



# Seam-Lok

## Technical/Erection Information

# IMPORTANT NOTICE

Read this manual completely prior to beginning the installation of the Seam-Lok roofing system. Corle details must be followed as a minimum to insure appropriate warranties will be issued.

If there is a conflict between project erection drawings provided or approved by Corle and details in this manual, project erection drawings will take precedence.

## CAUTION!

- Exercise extreme caution when walking on unsecured panels; panels may have reduced load capacities until installation is complete.
- Material may be slippery, resulting from but not limited to wet conditions. Use extreme caution when walking, sitting, standing or kneeling on a metal roof to avoid a fall or other injury.
- Do not step on edges. Step toward center of all panels.
- Improper unloading or handling of bundles and crates may cause bodily injury or material damage. Multiple lift points may be required.
- Use extreme care in the operation of power lifting devices such as cranes and forklifts and follow the safety instructions provided by their manufacturer.
- Crates, boxes, and bundles may have sharp or rough edges. They may be bulky, heavy, or both. Corle is not responsible for bodily injuries or material handling during unloading, storage or job-site placement.
- Always wear appropriate safety gloves, eye protection and apparel when installing panels.



## ALL OSHA REQUIREMENTS & REGULATIONS MUST BE FOLLOWED WHEN USING MATERIAL

For further information, please contact OSHA: [www.osha.gov](http://www.osha.gov)  
U.S. Department of Labor  
Occupational Safety and Health Administration (OSHA)  
200 Constitution Avenue, N.W., Washington, D.C. 20210

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, CORLE reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. **To insure you have the latest information available, please inquire or visit our web site at [www.corle.com](http://www.corle.com).** Application details are for illustration purposes only and may not be appropriate for all environmental conditions, building designs, or panel profiles. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices. For clarity, insulation is not shown in these details.

# TABLE OF CONTENTS

## ROOFING SYSTEM

Features and Benefits . . . . .	SL-4
---------------------------------	------

## ENGINEERING

Read This First . . . . .	SL-5
UL 90 Construction Numbers . . . . .	SL-6
24" Section Properties/Load Tables . . . . .	SL-7-9
18" Section Properties/Load Tables . . . . .	SL-10-12

## SPECIFICATIONS

Specifications For Metal Roofing . . . . .	SL-13-18
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## GENERAL INFORMATION

Product Checklist . . . . .	SL-19-27
Preparatory Requirements . . . . .	SL-28
Unloading . . . . .	SL-29-30
Handling & Storage . . . . .	SL-31

## ERECTION SEQUENCE

Step 1 – Rake Support . . . . .	SL-32
Step 2 – Low Eave/Metal Inside Closure . . . . .	SL-33
Step 2A – High Eave/Metal Inside Closure . . . . .	SL-34
Step 3 – Thermal Spacer . . . . .	SL-35
Step 4 – First Panel . . . . .	SL-36-37
Step 5 – Back-Up Plate . . . . .	SL-38
Step 6 – Clip Installation . . . . .	SL-39
Step 7 – Endlap Panel . . . . .	SL-40
Step 8 – Endlap Standard . . . . .	SL-41
Step 8A – Optional Endlap-Cinch Strap . . . . .	SL-42
Step 9 – Ridge Panel . . . . .	SL-43
Step 10 – Subsequent Runs Eave . . . . .	SL-44
Step 11 – Subsequent Runs Endlap . . . . .	SL-45
Step 12 – Subsequent Runs Ridge/Outside Closure . . . . .	SL-46
Step 13 – Seaming Panel Sidelaps . . . . .	SL-47-49
Step 14 – Last Panel Run . . . . .	SL-50
Step 14A – Last Panel Run – Optional . . . . .	SL-51
Step 15 – Outside Closure . . . . .	SL-52
Step 16 – Ridge Outside Closure/Flashing . . . . .	SL-53

