



TEST REPORT

Report No.: F5724.01-301-47

Rendered to:

CR LAURENCE CO., INC.
Vernon, California

PRODUCT TYPE: Dual Fixed Lite Store Front
SERIES/MODEL: Entice

Title	Summary of Results
Design Pressure	±720 Pa (±15.04 psf)
Air Infiltration	<0.1 L/s/m ² (<0.01 cfm/ft ²)
Water Penetration Resistance Test Pressure	300 Pa (6.24 psf)
Uniform Load Structural Test Pressure	±1080 Pa (±22.56 psf)

Reference must be made to Report No. F5724.01-301-47, dated 03/08/16 for complete test specimen description and detailed test results.

1.0 Report Issued To: CR Laurence Co., Inc.
2100 East 38th Street
Vernon, California 90058

2.0 Test Laboratory: Architectural Testing, Inc., an Intertek company ("Intertek-ATI")
4 Rancho Circle
Lake Forest, California
949-460-9600

3.0 Project Summary:

3.1 Product Type: Dual Fixed Lite Store Front

3.2 Series/Model: Entice

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test methods. Test specimen description and results are reported herein.

3.4 Test Dates: 02/16/16 – 02/17/16

3.5 Test Record Retention End Date: All test records for this report will be retained until February 17, 2020.

3.6 Test Location: CR Laurence Co., Inc. test facility in Vernon, California. Calibration of test equipment was performed by Intertek-ATI in accordance with AAMA 205-01 "In-Plant Testing Guidelines for Manufacturers and Independent Laboratories".

3.7 Test Specimen Source: The test specimen was provided by the client. Representative samples of the test specimen will not be retained by Intertek-ATI, customer opted to hold on to specimen.

3.8 Drawing Reference: The test specimen drawings were not reviewed by Intertek-ATI because of customer holding on to specimen. Drawings showing specimen construction are located in Appendix C.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Garrett Osterode	CR Laurence Co., Inc.
Ron Wooten	CR Laurence Co., Inc.
Jarod Hardman	Intertek-ATI

4.0 Test Methods:

ASTM E283-04 (2012), *Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen*

ASTM E330/E330M-14, *Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

ASTM E331-00 (2009), *Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 6.17 m ² (66.42 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	2189	86-3/16	2819	111

5.2 Frame Construction:

Frame Member	Material	Description
Head	Aluminum	Side lite top or bottom anchor, Part No. 1G200SA.
Sill	Aluminum	Sub-sill, Part No. 1G100SA.
Head and sill	Aluminum	4" square sidelite rail, Part No. 1GSR4SDU, secured to head and sill with rail anchor clip Part No. 1GSRFC.
Head and sill	Aluminum	4" square sidelite rail cladding, Part No. 1GSR4SCLADSA.
Jamb	Aluminum	Wall jamb, Part No. 1GWJ100.
Jamb	Aluminum	Wall jamb stop, Part No. 1GWJ200.
Jamb	Aluminum	Wall jamb cladding, Part No. 1GWJ200CLADSA.
Mullion	Aluminum	Vertical mullion, Part No. 1GVM100.
Mullion	Aluminum	Vertical mullion stop, Part No. 1GVM200.
Mullion	Aluminum	Vertical mullion cladding, Part No. 1GVMCLAD.

5.0 Test Specimen Description: (Continued)

5.2 Frame Construction: (Continued)

	Joinery Type	Detail
All frame corners	Flush	Secured with shear clips and cap screws.
Integral mullion	Flush	Secured with vertical shear clips mounted to head and sill with #10 x 1-1/2" hex head fasteners.

5.3 Reinforcement: No reinforcement was utilized.

5.4 Weatherstripping:

Description	Quantity	Location
Amesbury foam filled bulb gasket	2 rows	Interior and exterior side of jamb glazing pockets.
1/2" EPDM glazing gasket	2 rows	Interior and exterior side of head and sill glazing pockets.

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

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
1" IG	Aluminum spacer	1/4" clear tempered	1/4" clear tempered	Dry glazed and secured with a pressure bar at exterior face of jambs with #10 x 5/8" hex head fasteners and a EPDM roll in gasket at the head and sill interior and exterior.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Fixed lite	2	1035 x 2591	40-3/4 x 102	1/2"

5.0 Test Specimen Description: (Continued)

5.6 Drainage:

Method	Size	Quantity	Location
Weep hole	5/32" x 1-1/4"	5	10" from each end and 20" on center spacing in the subsill.

