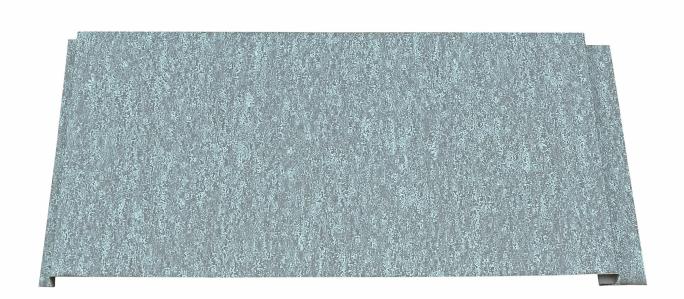


WESTERN STATES METAL ROOFING

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T-GROOVE®

INSTALLATION GUIDE WITH TRIM, FLASHINGS AND DETAILS



















Western States T-Groove ® Wall and Soffit Panels

Installation, Flashings & Shop Drawing Detail Guide

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Western States T-Groove® Panel

Installation, Flashings & Shop Drawing Detail Guide

Notes to Designer and Installers

The details contained in this guide are proven industry details and are intended to be used as a design aid and installation guide. It does not depict all situations that may be encountered on all projects. Modifications are the responsibility of the designer/ owner/ installer. Consideration should be given for Fit for Purpose, Building use, Climate conditions such as temperature, snow, wind, and moisture, Governing Building Codes, and Maintenance. It is highly recommended that all trims and flashings be of the same material as the panels (metal, gauge, finish) to ensure long term performance and durability. Where possible, flashing edges should be hemmed to strengthen the edge and protect the cut edge from exposure.

Framing and Substrates

T-Groove® panels are used over all type of substrates like Steel Framing, open purlins, spaced sheathing, and wood surface such as plywood. Most details in this guide are shown with panels attached to Solid Wood Decking.

Note on Underlayment

Not all conditions require an underlayment, However metal siding is susceptible to Condensation and it is recommended that an appropriate underlayment be use on all wood substrates to protect the structure during installation. For added protection from rain and snow, it is recommended to use Sharkskin® Ultra and Sharkskin® Ultra SA.

Technical Assistance

Contact your WSDI sales or technical representative for any additional information or assistance.

Oil Canning

Oil canning is a condition common with flat metal surfaces. This waviness is caused by steel mill tolerances, forming, variations in the structures surfaces, and hardness of the steel. Measures are taken at the roll forming process, like profile design, steel gauge, corrective leveling, to minimize the effects of oil canning. Oil Canning is a Characteristic of steel and can not be eliminated totally and therefore is not reason for rejection of the panels.

Job Site Storage

While waiting to be installed on the job site,
Storage of panels, trim crates, and flat sheet
should be sloped in order to allow for proper
moisture run off. One end should be elevated
so as not to allow ponding of water on the
metal surface. When using tarps for protection,
proper ventilation should be provided to
prevent condensation. Moisture or
condensation that is trapped inside a bundle
can lead to white rust on sheeting.

References

For other installation techniques and details, The Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) and NRCA manuals are great resource for working with sheet metal.

Western States T-Groove ® Panel

Installation, Flashings & Shop Drawing Detail Guide

Fastener Selection

Notes to Installers:

Fastener Selection will vary depending on type and thickness of substrate.

Design Calculations for clip spacing should be completed by the design engineer.

The use of Butyl tape mastic, Butyl sealants and Curing Sealants is always recommended to insure weather tight installation.

Panels and flashings should never be installed in contact with dissimilar metals.

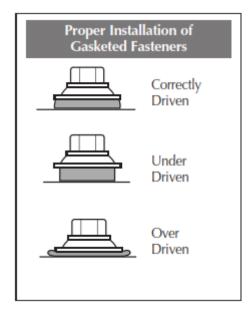
Use only those flashings and accessories designed for use with this panel.

Panel clip attachment screws must be long enough to fully penetrate through roof deck substrate or penetrate solid lumber at least one inch.

Exposed Trim Fasteners should have sealing washers and be coated to provide protection against corrosion.

Screws must be properly driven to ensure holding strength and proper seal. (see diagram)
Recommended drill speed is 2000rpm. Improper setting of drill speed can lead to snapping of screw heads.

Pre drilling of screw holes may be necessary with heavy gauge metals.



Western States T-Groove ® Panel

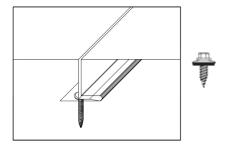
Installation, Flashings & Shop Drawing Detail Guide

Fastener Selection

Description Application

Used to attach Trims .

14 x 7/8" Lap Self tap
Stainless to be used with
14 x7/8 Lap Stainless
A606-4 Steel



#10-12 x1" Pancake head

Wood

#10-12 x 1" SD PH Self Driller

Steel

Used to attach Panel clips. Used to secure trims to substrates. Also available in

Stainless Steel.



Used for Trim to Trim

1/8" Stainless Rivets attachment or trim to wall

panels.



Stainless Screws

#10 x1 x1/4" Wood Drillers

#10 x 1.5 x ½"

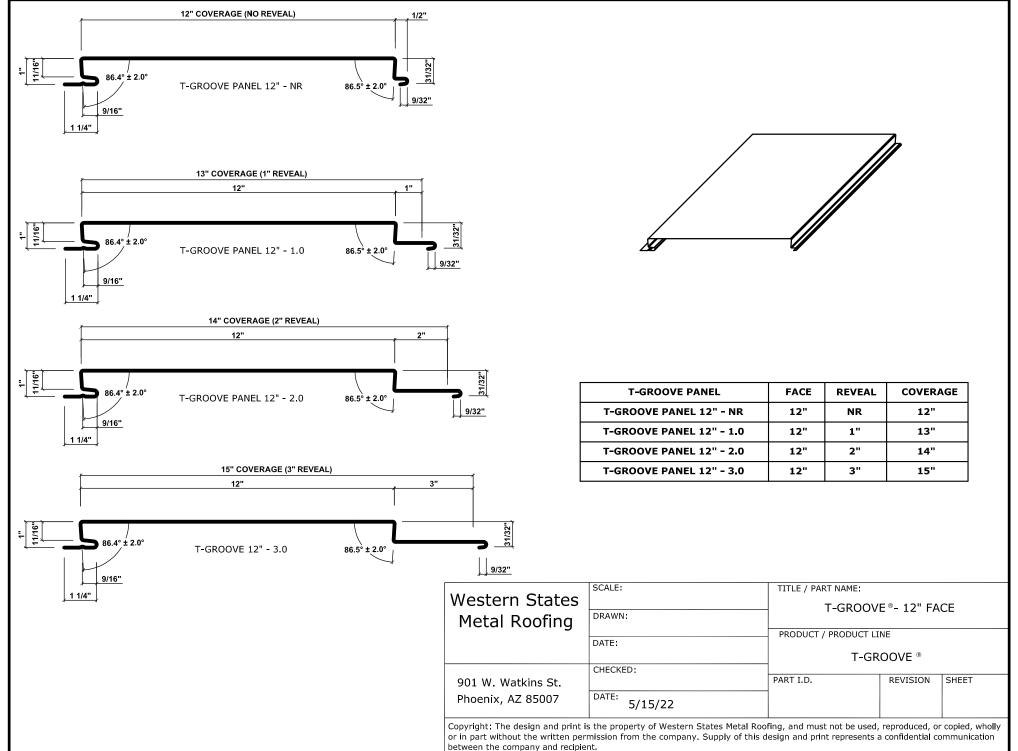
#10 x 2" x 1/4"

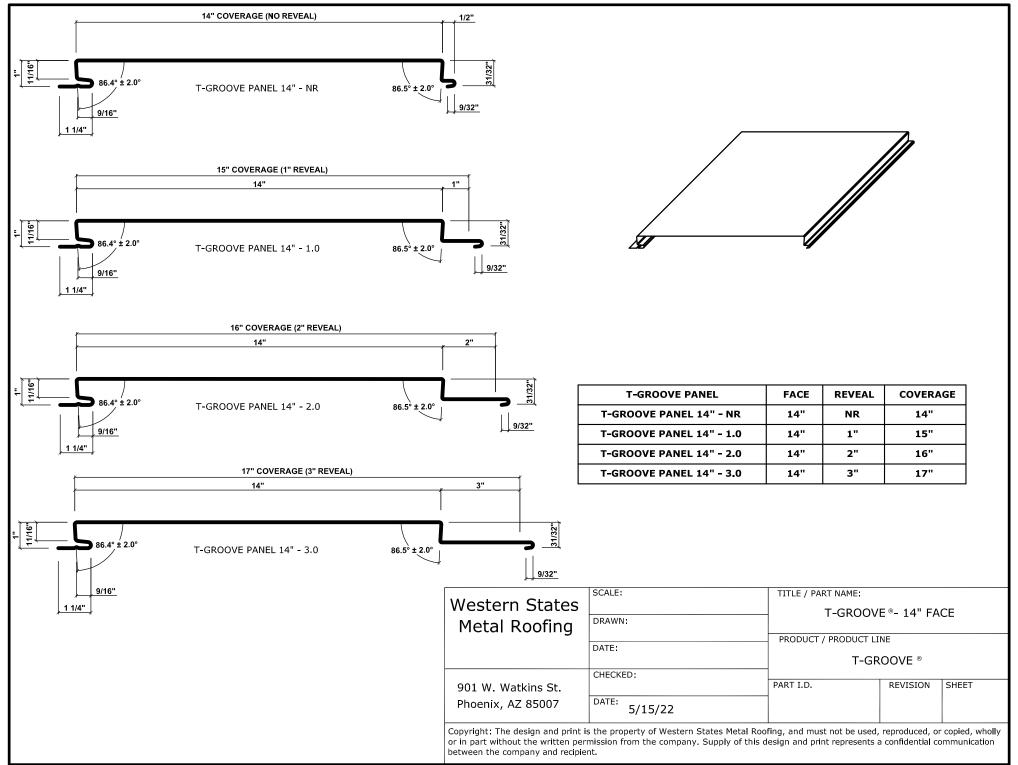
Used for panel attachment for panels made with

