

**EVALUATION REPORT OF
METAL ROOF MASTER USA LLC
'MRM TORNADO STEEL ROOF PANEL 1.5'**

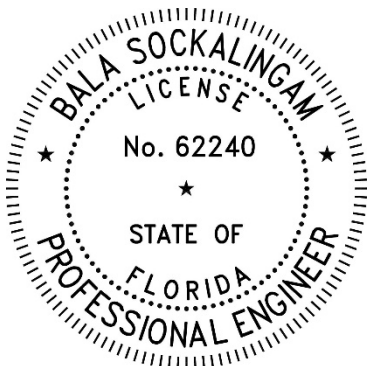
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 19663.2-R2
ROOFING
METAL ROOFING**

**Prepared For:
Metal Roof Master USA LLC
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**Prepared By:
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)**

**Report No. C2873-2
Date: 1.27.2025**



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.

**2025.01.27
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Manufacturer:	Metal Roof Master USA LLC
Product Name:	MRM Tornado Steel Roof Panel 1.5
Panel Description:	Standing seam panel with max. 20" wide coverage and 1.5" high ribs. Single (90°) and double (180°) lock seam.
Materials:	Minimum 24 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 2023 Section 1507.4.3.
Deck Description:	Min. 19/32" thick APA rated plywood or min. ¾" thick wood plank (min SG of 0.42) for new and existing constructions. Designed by others and installed as per FBC 2023.
Underlayment:	Minimum underlayment as per FBC 2023 Section 1507.4.5.1. For HVHZ, minimum underlayment as per FBC 2023 Section 1518.1 and 1518.2.
Slope:	1/4:12 or greater in accordance with FBC 2023 Section 1507.4.2. For HVHZ, 2:12 or greater as per FBC 2023 Table 1515.2 or 1:12 or greater with sidelap sealant in accordance with FBC 2023 Section 1523.6.5.2.4.1.1
Design Uplift Pressure: (Factor of Safety = 2)	172.25 psf at max. clip spacing of 18" o.c. with single (90°) lock seam. 236.0 psf at max. clip spacing of 12" o.c. with double (180°) lock seam
Panel Attachment:	24 ga., 3" long, 1.625" tall MRM fixed clip with (2) #10-12 x 1" long pancake head wood screws per clip. Clips and fasteners are corrosion resistant as per FBC 2023 Section 1506.7 and 1507.4.4, respectively.
Test Standards:	Roof assembly tested in accordance with TAS 125-03 'Standard Requirements for Metal Roofing Systems', TAS 100-95 'Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems', ASTM E2140-01 "Standard Test Method for Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head" and TAS 110-00 'Testing Requirements for Physical Properties of Roof Membrane, Insulation, Coatings and Other Roofing Components'.
Test Equivalency:	The test procedures in TAS 100-95 comply with test procedures prescribed in TAS 100-23
Code Compliance:	The product described herein has demonstrated compliance with FBC 2023 Section 1504.3, 1507.4, 1518.9 and 1523.6.5.2.4.

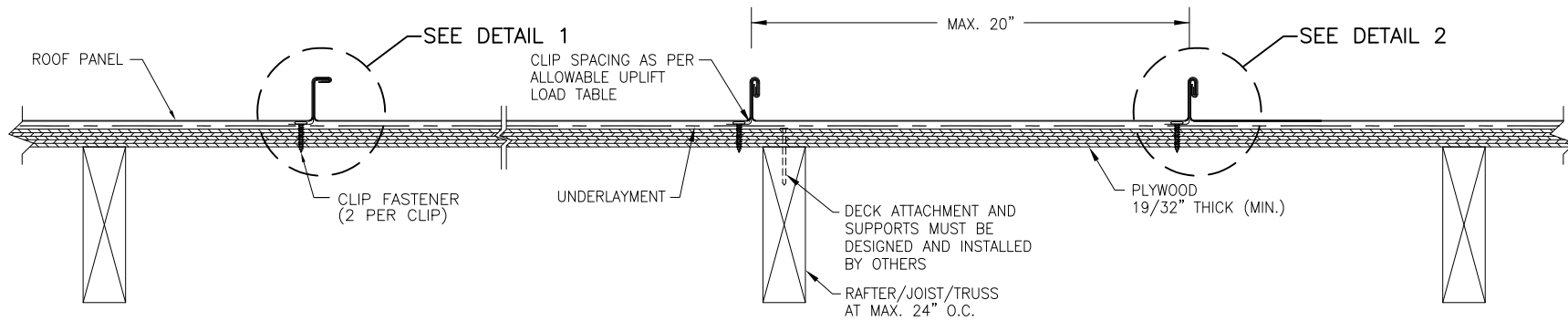
Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609, Section 1620 or ASCE 7-22 using allowable stress design. Maximum clip spacing listed herein shall not be exceeded. The design pressure for reduced clip spacing may be computed using rational analysis prepared by a Florida Professional Engineer. This evaluation report is applicable in High Velocity Hurricane Zone. Fire classification is not within 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: TAS 125 Test Report
Intertek B&C (Formerly Architectural Testing)
Project No. D1519.01-450-18, Reporting Date 4/14/2014