## SPECIAL ERECTION TECHNIQUES

Recommended Erection Practices . . . . .	SL-54-55
Light Transmitting Panel Trim Installation . . . . .	SL-56
Field Located LTP (Light Panel) Installation . . . . .	SL-57-61
Ridge Ventilator Installation . . . . .	SL-62-63
Mid Slope Fixed Condition . . . . .	SL-64
Curb Installation . . . . .	SL-65-69
Guidelines For Installing Repair Panel . . . . .	SL-70-71
Repair Cap On Damaged Seam-Lok Seams . . . . .	SL-72

## DESIGN

Trim Details:	
Eave To Endlap . . . . .	SL-73
Ridge . . . . .	SL-74
Rake . . . . .	SL-75
Rake To Rake . . . . .	SL-76
Eave . . . . .	SL-77
Ridge Ventilator . . . . .	SL-78
Snow Gutter . . . . .	SL-79
Hip . . . . .	SL-80
Valley . . . . .	SL-81
Parallel Transitions . . . . .	SL-82-83
Perpendicular Transitions . . . . .	SL-84
Low Eave Extension With Soffit . . . . .	SL-85
Low Eave Extension Without Soffit . . . . .	SL-86
High Eave Extension With Soffit . . . . .	SL-87
High Eave Extension Without Soffit . . . . .	SL-88
Rake Extension . . . . .	SL-89
Rake at Canopy or Eave Only Extension . . . . .	SL-90

# Seam-Lok

# ROOFING SYSTEM

## FEATURES AND BENEFITS

### 1. DESIGN INTEGRITY

CORLE's **Seam-Lok** mechanically seamed system begins and ends in the high point of the panel rib, reducing the risk of leakage at the rake that can occur when finishing in the low section of the panel. The panel seam is sealed with factory-applied hot-melt mastic, a superior grade to mastics applied in the field.

### 2. FLOATING ROOF

The **Seam-Lok** roof was designed to cope with the forces of expansion and contraction. This is accomplished by allowing the panels to freely move up and down the roof slope.

### 3. FLOATING CLIPS

Two floating clips, the Standard and Articulating, are available for the **Seam-Lok** system. The Standard clip allows for a total of two inches of thermal movement and is constructed from 14 gauge material. The Articulating clip eliminates the binding and friction during panel expansion and contraction caused by a misformed, misaligned, or improperly erected substructure. The clip provides a 3/8" clearance at the purlin to reduce water ponding on low pitch roofs. Constructed from 12-gauge material, this clip is an integral part of maintaining panel module within the floating system.

### 4. UL 90 RATING

The **Seam-Lok** roof system has seven different UL 90 construction numbers, each of which is available with several options.

### 5. FACTORY MUTUAL APPROVAL

The **Seam-Lok** roof has been tested by Factory Mutual Research Corporation for wind uplift, fire, and hail damage under Standard 4471 achieving various ratings. Refer to page SL-6 for summary information.

### 6. FIRE RESISTANCE RATINGS

The roof system qualifies for use in several UL design assemblies and carries a UL "Class A" fire rating.

### 7. SIMPLICITY

No troublesome batten cap is needed. The panels simply seam together forming a watertight seal.

### 8. FLEXIBILITY

CORLE's **Seam-Lok** roof system offers welcome flexibility to the erector. Wall covering can be erected before or after the roof is installed. Panel installation is an uninterrupted procedure.

### 9. EASE OF INSTALLATION

The erector has the option to sheet each side of the roof separately or both sides simultaneously, which greatly increases the speed and convenience of erection. Being reversible end-for-end, sheets do not have to be special ordered for each side of the building. No field notching of panels at endlaps or ridge is required.

### 10. FORGIVING SYSTEM

The **Seam-Lok** design allows for the roof to be finished in the high point of the panel rib when an out-of-square condition or other factors cause the roof to terminate up to 4" out of module.

### 11. BUILDING LENGTH

Odd, as well as even footage buildings can be terminated in a major rib with the use of our 18" panel or in the low section by field bending the panel.

### 12. PANELS AND COMPONENTS

CORLE'S system, combined with self-engaging back-up plates, assures panel module and speeds up roof installation.

