| | Document Title: | Doc No: | FRM B1-02 |
|---|---|---|---|
| KEYSTONE CERTIFICATIONS, INC. | **Structural Performance Certification Authorization Report** | Rev No: 7 | Page: 1 Of: 1 |
| Required By: | PRO B1-03 | | |

CAR & Product ID Number: 757 - 103.0
Issue Date: 7/8/2013
Revision Date: 3/19/2019
Expiration Date: 4/7/2024
Company Code: 757

This Certification Authorization Report (CAR) is issued by Keystone Certifications, Inc. (KCI) after full validation review, and is based on a standardized evaluation of the product conducted by an independent accredited laboratory in accordance with the specified referenced standard. Actual fenestration product performance may vary based on many factors, including installation, condition of the wall/roof substrate and the age of the product and installation components.

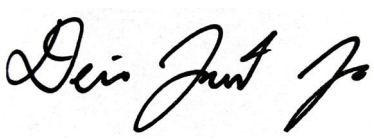
This report indicates the product is eligible for the application of Keystone Certification Program certification labels. Licensee stipulates in affixing certification labels to products, that those products are representative of the specimen evaluated and documented for certification authorization. Only products bearing such a certification label shall be considered certified. The information in this report can be verified at www.keystonecerts.com.

| **Licensee Information:** | **Product Information:** |
|---|---|
| Pocahontas Aluminum Company, Inc.<br>2001 Industrial Drive, PO Box 756<br>Pocahontas, AR 72455<br>USA | Model: SS46 PVC Single Slider XO<br>Operator Type: HS<br>Config: EM/IM<br>Max Width: 72<br>Max Height: 48 |

| **Referenced Standard:** | **Product Rating:** |
|---|---|
| AAMA/WDMA/CSA 101/I.S.2/A440-08 | Class R-PG30 1816x1207 (72x48)-Type HS |

| **Qualifying Test Information:** | |
|---|---|
| Test Report No: | ATI-A9078.06-501-47 |
| Test Report Expiration: | 4/7/2024 |

**Authorized Signature:**



Dennis Fassnacht Jr.
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**Keystone Certifications, Inc.**
145 Limekiln Rd. Suite 100B
New Cumberland, Pennsylvania 17070
Phone: 717-932-8500
Fax: 717-932-8501

| | Document Title: | Doc No: | FRM B1-02 |
|---|---|---|---|
| KEYSTONE CERTIFICATIONS, INC. | **Structural Performance Certification Authorization Report** | Rev No: 7 | Page: 1 Of: 1 |
| Required By: | PRO B1-03 | | |

CAR & Product ID Number: 757 - 104.0
Issue Date: 7/8/2013
Revision Date: 3/19/2019
Expiration Date: 4/7/2024
Company Code: 757

This Certification Authorization Report (CAR) is issued by Keystone Certifications, Inc. (KCI) after full validation review, and is based on a standardized evaluation of the product conducted by an independent accredited laboratory in accordance with the specified referenced standard. Actual fenestration product performance may vary based on many factors, including installation, condition of the wall/roof substrate and the age of the product and installation components.

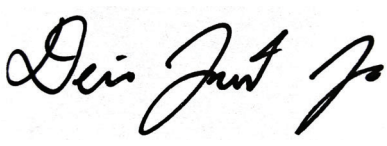
This report indicates the product is eligible for the application of Keystone Certification Program certification labels. Licensee stipulates in affixing certification labels to products, that those products are representative of the specimen evaluated and documented for certification authorization. Only products bearing such a certification label shall be considered certified. The information in this report can be verified at www.keystonecerts.com.

| **Licensee Information:** | **Product Information:** |
|---|---|
| Pocahontas Aluminum Company, Inc.<br>2001 Industrial Drive, PO Box 756<br>Pocahontas, AR 72455<br>USA | Model: SS46 PVC Single Slider 1/4-1/2-1/4 XOX<br>Operator Type: HS<br>Config: EM/IM, GS-1/8" Ann IG (F)<br>Max Width: 108<br>Max Height: 48 |

| **Referenced Standard:** | **Product Rating:** |
|---|---|
| AAMA/WDMA/CSA 101/I.S.2/A440-08 | Class R-PG30 2731x1207* (108x48*)-Type HS |

| **Qualifying Test Information:** | |
|---|---|
| Test Report No: | ATI-A9078.06-501-47 |
| Test Report Expiration: | 4/7/2024 |

