

To Whom It May Concern,

This letter serves to describe the scope of work for a roof replacement project at 964 Acequia Madre, Santa Fe, NM, located within the Historic Review District. The work is a like-for-like replacement in nearly all aspects, with a few changes as detailed below to unify roofing materials and improve drainage continuity.

Scope of Work:

- The residence currently has multiple sloped roof sections consisting of 26-gauge Pro-Panel metal roofing, which will be replaced in-kind.

- One section, located at the south-central portion of the home, currently features a torch-down flat roof measuring approximately 19 feet by 24 feet. As part of this project, this area will be converted to a matching 26-gauge sloped metal roof, consistent in material and color with the rest of the home to ensure uniformity across all roof sections.

- On the north side of the property, there is a portal measuring 7'2" in width by 36' in length. This structure currently has its own lower-elevation metal roof, approximately 8 inches below the adjacent main roof.

- The proposal includes raising the attachment point of the portal roof (at the house wall) so that the new roofing over the main house and the portal forms one continuous slope, rather than two separate roof lines.

- This revised section will be triangular in profile when viewed from the side, with elevations remaining as follows:

- The roof peak (center of the house) will remain at 13'4".

- The outer portal edge will remain at 9'5".

- No structural changes to walls or support columns are proposed — only roofline alignment.

All materials will match existing 26-gauge metal roofing in color and profile (color to be finalized in coordination with Historic Preservation requirements: \_\_\_\_\_).

The skylight will remain in place with no modification. No solar or mechanical systems will be installed on the roof. No changes to the building's slope, walls, or layout are included beyond what is described above.

The total roof area is approximately 2,171 sq. ft.

General Contractor:

Manuel Mendoza, AYS Builders

Phone: 505-795-9062

Email: manmen38@gmail.com

Property Owner:

Anjani Thomas (808) 726-7392, email: anjanithomas@me.com

Legal Description: T17N R10E S30, LOT 2, 0.1343 AC

Plat Book/Page: 865/49 184/36

Please let us know if additional information or clarification is required. Supporting images will be provided for reference.

Sincerely,

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13'4"

25'

9'5"





AGEQUIA-MADRE

960 AGEQUIAN ADRE

964 AGEQUIA MADRE

36'3"

