

ICC-ES Evaluation Report

ESR-5046

 Reissued November 2024
 This report also contains:

 - City of LA Supplement

Subject to renewal November 2025

- CA Supplement

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DIVISION: 07 00 00 — THERMAL AND MOISTURE PROTECTION Section: 07 41 13 — Metal Roof Panels	REPORT HOLDER: TAYLOR METAL, INC. (dba TAYLOR METAL PRODUCTS)	EVALUATION SUBJECT: TMP METAL ROOFING PANELS	
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1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2021 and 2018 International Building Code[®] (IBC)
- 2021 and 2018 International Residential Code® (IRC)

Properties evaluated:

- Weather resistance
- Fire classification
- Structural
- Wind uplift resistance

1.2 Evaluation of the following green code:

■ 2022 California Green Building Standards Code (CALGreen), Title 24, Part 11

Attributes verified:

See Section 3.1.

2.0 USES

The TMP metal roofing panels are used as roof coverings over solid or closely fitted decking and spaced supports.

3.0 DESCRIPTION

3.1 General:

The TMP metal roofing panels are cold-formed from steel and/or aluminum conforming to the product specifications, galvalume or zinc coatings, and base-metal thicknesses noted in <u>Table 1</u>. The clips used to attach the standing seam metal roof panels to the supporting roof structure are made from materials conforming to the product specifications and base metal thicknesses noted in <u>Table 2</u>. See <u>Figures 1</u> and <u>2</u> for panel and clip details, respectively.

The attributes of the metal roofing panels have been verified as conforming to the provisions of CALGreen Section A5.406.1.2 for reduced maintenance. Note that decisions on compliance for those areas rest with the



user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.2 Deck Material:

Solid or closely fitted decking must be a minimum of ¹⁵/₃₂-inch-thick (11.9 mm) plywood or lumber sheathing complying with IBC Section 2304.8.2 or IRC Section R803, or minimum No. 22 gauge [0.030 inch thick (0.76 mm)] steel complying with IBC Section 2210.1.1.2.

3.3 Underlayment and Flashing:

Underlayment must be in accordance with IBC Section 1507.4.5 or IRC Section R905.10.5, as applicable. Where specified in <u>Table 6</u>, the underlayment is Versashield® Fire-Resistant Roof Deck Protection (ESR-2053) or Polystick XFR (ESR-1697). Flashing must be in accordance with IBC Section 1503.2 or IRC Section R903.2, as applicable.

3.4 Impact Resistance:

The MS 200 steel roof panels described in this report meet the requirements of 2021 IBC Section 1504.8 (2018 IBC Section 1504.7) for impact resistance when installed on roofs with a slope less than 2:12 (16.7 percent slope).

4.0 DESIGN AND INSTALLATION

4.1 Installation:

Installation of the TMP metal roof panels must be in accordance with this report, IBC Section 1507.4, or IRC Section R905.10, and the manufacturer's published installation instructions. The manufacturer's installation instructions must be available at the jobsite at all times during installation.

The panels must be installed on roofs with a minimum slope of 2:12 (16.7-percent slope), except for MS 200 steel roof panels which can be installed in roof slopes greater than ½: 12 (2 percent slope). Penetrations and terminations of the panels must be flashed and made weathertight in accordance with the manufacturer's published installation instructions and IBC Section 1503.2 or IRC Section R903.2, as applicable.

4.2 Uniform Gravity Loads:

When panels are installed over solid or closely fitted deck sheathing, the capacity is limited to the capacity of the sheathing.

When panels are installed on spaced supports as shown in <u>Table 5</u>, the panels are capable of withstanding the allowable uniform gravity loads and the minimum concentrated live load of 300 lbf (1.33 kN) per IBC Table 1607.1 as indicated in <u>Table 5</u>. The supporting structure must be designed to resist the applicable forces.

4.3 Wind Uplift Resistance:

The allowable wind uplift pressures of the panels are provided in Table 4.

4.4 Fire Classification:

When installed as specified in <u>Table 6</u>, the metal roof panels are components of roof assemblies classified as Class A or B in accordance with ASTM E108 or UL790.

5.0 CONDITIONS OF USE:

The Taylor Metal metal roof panels described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- **5.1** Installation must comply with the applicable code, this report and the manufacturer's published installation instructions. In the event of conflict between this report and the manufacturer's instructions, this report governs.
- 5.2 The metal panels must be installed only by applicators approved by Taylor Metals, Inc.
- **5.3** Design wind uplift pressure on any roof area, including edge and corner zones, must not exceed the allowable wind pressure for the system installed in that particular area. Refer to the allowable wind uplift pressure for the metal panels as listed in <u>Table 4</u>.

- **5.4** The allowable wind uplift pressures listed in <u>Table 4</u> are for the roof covering only. The deck and framing to which the roof covering is attached must be designed for the applicable components and cladding wind loads in accordance with the IBC or IRC, as applicable.
- **5.5** Calculations demonstrating that the required wind resistance is less than the allowable wind resistance must be submitted to the code official.
- **5.6** See <u>Table 1</u> for panel manufacturing location. The manufacturing is under a quality-control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Metal Roof Coverings (AC166), dated February 2021.

7.0 IDENTIFICATION

- **7.1** The panels are identified with a label bearing the product name, the material type, the manufacturer's name (dba: Taylor Metal Products), and the evaluation report number (ESR-5046).
- 7.2 The report holder's contact information is the following:

TAYLOR METAL, INC. (dba TAYLOR METAL PRODUCTS) 4566 RIDGE DRIVE NE SALEM, OREGON 97301 (503) 581-8338 www.taylormetal.com

TABLE 1—MANUFACTURING FACILITIES

MANUFACTURING FACILITY	
TMP-Riverside	
4880 Felspar Street	
Riverside, California 92509	

TABLE 2—TAYLOR METAL ROOF PANEL SPECIFICATIONS

		MATERIAL		MIN. BASE METAL THICKNESS
PANEL	Specification	Classification	Coating	(inch)
Versa Span 12"-14"-16"-18" Widths	ASTM A792	SS Grade 50	AZ 50- Painted AZ55-Unpainted	0.0224 (24 gauge) 0.0281 (22 gauge)
	ASTM B209	3003-H14	N/A	0.032
MS-150	ASTM A792	SS Grade 50	AZ 50- Painted AZ55-Unpainted	0.018 (26 gauge) 0.0224 (24 gauge) 0.0281 (22 gauge)
12"-16"-18" Widths	ASTM B209	3003-H14	N/A	0.032 0.040
MS-200	ASTM A792	SS Grade 50	AZ 50- Painted AZ55-Unpainted	0.0224 (24 gauge) 0.0281 (22 gauge)
12"-14"-16"-18" Widths	ASTM B209	3003-H14	N/A	0.032 0.040
PBR	ASTM A792	SS Grade 50 SS Grade 80 (26 gauge only)	AZ 50- Painted AZ55-Unpainted	0.018 (26 gauge) 0.0224 (24 gauge) 0.0281 (22 gauge)
36" Width	ASTM B209	3003-H14	N/A	0.032
HR-34 34" Width	ASTM A792	SS Grade 50 SS Grade 80 (26 gauge only) SS Grade 33 (20 gauge only)	AZ 50- Painted AZ55-Unpainted	0.018 (26 gauge) 0.0224 (24 gauge) 0.0281 (22 gauge) 0.0341 (20 gauge)
	ASTM B209	3003-H14	N/A	0.032 0.040
Classic 7/8 Corrugated 37.33" Width	ASTM A792	SS Grade 50 SS Grade 80 (26 gauge only)	AZ 50- Painted AZ55-Unpainted	0.018 (26 gauge) 0.0224 (24 gauge) 0.0281 (22 gauge)
	ASTM B209	3003-H14	N/A	0.032
BR-36	ASTM A792	SS Grade 50 SS Grade 33 (20 gauge only)	AZ 50- Painted AZ55-Unpainted	0.0224 (24 gauge) 0.0281 (22 gauge) 0.0341 (20 gauge)
36" Width	ASTM B209	3003-H14	N/A	0.032 0.040

For **SI:** 1 inch = 25.4 mm.

