EVALUATION REPORT OF
METAL SALES MANUFACTURING CORPORATION
'24 GA. VERTICAL SEAM PANEL'

FLORIDA BUILDING CODE 6TH EDITION (2017)
FLORIDA PRODUCT APPROVAL
FL 11560.11-R3
ROOFING
METAL ROOFING

Prepared For:
Metal Sales Manufacturing Corporation
545 South 3rd Street, Suite 200
Louisville, KY 40202
Telephone: (502) 855-4300
Fax: (502) 855-4200

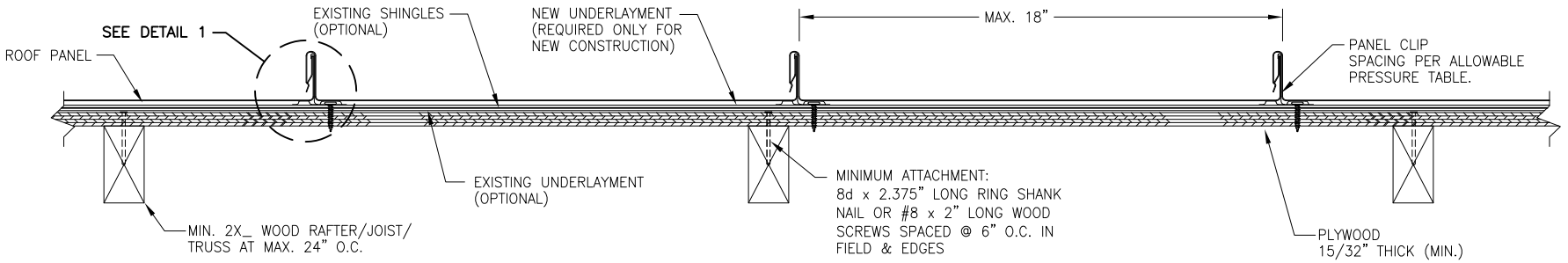
Prepared By:
Bala Sockalingam, Ph.D., P.E.
Florida Professional Engineer #62240
1216 N Lansing Ave., Suite C
Tulsa, OK 74106
Telephone: (918) 492-5992
FAX: (866) 366-1543

This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)

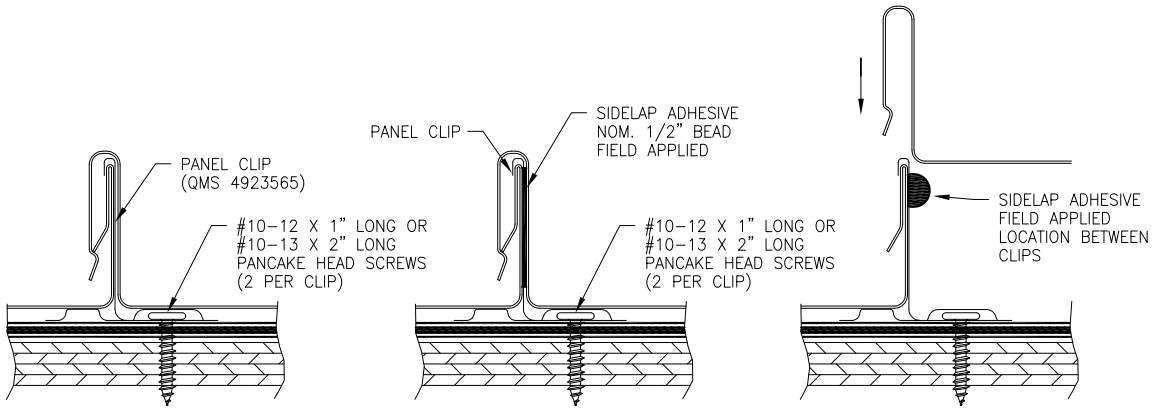
Report No. C2181-11
Date: 9.8.2017

Manufacturer:	Metal Sales Manufacturing Corporation
Product Name:	Vertical Seam
Panel Description:	Standing seam panel with 18" wide coverage and 1.75" high ribs
Materials:	Min. 24 ga., 50 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755).
Deck Description:	Min. 15/32" thick plywood or min. ¾" thick wood plank (min SG of 0.42) for new and existing constructions. Designed and installed as per FBC 2017.
Deck Attachment: (Minimum)	8d x 2.5" long ring shank nails or #8 x 2" long wood screws @ 6" o.c. in the field and edges. Designed as per FBC 2017.
New Underlayment:	Minimum underlayment as per FBC 2017 Section 1507.4.5.1. Required for new construction and optional for reroofing construction.
Existing Underlayment: (Optional)	One layer of asphalt shingles over one layer of #30 felt. For reroofing construction only.
Substrate (optional):	Min 1" x 4" No. 2 SYP wood purlins over one layer of asphalt shingles/felt (optional) and min. 7/16" thick OSB or min. 15/32" thick plywood deck fastened to supports at maximum 24" o.c. Wood purlins shall be fastened to wood rafters with (2) #9 x 3" long wood screws. The wood purlins will be spaced same as panel fastener spacing along panel length. The wood purlin, purlin to the rafter connection and rafters must be designed by others to the carry the load imposed on the panels and installed as per FBC 2017.
Slope:	1/4:12 or greater in accordance with FBC 2017 Section 1507.4.2
Design Uplift Pressure: (Factor of Safety = 2)	30.0 psf @ clip spacing of 48" o.c. 82.5 psf @ clip spacing of 12" o.c. 105.0 psf @ clip spacing of 12" o.c. with 1/2" bead adhesive field applied in panel sidelap
Fastening Pattern: At panel seam	Panel clip (QMS 4923565) with (2) #10-12 x 1" long pancake head screws per clip for new and recovered deck. Panel clip (QMS 4923565) with (2) #10-13 x 2" long pancake head screws per clip for existing deck with asphalt shingles. Fastener shall be of sufficient length to penetrate through the deck a minimum of 1/4".
Sidelap Adhesive:	Schnee-Morehead SM7108 Permathane adhesive