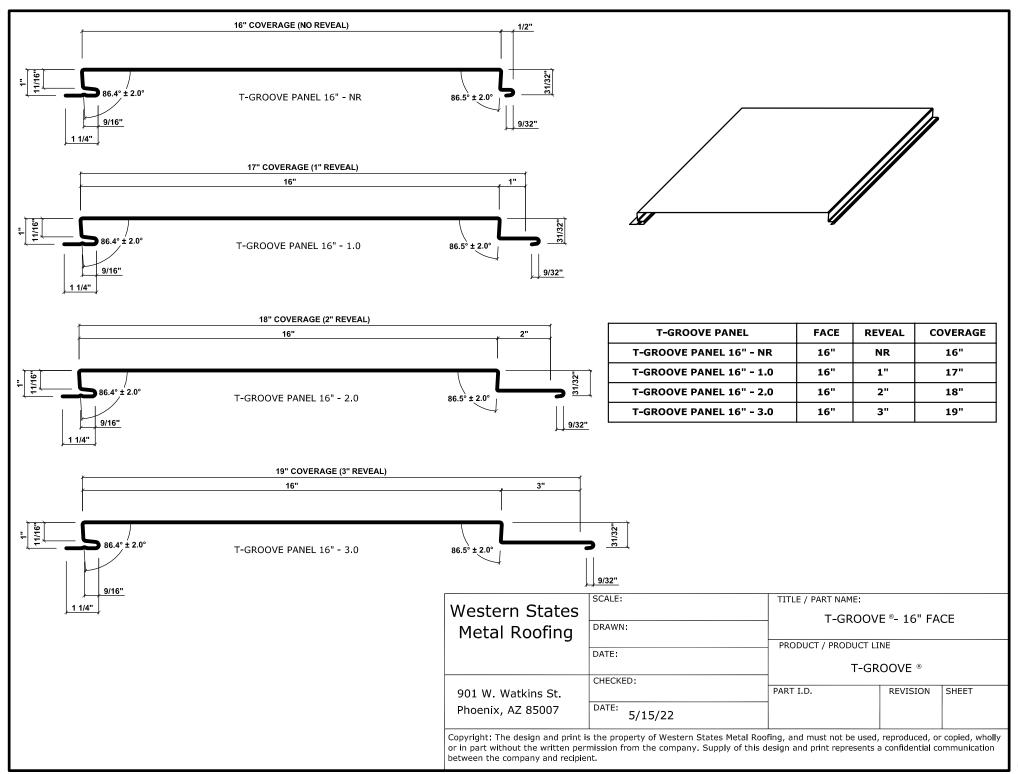
A606-4 Steel

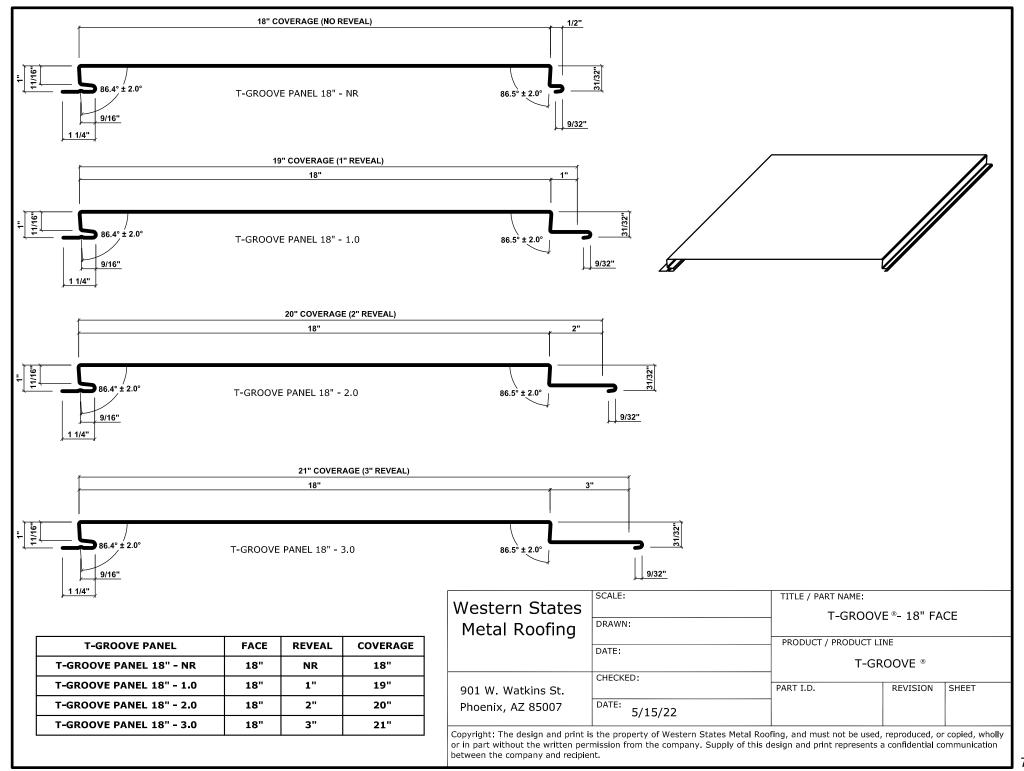


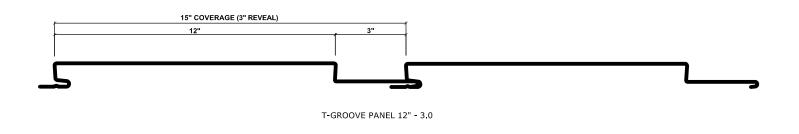
The table above shows the panel fasteners provided by WSD. Special order screws are available.

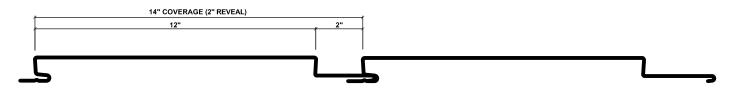




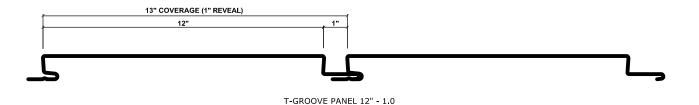


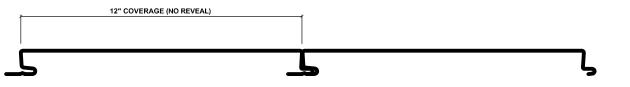






T-GROOVE PANEL 12" - 2.0

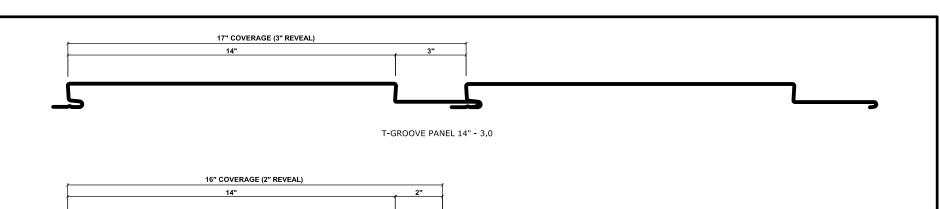




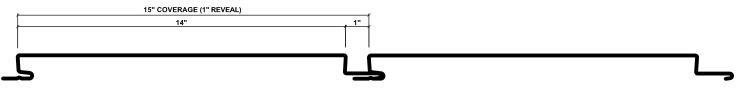
T-GROOVE PANEL 12" - NR

T-GROOVE PANEL	FACE	REVEAL	COVERAGE
T-GROOVE PANEL 12" - NR	12"	NR	12"
T-GROOVE PANEL 12" - 1.0	12"	1"	13"
T-GROOVE PANEL 12" - 2.0	12"	2"	14"
T-GROOVE PANEL 12" - 3.0	12"	3"	15"

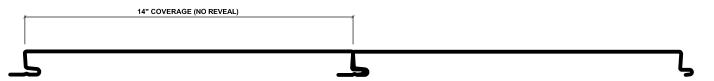
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Metal Roofing	DRAWN:			
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T-GROOVE PANEL 14" - 2.0



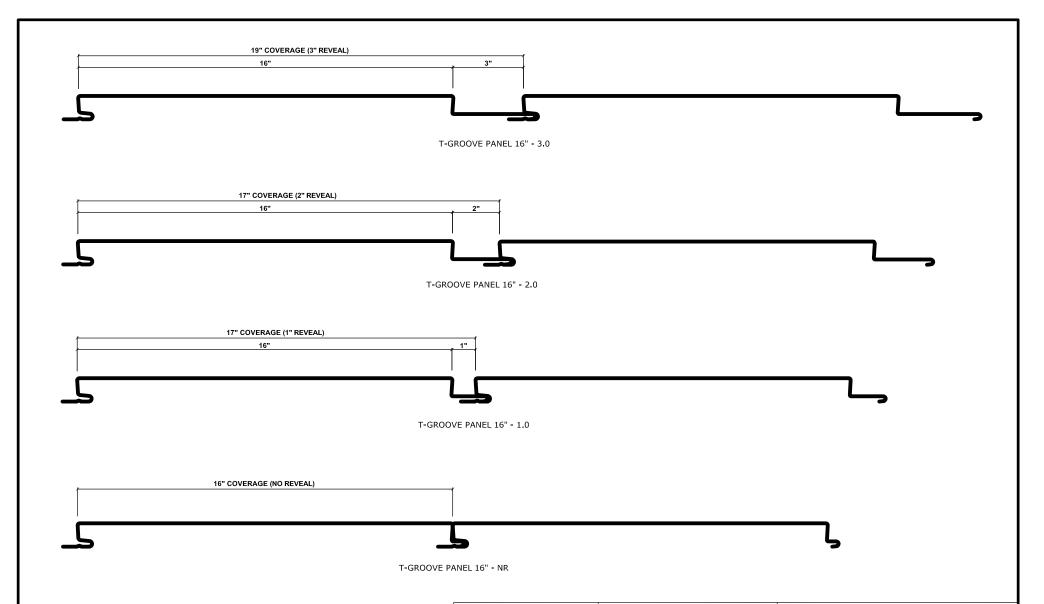
T-GROOVE PANEL 14" - 1.0



T-GROOVE PANEL 14" - NR

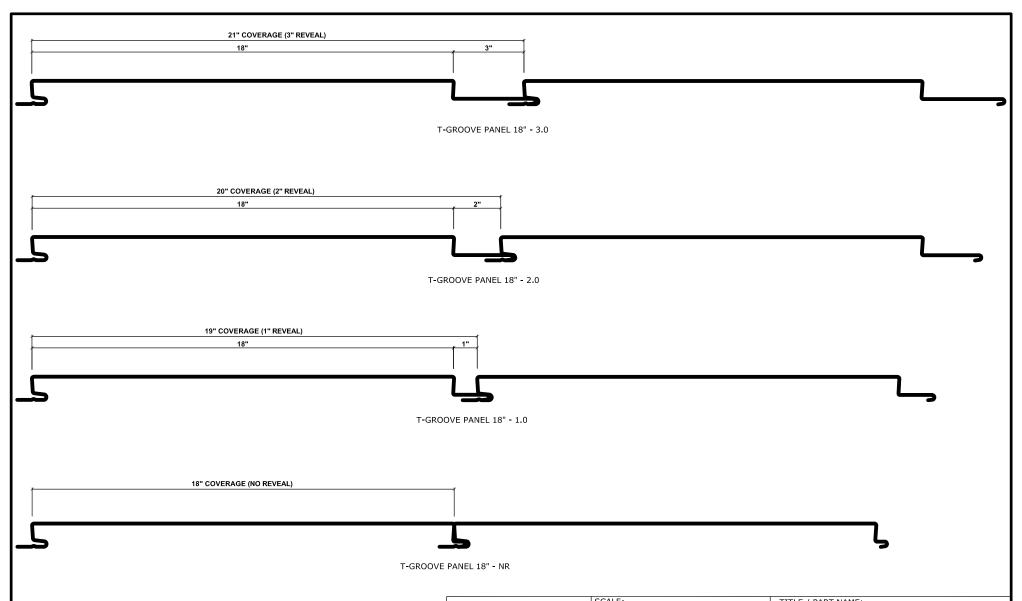
T-GROOVE PANEL	FACE	REVEAL	COVERAGE
T-GROOVE PANEL 14" - NR	14"	NR	14"
T-GROOVE PANEL 14" - 1.0	14"	1"	15"
T-GROOVE PANEL 14" - 2.0	14"	2"	16"
T-GROOVE PANEL 14" - 3.0	14"	3"	17"

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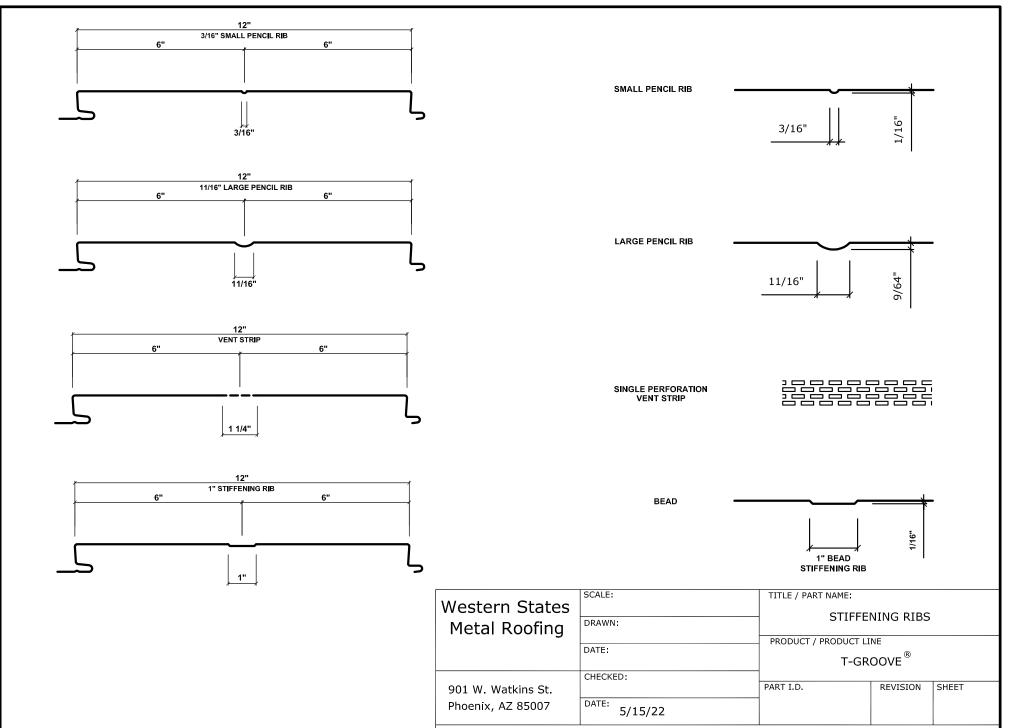
T-GROOVE PANEL	FACE	REVEAL	COVERAGE
T-GROOVE PANEL 16" - NR	16"	NR	16"
T-GROOVE PANEL 16" - 1.0	16"	1"	17"
T-GROOVE PANEL 16" - 2.0	16"	2"	18"
T-GROOVE PANEL 16" - 3.0	16"	3"	19"

