



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

AAMA/WDMA/CSA/101/I.S.2/A440-11

(A440S1-09)

TEST REPORT SUMMARY

Test Report Issued To:

**Fleetwood Windows and Doors
1 Fleetwood Way
Corona, CA 92879**

**3900-T Aluminum Side Hinged Door - Outswing
Impact Rated**

Title	Summary of Results
	Specimen 15
Primary Product Designator	Class LC –PG65 1219 x 3048 (48 x 120) – Type SHD
Design Pressure	+ 3112 Pa / - 3112 Pa (+ 65.0 psf / - 65.0 psf)
Air Infiltration	0.14 L/s/m ² (0.028 scfm/ft ²) @ 75 Pa (1.57 psf)
Air Infiltration/Exfiltration (A440S1-09)	Level A3: < .50 L/s•m ²
Water Resistance (Per ASTM E547-00)	467 Pa (9.75 psf)
Structural Test Pressure	+ 4668 Pa / - 4668 Pa (+ 97.5 psf / - 97.5 psf)
Forced Entry	No Entry

Reference should be made to Report No. TEL 01991341 for complete test specimen description and data.

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/A440-08 and A440-11 (A440S1-09)

Issued to:

**Fleetwood Windows and Doors
1 Fleetwood Way
Corona, CA 92879**

IAS Lab Certification Number TL-299

Report Number: TEL 01991341

Test Date: March 19, 2015

Report Date: June 26, 2015

Project Summary: Testing Evaluation Laboratories, Inc. (TEL) was contracted to perform tests on a Fleetwood Windows and Doors 3900-T Aluminum Side Hinged Door at TEL's Plant City, FL test facility. The sample tested successfully met the performance requirements as follows:

Class LC-PG65 1219 x 3048 (48 x 120) – Type SHD – Specimen 15

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

AAMA/WDMA/CSA/101/I.S.2/A440-08 and A440-11 (A440S1-09)

Standard/Specification for Windows, Doors and Unit Skylights

<i>Series / Model:</i>	3900-T Aluminum Door
<i>Type:</i>	Impact Rated Outswing Glazed Door (X)
<i>Overall Size:</i>	1219 mm (48.00") x 3048 mm (120.00")
<i>Daylight Opening:</i>	889 mm (35.00") x 2743 mm (108.00")

For complete product description, see attached drawing L-7354 for details.

Test Results: 1219 mm (48.00") x 3048 mm (120.00") - Outswing Glazed Door (X)
Specimen 15

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test / Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.1.2.1	Force to Latch – Multipoint Locking Device	78N (17.5 lbf)	Report Only
5.3.2.1	Air Leakage Resistance (Infiltration) ASTM E283 Test conducted @ 75 Pa (1.57 psf)	0.40 L/s/m ² 0.079 scfm/ft ²	1.50 L/s/m ² 0.3 scfm/ft ²
5.3.3.1	Limited Water Penetration Resistance ASTM E547 & ASTM E331 Test conducted @ 467 Pa (9.75 psf) (Std. Weatherstrip)	No Leakage	No Leakage
5.3.4.2	Uniform Load Deflection Test @ Design Pressure ASTM E330		(See Note #1)
5.3.4.3	Uniform Load Structural Test @ 150% of Design Pressure ASTM E330		(See Note #1)
<i>Note #1:</i>	<i>(Client opted to start at a pressure higher than the minimum required. Those results are listed under "Optional Performance".)</i>		
5.3.5	Forced Entry Resistance AAMA 1304 1330 N (300 lbf) point load		
	Top lock stile corner	No Entry	No Entry
	Bottom lock stile corner	No Entry	No Entry
	Above lock	No Entry	No Entry

Test Results**Spec. 15 1219 mm (48.00") x 3048 mm (120.00") - Outswing Glazed Door (X)****Cont:****Optional Performance****5.3.4.2 Uniform Load Deflection Test @ Design Pressure ASTM E330**

Load Range	Time (Sec)	Load Pa (psf)	Loc	Deflection mm (inches)	Set mm (inches)	Allowable mm (inches)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	3.073 (0.121)	NA	(See Note #2)
			2	1.143 (0.045)	NA	(See Note #2)
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	5.639 (0.222)	NA	(See Note #2)
			2	1.321 (0.052)	NA	(See Note #2)

Note #2: *The deflections reported are not limited by AAMA/WDMA/CSA101/I.S.2/A440-08 and A440-11(A440S1-09) for this product designation. The deflection data is recorded in this report for special code compliance and information only*