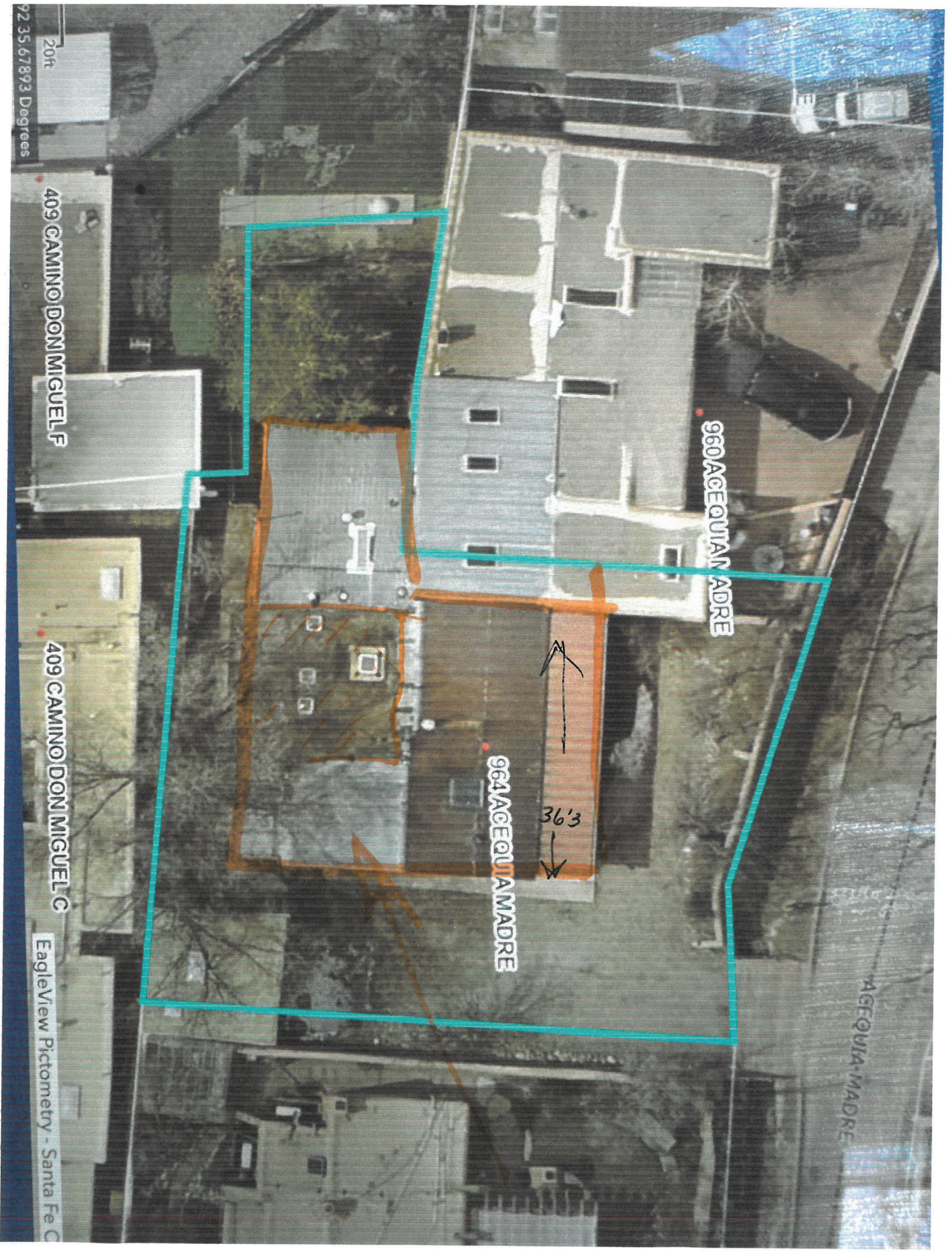
409 CAMINO DON MIGUEL F

409 CAMINO DON MIGUEL C

EagleView Pictometry - Santa Fe C

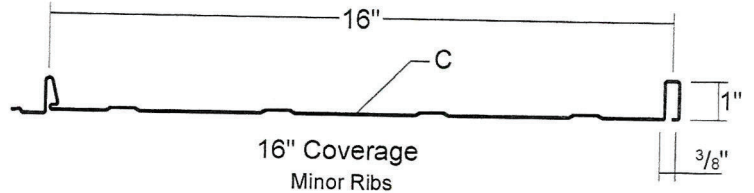
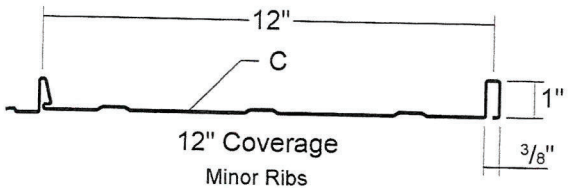
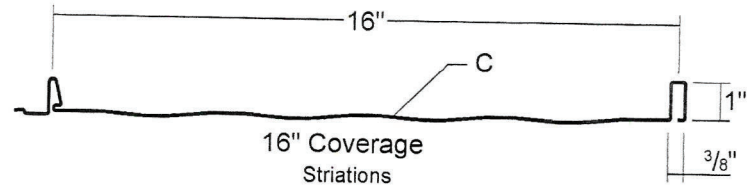
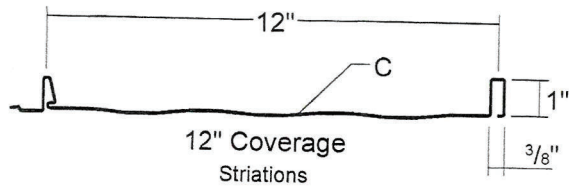
20ft

