

Product Evaluation Report
TRI COUNTY METALS

29 Ga. Ultra-Rib Roof Panel over 1x4 Wood Purlins over 15/32" Plywood

Florida Product Approval # 4595.4 R2

Florida Building Code 2010

Per Rule 9N-3

Method: 1 -D

Category: Roofing

Subcategory: Metal Roofing

Compliance Method: 9N-3.005(1)(d)

NON HVHZ

Product Manufacturer:

Tri County Metals

301 SE 16th Street

Trenton, Florida 32693

Engineer Evaluator:

Terrence E. Wolfe, P.E. # 44923

Florida Evaluation ANE ID: 1920

Validator:

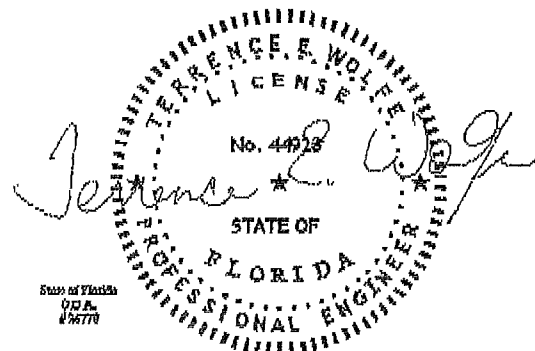
Locke Bowden, P.E., FL #49704

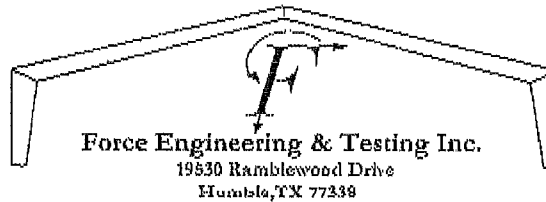
9450 Alysburys Place

Montgomery, AL 36117

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Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2010, Sections 1504.3.2, 1504.7

Product Description: Ultra-Rib Roof Panel, Min. 29 Ga. Steel, 36" Wide, through fastened roof panel over 1x4 wood purlins over one layer of asphalt shingles (optional) over min. 15/32" Plywood decking Non-Structural Application

Panel Material/Standards Material: Min 29 Ga. Steel conforming to Florida Building Code 2010 Section 1507.4.3
Yield Strength: Min 80,000 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2010, Section 1507.4.3

Panel Dimension(s): Thickness: 0.015" min.
Width: 36"
Rib Height: 3/4" major rib at 9" O.C.
Panel Rollformer: MRS Metal Rollforming Systems

Panel Fastener: #9-15 x 1-1/2" HWH Woodgrip with sealing washing or approved equal
3/4" minimum penetration through plywood
Corrosion Resistance: Per Florida Building Code 2010, Section 1506.6, 1507.4.4

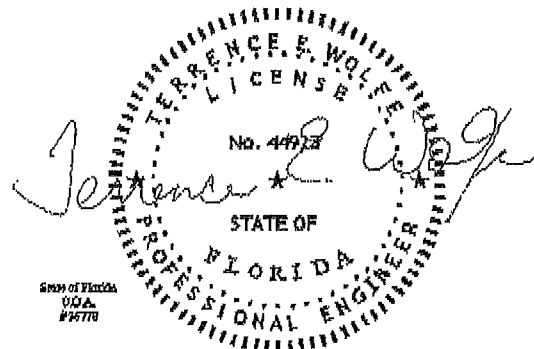
Substrate Description: Min. 1x4 No. 2 SYP wood purlins over maximum one layer of asphalt shingles/felt paper (optional) over min. 15/32" thick over supports at maximum 24" O.C. The 1x4 wood purlins shall be fastened to the plywood with (1) 8d x 2 1/2" Ring Shank Nail at 4" O.C. Design of 1x4 wood purlins, plywood and plywood supports are outside the scope of this evaluation. Must be designed in accordance w/ Florida Building Code 2010.

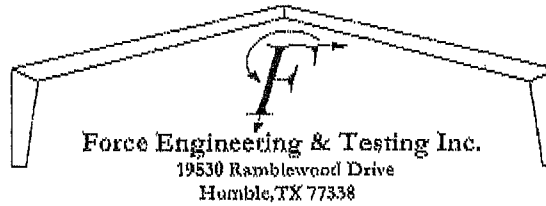
Design Uplift Pressures:

Table "A"

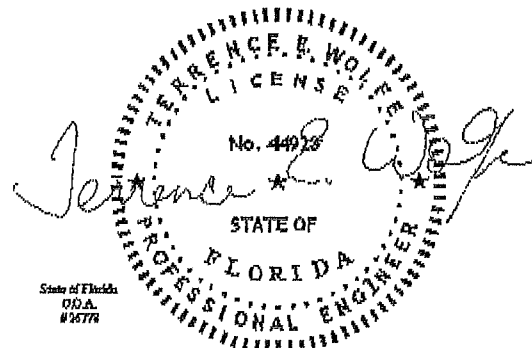
Maximum Total Uplift Design Pressure*	78.5 psf	86.0 psf
Fastener Pattern:	9"-9"-9"-9"	6"-3"-6"-3"-6"-3"-6"
Fastener Spacing	24" O.C.	24" O.C.