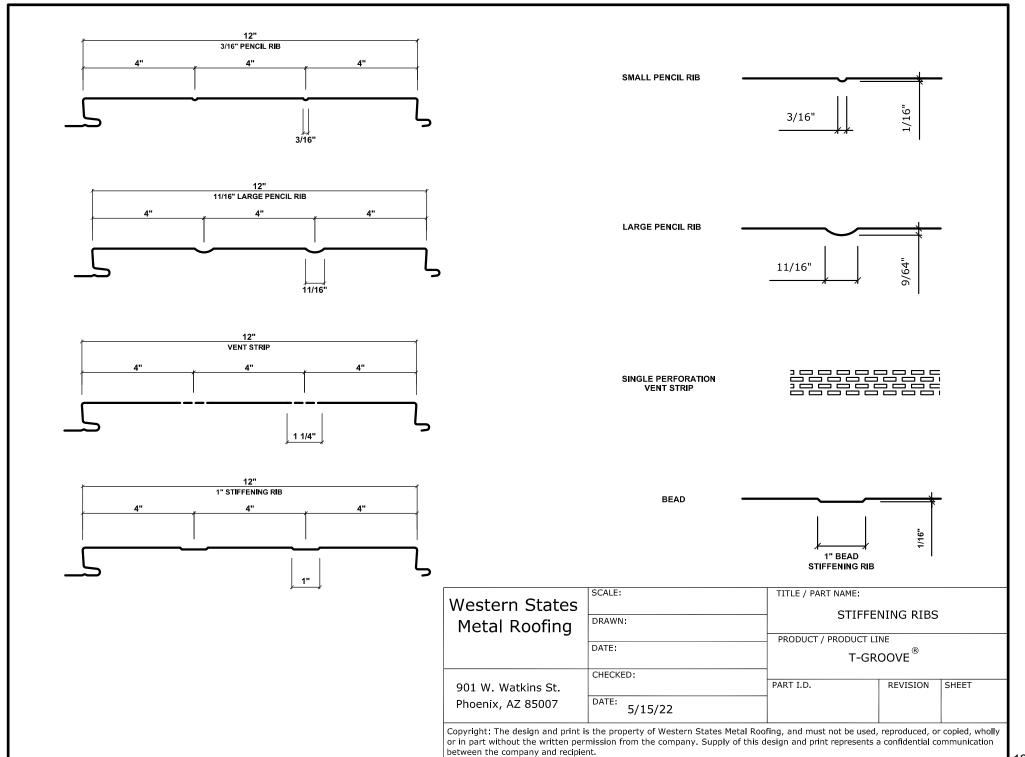
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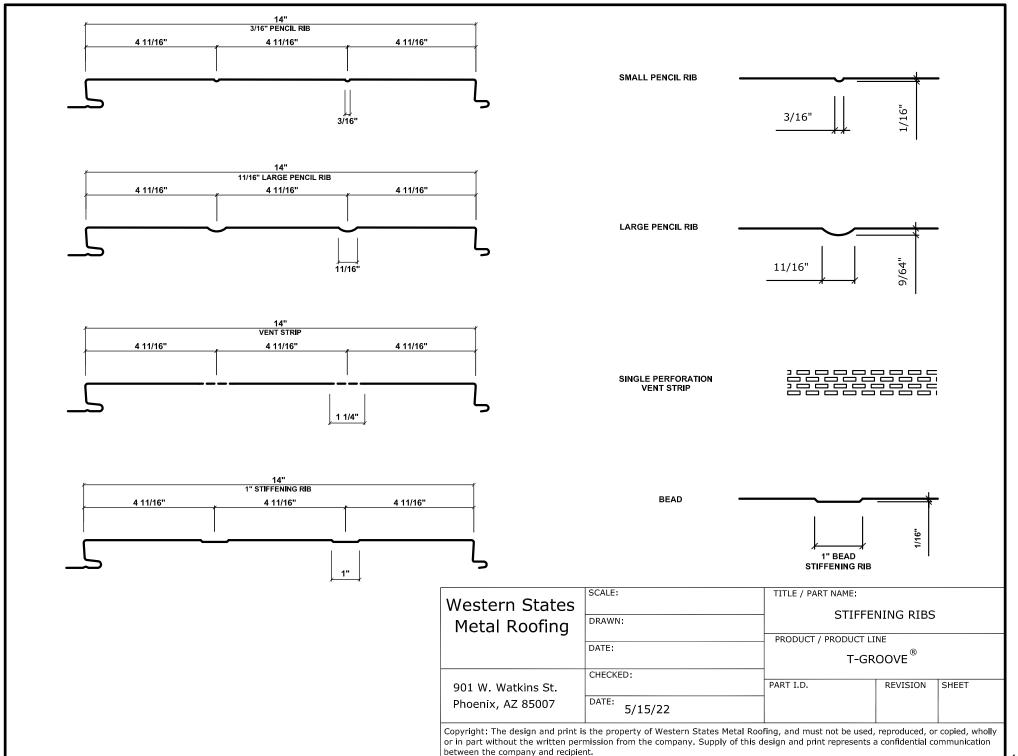


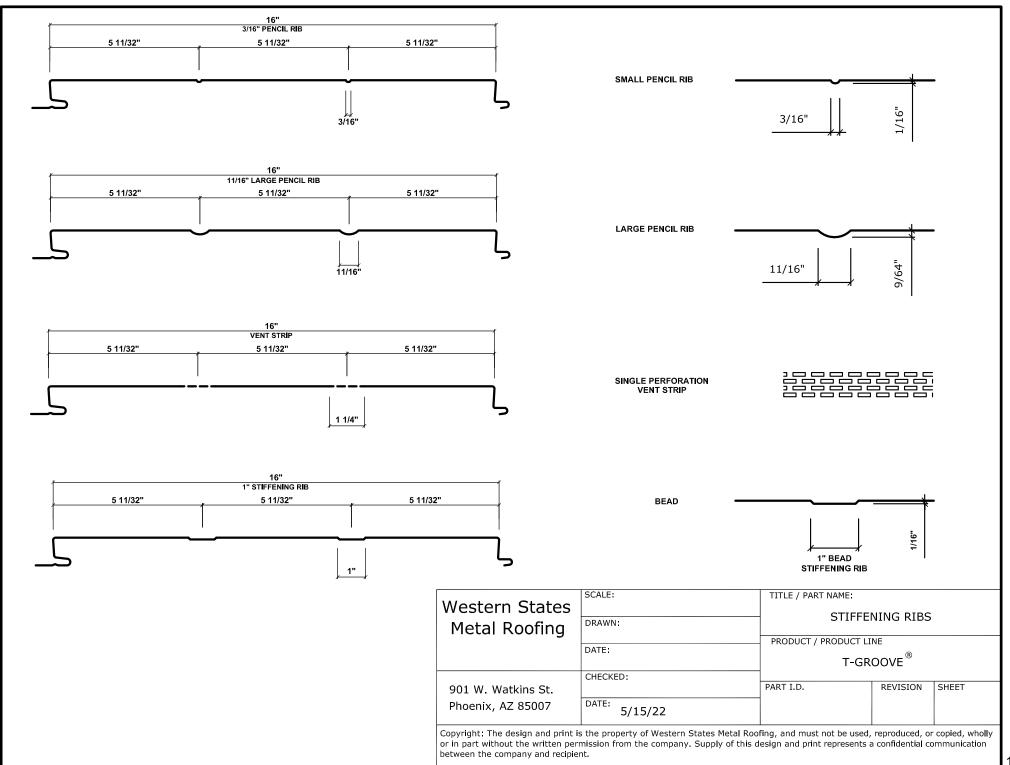
T-GROOVE PANEL	FACE	REVEAL	COVERAGE
T-GROOVE PANEL 18" - NR	18"	NR	18"
T-GROOVE PANEL 18" - 1.0	18"	1"	19"
T-GROOVE PANEL 18" - 2.0	18"	2"	20"
T-GROOVE PANEL 18" - 3.0	18"	3"	21"

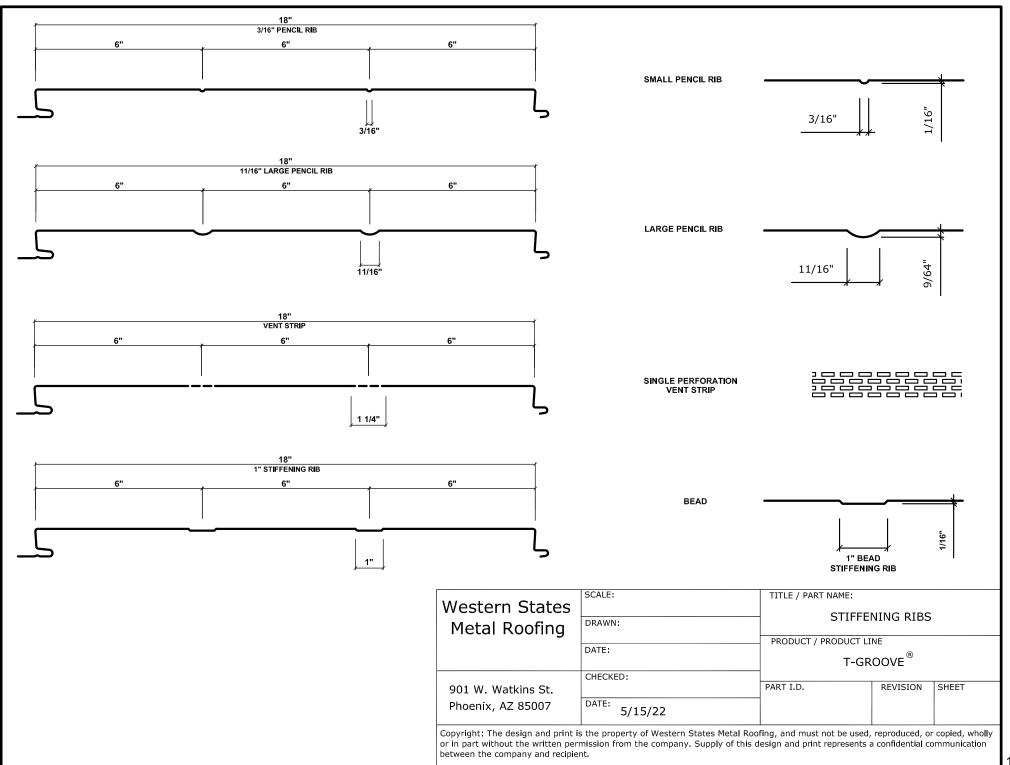
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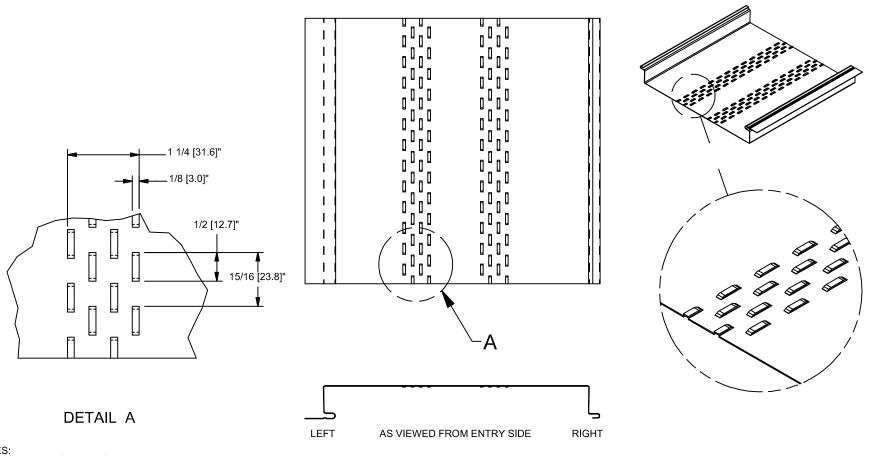










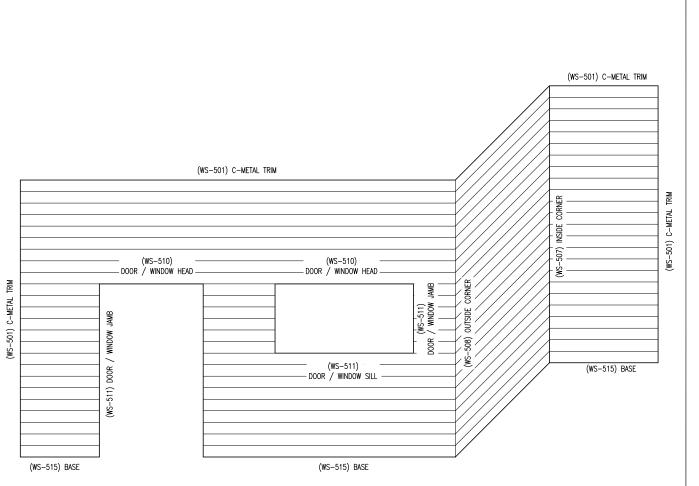


NOTES:

- 1 MATERIAL USAGEAPPROXIMATELY: 5" [127 mm]
- 2. WHEN USING PERFORATOR: MAXIMUM NET FREE AREA = 3.08 **SQUARE INCHES PER 12 INCHES** OF PERFORATION [1987 sq. mm / 304.8 mm]
- 3. MAXIMUM OF TWO PERFORATIONS PER PANEL.
 4. DUAL DIMENSIONS: Inch [mm]

OPENING SIZE .50 [12.7] X .12 [3.0] = .06 SQ. IN. [38.7 sq. mm] OPENINGS PER 12 INCH LENGTH [304.8 mm] = 51.25 NET FREE AREA / 12 INCH = .06 SQ IN X 51.25 = 3.08 SQ IN. [net free area / 304.8 mm = 38.7 sq. mm X 51.25 = 1983 sq. mm]