5.7 Hardware: No hardware was utilized.

5.8 Screen Construction: No screen was utilized.

6.0 Installation:

The specimen was installed into a Pine wood buck. The rough opening allowed for a 1/4" shim space at the head and jambs. The exterior and interior perimeter of the door was sealed with silicone sealant.

Location	Anchor Description	Anchor Location
Through frame	1/4" x 3" Flange head screw at sill and #10 x 1-1/2" Hex head screw at jambs and head	9" on center spacing

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

Title of Test	Results	Allowed	Note
Air Leakage, per ASTM E283 at 75 Pa (1.57 psf) at 300 Pa (6.27 psf)	<0.1 L/s/m ² (<0.01 cfm/ft ²)	0.3 L/s/m ² (0.06 cfm/ft ²) max.	
Water Penetration, per ASTM E331 at 300 Pa (6.24 psf)	Pass	No leakage	
Uniform Load Deflection, per ASTM E330 Deflections taken at vertical mullion +720 Pa (+15.04 psf) -720 Pa (-15.04 psf)	21.8 mm (0.86") 16.5 mm (0.65")	Report only	1, 2
Uniform Load Structural, per ASTM E330 Permanent sets taken at vertical mullion +1080 Pa (+22.56 psf) -1080 Pa (-22.56 psf)	0.8 mm (0.03") 1.0 mm (0.04")	Report only	1, 2

General Note: All testing was performed in accordance with the referenced standard(s).

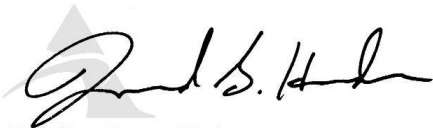
Note 1: Loads were held for 10 seconds.

Note 2: Tape and film were not used to seal against air leakage during structural testing.

Intertek-ATI will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, or other pertinent project documentation, will be retained by Intertek-ATI for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For ARCHITECTURAL TESTING, INC.:



Digitally Signed by: Jarod Hardman

Jarod S. Hardman
Laboratory Manager

JSH:ss

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

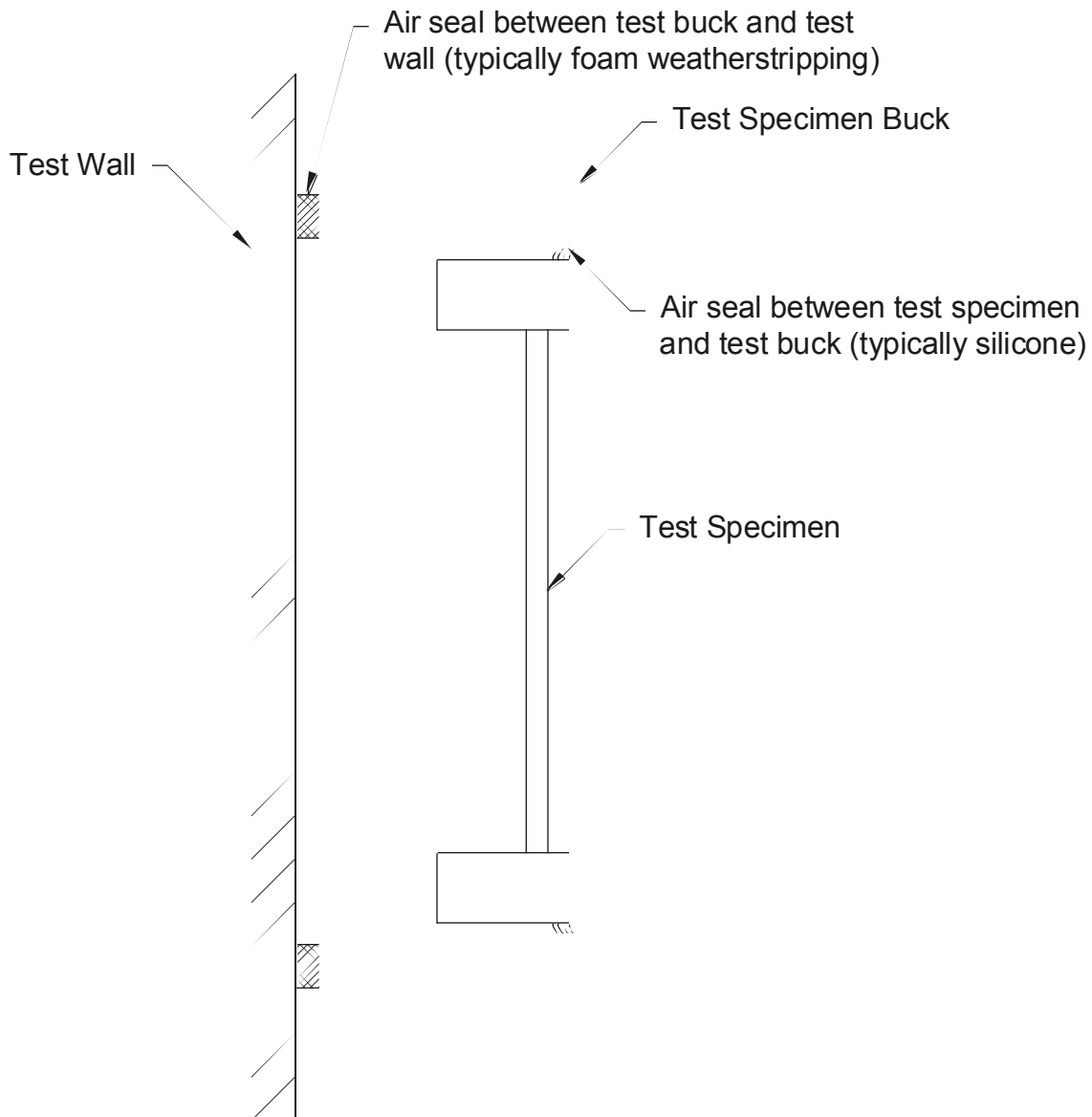
- Appendix A: Location of air seal (1)
- Appendix B: Installation Instructions (35)
- Appendix C: Drawings (17)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	03/08/16	N/A	Original report issue.

