

**AAMA/NWWDA 101/I.S.2-97  
TEST REPORT**

**Rendered to:**

**ODL INCORPORATED**

**SERIES/MODEL: Maintenance Free 531 EXEX**

**TYPE: Wood Fixed Window**

<b>Title</b>	<b>Summary of Results</b>
AAMA Rating	F-R130 50 x 50
Air Infiltration	<0.01 cfm/ft <sup>2</sup>
Water Resistance Test Pressure	12.0 psf
Uniform Load Deflection Test Pressure	±130.0 psf
Uniform Load Structural Test Pressure	±195.0 psf
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-42351.01 for complete test specifications, description and data.

Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to:

ODL INCORPORATED  
215 East Roosevelt  
Zeeland, Michigan 49464

Report No: 01-42351.01  
Test Date: 09/30/02  
And: 10/01/02  
Report Date: 10/18/02  
Expiration Date: 10/01/06

**Project Summary:** Architectural Testing, Inc. (ATI) was contracted by ODL Incorporated to perform tests on a Series/Model Maintenance Free 531 EXEX, wood fixed window. The sample tested successfully met the performance requirements for a F-R130 50 x 50 rating.

**Test Specification:** The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

**Test Specimen Description:**

**Series/Model:** Maintenance Free 531 EXEX

**Type:** Wood Fixed Window

**Overall Size:** 4' 1-5/8" wide by 4' 1-5/8" high

**Fixed Daylight Opening Size:** 3' 10-11/16" wide by 3' 10-11/16" high

**Finish:** All wood was unfinished.

**Glazing Details:** The fixed lite utilized 1" insulated glass fabricated from a sheet of 1/8" tempered pattern glass on the exterior and 1/8" clear tempered glass on the interior with a decorative glass panel inserted between the interior and exterior sheets of glass with a metal desiccant filled spacer system. The fixed lite was interior glazed and back bedded with silicone. The fixed lite was held-in-place with foamed PVC stop molding that were secured with 1" brad nails 1" from ends and 4" on center.

130 Derry Court  
York, PA 17402-9405  
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**Test Specimen Description:** (Continued)

**Frame Construction:** All frame members were constructed of wood. All corners were butted and fastened with four 1-1/2" long "u" shaped staples per corner. The brickmold and exterior stop were constructed of foamed PVC. The exterior stop members were fastened to the window frame with 1-1/2" long "u" shaped staples, 2" from ends and 4" on center and all corners were butted. The brickmold was fastened to the exterior stops with 2" long finish nails, nailed 2" from ends and 4" on center. The top corners were mitered and secured with two 2" long finish nails per corner. The bottom corners were butted and secured with one #8 x 3" long Robertson wood screw per corner. The brickmold was sealed to the exterior stop with silicone.

**Drainage:** No drainage was utilized.

**Reinforcement:** No reinforcement was utilized.

**Installation:** The window was installed into a 2 x 10 treated wood buck. The window was secured to the buck with #8 2-1/2" long galvanized wood screws, fastened 3" from ends and 12" on center. The exterior perimeter was sealed with silicone.

**Test Results:**

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.2	Air Infiltration (ASTM E 283-99) @ 1.57 psf (25 mph)	<0.01 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup> max.
<i>Note #1: The tested specimen meets the performance levels specified in AAMA/NWWD, 101/I.S. 2-97 for air infiltration.</i>			
2.1.3	Water Resistance (ASTM E 547-00) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the head) (Loads were held for 52 seconds) @ 15.0 psf (positive) @ 15.0 psf (negative)	0.03" <0.01"	0.30" max. 0.30" max.

**Test Results:** (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the head) (Loads were held for 10 seconds) @ 22.5 psf (positive) @ 22.5 psf (negative)	<0.01" <0.01"	0.21" max. 0.21" max.
2.1.8	Forced Entry Resistance (ASTM F 588-97)  Type: D Grade: 10  Hand and Tool Manipulation Test	No entry	No entry
<u>Optional Performance</u>			
4.3	Water Resistance (ASTM E 547-00) WTP = 12.0 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the head) (Loads were held for 52 seconds) @ 130.0 psf (positive) @ 130.0 psf (negative)	0.02" 0.04"	0.30" max. 0.30" max.
4.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the head) (Loads were held for 10 seconds) @ 195.0 psf (positive) @ 195.0 psf (negative)	0.01" 0.01"	0.21" max. 0.21" max.

drawings, representative samples of the test specimen, and a copy of this report will  
by ATI for a period of four years. The above results were secured by using  
d test methods and they indicate compliance with the performance requirements of  
erenced specification. This report does not constitute certification of this prod  
y only be granted by the certification program administrator. This report may not  
d except in full without the approval of Architectural Testing.

