

Force Engineering & Testing
19530 Ramblewood Drive
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Product Evaluation Report
MID FLORIDA METAL ROOFING SUPPLY, INC.

Minimum 29 Ga. MFMRS Multi-Rib Roof Panel over 2x4 Wood Purlins

Florida Product Approval # 23490.1 R3

Florida Building Code 2020
Per Rule 61G20-3
Method: 1 -D

Category: Structural Components
Subcategory: Roof Deck
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Mid Florida Metal Roofing Supply, Inc.
28328 County Road 561
Tavares, Florida 32778

Engineer Evaluator:
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Validator:
Steven Urich, P.E. #57795

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- Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2, 1504.7.
- Product Description:** MFMRs Multi-Rib Roof Panel, 29 Ga. Steel, 36" Wide, through fastened structural roof panel over 2x4 wood purlins. Structural Application.
- Panel Material/Standards:** Material: Minimum 29 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2020 Section 1507.4.3.
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3.
- Panel Dimension(s):** Thickness: 0.0145" min.
Width: 36" maximum coverage
Rib Height: 3/4" major rib at 9" O.C.
- Panel Fastener:** #12-8 x 1" HWH Woodgrip XG w/ 1/2" EPDM washing or approved equal.
1/4-14 x 7/8" HWH SD1 w/ EPDM washer through panel side laps at 12" O.C.
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.
- Substrate Description:** Min. 2x4 No. 2 SYP wood purlins at 24" O.C. complying with 2020 Florida Building Code. Framing must be designed in accordance w/ Florida Building Code 2020.
- Allowable Design Uplift Pressures:**

Table "A"

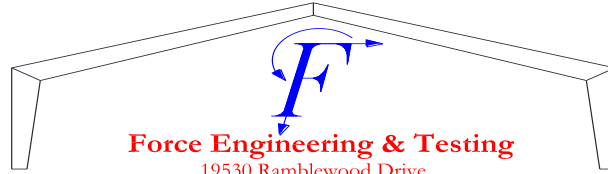
Maximum Design Uplift Pressure:	-105.0 psf
Fastener Pattern:	9"-9"-9"-6"-3"
Fastener Pattern Spacing:	24" O.C.

*Design Pressure includes a Safety Factor = 2.0



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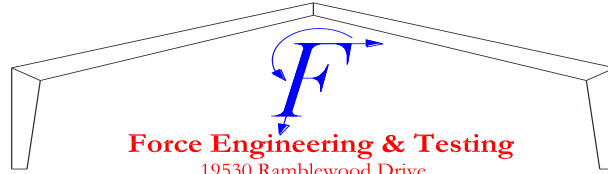
- Code Compliance:** The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2, 1504.7.
- Evaluation Report Scope:** The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.
- Performance Standards:** The product described herein has demonstrated compliance with:
- ASTM E 1592-05 (2012) Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
 - FM 4471-92, Foot Traffic Resistance Test for Roof Panels.
- Reference Data:**
1. ASTM E 1592-01
PRI Construction Materials technologies LLC
Report No. FAE-008-02-01
 2. FM 4471-92, Section 5.4 Foot Traffic Resistance Test
Force Engineering & Testing, Inc.
Report No. 194-0134T-11A
 3. Certificate of Independence
By Johnathan Green, P.E. #88223
- Test Standard Equivalency:** The ASTM E 1592-01 test standard is equivalent to the ASTM E 1592-05 (2012) test standard.
- Quality Assurance Entity:** The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.



JUN 08 2022

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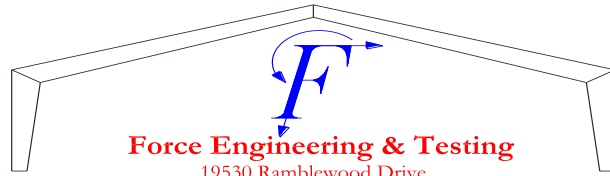
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- Minimum Slope Range:** Minimum Slope shall comply with Florida Building Code 2020, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.
- Installation:** Install per manufacturer's recommended details.
- Insulation:** Manufacturer's approved product (Optional)
- Roof Panel Fire Classification:** Fire classification is not part of this acceptance.
- Shear Diaphragm:** Shear diaphragm values are outside the scope of this report.
- Design Procedure:** Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2020 Chapter 23 for wood, and Chapter 16 for structural loading.



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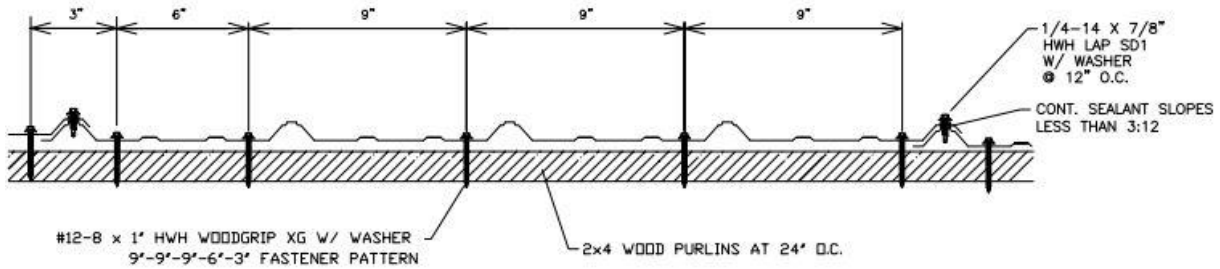
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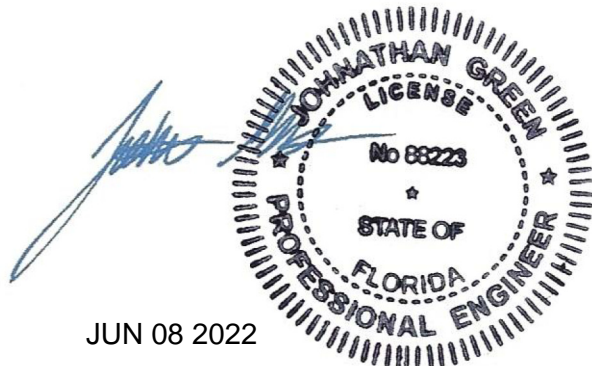
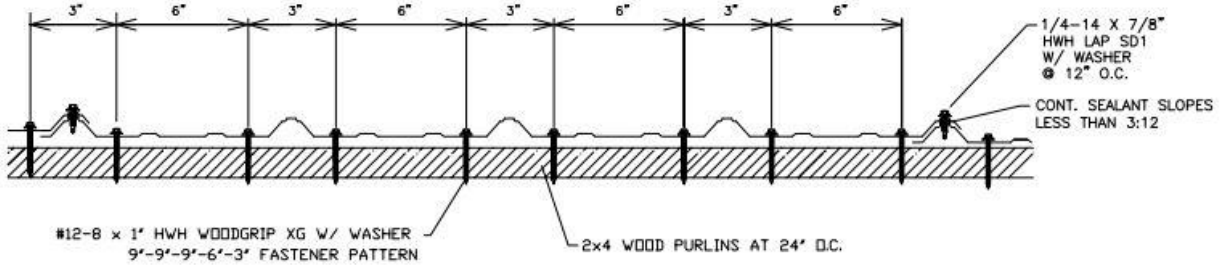
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PANEL FASTENER PATTERN AT INTERIOR



PANEL FASTENER PATTERN AT PANEL ENDS/END LAPS



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