Appendix A

Location of Air Seal: The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.



Appendix C

Drawings

ITEM	FRAME COMPONENTS	PRT. NO.	PART DESCRIPTION
C1		W0000001	MULLION REMOVABLE STOP
C2		W0000002	MULLION REMOVABLE STOP
C3		W0000003	MULLION JOINT SEAL (PUSH)
C4		W0000004	MULLION JOINT SEAL (PULL)
C5		W0000005	4 SQUARE BRUSH PAINTED METAL FILLED
C6		W0000006	SHIM KIT - 10 - 3/16" DIAMETER
C7		W0000007	SHIM KIT - 10 - 3/16" DIAMETER
C8		W0000008	W0000009
C9		W0000010	W0000011
C10		W0000012	W0000013
C11		W0000014	W0000015
C12		W0000016	W0000017
C13		W0000018	W0000019
C14		W0000020	W0000021
C15		W0000022	W0000023
C16		W0000024	W0000025
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C18		W0000028	W0000029
C19		W0000030	W0000031
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C21		W0000034	W0000035
C22		W0000036	W0000037
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C36		W0000064	W0000065
C37		W0000066	W0000067
C38		W0000068	W0000069
C39		W0000070	W0000071
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C41		W0000074	W0000075
C42		W0000076	W0000077
C43		W0000078	W0000079
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C100		W0000192	W0000193