92.35 67.893 Degrees



# IMAGE II

Condensed  
Technical  
Reference



ARCHITECTURAL  
RESIDENTIAL  
PANEL

CONCEALED  
FASTENED

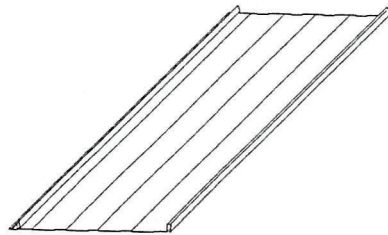
12" OR 16"  
COVERAGE

MINIMUM  
SLOPE  
3:12

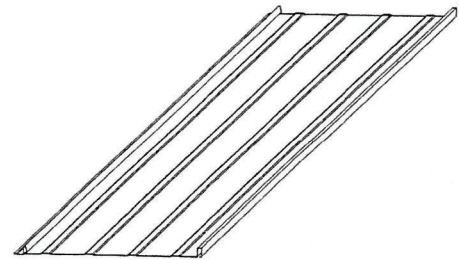
SOLID WOOD  
SUBSTRATE

## PANEL OVERVIEW

- ▶ Finishes: MS Colorfast45® and Acrylic-Coated Galvalume®
- ▶ Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume®  
AZ50 per ASTM A 792 for painted Galvalume®  
G90 per ASTM A 653 for Galvanized
- ▶ Gauges: 26 ga standard; 24 ga optional
- ▶ 12" or 16" panel coverage, 1" rib height
- ▶ Panel Length: Minimum: 5'; Maximum: 30' recommended
- ▶ Architectural, concealed direct fastened, integral standing rib roof system
- ▶ Minimum roof slope: 3:12
- ▶ Applies over plywood with minimum 30# felt underlayment



With Striations



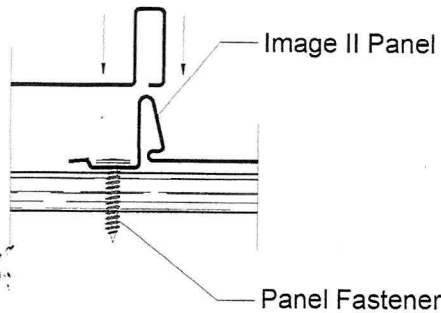
With Minor Ribs

## TESTING AND APPROVALS

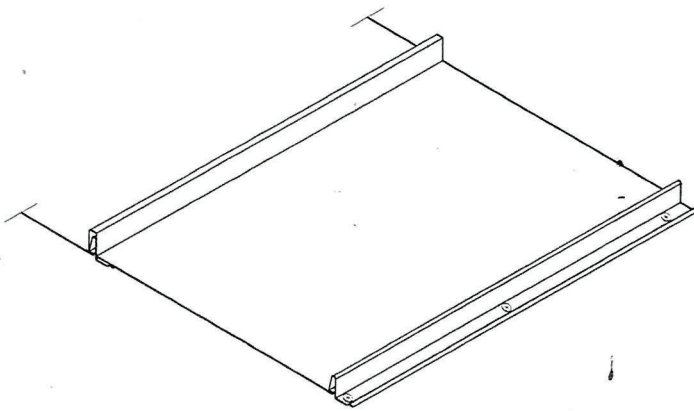
- ▶ UL 2218 Impact Resistance - Class 4
- ▶ UL 790 Fire Resistance Rating - Class A, per building code
- ▶ UL 263 Fire Resistance Rating - per assembly
- ▶ UL 580 Uplift Resistance - Class 90 Construction: #529
- ▶ Texas Windstorm - Evaluation RC-162 and RC-399
- ▶ 2020 FBC Approvals - FL11560.4, FL11560.5, FL14645.11,  
FL40264.5, FL40264.6 and FL42034.4
- ▶ Miami-Dade County, Florida NOA 23-0711.05 expires 8/8/2028
- ▶ ICC Evaluation Report - ESR-2385

**MS Metal Sales™**

## ATTACHMENT DETAIL



## FASTENING PATTERN



## FASTENER INFORMATION

Overdriven fasteners will cause panel distortions.