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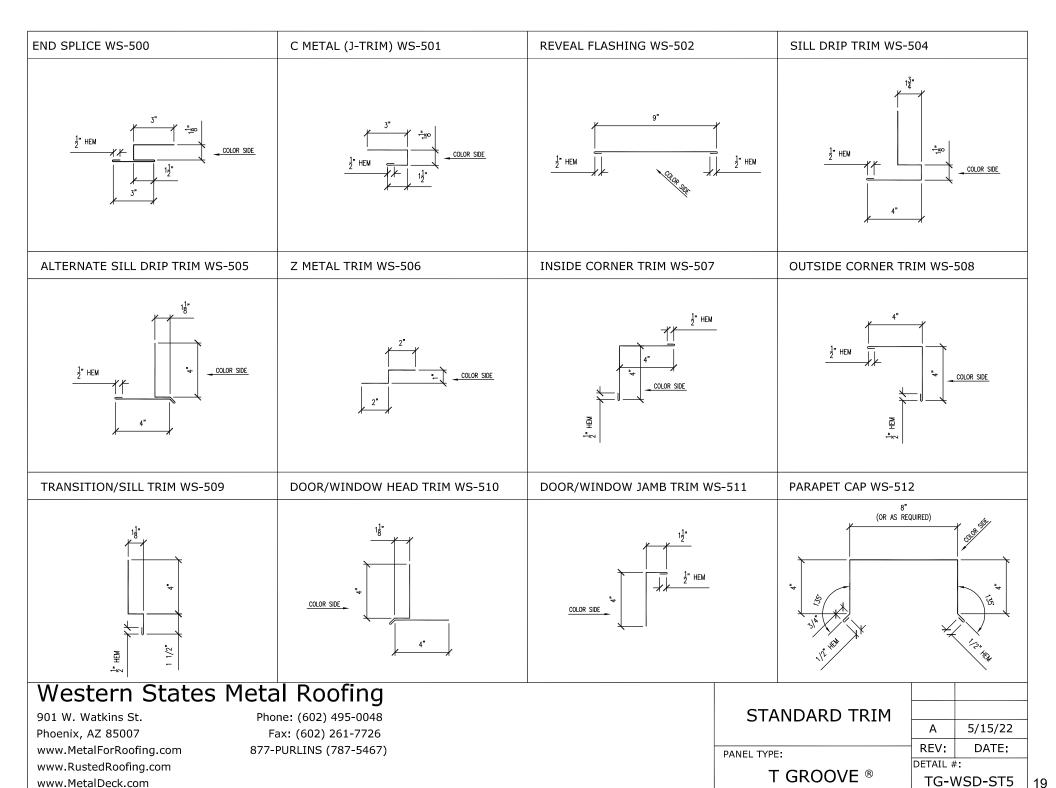
FLASHING TYPE	DETAIL NO.
END SPLICE C-METAL (J-TRIM) REVEAL FLASHING SILL DRIP TRIM ALTERNATE SILL DRIP Z METAL TRIM INSIDE CORNER TRIM OUTSIDE CORNER TRIM TRANSITION/SILL TRIM DOOR/WINDOW HEAD TRIM DOOR/WINDOW JAMB TRIM PARAPET CAP TRIM CLEAT ALTERNATE WALL TRIM BASE TRIM Z METAL TRIM (SMALL) CUSTOM OUTSIDE CORNER	WS-500 WS-501 WS-502 WS-504 WS-505 WS-506 WS-507 WS-508 WS-509 WS-510 WS-511 WS-512 WS-513 WS-514 WS-515 WS-516 WS-517
CUSTOM INSIDE CORNER	WS-518

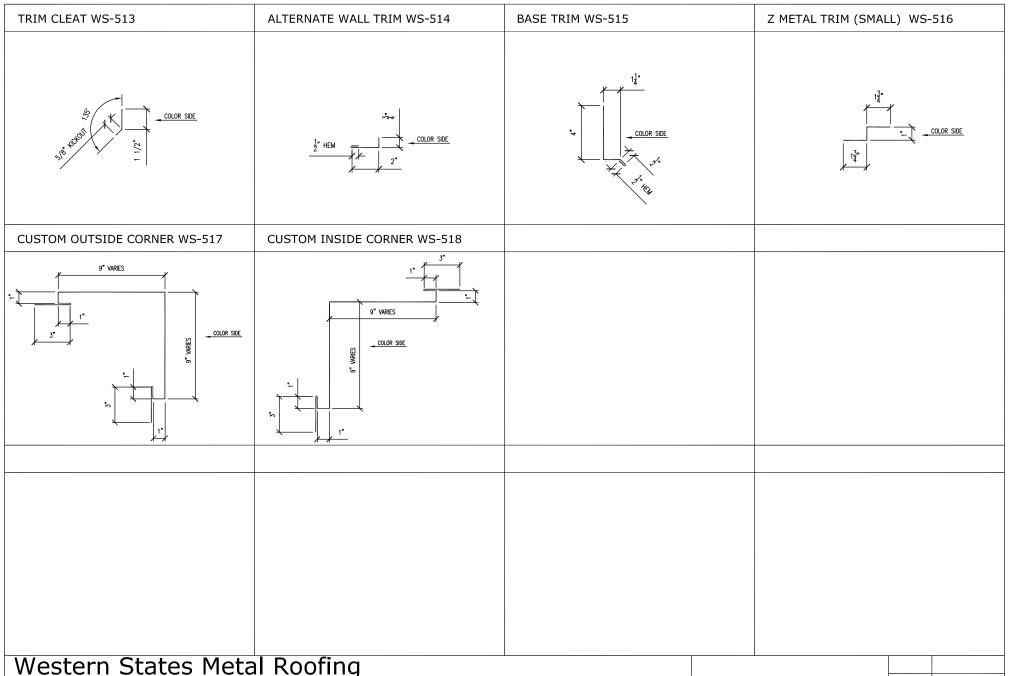
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DETAIL:		
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NET WALL I LAIN	Α	5/15/22
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T GROOVE ®	DETAIL #:	