### 13. DURABILITY

Every unpainted panel is manufactured from Galvalume Plus®, your assurance of the CORLE commitment to quality.

### 14. COLOR AND FINISHES

**Seam-Lok** is available in a wide variety of popular colors.

Galvalume Plus® is a registered trademark of BIEC International, Inc.



# Seam-Lok

# ENGINEERING

## IMPORTANT - READ THIS FIRST

### CAUTION

Application and design details are for illustration purposes only, and may not be appropriate for all environmental conditions or building designs. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices.

### CAUTION

The use of any field seaming machine other than that provided by CORLE will damage the panels and void all warranties.

It will greatly facilitate DESIGNING, QUOTING, ORDERING, or ERECTING the CORLE Seam-Lok roof if you determine which system you need based on insulation requirements. Listed below are the differences between the low and high systems.

#### LOW SYSTEM

3/8" clearance between panel and purlin without 1" thermal spacer for added insulation

**LOW CLIP**  
**LOW RAKE SUPPORT**

#### HIGH SYSTEM

1 3/8" clearance between panel and purlin with 1" thermal spacer for added insulation.

**HIGH CLIP**  
**HIGH EAVE PLATE**  
**HIGH RAKE SUPPORT**

Floating clips have a maximum of 1" movement each direction. Articulating clips have a maximum movement of 1 1/4" each direction. Thermal calculations should be performed for each project to ensure that the thermal movement of the roof is not more than the clips can handle.

**FOR ROOF PITCHES GREATER THAN 4:12, CALL CORLE.**

#### NOTE:

As with all standing seam roof systems, a sound insulator (EXAMPLE: blanket insulation) is required between the panel and substructure. Some composite systems require acoustical consideration. Call CORLE for further information.

### Thermal Spacer Selection Chart

For use over blanket insulation (.60 pcf maximum density) installed over purlins or joists

	Low System	High System
No Insulation	3/8" Thermal Spacer	N/A
3" Insulation	No Thermal Spacer Required	1" Thermal Spacer
4" Insulation	N/A	5/8" Thermal Spacer
6" Insulation	N/A	3/8" Thermal Spacer

This manual is to be used by the roof system erector as a guide for the erection of the **Seam-Lok** roof. **IT IS THE RESPONSIBILITY OF THE ERECTOR TO INSTALL THIS ROOF USING SAFE CONSTRUCTION PRACTICES.** The manufacturer is not responsible for the performance of this roof system if it is not installed in accordance with the instructions shown in this manual.

**CORLE ERECTION DRAWINGS TAKE PRECEDENCE OVER THIS MANUAL OR ANY OTHER INFORMATION WRITTEN OR IMPLIED, REGARDING THE INSTALLATION OF THEIR ROOF SYSTEM.**

If there are any questions regarding proper installation of parts or materials on this roof system, please inquire before proceeding.

# Seam-Lok

# ENGINEERING

## UNDERWRITERS LABORATORIES APPROVAL

Construction Number	Panel Width (in.)	Gauge	Clip Type	Clip Spacing	Substrate	UL-2218 Impact Resistance	UL-263 Fire Rating	UL-580 Rating
180C	24	24 MIN	A	5'-0"	Composite System	Class 4	Class A	Class 90
287	24	24 MIN	A	5'-0"	Open Framing	Class 4	Class A	Class 90
308A	24	24 MIN	A	5'-0"	Composite System	Class 4	Class A	Class 90
450	24	24 MIN	A	5'-0"	Open Framing	Class 4	Class A	Class 90
518	24	24 MIN	B	5'-0 1/4"	Open Framing	Class 4	Class A	Class 90
519	24	24 MIN	B	5'-0"	Composite System	Class 4	Class A	Class 90
520	24	24 MIN	B	5'-0 1/4"	Composite System	Class 4	Class A	Class 90

A = Articulating    B = Floating or Articulating

### NOTES

1. Tests procedures are in accordance with Underwriters Laboratories Standard UI-580 under "Tests for Uplift Resistance of Roof Assemblies".
2. A detailed installation method is available for each Construction Number above and can be found in the UL Roofing Materials and Systems Directory. The panels must be installed in a certain manner to achieve the published results.
3. The panels qualify for a Class A fire rating in compliance with Underwriters Laboratories Standard UI-263.
4. The panel system is listed under the following Fire Resistance Design Numbers: P224, P225, P227, P230, P233, P237, P265, P268, P508, P510, P512, P701, P711, P715, P717, P720, P722, P724, P726, P731, P734, P736, P801, P803, P814, P815, P819, P821, and P823.

