

Force Engineering & Testing

19530 Ramblewood Drive
Humble, Texas 77338
Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

Product Evaluation Report
METAL ROOFING CENTER, INC.

26 Ga. Classic Rib 36" Coverage Metal Roof Panel Over Plywood

Florida Product Approval # 18524.1 R2

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

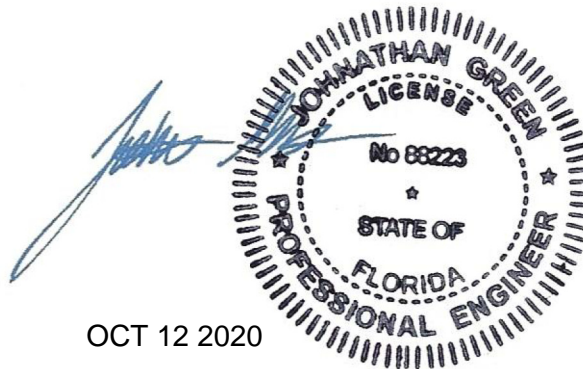
Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Metal Roofing Center, Inc.
9392 Hard Drive
Foley, Alabama 36535

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

Validator:
Brian Jaks, P.E. #70159

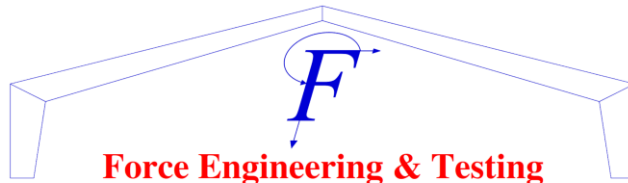
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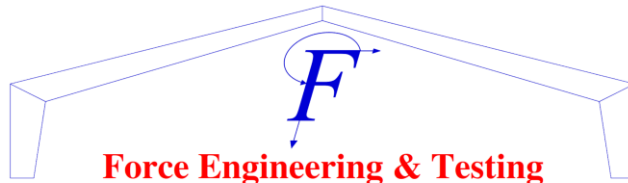
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Compliance Statement:	The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2.
Product Description:	Classic Rib Roof Panel, minimum 26-gauge steel, 36" wide, through fastened roof panel attached to 15/32" or 19/32" APA rated plywood roof deck. Non-structural Application.
Panel Material/Standards:	Material: Minimum 26-gauge steel, conforming to Florida Building Code 2020 Section 1507.4.3. Paint finish optional. Yield Strength: Min. 50.0 ksi Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3.
Panel Dimension(s):	Thickness: 0.0185" Min. coated thickness Width: 36" Maximum Coverage Rib Height: ¾" major rib at 9" O.C. Panel Rollformer: MRS Metal Rollforming Systems
Panel Fastener:	#12-8 x 1-1/2" Woodgrip XG with sealing washing or approved equal. ¼" minimum penetration through plywood. Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.
Substrate Description:	1) Minimum 15/32" APA Rated plywood over supports at 24" O.C. Plywood attached to supports with 8d ring shank nails. See Table A for plywood nail spacing. Design of plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code. 2) Minimum 19/32" APA Rated plywood over supports at 24" O.C. Plywood attached to supports with 8d ring shank nails at 4" O.C. interior/exterior. Design of plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code.



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Allowable Design Uplift Pressures:

Table A: 15/32" Plywood Substrate

Maximum Design Uplift Pressure:	-93.5 psf	-119.8 psf	-146.0 psf	-93.5 psf	-116.0 psf
Fastener Pattern:	9"-9"-9"-6"-3"	9"-9"-9"-6"-3"	9"-9"-9"-6"-3"	6"-3"-6"-3"-6"-3"-6"	6"-3"-6"-3"-6"-3"-6"
Fastener Pattern Spacing:	24" O.C.	18" O.C.	12" O.C.	24" O.C.	24" O.C.
Plywood Nail Spacing:	6" O.C.	6" O.C.	6" O.C.	6" O.C.	4" O.C.

*Design Pressure includes a Safety Factor = 2.0.

Table B: 19/32" Plywood Substrate

Maximum Design Uplift Pressure:	-116.0 psf	-138.5 psf	-161.0 psf
Fastener Pattern:	9"-9"-9"-6"-3"	9"-9"-9"-6"-3"	9"-9"-9"-6"-3"
Fastener Pattern Spacing:	24" O.C.	18" O.C.	12" O.C.
Plywood Nail Spacing:	4" O.C.	4" O.C.	4" O.C.

*Design Pressure includes a Safety Factor = 2.0.

Code Compliance:

The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2.

