

Evaluation Report
"Perfect Rib"
Metal Roof Assembly

Manufacturer:
American Construction Metals (ACM)

5140 W. Clifton Street
Tampa, Florida 33634
(813) 884-0444

for

Florida Product Approval

FL 14623.12-R1

Florida Building Code 2010

Per Rule 9N-3

Method: 1 - D

Category: Roofing

Sub - Category: Metal Roofing

Product: "Perfect Rib" Roof Panel
Material: Steel
Panel Thickness: 29 gauge (min.)
Panel Width: 36" (max.)
Support: OSB or Wood Deck

Prepared by:

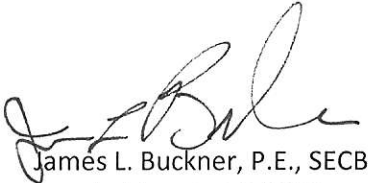
James L. Buckner, P.E., SECB
Florida Professional Engineer # 31242
Florida Evaluation ANE ID: 1916
Project Manager: Diana Galloway
Report No. 11-193-PR-S90-ER
Date: 11 / 24 / 11

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CBUCK, Inc.

1399 N. Killian Drive, Suite 4, West Palm Beach, Florida 33403
Phone: (561)491-9927 Fax: (561)491-9928 Website: www.cbuckinc.net

A handwritten signature in black ink, appearing to read "J. Buckner".

James L. Buckner, P.E., SECB
Florida P.E. # 31242

12/13/11

Manufacturer:	American Construction Metals (ACM)
Product Name:	“Perfect Rib”
Product Category:	Roofing
Product Sub-Category	Metal Roofing
Compliance Method:	State Product Approval Rule 9N-3.005 (1) (d)
Product/System Description:	“Perfect Rib” 3/4” Rib Height, 36” wide, 29 gauge Steel roof panel attached to 7/16” OSB or 15/32” Plywood with screws.
Product Assembly as Evaluated:	Refer to Page 4 of this report for product assembly components/materials & standards: <ol style="list-style-type: none">1. Roof Panel2. Fasteners3. Underlayment
Support:	Type: Wood Structural Panel (in compliance with applicable sections of FBC Sections 2303.1.4 & 2304.7.2) (Design of support system is outside the scope of this evaluation) Description: <ul style="list-style-type: none">• 7/16” (nominal) OSB (Oriented Strand Board), or• 15/32” (nominal) or greater Plywood
Slope:	Minimum slope shall be in accordance with manufacturer’s recommendations, FBC Section 1507.4.2 and applicable code sections.
Performance:	Wind Uplift Resistance: <ul style="list-style-type: none">• Design Uplift Pressure: (Refer to “Table A” attachment details herein) METHOD 1: - 67.5 PSF METHOD 2: - 135 PSF

- Performance Standards:** The product described herein has demonstrated compliance with:
- UL580-06 – *Test for Uplift Resistance of Roof Assemblies*
 - UL 1897-98 – *Uplift test for roof covering systems*
- Standards Equivalency:** The UL 580-94 & UL 1897-98 standard version used to test the evaluated product assembly is equivalent with the prescribed standards in UL 580-06 & UL 1897-04 adopted by the Florida Building Code 2010.
- Code Compliance:** The product described herein has demonstrated compliance with Florida Building Code 2010, Section 1504.3.2.
- Evaluation Report Scope:** This product evaluation is limited to compliance with the structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 9N-3.001.
- Limitations and Conditions of Use:**
- Scope of “Limitations and Conditions of Use” for this evaluation:
This evaluation report for “Optional Statewide Approval” contains technical documentation, specifications and installation method(s) which include “Limitations and Conditions of Use” throughout the report in accordance with Rule 9N-3.005. Per Rule 9N-3.004, the Florida Building Commission is the authority to approve products under “Optional Statewide Approval”.
 - Option for application outside “Limitations and Conditions of Use”
Rule 9N-3.005(1)(e) allows engineering analysis for “project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code”. Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
 - Design of support system is outside the scope of this report.
 - Fire Classification is outside the scope of Rule 9N-3, and is therefore not included in this evaluation.
 - This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties)
- Quality Assurance:** The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 9N-3.0005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through Keystone Certifications, Inc. (FBC Organization ID# QUA 1824).

