## EVALUATION REPORT OF UNION CORRUGATING COMPANY '29 GA. 5V PANEL' OVER WOOD SUPPORTS

## FLORIDA BUILDING CODE 6TH EDITION (2017) FLORIDA PRODUCT APPROVAL FL 9555.1-R4 STRUCTURAL COMPONENTS ROOF DECK

Prepared For: Union Corrugating Company P. O. Box 229 Fayetteville, NC 28302 Telephone: (910) 483-0479 Fax: (910) 483-8897

Prepared By: Bala Sockalingam, Ph.D., P.E. Florida Professional Engineer #62240 1216 N Lansing Ave., Suite C Tulsa, OK 74106 Telephone: (918) 492-5992 FAX: (866) 366-1543

This report consists of Evaluation Report (3 Pages including cover) Installation Details (1 Page)

> Report No. C2172-1 Date: 8.20.2017



Manufacturer: Union Corrugating Company

Product Name: 5V Panel

Panel Description: 24" wide coverage with (5) 1/2" high ribs

Materials: Minimum 29 ga., 80 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755).

Support Description: Nom. 1" x 4" (min) lumber (Southern Yellow Pine Untreated) (Must be designed by others)

Slope:1/2:12 or greater in accordance with FBC 2017 Section 1507.4.2

Design Uplift Pressure: 70.25 psf @ fastener spacing of 24" o.c. (Factor of Safety = 2) (3 or more spans)

Panel Attachment:#9-15 or #10-14 x 1-1/2" long wood screws with washerAt panel ends@ 12" o.c. across panel widthAt intermediate@ 12" o.c. across panel width

Test Standards: Roof assembly tested in accordance with ASTM E1592-01 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference' and FM 4470 Section 5.5 'Resistance to Foot Traffic'.

Test Equivalency: The test procedure in ASTM E1592-01 comply with test procedure prescribed in ASTM E1592-05(2012). The test procedure in FM 4470 (1992) comply with test procedure prescribed in FM 4470 (2012).

Code Compliance: The product described herein has demonstrated compliance with FBC 2017 Section 1507.4.

Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2017 Section 1609 or ASCE 7-10 using allowable stress design. The maximum support spacing listed herein shall not be exceeded. The design uplift pressure for reduced support spacing may be computed using rational analysis prepared by a Florida Professional Engineer. This product is not approved for use in the High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2017 Section 1505 and current approved roofing materials directory for fire ratings of this product.

FL 9555.1-R4 C2172-1 8.20.2017 Page 3 of 3

Supporting Documents: ASTM E1592 Test Report Farabaugh Engineering and Testing Inc Project No. T246-06, Revised Reporting Date 11/7/06

> FM 4470 Test Report ENCON Technology Inc C1583-3, Reporting Date 7/24/08

