EVALUATION REPORT OF
UNION CORRUGATING COMPANY
'7/8" CORRUGATED PANEL'

FLORIDA BUILDING CODE 7TH EDITION (2020)
FLORIDA PRODUCT APPROVAL
FL 9555.2-R5
STRUCTURAL COMPONENTS
ROOF DECK

Prepared For:
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This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (2 Pages)
Load Span Tables (1 Page)

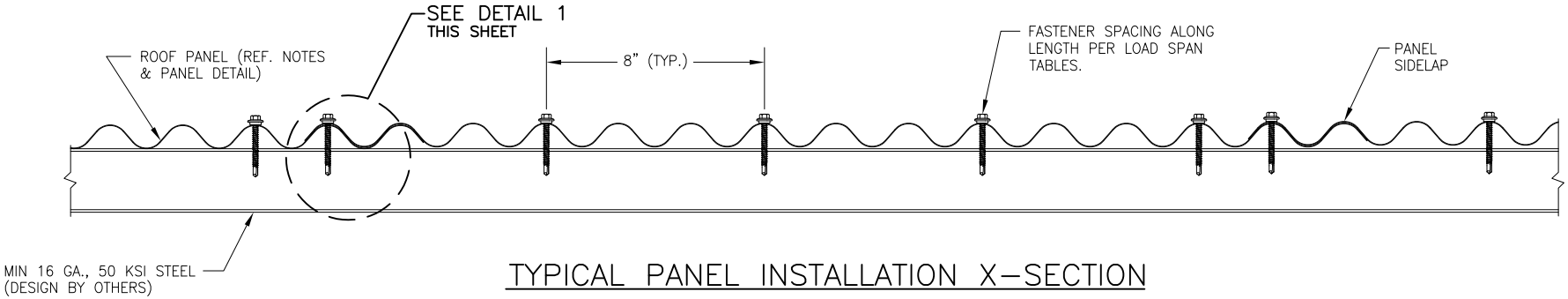
Report No. C2373-2
Date: 8.8.2020

Manufacturer:	Union Corrugating Company
Product Name:	7/8" Corrugated
Panel Description:	7/8" high ribs spaced at 2.67" o.c
32DLR or 32DLV	Min. 26 ga., 32" wide with (13) ribs. Coverage width = 29.33"
34DLR or 34DLV	Min. 24 ga., 34.67" wide with (14) ribs. Coverage width = 32"
37DLR or 37DLV	Min. 24 ga., 37.33" wide with (15) ribs. Coverage width = 34.33"
Materials:	Min. 26 ga., 80 ksi steel or min. 24 ga., 50 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.
Support Description:	Min. 16 ga., 50 ksi steel section (Must be designed by others)
Slope:	1/2:12 or greater in accordance with FBC 2020 Section 1507.4.2. Requires applied lap sealant for roof slopes less than 3:12.
Design Uplift Pressure:	Inward and outward or uplift loads are shown in the load span tables. The allowable loads for strength and deflection limits of L/180 were developed from test data. The allowable loads were calculated with safety factor of 2. Maximum span is 5' 0".
Panel Attachment:	#12-14 self-drilling screws (SDS) with washer at max. 8" o.c. across panel width. The panels were fastened through the panel ridge with 2" long screws or through the panel valley with 1.25" long screws. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4.
Sidelap Attachment:	¼"-14 x 7/8" long SDS with washer at max. 24" o.c. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4.
Test Standards:	Roof assembly tested in accordance with ASTM E1592-05(2017) 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference', FM 4470 Section 5.5 'Resistance to Foot Traffic'.
Test Equivalency:	The test procedure in ASTM E1592-05(2017) 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 (2016) Section 4.6 'Resistance to Foot Traffic'.
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 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 or based on Union load span tables. This evaluation report is not applicable 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.