**Components/Materials
(by Manufacturer):**

Roof Panel: Perfect Rib
Material: Steel
Thickness: 29 Gauge (min.)
Panel Widths: 36" (max.) Coverage
Rib Height: 3/4"
Yield Strength: 50 ksi (min.)
Corrosion Resistance: Per FBC Section 1507.4.3

Fastener:

Type: Hex-washer Head Wood Screw
Size : #10 x 1-1/2"
Corrosion Resistance: Per FBC Section 1506.6 and 1507.4.4
Standard: Per ANSI/ASME B18.6.1

Underlayment:

Per roofing manufacturer's guidelines in compliance with FBC Section 1507.4.5.

Installation:

Installation Method:

(Refer to "TABLE A" below and drawings on Pages 6-10 of this evaluation report.)

- Fastener Spacing along Row: **Refer to Drawings on Page 6 - 10**
(along the row, with fasteners attached in the panel flats, and a fastener on each side of panel laps)
- Row Spacing: **Refer to "TABLE A" Below**
(along the length of the panel)
- Rib Interlock: Lapped
- Minimum fastener penetration thru bottom of support, 3/16".
- For panel construction at the end of panels, refer to manufacturer's instructions and any site specific design.

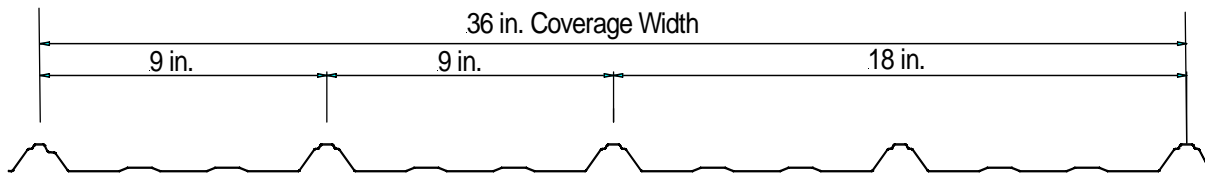
TABLE "A"		
	METHOD 1:	METHOD 2:
Design Pressure:	- 67.5 PSF	- 135 PSF
Row Spacing:	18" o.c.	12" o.c.
Fastener Spacing Along Row:	Refer to Drawings Pg 7 & 8	Refer to Drawings Pg 9 & 10

Install the "Perfect Rib" roof panel assembly in compliance with the installation method listed in this report and applicable code sections of FBC 2010. The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer's installation instructions as a supplemental guide for attachment.

Referenced Data:

1. UL 580-94/1897-98 Uplift Test
By PRI Construction Materials Technologies, LLC.
(FBC Organization ID #TST: 5878)
Report #ACM-005-02-01, Dated 5/12/11
1. Quality Assurance
Keystone Certifications, Inc. (FBC Organization ID# QUA 1824)
ACM Licensee #761
2. Equivalency of Test Standard Certification
By James L. Buckner, P.E. @ CBUG Engineering
(FBC Organization # ANE 1916)
3. Certification of Independence
By James L. Buckner, P.E. @ CBUG Engineering
(FBC Organization # ANE 1916)

