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PRODUCT EVALUATION REPORT

REPORT NO.: 20-0709.08

DATE: July 09, 2020

PRODUCT CATEGORY: Impact protective Systems

PRODUCT SUB-CATEGORY: Operable

PRODUCT NAME: 58 MM ER & NER SLAT BERTHA IMPACT
PROTECTIVE ROLLING SYSTEM

SUBMITTED BY: American Shutter Systems Association, Inc.
4268 West Roads Drive
West Palm Beach, FL 33407

1. PURPOSE OF EVALUATION:

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

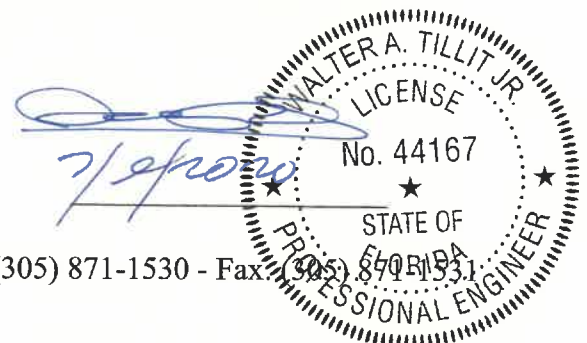
This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the 2020 Seventh Edition of the Florida Building Code, and to verify that the product is for the purpose intended at least equivalent to that required by the Code.

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. 20-172, titled "58MM ER & NER SLAT BERTHA IMPACT PROTECTIVE ROLLING SYSTEM", sheets 1 thru 27 of 27, prepared by **Tilteco, Inc.**; signed and sealed by **Walter A. Tillit, Jr., P.E.**; dated **07/06/2020**. This drawing is an integral part of this Evaluation Report.



2.2. TEST REPORTS:

Large missile impact and cyclic loading under TAS 201 & TAS 203 Protocols, as per section 1626 of the Florida Building Code. Uniform Static loads in accordance with Protocol TAS 202 of the Florida Building Code. Test Reports prepared by **Fenestration Testing Laboratory, Report No. 4596 and 4644**, signed and sealed by Edmundo Largaespada, P.E., dated 04/29/05, **Report No. 4760**, signed and sealed by Roberto Robleto -Testing Manager, dated 12/01/0, **Report No. 2760**, signed and sealed by Antonio Acevedo P.E., dated 08/31/2000 and **American Test Lab of South Florida, Report No. 0404.01-08**, signed and sealed by Henry Hattem P.E., dated 04/04/08 and **Reports No. 0803.01-12; 0803.02-12; 0803.03-12 and 0803.04-12**, signed and sealed by Henry Hattem, P.E., dated 10/16/12 and 10/19/12.

Tensile Tests on Mechanical Properties of Slat, as per **QC Metallurgical, Inc. Report No. 12 JM-1025**, dated October 17, 2012.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

On **"58mm ER & NER Slat Bertha Impact Protective Rolling System"** for maximum span vs. design wind load, as well as anchor spacing vs. design wind load and slat span, including storm bars, header and mullions, 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 11/06/06 02/24/10, signed and sealed by Walter A. Tillit, Jr., P.E., and on august 18, 2017.

3. MISSILE IMPACT RESISTANCE:

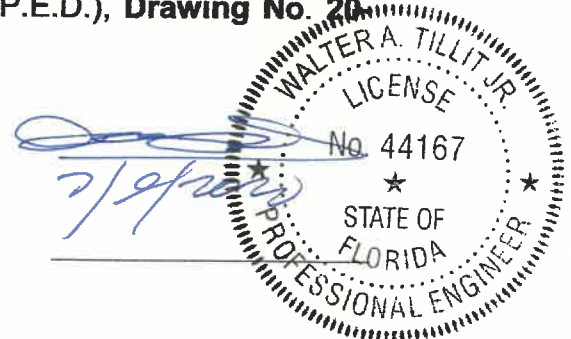
Large missile impact under section 1626 of the Florida Building Code, as per TAS 201 Protocol (Large Missile).

4. WIND LOADS RESISTANCE:

"58mm ER & NER Slat Bertha Impact Protective Rolling System", has been verified to sustain wind pressures. Slat Span shall be as indicated on sheets 12 and 24 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**. Maximum Anchor Spacing shall be as indicated on sheets 13, 14 and 18 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**. Storm bars, headers and mullion span shall be as indicated on sheets 15, 16, 19, 20, 21, 25 thru 27 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**.

5. INSTALLATION:

Shall be strictly performed in accordance with the details indicated on sheets 4 thru 10 and 18 thru 23 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**. Minimum separation to glass shall be as indicated on sheets 4, 7 thru 10, 12, 19 thru 24 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**.



6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheets 1 thru 3 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**. Anchor specifications shall be as indicated on sheets 1, 19 thru 23 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172**.

7. LIMITATIONS AND CONDITIONS OF USE:

7.1. Shall be strictly in compliance with General Notes No. 1 and 8 thru 13, indicated on sheet 1, as well as details and notes on sheets 4, 11, 13 thru 16, 23 thru 25 and 27 of Product Evaluation Document (P.E.D.), **Drawing No. 20-172** prepared by Tilteco, Inc. and signed and sealed by Walter A. Tillit, Jr., P.E.

7.2. Product **may** be installed within HIGH VELOCITY HURRICANE ZONES as defined on section 1620.2 of the Florida Building Code.

7.3. Product shall only be installed into poured concrete, grouted cell concrete block, and wood frame structures, as limited and defined on Product Evaluation Document, **Drawing No. 20-172**.

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

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ER & NER SLAT BERTHA IMPACT PROTECTIVE ROLLING SYSTEM\ DRWG # 20-172 \ REPORT # 20-0709.08