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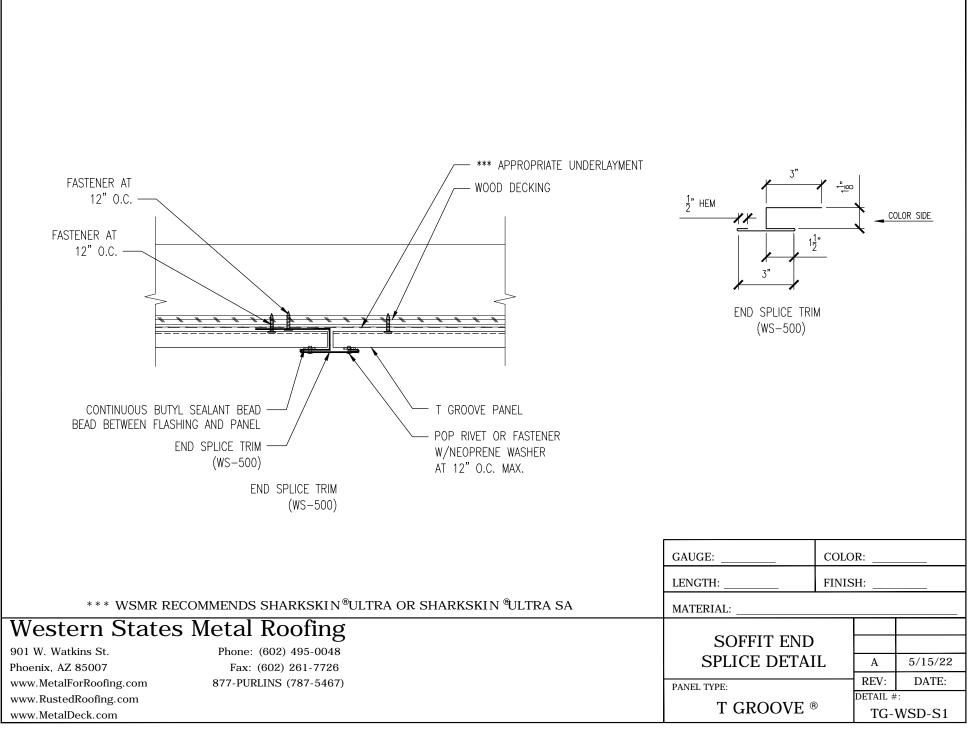
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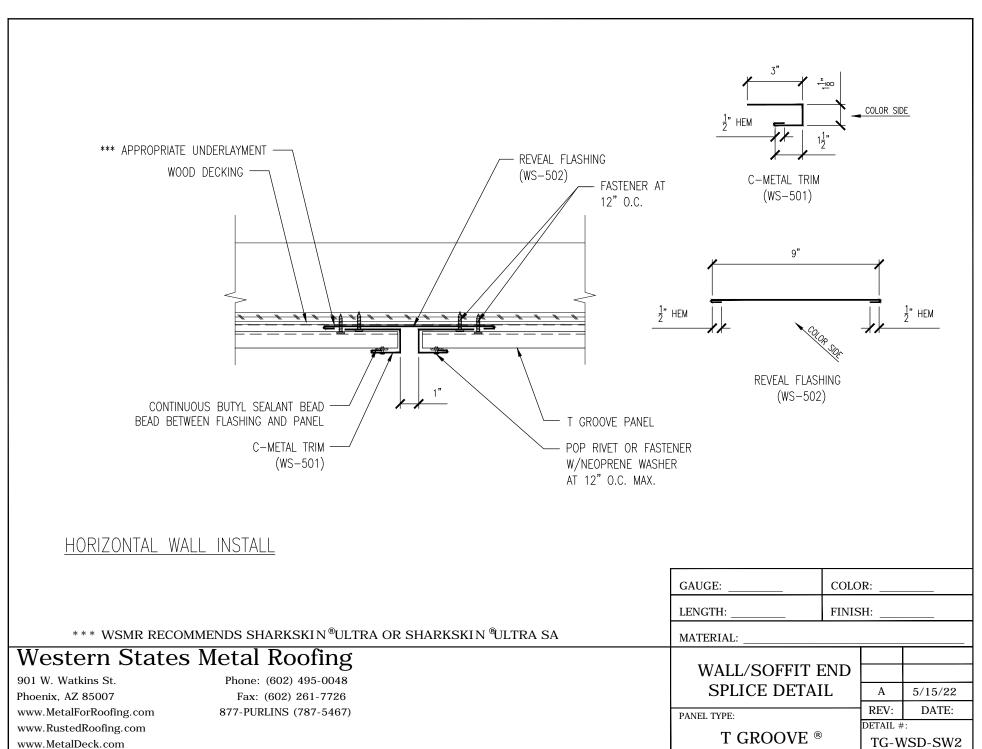
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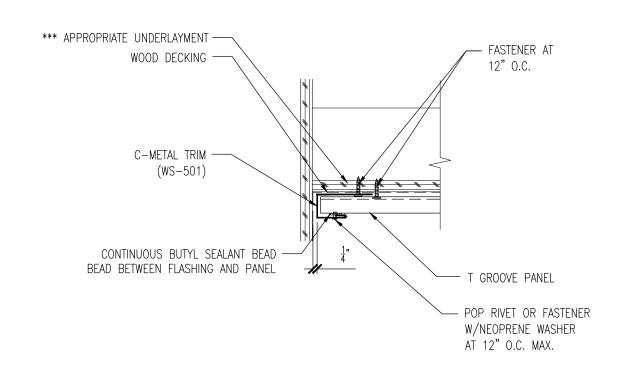
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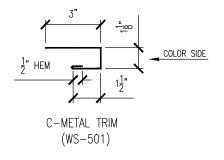
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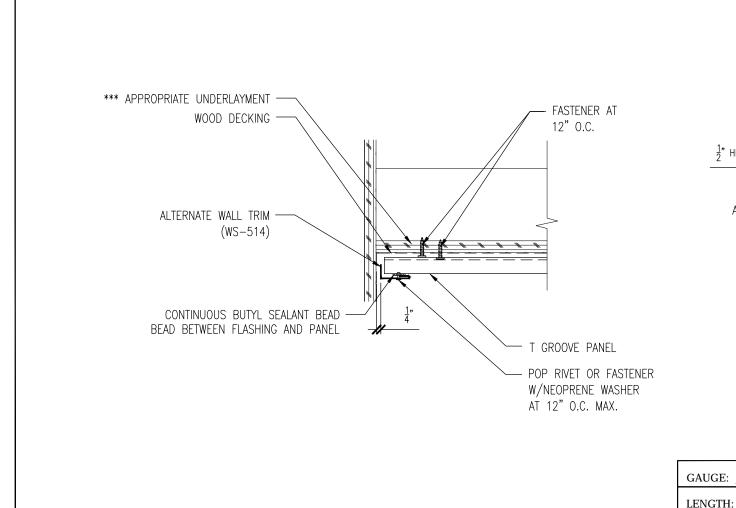
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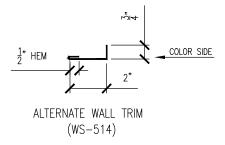
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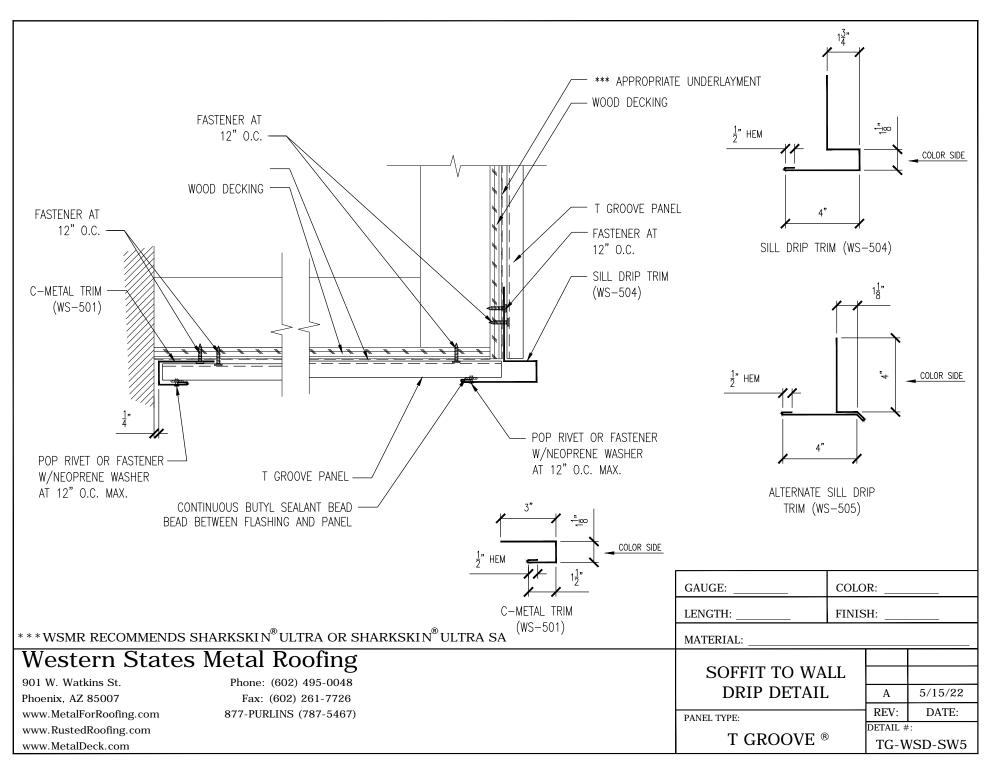
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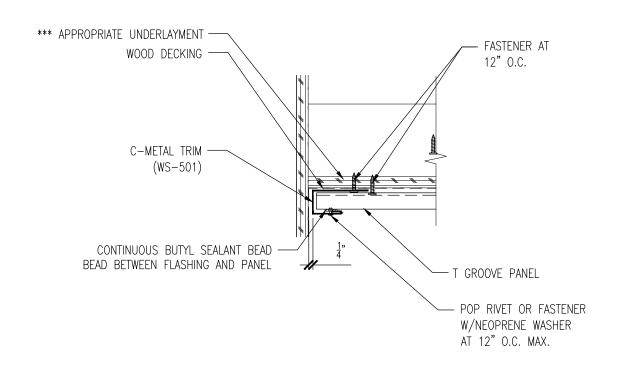
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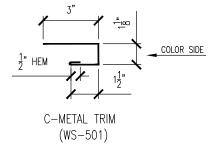
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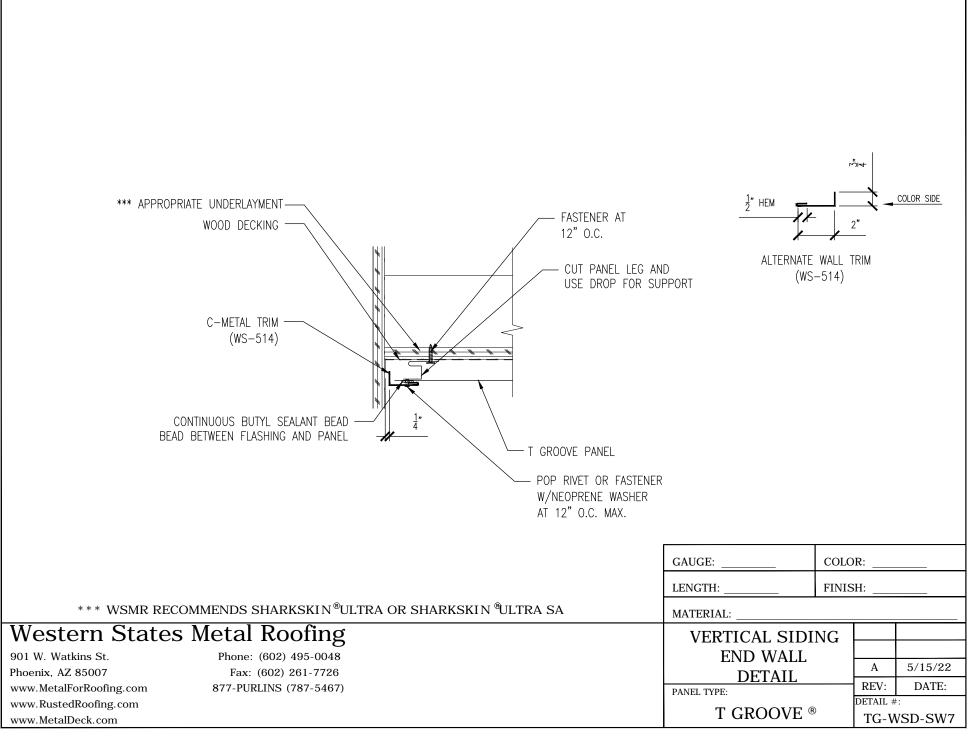
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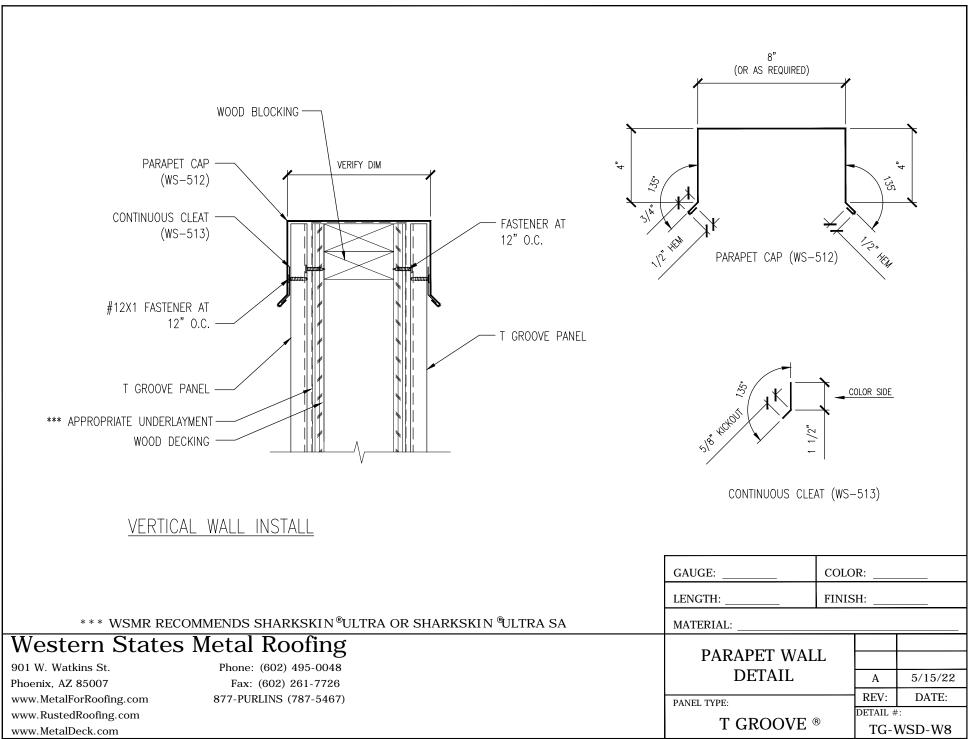
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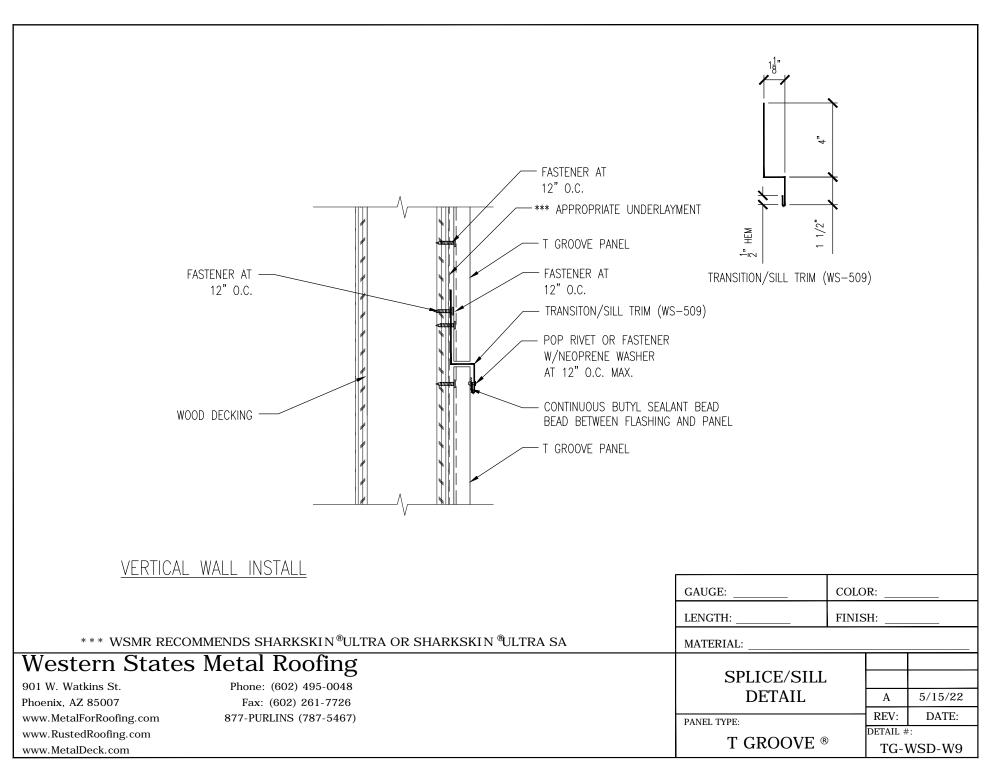
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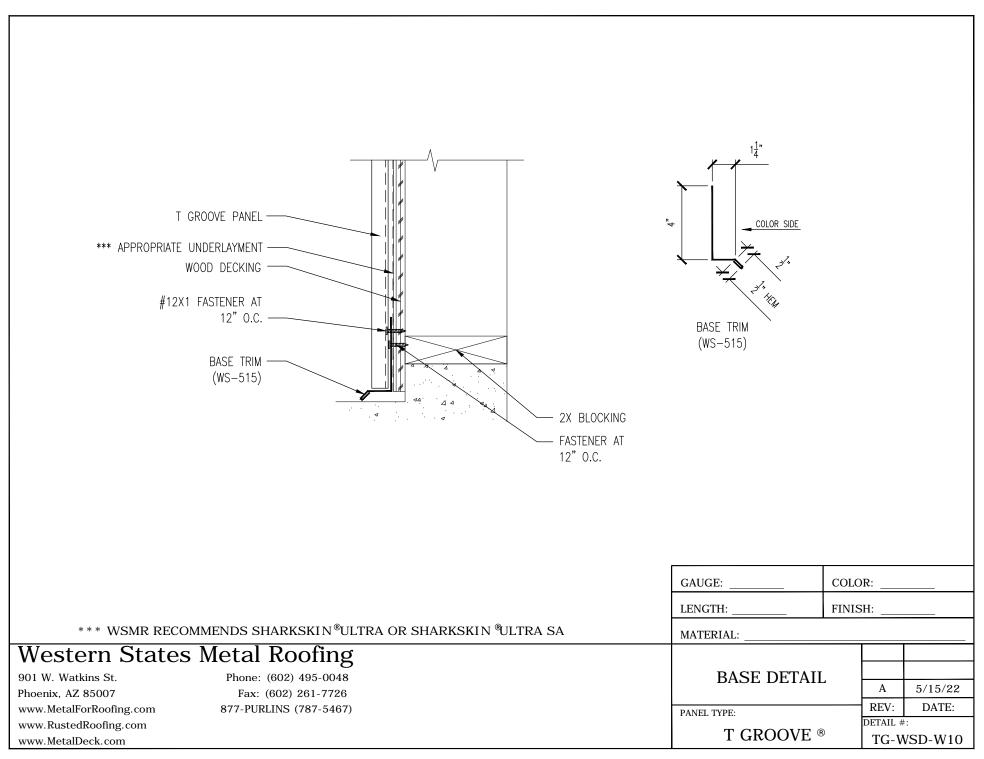
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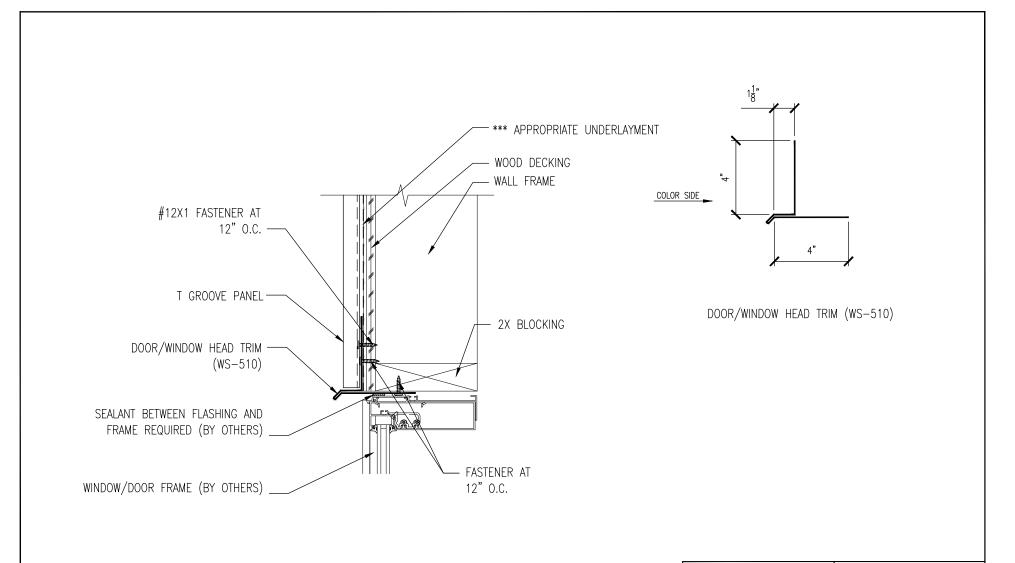
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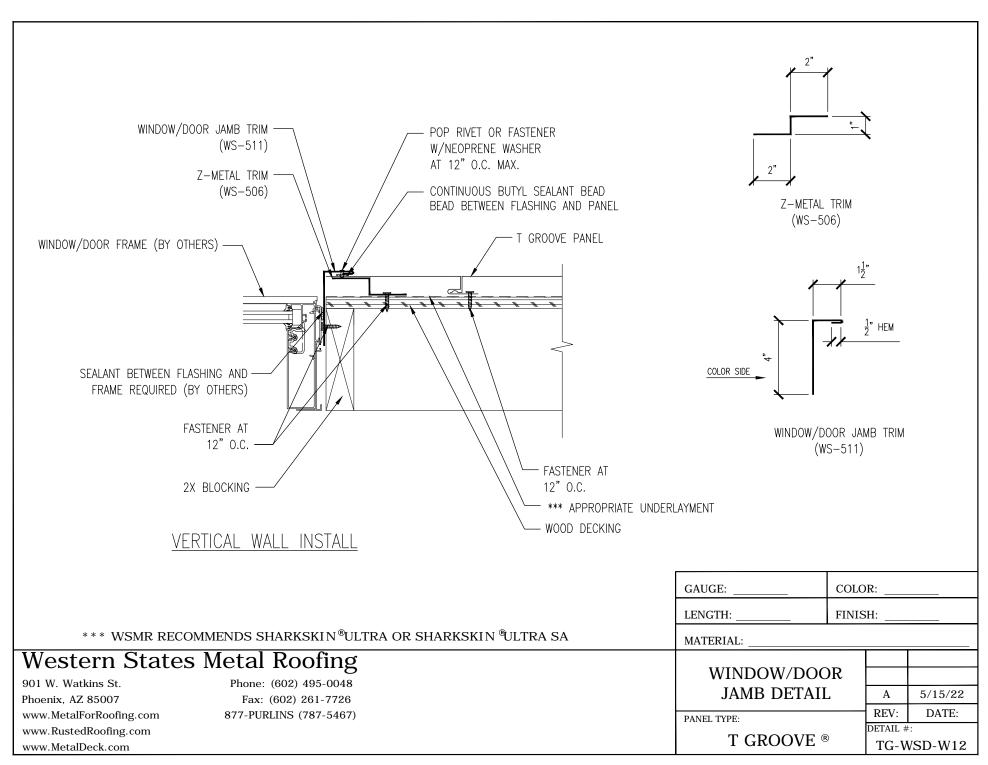


