Product Evaluation Report

February 21, 2012

Application Number: 13578.1 — __
FLB Project Number: 10-AAS-0001

Product Manufacturer: All American Shutters and Glass
Manufacturer Address: 1540 Donna Road
West Palm Beach, FL 33409

Product Name & Description: 22ga & 24ga Galvanized Steel Storm Panels
Large Missile Impact Resistant

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 9N-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 the 2010 Florida Building Code and is, for the purpose intended, at least equivalent to that required by the Code. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**
  FLB drawing #10-AAS-0001 titled "22ga & 24ga Galvanized Steel Storm Panels", sheets 1-9, prepared by Engineering Express, signed & sealed by Frank L. Bennardo, P.E. is an integral part of this Evaluation Report.

- **TEST REPORTS**
  Uniform static structural performance has been tested in accordance with ASTM E330-90 test standards per test report(s) #02-001, #02-002, & #03-001 by Construction Testing Corporation (CTC).
  Large missile impact resistance and cyclic loading performance have been tested in accordance with SSTD 12-99 test standards per test report(s) #02-001, #02-002, & #03-001 by Construction Testing Corporation (CTC).
  Metal tensile capacity has been determined in accordance with ASTM E8 test standard per test report #0127H, #0198H, & #0053J by Certified Testing Laboratories (CTL).

- **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 Allowable Spans
3. Minimum Glass Separation
4. Anchor Spacing

No 33% increase in allowable stress has been used in the design of this product.

**Impact Resistance:**

Large Impact Resistance has been demonstrated as evidenced in previously listed test reports, 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 in the span schedule(s) on the respective Product Evaluation Document (i.e. engineering drawing).

**Installation**

This product shall be installed in strict compliance with its respective Product Evaluation Document (i.e. engineering drawing), along with all components noted therein.

Product components shall be of the material specified in that product's respective Product Evaluation Document (i.e. engineering drawing).

**Limitations & Conditions of Use:**

Use of this product shall be in strict accordance with the respective Product Evaluation Document (i.e. engineering drawing) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in this product's respective anchor schedule. Host structure conditions which are not accounted for in this 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.

This product has NOT been designed for use within the High Velocity Hurricane Zone (HVHZ).