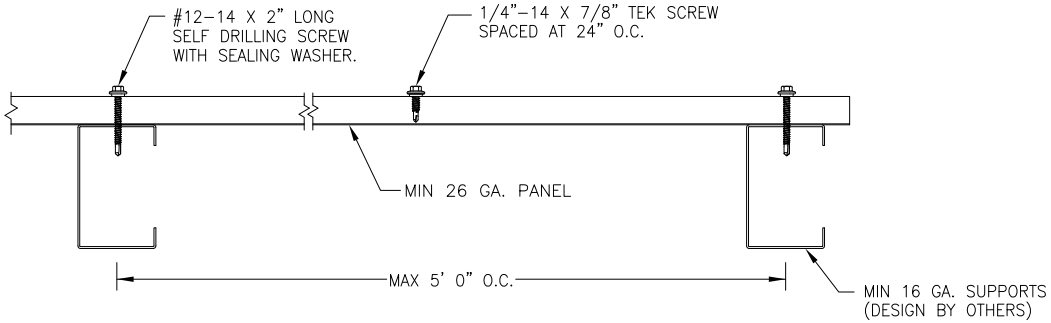
Supporting Documents: ASTM E1592 Test Reports
ENCON Technology Inc.
C2260-1, Reporting Date 4/30/19
C2260-2, Reporting Date 10/31/19

FM 4470 Test Report
ENCON Technology Inc.
C2260-3, Reporting Date 10/21/19

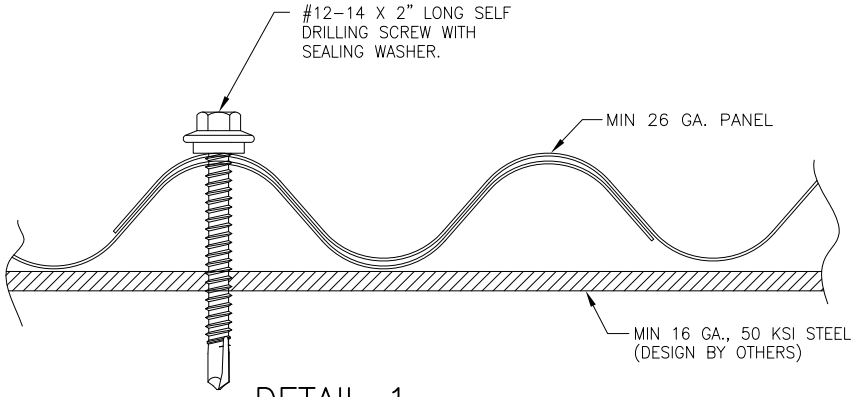


TYPICAL PANEL INSTALLATION X-SECTION

ALTERNATE FASTENING PATTERN SHOWN ON PAGE 2



SECTION VIEW



DETAIL 1

GENERAL NOTES:

1. STRUCTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE MINIMUM 26 GA. MAXIMUM AND MINIMUM COVERAGE WIDTHS ARE 34.67" & 29.33", RESPECTIVELY.
3. ROOF PANELS SHALL BE INSTALLED OVER STRUCTURE AS SPECIFIED ON THESE DRAWINGS.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOADS SPECIFIED ON THE LOAD SPAN TABLES.
5. ALL FASTENERS MUST BE IN ACCORDANCE WITH THESE DRAWINGS & THE FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. PURLINS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

