

Force Engineering & Testing

19530 Ramblewood Drive
Humble, Texas 77338

Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

**Product Evaluation Report
TRI COUNTY METALS**

29 Ga. Ultra-Rib Roof Panel over 15/32" Plywood

Florida Product Approval # 4595.19 R5

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:

Tri County Metals
301 SE 16th Street
Trenton, Florida 32693

Engineer Evaluator:

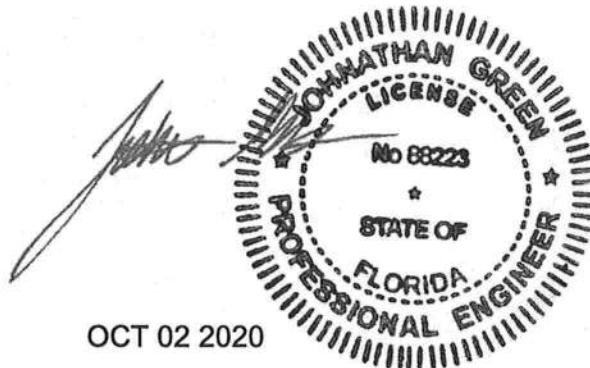
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Validator:

Brian Jaks P.E. #70159

Contents:

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FL# 4595.19 R5



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: Ultra-Rib Roof Panel, Min. 29 Ga. Steel, 36" Wide, through fastened roof panel over one layer of asphalt shingles (optional) over 15/32" APA Plywood decking. Non-Structural Application.

Panel Material/Standards: Material: Minimum 29 Ga. Steel 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: 0.0165" min.
Width: 36" maximum coverage
Rib Height: 3/4" major rib at 9" O.C.

Panel Fastener: #9-15 x 1-1/2" HWH Woodgrip with sealing washing or approved equal
1/4" minimum penetration through plywood
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.

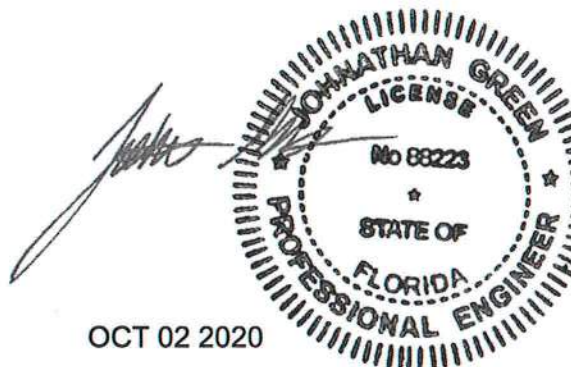
Substrate Description: One layer of asphalt shingles/felt paper (optional) over minimum 15/32" thick, APA Rated plywood over supports at maximum 24" O.C. Design of plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2020.

Allowable Design Uplift Pressures:

Table "A"

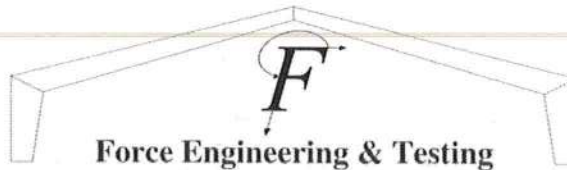
Maximum Total Uplift Design Pressure:	63.5 psf	101.0 psf
Fastener Pattern Type:	#1	#2
Fastener Pattern:	9"-9"-9"-9"	6"-3"-6"-3"-6"-3"-6"
Fastener Spacing:	24" O.C.	24" O.C.

*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:

- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems
- FM 4471-92 - Foot Traffic Resistance Test.

Reference Data:

1. UL 580-06 / 1897-04 Uplift Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 136-0099T-14A, B
2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 136-0027T-12C
3. Certificate of Independence
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
(FBC Organization # ANE ID: 12901)

Test Standard Equivalency:

The UL 1897-04 test standard is equivalent to the UL 1897-2012 test standard.

The FM 4471-10, Foot Traffic Resistance test standard is equivalent to the FM 4471-92, Foot Traffic Resistance test standard

Quality Assurance Entity:

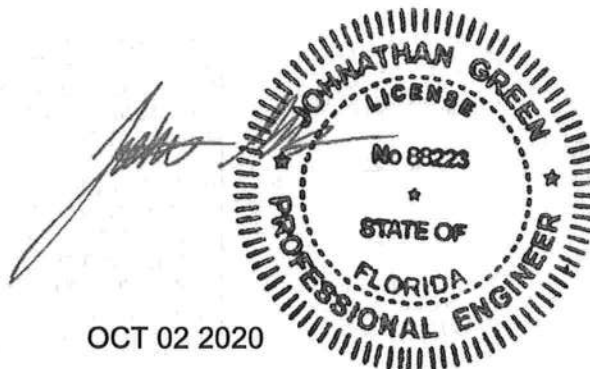
The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

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.