TABLE 3—TAYLOR METAL ROOF PANEL CLIP SPECIFICATIONS

		MATERIAL		
CLIP	Specification	Classification	Coating	THICKNESS (inch)
Versa Span Snap Lock Manufactured by SFS, Clip Master, and AMSI	Galvanized Steel	18 ga. steel ASTM A653 Grade 50	G90	0.046
MS150 Fixed Clip Manufactured by SFS, Clip Master, and AMSI MS 150 Floating Clip Manufactured by SFS, Clip Master, and AMSI	Galvanized Steel	22 ga. steel (fixed) 18/22 ga. (floating) ASTM A653 Grade 50	G90	0.046 (BASE)- 0.028 (FIXED AND TOP)
MS200 Fixed Clip Manufactured by SFS, Clip Master, and AMSI	Galvanized Steel	22 ga. steel ASTM A653 Grade 50	G90	0.028
2" Float Engineered Panel Floating Clip Manufactured by SFS	Galvanized Steel	16 ga. Base/22 ga. Top- steel ASTM A653 Grade 50	G90	0.0575 (BASE)- 0.028 (TOP)

For **SI:** 1 inch = 25.4 mm.

TABLE 4—ALLOWABLE WIND UPLIFT PRESSURES

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
	Min. 30 mil steel		12	46.8
	deck -or-		18	42.4
16" wide Versa Span (0.032"	Min. 15/32-inch-	Versa Span Snap Lock fastened to supporting	24	38.1
Aluminum)	thick plywood -or-	structure with two (2) No. 10 phillip pancake self-	30	33.8
Aldminding	Min. 56 mil steel	drilling screws	36	29.4
	purlins (open		42	25.1
	framing)		48	20.8
	Min. 30 mil steel		12	54.6
	deck -or-		18	48.5
18" wide Versa Span (0.032"	Min. 15/32-inch-	Versa Span Snap Lock fastened to supporting	24	42.4
Aluminum)	thick plywood -or-	structure with two (2) No. 10 phillip pancake self-	30	36.4
Aluminum)	Min. 56 mil steel	drilling screws	36	30.3
	purlins (open		42	24.2
	framing)		48	18.2
	Min. 30 mil steel		12	83.2
	deck -or-		18	73.6
	Min. 15/32-inch-		24	64.1
16" wide Versa Span (24 ga.	thick plywood -or-	structure with two (2) No. 10 phillip pancake self-	30	54.6
steel)	Min. 56 mil steel	en	36	45.0
	purlins (open		42	35.5
	framing)		48	26.0
	Min. 30 mil steel		12	93.6
	deck -or-	Versa Span Snap Lock fastened to supporting	18	87.1
	Min. 15/32-inch-		24	78.0
16" wide Versa Span (22 ga. steel)	thick plywood -or-	structure with two (2) No. 10 phillip pancake self-	30	68.9
steer)	Min. 56 mil steel	drilling screws	36	59.8
	purlins (open		42	50.7
	framing)		48	41.6
	Min. 30 mil steel		12	67.6
	deck -or-		18	59.8
10" wide Marga Char (24 m	Min. 15/32-inch-	Versa Span Snap Lock fastened to supporting	24	52.0
18" wide Versa Span (24 ga. steel)	thick plywood -or-	structure with two (2) No. 10 phillip pancake self-	30	44.2
steer)	Min. 56 mil steel	drilling screws	36	36.4
	purlins (open		42	28.6
	framing)		48	20.8
	Min. 30 mil steel		12	90.1
	deck -or-		18	79.8
	Min. 15/32-inch-	Versa Span Snap Lock fastened to supporting	24	69.6
18" wide Versa Span (22 ga.	thick plywood -or-	structure with two (2) No. 10 phillip pancake self-	30	59.3
steel)	Min. 56 mil steel	drilling screws	36	49.1
	purlins (open		42	38.8
	framing)		48	286

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
	Min. 30 mil steel		12	36.4
	deck -or-		18	32.5
16.75" wide MS150-90 degree	Min. 15/32-inch- thick plywood -or-	TMP MS 150 Clip fastened to supporting structure	24	28.6
seam (0.032" and 0.040"		with two (2) No. 10 pancake head self-drilling	30	24.7
aluminum)	Min. 56 mil steel	screwis	36	20.8
	purlins (open		42	16.9
	framing)		48	13.0
	Min. 30 mil steel		12	13.0
	deck -or-		18	12.1
	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure	24	11.3
16.75" wide MS150-90 degree	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	10.4
seam (24 ga. steel)	Min. 56 mil steel	screwis	36	9.5
	purlins (open		42	8.7
	framing)		48	7.8
	Min. 30 mil steel		12	57.3
			12	50.4
	deck -or-	TMD MC 150 Clip featened to supporting structure	24	43.4
16.75" wide MS150-90 degree	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure		
seam (22 ga. steel)	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	36.5
	Min. 56 mil steel	screwis	36	29.5
	purlins (open		42	22.6
	framing)		48	15.6
	Min. 30 mil steel		12	111.9
	deck -or-		18	100.1
12.625" wide MS150-180	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure	24	88.4
degree seem (0.032" and	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	76.7
0.040" aluminum)	Min. 56 mil steel	screwis	36	65.0
	purlins (open		42	53.3
	framing)		48	41.6
	Min. 30 mil steel		12	137.9
	deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel	TMP MS 150 Clip fastened to supporting structure with two (2) No. 10 pancake head self-drilling screwis	18	124.0
12.625" wide MS150-180			24	110.2
			30	96.3
degree/double lock seam (24			36	82.4
ga. steel)				
	purlins (open		42	68.6
	framing)		48	54.7
	Min. 30 mil steel	TMP MS 150 Clip fastened to supporting structure with two (2) No. 10 pancake head self-drilling	12	182.2
	deck -or-		18	161.8
12" wide MS150-180	Min. 15/32-inch-		24	141.4
degree/double lock seam (22	thick plywood -or-		30	121.1
ga. steel)	Min. 56 mil steel	screwis	36	100.7
	purlins (open		42	80.3
	framing)		48	59.9
	Min. 30 mil steel		12	119.7
	deck -or-		18	107.1
16.625" wide MS150-180	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure	24	94.5
degree/double lock seam (24	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	81.9
ga. steel)	Min. 56 mil steel			00.1
ya. siecij	purlins (open	screwis	36 42	<u>69.4</u> 56.8
	framing)			56.8
	87		48	44.2
	Min. 30 mil steel		12	145.7
	deck -or-		18	128.8
16.625" wide MS150-180	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure	24	111.9
degree/double lock seam (22	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	95.0
ga. steel)	Min. 56 mil steel	screwis	36	78.0
	purlins (open		42	61.1
	framing)		48	44.2
	Min. 30 mil steel		12	83.3
	deck -or-		18	73.7
18" wide MS150-180	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure	24	64.2
degree/double lock seam	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	54.6
(0.032"and 0.040" aluminum)	Min. 56 mil steel	screwis	36	45.1
	purlins (open		42	35.5
	framing)		42	26.0
	÷,			
	Min. 30 mil steel		12	109.3
	deck -or-		18	97.1
18" wide MS150-180	Min. 15/32-inch-	TMP MS 150 Clip fastened to supporting structure	24	85.0
degree/double lock seam (24	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	72.8
ga. steel)	Min. 56 mil steel	screwis	36	60.7
	purlins (open		42	48.5
	framing)		48	36.4