NO.	REVISION DESCRIPTION	BY	DATE

DRAWN BY: B.S. | CHECKED BY: R.B.
PLOT: | DATE: 11/3/19

DRAWING TITLE: 7/8" CORRUGATED PANEL

MANUFACTURER
UNION CORRUGATING CO.
701 S. KING STREET
FAYETTEVILLE, NC 28301
910-483-2195

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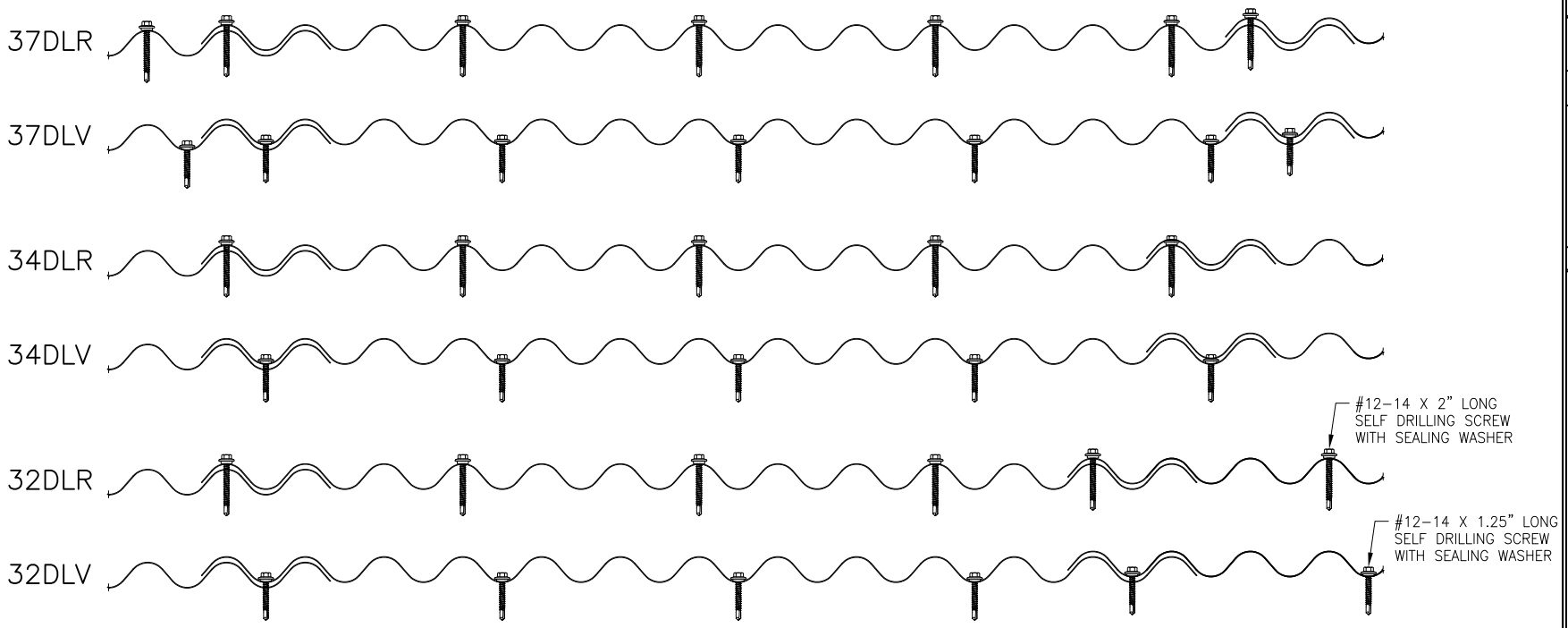
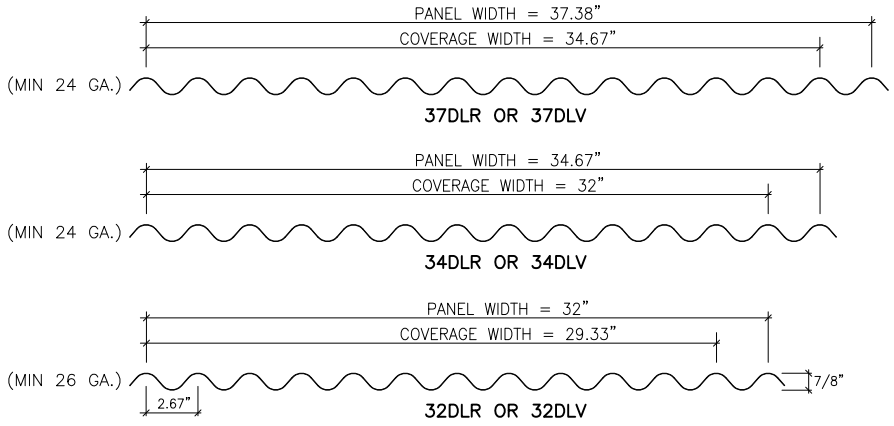
DRAWING NO. 2373-2A | REV.



