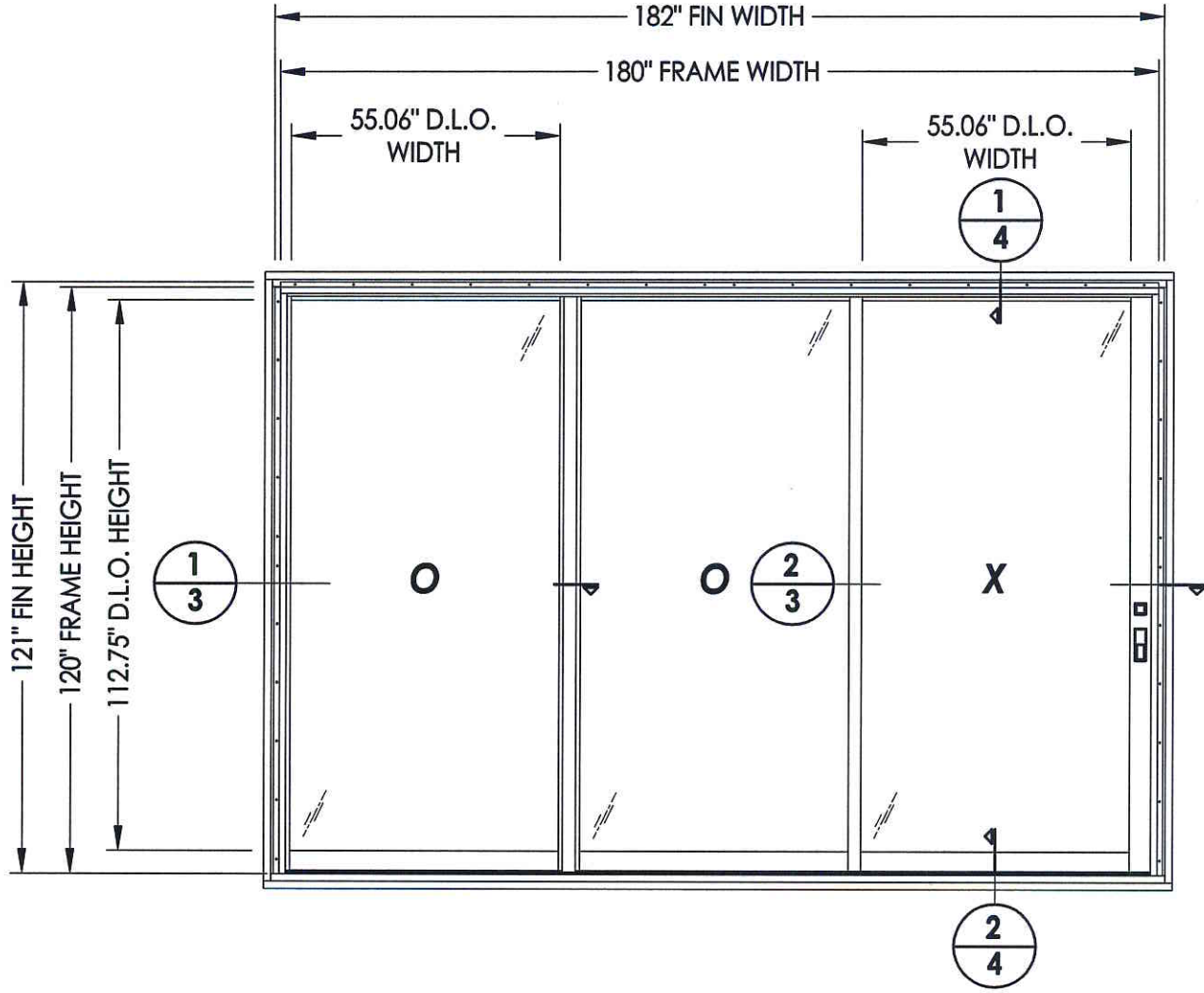
TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Table of contents
2	Test elevation
3	Horizontal cross sections
4	Vertical cross sections
5	Sill meeting stile block details
6	Frame anchoring
7	Components
8	Components and glazing detail
9	Bill of materials

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 01991013
 Date 3/21/14 Verified by *AKW*



DATE: 2/24/14
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.:
 L-7112
 SHEET 1 OF 9

PRODUCT: FLEETWOOD GLACIER 3300 (00X)	
PART OR ASSEMBLY: TABLE OF CONTENTS	
NO.	DATE
	BY
REVISIONS	

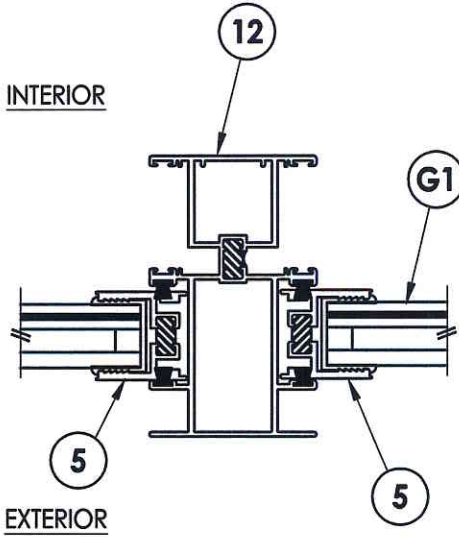
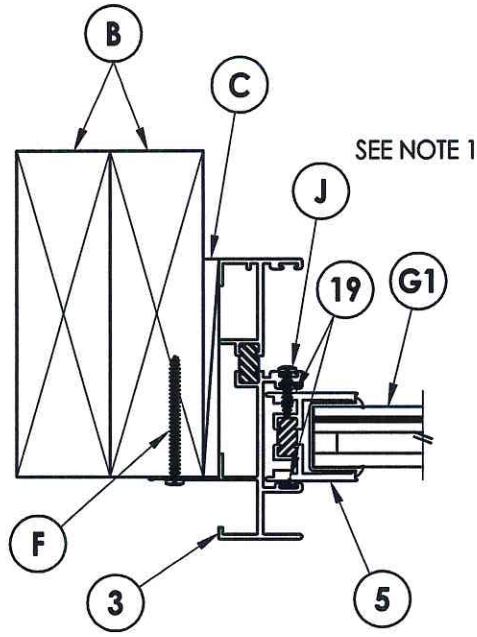


Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL #01991913
 Date 3/11/14 Verified by *[Signature]*

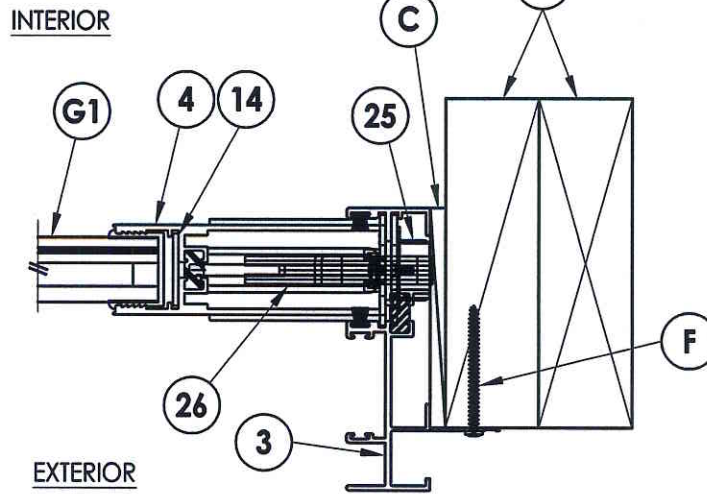
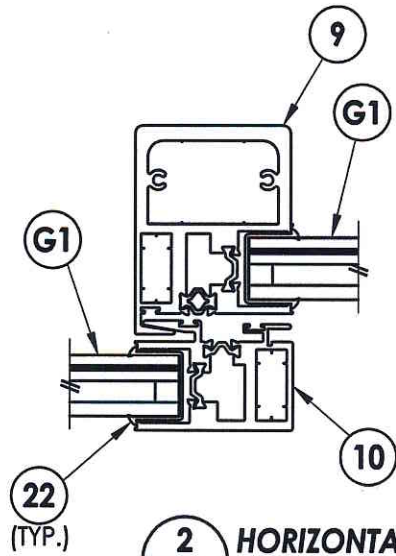
RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