5.3.4.3 Uniform Load Structural Test @ 150% of Design Pressure ASTM E330

Load Range	Time (Sec)	Load Pa (psf)	Loc	Deflection mm (inches)	Set mm (inches)	Allowable mm (inches)
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	4.115 (0.162)	0.965 (0.038)	4.318 (0.170)
			2	1.753 (0.069)	0.102 (0.004)	4.978 (0.196)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	7.950 (0.313)	0.025 (0.001)	4.318 (0.170)
			2	4.801 (0.189)	0.432 (0.017)	4.978 (0.196)

Note #3: *Deflection / Set for Location 1 measured at top of door panel at latch stile.
Deflection/Set for Location 2 measured at bottom of door panel at latch stile.*

<u>Paragraph</u>	<u>Title of Test / Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.2.1	Air Leakage Resistance (Exfiltration) ASTM E283	1.58 L/s/m ²	
	Test conducted @ 75 Pa (1.57 psf)	0.316 scfm/ft ²	0.3 scfm/ft ²
	Air Leakage Resistance (Infiltration) ASTM E283	1.23 L/s/m ²	
	Test conducted @ 299 Pa (6.24 psf)	0.245 scfm/ft ²	1.5 scfm/ft ²

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 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

<u>Rev Number</u>	<u>Date</u>	<u>Pages</u>	<u>Revision(s)</u>
0	6/26/2015	NA	Original Report Issue

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

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01991341/
 Date 6/26/15 Verified by [Signature]

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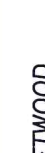
Testing Evaluation Laboratories Inc.
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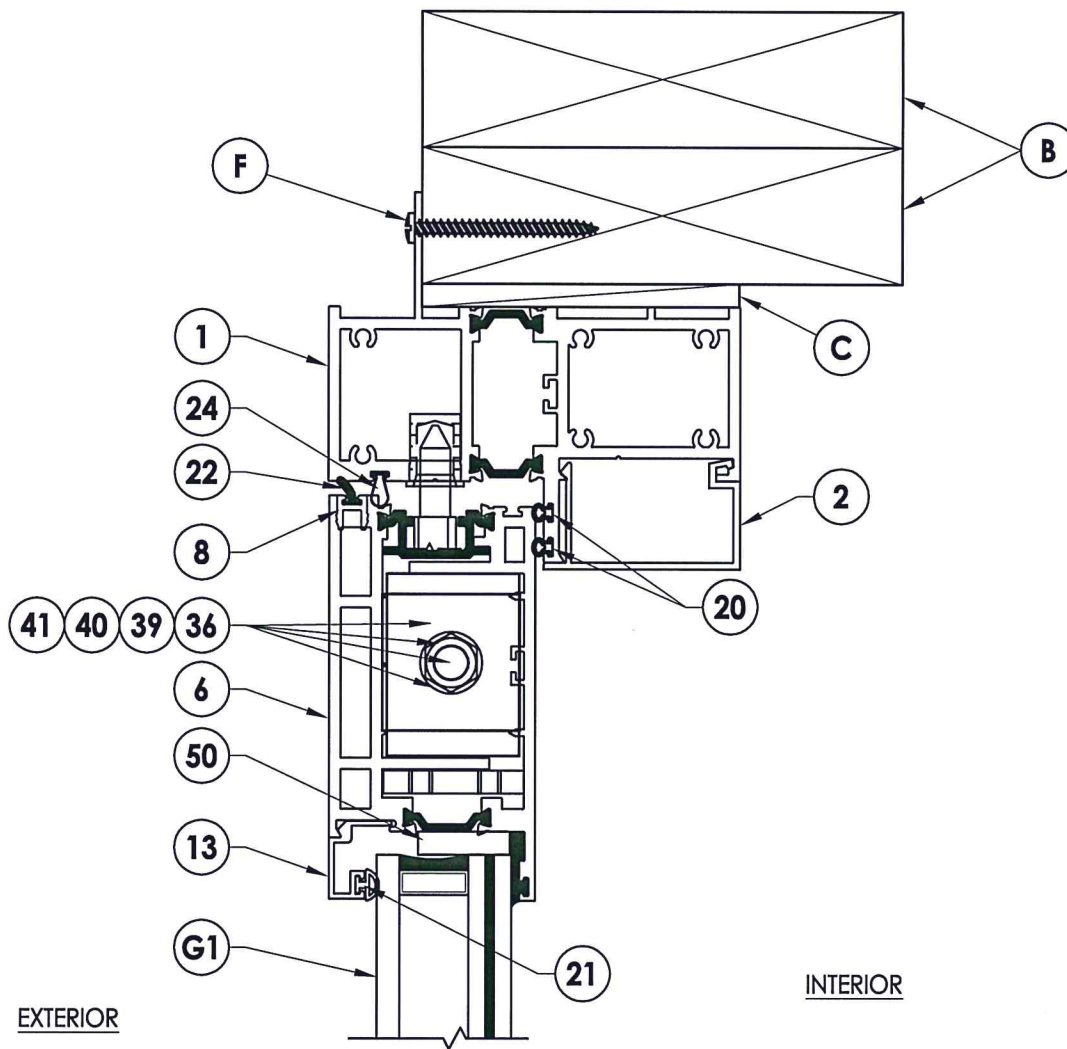
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<div style="text-align: center;">  <p>RW BUILDING CONSULTANTS, INC.</p> </div>						PRODUCT: FLEETWOOD SPEC. #15	
						PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
				NO.	DATE	BY	
				REVISIONS			
DATE: 3/17/15 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-7354							
SHEET 3 OF 9							