TEST REQUIREMENTS

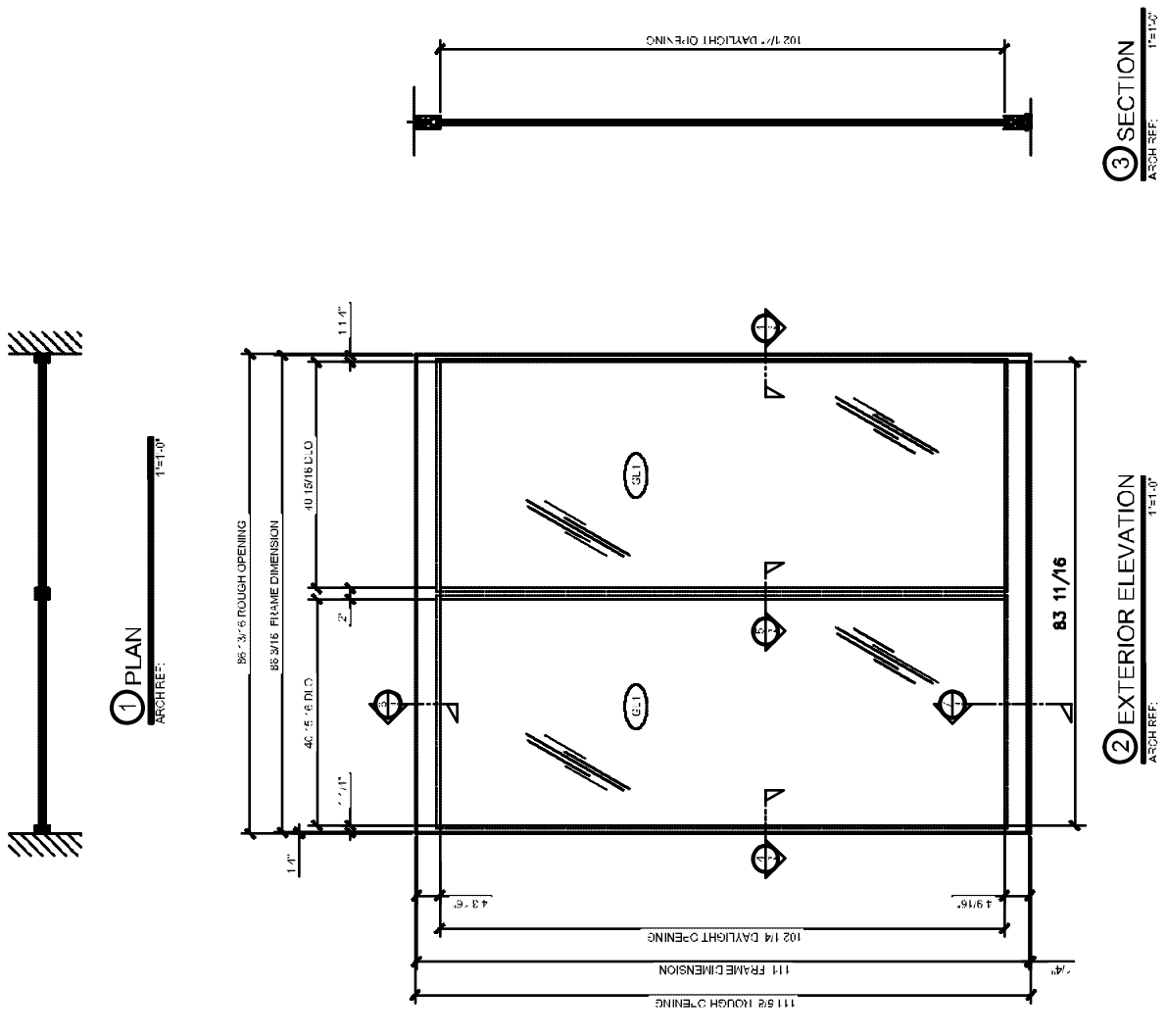
AIR INFILTRATION:
 < .06 CFM/SQ.FT. @ 1.57 PSF

STATIC WATER:
 6.24 PSF

STRUCTURAL DEFLECTION:
 --- (0.2% permanent set)

STRUCTURAL OVERLOAD:
 --- (0.2% permanent set)

TESTING SEQUENCE:
 Static Air
 Static Water
 Structural Deflection
 Structural Overload



ITEM		PT. NO.	PART DESCRIPTION		
C1	FRAME COMPONENTS	1GWJ200DU	WALL JAMB REMOVABLE STOP		
C2		1GVM200DU	MULLION REMOVABLE STOP		
C3		T1GWJ100DU	WALL JAMB-THERMAL FILLED		
C4		T1GVM100DU	VERTICAL MULLION-THERMAL FILLED		
C5		T1GSR4SDU	4" SQUARE SIDELITE RAIL-THERMAL FILLED		
C6		1G200SA	SIDE LITE TOP OR BOTTOM ANCHOR		
C7		1G100SA	SUB-SILL		
C10		1GWJ200CLADSA	WALL JAMB CLADDING		
C11		1GVM200CLADSA	VERT MULLION CLADDING		
C12		1GSR4\$CLADSA	SIDELITE RAIL CLADDING		
W1	WTHR. STRIP	WH3420012	AMESBURY FOAM GASKET W/ T SLOT MOUNT		
W2		GG12500	1/2" EDPM GLAZING GASKET		
G1	GLASS		.025 X .050 X .025 INSULATED GLASS (TEMPERED) ALUMINUM SPACER DUAL GLAZED		
G2		1GSR\$BDU	SETTING BLOCK		
H1	HARDWARE	EF38C	3/8" CLOSED CELL BACKER ROD		
H2		494534	3/4" 3M VHB FOAM TAPE (FOR CLADDING)		
H3		1GSRFCML	4" SIDELITE RAIL ANCHOR CLIP		
H4		1GSJCL1PAL	SHEAR CLIP (FOR CLADDING SPACE)		
H5		CRL33S	CRL 33S SILICONE SEALANT		
S1	1016X58HWHSDZP	#10-16 X 5/8" U/S HEX HEAD SELF TAPPING			
S2	1016X112HWHSDZP	#10-16 X 1 1/2" U/S HEX HEAD SELF TAPPING			
S3		1/4" X 3" FLANGE HEAD SCREW-GLAV. ASTM A153			