Fasteners should extend 1/2" or more past the inside face of the support material.

Thick supports (ex. 1/2" steel) may require predrilling of holes for screws.

Applications with large internal suction pressure, such as partially enclosed structures and those with forced air ventilation, should add sidelap sealant to improve weather resistance.

The minimum roof slope permitted by IBC for metal panels with no sidelap sealant is 3:12. For metal panels with sidelap sealant, IBC permits a minimum slope as low as 1/2:12.

### Panel Fastener:

#10-12 Pancake Head Wood Screw  
or #8-15 Truss Head Wood Screw

### Concealed End Fastener:

#10-12 Pancake Head Wood Screw  
or #8-15 Truss Head Wood Screw

### Exposed End Fastener:

#10-14 XL Wood Screw

### Trim Fastener:

1/4"-14 x 7/8" XL Stitch Screw  
or 1/8" x 3/16" Pop Rivet

## SECTION PROPERTIES

## ALLOWABLE UNIFORM LOADS, psf For various fastener spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Outward Load			
				I <sub>xx</sub> in <sup>4</sup> /ft	S <sub>xx</sub> in <sup>3</sup> /ft	I <sub>xx</sub> in <sup>4</sup> /ft	S <sub>xx</sub> in <sup>3</sup> /ft	0.5'	1'	1.5'	2'
26	12	50	0.99	0.0209	0.0231	0.0211	0.0232	103	96	90	84
24	12	50	1.28	0.0268	0.0295	0.0268	0.0295	103	96	90	84
26	16	50	0.92	0.0165	0.0174	0.0165	0.0177	103	96	90	84
24	16	50	1.19	0.0210	0.0226	0.0210	0.0226	103	96	90	84

- Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. I<sub>xx</sub> and S<sub>xx</sub> are effective section properties for deflection and bending.
- Allowable load is calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear and deflection. Allowable load does not address web crippling, fasteners, support material or load testing. Allowable load considers the three or more equal spans condition. Panel weight is not considered.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase for wind.

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# MS Metal Sales™

[metalsales.us.com](http://metalsales.us.com)

Anchorage, AK 866.640.7663  
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Denver, CO 800.289.7663

Detroit Lakes, MN 888.594.1394  
Fontana, CA 800.782.7953  
Fort Smith, AR 877.452.3915  
Independence, MO 800.747.0012

Jacksonville, FL 800.394.4419  
Jefferson, OH 800.321.5833  
Mocksville, NC 800.228.6119  
Nashville, TN 800.251.8508  
Rock Island, IL 800.747.1206  
Rogers, MN 800.328.9316

Seattle, WA 800.431.3470  
Sellersburg, IN 800.999.7777  
Sioux Falls, SD 888.299.0024  
Spokane, WA 800.572.6565  
Temple, TX 800.543.4415  
Woodland, CA 800.759.6019

# ms-HT Underlayment

## Metal Sales Manufacturing Corporation

### DESCRIPTION

ms-HT, Metal Sales Hi-Temp Underlayment, is a SBS modified bitumen self-adhesive membrane intended to be used as a roofing underlayment. It has a slip resistant surface composed of a polyethylene woven complex. This surface allows the use of ms-HT on various slopes. ms-HT will seal around penetrating fasteners.

Because of its specific bituminous formulation, ms-HT is designed to withstand surface temperatures up to 240° F. It can therefore be used under metal roofing and under asphalt shingles. ms-HT should be installed in temperatures above 50° F. The roof covering should be installed as soon as possible following the installation of ms-HT. Maximum exposure time of ms-HT before panel installation is 90 days. ms-HT is not intended to be the primary weather barrier. ms-HT can also be used as a vapor barrier behind walls. ms-HT requires continuous support, such as rigid insulation or plywood. The lap along the side should be 3" minimum. The lap at the end should be 6" minimum.