DATE: 2/24/14
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: L-7112
 SHEET 2 OF 9

PRODUCT: FLEETWOOD GLACIER 3300 (00X)	
PART OR ASSEMBLY: TEST ELEVATION	
NO.	DATE
BY	REVISIONS



1
3 **HORIZONTAL CROSS SECTION**

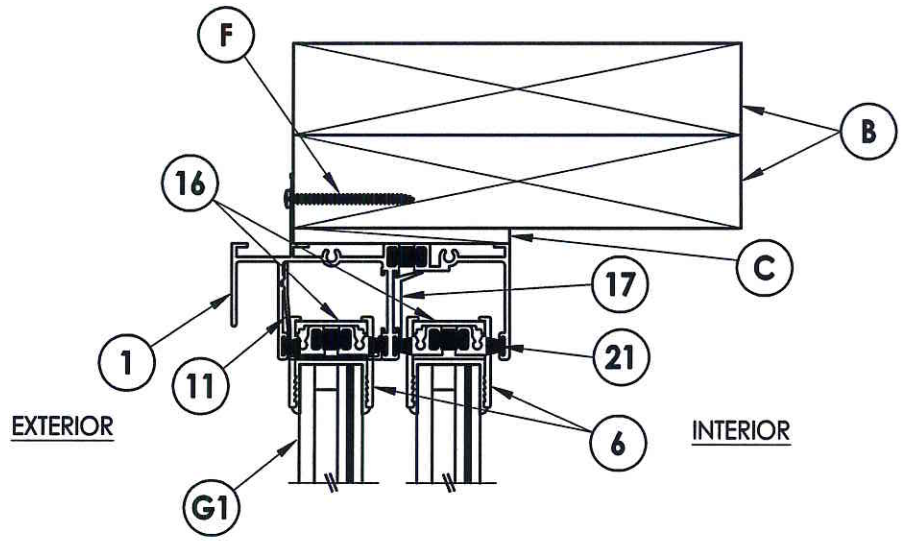


2
3 **HORIZONTAL CROSS SECTION**

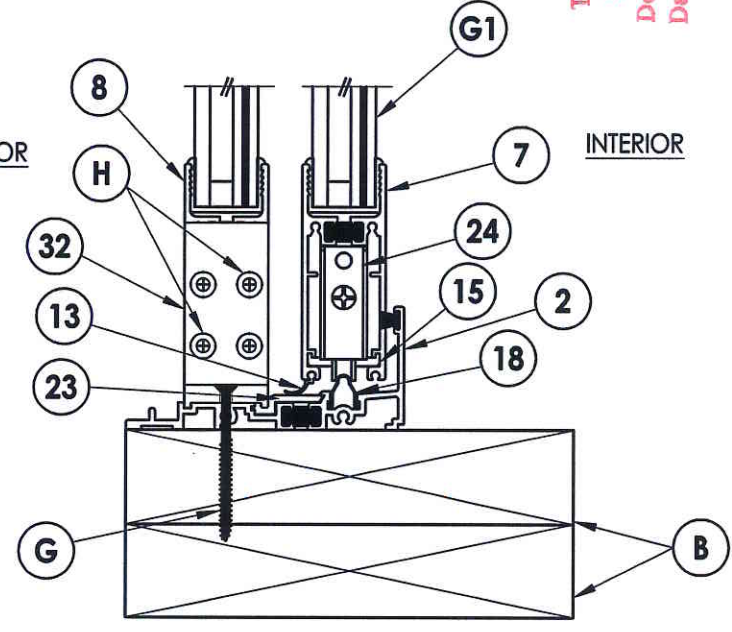
NOTE:
1. Item #J located six inches from each end then 12" o.c.

Testing Evaluation Laboratories Inc
Specimen Complies with Drawing
Deviations Noted TEL # 0199.1013
Date 5/21/14 Verified by *[Signature]*

PRODUCT: FLEETWOOD GLACIER 3300 (OOX)		PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7112			
SHEET 3 OF 9			



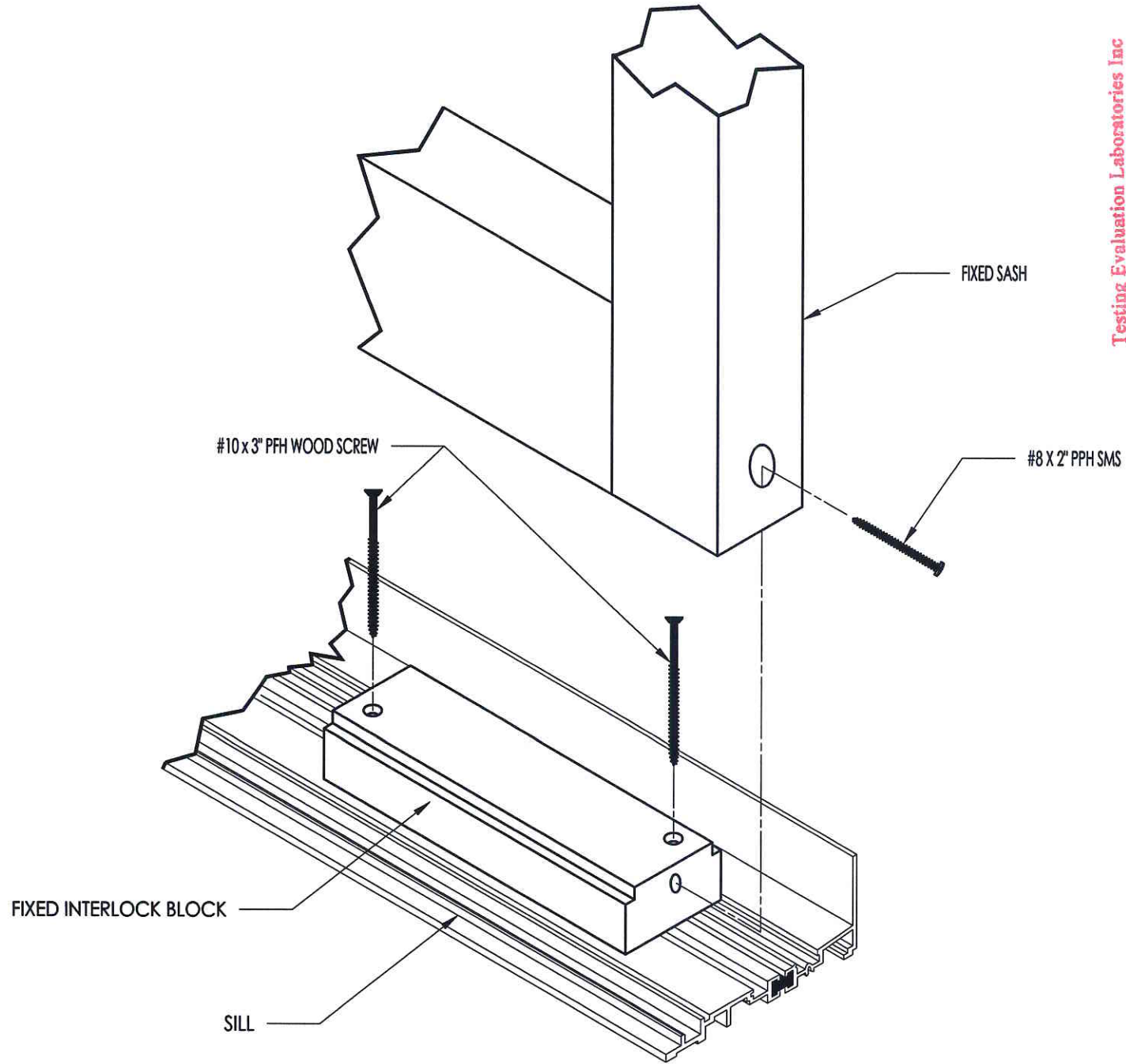
1
4 VERTICAL CROSS SECTION



2
4 VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 01991013
 Date 3/8/14 Verified by J/llca