REVISED



C.R. LAURENCE CO.
ARCHITECTURAL PRODUCTS

7731 20TH STREET, LOS ANGELES, CA 90048
WOOD BRIDGE

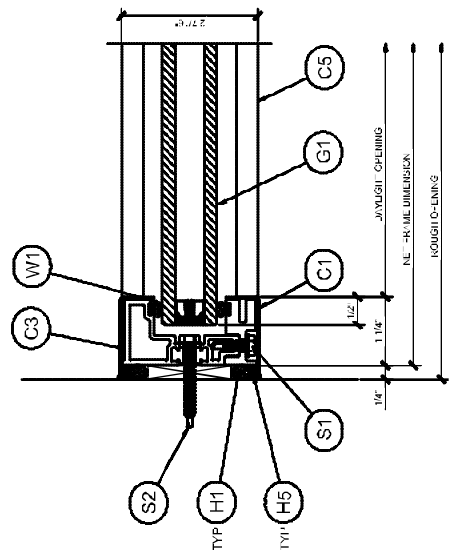
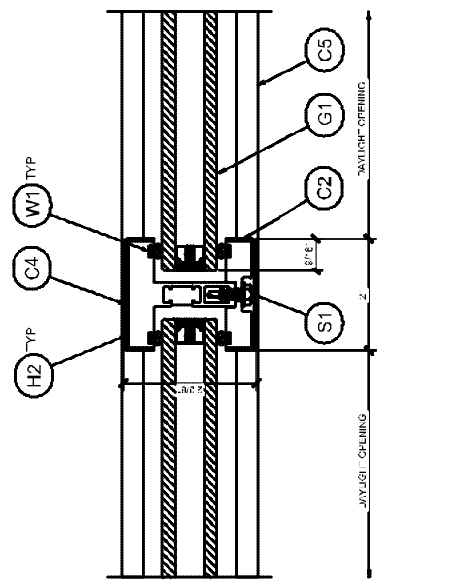
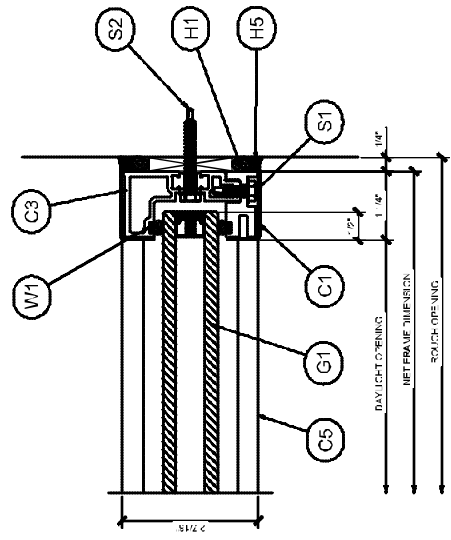
ENTICE STOREFRONT
AIR/WATER/STRUCTURAL
PTC476902

JOB Name:

Issuing Contractor:

DATE: 6/2/2015
DRAWN BY: GDO
CHECKED BY: XX
SCALE: AS SHOWN
JOB #: 1006584-1

SHEET 2 OF 4



REVISIONS



C.R. LAURENCE CO.
ARCHITECTURAL PRODUCTS

77331 20111 STREET, ONTARIO, CA 95042

ENTICE STOREFRONT
AIR/WATER/STRUCTURAL
PTC476902

Job Name:

Sheeting Contractor:

DATE: 6/2/2015
DRAWN BY: GDO
CHECKED BY: XX
SCALE: AS SHOWN
JOB #: 1085884-1-1

SHEET 3 OF 4

