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ENGINEER'S EVALUATION REPORT

Date: 28 September 2020

Product Name: Force 12 100 Series Diamond Screen

Manufacturer: Hendee Enterprises, Inc.
9350 South Point Drive
Houston, TX 77054
Phone: (713) 796-2322
Fax: (713) 796-0494

Accompanying Documents:

Hendee Enterprises, Inc., Force-12 Diamond Screen Drawing Sheet 1.0, Sheet 2.0, Sheet 3.0, Sheet 4.0, Sheet 5.0, Sheet 6.0, and Sheet 7.0; Attachment A – Engineering Calculations.

Description:

A flexible wind abatement and impact protection system that may be used for new or existing construction.

Statement of Compliance:

This Product Evaluation Report is issued by James R. Bailey, P.E. to Hendee Enterprises, Inc., in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission), Rule Chapter No.: 61G20-3, Method 1 (d).

The product covered by this report has been verified to comply with the 2020 Seventh Edition of the Florida Building Code.

This Product Evaluation report shall be subject to review and revision following Florida Building Code modifications or revisions.

Panel Screen Installation:

See Force-12 Diamond Screen Drawing Sheet 1.0, Sheet 2.0, Sheet 3.0, Sheet 4.0, Sheet 5.0, Sheet 6.0, and Sheet 7.0.

Hardware Types and Substrates:

See Force-12 Diamond Screen Drawing Sheet 1.0, Sheet 2.0, Sheet 3.0, Sheet 4.0, Sheet 5.0, Sheet 6.0, and Sheet 7.0.

Screen Size and Design Pressure Restrictions:

See Force-12 Diamond Screen Drawing Sheet 1.0, Sheet 2.0, Sheet 3.0, Sheet 4.0, Sheet 5.0, Sheet 6.0, and Sheet 7.0.

Materials and Assembly Tests Standards:

ASTM E330-02 (Uniform static load pressure)
ASTM E1886-05 (Large missile/cyclic load)
ASTM E1996-06 (Large missile/cyclic load)

The ASTM test procedures that Force 12 Plus 100 Series Diamond Screen underwent are the same test procedures as would be required per the following ASTM standards:

ASTM E330 / E330M -14 (Uniform static load pressure)
ASTM E1886-13a (Large missile/cyclic load)
ASTM E1996-17 (Large missile/cyclic load)

Evidence Submitted per Section 9N-3.005:

A. Test Report

- Hurricane Test Laboratory, Inc.
1701 Westfork Drive, Suite 106
Lithia Springs, Georgia 30122
Substrate: Wood
Test Report Number: G450-1205-06
Test Dates: 12/22/06, 1/18-22/07, 1/23-25/07
Test Report Number: G450-0204-07
Test Dates: 2/9-12/07, 2/13-15/07, 2/23-24/07, 2/26-27/07
Dated 3/2/07 signed and sealed by Vinu J. Abraham, P.E.
- Hurricane Test Laboratory, Inc.
1701 Westfork Drive, Suite 106
Lithia Springs, Georgia 30122
Substrate: Concrete
Test Report Number: G450-0103-07
Test Dates: 1/19-22/07, 1/24-25/07
Test Report Number: G450-0204-07
Test Dates: 1/18-24/07, 2/9-13/07, 2/13-14/07
Dated 3/2/07 signed and sealed by Vinu J. Abraham, P.E.
- Hurricane Test Laboratory, Inc.
1701 Westfork Drive, Suite 106
Lithia Springs, Georgia 30122
Substrate: Hollow Concrete Block
Test Report Number: G450-0104-07
Test Dates: 1/18-2/1/07
Test Report Number: G450-0204-07
Test Dates: 2/13-14/07, 2/16/07, 2/27-28/07
Dated 3/2/07 signed and sealed by Vinu J. Abraham, P.E.

- Hurricane Test Laboratory, Inc.
1701 Westfork Drive, Suite 106
Lithia Springs, Georgia 30122
Substrate: Wood
Test Report Number: G450-0402-07
Test Dates: 4/11-5/21/07, 5/23/07, 5/24/07, 6/1-4/07
Dated 6/6/07 signed and sealed by Vinu J. Abraham, P.E.

- Hurricane Test Laboratory, Inc.
1701 Westfork Drive, Suite 106
Lithia Springs, Georgia 30122
Substrate: Concrete
Test Report Number: G450-0402-07
Test Dates: 4/11/07 to 6/1/07
Dated 6/6/07 signed and sealed by Vinu J. Abraham, P.E.

- Hurricane Test Laboratory, Inc.
1701 Westfork Drive, Suite 106
Lithia Springs, Georgia 30122
Substrate: Wood
Test Report Number: G450-0609-07
Test Dates: 6/20-7/12/07, 7/16-7/19/07, 7/20/07
Dated 7/25/07 signed and sealed by Vinu J. Abraham, P.E.

- Hurricane Test Laboratory, Inc.
Texas Branch Office
525 32nd Street
Lubbock, Texas 79404
Substrate: Concrete and Hollow Concrete Block
Test Report Number: T450-1002-07
Test Date: 10/11/2007
Dated 11/2/07 signed and sealed by Vinu J. Abraham, P.E.

B. Engineering Calculations (Attachment A)

General Report Notes:

1. All size and installation conditions shown in this report and the referenced drawing are based on the referenced test reports and/or engineering analysis in accordance with the 2020 Seventh Edition of the Florida Building Code.
2. Fabric screens shall be constructed in accordance with the descriptions in this report, the applicable test report, and the manufacturer's state-approved quality assurance entity specifications.
3. This product is not approved for use in the High Velocity Hurricane Zones (HVHZ).
4. The job-required design wind pressure shall be calculated in accordance with the Florida Building Code and with ASCE/SEI 7-16 Minimum Design Loads for Buildings and Other Structures (0.85 directionality factor may apply).
5. Permit holder shall verify the adequacy of the existing structure to withstand new superimposed loads.

Impact Certification:

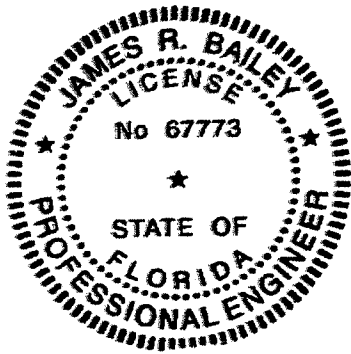
Per ASTM E 1886 and ASTM E 1996 standards, no glass separation is required for this screen system installation; however, the glass may break with any size screen. The un-breached envelope criterion is met since the system is considered 'non-porous' and remains intact under impact and air pressure loading. The system is to enclose the protected opening all around.

Certification of Independence:

James R. Bailey, P.E., does not have, nor will acquire, a financial interest in any Hendee Enterprises, Inc., manufacturing or distributing products, nor any other entity involved in the approval process for which this product report is issued.

Applicable codes and standards: 2020 Seventh Edition of the Florida Building Code

Quality Assurance Entity: Lenard Gabert and Associates



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