



TEST REPORT

Report No.: F9585.01-901-44

Rendered to:

COEUR D'ALENE WINDOW
Spokane Valley, Washington

PRODUCT TYPE: PVC Fixed Window
SERIES/MODEL: 1010

SPECIFICATIONS:

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

and

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

and

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

Title	Summary of Results
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	Class LC PG55 1404 x 1404 (55 x 55) Type FW
Design Pressure	±2640 Pa (55.14 psf)
Air Infiltration	0.17 L/s/m ² (0.03 cfm/ft ²)
Air Exfiltration	0.16 L/s/m ² (0.03 cfm/ft ²)
Canadian Air Infiltration/Exfiltration Level	Fixed
Water Penetration Resistance Test Pressure	400 Pa (8.36 psf)

Test Completion Date: 06/08/16

Reference must be made to Report No. F9585.01-901-44, dated 07/13/16 for complete test specimen description and detailed test results.

1.0 Report Issued To: Coeur d'Alene Window
3808 N. Sullivan Road
Spokane Valley, WA 99216

2.0 Test Laboratory: Architectural Testing, Inc.
An Intertek company (Intertek-ATI)
22155 68th Avenue South
Kent, WA 98032
253-395-5656

3.0 Project Summary:

3.1 Product Type: PVC Fixed Window

3.2 Series/Model: 1010

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). The specimen tested successfully met the performance requirements for a **Class LC PG55 1404 x 1404 (55 x 55) Type FW** rating.

3.4 Test Dates: 06/03/16 - 06/08/16

3.5 Test Record Retention End Date: All test records for this report will be retained until 06/08/20.

3.6 Test Location: Intertek-ATI test facility in Kent, Washington.

3.7 Test Specimen Source: The test specimen was provided by the client. Representative samples of the test specimen will be retained by Intertek-ATI for a minimum of four years from the test completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Intertek-ATI and are representative of the test specimen reported herein. Test specimen construction was verified by Intertek-ATI per the drawings located in the appropriate Appendix. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Guillermo Silva	Intertek-ATI

4.0 Test Specifications:

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

and

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

and

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

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 1.95 m ² (21.0 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1404	55-1/4"	1404	55-1/4"

5.2 Frame Construction:

Member	Material	Description
All	PVC	White

	Joinery Type	Detail
All corners	Welded	Miter cut and thermally welded

5.3 Weatherstripping: No weatherstripping was utilized.

5.4 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 Nominal	Spacer Type	Interior Lite Nominal	Exterior Lite Nominal	Glazing Method
19 mm (3/4") IG	Aluminum	3 mm (1/8") annealed	3 mm (1/8") annealed	Glazed against 3/8" foam tape, silicone sealed corners and PVC glazing beads

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Frame	1	1328 x 1328	52-1/4 x 52-1/4	12.5 mm (1/2") nominal

5.0 Test Specimen Description: (Continued)

5.5 Drainage:

Method	Size	Qty.	Location
Weep	15.8 mm x 4.7 mm (5/8" x 3/16")	2	Sill, sash pocket, approx. 50 mm (2") from the corner, through one wall (draining into hollow)
Weep	12.2 mm x 3.8 mm (1/2" x 5/32")	2	Sill, glazing pocket, approx. 35 mm (1-3/8") from the corner, through one wall (draining into hollow)
Weep	22.2 mm x 3.8 mm (7/8" x 5/32")	2	Sill, internal web, at the corner, through one wall (draining between hollows)
Weep	12.2 mm x 3.8 mm (1/2" x 5/32")	2	Sill, exterior face, approx. 40 mm (1-5/8") from the corner, through one wall (draining hollows)

5.6 Hardware: No hardware was utilized.

5.7 Reinforcement: No reinforcement was utilized.

6.0 Installation:

The specimen was installed into a Doug-Fir wood buck. The rough opening allowed for shim space. The exterior perimeter of the window was set with sealant.