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
	Min. 30 mil steel		12	124.9
	deck -or- Min. 15/32-inch- thick plywood -or-		18	111.5
18" wide MS150-180		TMP MS 150 Clip fastened to supporting structure	24	98.0
degree/double lock seam (22		with two (2) No. 10 pancake head self-drilling	30	84.6
ga. steel)	Min. 56 mil steel	screwis	36	71.1
č ,	purlins (open		42	57.7
	framing)		48	44.2
	• • •		12	36.4
	Min. 30 mil steel deck -or-		18	32.5
18" wide MS200-90		TMD MS 200 Clip featened to supporting structure	24	28.6
	Min. 15/32-inch-	TMP MS 200 Clip fastened to supporting structure with two (2) No. 10 pancake head self-drilling	30	
degree/single lock seam	thick plywood -or-			24.7
(0.032" aluminum)	Min. 56 mil steel	screw	36	20.8
	purlins (open		42	16.9
	framing)		48	13.0
	Min. 30 mil steel		12	46.9
	deck -or-		18	42.6
18" wide MS200-90	Min. 15/32-inch-	TMP MS 200 Clip fastened to supporting structure	24	38.2
degree/single lock seam	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	33.4
(0.040" aluminum)	Min. 56 mil steel	screw	36	29.5
	purlins (open		42	25.2
	framing)		48	20.8
	5		12	59.9
	Min. 30 mil steel			
	deck -or-		18	53.4
18" wide MS200-90	Min. 15/32-inch-	TMP MS 200 Clip fastened to supporting structure	24	46.9
degree/single lock seam (24	thick plywood -or-	with two (2) No. 10 pancake head self-drilling	30	40.4
ga. steel)	Min. 56 mil steel	screw	36	33.8
	purlins (open		42	27.3
	framing)		48	20.8
	Min. 30 mil steel		12	98.9
	deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel	TMP MS 200 Clip fastened to supporting structure with two (2) No. 10 pancake head self-drilling screw	18	88.1
18" wide MS200-90			24	77.2
degree/single lock seam single			30	66.4
lock seam (22 ga. steel)			36	55.5
	purlins (open		42	44.7
	framing)		48	33.8
			12	161.3
	Min. 30 mil steel		18	147.6
	deck -or-		24	134.0
16" wide MS200-180	Min. 15/32-inch-		30	120.3
degree/double lock seam (24	thick plywood -or-	2" float engineered panel clip connected to	36	106.7
ga. steel)	Min. 56 mil steel	supporting structure with two (2) No. 14 screws	42	93.0
ga. steer)	purlins (open		48	79.4
	framing)			
	iranniy)		54	67.7
			60	52.1
			12	163.9
	Min. 30 mil steel		18	150.9
	deck -or-		24	137.9
16" wide MS200-180	Min. 15/32-inch-	2" floot ongineered penal align assessed to	30	124.9
degree/double lock seam (22	thick plywood -or-	2" float engineered panel clip connected to	36	111.9
ga. steel)	Min. 56 mil steel	supporting structure with two (2) No. 14 screws	42	98.9
- ,	purlins (open		48	85.9
	framing)		54	72.9
	57		60	59.9
			12	83.3
	Min. 30 mil steel		18	77.4
	deck -or-		24	71.5
18" wide MS200-180	Min. 15/32-inch-	2" float engineered panel clip connected to	30	65.7
	thick plywood -or-	2" float engineered panel clip connected to supporting structure with two (2) No. 14 screws	36	59.8
degree/double lock seam				54.0
degree/double lock seam (0.032" aluminum)	Min. 56 mil steel	supporting structure with two (2) No. 14 screws	42	
		supporting structure with two (2) No. 14 screws	42 48	48.1
	Min. 56 mil steel	supporting structure with two (2) No. 14 screws		
	Min. 56 mil steel purlins (open	supporting structure with two (2) No. 14 screws	48 54	48.1 42.3
	Min. 56 mil steel purlins (open	supporting structure with two (2) No. 14 screws	48 54 60	48.1 42.3 36.4
	Min. 56 mil steel purlins (open framing)	supporting structure with two (2) No. 14 screws	48 54 60 12	48.1 42.3 36.4 109.3
	Min. 56 mil steel purlins (open framing) Min. 30 mil steel	supporting structure with two (2) No. 14 screws	48 54 60 12 18	48.1 42.3 36.4 109.3 101.1
(0.032" aluminum)	Min. 56 mil steel purlins (open framing) Min. 30 mil steel deck -or-	supporting structure with two (2) No. 14 screws	48 54 60 12 18 24	48.1 42.3 36.4 109.3 101.1 93.0
(0.032" aluminum) 18" wide MS200-180	Min. 56 mil steel purlins (open framing) Min. 30 mil steel deck -or- Min. 15/32-inch-		48 54 60 12 18 24 30	48.1 42.3 36.4 109.3 101.1 93.0 84.9
(0.032" aluminum) 18" wide MS200-180 degree/double lock seam (24	Min. 56 mil steel purlins (open framing) Min. 30 mil steel deck -or- Min. 15/32-inch- thick plywood -or-	2" float engineered panel clip connected to	48 54 60 12 18 24 30 36	48.1 42.3 36.4 109.3 101.1 93.0 84.9 76.7
(0.032" aluminum) 18" wide MS200-180	Min. 56 mil steel purlins (open framing) Min. 30 mil steel deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel		48 54 60 12 18 24 30	48.1 42.3 36.4 109.3 101.1 93.0 84.9
(0.032" aluminum) 18" wide MS200-180 degree/double lock seam (24	Min. 56 mil steel purlins (open framing) Min. 30 mil steel deck -or- Min. 15/32-inch- thick plywood -or-	2" float engineered panel clip connected to	48 54 60 12 18 24 30 36	48.1 42.3 36.4 109.3 101.1 93.0 84.9 76.7
(0.032" aluminum) 18" wide MS200-180 degree/double lock seam (24	Min. 56 mil steel purlins (open framing) Min. 30 mil steel deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel	2" float engineered panel clip connected to	48 54 60 12 18 24 30 36 42	48.1 42.3 36.4 109.3 101.1 93.0 84.9 76.7 68.6

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TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
			12	156.1
	Min. 30 mil steel		18	143.4
	deck -or-		24	130.7
18" wide MS200-180	Min. 15/32-inch-	2" float engineered panel clip connected to	30	118.0
degree/double lock seam (22	thick plywood -or-	supporting structure with two (2) No. 14 screws	36	105.4
ga. steel)	Min. 56 mil steel		42	92.7
	purlins (open		48	80.0
	framing)		54	67.3
			60	54.7
	Min. 30 mil steel		24	187.5
	deck -or-	Minimum six (6) No. 14 hex-head self-drilling	30 36	165.5
36" wide PBR (0.032"	Min. 15/32-inch-	screws across the panel width at all supports	42	143.3 121.3
aluminum)	thick plywood -or- Min. 56 mil steel	Sidelap fasteners are No. 14 hex-head self-drilling	42	99.2
	purlins (open	screws at 12" o.c.	54	77.1
	framing)		60	55.0
	3,		24	100.0
	Min. 30 mil steel deck -or-	Minimum aix (6) No. 14 box bood calf drilling	30	92.5
	Min. 15/32-inch-	Minimum six (6) No. 14 hex-head self-drilling screws across the panel width at all supports	36	85.0
36" wide PBR (26 ga. steel)	thick plywood -or-	sciews across the parter width at all supports	42	77.5
	Min. 56 mil steel	Sidelap fasteners are No. 14 hex-head self-drilling	42	70.0
	purlins (open	screws at 12" o.c.	54	62.5
	framing)		60	55.0
	Min. 30 mil steel		24	175.0
	deck -or-	Minimum six (6) No. 14 hex-head self-drilling	30	156.7
	Min. 15/32-inch-	screws across the panel width at all supports	36	138.3
36" wide PBR (24 ga. steel)	thick plywood -or-		42	120.0
······	Min. 56 mil steel	Sidelap fasteners are No. 14 hex-head self-drilling	48	101.7
	purlins (open	screws at 12" o.c.	54	83.3
	framing)		60	65.0
	Min. 30 mil steel		24	200.0
36" wide PBR (22 ga. steel)	Min. 30 min steen deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel purlins (open framing)	Minimum six (6) No. 14 hex-head self-drilling	30	178.3
		screws across the panel width at all supports	36	156.7
		Sidelap fasteners are No. 14 hex-head self-drilling screws at 12" o.c.	42	135.0
			48	113.3
			54	91.7
			60	70.0
	Min. 30 mil steel	Minimum three (2) No. 10 here beed only drilling	24	112.5
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling screws across the panel width at all supports	30	100.8
34" wide HR-34 (0.032"	Min. 15/32-inch- thick plywood -or-	screws across the parter width at all supports	36	89.7
aluminum)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	42	78.5
	purlins (open	screws at 12" o.c.	48	67.3
	framing)		54	56.2
			60	45.0
	Min. 30 mil steel		24	100.0
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	90.0
34" wide HR-34 (0.040"	Min. 15/32-inch-	screws across the panel width at all supports	36	80.0
aluminum)	thick plywood -or-	Oldelen festenen en No. 40 haardes te till	42	70.0
,	Min. 56 mil steel purlins (open	Sidelap fasteners are No. 12 hex-head self-drilling	48	60.0
	framing)	screws at 12" o.c.	54	50.0
	0,		60	40.0
	Min. 30 mil steel		24 30	87.5
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	80.4 73.3
34" wide HR-34 (26 ga. steel)	Min. 15/32-inch- thick plywood -or-	screws across the panel width at all supports	36 42	66.3
or wide int-or (20 ga. steel)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	42	59.2
	purlins (open	screws at 12" o.c.		59.2
	framing)		60	45.0
	67		24	100.0
	Min. 30 mil steel deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	90.8
	Min. 15/32-inch-	screws across the panel width at all supports	36	81.7
34" wide HR-34 (24 ga. steel)	thick plywood -or-		42	72.5
(<u> </u>	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	63.3
	purlins (open	screws at 12" o.c.	54	54.2
	framing)		60	45.0
	Min. 30 mil steel		24	100.0
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	90.8
	Min. 15/32-inch-	screws across the panel width at all supports	36	81.7
34" wide HR-34 (22 ga. steel)	thick plywood -or-		42	72.5
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	63.3
	purlins (open	screws at 12" o.c.	54	54.2
	framing)		60	45.0