**Authorized Signature:**



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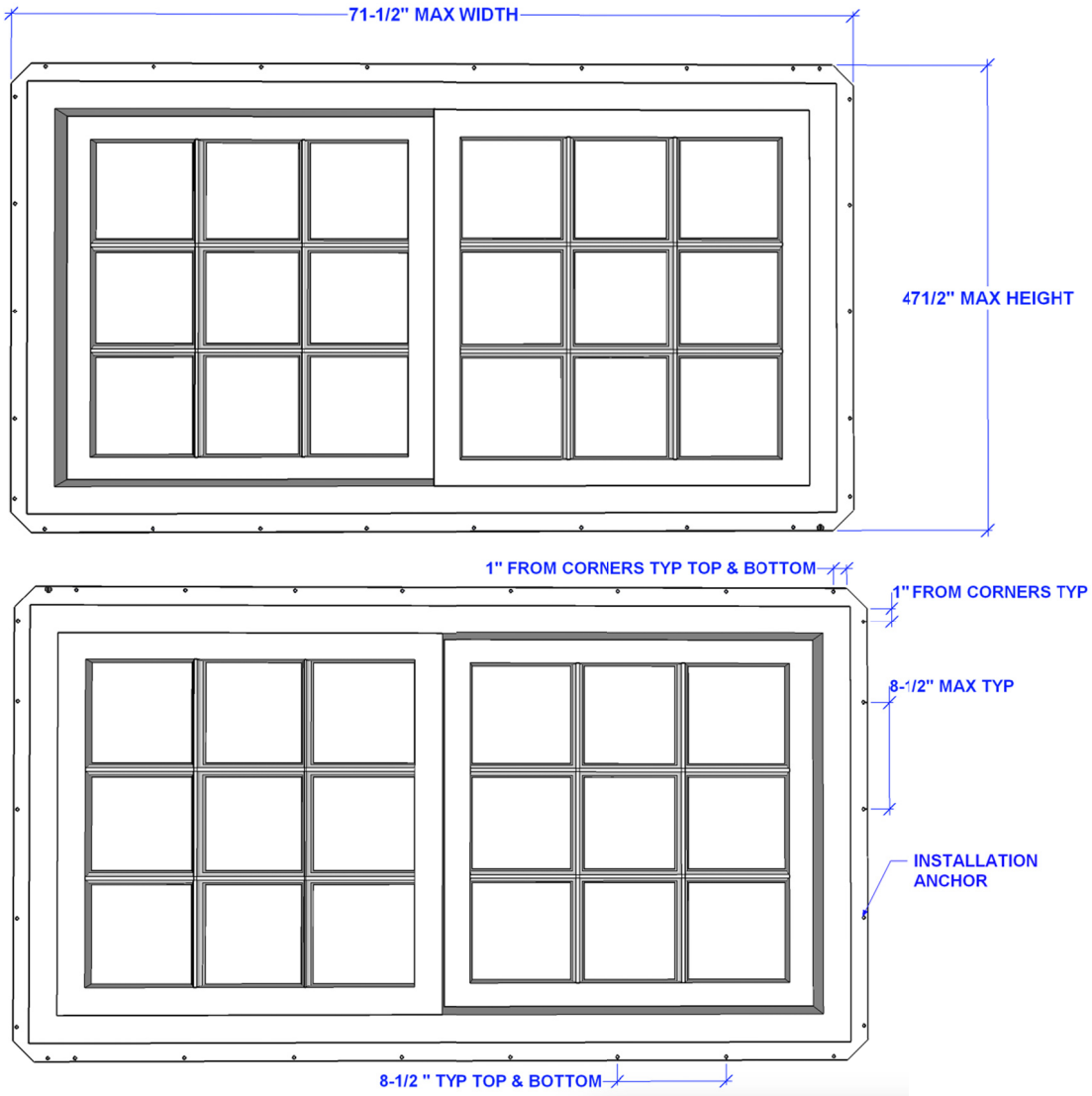
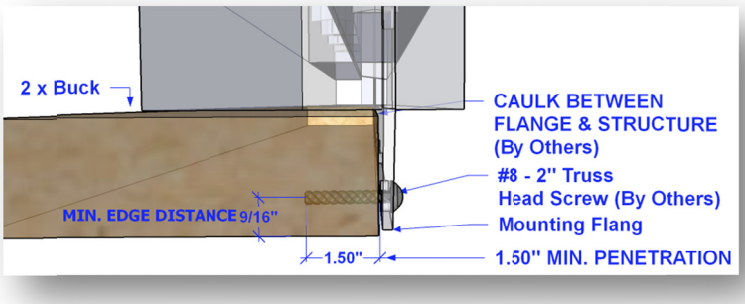
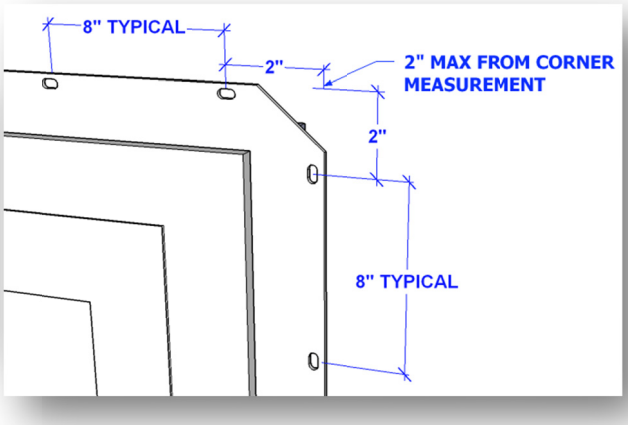
**Keystone Certifications, Inc.**
145 Limekiln Rd. Suite 100B
New Cumberland, Pennsylvania 17070
Phone: 717-932-8500
Fax: 717-932-8501

