

**EVALUATION REPORT OF
METAL SALES MANUFACTURING CORPORATION
'26 GA. 5V-CRIMP PANEL'**

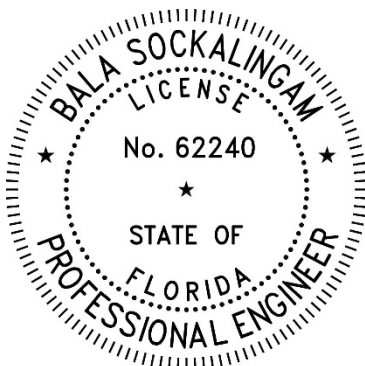
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 14645.3-R5
ROOFING
METAL ROOFING**

**Prepared For:
Metal Sales Manufacturing Corporation
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)**

**Report No. C2673-3
Date: 8.3.2023**



This item has been digitally signed and sealed by Bala Sockalingam, PE, on the date indicated.

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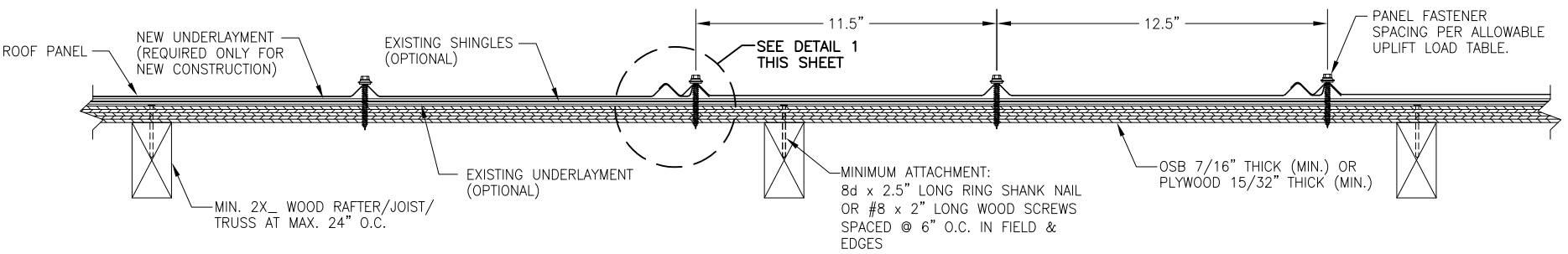
Manufacturer:	Metal Sales Manufacturing Corporation
Product Name:	5V-Crimp
Panel Description:	24" wide coverage with (5) 1/2" high ribs
Materials:	Min. 26 ga., 50 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755). Corrosion resistant as per FBC 2023 Section 1507.4.3.
Deck Description:	Min. 7/16" thick OSB or min. 15/32" thick 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 2023.
Deck Attachment:	8d x 2.5" long ring shank nails or #8 x 2" long wood screws at 6" o.c. in the plywood field and edges (Minimum). Deck fastener spacing at 3" o.c. in the field and edges for roof zones installed with panel fastener spacing of 3" o.c. Designed as per FBC 2023.
New Underlayment:	Minimum underlayment as per FBC 2023 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.
Slope:	1/2:12 or greater in accordance with FBC 2023 Section 1507.4.2. Requires applied lap sealant for roof slopes less than 3:12.
Design Uplift Pressure: (Factor of Safety = 2)	30.0 psf at fastener spacing of 36" o.c. 183.5 psf at fastener spacing of 6" o.c. 214.3 psf at fastener spacing of 3" o.c.
Fastener Pattern: Type:	#10-14 hex head wood screws with sealed washer. Fastener shall be of sufficient length to penetrate through the deck a minimum of 3/8" and installed as per Metal Sales current installation procedure. Fasteners are corrosion resistant as per FBC 2023 Section 1507.4.4.
At panel ends	6" o.c. across panel width
At intermediate	11.5"-12.5" o.c. across panel width
Test Standards:	Roof assembly tested in accordance with UL580-06 'Uplift Resistance of Roof Assemblies' & UL1897-12 'Uplift Tests for Roof Covering Systems'.
Test Equivalency:	The test procedures in UL 1897-12 comply with test procedures prescribed in UL 1897-15.

Code Compliance: The product described herein has demonstrated compliance with FBC 2023 Section 1507.4.