## FACTORY MUTUAL APPROVAL - Seam-Lok

Panel Width	Gauge	Clip Type	Clip Spacing	Substrate	Hail Damage Rating	ASTM E108 Fire Rating	FM Windstorm Rating
24	24	**	4'-0"	Open Framing	Class 1-SH	Class A	Class 1-60
24	24	**	5'-0"	Open Framing	Class 1-SH	Class A	Class 1-60
24	22	**	5'-0"	Open Framing	Class 1-SH	Class A	Class 1-75
24	22	**	4'-0"	Open Framing	Class 1-SH	Class A	Class 1-90
18	24	**	5'-0"	Open Framing	Class 1-SH	Class A	Class 1-90
24	22	Floating	3'-6"	Open Framing	Class 1-SH	Class A	Class 1-105
24	22	Articulating	4'-0"	Open Framing	Class 1-SH	Class A	Class 1-105

\*\*Floating or Articulating

### NOTES

1. Test procedures are in accordance with Factory Mutual Research Corporation (FMRC) Standard 4471.
2. A detailed test report is available for each product above. The panels must be installed in a specific manner to achieve the published results. Contact CORLE for more information.

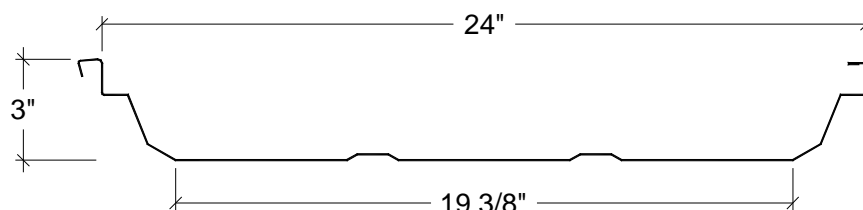
### ICBO APPROVAL

**Seam-Lok** Roofing System details, engineering calculations, computer printouts, and data have been examined by the ICBO Evaluation Service, Inc. and have been found to comply with the 1997 Uniform Building Code.

# Seam-Lok

# ENGINEERING

## Seam-Lok Panel 24" Coverage



### SECTION PROPERTIES

MATERIAL			TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
PANEL GAGE	F <sub>y</sub> (KSI)	WEIGHT (PSF)	I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (kip-in/ft)	I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (kip-in/ft)
24	50	1.20	0.3110	0.1281	3.8335	0.1515	0.0937	2.8035
22	50	1.53	0.3955	0.1630	4.8800	0.2015	0.1221	3.6550

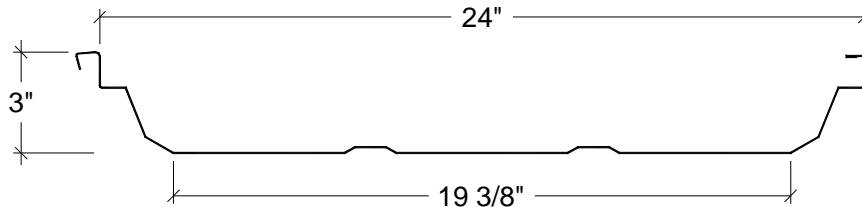
### NOTES

1. All Seam Lok panel properties are calculated in accordance with the *North American Specification for the Design of Cold-Formed Steel Structural Members with Commentary, 2001 Edition and the Supplement 2004 to the North American Specification for the Design of Cold-Formed Steel Structural Members with Commentary, 2001 Edition*, published by the American Iron and Steel Institute (AISI).
  2. The moment of inertia,  $I_x$ , is used in calculating deflections.
  3. The section modulus,  $S_x$ , is used in calculating allowable bending moment.
  4. The allowable bending moment,  $M_a$ , is used in calculating allowable uniform loads.
- As noted, all tabulated values represent the average for one foot of panel width.