PRODUCT: FLEETWOOD GLACIER 3300 (00X)		PART OR ASSEMBLY: VERTICAL CROSS SECTIONS	
NO.	DATE	REVISIONS	BY
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7112			
SHEET 4 OF 9			



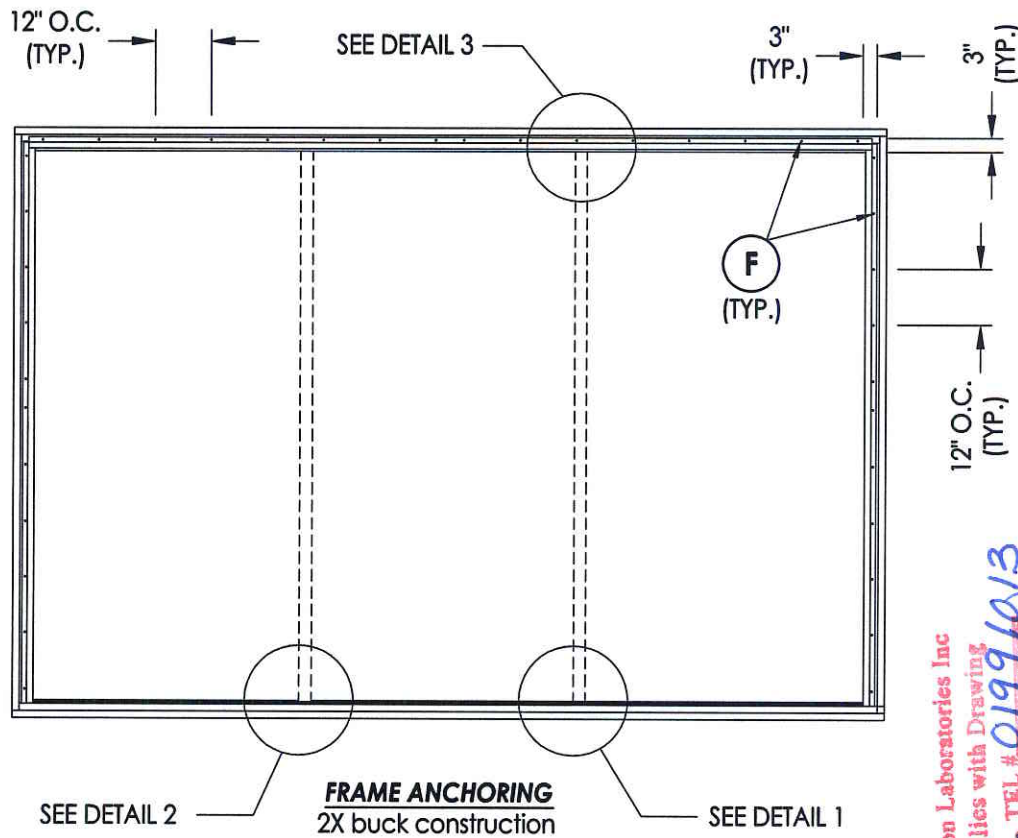
Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted TEL # 019991913
 Date 3/21/14 Verified by *[Signature]*

REVISIONS	
NO.	DATE

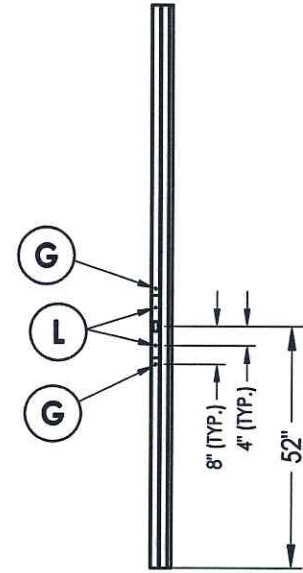
RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

DATE: 2/24/14
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.:
 L-7112
 SHEET 5 OF 9

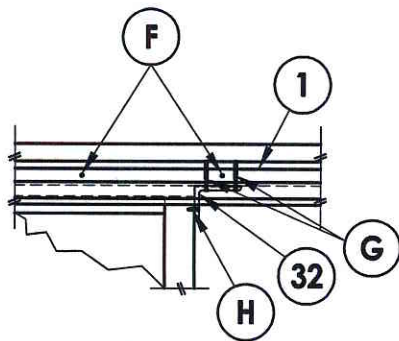
PRODUCT:
 FLEETWOOD
 GLACIER 3300 (OOX)
 PART OR ASSEMBLY:
 SILL MEETING STILE
 BLOCK DETAILS



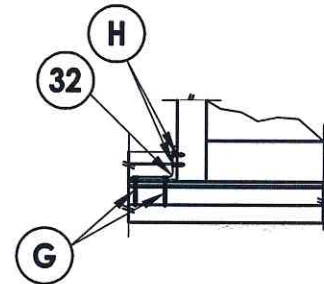
SEE DETAIL 2 **FRAME ANCHORING**
2X buck construction SEE DETAIL 1



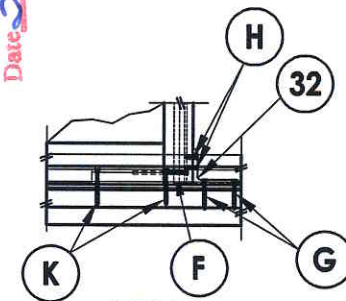
LOCK JAMB



DETAIL 3




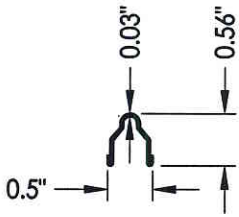
DETAIL 2



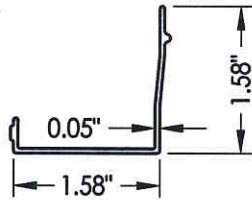
DETAIL 1

Testing Evaluation Laboratories Inc
Specimen Complies with Drawing
Deviations Noted TEL # 0199 1013
Date 3/21/14 Verified by *[Signature]*

PRODUCT: FLEETWOOD GLACIER 3300 (OOX)		PART OR ASSEMBLY: FRAME ANCHORING	
NO.	DATE	REVISIONS	BY
			
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.:			
L-7112			
SHEET 6 OF 9			