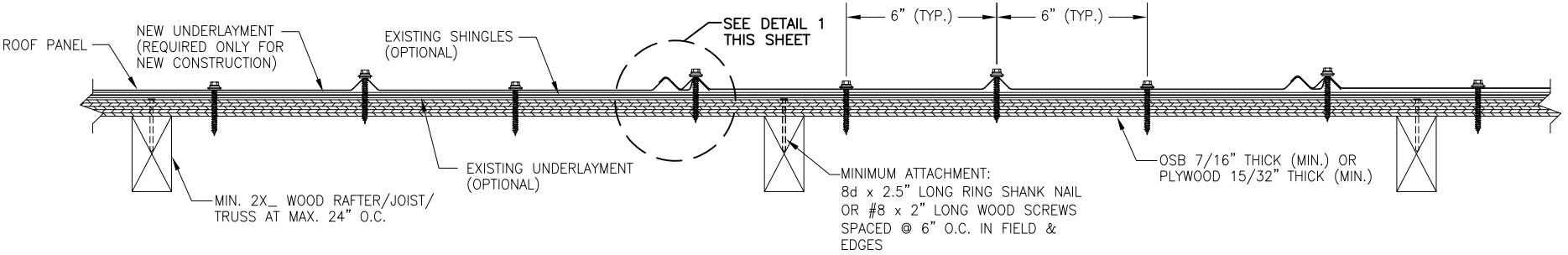
Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. The maximum fastener spacing listed herein shall not be exceeded. The design pressure for reduced fastener spacing may be computed using rational 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. Fire classification is not within the scope of this Evaluation Report. Refer to FBC 2023 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
Farabaugh Engineering and Testing Inc.
Project No. T243-21, Reporting Date 9/21/2021
Project No. T163-23, Reporting Date 4/15/2023

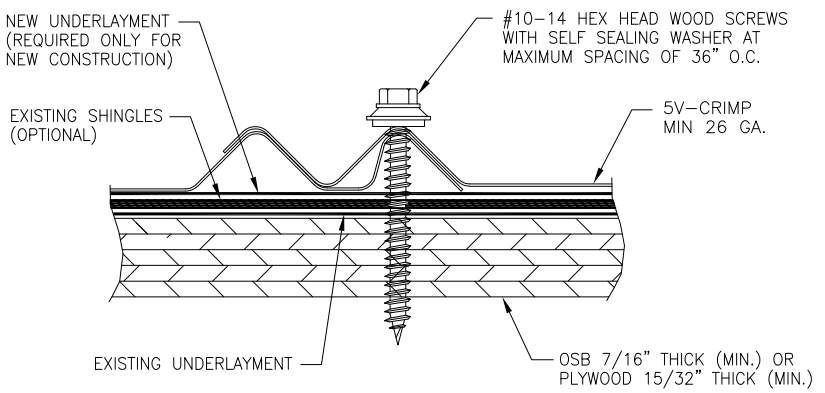
DRAWN BY: B.S.	CHECKED BY: D.S.
PLOT:	DATE: 7/19/2023
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE 5V-CRIMP PANEL	
CONSULTANTS BALA SOCKALINGAM, P.H.D., P.E.	MANUFACTURER METAL SALES MANUFACTURING CORP.
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DRAWING NO. 2673-3	REV.
PAGE NO. 1	OF 1



FASTENER PATTERN AT INTERMEDIATE LOCATIONS



FASTENER PATTERN AT PANEL ENDS
TYPICAL PANEL INSTALLATION X-SECTION



DETAIL 1

GENERAL NOTES:

1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE MIN. 26 GA. (t = 0.017"). EFFECTIVE COVERING WIDTH OF PANEL = 24".
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 ALLOWABLE WIND LOADS 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.
7. REQUIRES APPLIED LAP SEALANT FOR ROOF SLOPE < 3:12.

METAL SALES MANUFACTURING CORPORATION
5V-Crimp Uplift Loads
(Min. 26 ga.)

Description	Fastener Spacing along panel length (in)	Allowable Uplift Load (psf)
Coverage width: 24" Panel Fasteners #10-14 hex head wood screws with sealed washer	3	214.3
	6	183.5
	9	122.3
	12	91.8
	15	73.4
	18	61.2
	21	52.4
	24	45.9
	27	40.8
	30	36.7
	33	33.4
	36	30.0

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 14645.3 and Metal Sales current installation procedure.
3. Three or more spans condition.