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
	Min. 30 mil steel		24	105.0
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	95.8
	Min. 15/32-inch-	screws across the panel width at all supports	36	86.7
34" wide HR-34 (20 ga. steel)	thick plywood -or-		42	77.5
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	68.3
	purlins (open	screws at 12" o.c.	54	59.2
	framing)		60	50.0
	Min. 30 mil steel		24	120.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	<u> </u>	108.3 96.7
34" wide HR-34 (0.032"	Min. 15/32-inch- thick plywood -or-	screws across the panel width at all supports	42	85.0
aluminum)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	42	73.3
	purlins (open	screws at 12" o.c.	54	61.7
	framing)		60	50.0
	Min. 30 mil steel		24	200.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	177.1
	Min. 15/32-inch-	screws across the panel width at all supports	36	154.2
34" wide HR-34 (0.040"	thick plywood -or-		42	131.1
aluminum)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	108.3
	purlins (open	screws at 12" o.c.	54	85.4
	framing)		60	62.5
	Min. 30 mil steel		24	175.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	157.5
	Min. 15/32-inch-	screws across the panel width at all supports	36	140.0
34" wide HR-34 (26 ga. steel)	thick plywood -or-		42	122.5
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	48	105.0
	purlins (open framing)	screws at 12 o.c.	54	87.5
	0,		60 24	70.0 200.0
	Min. 30 mil steel deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel purlins (open	Minimum five (5) No. 12 hex-head self-drilling screws across the panel width at all supports Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	30	180.0
			36	160.0
34" wide HR-34 (24 ga. steel)			42	140.0
			48	120.0
			54	100.0
	framing)		60	80.0
	Min. 30 mil steel	Minimum five (5) No. 12 hex-head self-drilling screws across the panel width at all supports Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	24	200.0
	deck -or-		30	178.3
	Min. 15/32-inch-		36	156.7
34" wide HR-34 (22 ga. steel)	thick plywood -or-		42	135.0
	Min. 56 mil steel		48	113.3
	purlins (open		54	91.7
	framing)		60	70.0
	Min. 30 mil steel	Minimum five (5) No. 12 hex-head self-drilling screws across the panel width at all supports	24 30	200.0 179.2
	deck -or- Min. 15/32-inch-		36	158.3
34" wide HR-34 (20 ga. steel)	thick plywood -or-	screws across the parter width at an supports	42	137.5
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	116.7
	purlins (open	screws at 12" o.c.	54	95.8
	framing)		60	75.0
	Min. 30 mil steel		24	55.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	50.8
37.33" wide Classic 7/8	Min. 15/32-inch-	screws across the panel width at all supports	36	46.7
Corrugated (0.032" aluminum)	thick plywood -or-		42	42.5
<u>-</u> ()	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	38.3
	purlins (open	screws at 12" o.c.	54	34.2
	framing)		60	30.0
	Min. 30 mil steel	Minimum five (5) No. 40 here here to a to delive	24 30	110.0 100.4
	deck -or- Min. 15/32-inch-	Minimum five (5) No. 12 hex-head self-drilling screws across the panel width at all supports	36	90.8
37.33" wide Classic 7/8	thick plywood -or-	solows across the parter width at all supports	42	81.3
Corrugated (26 ga. steel)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	71.7
	purlins (open	screws at 12" o.c.	54	62.1
	framing)		60	52.5
	Min. 30 mil steel		24	117.5
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	108.3
37.33" wide Classic 7/8	Min. 15/32-inch-	screws across the panel width at all supports	36	99.2
Corrugated (24 ga. steel)	thick plywood -or-		42	90.0
Sonagaioa (24 ga. sicel)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	80.8
	purlins (open	screws at 12" o.c.	54	71.7
	framing)		60	62.5

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
	Min. 30 mil steel		24	150.0
	deck -or- Min. 15/32-inch-	Minimum five (5) No. 12 hex-head self-drilling	30	135.4
		screws across the panel width at all supports	36	120.8
37.33" wide Classic 7/8	thick plywood -or-	sciews across the parter with at an supports	42	120.0
Corrugated (22 ga. steel)	Min. 56 mil steel	Sidolon factorors are No. 12 how head calf drilling		
č (č ,		Sidelap fasteners are No. 12 hex-head self-drilling	48	91.7
	purlins (open	screws at 12" o.c.	54	77.1
	framing)		60	62.5
	Min. 30 mil steel		24	175.0
	deck -or-	Minimum seven (7) No. 12 hex-head self-drilling	30	155.0
	Min. 15/32-inch-	screws across the panel width at all supports	36	135.0
37.33" wide Classic 7/8	thick plywood -or-	screws across the parter width at an supports	42	115.0
Corrugated (0.032" aluminum)		Sidelan fastanara ara Na. 12 hay haad aalf drilling		
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	95.0
	purlins (open	screws at 12" o.c.	54	75.0
	framing)		60	55.0
	Min. 30 mil steel		24	162.5
	deck -or-	Minimum seven (7) No. 12 hex-head self-drilling	30	162.5
	Min. 15/32-inch-	screws across the panel width at all supports	36	162.5
37.33" wide Classic 7/8		screws across the panel width at all supports		
Corrugated (26 ga. steel)	thick plywood -or-		42	162.5
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	162.5
	purlins (open	screws at 12" o.c.	54	162.5
	framing)		60	162.5
	87		24	162.5
	Min. 30 mil steel			102.5
	deck -or-	Minimum seven (7) No. 12 hex-head self-drilling	30	
37.33" wide Classic 7/8	Min. 15/32-inch-	screws across the panel width at all supports	36	99.2
Corrugated (24 ga. steel)	thick plywood -or-		42	90.0
Confugated (24 ga. steel)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	48	80.8
	purlins (open		54	71.7
	framing)		60	75.0
	87			
	Min. 30 mil steel		24	175.0
37.33" wide Classic 7/8 Corrugated (22 ga. steel)	deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel purlins (open framing)	Minimum seven (7) No. 12 hex-head self-drilling	30	135.4
		screws across the panel width at all supports	36	120.8
			42	106.3
		Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	48	91.7
			54	77.1
			60	75.0
	Min. 30 mil steel		24	55.0
	deck -or- Min. 15/32-inch-	Minimum three (3) No. 12 hex-head self-drilling screws across the panel width at all supports Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	30	51.7
			36	48.3
36" wide BR-36 (0.032"			42	45.0
aluminum)	thick plywood -or-		48	41.7
	Min. 56 mil steel			
	purlins (open		54	38.3
	framing)		60	35.0
	Min. 30 mil steel		24	75.0
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling screws across the panel width at all supports Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	30	69.2
			36	63.3
36" wide BR-36 (0.040"	Min. 15/32-inch-		42	57.5
aluminum	thick plywood -or-		48	51.7
,	Min. 56 mil steel		54	45.8
	purlins (open			40.0
	framing)		60	40.0
	Min. 30 mil steel		24	137.5
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	122.1
	Min. 15/32-inch-	screws across the panel width at all supports	36	106.7
36" wide BR-36 (24 ga. steel)	thick plywood -or-		42	91.3
JU WILE DIT-JU (24 ga. steel)		Sidolon factorors are No. 12 how head ask dellar		
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	75.8
	purlins (open	screws at 12" o.c.	54	60.4
	framing)	<u> </u>	60	45.0
	Min. 30 mil steel		24	100.0
		Minimum throo (2) No. 40 how he adout for the	30	90.0
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	36	80.0
	Min. 15/32-inch-	screws across the panel width at all supports		
36" wide BR-36 (22 ga. steel)	thick plywood -or-		42	70.0
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	60.0
	purlins (open	screws at 12" o.c.	54	50.0
	framing)		60	40.0
	Min. 30 mil steel		24	100.0
	deck -or-	Minimum three (3) No. 12 hex-head self-drilling	30	89.8
	Min. 15/32-inch-	screws across the panel width at all supports	36	79.7
36" wide BR-36 (20 ga. steel)	thick plywood -or-		42	69.5
oo waa bix-oo (zo ya. sieel)	Min. 56 mil steel	Sidelan factorers are No. 12 how bood calf drilling		
		Sidelap fasteners are No. 12 hex-head self-drilling	48	59.3
	purlins (open	purlins (open screws at 12" o.c.	54	49.2
	framing)		60	39.0