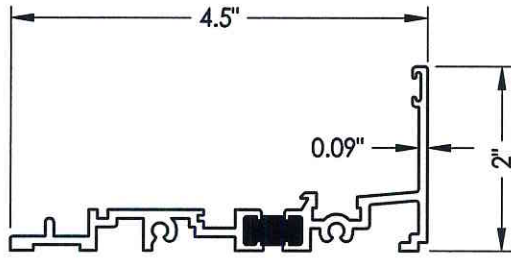


18 TRACK

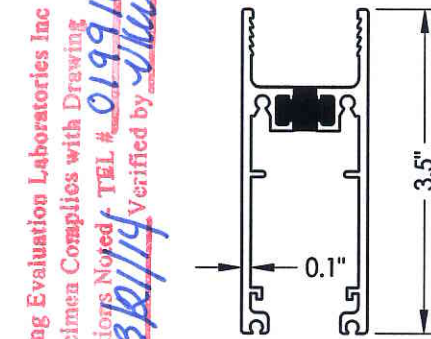


11 HEAD CHANNEL FILLER

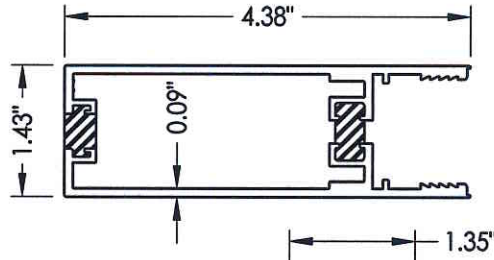
2 SILL



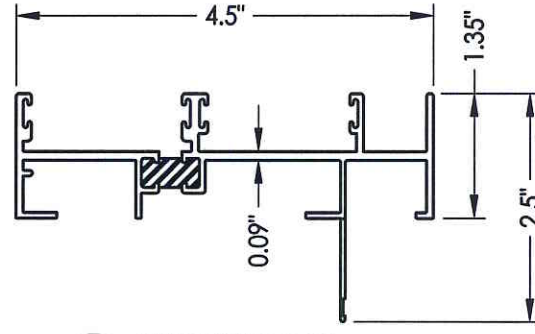
1 HEAD W/ NAIL FIN



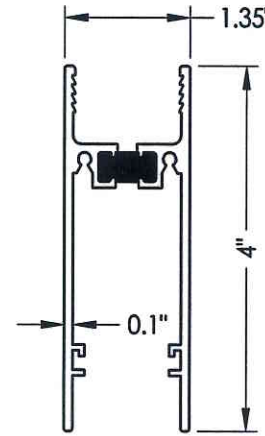
7 SLIDING BOTTOM RAIL



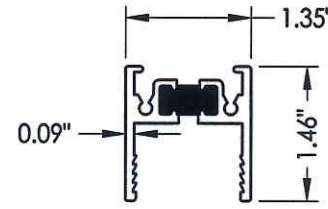
4 LOCK STILE



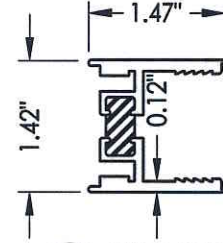
3 JAMB W/ NAIL FIN



8 FIXED BOTTOM RAIL



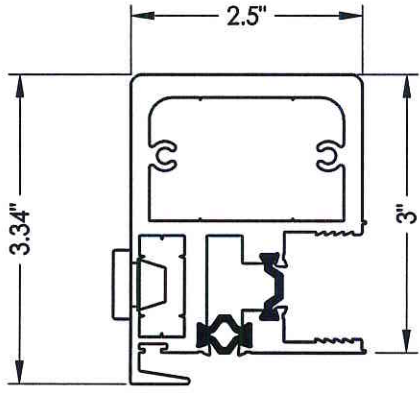
6 TOP RAIL



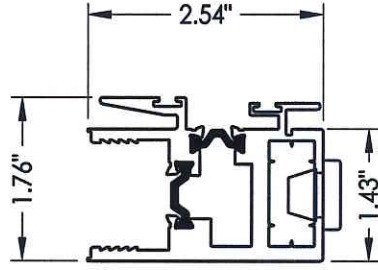
5 FIXED STILE

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted: TEL # 01991913
 Date 3/11/14 Verified by *[Signature]*

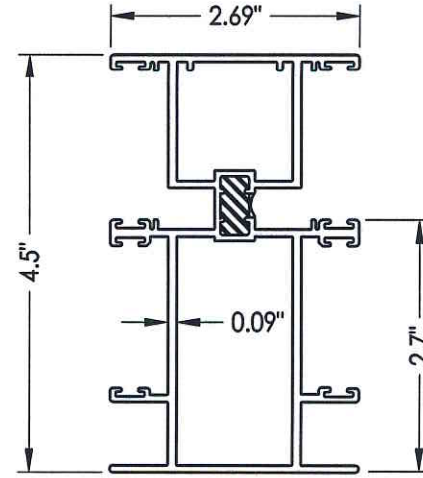
PRODUCT:		FLEETWOOD GLACIER 3300 (OOX)	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	REVISIONS	BY
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7112			
SHEET 7 OF 9			



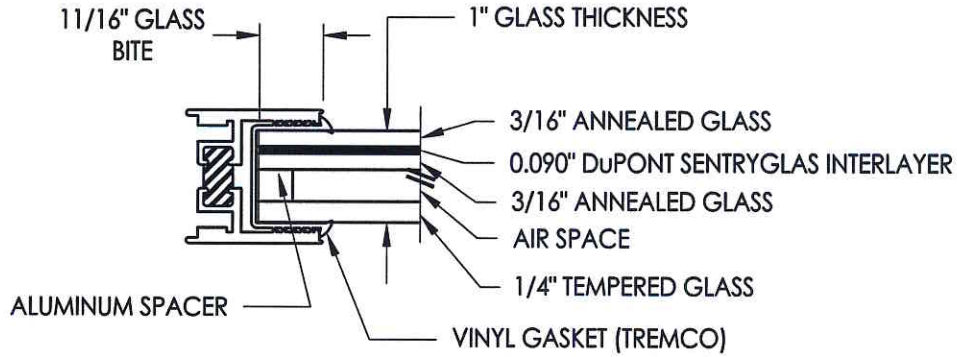
9 HP INTERLOCK



10 FIXED INTERLOCK



12 FALL JAMB



G1 GLAZING DETAIL

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted TEL # 09991913
 Date 2/11/14 Verified by JFW


PRODUCT:		FLEETWOOD GLACIER 3300 (00X)	
PART OR ASSEMBLY:		COMPONENTS AND GLAZING DETAIL	
NO.	DATE	REVISIONS	BY
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.:			
L-7112			
SHEET 8 OF 9			

BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#10 X 2" PPH SMS	STEEL
G	#10 X 2-1/2" PPH SMS	STEEL
H	#10 X 1" PFH SMS	STEEL
J	#8 X 3/4" PPH SELF-DRILLING SMS	STEEL
K	#10 X 3" PFH WS	STEEL
L	1/4-20 - 1/2" MACHINE SCREW	STEEL
1	HEAD W/ NAIL FIN	6063-T6 ALUM
2	SILL	6063-T6 ALUM
3	JAMB W/ NAIL FIN	6063-T6 ALUM
4	LOCK STILE	6063-T6 ALUM
5	FIXED STILE	6063-T6 ALUM
6	TOP RAIL	6063-T6 ALUM
7	SLIDING BOTTOM RAIL	6063-T6 ALUM
8	FIXED BOTTOM RAIL	6063-T6 ALUM
9	HP INTERLOCK	6063-T6 ALUM
10	FIXED INTERLOCK	6063-T6 ALUM
11	HEAD CLOSER	6063-T6 ALUM
12	FALL JAMB	6063-T6 ALUM
13	SLIDING BOTTOM RAIL WEATHER STRIP	-
14	LOCK STILE SPREADER	6063-T6 ALUM
15	BOTTOM RAIL SPREADER	6063-T6 ALUM
16	TOP RAIL ISOLATOR	6063-T6 ALUM
17	ISOLATOR	6063-T6 ALUM
18	S.S. TRACK	SS
19	2 FINGER VINYL	-
20	SMALL FINSEAL	-
21	LARGE FINSEAL	-
22	GLAZING VINYL 1" SCR-900, 80 DUROMETER	-
23	SILL ISOLATOR	6063-T6 ALUM
24	ROLLER ASSEMBLY	-
25	STRIKE PLATE ASSY.(JAMB)	-
26	LATCH ASSY.(JAMB)	-
32	3" X 4" L-BRACKETT	6063-T6 ALUM

Testing Evaluation Laboratories Inc
 Specimen Coraplies with Drawing
 Deviation Noted - TEL # 01991913
 Date 3/21/14 verified by RLW

PRODUCT:		FLEETWOOD GLACIER 3300 (00X)	
PART OR ASSEMBLY:		BILL OF MATERIALS	
NO.	DATE	BY	REVISIONS



R.W. BUILDING CONSULTANTS, INC.
 813.659.9197

DATE:	2/24/14
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	L-7112
SHEET	9 OF 9

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Table of contents
2	Test elevation
3	Horizontal cross sections
4	Vertical cross sections
5	Sill meeting stile block details
6	Frame anchoring
7	Components
8	Components and glazing detail
9	Bill of materials