TAS 100-95 Test Reports
Intertek B&C (Formerly Architectural Testing)
Project No. D1519.02-450-18, Reporting Date 4/28/2014
Project No. D1519.03-450-18, Reporting Date 7/15/2014

ASTM E2140 Test Report
Intertek B&C
Project No. M7104.01-450-44, Reporting Date 8/19/2021

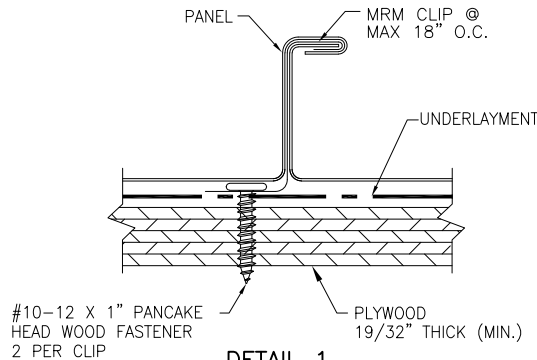
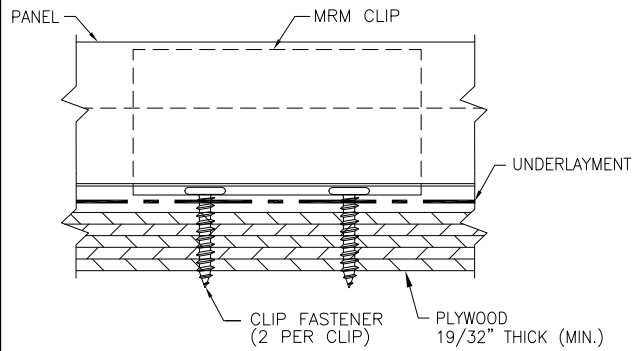
TAS 110-00 Test Report on Valspar Fluoropon coated metal panels
PRI Asphalt Technologies
Report No. VLS-004-02-01, Reporting Date 2/22/2013
Report No. VLS-005-02-01, Reporting Date 2/22/2013



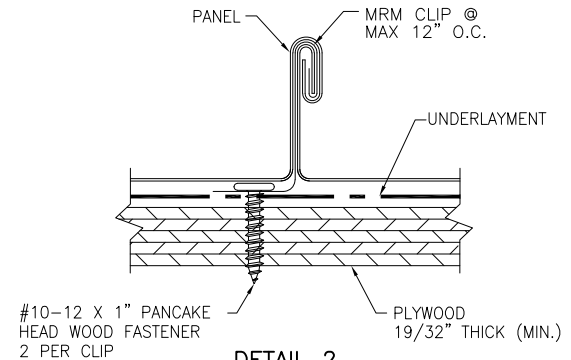
TYPICAL PANEL INSTALLATION X-SECTION

ALLOWABLE UPLIFT PRESSURE

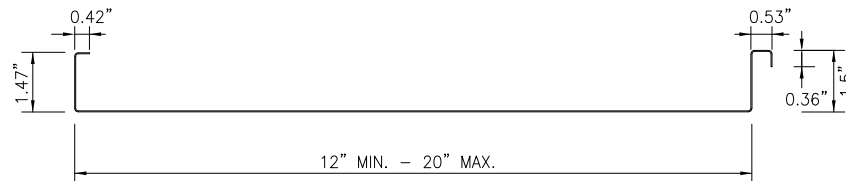
CLIP SPACING	PANEL SEAM	PRESSURE (PSF)
18"	90°	172.25
12"	180°	236.00



**DETAIL 1
90° SEAM**



**DETAIL 2
180° SEAM**



**PANEL SECTION
(MIN 24 GA.)**

GENERAL NOTES:

1. ARCHITECTURAL STANDING SEAM ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS ARE 24 GA. MAXIMUM EFFECTIVE COVERING WIDTH OF PANEL = 20".
3. THE ROOF PANELS SHALL BE INSTALLED OVER STRUCTURE AS SPECIFIED ON THIS DRAWING.
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 LOAD TABLE.
5. CLIPS AND FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. DECK AND SUPPORTS MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

DRAWN BY: B.S.		CHECKED BY: A.M.	
PLOT:		DATE: 10/11/21	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE MRM TORNADO STEEL ROOF PANEL 1.5 CONSULTANTS BALA SOCKALINGAM, PH.D., P.E. MANUFACTURER METAL ROOF MASTER USA LLC 6332 NW 72 AVE. MIAMI, FL 33166 PHONE: 918-492-5992 FAX: 866-366-1543			
DRAWING NO. 2873-2		REV.	
PAGE NO. 1		OF 1	