# INSTALLATION METHOD
# PVC (VINYL) SS46 SINGLE SLIDER WINDOW
# ELEVATION & ANCHOR LAYOUT




| | | | |
|---|---|---|---|
| SCALE: NTS | TITLE: INSTALLATION METHOD PVC (VINYL) SS46 SINGLE SLIDER WINDOW ELEVATION & ANCHOR LAYOUT | REVISIONS | |
| DWN BY: AMM | | NO. / DESCRIPTION / BY / DATE | |
| CHK BY: KEA | PREPARED BY: POCAHONTAS ALUMINUM COMPANY, INC. 2001 INDUSTRIAL DRIVE POCAHONTAS, AR 72455 PH: 870-892-3689 FAX: 870-892-9858 | | |
| DATE: 10/13/15 | | | |



PAC

Architectural Testing

# TEST REPORT

**Report No.**: A9078.06-501-47

**Rendered to**:

POCAHONTAS ALUMINUM COMPANY, INC.
Pocahontas, Arizona

**PRODUCT TYPE**: PVC Horizontal Sliding Window, Type XO & XOX
**SERIES/MODEL**: SS46 Single Slider

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

| | **Summary of Results** | |
|---|---|---|
| **Title** | **Test Specimen #1 XO** | **Test Specimen #2 XOX** |
| Primary Product Designator | Class R-PG30 1816 x 1207 (72 x 48) - HS | Class R-PG30 2731 x 1207* (108 x 48*) - HS |
| Design Pressure | ±1440 Pa (±30.08 psf) | ±1440 Pa (±30.08 psf) |
| Air Infiltration | 0.9 L/s/m$^2$ (0.17 cfm/ft$^2$) | 1.0 L/s/m$^2$ (0.20 cfm/ft$^2$) |
| Water Penetration Resistance Test Pressure | 220 Pa (4.60 psf) | 220 Pa (4.60 psf) |

**Test Completion Date**: 04/07/2011

Reference must be made to Report No. A9078.06-501-47, dated 06/06/13 for complete test specimen description and detailed test results.

**1.0 Report Issued To**: Pocahontas Aluminum Company, Inc.
2001 Industrial Drive, P.O. Box 756
Pocahontas, Arizona 72455-0756

**2.0 Test Laboratory**: Architectural Testing, Inc.
1140 Lincoln Avenue
Springdale, Pennsylvania 15144
724.275.7100

**3.0 Project Summary**:

**3.1 Product Type**: PVC Horizontal Sliding Window, Type XO & XOX

**3.2 Series/Model**: SS46 Single Slider

**3.3 Compliance Statement**: Results obtained are tested values and were secured by using the designated test method(s). The specimens tested successfully met the performance requirements for the following ratings: Test Specimen #1: **Class R-PG30 1816 x 1207 (72 x 48) - HS**; Test Specimen #2: **Class R-PG30 2731 x 1207* (108 x 48*) - HS**.

This product was originally tested as the Veka Inc. Series/Model SS46WW, PVC Horizontal Sliding Window, Type XO & XOX and is a reissue of the original Report No. A9078.01-501-47. This report is reissued in the name of Pocahontas Aluminum Company, Inc.,through written authorization by Veka Inc.