### SURFACE PREPARATION

The use of a primer enhances the adhesion strength of self-adhesive membranes.

### TESTING AND APPROVALS

FBC 2023: FL14392.1

Miami-Dade NOA: 20-0331.01, Expires 9/29/2025

UL Evaluation Report: UL ER21824-01

### PERFORMANCE CHARACTERISTICS *(All values are nominal)*

Properties	Standards	ms-HT
Thickness	-	40 mil
Dimensions	-	67' x 3'
Gross / Net Coverage per Roll	-	200 ft <sup>2</sup> / 183 ft <sup>2</sup>
Roll Weight	-	45 lbs
Top Face	=	Textured Film
Underface	-	Silicone Release Sheet
Breaking Strength, MD / XD	ASTM D 1970	64 lbf/in / 88 lbf/in
Ultimate Elongation, MD / XD	ASTM D 1970	52% / 24%
Static Puncture	ASTM D 5602	90 lbs
Lap Adhesion	ASTM D 1876	11.4 lbf/in
Peel Strength	ASTM D 903	17.5 lbf/in
Tear Resistance, MD / XD	ASTM D 5601	84 lbf / 90 lbf
Max Service Temperature	ASTM D 1970	240° F
Cold Bending	ASTM D 1970	-20° F
Water Vapor Permeance	ASTM E 96	0.03 perm
Air Permeability	ASTM E 293	<0.007 L/sec m <sup>2</sup>

ms-HT is an ISO 9001 Certified product.

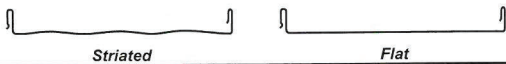


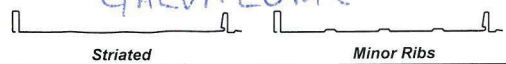
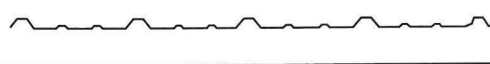


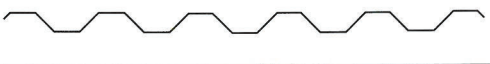


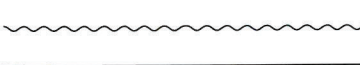
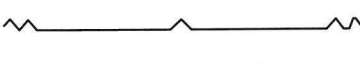
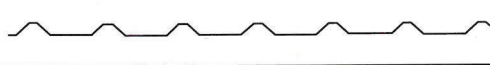

Metal Sales may modify the composition and/or utilization of its product without prior notice. Consequently orders will be filled according to the latest specifications. General information is provided on this Product Data Sheet. Physical property average values are based on accepted test standards conducted under controlled laboratory conditions. These values are not minimum standards since they can vary due to normal manufacturing processes. Metal Sales is not obligated to manufacture Product(s) to particular project specification requirements unless agreed to in advance by Metal Sales. It is the roofing contractor's (Purchaser) responsibility to order and purchase materials that meet a particular project specification.

1105 1888 / 4-24

800.406.7387  
metalsales.us.com

 Metal Sales™

# PRODUCT SOLUTION CHART

PANEL	PROFILE	COVERAGE	MS COLORFAST45®		ACRYLIC COATED GALVALUME®	
			29 GA	26 GA	29 GA	26 GA
VERTICAL SEAM		12"/16"/18"		◆		●
MINI-BATTEN		12"/16"/18"		◆		●
SOFFIT PANEL		12"		●		●
IMAGE II™	<i>GALVALUME</i> 	12"/16"		●		●
PRO-PANEL II®		36"	●	●	●	●
CLASSIC RIB®	<i>GALVALUME</i> 	36"	●	●	●	●
PBR-PANEL		36"		●		●
IC72-PANEL		36"		●		●
7/8" CORRUGATED		Roof 32" Wall 34 <sup>2</sup> / <sub>3</sub> "		●		●
2.5" CORRUGATED		24"		■	●	●
1.25" CORRUGATED*		24"		■		●
5V-CRIMP*		24"	■	■	●	●
PBU-PANEL*		36"		■		●
SPAN-LINE 36A*		36"		■		●