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN ¹	PANEL SPAN ² (inch)	ALLOWABLE UPLIFT PRESSURE (psf)
	Min. 30 mil steel		24	135.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	122.7
	Min. 15/32-inch-	screws across the panel width at all supports	36	110.3
36" wide BR-36 (0.032"	thick plywood -or-		42	98.0
aluminum)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	85.7
	purlins (open	screws at 12" o.c.	54	73.3
	framing)		60	61.0
	Min. 30 mil steel		24	171.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	150.8
	Min. 15/32-inch-	screws across the panel width at all supports	36	130.7
36" wide BR-36 (0.040"	thick plywood -or-	solews doloss the participation with at an supports	42	110.5
aluminum)	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	90.3
	purlins (open	screws at 12" o.c.	54	70.2
	framing)		60	50.0
	Min. 30 mil steel		24	200.0
	Min. 30 min steel deck -or- Min. 15/32-inch- thick plywood -or- Min. 56 mil steel purlins (open	Minimum five (5) No. 12 hex-head self-drilling screws across the panel width at all supports Sidelap fasteners are No. 12 hex-head self-drilling screws at 12" o.c.	30	179.2
			36	158.3
36" wide BR-36 (24 ga. steel)			42	137.5
			48	116.7
			54	95.8
	framing)		60	75.0
	Min. 30 mil steel		24	200.0
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	180.0
	Min. 15/32-inch-	screws across the panel width at all supports	36	160.0
36" wide BR-36 (22 ga. steel)	thick plywood -or-		42	140.0
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	120.0
	purlins (open	screws at 12" o.c.	54	100.0
	framing)		60	80.0
	Min. 30 mil steel		24	170
	deck -or-	Minimum five (5) No. 12 hex-head self-drilling	30	153.1
	Min. 15/32-inch-	screws across the panel width at all supports	36	136.2
36" wide BR-36 (20 ga. steel)	thick plywood -or-		42	119.3
	Min. 56 mil steel	Sidelap fasteners are No. 12 hex-head self-drilling	48	102.3
	purlins (open	screws at 12" o.c.	54	85.4
	framing)		60	68.5

For **SI:** 1 inch = 25.4 mm, 1 psf = 0.0479 kPa.

¹Tabulated values do not consider panel clip connection to supporting structure, which must be determined by registered design professional. Tabulated values do not consider pry effect applied to the fastener by the clip base, which must be performed by registered design professional.

²The panel span for the Versa Span, MS150 and MS200 standing seam metal roof panels represent the maximum clip spacing along the seam. The panel span for the PBR, HR-34, Classic Corrugated 7/8 and BR-36 metal roof panels represent the maximum support member spacing.

TABLE 5- ALLOWABLE UNIFORM GRAVITY LOADS FOR METAL ROOF PANELS INSTALLED ON SPACED SUPPORTS^{1,2}

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN	MAXIMUM SUPPORT SPACING (inches)	ALLOWABLE UNIFORM LOAD (psf)
16" wide Verse Span (0.022"	Min 2.5-inch wide		24	37.7
16" wide Versa Span (0.032" Aluminum)	support ³	See Table 4	30	30.2
Alaminanty	support		36	25.2
18" wide Versa Span (0.032"	Min 2.5-inch wide		24	33.6
Aluminum)	support ³	See Table 4	30	26.9
Alaminanty	support		36	22.4
			24	208.6
	Min 2.5-inch wide support ³	See <u>Table 4</u>	30	166.9
			36	133.3
16" wide Versa Span (24 ga. steel)			42	98.0
1 (5)			48	75.0
			54	59.3
			60	48.0
			24	440.0
			30	330.8
			36	229.7
	Min 2.5-inch wide		42	168.8
16" wide Versa Span (22 ga. steel)		See Table 4	48	129.2
	support ³		54	102.1
			60	82.7
			66	68.4
			72	57.4

TABLE 5- ALLOWABLE UNIFORM GRAVITY LOADS FOR METAL ROOF PANELS INSTALLED ON SPACED SUPPORTS^{1,2} (continued)

		(continued)	1	- F
TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN	MAXIMUM SUPPORT SPACING (inches)	ALLOWABLE UNIFORM LOAD (psf)
			24	185.5
			30	148.4
	Min 2 E inch wide		36	118.3
18" wide Versa Span (24 ga. Steel)	Min 2.5-inch wide	See Table 4	42	86.9
	support ³		48	66.6
			54	52.6
			60	42.6
16" wide MS150 (0.032" aluminum) single and double lock	Min 2.5-inch wide support ³	See <u>Table 4</u>	24	22.4
16" wide MS150 (0.040" aluminum)	Min 2.5-inch wide	See <u>Table 4</u>	24	34.6
single and double lock	support ³		30	22.2
			24	209.6
			30	167.6
			36	139.7
			42	119.7
16" wide MS150 (24 ga. Steel)	Min 2.5-inch wide	See Table 4	48	104.8
single and double lock	support ³		54	93.1
			60	77.7
			66	64.2
			72	54.0
			24	303.2
			30	242.6
			36	202.1
			42	173.3
16" wide MS150 (22 ga. Steel)	Min 2.5-inch wide		48	147.0
single and double lock	support ³	See <u>Table 4</u>	54	116.2
			60	94.1
			66	77.8
			72	65.4
12" wide MS150 (0.032" aluminum)	Min 2.5-inch wide	See Table 4	24	39.3
single and double lock	support ³	See Table 4	30	25.5
			24	279.6
			30	223.6
			36	186.4
			42	159.7
12" wide MS150 (24 ga. Steel)	Min 2.5-inch wide	See Table 4	48	138.8
single and double lock	support ³		54	124.2
			60	106.8
			66	88.3
			72	74.2
			24	404.6
			30	323.6
			36	269.7
10" wide MS1EQ (22 gs. Staal)	Min 2.5-inch wide		42	225.3
12" wide MS150 (22 ga. Steel) single and double lock	support ³	See Table 4	48	172.5
Single and double lock	support		54	136.3
			60	110.4
			66	91.2
			72	76.7
			24	125.5
			30	100.4
			36	83.6
18" wide MS150 (24 ga. Steel)	Min 2.5-inch wide	• • • • •	42	71.7
single and double lock	support ³	See <u>Table 4</u>	42	62.7
J			54	55.8
			60	50.2
			24	269.6
			30	215.6
			36	179.7
10" wide M0450 (00 01 1)	Min O E inchestide		42	154.0
18" wide MS150 (22 ga. Steel)	Min 2.5-inch wide	See Table 4	48	131.1
single and double lock	support ³		54	103.6
			60	83.9
			66	69.3
			72	58.3
			12	00.0

TABLE 5- ALLOWABLE UNIFORM GRAVITY LOADS FOR METAL ROOF PANELS INSTALLED ON SPACED SUPPORTS^{1,2} (continued)