***General Note**: An asterisk (*) next to the size designation indicates that the size tested for optional performance was smaller than the Gateway test size for the product type and class.*

**3.4 Test Dates**: 04/06/2011 – 04/07/2011

**3.5 Test Location**: Veka Inc. test facility in Fombell, Pennsylvania. Calibration of test equipment was performed by Architectural Testing in accordance with AAMA 205-01 "In-Plant Testing Guidelines for Manufacturers and Independent Laboratories".

**3.6 Test Sample Source**: The test specimens were provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of four years from the test completion date.

**3.7 Drawing Reference**: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix B. Any deviations are documented herein or on the drawings.

**3.8 List of Official Observers**:

| Name | Company |
|---|---|
| Doug Merry | Veka Inc. |
| Cornell Charles | Veka Inc. |
| Joseph Allison | Architectural Testing, Inc. |

## 4.0 Test Specification(s):

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

## 5.0 Test Specimen Description:

### 5.1 Product Sizes:

**Test Specimen #1:**

| **Overall Area:** 2.2 $m^2$ (23.6 $ft^2$) | **Width** | | **Height** | |
|---|---|---|---|---|
| | **millimeters** | **inches** | **millimeters** | **inches** |
| Overall size | 1816 | 71-1/2 | 1207 | 47-1/2 |
| Sash | 886 | 34-7/8 | 1151 | 45-5/16 |
| Screen | 851 | 33-1/2 | 1124 | 44-1/4 |

**Test Specimen #2:**

| **Overall Area:** 3.3 $m^2$ (35.5 $ft^2$) | **Width** | | **Height** | |
|---|---|---|---|---|
| | **millimeters** | **inches** | **millimeters** | **inches** |
| Overall size | 2731 | 107-1/2 | 1207 | 47-1/2 |
| Sash (2) | 73 | 26-7/8 | 1151 | 45-5/16 |
| Screen | 651 | 25-5/8 | 1124 | 44-1/4 |

***The following descriptions apply to all specimens.***

### 5.2 Frame Construction:

| **Frame Member** | **Material** | **Description** |
|---|---|---|
| Head, sill, jambs, fixed stile(s), roller track | PVC | Extruded |

| | **Joinery Type** | **Detail** |
|---|---|---|
| All corners | Mitered | Thermally Welded |
| Fixed stile | Square cut and coped | Fastened with four #8 x 2-1/2" flat head screws, two at each end |
| Roller track | Square cut | Snap fit |

**5.0 Test Specimen Description**: (Continued)

**5.3 Sash Construction**:

| Sash Member | Material | Description |
|---|---|---|
| All rails and stiles | PVC | Extruded |

| | Joinery Type | Detail |
|---|---|---|
| All corners | Mitered | Thermally welded |

**5.4 Weatherstripping**:

| Description | Quantity | Location |
|---|---|---|
| 0.187" x 0.270" center fin pile | 2 Rows | Bottom rail, top rail, jamb stile |
| 0.187" x 0.270" center fin pile | 1 Row | Lock stile |
| 0.187" x 0.250" center fin pile | 1 Row | Frame perimeter |

**5.5 Glazing**:
Specimen #1 sash and fixed lite, Specimen #2 sash:

| Glass Type | Spacer Type | Interior Lite | Exterior Lite | Glazing Method |
|---|---|---|---|---|
| 5/8" IG | "U" shaped steel, single sealed | 3/32" annealed | 3/32" annealed | The sash were exterior glazed and the fixed lite was interior glazed. The glass was set against a double-sided adhesive tape and secured with rigid vinyl glazing beads. |

Specimen #2 fixed lite:

| Glass Type | Spacer Type | Interior Lite | Exterior Lite | Glazing Method |
|---|---|---|---|---|
| 5/8" IG | "U" shaped steel, single sealed | 1/8" annealed | 1/8" annealed | The glass was set from the interior against a double sided adhesive tape and secured with rigid vinyl glazing beads. |

| Location | Quantity | Daylight Opening | | Glass Bite |
|---|---|---|---|---|
| | | millimeters | inches | |
| Specimen # 1 sash | 1 | 816 x 1092 | 32-1/8 x 43 | 1/2" |
| Specimen # 1 fixed lite | 1 | 819 x 1092 | 32-1/4 x 43 | 1/2" |
| Specimen #2 sash | 2 | 622 x 1092 | 24-1/2 x 43 | 1/2" |
| Specimen #2 fixed lite | 1 | 1267 x 1092 | 49-7/8 x 43 | 1/2" |

**5.0 Test Specimen Description**: (Continued)

**5.6 Drainage**:

| Drainage Method | Size | Quantity | Location |
|---|---|---|---|
| Weepslot with open cell foam baffle | 1" wide by 3/16" high | 2 | Exterior sill face, one 3" from each end. |
| Weepslot | 1" wide by 1/4" long | 2 | Interior sill track, one at each end. |
| Weepslot | 1" wide by 1/4" high | 2 | Sill intermediate wall, one at each end |

