

WALTER A. TILLIT, JR., P.E.

PRODUCT EVALUATION REPORT

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FL P.E. License No. 44167
FL C.A. License No. 0006719

REPORT NO.: 23-0728.06
DATE: July 28, 2023
PRODUCT CATEGORY: Hurricane Shutters
PRODUCT SUB-CATEGORY: Bahama Shutters
PRODUCT NAME: ASSA/BERTHA HV BAHAMA SHUTTER
SUBMITTED BY: American Shutter Systems Associations, Inc.
4268 Westroads Drive
West Palm Beach, Florida 33407

1. PURPOSE OF EVALUATION:

This is a Product Evaluation Report issued by **Walter A. Tillit, Jr., P.E.** (System ID # 1906) to the **American Shutter Systems Association, Inc. (A.S.S.A.)**, based on **Rule Chapter No. 61G20-3, Method 1d** of the Florida Department of Business and Professional Regulation.

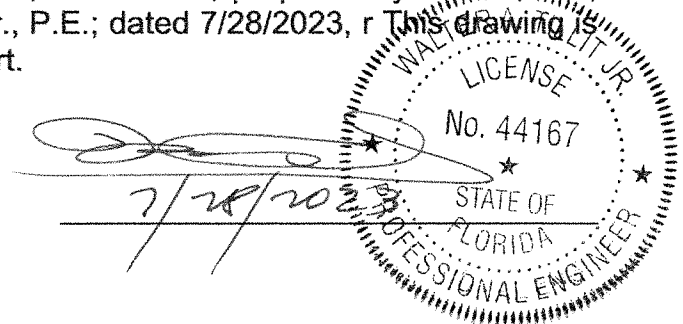
This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the 2023 8th Edition of the Florida Building Code, and to verify that the product is for the purpose intended at least equivalent to that required by the Code.

This Product Evaluation Report shall be subject to review and revision in case of a Building Code Change that may affect its limitations and conditions.

2. EVIDENCE SUBMITTED:

2.1. PRODUCT EVALUATION DOCUMENT (P.E.D.):

Drawing No. 23-139, titled "**ASSA/BERTHA HV BAHAMA SHUTTER**", sheets 1 thru 7 of 7, including sheets 3A, 3B, 4A, 5A and 6A, prepared by **Tilteco, Inc.**; signed and sealed by **Walter A. Tillit, Jr., P.E.**; dated 7/28/2023, r This drawing is an integral part of this Evaluation Report.



2.2. TEST REPORTS:

Large & Small missile impact and cyclic loadings in accordance with ASTM E-1886 and E 1996 Standards as per section 1609.1.2 of the Florida Building Code. Uniform Static loads in accordance with Section 1709.5.2 per ASTM E-330 Standard.

Test reports prepared by American Testing Lab of South Florida, Reports No. 0510.01-06, dated 03/01/07, signed and sealed by William Mehner, P.E., 0621.01-07, dated 05/13/08, signed and sealed by William Mehner, P.E. and Henry Hatten, P.E., and 1222.01-20 dated 01/21/2021, signed & sealed by Stephen Warter, P.E.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

On ASSA/Bertha HV Bahama Shutter for maximum anchor spacing vs. design wind load and shutter span based on rational and comparative analysis, and in accordance with sections 1604 and 2002 of the Florida Building Code. Calculations prepared by Tilteco, Inc., dated 05/21/08, signed and sealed by Walter A. Tillit, Jr., P.E.

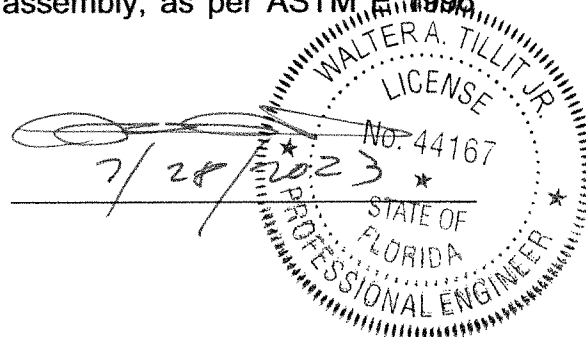
On ASSA/Bertha HV Bahama Shutter for New Air Foil Louver Blade Component # A1, as an option to Louver Blade Component A, based on rational and comparative analysis, and in accordance with sections 1604 and 2002 of the Florida Building Code, as well as section 8.5.2 of ASTM E 1996 Standard. Calculations prepared by Tilteco, Inc., dated 10/08/09, signed and sealed by Walter A. Tillit, Jr., P.E.