TAYLOR METAL ROOF PANEL 18" wide MS200 (0.032" aluminum) single and double lock 18" wide MS200(0.040" aluminum) single and double lock 18" wide MS200 (24 ga. steel) single and double lock 18" wide MS200 (24 ga. steel) single and double lock 18" wide MS200 (24 ga. steel) single and double lock	SUPPORT Min 2.5-inch wide support ³ Min 2.5-inch wide support ³ Min 2.5-inch wide support ³	FASTENING PATTERN See Table 4 See Table 4 See Table 4	MAXIMUM SUPPORT SPACING (inches) 24 24 30 24 30 24 30 24 30 24 30 24 30 36 42 48 54 60 66 72 24 30 36 42 48 54	ALLOWABLE UNIFORM LOAD (psf) 26.2 40.8 26.1 184.1 147.3 122.7 105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
single and double lock 18" wide MS200(0.040" aluminum) single and double lock 18" wide MS200 (24 ga. steel) single and double lock	support ³ Min 2.5-inch wide support ³ Min 2.5-inch wide support ³	See <u>Table 4</u> See <u>Table 4</u>	24 30 24 30 36 42 48 54 60 66 72 24 30 36 42 48 54 60 66 72 24 30 36 42 48	40.8 26.1 184.1 147.3 122.7 105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (24 ga. steel) single and double look	support ³ Min 2.5-inch wide support ³ Min 2.5-inch wide	See <u>Table 4</u>	30 24 30 36 42 48 54 60 66 72 24 30 36 42 48	26.1 184.1 147.3 122.7 105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (24 ga. steel) single and double lcok 18" wide MS200 (22 ga. steel)	Min 2.5-inch wide support ³ Min 2.5-inch wide	See <u>Table 4</u>	24 30 36 42 48 54 60 66 72 24 30 36 42 48	184.1 147.3 122.7 105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (24 ga. steel) single and double lcok 18" wide MS200 (22 ga. steel)	Min 2.5-inch wide support ³ Min 2.5-inch wide		30 36 42 48 54 60 66 72 24 30 36 42 48	147.3 122.7 105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
single and double lcok	support ³		36 42 48 54 60 66 72 24 30 36 42 48	122.7 105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
single and double look	support ³		42 48 54 60 66 72 24 30 36 42 48	105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
single and double look	support ³		42 48 54 60 66 72 24 30 36 42 48	105.2 92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
single and double look	support ³		48 54 60 66 72 24 30 36 42 48	92.1 81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
single and double look	support ³		54 60 66 72 24 30 36 42 48	81.8 73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (22 ga. steel)	Min 2.5-inch wide	See <u>Table 4</u>	60 66 72 24 30 36 42 48	73.6 66.9 61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	66 72 24 30 36 42 48	66.9 61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	72 24 30 36 42 48	61.4 266.8 213.5 177.9 152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	24 30 36 42 48	266.8 213.5 177.9 152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	30 36 42 48	213.5 177.9 152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	36 42 48	177.9 152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	42 48	152.5 133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>	48	133.4
18" wide MS200 (22 ga. steel) single and double lock		See <u>Table 4</u>		
single and double lock	support ³		54	
				118.6
			60	106.7
			66	89.3
			72	75.0
			24	207.3
			30	165.8
			36	138.2
			42	118.4
16" wide MS200 (24 ga stad)	Min 2 E inch wido		42	103.6
16" wide MS200 (24 ga. steel) single and double lock	Min 2.5-inch wide	See Table 4	54	92.1
single and double lock	support ³		60	
				82.9
			66	75.4
			72	69.1
			24	300.5
			30	240.4
			36	200.3
			42	171.7
16" wide MS200 (22 ga. steel)	Min 2.5-inch wide		48	150.2
single and double lock	support ³	See <u>Table 4</u>	54	133.5
single and double look	support		60	120.2
			66	100.8
			72	84.7
			96	47.7
	Min 2.5-inch wide	Con Table 4	24	40.4
36" wide PBR (0.032" aluminum)	support ³	See <u>Table 4</u>	30	32.3
			36	26.9
			24	192.3
			30	153.8
			36	128.2
36" wide PBR (26 ga. steel)	Min 2.5-inch wide	See Table 4	42	109.9
ou wide i bit (zu ga. sieci)	support ³		48	96.1
			54	77.2
			60	62.6
			66	51.7
			24	191.4
			30	153.1
			36	127.6
36" wide PBR (24 ga. steel)	Min 2.5-inch wide	See Table 4	42	109.4
55 mas . Br (2 r ga. 5(66))	support ³		48	86.4
			54	68.3
			60	55.3
			24	306.4
			30	245.1
			36	204.2
	Min 2.5-inch wide	0 T	42	153.3
36" wide PBR (24 ga. steel)	support ³	See <u>Table 4</u>	48	117.3
	- appoil		54	92.7
			60	75.1
			66	62.1
			72	52.2

TABLE 5- ALLOWABLE UNIFORM GRAVITY LOADS FOR METAL ROOF PANELS INSTALLED ON SPACED SUPPORTS^{1,2} (continued)

		(continued)		
TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN	MAXIMUM SUPPORT SPACING (inches)	ALLOWABLE UNIFORM LOAD (psf)
34" wide HR-34 (0.032" aluminum)	Min 2.5-inch wide	See Table 4	24 30	63.2 50.6
	support ³		36	42.1
			24	98.6
	Min 2.5-inch wide		30	78.9
34" wide HR-34 (0.032" aluminum)	support ³	See Table 4	36	65.8
	support		42	56.4
			48	49.3
			24	234.6
			30	187.6
			<u>36</u> 42	<u>156.4</u> 134.0
34" wide HR-34 (26 ga. steel)	Min 2.5-inch wide	See <u>Table 4</u>	42	117.3
	support ³		54	104.2
			60	93.8
			66	85.3
			72	85.3
			24	318.2
			30	254.6
			36	212.1
			42	181.8
34" wide HR-34 (24 ga. steel)	Min 2.5-inch wide	See Table 4	48	159.1
······································	support ³		54	141.4
			<u>60</u> 66	123.3 101.9
			72	85.6
			96	48.2
			24	361.8
			30	289.5
			36	241.2
			42	206.8
24" wide HR 24 (22 ga steel)	Min 2.5-inch wide	See Table 4	48	180.9
34" wide HR-34 (22 ga. steel)	support ³	See <u>Table 4</u>	54	152.2
			60	127.3
			66	115.7
			72	106.1
			96	60.1
			24 30	380.0 304.0
			36	253.3
			42	217.1
	Min 2.5-inch wide		48	190.0
34" wide HR-34 (20 ga. steel)	support ³	See <u>Table 4</u>	54	168.9
			60	142.7
			66	117.9
			72	99.1
			96	55.7
			24	244.6
27.22" wide Clease 7/0 Commented	Min 2 E inch wide		30	156.6
37.33" wide Classic 7/8 Corrugated (0.032" aluminum)	Min 2.5-inch wide support ³	See <u>Table 4</u>	36 42	108.7 79.9
	support		42	61.2
			52	48.3
			24	356.3
			30	228.0
			36	158.3
37.33" wide Classic 7/8 Corrugated (26 ga. steel)	Min 2.5-inch wide support ³	See <u>Table 4</u>	42	116.3
(zo ya. sieel)	support		48	89.1
			52	70.4
			60	57.0
			24	485.6
			30	310.8
			36	215.8
37.33" wide Classic 7/8 Corrugated	Min 2.5-inch wide	See Table 4	42 48	158.6 121.4
(24 ga. steel)	support ³	See <u>Table 4</u>	52	95.9
()			02	00.0
(° ° ,			60	77 7
, , , , , , , , , , , , , , , , , , ,			60 66	77.7 64.2

TABLE 5- ALLOWABLE UNIFORM GRAVITY LOADS FOR METAL ROOF PANELS INSTALLED ON SPACED SUPPORTS^{1,2} (continued)

TAYLOR METAL ROOF PANEL	SUPPORT	FASTENING PATTERN	MAXIMUM SUPPORT SPACING (inches)	ALLOWABLE UNIFORM LOAD (psf
		FAITENN	24	571.3
			30	365.6
			36	253.9
			42	186.5
37.33" wide Classic 7/8 Corrugated	Min 2.5-inch wide	See Table 4	48	142.8
(24 ga. steel)	support ³		52	112.8
			60	91.4
			66	75.5
			72	63.5
20" wide DD 20 (0.020"			24	106.7
36" wide BR-36 (0.032" aluminum) ²	Min 2.5-inch wide	Cas Table 4	30	68.3
aiuminum)-	support ³	See <u>Table 4</u>	36	47.4
			24	128.2
36" wide BR-36 (0.040"	Min 2.5-inch wide		30	102.6
aluminum) ²	support ³	See Table 4	36	73.8
alaminany	Support		42	54.2
			24	490
	Min 2.5-inch wide support ³		30	392
			36	280.6
			42	200.0
			42	157.8
36" wide BR-36 (24 gage steel) ²			54	124.7
	Support		60	124.7
			66	83.5
			72	70.1
			24	676.8
			30	520.0
			36	361.1
			42	265.3
	Min 2.5-inch wide		48	203.1
36" wide BR-36 (22 gage steel) ²	support ³	See <u>Table 4</u>	54	160.5
	Support		60	130.0
			66	107.4
			72	90.3
			96	50.8
			24	656.0
			30	514.8
			36	357.5
			42	262.7
	Min 2.5-inch wide		48	201.1
36" wide BR-36 (20 gage steel) ²	support ³	See <u>Table 4</u>	54	158.9
			60	128.7
			66	106.4
			72	89.4
			96	50.3

For **SI:** 1 inch = 25.4 mm, 1 psf = 0.0479 kPa.