Testing Evaluation Laboratories Inc

Specimen Complies with Drawing

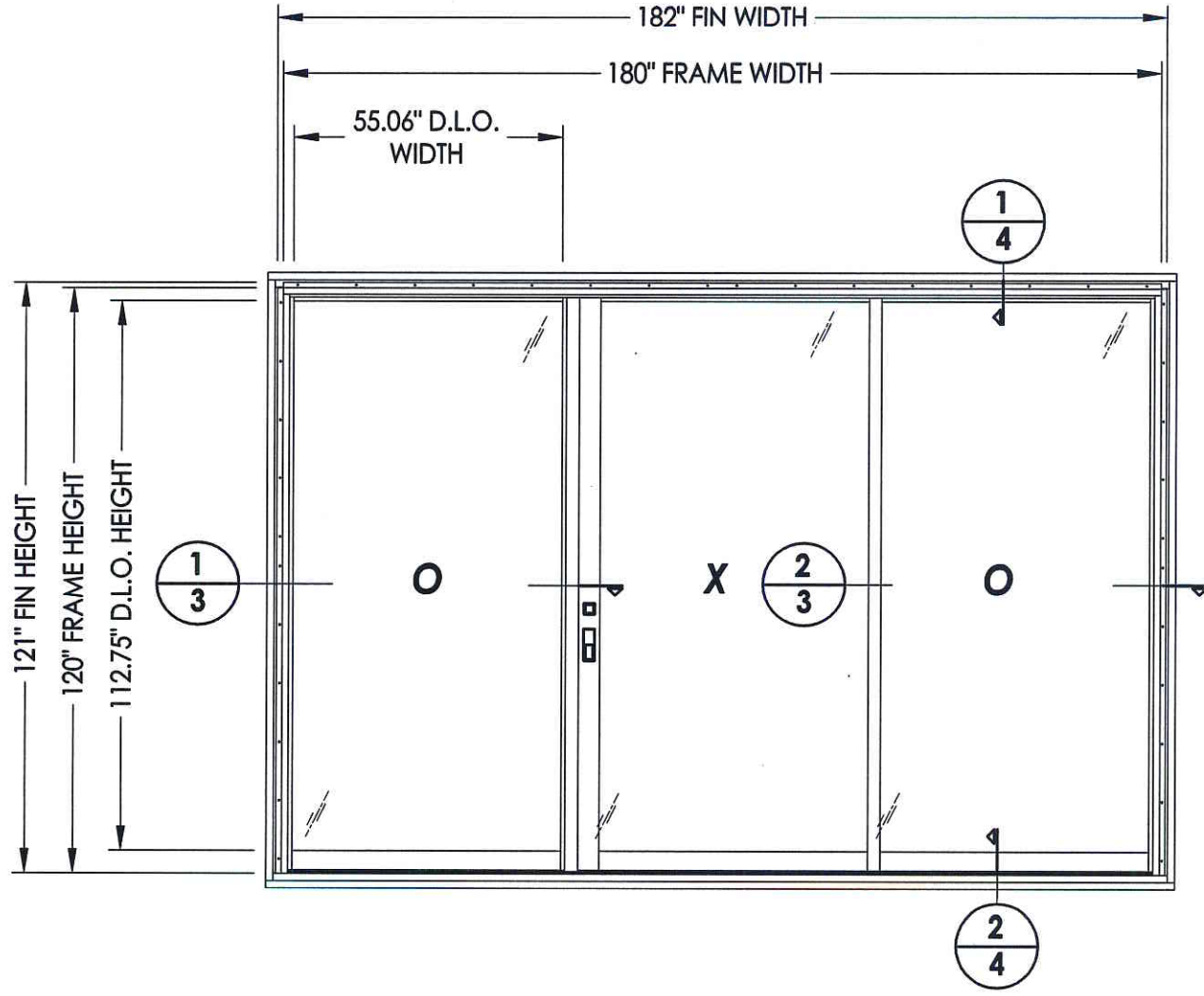
Deviations Noted - TEL # 0199.1013

Date 3/21/14 Verified by *[Signature]*



DATE: 2/24/14
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: L-7114
 SHEET 1 OF 9

PRODUCT: FLEETWOOD GLACIER 3300 (OXO)	
PART OR ASSEMBLY: TABLE OF CONTENTS	
NO.	DATE
BY	REVISIONS



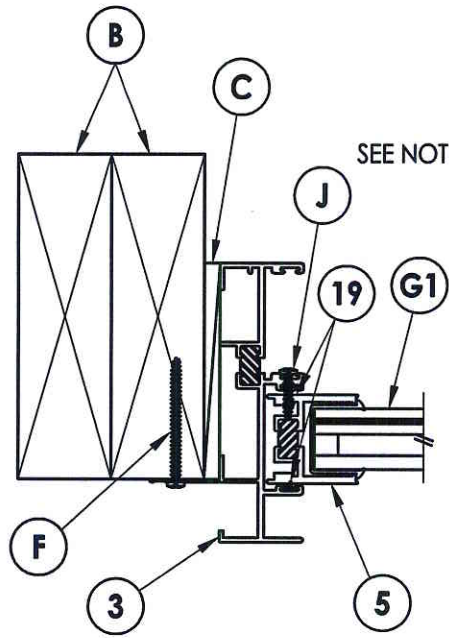
Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted- TEL # 819991013
 Date 3/21/14 Verified by JLUO

RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

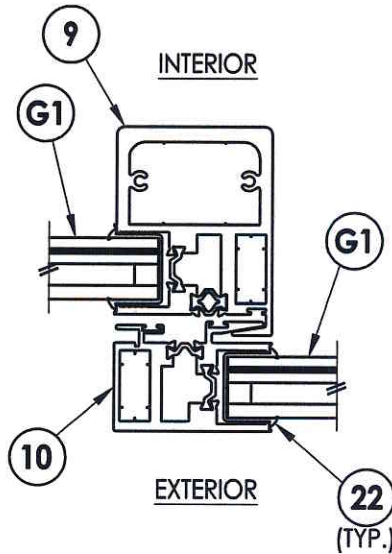
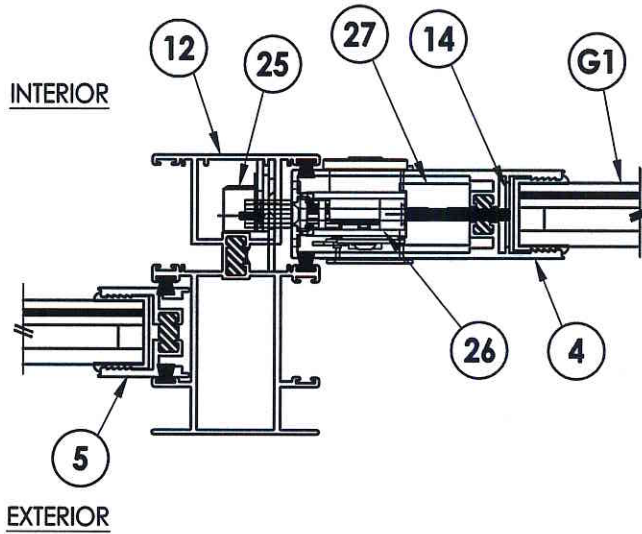
DATE: 2/24/14
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.:
 L-7114
 SHEET 2 OF 9