ALTERNATE FASTENING PATTERN



PANEL SECTION

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DRAWING NO. 2373-2B | REV.

PAGE NO. 2 OF 2

UNION CORRUGATION COMPANY
7/8" CORRUGATED PANEL

Max. 34.67" wide coverage, 24 ga. (min) Steel Panel

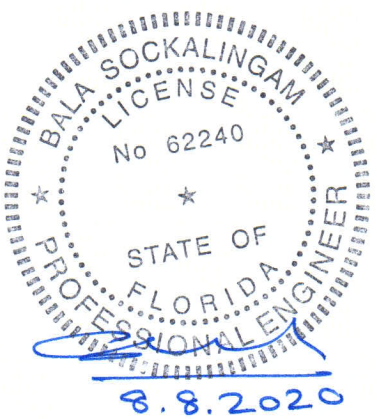
Span Condition	Loading Type	Allowable Load (psf)											
		Support Spacing (ft)											
		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	5.00
Two Span	Inward	97.3	86.5	77.8	70.7	64.8	59.9	55.6	51.9	48.6	45.8	43.2	35.2
	Uplift	126.8	112.7	101.4	92.2	84.5	78.0	72.4	67.6	63.4	59.7	56.3	50.7
Three Span	Inward	110.5	98.2	88.4	80.4	73.7	68.0	63.2	58.9	53.9	45.0	37.9	27.6
	Uplift	140.0	128.1	115.3	104.8	96.0	88.7	82.3	76.8	72.0	67.8	64.0	49.2
Four or More Spans	Inward	106.4	94.5	85.1	77.4	70.9	65.5	60.8	56.7	53.2	47.7	40.2	29.3
	Uplift	138.7	123.2	110.9	100.8	92.4	85.3	79.2	73.9	69.3	65.2	61.6	52.2

Max. 29.33" wide coverage, 26 ga. Steel Panel

Span Condition	Loading Type	Allowable Load (psf)											
		Support Spacing (ft)											
		2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	5.00
Two Span	Inward	97.3	86.5	77.8	70.7	64.8	59.9	55.6	51.9	48.6	45.8	43.2	35.2
	Uplift	105.0	96.4	86.8	78.9	72.3	66.8	62.0	57.9	54.3	51.1	48.2	43.4
Three Span	Inward	110.5	98.2	88.4	80.4	73.7	68.0	63.2	58.9	53.9	45.0	37.9	27.6
	Uplift	105.0	105.0	98.6	89.7	82.2	75.9	70.5	65.8	61.6	58.0	54.8	35.7
Four or More Spans	Inward	106.4	94.5	85.1	77.4	70.9	65.5	60.8	56.7	53.2	47.7	40.2	29.3
	Uplift	105.0	105.0	94.9	86.3	79.1	73.0	67.8	63.3	59.3	55.8	52.7	37.9

Notes:

1. Allowable load for each condition is the smallest load calculated based on fastener capacity, panel strength and and deflection limit of L/180.
2. The wind load is taken as 0.7 times the "component and cladding" loads for the purpose of determining deflection limit.
3. The panel allowable properties are determined from full scale ASTM E1592 tests.
4. The panel fasteners are #12-14 x 1-1/4" or 2" long self drilling fastener with washer.
5. Sidelap fasteners are 1/4"-14 x 7/8" long self drilling screws with washer at 24" o.c.
6. Steel supports are minimum 16 ga.. All supports must be designed to resist all loads imposed on the panel.
7. Panels must be installed as per Evaluation Report FL 9555.2 and Union current installation procedure.



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