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 1897-06 comply with test procedures prescribed in UL 1897-12.
Code Compliance:	The product described herein has demonstrated compliance with FBC 2017 Section 1507.4
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2017 Section 1609 or ASCE 7-10 using allowable stress design. The maximum clip spacing listed herein shall not be exceeded. The design pressure for reduced clip spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on Metal Sales load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Refer to current NOA for use of this product in High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2017 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 & 1897 Test Reports PRI Construction Materials Technologies MSMC-015-02-01, Reporting Date 9/20/13 MSMC-022-02-01, Reporting Date 1/23/14



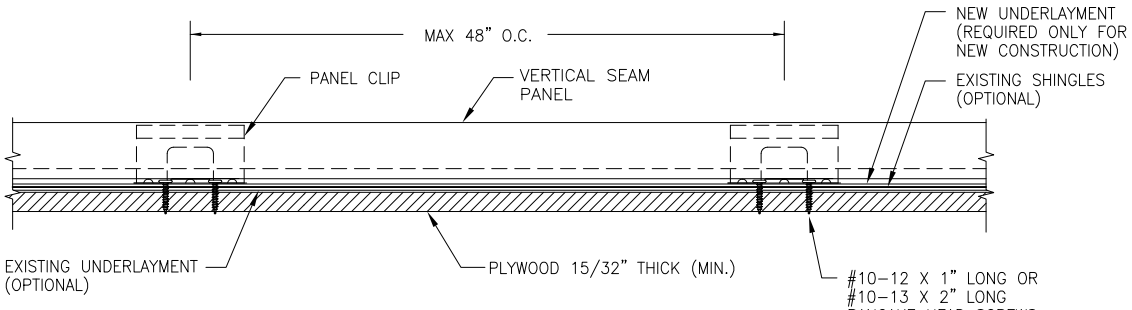
TYPICAL PANEL INSTALLATION X-SECTION



CLIP

CLIP & ADHESIVE

DETAIL 1



TYPICAL CLIP SPACING

GENERAL NOTES:

1. ARCHITECTURAL STANDING SEAM ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE MIN. 24 GA. MAX. EFFECTIVE COVERING WIDTH OF PANEL = 18".
3. THE 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 DESIGN UPLIFT PRESSURES SPECIFIED ON THIS DRAWING.
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: D.S.
PLOT:	DATE: 3/25/15

NO.	REVISION DESCRIPTION	BY	DATE

DRAWING TITLE: VERTICAL SEAM PANEL

MANUFACTURER: METAL SALES MANUFACTURING CORP.
545 SOUTH 3RD ST., SUITE 200
LOUISVILLE, KY 40202
502-855-4300

CONSULTANTS: BALA SOCKALINGAM, PH.D., P.E.
1216 N LANSING AVE, SUITE C
TULSA, OK 74106
PHONE: 918-492-5992 FAX: 866-366-1543

DRAWING NO. 2181-11 REV.

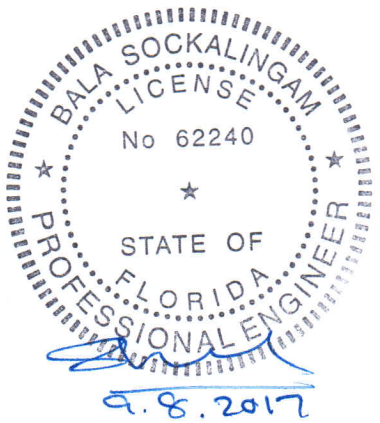
PAGE NO. 1 OF 1

METAL SALES MANUFACTURING CORPORATION
Vertical Seam Uplift Loads
(Min. 24 ga.)

Description	Fastener Spacing along Panel Length (in)	Allowable Uplift Load (psf)
Coverage width: 18" Clip: QMS 4923565 Clip Fastener: (2) #10-12 x 1" long pancake head screws or (2) #10-13 x 2" long pancake head screws	**12**	**82.5**
	14	79.6
	16	76.7
	18	73.8
	20	70.8
	22	65.5
	24	60.0
	26	55.4
	28	51.4
	30	48.0
	32	45.0
	34	42.4
	36	40.0
	38	37.9
	40	36.0
	42	34.3
	44	32.7
	46	31.3
	48	**30.0**
With Sidelap Sealant	**12**	**105.0**

Notes:

1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
2. Panels must be installed as per Evaluation Report FL 11560.11 and Metal Sales current installation procedure.
3. Three or more spans condition.
4. Optional wood purlins must be spaced same as panel fastener spacing along the panel length.



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