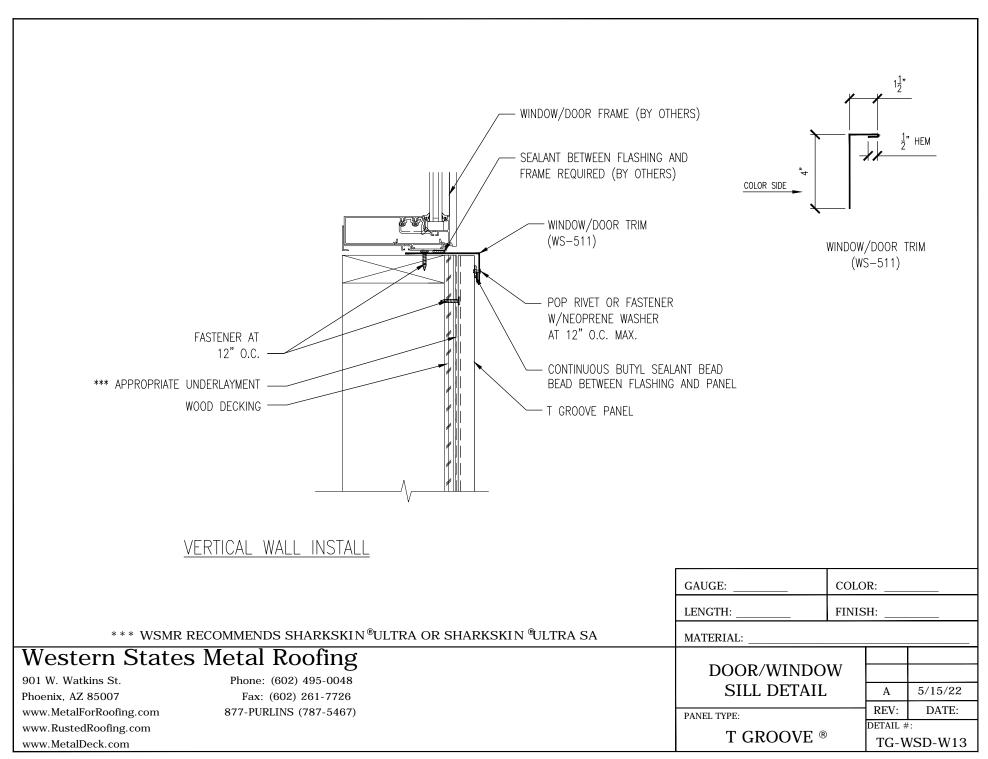


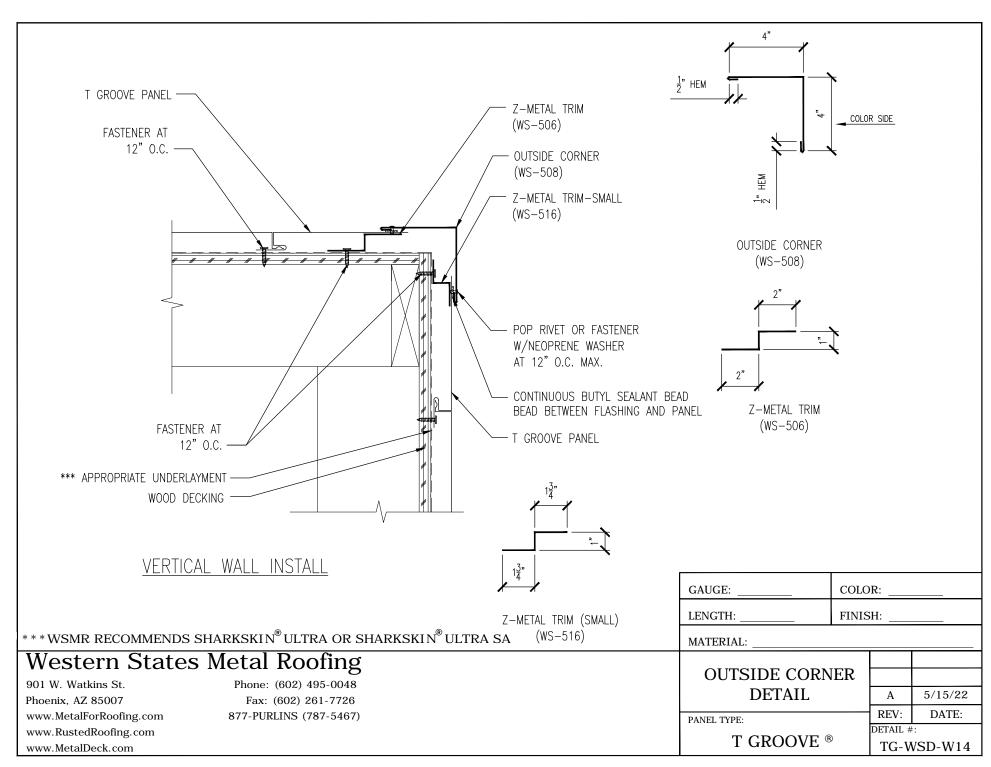


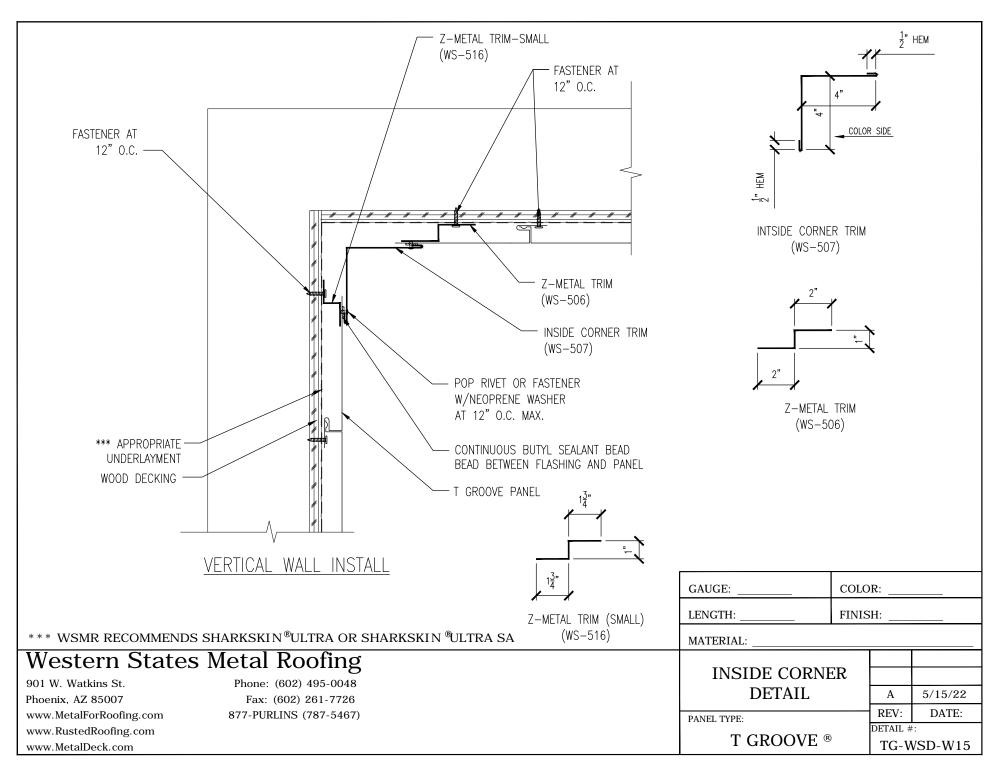


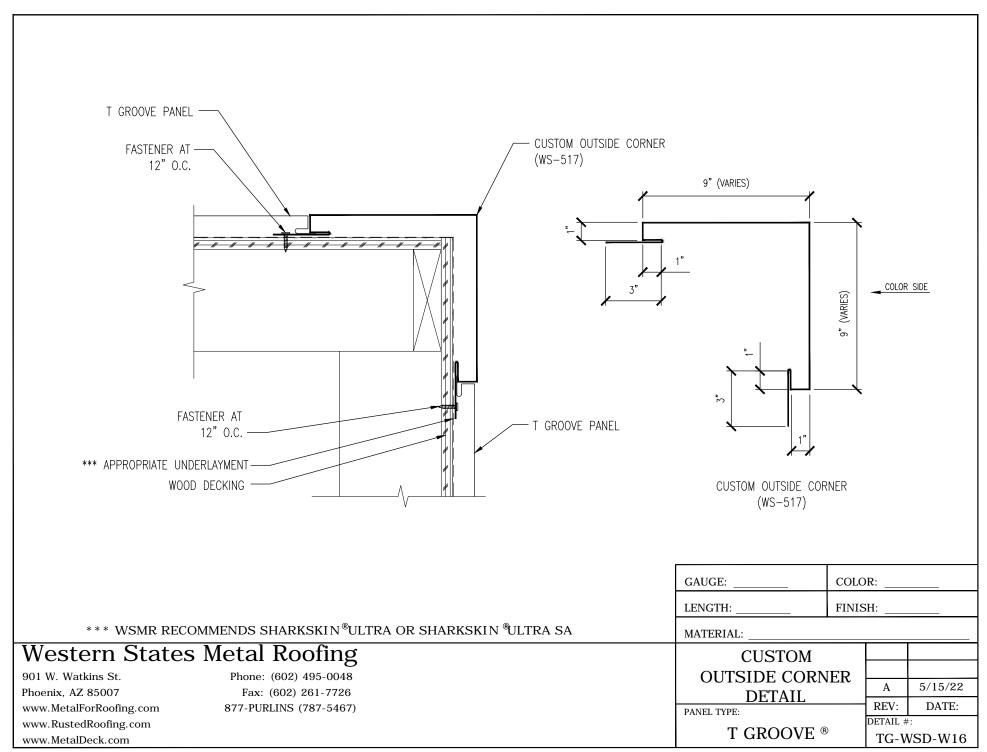
VERTICAL WALL INSTALL GAUGE: COLOR: LENGTH: FINISH: *** WSMR RECOMMENDS SHARKSKIN ®ULTRA OR SHARKSKIN ®ULTRA SA MATERIAL: Western States Metal Roofing DOOR/WINDOW SILL AND HEAD 901 W. Watkins St. Phone: (602) 495-0048 5/15/22 Phoenix, AZ 85007 Fax: (602) 261-7726 **DETAIL** REV: DATE: www. Metal For Roofing.com877-PURLINS (787-5467) PANEL TYPE: DETAIL #: www.RustedRoofing.com T GROOVE ® TG-WSD-W11 www.MetalDeck.com