NO	DATE	REVISIONS	BY

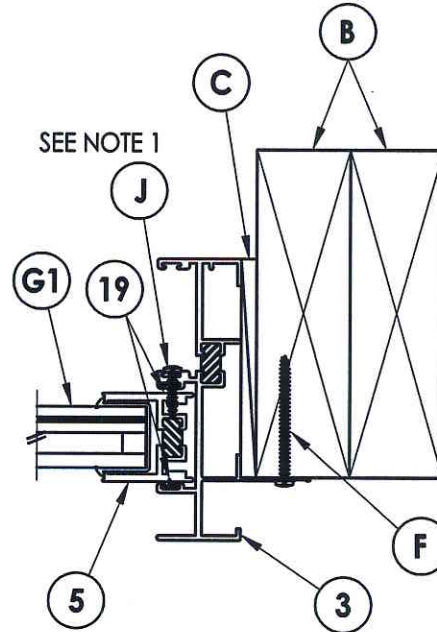
PRODUCT:	FLEETWOOD GLACIER 3300 (OXO)
PART OR ASSEMBLY:	TEST ELEVATION



1
3 HORIZONTAL CROSS SECTION



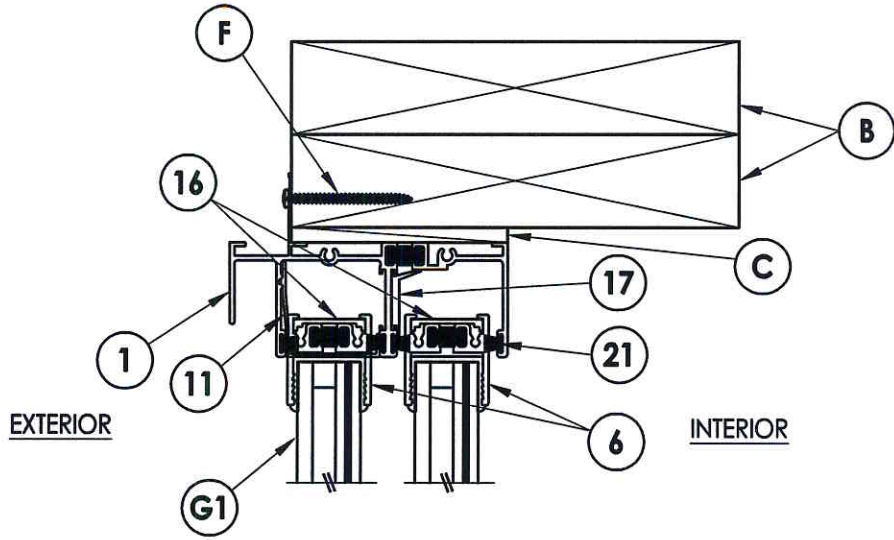
2
3 HORIZONTAL CROSS SECTION



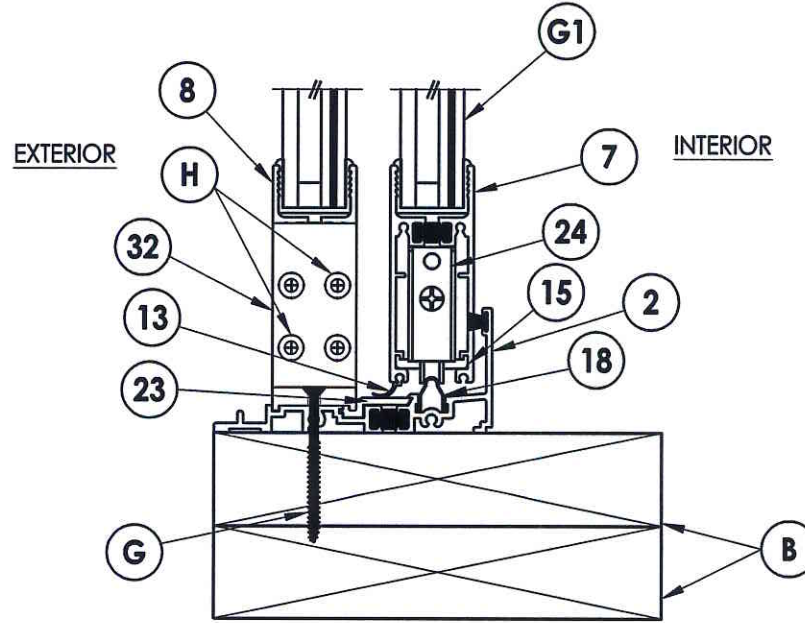
NOTE:
1. Item #J located six inches from each end then 12" o.c.

Testing Evaluation Laboratories Inc
Specimen Complies with Drawing
Deviations Noted - TEL # 0199.1013
Date 3/11/14 Verified by *[Signature]*

PRODUCT:		FLEETWOOD GLACIER 3300 (OXO)	
PART OR ASSEMBLY:		HORIZONTAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
 RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7114			
SHEET 3 OF 9			



1
4 **VERTICAL CROSS SECTION**

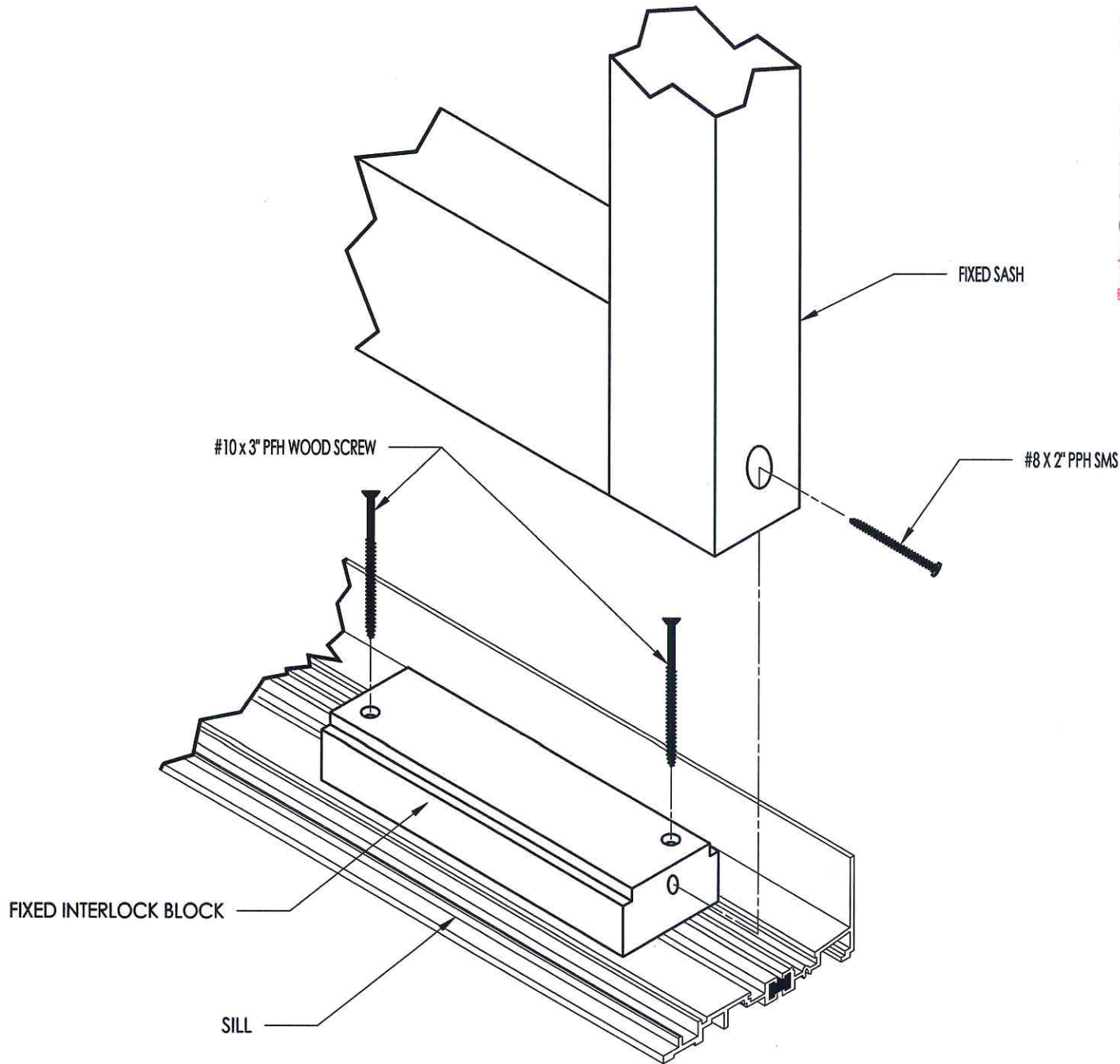


2
4 **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted TEL # 01991013
 Date 3/11/14 verified by *WVW*

PRODUCT:		FLEETWOOD GLACIER 3300 (OXO)	
PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
RW BUILDING CONSULTANTS, INC. 813.659.9197			
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.:			
L-7114			
SHEET 4 OF 9			

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 0199 1013
 Date 3/11/14 Verified by [Signature]