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:

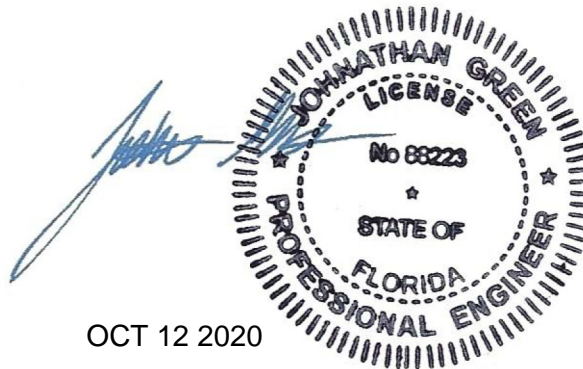
- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems

Reference Data:

1. UL 580-06 / 1897-2012 Uplift Test
Force Engineering & Testing (FBC Organization # TST-5328)
Report No. 131-0110T-20
2. Certificate of Independence
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
(FBC Organization # ANE ID: 12901)

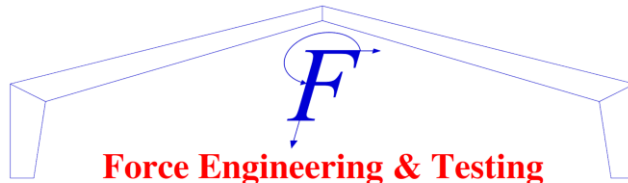
Quality Assurance Entity:

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.



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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.

Underlayment:

Per Florida Building Code 2020, Section 1507.1 and manufacturer's installation guidelines.

Roof Panel Fire Classification:

Fire classification is not part of this acceptance.

Shear Diaphragm:

Shear diaphragm values are outside the scope of this report.

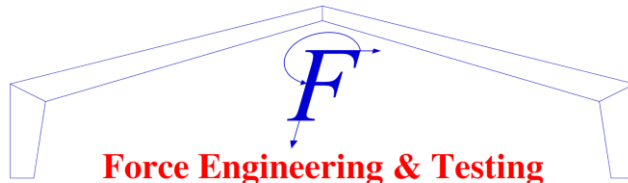
Design Procedure:

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 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



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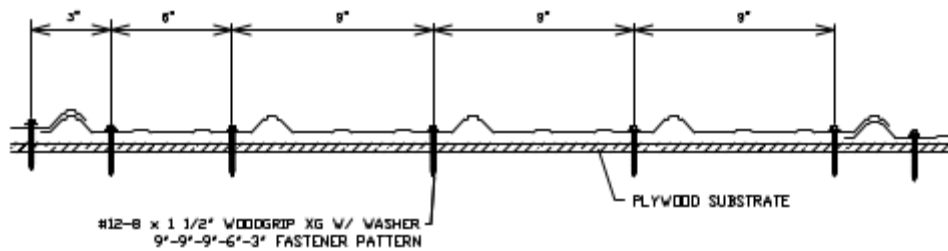
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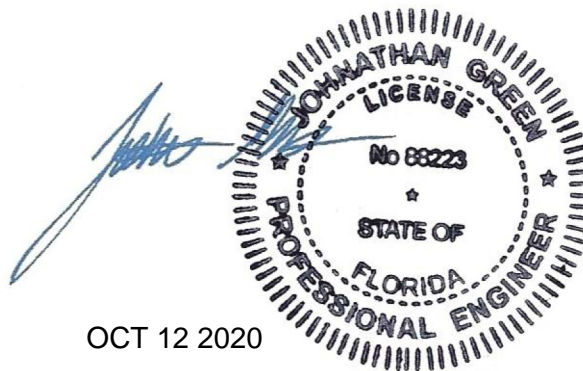
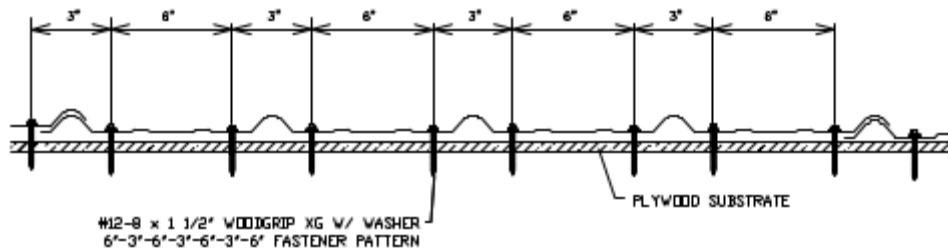
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9"-9"-9"-6"-3" FASTENER PATTERN



6"-3"-6"-3"-6"-3"-6" FASTENER PATTERN



OCT 12 2020

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