EVALUATION REPORT OF UNION CORRUGATING COMPANY '26 GA. 5V PANEL'

FLORIDA BUILDING CODE 7TH EDITION (2020) FLORIDA PRODUCT APPROVAL FL 20484.1-R2 ROOFING METAL ROOFING

Prepared For: Union Corrugating Company 701 S. King St. Fayetteville, NC 28301 Telephone: (910) 483-0479 Fax: (910) 483-1091

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)
Load Span Table (1 Page)

Report No. C2401-1 Date: 10.10.2020



Manufacturer: Union Corrugating Company

Product Name: 5V Panel

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

Materials: Minimum 26 ga., 80 ksi steel. Galvanized coated steel (ASTM A653)

or Galvalume coated steel (ASTM A792) or painted steel (ASTM

A755). Corrosion resistant as per FBC 2020 Section 1507.4.3.

Deck Description: Min. 15/32" thick APA rated plywood or min. 3/4" thick wood plank

(min SG of 0.42) for new and existing constructions. Designed by

others and installed as per FBC 2020.

New Underlayment: Minimum underlayment as per FBC 2020 Section 1507.4.5.1.

Required for new construction.

Existing Underlayment:

(Optional)

One layer of asphalt shingles over one layer of #30 felt. For reroofing

construction only.

Slope: 1/2:12 or greater in accordance with FBC 2020 Section 1507.4.2

Design Uplift Pressure: 71.0 psf at fastener spacing of 24" o.c. (Factor of Safety = 2) 169.0 psf at fastener spacing of 6" o.c.

Panel Attachment: #10-15 x 2" long wood screw with washer. Fasteners are corrosion

resistant as per FBC 2020 Section 1507.4.4.

At interior max 12" o.c. across panel width through panel rib

At panel ends max 6" o.c. across panel width through panel flat and rib

Minimum fastener length of 1.5" for new construction. For existing construction, fastener shall be of sufficient length to penetrate through

the deck a minimum of 3/8".

Test Standards: Roof assembly tested in accordance with UL580-06 'Uplift Resistance

of Roof Assemblies' & UL1897-04 'Uplift Tests for Roof Covering

Systems'.

Test Equivalency: The test procedures in UL 1897-04 comply with test procedures

prescribed in UL 1897-12.

Code Compliance: The product described herein has demonstrated compliance with FBC

2020 Section 1507.4.

Product Limitations: Design wind loads shall be determined for each project in accordance

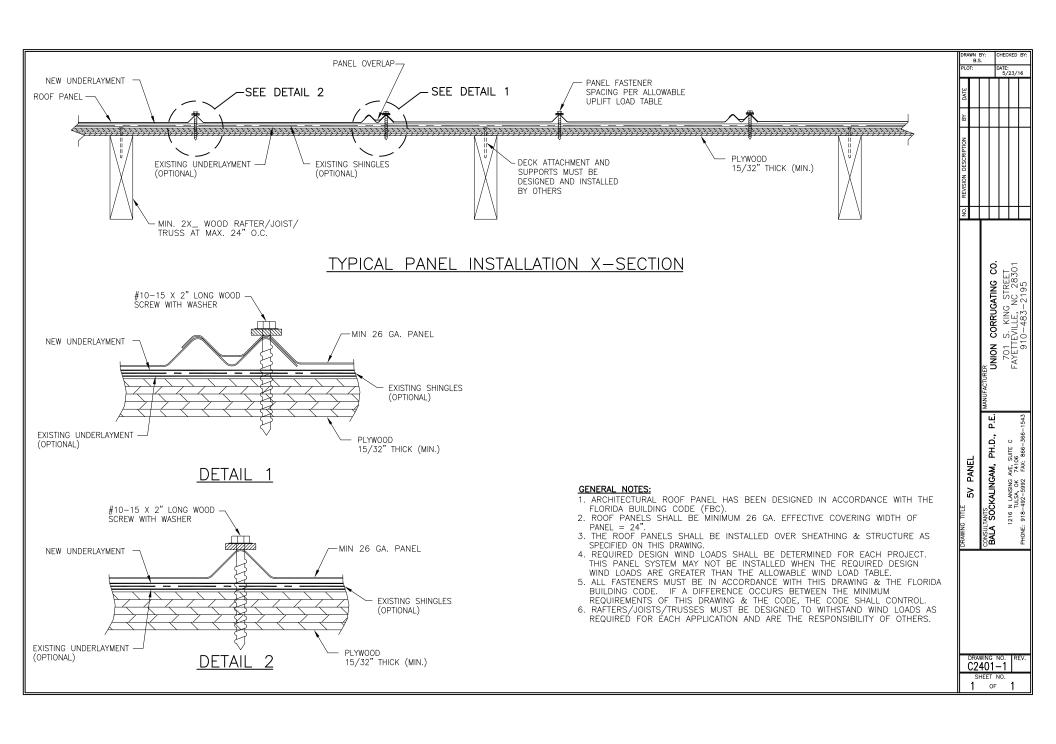
with FBC 2020 Section 1609 or ASCE 7-16 using allowable stress

FL 20484.1-R2 C2401-1 10.10.2020 Page 3 of 3

design. The maximum fastener spacing listed herein shall not be exceeded. The design pressure for reduced fastener spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on Union load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Refer to current NOA for use of this product in High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2020 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.

Supporting Documents: UL580 & UL1897 Test Reports

Farabaugh Engineering and Testing Inc. Project No. T197-16, Reporting Date 5/12/16



UNION CORRUGATING COMPANY **5V Panel Uplift Loads**

(Min 26 ga.)

Description	Fastener Spacing	Allowable Uplift
	along Panel Length	Load
	(in)	(psf)
Coverage width: 24"	6	169.0
	8	158.1
Panel Fasteners	10	147.2
#10-15 hex head screws with sealed washer	12	136.3
	14	121.7
	16	106.5
Panel fasteners spaced at 12" o.c. across panel width	18	94.7
	20	85.2
through ribs.	22	77.5
	24	71.0

Notes:

- 1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
- 2. Panels must be installed as per Evaluation Report FL 20484.1 and Union current installation procedure.