1 **HORIZONTAL CROSS SECTION**

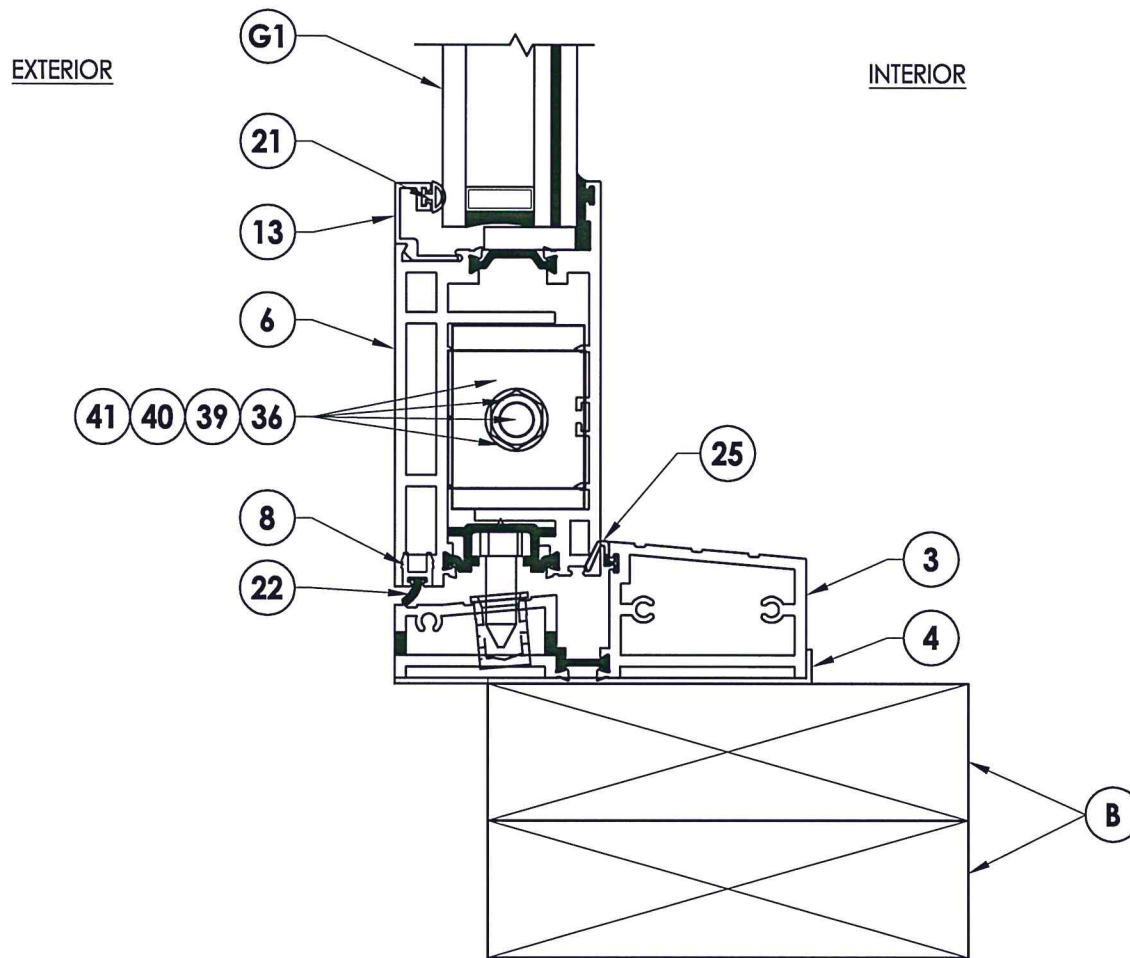
 BUILDING CONSULTANTS, INC. 813.659.9197		DATE: 3/17/15 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-7354 SHEET 4 OF 9		NO. DATE REVISIONS		BY REVISIONS		PRODUCT: FLEETWOOD SPEC. #15 PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
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Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991341
Date 6/26/15 Verified by [Signature]


