

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

PRODUCT EVALUATION REPORT

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FL P.E. License No. 44167
FL E.B. License No. 0006719

REPORT NO.: 11-1207.03
DATE: December 7, 2011
PRODUCT CATEGORY: Hurricane Shutters
PRODUCT SUB-CATEGORY: Storm Panels
PRODUCT NAME: 0.050" Bertha Aluminum Storm Panel (2" deep)
MANUFACTURER: Eastern Metal Supply, 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 **Eastern Metal Supply, Inc.**, manufacturer, based on Rule Chapter No. 9B-72.070, Method 1d of the State of Florida Product Approval, Department of Community Affairs-Florida Building Commission.

This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the 2010 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.

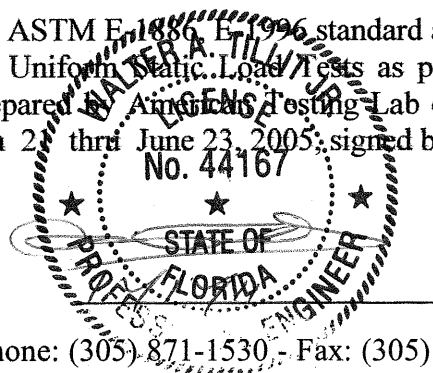
2. EVIDENCE SUBMITTED:

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

Drawing No. 11-221 titled "0.050" BERTHA ALUMINUM STORM PANEL (2" DEEP)", sheets 1 thru 17 of 17, including sheets 6A and 14A of 17, prepared by Tilteco, Inc.; signed and sealed by Walter A. Tillit, Jr., P.E.; dated 12/06/11. This drawing is an integral part of this Evaluation Report.

2.2. TEST REPORTS:

Large missile impact load tests were performed under ASTM E-1886, E-1996 standard as per section 1609.1.2 of the Florida Building Code. Uniform Static Load Tests as per section 1715.5.3, per ASTM E-330. Test reports prepared by American Testing Lab of South Florida, Report No. 0321.01-05, dated March 2 thru June 23, 2005; signed by



Jose L. Mir, ATL Assistant Director and signed and sealed by William R. Mehner, P.E. and Henry Hattem P.E., Report No. 0812.01-05, dated August 12 thru September 8, 2005, signed and sealed by William R. Mehner, P.E., and Henry Hattem, P.E., Report No. 0119.01-06, dated July 5, 2006, signed and sealed by William R. Mehner, P.E. and Henry Hattem, P.E.

Tensile test reports # 5DM-377, by QCM Laboratory, dated April 26, 2005 and signed and sealed by Frank E. Grate, Jr. P.E., as per ASTM E 8 and # 6AM-87, dated February 9, 2006, signed and sealed by Frank E. Grate, P.E., as per ASTM E-8.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

On 0.050" Bertha Aluminum Storm Panel (2" Deep) for maximum panel length vs. design wind load, as well as maximum anchor spacing vs. design wind load and panel length based on rational and comparative analysis, and in accordance with section 1604 of the Florida Building Code. Calculations prepared by Tilteco, Inc., dated June 23, 2006, amended May 12, 2008 for hemmed edge panels, signed and sealed by Walter A. Tillit, Jr., P.E.

3. MISSILE IMPACT RESISTANCE:

Large missile impact under section 1609.1.2 of the Florida Building Code, as per ASTM E-1886, E-1996 Standard (basic protection).

4. WIND LOADS RESISTANCE:

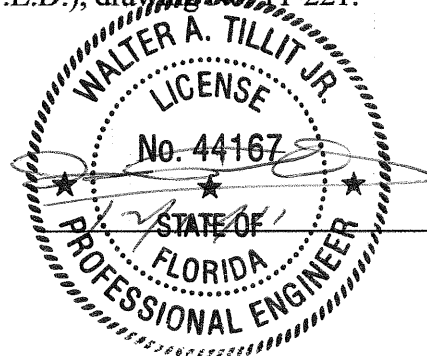
0.050" Bertha Aluminum Storm Panel (2" Deep) has been verified to sustain wind pressures. Maximum panel length shall be as indicated on sheet 2 of 17 of Product Evaluation Document (P.E.D.), drawing No. 11-221. Maximum Anchor Spacing shall be as indicated on sheets 9, 10, 11, 16 and 17 of 17, of Product Evaluation Document (P.E.D.), drawing No. 11-221. 0.050" Bertha Aluminum Storm Panel (2" Deep) has been verified for code compliance to work as a non-porous storm shutter assembly, as per ASTM E-1996 Standard, qualifying Wind Zones 1, 2 and 3.

5. INSTALLATION:

Installation shall be performed strictly in accordance with the details indicated on sheets 4 thru 8 and 12 thru 15 of 17, of Product Evaluation Document (P.E.D.), drawing No. 11-221. Minimum separation to glass shall be as indicated on sheets 4 thru 8 and 12 thru 15 of 17, of Product Evaluation Document (P.E.D.), drawing No. 11-221.

6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheets 1, 2 and 3 of 17, of Product Evaluation Document (P.E.D.), drawing No. 11-221.



Anchor specifications shall be as indicated on sheets 1, 5, 6, 6A, 7, 12, 13, 14, 14A and 15 of 17, of Product Evaluation Document (P.E.D.), drawing No. 11-221.

7. LIMITATIONS AND CONDITIONS OF USE:

7.1. Shall be strictly in compliance with General Notes No. 1, 7, 8, 9, 10 and 11, indicated on sheet 1 of 17, of Product Evaluation Document (P.E.D.), drawing No. 11-221 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 1620.2 of the Florida Building Code.

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

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