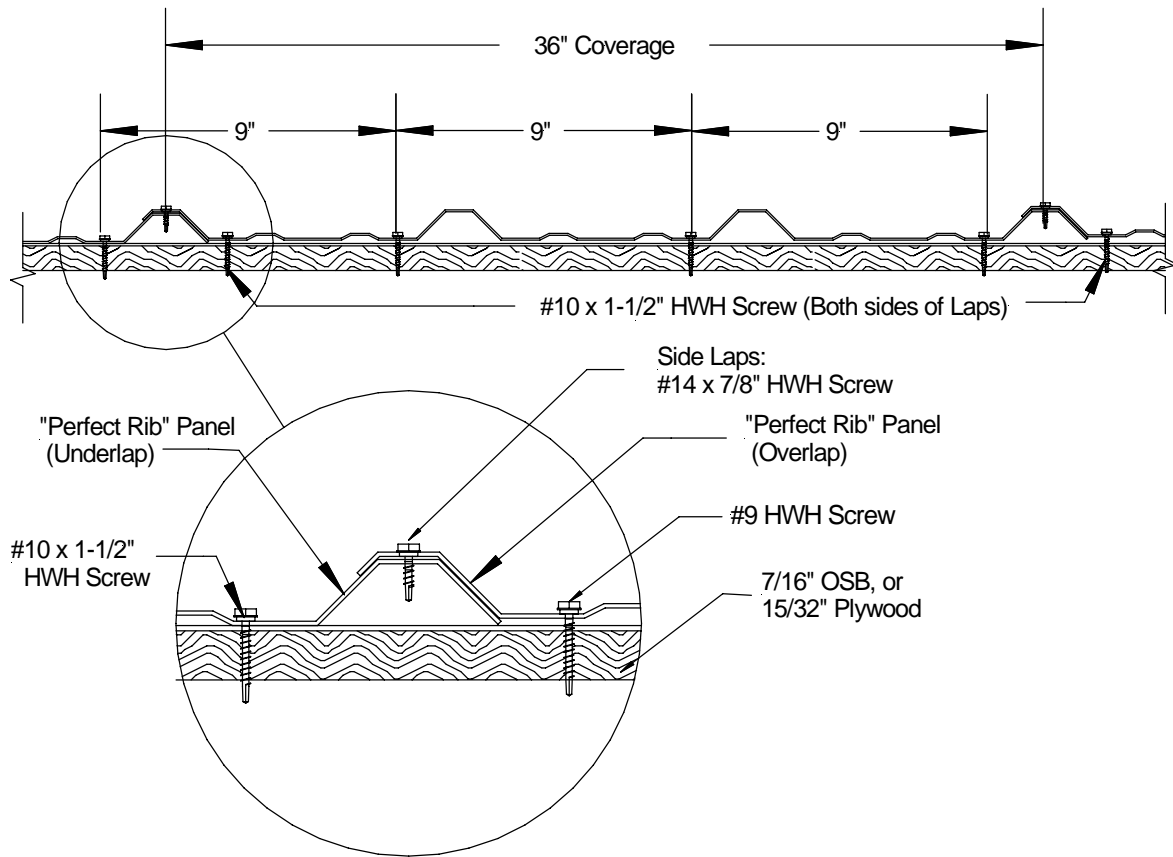
Installation Method
American Construction Metals (ACM)
“Perfect Rib” (29 ga. min.) Roof Panel Attached to OSB



Typical Panel Profile

Installation Method American Construction Metals (ACM) "Perfect Rib" (29 ga. min.) Roof Panel Attached to OSB