# Seam-Lok

# ENGINEERING

## Seam-Lok Panel 24" Coverage



## ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

24 Gauge ( $F_y=50$ KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.0	2.5	3.0	3.5	4.0	4.5	5.0
SINGLE	LIVE LOAD	638	408	283	208	159	126	102
	WIND PRESSURE	638	408	283	208	159	126	102
	WIND SUCTION	79	63	59	54	50	45	40
2 SPANS	LIVE LOAD	467	299	207	152	116	92	74
	WIND PRESSURE	467	299	207	152	116	92	74
	WIND SUCTION	79	63	59	54	50	45	40
3 OR MORE SPANS	LIVE LOAD	584	373	259	190	146	115	93
	WIND PRESSURE	584	373	259	190	146	115	93
	WIND SUCTION	79	63	59	54	50	45	40
SINGLE SPAN w/ 5" CANTILEVER AT ONE END	LIVE LOAD	698	432	295	214	163	128	103
	WIND PRESSURE	698	432	295	214	163	128	103
	WIND SUCTION	79	63	59	54	50	45	40
SINGLE SPAN w/ 17" CANTILEVER AT ONE END	LIVE LOAD	232	232	232	232	208	155	120
	WIND PRESSURE	232	232	232	232	208	155	120
	WIND SUCTION	79	63	59	54	50	45	40

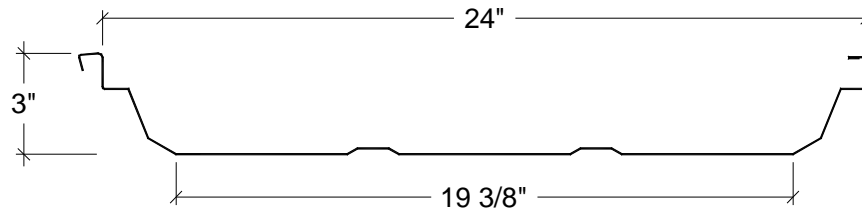
### NOTES

1. Tabulated values are superimposed loads: weight of panel *has been deducted*.
2. Loads for multiple span conditions are based on equal span lengths.
3. Tabulated values incorporate deflection limit of  $L/240$  of span.
4. Values incorporate web crippling consideration.
5. Suction values incorporate ASTM E 1592 test results and consideration of tension in the screws connecting the clips to the purlins.
6. Tabulated values apply to panel installed in accordance with this manual.

# Seam-Lok

# ENGINEERING

## Seam-Lok Panel 24" Coverage



## ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

22 Gauge ( $F_y=50$ KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.0	2.5	3.0	3.5	4.0	4.5	5.0
SINGLE	LIVE LOAD	813	520	361	265	203	160	130
	WIND PRESSURE	813	520	361	265	203	160	130
	WIND SUCTION	98	84	270	73	68	63	57
2 SPANS	LIVE LOAD	609	389	270	198	152	120	97
	WIND PRESSURE	609	389	78	198	152	120	97
	WIND SUCTION	98	84	338	70	61	54	49
3 OR MORE SPANS	LIVE LOAD	761	487	338	248	190	150	121
	WIND PRESSURE	761	487	78	248	190	150	121
	WIND SUCTION	98	84	375	73	68	62	56
SINGLE SPAN w/ 5" CANTILEVER AT ONE END	LIVE LOAD	888	550	375	273	207	163	131
	WIND PRESSURE	888	550	375	273	207	163	131
	WIND SUCTION	98	84	78	73	68	63	57
SINGLE SPAN w/ 17" CANTILEVER AT ONE END	LIVE LOAD	303	303	303	303	265	197	153
	WIND PRESSURE	303	303	303	303	265	197	153
	WIND SUCTION	98	84	78	73	68	63	57