**5.7 Hardware**:

| Description | Quantity | Location |
|---|---|---|
| Composite sweep lock | 2 | Lock stile, one 9-1/2" from each end engaging an extruded slot in the fixed meeting stile |
| Dual metal rollers with molded housing | 4 | Bottom rail, one at each end |

**5.8 Reinforcement**:

| Drawing Number | Location | Material |
|---|---|---|
| S-047 | Lock stile | Extruded aluminum |
| S-046 | Fixed meeting stile | Extruded aluminum |

**5.9 Screen Construction**:

| Frame Material | Corner Construction | Mesh Type | Mesh Attachment Method |
|---|---|---|---|
| Roll-formed aluminum | Square-cut and secured with snap-in plastic corner keys | Fiber | Flexible vinyl spline |

## 6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/8" shim space. The nail fin perimeter of the window was sealed with a sealant. The sill was set into a bed of silicone sealant.

| Location | Anchor Description | Anchor Location |
|---|---|---|
| Integral nailing fin | #8 x 2" truss head screw | Perimeter of frame through nailing fin located 8-1/2" on center, and beginning at each corner. |

**7.0 Test Results**: The temperature during testing was 20°C (68°F). The results are tabulated as follows:

**Test Specimen #1**:

| Title of Test | Results | Allowed | Note |
|---|---|---|---|
| **Operating Force,** per ASTM E 2068 | Initiate motion: 53 N (12 lbf) Maintain motion: 44 N (10 lbf) Latches: N/A Locks: 22 N (5 lbf) | Report Only 900 N (20 lbf) max. 100 N (22.5 lbf) max. 100 N (22.5 lbf) max. | |
| **Air Leakage,** Infiltration per ASTM E 283 at 75 Pa (1.6 psf) | 0.9 L/s/m$^2$ (0.17 cfm/ft$^2$) | 1.5 L/s/m$^2$ (0.3 cfm/ft$^2$) max. | 1 |
| **Water Penetration,** per ASTM E 547 | N/A | N/A | 3 |
| **Uniform Load Deflection,** per ASTM E 330 | N/A | N/A | 3 |
| **Uniform Load Structural,** per ASTM E 330 | N/A | N/A | 3 |
| **Forced Entry Resistance,** per ASTM F 588, Type: A - Grade: 10 | Pass | No entry | |
| **Thermoplastic Corner Weld** | Pass | Meets as stated | |
| **Deglazing, per ASTM E 987 Operating direction, 320 N (72 lbf)** | Pass | Meets as stated | |
| **Remaining direction, 230 N (52 lbf)** | Pass | Meets as stated | |

**7.0 Test Results**: (Continued)

**Test Specimen #1**: (Continued)

| Title of Test | Results | Allowed | Note |
|---|---|---|---|
| **Optional Performance** | | | |
| **Water Penetration,** per ASTM E 547 at 220 Pa (4.60 psf) | Pass | No leakage | 2 |
| **Uniform Load Deflection,** per ASTM E 330 taken at the exterior meeting stile<br>+1440 Pa (+30.08 psf)<br>-1440 Pa (-30.08 psf) | <br>23.3 mm (0.92")<br>17.3 mm (068") | <br>Report Only | <br>4, 5, 6 |
| **Uniform Load Structural,** per ASTM E 330 taken at the exterior meeting stile<br>+2160 Pa (+45.11 psf)<br>-2160 Pa (-45.11 psf) | <br>1.8 mm (0.07")<br>1.8 mm (0.07") | <br>4.6 mm (0.18") max.<br>4.6 mm (0.18") max. | <br>5, 6 |

**Test Specimen #2**:

| Title of Test | Results | Allowed | Note |
|---|---|---|---|
| **Operating Force,** per ASTM E 2068 | Initiate motion:<br>53 N (12 lbf)<br>Maintain motion:<br>44 N (10 lbf)<br>Latches:<br>N/A<br>Locks:<br>22 N (5 lbf) | Report Only<br><br>900 N (20 lbf) max.<br><br>100 N (22.5 lbf) max.<br><br>100 N (22.5 lbf) max. | |
| **Air Leakage,** Infiltration per ASTM E 283 at 75 Pa (1.6 psf) | 1.0 L/s/m$^2$ (0.20cfm/ft$^2$) | 1.5 L/s/m$^2$ (0.3 cfm/ft$^2$) max. | 1 |
| **Water Penetration,** per ASTM E 547 | N/A | N/A | 3 |
| **Uniform Load Deflection,** per ASTM E 330 | N/A | N/A | 3 |
| **Uniform Load Structural,** per ASTM E 330 | N/A | N/A | 3 |
| **Forced Entry Resistance,** per ASTM F 588, Type: A - Grade: 10 | Pass | No entry | |
| **Thermoplastic Corner Weld** | Pass | Meets as stated | |