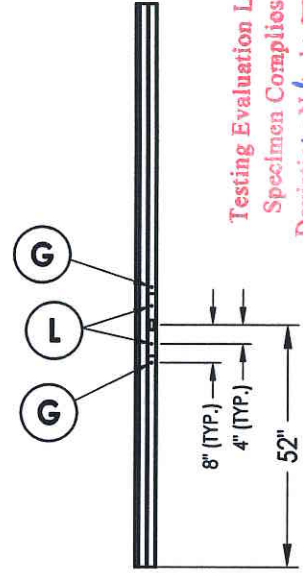
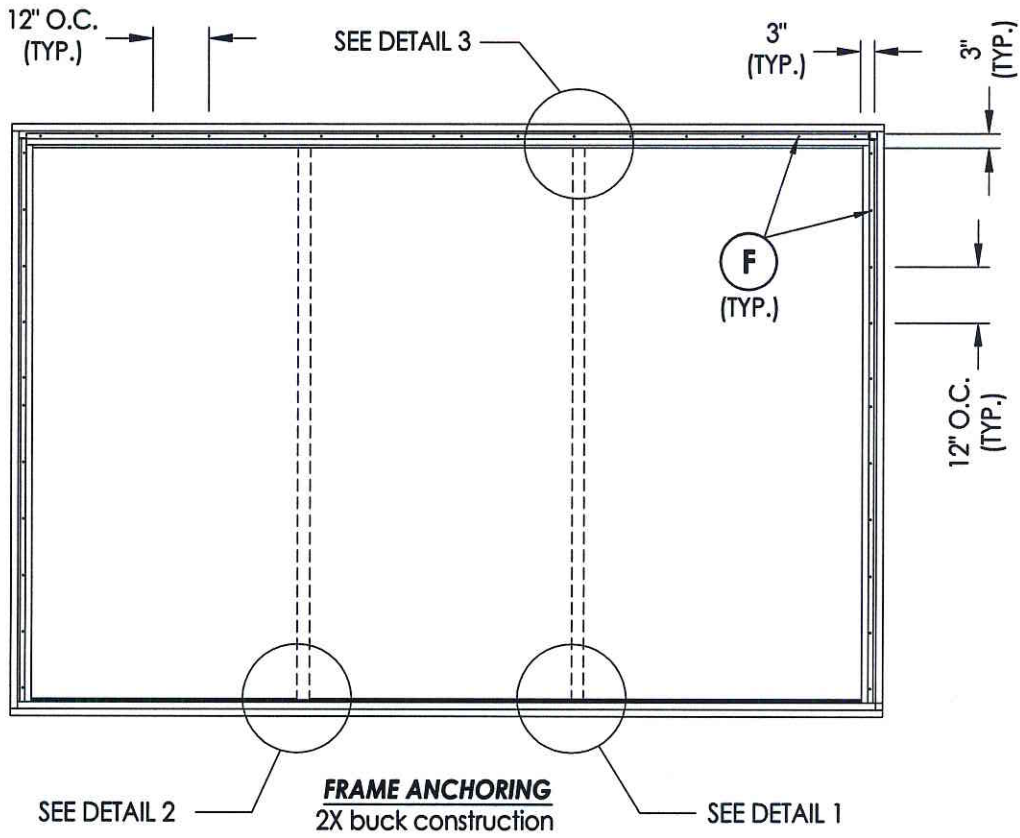
NO.	DATE	REVISIONS	BY

PRODUCT: FLEETWOOD
GLACIER 3300 (OXO)

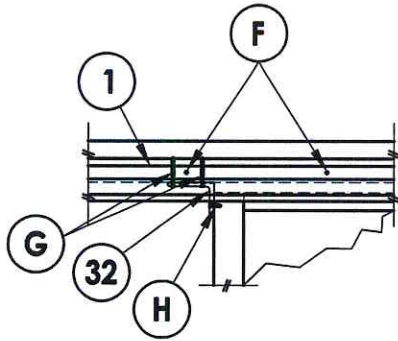
PART OR ASSEMBLY:
SILL MEETING STILE
BLOCK DETAILS

RW BUILDING CONSULTANTS, INC.
 813.659.9197

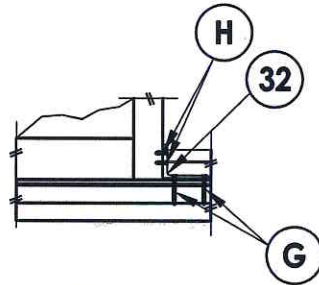
DATE: 2/24/14
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: L-7114
 SHEET 5 OF 9



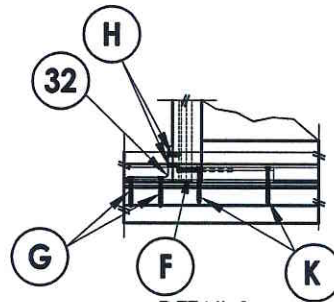
Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted TEL # 619 910 103
 Date 3/21/14 Verified by *[Signature]*



DETAIL 3

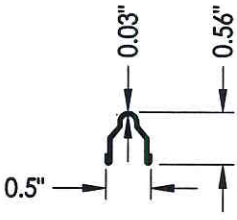


DETAIL 2



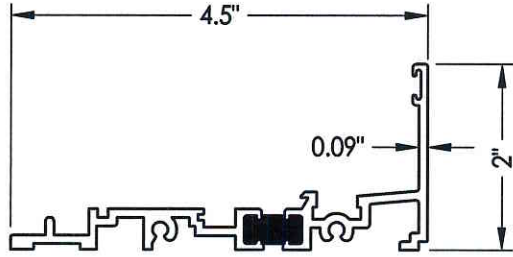
DETAIL 1

PRODUCT: FLEETWOOD GLACIER 3300 (OXO)		PART OR ASSEMBLY: FRAME ANCHORING	
NO.	DATE	BY	REVISIONS
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7114			
SHEET 6 OF 9			

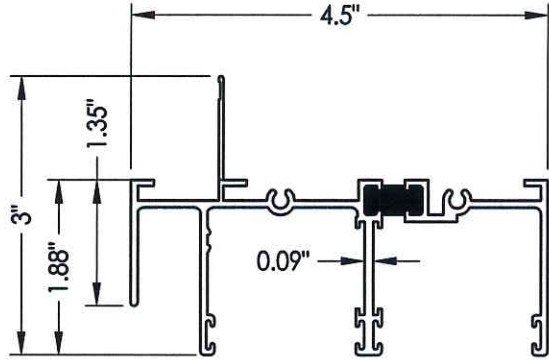


18 TRACK

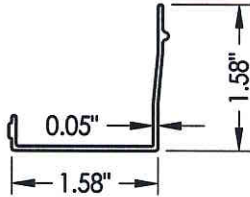
2 SILL



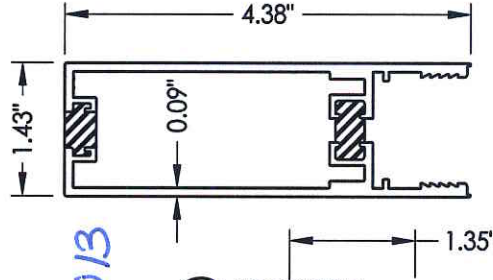
1 HEAD W/ NAIL FIN



11 HEAD CHANNEL FILLER

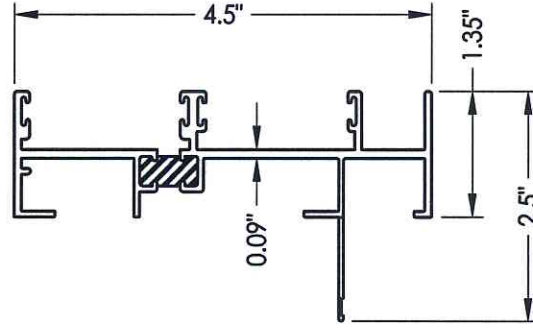


Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 0199 1013
 Date 3/11/14 Verified by *aflee*