¹Tabulated load values are based on panels uniformly loaded and installed on three or more equal span conditions.

²The tabulated spans are able to resist the concentrated roof live load of 300 lbf (1.33 kN) indicated in IBC Table 1607.1.

³The structural support must be designed to resist the applicable forces. When panels are installed over solid or closely fitted deck sheathing, the capacity is limited to the capacity of the underlying sheathing.

ROOF CLASSIFICATION	SUBSTRATE	MAX. ROOF SLOPE	A	ASSEMBLY DETAILS
A	Noncombustible	Unlimited	Panels:	Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 steel roof panels
A	Noncombustible	Unimited	Insulation:	Any UL Classified roofing insulation, except for foam plastic insulation, minimum 1-inch- thick
			Panels:	Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 steel roof panels
А	Noncombustible	Unlimited	Barrier Board:	Min. 15/32-inch-thick plywood
			Ply Sheet (optional):	Min. one ply ASTM D226 Type I (No. 115) or Type II (No. 30) asphalt saturated felt or UL Certified Type G1 mechanically fastened

TABLE 6-FIRE CLASSIFICATION ASSEMBLIES

ROOF MAX. ROOF SUBSTRATE **ASSEMBLY DETAILS CLASSIFICATION** SLOPE Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 steel roof Panels: panels Georgia Pacific 1/4 inch minimum DensDeck board or 1/4 inch minimum United States Gypsum Co SECUROCK Glass-Mat Roof Board (Type SGMRX), National Gypsum DEXcell Glass Mat Roof Board or DEXcell Barrier Board: Combustible А Unlimited FV Glass Mat Roof Board, CertainTeed Gypsum GlasRoc or 1/2 inch minimum UL Certified gypsum board with all joints staggered a minimum of 6 inches from the plywood joints Min. one ply ASTM D226 Type I (No. 115) or Type II (No. 30) asphalt saturated felt or any Ply Sheet (optional): UL Certified Type G1, G2 or G3 base or ply sheet mechanically fastened Versa Span, MS150, MS200, PBR, HR-34, Panels: Classic Corrugated 7/8 and BR-36 steel roof panels Min. 1-inch-thick Perlite (ASTM C728) or Insulation: A Noncombustible Unlimited wood fiber (ASTM C208, Type II Min. one ply ASTM D226 Type I (No. 115) or Type II (No. 30) asphalt saturated felt or any Ply Sheet (optional): UL Certified Type G1, G2 or G3 base or ply sheet mechanically fastened Versa Span, MS150, MS200, PBR, HR-34. Panels: Classic Corrugated 7/8 and BR-36 steel roof panels Georgia Pacific 1/4 inch minimum DensDeck board or 1/4 inch minimum United States Gypsum Co SECUROCK Glass-Mat Roof Board (Type SGMRX), National Gypsum DEXcell Glass Mat Roof Board or DEXcell Barrier Board: A Noncombustible Unlimited FV Glass Mat Roof Board, CertainTeed Gypsum GlasRoc or 1/2 inch minimum UL Certified gypsum board with all joints staggered a minimum of 6 inches from the plywood joints Min. one ply ASTM D226 Type I (No. 115) or Type II (No. 30) asphalt saturated felt or any Ply Sheet (optional): UL Certified Type G1, G2 or G3 base or ply sheet mechanically fastened Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 steel roof Panels: panels One layer Versashield Fire-resistant Roof Deck Protection mechanically fastened per Underlayment: ESR-2053 -or-Unlimited A Combustible One layer Polystick XFR self-adhered installed per ESR-1697 Min. one ply ASTM D226 Type I (No. 15) or Type II (No. 30) asphalt saturated felt or any Ply Sheet (optional): UL Certified Type G1, G2 or G3 base or ply sheet mechanically fastened Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 steel roof Panels: panels Any Class A UL listed asphalt shingle Existing Roof System: One layer Versashield Fire-resistant Roof Combustible Unlimited A (reroofing) Deck Protection mechanically fastened per Slip sheet: ESR-2053-or-One layer Polystick XFR self-adhered installed per ESR-1697 Versa Span, MS150, MS200, PBR, HR-34, A Noncombustible Unlimited Panels: Classic Corrugated 7/8 and BR-36 aluminum roof panels

TABLE 6-FIRE CLASSIFICATION ASSEMBLIES (continued)

TABLE 6-FIRE CLASSIFICATION ASSEMBLIES (continued)

ROOF CLASSIFICATION	SUBSTRATE	MAX. ROOF SLOPE		ASSEMBLY DETAILS
			Panels:	Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 aluminum roof panels
A	Combustible	Unlimited	Underlayment:	Two layers Versashield Fire-resistant Roof Deck Protection mechanically fastened per ESR-2053-or- One layer Polystick XFR self-adhered installed per ESR-1697
6	Querterstille		Panels:	Versa Span, MS150, MS200, PBR, HR-34, Classic Corrugated 7/8 and BR-36 aluminum roof panels
В	Combustible	Unlimited	Underlayment:	One layer Versashield Fire-resistant Roof Deck Protection mechanically fastened per ESR-2053

¹Wood deck must be minimum 15/32-inch-thick plywood or non-veneer APA-rated 7/16-inch-thick oriented-strand board (OSB) or spaced sheathing. Steel deck must be a minimum of No. 22 gauge galvanized steel.

²GAF's VersaShield® Fire-Resistant Roof Deck Protection is evaluated under ICC-ES evaluation report ESR-2053 and must be installed in accordance with that report.

³Polyglass USA Polystick XFR self-adhered underlayment is evaluated under ICC-ES evaluation report ESR-1697 and must be installed in accordance with that report.



FIGURE 1- TAYLOR METAL PRODUCTS METAL ROOF PANELS





FIGURE 1- TAYLOR METAL PRODUCTS METAL ROOF PANELS (continued)

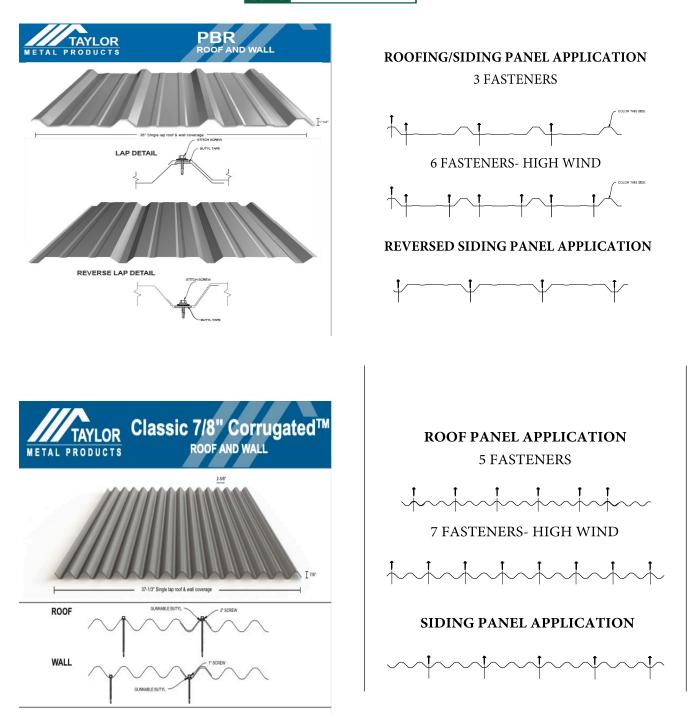


FIGURE 1- TAYLOR METAL PRODUCTS METAL ROOF PANELS (continued)