**7.0 Test Results**: (Continued)

| | | | |
|---|---|---|---|
| **Deglazing,**<br>per ASTM E 987<br>Operating direction,<br>320 N (72 lbf)<br>Remaining direction,<br>230 N (52 lbf) | Pass<br><br>Pass | Meets as stated<br><br>Meets as stated | |
| **Optional Performance** | | | |
| **Water Penetration,**<br>per ASTM E 547 at 220 Pa<br>(4.60 psf) | Pass | No leakage | 2 |
| **Uniform Load Deflection,**<br>per ASTM E 330<br>taken at the right<br>exterior meeting stile<br>+1440 Pa (+30.08 psf)<br>-1440 Pa (-30.08 psf) | <br><br><br><br>30.0 mm (1.18")<br>19.0 mm (0.75") | <br><br><br><br>Report Only | <br><br><br><br>4, 5, 6 |
| **Uniform Load Structural,**<br>per ASTM E 330<br>taken at the right<br>exterior meeting stile<br>+2160 Pa (+45.11 psf)<br>-2160 Pa (-45.11 psf) | <br><br><br><br>2.5 mm (0.10")<br>1.5 mm (0.06") | <br><br><br><br>4.6 mm (0.18") max.<br>4.6 mm (0.18") max. | <br><br><br><br><br>5, 6 |

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

*Note 2: With and without insect screen.*

*Note 3: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.*

*Note 4: 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 5: Loads were held for 10 seconds.*

*Note 6: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.*

This report is reissued in the name of Pocahontas Aluminum Company, Inc., through written authorization of Veka Inc. to whom the original report was rendered. The original Veka Inc. Report No. is A9078.01-501-47.

The service life of this report will expire on the stated Test Record Retention End Date, at which time such materials as drawings, data sheets, samples of test specimens, copies of this report, and any other pertinent project documentation, shall be discarded without notice.

If test specimen contains glazing, no conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made. 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(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

Digitally Signed by: Joseph E. Allison

Joseph E. Allison
Senior Technician

Digitally Signed by: Lynn George

Lynn George
Director – Regional Operations

JEA:sld

Attachments (pages): This report is complete only when all attachments listed are included.
Appendix-A: Alteration Addendum (1)
Appendix-B: Drawings (2) Complete drawings packet on file with Architectural Testing Inc.