3. MISSILE IMPACT RESISTANCE:

Large & Small missile impact under section 1609.1.2 of the Florida Building Code, as per ASTM E 1886 and E 1996 Standards, qualifying missile Type "D" and Small Missile (basic protection).

4. WIND LOADS RESISTANCE:

ASSA/Bertha HV Bahama Shutter has been verified to sustain wind pressures corresponding to wind zones 1, 2 and 3 per ASTM E-1996 Standard. Maximum Shutter Span shall be as indicated on sheet 7 of 7, of Product Evaluation Document (P.E.D.), drawing No. **23-139**. Maximum Anchor Spacing shall be as indicated on sheet 7 of 7, of Product Evaluation Document (P.E.D.), drawing No. **23-139**. ASSA/Bertha HV Bahama Shutter has been verified for code compliance to work as a porous wind load resistant storm shutter assembly, as per ASTM E-1996 Standard,



5. INSTALLATION:

Shall be performed strictly in accordance with the details indicated on sheets 3 thru 6A of 7, of Product Evaluation Document (P.E.D.), drawing No. **23-139**. Minimum separation to glass shall be as indicated on sheet 7 of 7, of Product Evaluation Document (P.E.D.), drawing No. **23-139**

6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheets 1 and 2 of 7 of Product Evaluation Document (P.E.D.), drawing No. **23-139**. Anchor specifications shall be as indicated on sheets 1, 4, 4A, 5, 5A, 6 and 6A of 7, of Product Evaluation Document (P.E.D.), drawing No. 23-139

7. LIMITATIONS AND CONDITIONS OF USE:

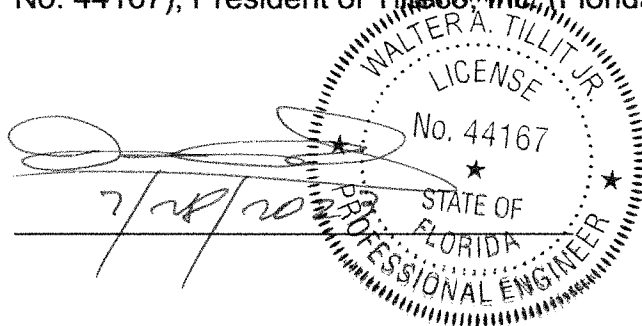
7.1. Shall be strictly in compliance with General Notes No. 1, 2, 8, 9, 10, 11 and 12, indicated on sheet 1 of 7, of Product Evaluation Document (P.E.D.), drawing No. **23-139** prepared by Tilteco, Inc. and signed and sealed by Walter A. Tillit, Jr., P.E.

7.2. Product **shall not** be installed within HIGH VELOCITY HURRICANE ZONES as defined on section 202 of the Florida Building Code.

7.3. Product shall only be installed into poured concrete, concrete block, and wood frame structures.

7.4. Product shall only be installed within Wind Zones 1, 2 and 3 as per ASTM E 1996 Standard.

Product Evaluation Report prepared by Walter A. Tillit, Jr., P.E. (Florida License No. 44167), President of ~~Tilteco, Inc.~~ (Florida CA-0006719).



The image shows a handwritten signature, likely of Walter A. Tillit, Jr., written over a circular professional engineer seal. The seal is for the State of Florida and contains the text: "WALTER A. TILLIT JR.", "LICENSE", "No. 44167", "STATE OF FLORIDA", and "PROFESSIONAL ENGINEER". There are also two stars on either side of the license number.

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