METHOD 1

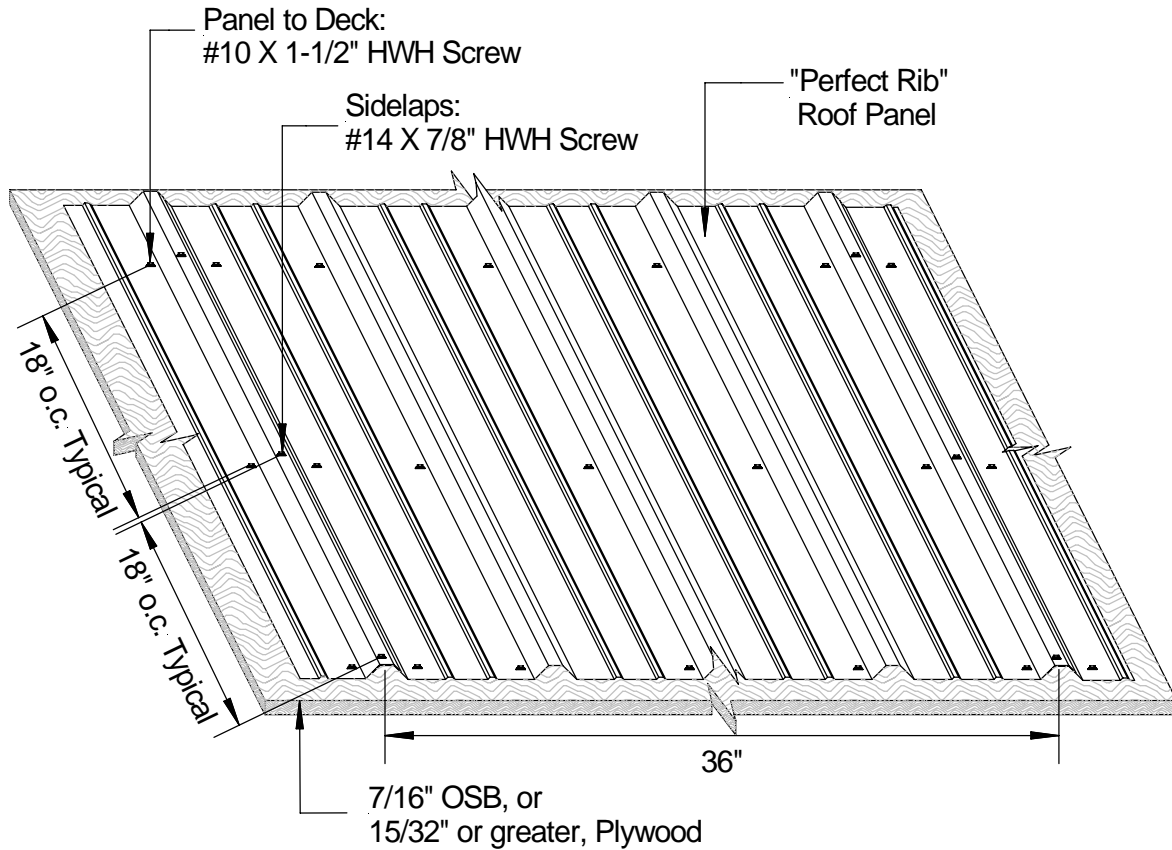


Typical Panel Assembly Section View

TABLE "A"		
	METHOD 1:	METHOD 2:
Design Pressure:	- 67.5 PSF	- 135 PSF
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Fastener Spacing:	Refer to Drawings Pg 7 & 8	Refer to Drawings Pg 9 & 10

Installation Method American Construction Metals (ACM) "Perfect Rib" (29 ga. min.) Roof Panel Attached to OSB

METHOD 1

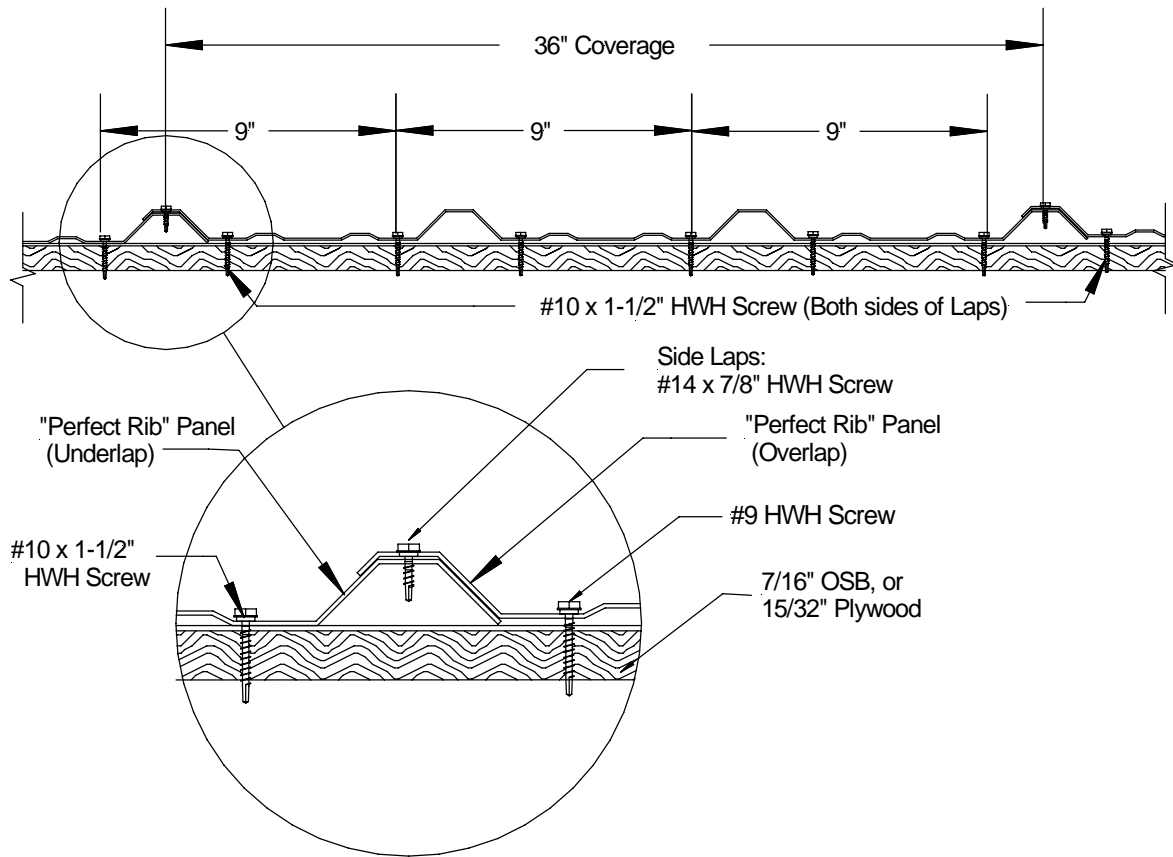


Typical Roof Assembly Isometric View

TABLE "A"		
	METHOD 1:	METHOD 2:
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Installation Method American Construction Metals (ACM) "Perfect Rib" (29 ga. min.) Roof Panel Attached to OSB

