

**EVALUATION REPORT OF
METAL SALES MANUFACTURING CORPORATION
'26 GA. PBR-PANEL'**

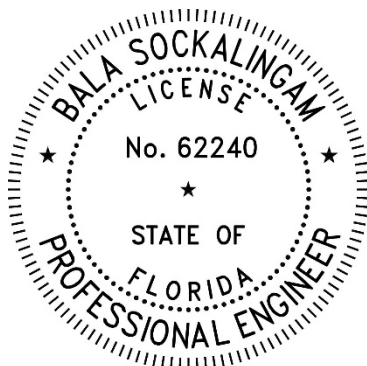
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 10999.7-R5
STRUCTURAL COMPONENTS
ROOF DECK**

**Prepared For:
Metal Sales Manufacturing Corporation
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)**

**Report No. C2670-7
Date: 7.21.2023**



This item has been digitally signed and sealed by Bala Sockalingam, PE, on the date indicated.

Printed copies of this document are not considered signed and sealed and this signature must be verified on any electronic copies.

Manufacturer: Metal Sales Manufacturing Corporation

Product Name: PBR-Panel

Panel Description: 36" wide coverage with (4) 1-1/4" high ribs

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 2023 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 2023 Section 1507.4.2. Requires applied lap sealant for roof slopes less than 3:12.

Underlayment: Not Required

Design Uplift Pressure: 41.9 psf at fastener spacing of 60 o.c. (3 or more spans)
(Factor of Safety = 2) 154.4 psf at fastener spacing of 24 o.c. (3 or more spans)

Panel Attachment: #12-14 x 1-1/4" long self-drilling screws with washer. Fasteners are corrosion resistant as per FBC 2023 Section 1507.4.4.
At panel ends 7"-5"-7" o.c. across panel width
At intermediate 12" o.c. across panel width

Sidelap Attachment: 1/4"-14 x 7/8" long self-drilling screws with washer at 12" o.c. Fasteners are corrosion resistant as per FBC 2023 Section 1507.4.4.

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 complies with test procedure prescribed in ASTM E1592-05(2017).
The test procedure in FM 4470 (1992) complies with test procedure prescribed in FM 4470 (2016) Section 4.6 'Resistance to Foot Traffic'.

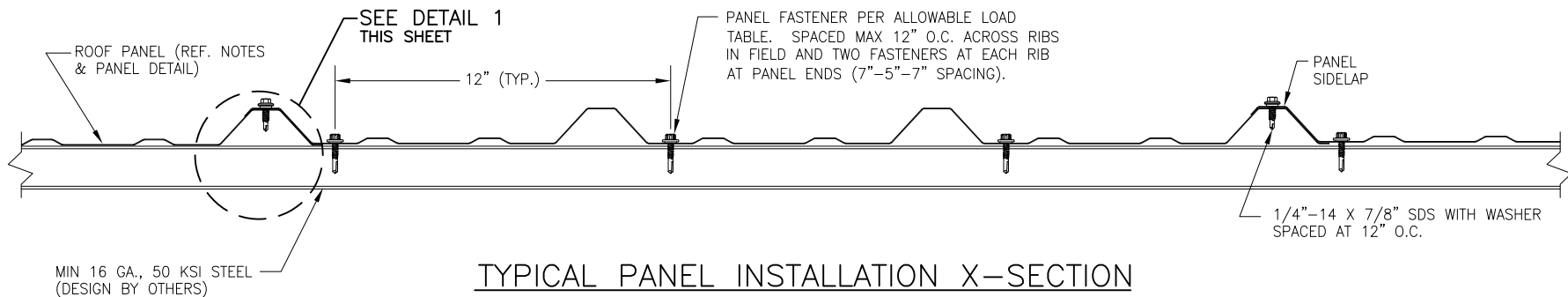
Code Compliance: The product described herein has demonstrated compliance with FBC 2023 Section 1507.4.

Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. The maximum fastener spacing listed herein shall not be exceeded. The design pressure for reduced fastener spacing may be

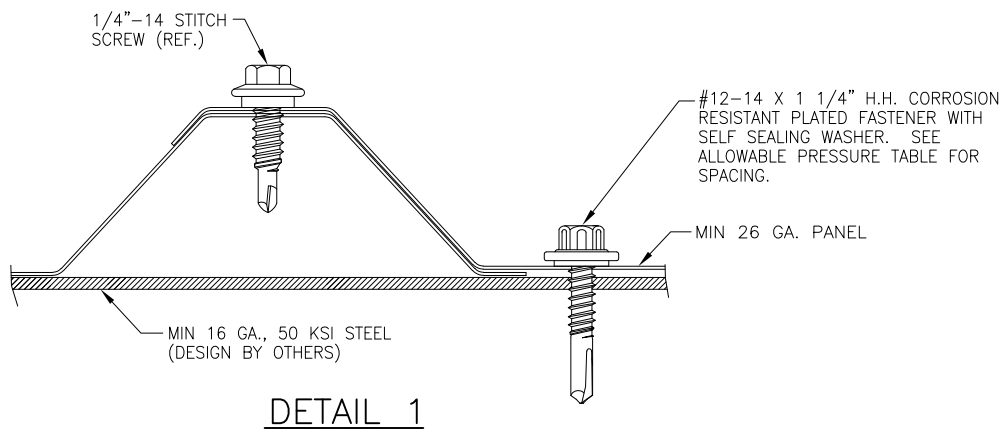
computed using rational analysis prepared by a Florida Professional Engineer or based on Metal Sales load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within the scope of this Evaluation Report. Refer to FBC 2023 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.

Supporting Documents: ASTM E1592 Test Report
Farabaugh Engineering and Testing Inc.
Project No. T154-06, Reporting Date 5/15/2006

FM 4470 Test Report
ENCON Technology Inc.
C1587-1, Reporting Date 5/17/2008



TYPICAL PANEL INSTALLATION X-SECTION



GENERAL NOTES:

1. STRUCTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. PANELS SHALL BE MIN. 26 GA. (t = 0.017"). EFFECTIVE COVERING WIDTH OF PANEL = 36".
3. THE 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 THIS DRAWING.
5. ALL FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & 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.
7. REQUIRES APPLIED LAP SEALANT FOR ROOF SLOPE < 3:12.

DRAWN BY: B.S.		CHECKED BY: D.S.	
PLOT:		DATE: 7/14/2023	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE PBR ROOF PANEL			
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E.			
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DRAWING NO. 2670-7		REV.	
PAGE NO. 1		OF 1	

METAL SALES MANUFACTURING CORPORATION
PBR-Panel Uplift Loads
(Min 26 ga.)

Description	Fastener Spacing along panel length (in)	Allowable Uplift Load (psf)
Coverage width: 36"	24	154.4
	27	137.2
Panel Fasteners #12-14 x 1.25" long hex head screws with sealed washer	30	123.5
	33	112.3
	36	102.9
	39	95.0
	42	85.5
Panel fasteners spaced at 12" o.c. across panel width	45	74.5
	48	65.5
	51	58.0
Sidelap fasteners spaced at 12" o.c.	54	51.7
	57	46.4
	60	41.9

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 10999.7 and Metal Sales current installation procedure.
3. Three or more spans condition.