

**EVALUATION REPORT OF
CENTRAL STATES MANUFACTURING, INC.
'26 GA. HORIZON LOC PANEL'**

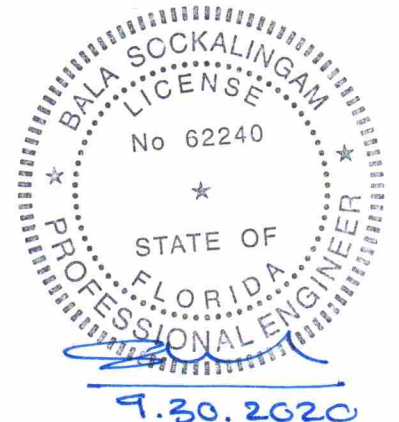
**FLORIDA BUILDING CODE 7TH EDITION (2020)
FLORIDA PRODUCT APPROVAL
FL 14026.2-R5
ROOFING
METAL ROOFING**

**Prepared For:
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)**

**Report No. C2399-2
Date: 9.30.2020**



Manufacturer: Central States Manufacturing, Inc.

Product Name: Horizon Loc Panel

Panel Description: Max. 16" wide coverage with 1" high ribs

Materials: Minimum 26 ga., 50 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755). Corrosion resistant as per FBC 2020 Section 1507.4.3.

Deck Description: Min. 7/16" thick OSB or min. 15/32" thick APA rated plywood or min. 3/4" thick wood plank (min SG of 0.42) for new and existing constructions. Designed by others and installed as per FBC 2020.

Underlayment: Minimum underlayment as per FBC 2020 Section 1507.4.5.1. Required for new construction.

Slope: 1/4:12 or greater in accordance with FBC 2020 Section 1507.4.2

Design Uplift Pressure: (Factor of Safety = 2)

System 1: 56.0 psf at seam fastener spacing of 6.5" o.c. along panel seam into min. 7/16" thick OSB or min. 15/32" thick plywood.

System 2: 78.5 psf at seam fastener spacing of 4.75" o.c. along panel seam into min. 7/16" thick OSB or min. 15/32" thick plywood with and 3/8" diameter continuous bead of Weathermaster metal roof sealant applied in the male rib.

System 3: 138.5 psf at seam fastener spaced at 4.75" o.c. along panel seam into min. 15/32" thick plywood deck with exterior fasteners spaced at 12" o.c. and 3/16" diameter continuous bead Novaflex silicone or Weathermaster metal roof sealant applied in the male rib.

Seam Fastener: #10 x 1" wafer head wood screws along panel seam. Fastener shall be of sufficient length to penetrate through the deck a minimum of 1/4". Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4.

Exterior Fastener: #10 x 1" long Kwikseal II Woodbinder screws with sealing washer or approved equal. Located on the panel flat at 1.25" from either side of panel sidelap. Spaced at maximum 12" o.c. along panel length. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4.

Test Standards: Roof assembly tested in accordance with UL580-06 'Uplift Resistance of Roof Assemblies' & UL1897-04 'Uplift Tests for Roof Covering Systems'.

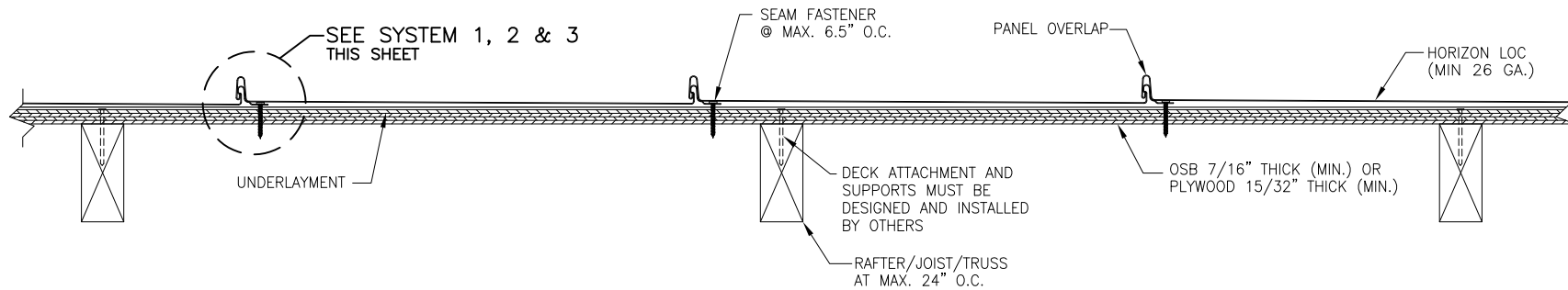
Test Equivalency: The test procedures in UL 1897-04 comply with test procedures prescribed in UL 1897-12.