1 **VERTICAL CROSS SECTION**
5

[illegible]

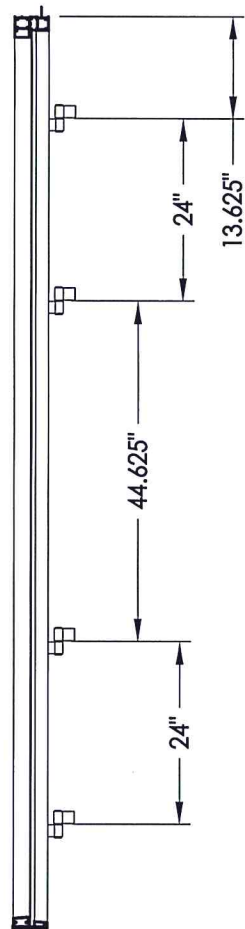


Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991341
Date 6/26/15 Verified by [Signature]

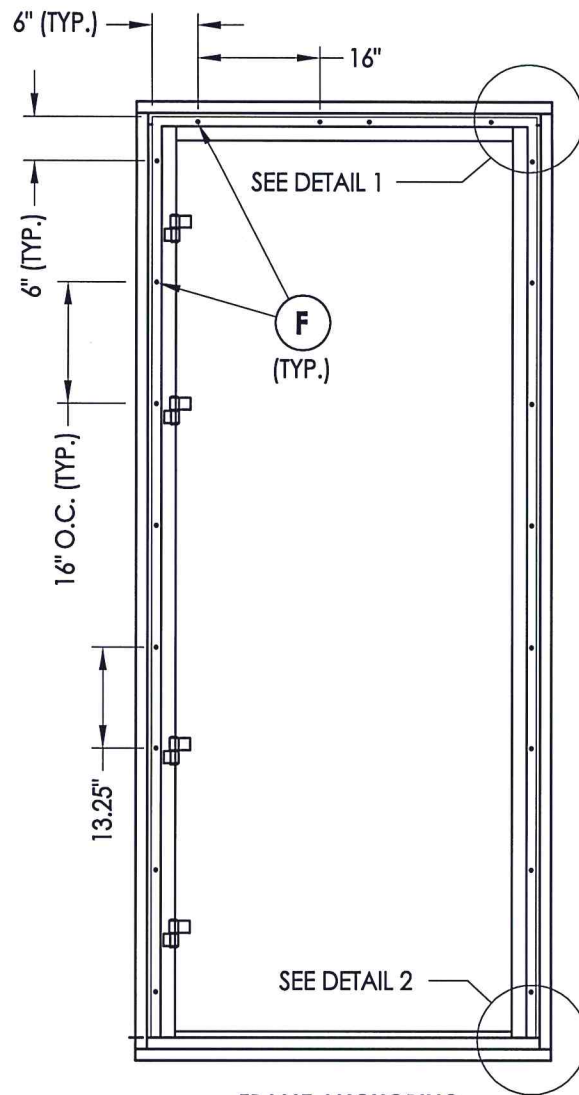
1 VERTICAL CROSS SECTION
6

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SCALE: N.T.S.		DWG. BY: JK	
CHK. BY: LFS		DRAWING NO.: L-7354	
SHEET	6	OF	9

