

ENGINEERING EXPRESS® (EX) PRODUCT EVALUATION REPORT

July 13, 2026

Application Number: FL 32030.2
EX Project Number: 26-102890

Product Manufacturer: American Shutter Systems Association, Inc.
Manufacturer Address: 4268 Westroads Dr.
West Palm Beach, FL 33407

Product Name & Description: Bertha HV Essential Accordion Shutter

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1 (d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with standard ASCE 7-22 (ASD) and the Florida Building Code Ninth Edition (2026) and is, for the purpose intended, at least equivalent to that required by the Standard and Code. Re-evaluation of this product shall be required following pertinent Florida Building Code or ASCE Standard modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX Performance Evaluation document # 26-102890 titled "Bertha HV Essential Accordion Shutter", prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report.

- **TEST REPORTS (IF APPLICABLE)**

Uniform static structural and large missile impact/cyclic performance has been tested in accordance with TAS 201, 202 & 203 and ASTM E330, E1996 & E1886 test standards per test report(s) #0325.01-20 (signed and sealed by Steven W. Warter, P.E.), #0214.01-03, 0715.01-03, 1004.01-05, 1214.01-05, 0317.02-06, 0210.01-11, 0422.01-05, 0725.01-08 (signed and sealed by William Mehner, P.E. & Henry Hatten, P.E.), by American Test Lab of South Florida (ATL). Along with report #0609.01-10 (signed and sealed by Julio Gonzalez, P.E.)

Polycarbonate material testing per ASTM G-155 and ASTM D-638 per test report ETC-07-1095-19015.1 by ETC Labs (signed and sealed by Joseph Labora Dolden, P.E.)

American Shutter Systems Association, Inc. - Bertha HV Essential Accordion Shutter

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Maximum Allowable Spans
2. Minimum Glass Separation
3. Anchor Spacing
4. Combinations
5. Anchor Capacity

Separation from glazing is required as prescribed in the installation instructions.

Impact Resistance:

Large Missile Impact Resistance has been demonstrated as evidenced in previously listed test report(s), and is accounted for in the engineering design of this product.

Wind Load Resistance:

This product has been designed to resist wind loads as indicated on its respective Performance Evaluation document (i.e. engineering document).

Installation:

The product listed above shall be installed in strict compliance with the Performance Evaluation document (i.e. engineering document), along with all components noted therein.

The product components shall be of the material specified in the Performance Evaluation document (i.e. engineering document).

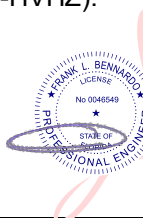
Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Performance Evaluation document (i.e. engineering document) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Any alteration to the respective Performance Evaluation document will invalidate it. This product has been designed for use inside and outside of the High Velocity Hurricane Zone (HVHZ & NON-HVHZ).

Respectfully,



Digitally signed
by Frank
Bennardo
Date:
2026.08.19
12:42:13 -04'00'

Frank Bennardo, P.E.
ENGINEERING EXPRESS®
PE# 0046549 | Cert. Auth. 9885

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