Location	Anchor Description	Anchor Location
Full perimeter	#8 by 1" screws	Located between 0 mm (0") and 170 mm (6-5/8") from the corners and approx. 170 mm (6-5/8") apart through pre-punched slots

7.0 Test Results: The temperature during testing was 25.5°C (78°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.17 L/s/m ² (0.03 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.16 L/s/m ² (0.03 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	Fixed	0.2 L/s/m ² (0.4 cfm/ft ²) max.	
Water Penetration	N/A	N/A	2
Uniform Load Deflection	N/A	N/A	2
Uniform Load Structural	N/A	N/A	2
Forced Entry Resistance, per ASTM F 588 - Grade: 20	Pass	No entry	
Forced Entry Resistance, per CAWM 301	Pass	No entry	
Thermoplastic Corner Weld	Pass	Meets as stated	
Optional Performance			
Water Penetration, per ASTM E 547 at 400 Pa (8.36 psf)	Pass	No leakage	
Uniform Load Deflection, per ASTM E 330 taken at the jamb, between installation screws +2640 Pa (55.14 psf) -2640 Pa (55.14 psf)	0.3 mm (0.01") 0.3 mm (0.01")	Report Only Report Only	3, 4, 5
Uniform Load Structural, per ASTM E 330 taken at the jamb, between installation screws +3960 Pa (82.71 psf) -3960 Pa (82.71 psf)	<0.25 mm (<0.01") <0.25 mm (<0.01")	0.7 mm (0.03") max. 0.7 mm (0.03") max.	4, 5

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

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

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

Note 4: Loads were held for 10 seconds.

Note 5: 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, representative samples of test specimens, 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 INTERTEK-ATI:

Guillermo E. Silva
Technician

Jeffrey L. Dideon
Regional Manager

GES:pac

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

Appendix-A: Alteration Addendum (1)

Appendix-B: Location of Air Seal (1)

Appendix-C: Drawings (3)

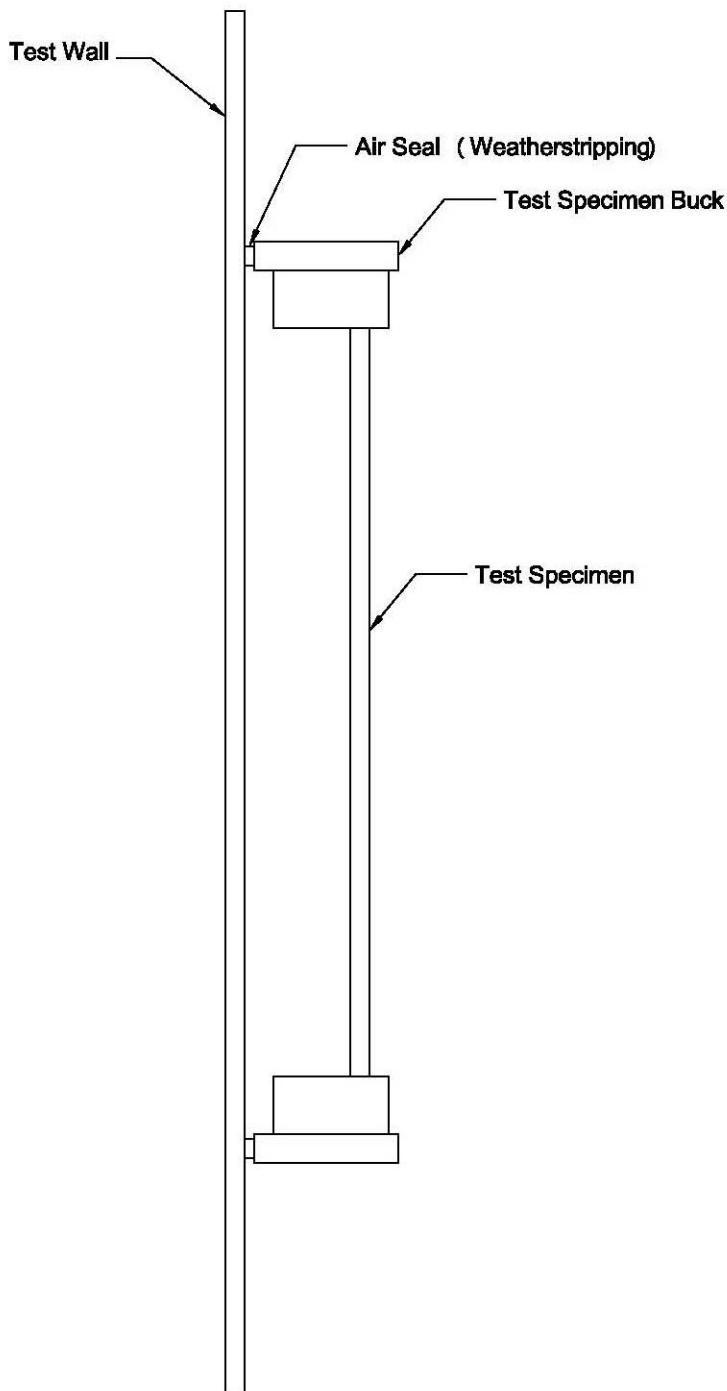
This report produced from controlled document template ATI 00438, revised 06/27/14.