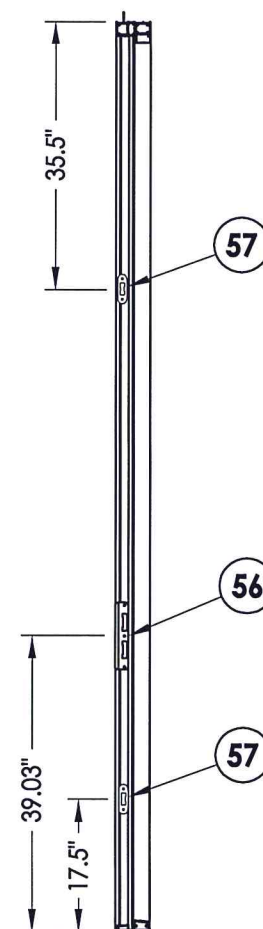
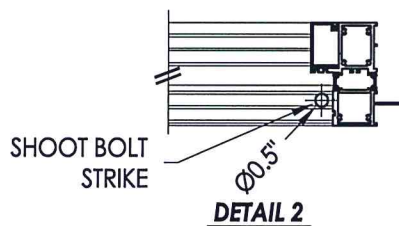
HINGE DETAIL



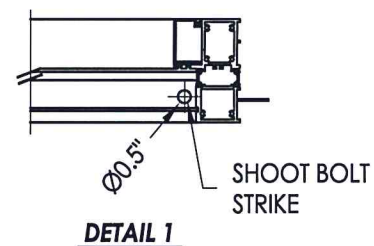
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01991341
 Date 6/26/15 Verified by *[Signature]*



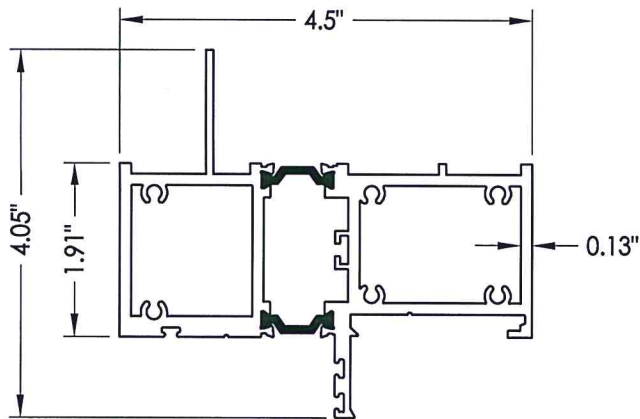
FRAME ANCHORING (2X buck installation)



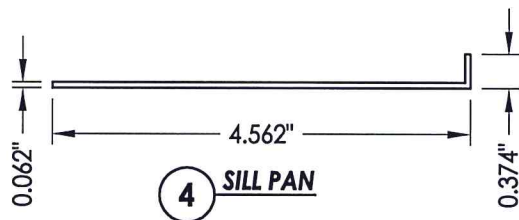
STRIKE PLATE DETAIL



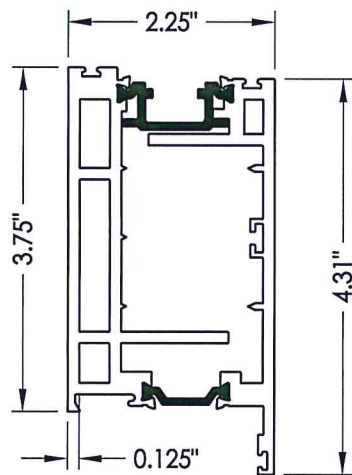
PRODUCT: FLEETWOOD SPEC. #15				PART OR ASSEMBLY: TEST ELEVATIONS			
				NO.	DATE	REVISIONS	BY
 RW BUILDING CONSULTANTS, INC. 813.659.9197				DATE: 3/17/15			
				SCALE: N.T.S.			
				DWG. BY: JK			
				CHK. BY: LFS			
				DRAWING NO.: L-7354			
				SHEET 7 OF 9			



1 BLOCK HEAD & JAMBS

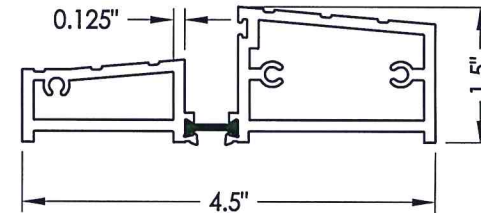


4 SILL PAN

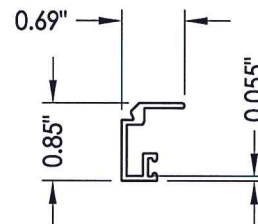


6 SASH

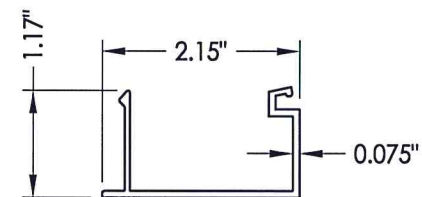
Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991341
Date 6/26/15 Verified by *[Signature]*