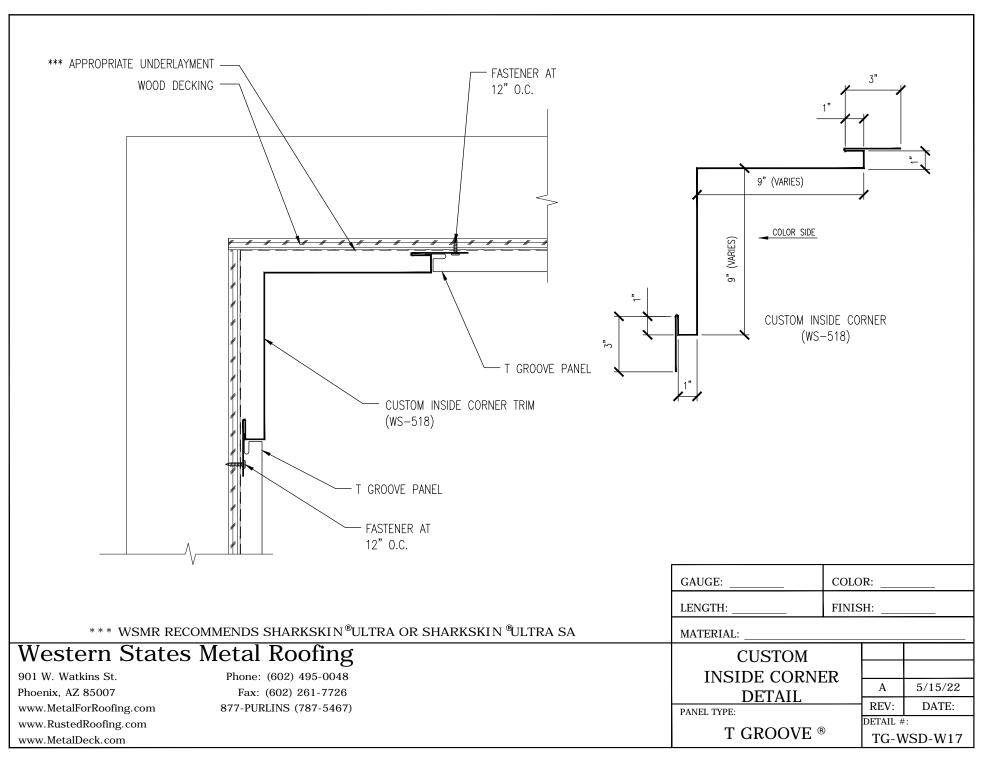


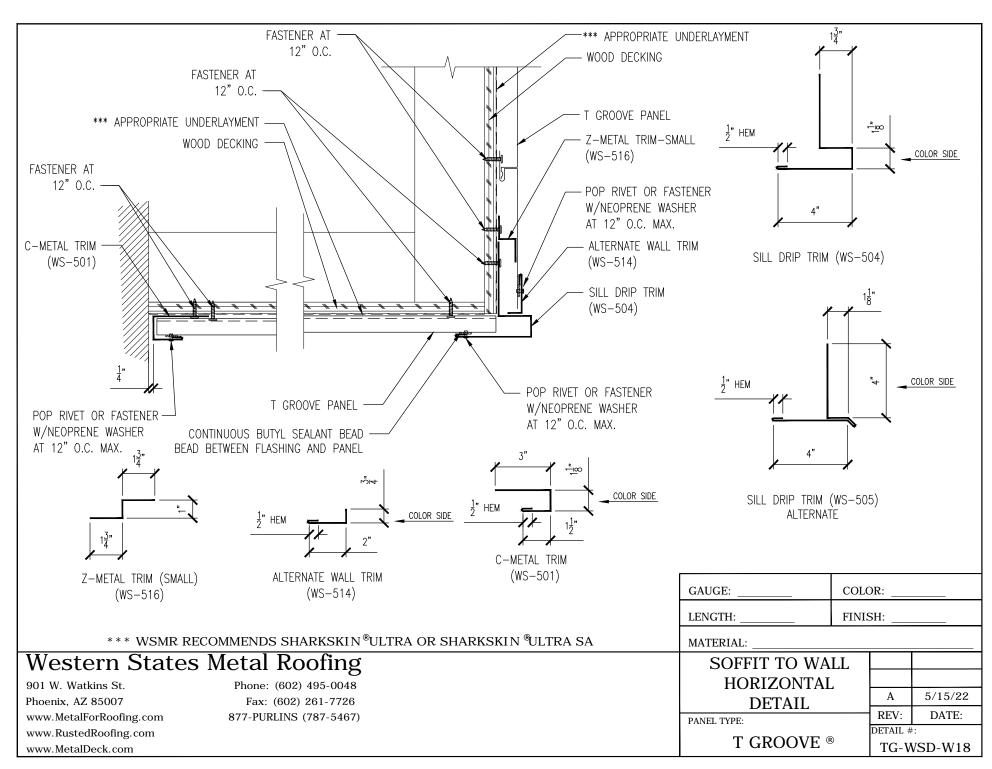


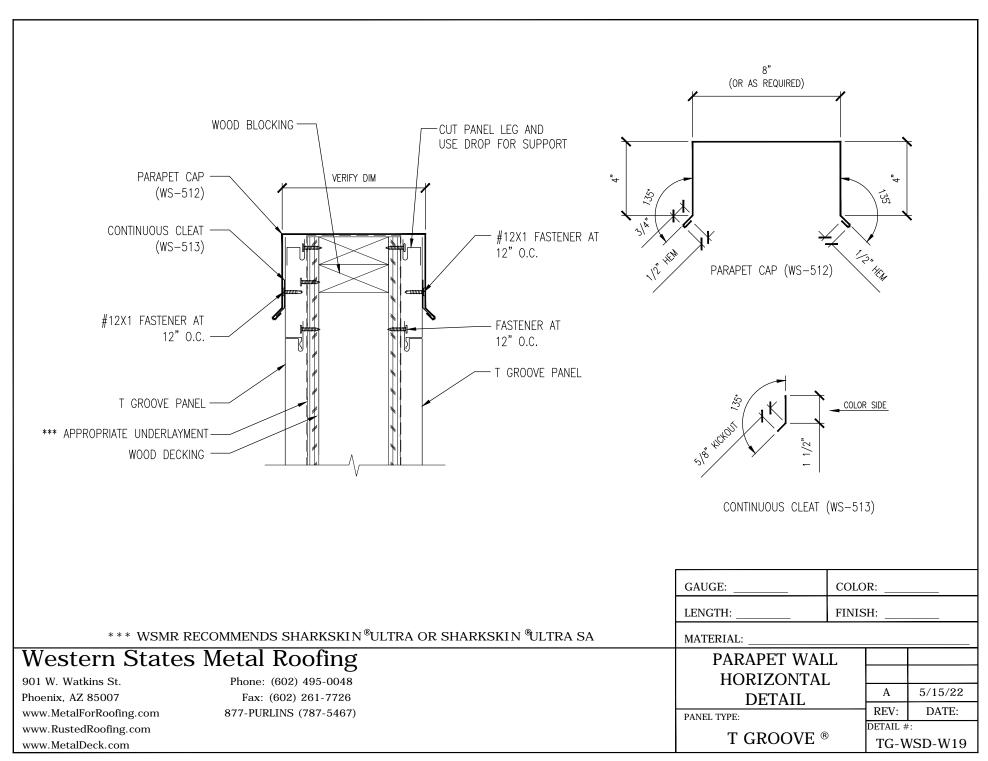


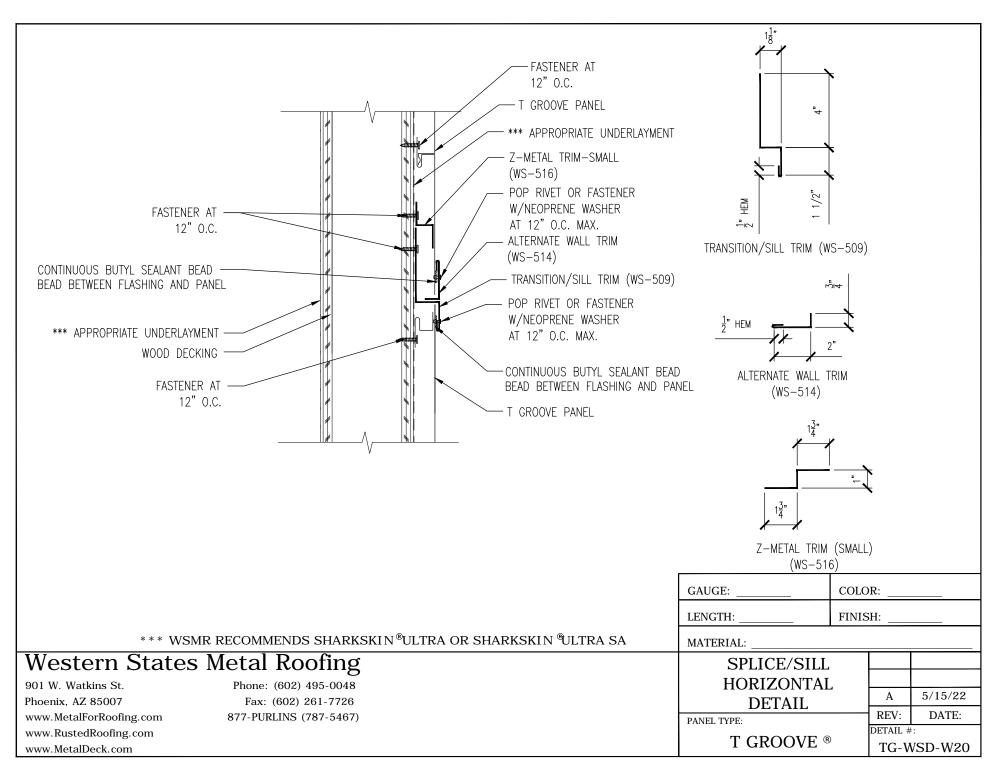


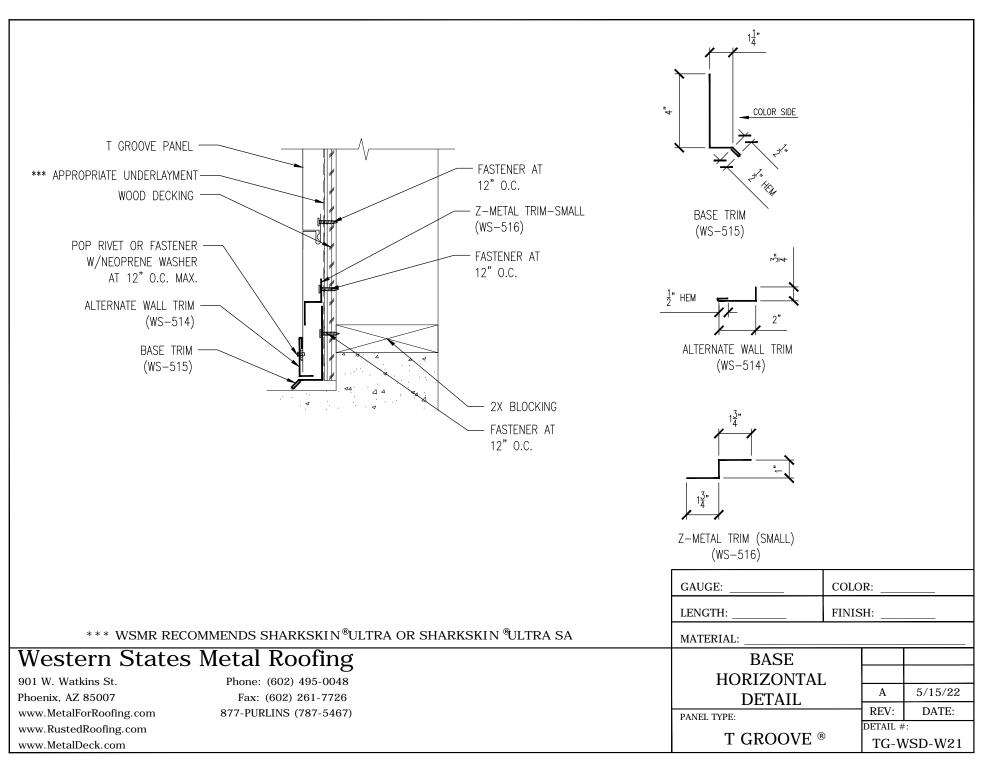


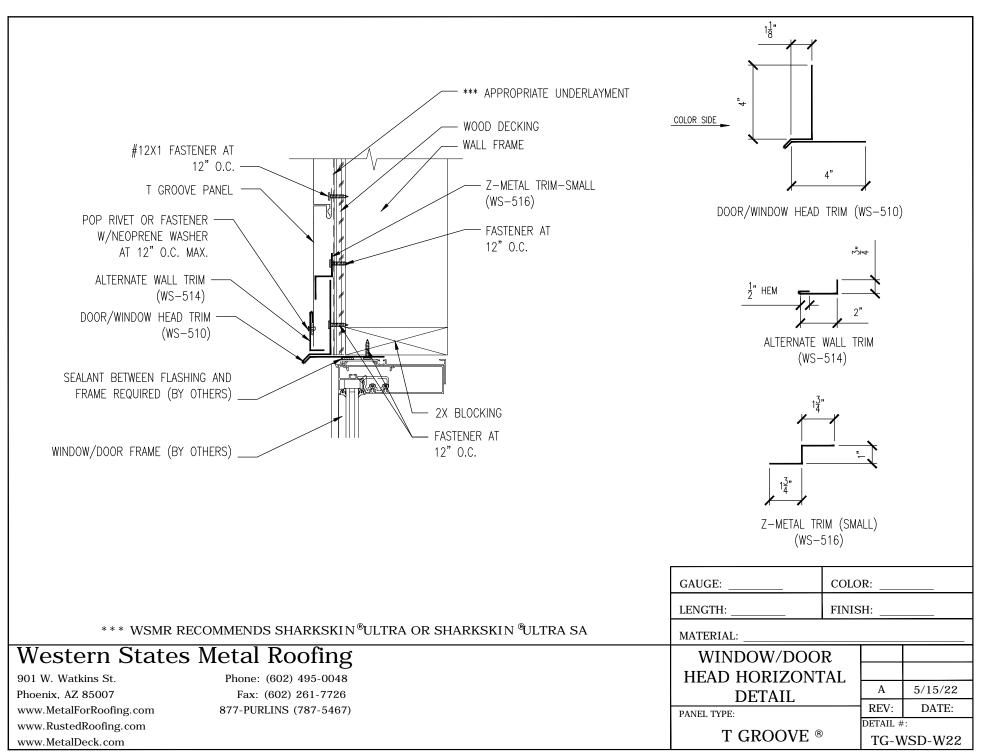


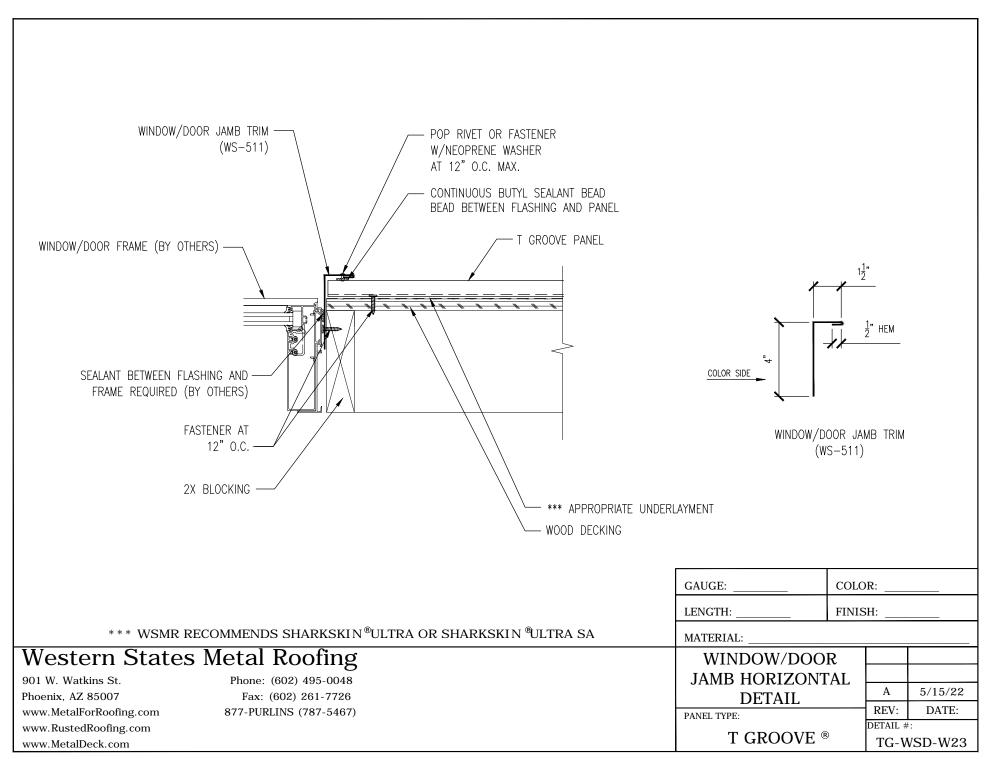


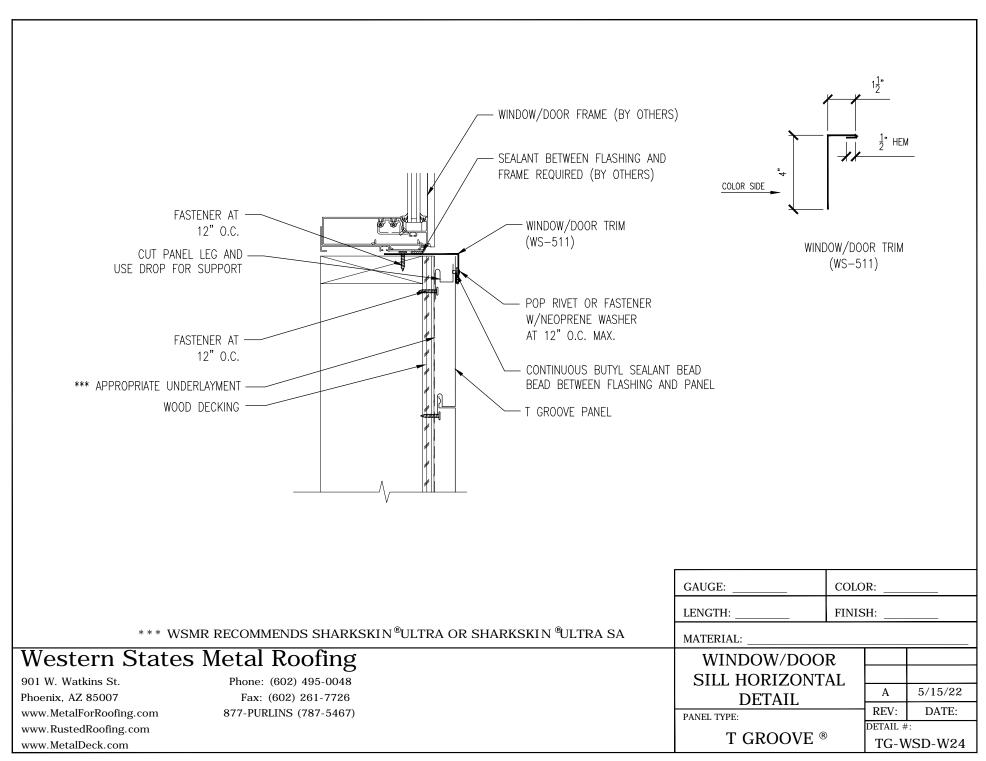


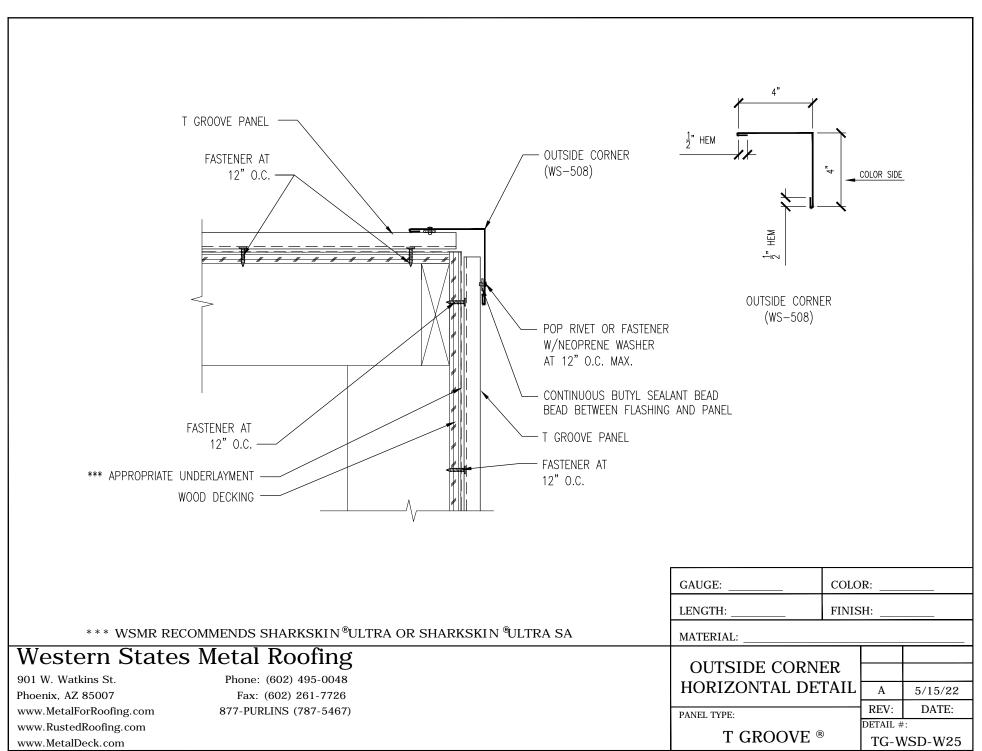


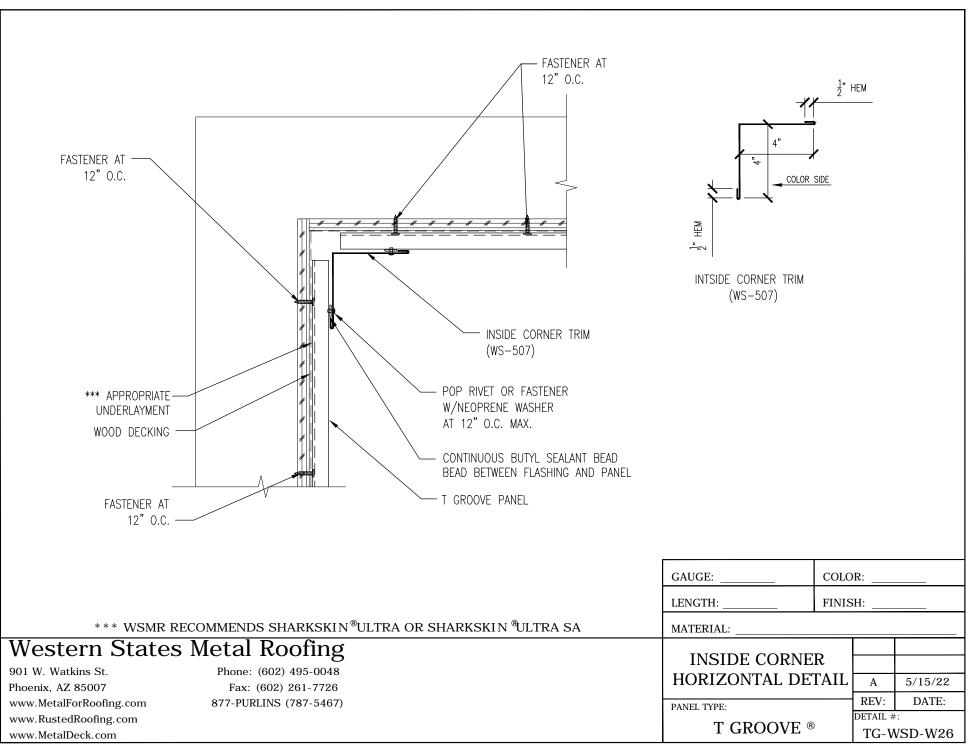












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	PANEL TYPE:	A 5/15/22 REV: DATE: DETAIL #:
www.RustedRoofing.com www.MetalDeck.com	T GROOVE ®	TG-WSD-MN27

CUSTOM TRIM GAUGE: COLOR: BREAKS: FINISH: STRETCH OUT: LENGTH: MATERIAL: Western States Metal Roofing CUSTOM TRIM NAME: 901 W. Watkins St. Phone: (602) 495-0048 5/15/22 Fax: (602) 261-7726 Phoenix, AZ 85007 REV: DATE: www.MetalForRoofing.com 877-PURLINS (787-5467) PANEL TYPE: DETAIL #: www.RustedRoofing.com T GROOVE ® TG-WSD-CT28 www.MetalDeck.com

Western States T-Groove® Panel

Installation, Flashings & Shop Drawing Detail Guide

Special Design Considerations

The details contained in this guide are proven industry details and are intended to be used as a design aid and installation guide. It does not depict all situations that may be encountered on all projects. Modifications are the responsibility of the designer/ owner/ installer.

Consideration should be given for Fit for Purpose, Building use, Climate conditions such as temperature, snow, wind, and moisture, Governing Building Codes, and Maintenance.

It is highly recommended that all trims and flashings be of the same material as the panels (metal, gauge, finish) to ensure long term performance and durability. Where possible, flashing edges should be hemmed to strengthen the edge and protect the cut edge from exposure.

Acceptance

Use of this manual is strictly voluntary. Details that are provided are to be used as a guide only. Details may not be applicable for all situations. This guide provides one standard detail and WSDI accepts that other installation details may be needed and other details may exist. WSDI makes no guarantee as to the Weather Tightness of the system or details found with in this guide. The information in this manual is believed to be correct and accurate at the time of printing. WSDI reserves the right to change details, discontinue products, change designs at any time without incurring obligation. It is best to consult your Design Engineer for recommendations.