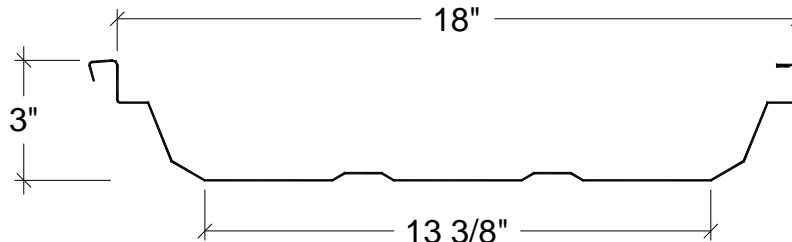
### NOTES

1. Tabulated values are superimposed loads: weight of panel *has been deducted*.
2. Loads for multiple span conditions are based on equal span lengths.
3. Tabulated values incorporate deflection limit of  $L/240$  of span.
4. Values incorporate web crippling consideration.
5. Suction values incorporate ASTM E 1592 test results and consideration of tension in the screws connecting the clips to the purlins.
6. Tabulated values apply to panel installed in accordance with this manual.

# Seam-Lok

# ENGINEERING

## Seam-Lok Panel 18" Coverage



### SECTION PROPERTIES

MATERIAL			TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
PANEL GAGE	F <sub>y</sub> (KSI)	WEIGHT (PSF)	I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (kip-in/ft)	I <sub>x</sub> (in <sup>4</sup> /ft)	S <sub>x</sub> (in <sup>3</sup> /ft)	M <sub>a</sub> (kip-in/ft)
24	50	1.28	0.3747	0.1641	4.9120	0.2033	0.1250	3.7420
22	50	1.63	0.4760	0.2089	6.2533	0.2700	0.1628	4.8733

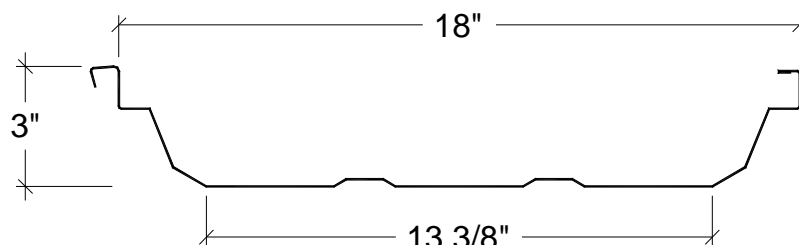
### NOTES

1. All Seam Lok panel properties are calculated in accordance with the *North American Specification for the Design of Cold-Formed Steel Structural Members with Commentary, 2001 Edition and the Supplement 2004 to the North American Specification for the Design of Cold-Formed Steel Structural Members with Commentary, 2001 Edition*, published by the American Iron and Steel Institute (AISI).
2. The moment of inertia,  $I_x$  is used in calculating deflections.
3. The section modulus,  $S_x$  is used in calculating allowable bending moment.
4. The allowable bending moment,  $M_a$ , is used in calculating allowable uniform loads.
5. As noted, all tabulated values represent the average for one foot of panel width.

# Seam-Lok

# ENGINEERING

## Seam-Lok Panel 18" Coverage



## ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

22 Gauge ( $F_y=50$ KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.0	2.5	3.0	3.5	4.0	4.5	5.0
SINGLE	LIVE LOAD	818	523	363	267	204	161	130
	WIND PRESSURE	818	523	363	267	204	161	130
	WIND SUCTION	116	96	76	71	65	60	54
2 SPANS	LIVE LOAD	623	399	277	203	155	123	99
	WIND PRESSURE	623	399	277	203	155	123	99
	WIND SUCTION	116	96	76	71	65	60	54
3 OR MORE SPANS	LIVE LOAD	779	498	346	254	194	153	124
	WIND PRESSURE	779	498	346	254	194	153	124
	WIND SUCTION	116	96	76	71	65	60	54
SINGLE SPAN w/ 5" CANTILEVER AT ONE END	LIVE LOAD	894	554	378	275	209	164	132
	WIND PRESSURE	894	554	378	275	209	164	132
	WIND SUCTION	116	96	76	71	65	60	54
SINGLE SPAN w/ 17" CANTILEVER AT ONE END	LIVE LOAD	310	310	310	310	267	199	154
	WIND PRESSURE	310	310	310	310	267	199	154
	WIND SUCTION	116	96	76	71	65	60	54