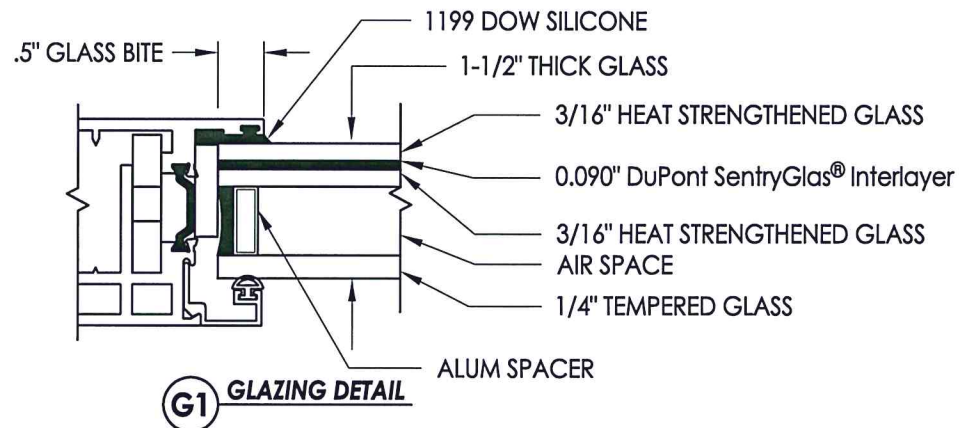
3 OUT-SWING SILL



13 1.5" GLASS STOP



2 FRAME SNAP-IN



G1 GLAZING DETAIL

PRODUCT: FLEETWOOD SPEC. #15		PART OR ASSEMBLY: COMPONENTS AND GLAZING DETAIL	
NO.	DATE	REVISIONS	BY
<div style="border: 1px solid black; padding: 5px;"> RW BUILDING CONSULTANTS, INC. 813.659.9197 </div>			
DATE: 3/17/15			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7354			
SHEET 8 OF 9			

BILL OF MATERIALS

ITEM #	DESCRIPTION	PART#	MATERIAL
B	2X BUCK SG >= 0.55		WOOD
C	1/4" MAX. SHIM SPACE		-
F	#10 x 2" PPH WOOD SCREW		STEEL
1	FRAME	3911	6063-T6 ALUM
2	FRAME SNAP-IN	3912	6063-T6 ALUM
3	OUT-SWING SILL	3202	6063-T6 ALUM
4	SILL PAN	-	-
6	SASH	3902	6063-T6 ALUM
8	ATLANTIC SEAL CLIP	3916	6063-T6 ALUM
13	1-1/2" GLASS STOP	3908	6063-T6 ALUM
20	BULB VINYL - MINI (EPDM 70 Durometer)	25199	TREMCO, # TX20801E
21	BULB VINYL - LARGE (EPDM 70 Durometer)	25031	TREMCO, # TX19638E
22	FOAM SEAL	25196	EMESBURY, # 32390
23	Q-LON FOAM SEAL	25189	SCHLEGEL CORP., # Q225T190
24	Q-LON FOAM SEAL	25058	SCHLEGEL CORP., # Q375T190
25	Q-LON FOAM SEAL	25059	SCHLEGEL CORP., # QEZ 376
31	BUTT HINGE	-	SAVIO
32	BACK UP KIT	20535	SAVIO
33	HINGE BOLT, 8M X 48MM (FOR PANEL)	25026	SAVIO
36	BACK UP PLATE FOR CORNER BLOCK	25025	-
37	MACHINE SCREW NO 10-32, FHP 1.125"	25074	STAINLESS STEEL
38	MACHINE SCREW NO 10-32, FHP .75"	25073	STAINLESS STEEL
39	HEX HEAD CAP SCREW .375-16, 2.250"	25175	STAINLESS STEEL
40	.375-16 SS. HEX NUT	25023	STAINLESS STEEL
41	.375 SPLIT LOCK WASHER	25024	STAINLESS STEEL
50	4" LONG SETTING BLOCK	18620	-
56	LATCH AND DEADBOLT STRIKE PLATE	-	-
57	STRIKE PLATE	-	-

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991341
Date 6/26/15 Verified by WHL

PRODUCT:
FLEETWOOD
SPEC. #15

PART OR ASSEMBLY:
BILL OF MATERIALS

REVISIONS
NO. DATE BY

RW BUILDING
CONSULTANTS, INC.
813.659.9197

DATE: 3/17/15

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:
L-7354

SHEET 9 OF 9