HITECTORAL TESTING, INC:

Reeves  
r  
n

Allen N. Reeves  
Allen N. Reeves, P.E.  
Director - Engineering Services  
18 OCTOBER 2002

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**DOCUMENT CONTROL ADDENDUM #01-42351.00**

**Current Issue Date: 10/17**

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**Report No.: 01-42351.01**

**Requested by:** David DeBlock, ODL Incorporated

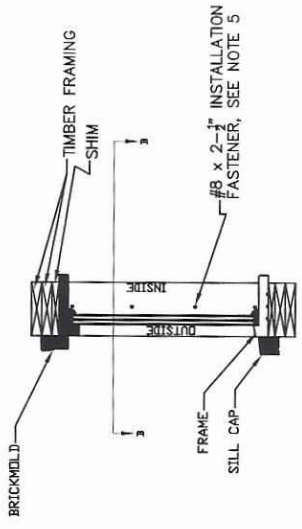
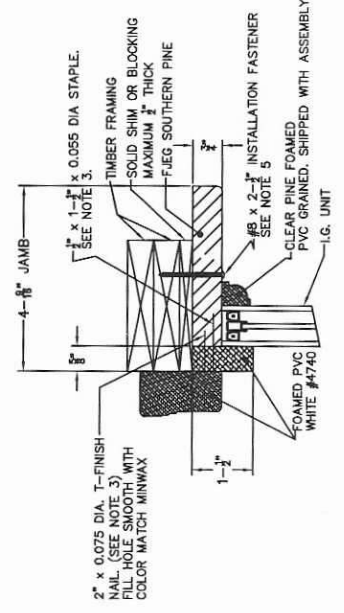
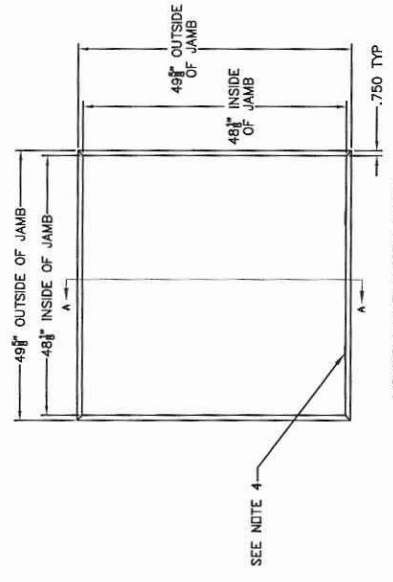
**Purpose:** AAMA/NWWDA 101/I.S.2-97 testing on a Series/Model Maintenance F  
531 EXEX, wood fixed window.

**Issued Date:** 10/17/02

**Comments:** Florida P.E. seal required.

REV	DATE	DESCRIPTION	BY

TESTING DONE UNDER ATI PROJECT 01-42351.01	
Summary of Results	
AAMA Rating	F-R130 50 x 50
Uniform Load Deflection Test Pressure	±130.0 psf
Air Infiltration	<0.01 cfm/ft <sup>2</sup>
Water Resistance Test Pressure	120 psf
Uniform Load Structural Test Pressure	±195.0 psf
Forced Entry Resistance	Grade 10



- NOTES:
1. FRAME MATERIAL - FINGER JOINTED, CLEAR FINISH SOUTHERN PINE, ASSEMBLED WITH TYPE 1 WATERPROOF GLUE.
  2. PURCHASE FULLY ASSEMBLED EXCEPT INNER STIP HOLDING, MITER CUT TO FIT.
  3. ALL STIP, W.A. BRICK MOLD FASTENERS, MAX. SPACING 2' FROM EDGE & 4' O.C.
  4. (2) 0.125 X 1.00 X 2.00 SETTING BLOCKS ARE SHIPPED WITH ASSEMBLY.
  5. INSTALLATION FASTENERS TO BE #8 X 2-1/2" WOOD SCREWS ON JAMB WITH MAXIMUM SPACING 3' FROM CORNERS AND 12" O.C.



Alexander M. Reuser  
23 OCTOBER 2002

PROJECT NO. 01-42418.02	PROJECT NAME Window Installation	DRAWING Maintenance Free Bath Window	DWG. BY TAH	SHEET 1
115-34	CLIENT DDL Incorporated	#531 EXEX	DATE 10/22/02	OF 1