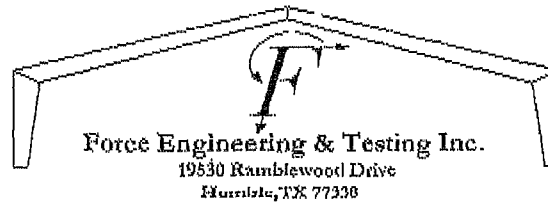
*Design Pressure includes a Safety Factor = 2.0.



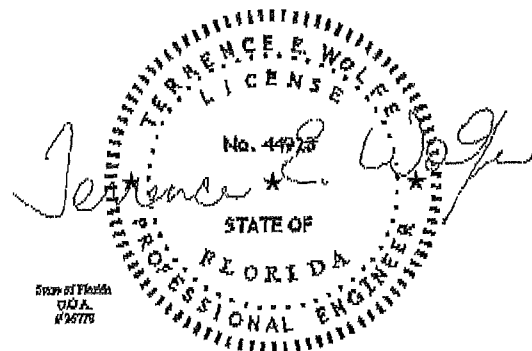


Code Compliance:	The product described herein has demonstrated compliance with The Florida Building Code 2010, Section 1504.3.2, 1504.7
Evaluation Report Scope:	The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2010, as relates to Rule 9N-3.
Performance Standards:	<p>The product described herein has demonstrated compliance with:</p> <ul style="list-style-type: none"> ▪ UL 580-06 - Test for Uplift Resistance of Roof Assemblies ▪ UL 1897-04 - Uplift Test for Roof Covering Systems ▪ FM 4471, Section 4.4 - Foot Traffic Resistance Test
Reference Data:	<ol style="list-style-type: none"> 1. UL 580-06 / 1897-04 Uplift Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 136-0027T-12A, B, Dated 02/16/2012. 2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 136-0027T-12C, Dated 02/16/2012 3. Certificate of Independence By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc. (FBC Organization # ANE ID: 1920)
Quality Assurance Entity:	The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 9N-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 2010, 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 Manufacturer's installation guidelines per Florida Building Code 2010 Section 1507.4.5
Roof Panel Fire Classification:	Fire classification is not part of this acceptance.
Shear Diaphragm:	Shear diaphragm values are outside the scope of this report



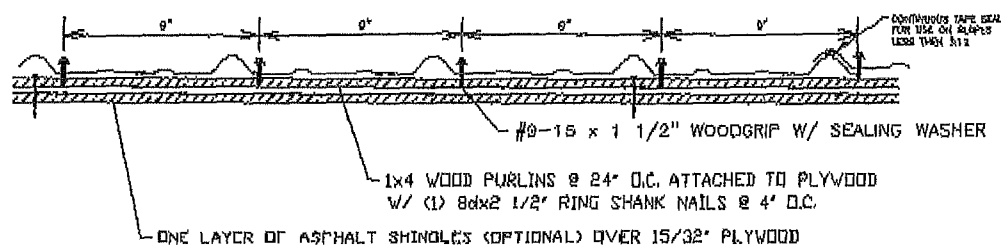
**Design Procedure:**

Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2010 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 2010 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

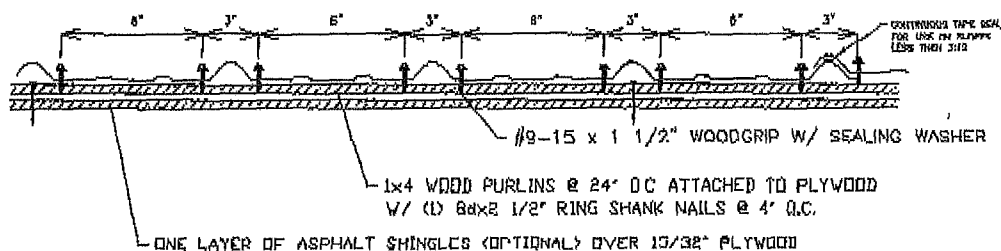


MIN. 29 GA. ULTRA-RIB PANEL OVER 1X4 WOOD PURLINS

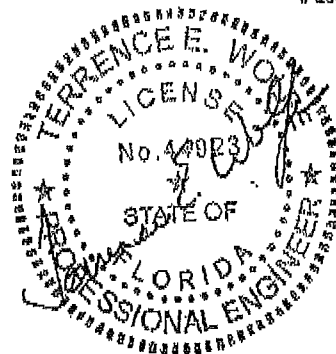
TYPE 1 FASTENER PATTERN AT 24" O.C.



TYPE 2 FASTENER PATTERN AT 24" O.C.



State of Florida
C.O.A.
26778



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