### Notes:

- ▶ For other colors, finishes, gauges, and materials, please inquire
- ▶ For Image II panel, refer to Image II panel brochure for color selections
- ▶ For panels with asterisk (\*) longer lead times will apply

### Legend:

- Standard colors are available in any quantity
- ◆ For standard colors, minimum quantity may be required
- Available in limited standard colors

### ColorFit40™ (40 Year Finish Warranty)

29 ga. Pro-Panel® II & Classic Rib® only

Ash Grey (25)      Light Stone (63)  
Brown (12)      Mocha Tan (22)  
Burnished Slate (49) Red (24)  
Charcoal (17)      White (30)  
Forest Green (26)

### VersaRib (20 Year Finish Warranty)

29 ga. Pro-Panel II® & Classic Rib® only

Brown (12)      Light Stone (63)  
Charcoal (17)      Red (24)  
Forest Green (26)      White (30)

### Select 10 (10 Year Finish Warranty)

29 ga. Pro-Panel II® & Classic Rib® only

Liner Panel

Bright White (39) - not shown

### Storage Instructions

If metal roofing or siding is not going to be used immediately, it should be stored in a dry area. It should be unbundled and stood on end against an interior wall. If materials must be stored outside, protect with canvas or waterproof paper. Allow for air circulation, do not cover air-tight.

### Application precautions

Avoid installing directly over green or damp lumber, porous insulation or other damaging materials. The use of a moisture barrier is recommended in such situations. Strong chemicals, such as fertilizer, manure and lime may cause damage. Storage or application near such materials should be avoided.

# Metal Roof and Wall Colors



## MS COLORFAST45<sup>®</sup> PAINT SYSTEM

29 & 26 GAUGE



White (30)



Polar White (80)



Light Stone (63)



Mocha Tan (22)



Carlsbad Canyon (10)



Ash Grey (25)



Charcoal (17)



Burnished Slate (49)



Burgundy (15)



Ocean Blue (35)



Forest Green (26)



Fern Green (07) Low Gloss



Patina Green (58)



Covert Green (R8)  
Upcharge will apply



Red (24)



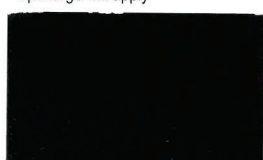
Patriot Red (73)  
Upcharge will apply



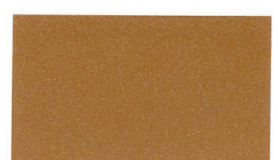
Brown (12)



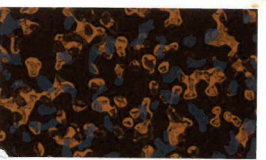
Mocha Brown (13)



Black (06)



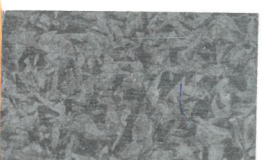
Native Copper (190) †  
Upcharge will apply



Rustic Steel (W45) PVDF  
26 Ga. Only Upcharge will apply  
30 year finish warranty only



Galvalume (41)  
Non-Painted Finish 25 Year Warranty



Galvanized (00)  
Non-Painted Finish No Warranty



★ All Colors Meet or Exceed Steep Slope ENERGY STAR<sup>®</sup> Requirements

† Native Copper color may vary visually based on reflection and/or installation angles

**45 Year Paint Warranty**

MS(1G)/03-20

## Bar C Metal Roofing Suppliers, Inc.

1745 Woodson Drive  
Santa Fe, NM 87506  
(505) 455-3274

See back page for other paint system options.  
Colors carry a 45 year limited paint warranty unless noted.  
Color selections are close representations but are limited by processing and viewing conditions. Actual samples are available by request.