Appendix A
Alteration Addendum

Note: No alterations were required.

Appendix B

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

Bill of Materials List
 1010 - WH
 1000 Picture
 47 1/2 x 47 1/2 (Net Frame)
 Bill of Materials File - Total Quantity Ordered (1) - Includes Waste Values

Part #	Description	Usage	U/I	Cost
	1010 - WH - 47.5000 x 47.5000	0.0000		0.0000
		0.0000		0.0000
R1335-W801	Narrow Frame, White, SL/SH, Nailfin, 144 pcs, 252"	17.1667	FT	12.3137
R1285-W801	Balance Cover, White, 24 pcs, 192	11.1771	FT	2.1281
R1994-W801	Glazing Bead, Clam Shell, White, 150 pcs, 192	15.3958	FT	0.4619
VG1216W-FC515	1/16" x 3/8" x 150' white glazing tape	15.2083	FT	0.2722
6554W/A	Setting Block, CDA/PDA, Step, 3/4", Box of 3000	2.0000	EA	0.0716
GLASS	Fixed IGU-Dual Glaze-CL-30mm-270N-Preserve-(14.6944 sf)	1.0000		53.1900
13306	1000 NFRC / Gold Foil Label 4 1/2" x 5/8"	1.0000	EA	0.0545
4-6-DT-0-R	4 x 6 Direct Thermal label - Removable - For NFRC Ratings	1.0000	EA	0.8680
4-1.5-DT-0-R	4 x 1.5 Direct Thermal Label - Removable - Main Frame Label	2.0000	EA	0.4320
33668	Coeur d' Alene adhesive labels	1.0000	EA	0.0741
10683-03975	PVC glue	0.1000	OZ	0.0484
Total Cost:				69.9145

	Report #:	F9585-901-44
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	Verified by:	<i>[Signature]</i>