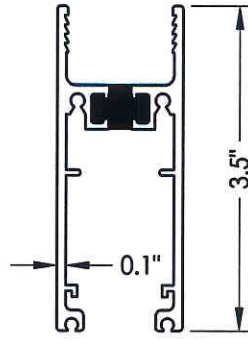


4 LOCK STILE

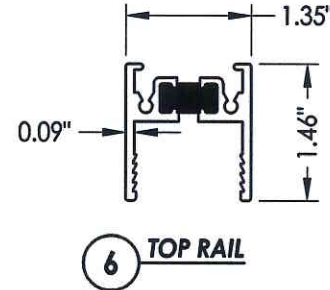
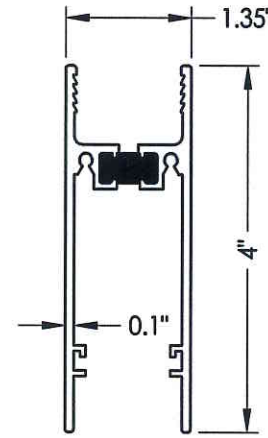
3 JAMB W/ NAIL FIN



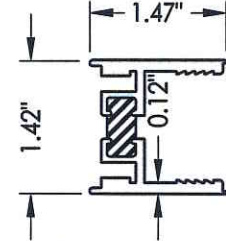
7 SLIDING BOTTOM RAIL



8 FIXED BOTTOM RAIL

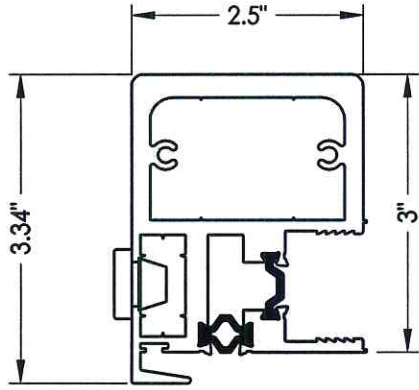


6 TOP RAIL

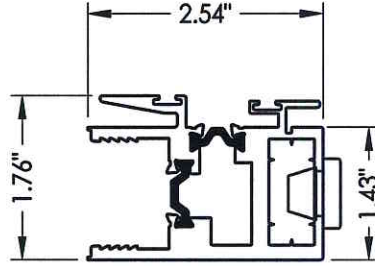


5 FIXED STILE

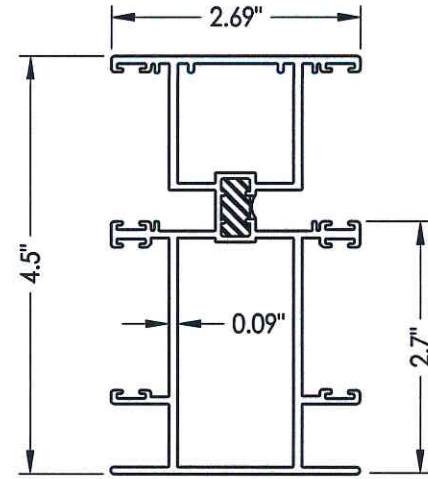
PRODUCT:		FLEETWOOD GLACIER 3300 (OXO)	
PART OR ASSEMBLY:		COMPONENTS	
NO.	DATE	REVISIONS	BY
DATE: 2/24/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7114			
SHEET 7 OF 9			



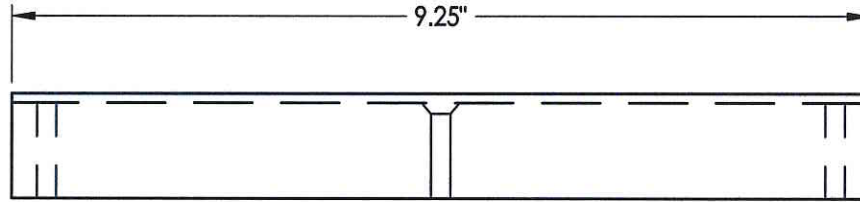
9 HP INTERLOCK



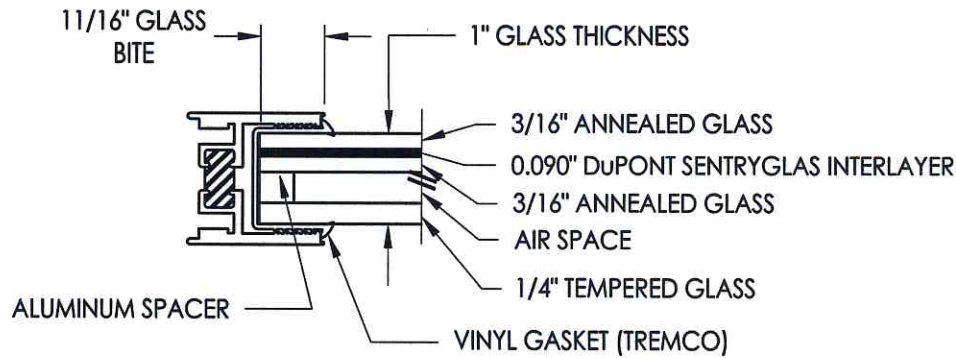
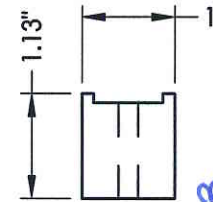
10 FIXED INTERLOCK



12 FALL JAMB



27 SPACER
Archetype Narrow Latch



G1 GLAZING DETAIL

Testing Evaluation Laboratories Inc
Specimen Complies with Drawing
Deviations Noted - TEL # 01991013
Date 3/21/14 verified by *[Signature]*

PRODUCT:		FLEETWOOD GLACIER 3300 (OXO)	
PART OR ASSEMBLY:		COMPONENTS AND GLAZING DETAIL	
NO.	DATE	BY	REVISIONS
DATE:		2/24/14	
SCALE:		N.T.S.	
DWG. BY:		JK	
CHK. BY:		LFS	
DRAWING NO.:		L-7114	
SHEET		8 OF 9	

BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#10 X 2" PPH SMS	STEEL
G	#10 X 2-1/2" PPH SMS	STEEL
H	#10 X 1" PFH SMS	STEEL
J	#8 X 3/4" PPH SELF-DRILLING SMS	STEEL
K	#10 X 3" PFH WS	STEEL
L	1/4-20 - 1/2" MACHINE SCREW	STEEL
1	HEAD W/ NAIL FIN	6063-T6 ALUM
2	SILL	6063-T6 ALUM
3	JAMB W/ NAIL FIN	6063-T6 ALUM
4	LOCK STILE	6063-T6 ALUM
5	FIXED STILE	6063-T6 ALUM
6	TOP RAIL	6063-T6 ALUM
7	SLIDING BOTTOM RAIL	6063-T6 ALUM
8	FIXED BOTTOM RAIL	6063-T6 ALUM
9	HP INTERLOCK	6063-T6 ALUM
10	FIXED INTERLOCK	6063-T6 ALUM
11	HEAD CLOSER	6063-T6 ALUM
12	FALL JAMB	6063-T6 ALUM
13	SLIDING BOTTOM RAIL WEATHER STRIP	-
14	LOCK STILE SPREADER	6063-T6 ALUM
15	BOTTOM RAIL SPREADER	6063-T6 ALUM
16	TOP RAIL ISOLATOR	6063-T6 ALUM
17	ISOLATOR	6063-T6 ALUM
18	S.S. TRACK	SS
19	2 FINGER VINYL	-
20	SMALL FINSEAL	-
21	LARGE FINSEAL	-
22	GLAZING VINYL 1" SCR-900, 80 DUROMETER	-
23	SILL ISOLATOR	6063-T6 ALUM
24	ROLLER ASSEMBLY	-
25	STRIKE PLATE ASSY.(JAMB)	-
26	LATCH ASSY.(JAMB)(Archetype Narrow Latch)	-
27	SPACER (ARCHETYPE NARROW LATCH)	-
32	3" X 4" L-BRACKETT	6063-T6 ALUM

Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 01991013
 Date 3/21/14 Verified by *WJW*

PRODUCT: FLEETWOOD GLACIER 3300 (OXO)	PART OR ASSEMBLY: BILL OF MATERIALS	
NO.	DATE	BY
REVISIONS		
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> BUILDING CONSULTANTS, INC. 813.659.9197 </div>		
DATE: 2/24/14		
SCALE: N.T.S.		
DWG. BY: JK		
CHK. BY: LFS		
DRAWING NO.: L-7114		
SHEET 9 OF 9		