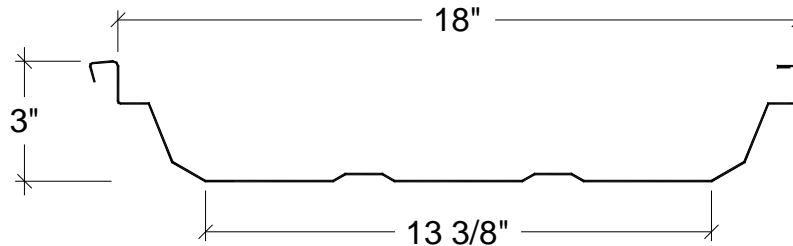
### NOTES

1. Tabulated values are superimposed loads: weight of panel *has been deducted*.
2. Loads for multiple span conditions are based on equal span lengths.
3. Tabulated values incorporate deflection limit of  $L/240$  of span.
4. Values incorporate web crippling consideration.
5. Suction values incorporate ASTM E 1592 test results and consideration of tension in the screws connecting the clips to the purlins.
6. Tabulated values apply to panel installed in accordance with this manual.

# Seam-Lok

# ENGINEERING

## Seam-Lok Panel 18" Coverage



## ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

22 Gauge ( $F_y=50$ KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.0	2.5	3.0	3.5	4.0	4.5	5.0
SINGLE	LIVE LOAD	1042	667	463	340	260	205	166
	WIND PRESSURE	1042	667	463	340	260	205	166
	WIND SUCTION	127	123	114	104	92	80	67
2 SPANS	LIVE LOAD	812	519	360	265	203	160	129
	WIND PRESSURE	812	519	360	265	203	160	129
	WIND SUCTION	127	123	109	94	82	73	65
3 OR MORE SPANS	LIVE LOAD	1015	649	451	331	253	200	162
	WIND PRESSURE	1015	649	451	331	253	200	162
	WIND SUCTION	127	123	114	104	92	80	67
SINGLE SPAN w/ 5" CANTILEVER AT ONE END	LIVE LOAD	1138	705	481	350	266	209	169
	WIND PRESSURE	1138	705	481	350	266	209	169
	WIND SUCTION	127	123	114	104	92	80	67
SINGLE SPAN w/ 17" CANTILEVER AT ONE END	LIVE LOAD	404	404	404	404	340	253	197
	WIND PRESSURE	404	404	404	404	340	353	197
	WIND SUCTION	127	123	114	104	92	80	67

### NOTES

1. Tabulated values are superimposed loads: weight of panel *has been deducted*.
2. Loads for multiple span conditions are based on equal span lengths.
3. Tabulated values incorporate deflection limit of  $L/240$  of span.
4. Values incorporate web crippling consideration.
5. Suction values incorporate ASTM E 1592 test results and consideration of tension in the screws connecting the clips to the purlins.
6. Tabulated values apply to panel installed in accordance with this manual.



# Seam-Lok

# SPECIFICATIONS

## SECTION 07610 - METAL ROOFING

**Specifier:** Notation (#) means that the text following is a specifier's note or sample.

### PART 1 – GENERAL

#### 1.01 DESCRIPTION

# **Specifier:** Do not alter paragraph A. except by adding section title in brackets.

##### A. General:

1. Furnish all labor, material, tools, equipment, and services for all preformed roofing as indicated, in accord with provisions of Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure, and complete installation.
4. See Division 1 for General Requirements.