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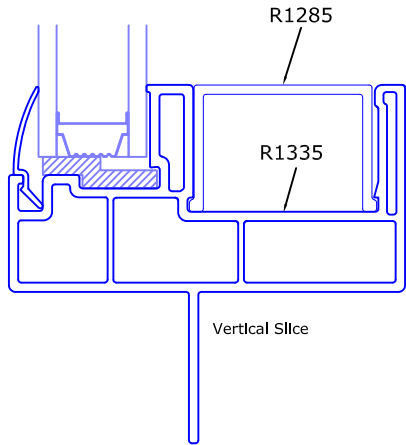
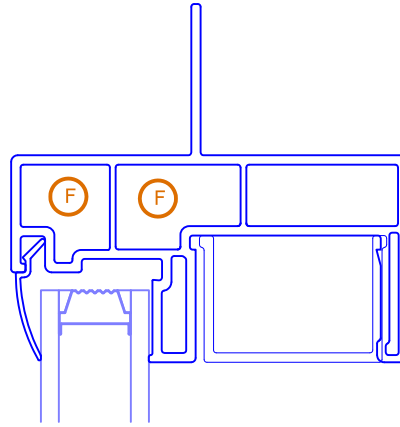
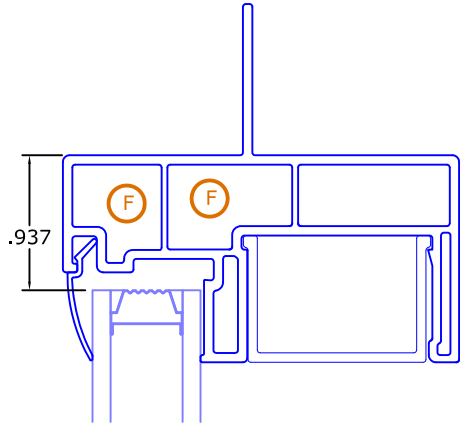
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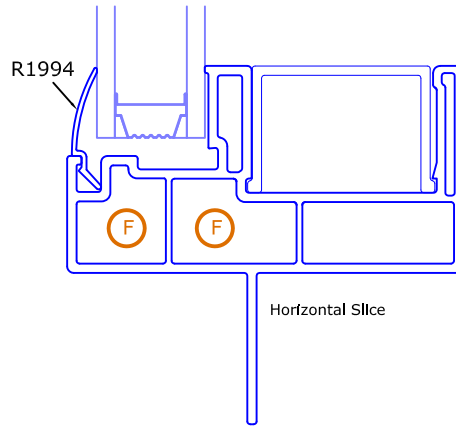
Other Frames:
R1337-305-D1

F NFRC FOAM
With & Without

F



Vertical Slice



Horizontal Slice

ROYAL Building Products 111 Royal Group Crescent Woodbridge, Ontario Canada L4H 1X9	Die#	305-L1335-PIC_H_V		CUSTOMER Coeur d'Alene Windows	PROJECT: 305_CdA	DATE: February 23, 2015	Copyright © 2014 Royal Group, Inc. All Rights Reserved	Layout Name: PIC_35_Filler	ACAD#:	305_CdA_Sections_all (002)	Ref	xxx
	Sys No.	305-L1335-PIC_H_V	WALL TOLERANCES:						0.000-0.099 ±0.006	ANGULAR TOLERANCES:	x.x ±1/2"	RADII:
									WALL THICKNESS:	SYMBOL:	a	
									Exterior	SHARP	b	
									Interior	FLEX	c	
										CRITICAL	f	FULL
										EXPOSED	s	SHARP

