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Product Evaluation Report

of

Caoba Doors

Aluminum Clad Mahogany Direct Set Window

for

Florida Product Approval

FL# FL17587

Report No. 5335

Current Florida Building Code

Method: 1 – D (Engineering Evaluation)
Category: Windows
Sub – Category: Fixed

Product: Aluminum Clad Mahogany Direct Set Window
Material: Mahogany (Min. S.G. = 0.45)
Product Dimensions: 122.25" x 120" (Max.)

Prepared For:

Caoba Doors

P.O. Box 19830

Philadelphia, PA 19143

Prepared by:

Hermes F. Norero, P.E.

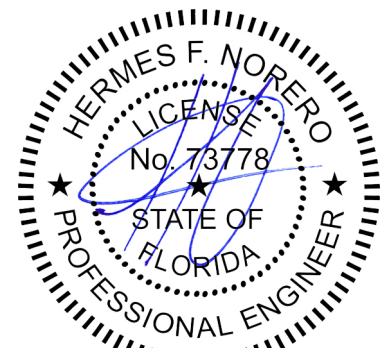
Florida Professional Engineer # 73778

Date: 11/30/2017

Contents:

Evaluation Report

Pages 1 – 5



Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2017.12.18 20:11:57 -05'00'

Hermes F. Norero, P.E.
Florida No. 73778



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FL # FL17587

Date: 11/30/2017

Report No: 5335

Manufacturer: Caoba Doors

Product Category: Windows

Product Sub-Category: Fixed

Compliance Method: State Product Approval Method (1)(d)

Product Name: Aluminum Clad Mahogany Direct Set Window
122.25" x 120" (Max.)
(Impact Rated)

Scope: This is a Product Evaluation Report issued by Hermes F. Norero, P.E. (FL # 73778) for **Caoba Doors** based on Method 1d of the State of Florida Product Approval, Florida Department of Business and Professional Regulation - Florida Building Commission.

Hermes F. Norero, P.E. does not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the current Florida Building Code.

See Installation Instructions **CAB042**, signed and sealed by Hermes F. Norero, P.E. (FL # 73778) for specific use parameters.

Limits of Use:

1. This product has been evaluated and is in compliance with the current Florida Building Code, including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment into substrate material shall be beyond wall dressing or stucco.
3. When used in areas requiring wind borne debris protection this product complies with Chapter 16 of the current Florida Building Code and does not require an impact resistant covering.
4. Site conditions that deviate from the details of **CAB042** require further engineering analysis by a licensed engineer or registered architect.
5. See Installation Instructions **CAB042** for size and design pressure limitations.



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Certification Agency:

The manufacturer has demonstrated compliance of products in Accordance with the Florida Building Code for manufacturing under a quality assurance program audited and approved by the **National Accreditation & Management Institute** (FBC Organization #: QUA1789).

Performance Standards:

The product described herein has been tested per:

- TAS 201-94
- TAS 202-94
- TAS 203-94

Referenced Data:

1. Product Testing performed by **Certified Testing Laboratories**
(FBC Organization #: TST1577)
Report #: CTLA 3023W-D, Report Date: 08/22/2014
Report #: CTLA 3023W-1D, Report Date: 08/22/2014
Report #: CTLA 3023W-2D, Report Date: 08/22/2014
2. Quality Assurance
National Accreditation & Management Institute
(FBC Organization #: QUA1789)
3. Material Certification
Miami-Dade RER – Product Control Section NOA
DuPont SentryGlas Interlayer

Hermes F. Norero, P.E.

Florida No. 73778

Page 3 of 5



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Installation: 1. Approved anchor types and substrates are as follows:

Window Frame Installation:

- A. For two by (2X) wood frame substrate (Min. S.G. = 0.55), use **#12 Wood Screw** type wood frame anchors of sufficient length to achieve minimum embedment of 1-1/2" into wood framing.
- B. For concrete (Min. $f'c$ = 3000 psi) or masonry (Conforms to ASTM C90) substrate where wood bucking is NOT employed or where wood bucking is employed, use **1/4" ITW Tapcon** type concrete screw anchors of sufficient length to achieve minimum embedment of 1-3/4" into concrete or masonry.
- C. For steel stud substrate (Min 18 Ga., F_y = 33 ksi) use **#12 ITW TEK Screw** type steel stud anchors of sufficient length to achieve minimum 3 threads penetration beyond steel structure.

Mullion Clip Installation:

- A. For two by (2X) wood frame substrate (Min. S.G. = 0.55), use **#14 Wood Screw** type wood frame anchors of sufficient length to achieve minimum embedment of 1-1/2" into wood framing.
- B. For concrete (Min. $f'c$ = 3000 psi) substrate where wood bucking is NOT employed or where wood bucking is employed, use **1/4" Elco Ultracon** type concrete screw anchors of sufficient length to achieve minimum embedment of 1-3/4" into concrete.
- C. For masonry (Conforms to ASTM C90) substrate where wood bucking is NOT employed or where wood bucking is employed, use **1/4" Hilti Kwik Bolt 3** type concrete expansion anchors of sufficient length to achieve minimum embedment of 2" into masonry.
- D. For steel stud substrate (Min 18 Ga., F_y = 33 ksi) use **#14 ITW TEK Screw** type steel stud anchors of sufficient length to achieve minimum 3 threads penetration beyond steel structure.



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Window Frame to Tube Mullion or Plate Reinforcement Installation:

- A. Window Jamb Anchors to be used through 3/8" Aluminum Plate Reinforcement shall be 3/16" x 2-3/4" or #10 x 2-3/4" flat head wood screws, anchors shall pass through pre-drilled holes in the plate and penetrate into the adjacent window jamb.
- B. Window Jamb Anchors to be used through 1/4" x 2" x 5" Aluminum Tube Mullion shall be 1/4" x 4-3/4" flat head wood screws, anchors shall pass through pre-drilled holes in the tube and penetrate into the adjacent window jamb.

Refer to manufacturer Installation Instructions **CAB042** for anchor spacing and more details of the installation requirements.

Design Pressure: Refer to manufacturer Installation Instructions **CAB042** for Design Pressure Rating tables and requirements.