Code Compliance: The product described herein has demonstrated compliance with FBC 2020 Section 1507.4.

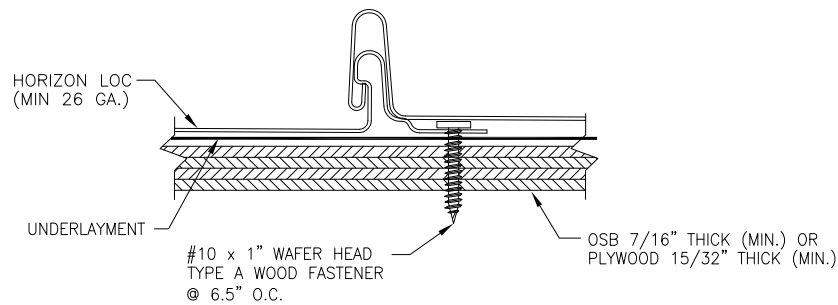
Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2020 Section 1609 or ASCE 7-16 using allowable stress design. The maximum fastener spacing listed herein shall not be exceeded. This product is not approved for use in the High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2020 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.

Supporting Documents: UL580 & UL1897 Test Reports
Force Engineering and Testing Inc.
Report No. 410-0022T-13, Reporting Date 12/6/2013

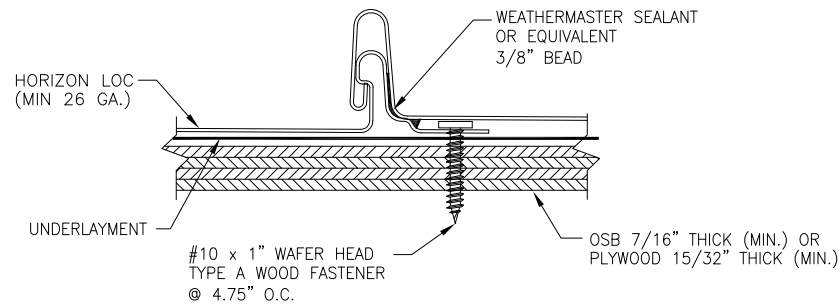
Farabaugh Engineering and Testing Inc.
Project No. T286-15, Reporting Date 10/20/15
Project No. T245-17, Reporting Date 9/1/17



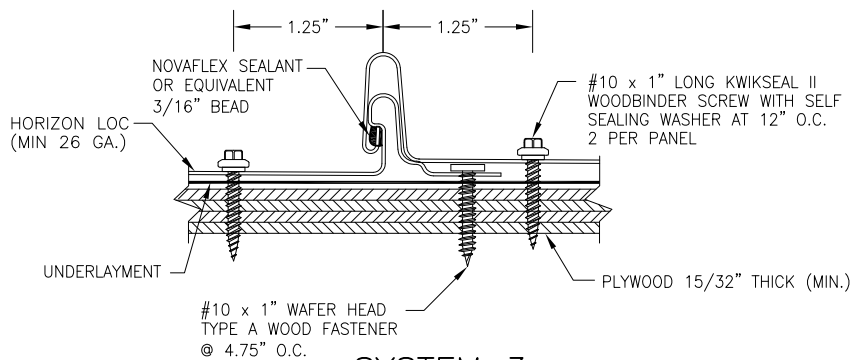
TYPICAL PANEL INSTALLATION X-SECTION



SYSTEM 1



SYSTEM 2



SYSTEM 3

ALLOWABLE UPLIFT PRESSURE

| SYSTEM | SEAM FASTENER SPACING (IN) ALONG RIB | EXTERIOR FASTENER SPACING (IN) | SEAM SEALANT DIAMETER (IN) | PRESSURE (PSF) |
|--------|--------------------------------------|--------------------------------|----------------------------|----------------|
| 1 | 6.5 | NONE | NONE | 56.0 |
| 2 | 4.75 | NONE | 3/8 | 78.5 |
| 3 | 4.75 | 12 | 3/16 | 138.5 |

GENERAL NOTES:

1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE 26 GA. EFFECTIVE COVERING WIDTH OF PANEL = 16".
3. ROOF PANELS SHALL BE INSTALLED OVER SHEATHING & STRUCTURE AS SPECIFIED ON THIS DRAWING.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOAD TABLE.
5. ALL FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & THE FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. RAFTERS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

| | | | |
|-----------|----------|-------------|---------|
| DRAWN BY: | B.S. | CHECKED BY: | A.H. |
| PLOT: | | DATE: | 9/22/17 |
| NO. | REVISION | DESCRIPTION | BY |
| | | | |
| | | | |

DRAWING TITLE: HORIZON LOC PANEL

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| DRAWING NO. | REV. |
| 2399-2 | |
| SHEET NO. | |
| 1 | OF 1 |