② .060 WALL THICKNESS

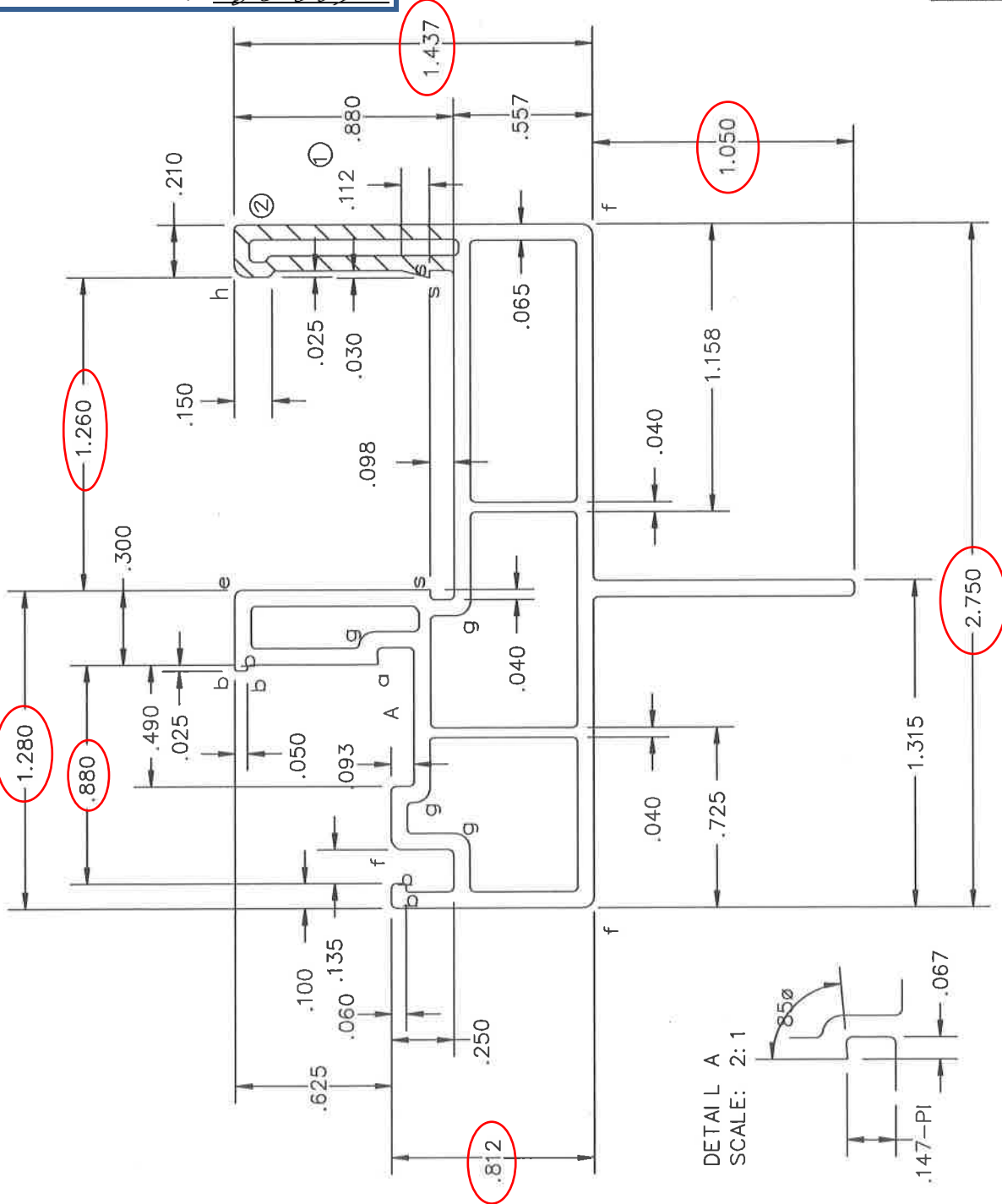
SCALE: 1.5:1

- a=0.006R
- b=0.012R
- c=0.015R
- d=0.020R
- e=0.030R
- f=0.045R
- g=0.060R
- h=0.050R
- s=SHARP

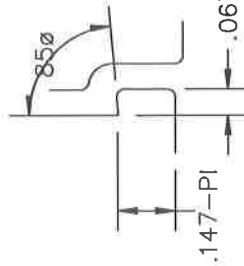


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APPROVED
 06-JAN-98
 CYCLOID DESIGNS



DETAIL A
 SCALE: 2:1



REV	DATE	REMARKS
1	01-18-98	WALL THICKNESS CLARIFIED
2	11-05-01	ADDED

FAB REF	305-F9
305-F5	

CYCLOID DESIGNS DWG: 305-D1 DATE: 29-DEC-97

TITLE: SH/SL FRAME W/FIN RS1 335

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 SPARKS, NEVADA
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EXTERNAL WALL: 0.065
 INTERNAL WALL: 0.045
 CORNER TYP: 0.020R
 WEIGHT: 0.495 LB/FT