ICC-ES[®] Most Widely Accepted and Trusted

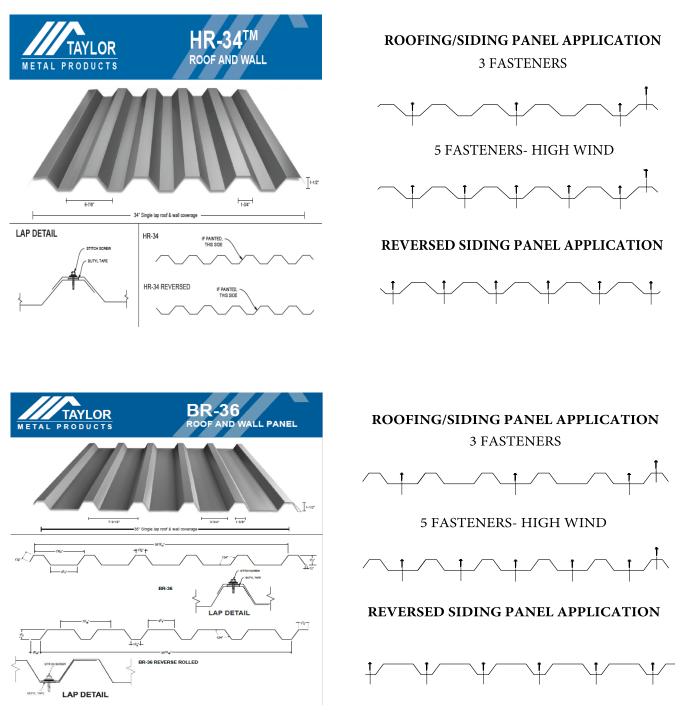
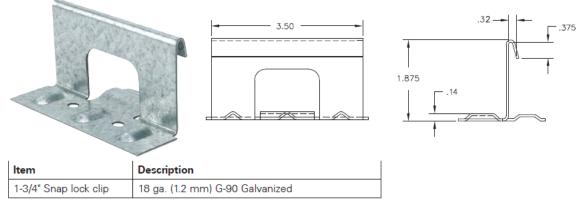


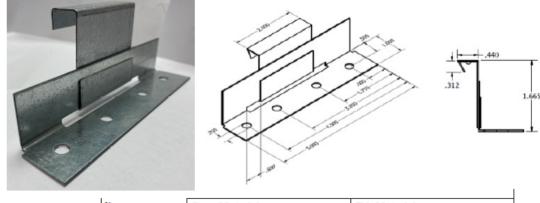
FIGURE 1- TAYLOR METAL PRODUCTS METAL ROOF PANELS (continued)

1-3/4" Versa-Span Snap Lock Panel Clip



Manufactured by: Clip Master SFS AMSI

1-1/2" MS-150 Floating Clips

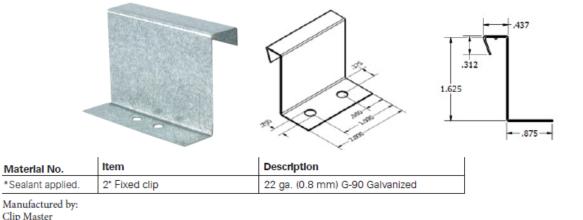


XContract and 1 1/2" Float alia 19 as /1 E m	
*Sealant applied. 1-1/2 Float Clip 18 ga. (1.5 ml	n) G-90 Galvanized 22 ga. (0.8 mm) G-90 Galvanized

Manufactured by: Clip Master AMSI

FIGURE 2- TAYLOR METAL PRODUCTS PANEL CLIPS FOR STANDING SEAM METAL ROOF PANELS

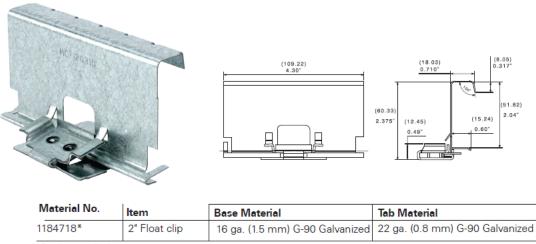
1-1/2" MS-150 Fixed Clip



Manufactured Clip Master SFS

AMSI

2" MS-200 Floating Clip



*Sealant applied.

Manufactured by: SFS

FIGURE 2- TAYLOR METAL PRODUCTS PANEL CLIPS FOR STANDING SEAM METAL ROOF PANELS (continued)

2" MS-200 Fixed Clip



FIGURE 2- TAYLOR METAL PRODUCTS PANEL CLIPS FOR STANDING SEAM METAL ROOF PANELS (continued)



ICC-ES Evaluation Report

ESR-5046 City of LA Supplement

Reissued November 2024 This report is subject to renewal November 2025.

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A Subsidiary of the International Code Council®

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels

REPORT HOLDER:

TAYLOR METAL INC. (dba TAYLOR METAL PRODUCTS)

EVALUATION SUBJECT:

TMP METAL ROOFING PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the TMP metal roofing panels, described in ICC-ES evaluation report <u>ESR-5046</u>, have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 City of Los Angeles Building Code (LABC)
- 2020 City of Los Angeles Residential Code (LARC)

2.0 CONCLUSIONS

The TMP metal roofing panels, described in Sections 2.0 through 7.0 of the evaluation report <u>ESR-5046</u>, comply with the LABC Chapter 15, and the LARC Chapter 9, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The TMP metal roofing panels described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report <u>ESR-5046</u>.
- The design, installation, conditions of use and identification of the TMP metal roofing panels are in accordance with the 2018 *International Building Code*[®] (IBC) provisions noted in the evaluation report <u>ESR-5046</u>.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- The TMP metal roofing panels must not be installed over existing wood shakes or wood shingles in accordance with LABC Section 1511.
- The installation of the TMP Metal roofing panels must comply with City of Los Angeles Information Bulletin P/BC 2020-16, "Dwellings in High Wind Velocity Areas (HWA)".

This supplement expires concurrently with the evaluation report, reissued November 2024.





ICC-ES Evaluation Report

ESR-5046 CA Supplement

Reissued November 2024 This report is subject to renewal November 2025.

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EVALUATION SUBJECT:

TMP METAL ROOFING PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the TMP metal roofing panels, described in ICC-ES evaluation report ESR-5046, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

■ 2022 and 2019 California Building Code (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

■ 2022 and 2019 California Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The TMP metal roofing panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5046, may be used where the CBC requires a Class A roof covering complying with 2022 or 2019 CBC Section 1505.1.1, a Class B roof covering complying with 2019 CBC Section 1505.1.2, or a Class C roof covering complying with 2022 CBC Section 1505.1.2 or 2019 CBC Section 1505.1.3, provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*[®] (IBC) provisions noted in the evaluation report, and the additional requirements of CBC Chapters 16 and 17 as applicable.

2.1.1 OSHPD: The TMP metal roofing panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5046, comply with CBC Chapter 15 with applicable amendments [OSHPD 1, 1R, 2, 3, 4 and 5], provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*[®] (IBC) provisions noted in the evaluation report and the additional requirements in CBC Chapters 16, 16A, 17 and 17A, as applicable.

2.1.2 DSA: The TMP metal roofing panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5046, comply with CBC Chapter 15 with applicable amendments [DSA-SS, DSA-SS/CC], provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*[®] (IBC) provisions noted in the evaluation report and the additional requirements in CBC Chapters 16, 16A and 17A, as applicable.

2.2 CRC:

The TMP metal roofing panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5046, may be used where the CRC requires a Class A roof covering complying with 2022 or 2019 CRC Section R902.1.1, a Class B roof covering complying with 2019 CRC Section R902.1.2, or a Class C roof covering complying with 2022 CRC Section R902.1.2 or 2019 CRC Section R902.1.3, provided the design and installation are in accordance with the 2021 and 2018 *International Residential Code*[®] (IRC) provisions noted in the evaluation report and the additional requirements of CRC Section R905.4.

This supplement expires concurrently with the evaluation report, reissued November 2024.

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