Underlayment

There are many types of underlayment's on the market today. All designed with a special purpose depending on the type of Metal and profile. Many different types of metal will require a different type of underlayment, such as A606-4 (Corten) which requires a High Temperature underlayment. WSMR recommends Sharkskin® Ultra and/or Sharkskin® Ultra SA.

Snow Design

Design and dimension must be the proper width to accommodate high snow, rain, ice, and slope conditions. If possible, splices, penetrations, should be minimized in areas of high snow and ice accumulations. Details found in this manual may not pertain in areas of high snow and ice accumulations.

Panel Coverage and Fastening

T-Groove is available in the following panel widths: 12", 14", 16" and 18" wide. It can also be made with up to a 3" reveal. Custom panel widths are available. Please consult with your WSMR representative for details and fastening recommendations.

Safety and Maintenance

Extreme care should always be used when working with metals. Safety should always be a top priority and approved fall protection and equipment as approved by OSHA should always be used. No structure is immune to severe weather or is completely maintenance free. To keep your siding performing as it was designed, an inspection and comprehensive maintenance program should be implemented.

References

For other installation techniques and details, The Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) and NRCA manuals are great resource for working with sheet metal.

Technical Assistance

Contact your WSDI sales or technical representative for any additional information or assistance. To insure you have the latest information available, please inquire or visit our web sites at www.Westernstatesmetalroofing.com or www.Paintedrustedroofing.com



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