## Appendix A

## Alteration Addendum

***Note**: No alterations were required.*

# Appendix B

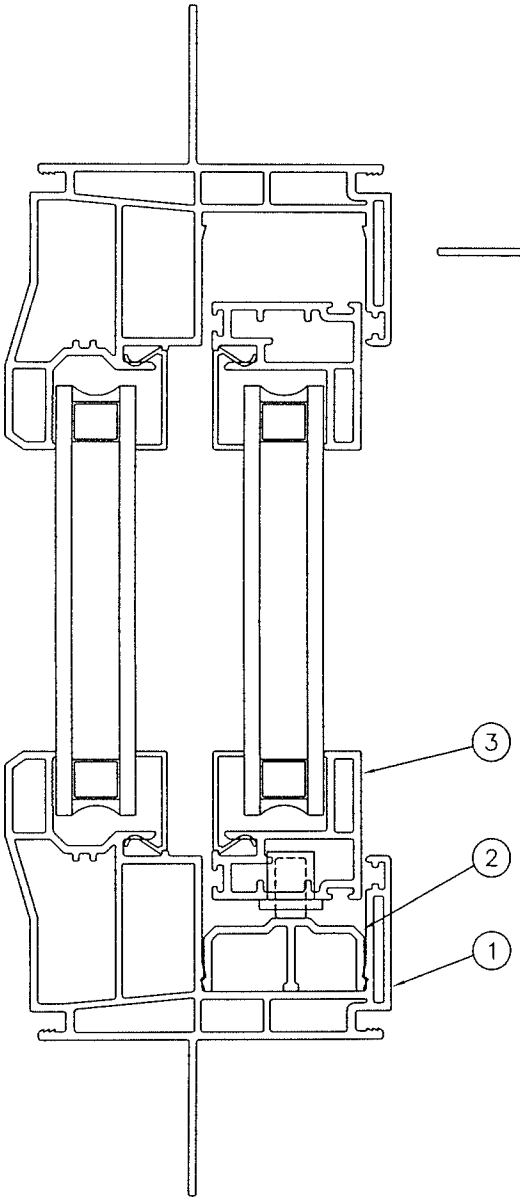
## Drawings

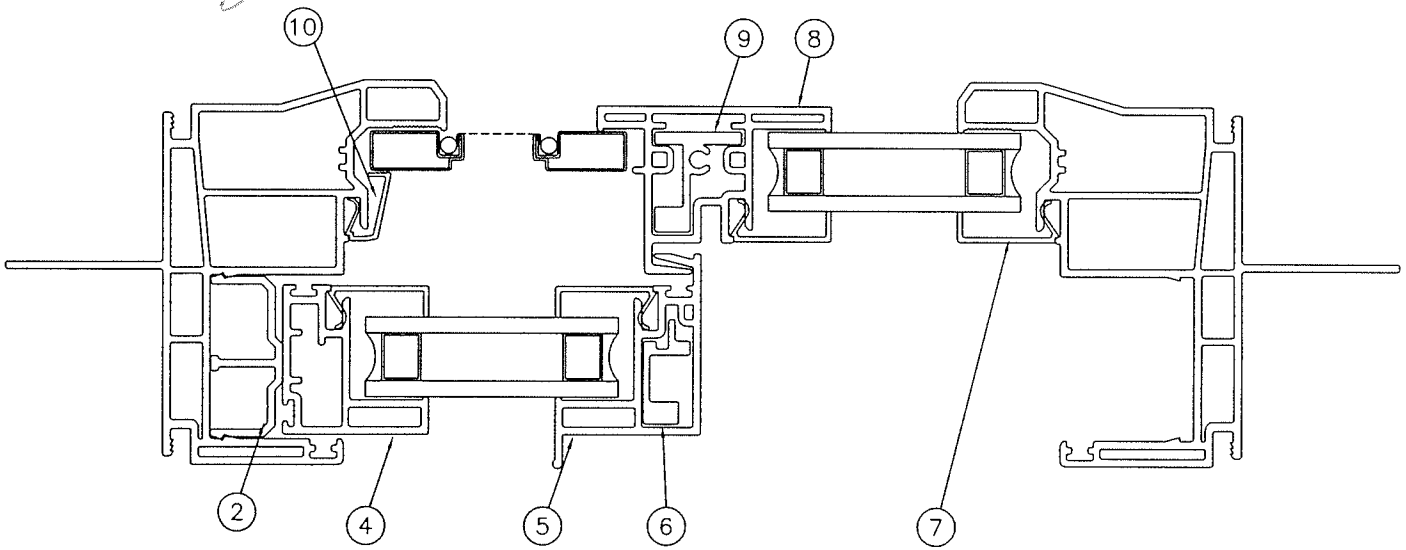
Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# A9078

Date 4/11/11 Tech




*VINYL & ALUMINUM EXTRUSIONS*

| | | | |
|---|---|---|---|
| 1 | SS4601 | FRAME SILL/JAMB/HEAD | |
| 2 | V-777 | SILL TRACK/ANTI LIFT | |
| 3 | V-705 | UPPER/LOWER SASH RAIL | |
| 4 | V-705 | SASH STILE | |
| 5 | V-704 | SASH LOCK RAIL | |
| 6 | S-047 | SASH REINFORCEMENT | |
| 7 | V-722 | GLAZING BEAD | |
| 8 | V-706 | MEETING RAIL | |
| 9 | S-046 | M.R. REINFORCEMENT | |
| 10 | V-701 | SCREEN CLIP | |