METHOD 2

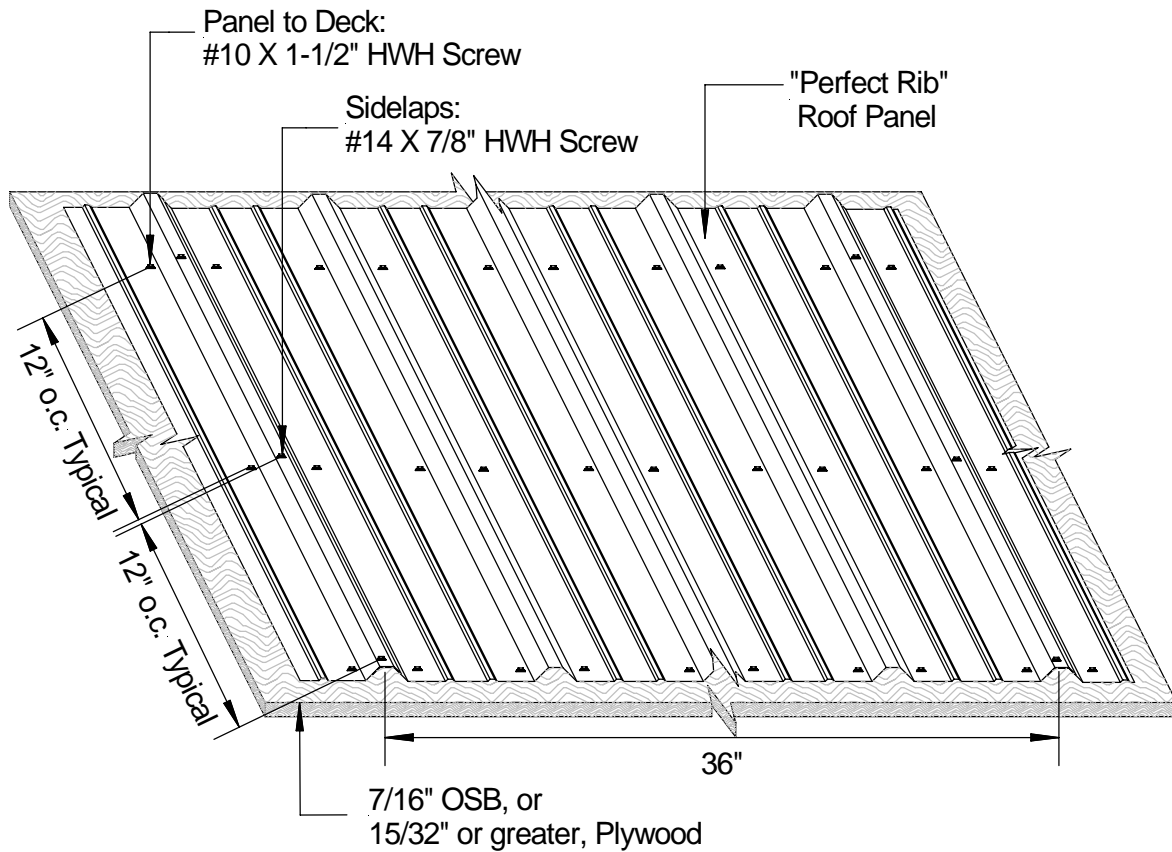


Typical Panel Assembly Section View

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Installation Method American Construction Metals (ACM) "Perfect Rib" (29 ga. min.) Roof Panel Attached to OSB

METHOD 2



Typical Roof Assembly Isometric View

TABLE "A"		
	METHOD 1:	METHOD 2:
Design Pressure:	- 67.5 PSF	- 135 PSF
Row Spacing:	18" o.c.	12" o.c.
Fastener Spacing:	Refer to Drawings Pg 7 & 8	Refer to Drawings Pg 9 & 10