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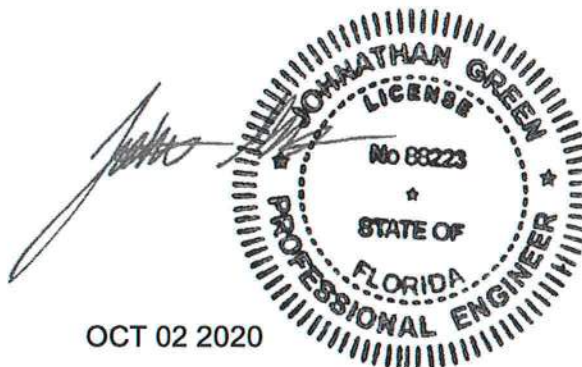


Underlayment: Per Florida Building Code 2020, Section 1507.1.1 and manufacturer's installation guidelines.

Roof Panel Fire Classification: Fire classification is not part of this acceptance.

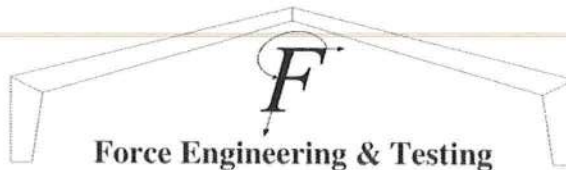
Shear Diaphragm: Shear diaphragm values are outside the scope of this report.

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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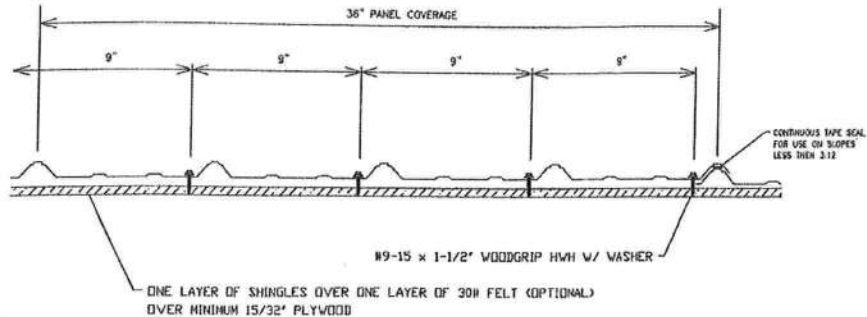
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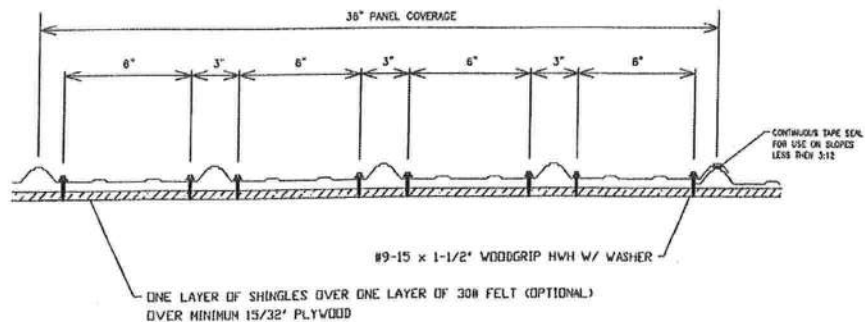
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MINIMUM 29 GA. ULTRA-RIB PANEL
TYPE #1 FASTENER PATTERN AT 24" O.C.



MINIMUM 29 GA. ULTRA-RIB PANEL
TYPE #2 FASTENER PATTERN AT 24" O.C.



OCT 02 2020

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As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING			
B. SLIDING			
C. SECTIONAL/ROLL UP			
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG			
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING			
B. SOFFITS			
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES			
B. NON-STRUCTURAL METAL	Tri County Metals	26 gage metal	4595.19 R5
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER			
5. STRUCTURAL COMPONENTS			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. NEW EXTERIOR			
ENVELOPE PRODUCTS			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Contractor OR Agent Signature _____

Date _____

NOTES: _____