*CUT LOGIC : cut_chart_SS46WW.xls*

| REV | ECN. | CHANGE | BY | DATE |
|---|---|---|---|---|
| A | XXXX | | | |



VEKA INC.
100 VEKA DRIVE
FOMBELL, PA 16123

SINGLE SLIDER SS46WW

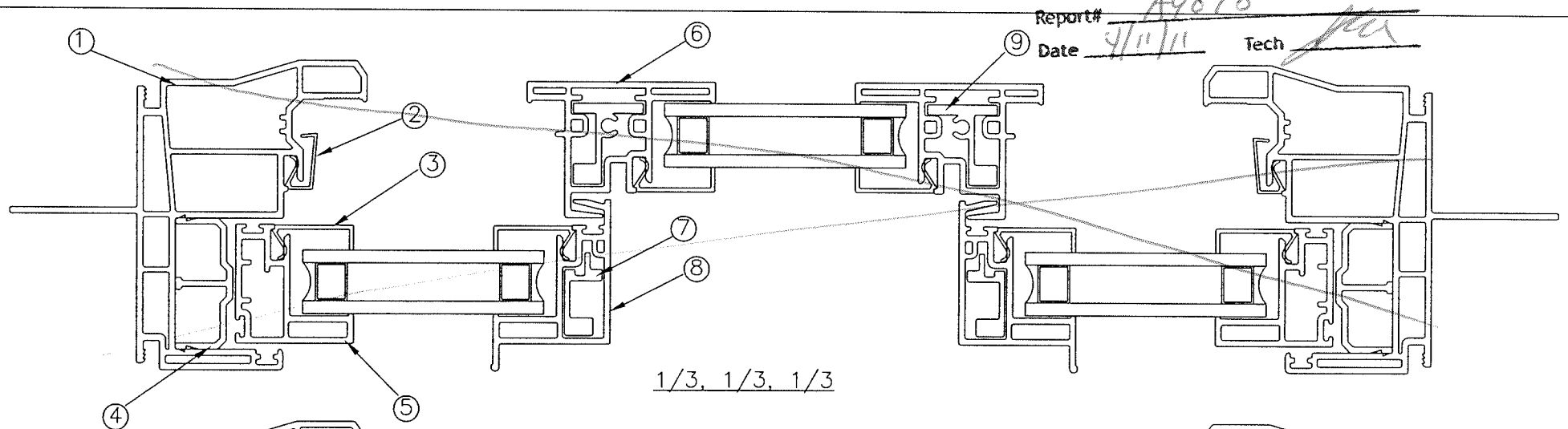
| B-SIZE | BY BJF | DATE 9/29/05 |
|---|---|---|
| SCALE FULL | DWG # SS46WW (LA3200) | |

Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# A9078

Date 4/11/11 Tech

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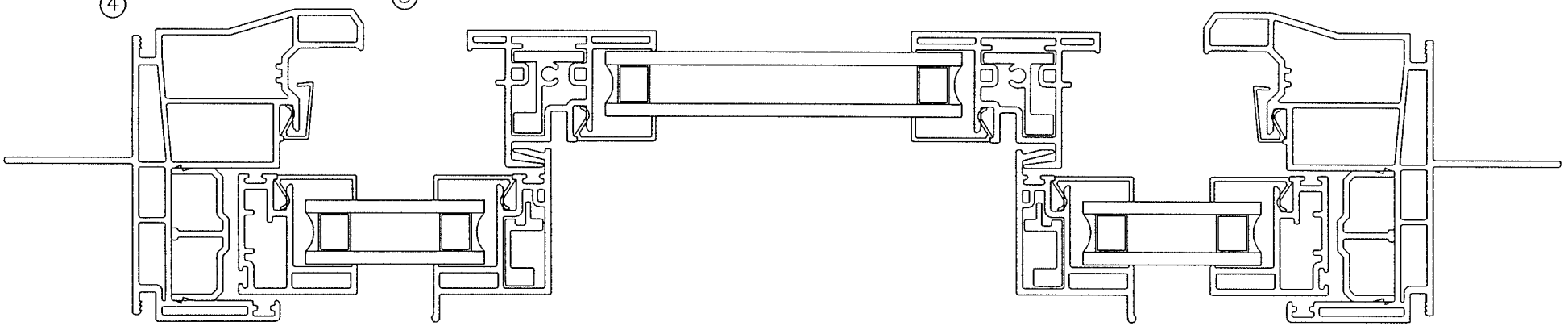

1/4, 1/2, 1/4

1. SS4601 COMMON FRAME
2. V-701 SCREEN CLIP
3. V-722 GLAZING BEAD
4. V-777 SILL TRACK
5. V-705 SASH STILE
6. V-706 MEETING RAIL
7. S-047 SASH REINFORCEMENT
8. V-704 INTERLOCK
9. S-046 MEETING RAIL REINFORCEMENT

| REV | ECN. | CHANGE | BY | DATE |
|---|---|---|---|---|
| A | XXXX | | | |



VEKA INC.
100 VEKA DRIVE
FOMBELL, PA 16123

SINGLE SLIDER SS46WW
1/3 1/3 1/3 & 1/4 1/2 1/4 LAYOUTS

| B-SIZE | BY | DATE |
|---|---|---|
| | BJF | 09/30/05 |

SCALE FULL

DWG # SS46WW-XOX (LA3250)