##### B. Related work specified elsewhere:

1. Structural Steel: Section 05100.
2. Steel Joists: Section 05200 or 05400.
3. Flashing and Sheet Metal: Section 07600.

# **Specifier:** Delete references to sections not used and any references which become pertinent.

#### 1.02 QUALITY ASSURANCE

##### A. Applicable Standards:

1. SMACNA: "Architectural Sheet Metal Manual" Sheet Metal and Air Conditioning Contractors National Association, Inc.
2. AISC: "Steel Construction Manual" American Institute of Steel Construction.
3. AISI: "Cold Form Steel Design Manual" American Iron and Steel Institute.
4. ASTM A792-01 A-AZ55: Specifications for steel sheet, galvalume plus structural steel acrylic coated GR50, dip process, general requirements (Galvalume).
5. ASTM E 1514-93: "Standard Specification for Structural Standing Seam Steel Roof Panel Systems", American Society for Testing and Materials.
6. UL2218: "Test Standards for Impact Resistance", Underwriters Laboratories, Inc.
7. ASTM E 1592-95: "Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference", American Society for Testing and Materials.
8. ICBO: Evaluation Report No. ER-5409. ICBO Evaluation Service, Inc.

9. ASTM E 1680-95: "Standard Test Method for Rate of Air Leakage through Exterior Metal Roof Panel Systems", American Society for Testing and Materials.
10. ASTM E 1646-95: "Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference", American Society for Testing and Materials.

##### B. Manufacturers' Qualifications:

1. Manufacturer has a minimum of three years experience in manufacturing metal roof systems of this nature. Panels specified in this section shall be produced in a factory environment (not job site roll formed) with fixed-base roll forming equipment assuring the highest level of quality control. A letter from the manufacturer certifying compliance will accompany the product material submittals.

##### C. Installation Contractors' Qualifications:

1. Installer of the system shall be an approved installer, certified by the manufacturer, specifically for CORLE's Seam-Lok roof system and meet the following minimum criteria:
  - a. Maintain a \$250,000 general liability coverage for each loss.
  - b. Maintain sufficient worker's compensation coverage as mandated by law.
  - c. Has no viable claims pending regarding negligent acts or defective workmanship on previously performed or current projects.
  - d. Has not filed for protection from creditors under any state or federal insolvency, or debtor relief statutes or codes.
  - e. Project foreman is the person having received specific training in the proper installation of the specified system and will be present to supervise whenever material is being installed. Specific training program shall include the following:
    1. The instructor must have a minimum of 10 years experience.
    2. A formal curriculum.
    3. Classroom instruction with review and thorough understanding of the specific products' technical manual.
    4. Hands-on mock-up instruction with a review and thorough understanding of the specific products' details.
    5. The installer must pass a written and oral exam.
  - f. Provide five references from five different architects or building owners for projects that have been in service for a minimum of two years, stating satisfactory performance by the installer.

# Seam-Lok

# SPECIFICATIONS

9. Provide certification letter that installer has a minimum of three year's of metal product installation experience immediately preceding the date upon which work is to commence.

## D. Installation quality control:

1. The general contractor shall provide a third party metal roof consultant working for the general contractor and approved by the metal roof system manufacturer, to approve the metal roof system installation:
  - a. At completion of the first assembly of secondary framing.
  - b. At the first assembly of substrates.
  - c. Prior to installing a typical roof curb.
  - d. Prior to installing a typical trim/flashing component.
  - e. Prior to installing an unusual component or condition.
  - f. At final completion of all metal roof system work.
2. The third party metal roof consultant shall provide written and photographic reports, to be submitted to the architect (owner), metal roof system manufacturer, metal roof system installation contractor and general contractor, appraising the installation of the metal roof system at each of the project progress stages. The installation contractor shall make all necessary corrections, additions, or remedial actions to resolve any issue raised in the reports.
3. The third party metal roof consultant shall have the authority to have any and all roof work corrected, as required, to insure the proper installation and weather tightness of the metal roof system.

## 1.03 SYSTEM PERFORMANCE REQUIREMENTS

### A. Performance Testing:

1. Metal roof system must be tested in accordance with Underwriters Laboratories, Inc. (UL) Test Method 580 "Tests for Uplift Resistance of Roof Assemblies".
2. Metal roof system must be installed in accordance with UL Construction method [# choose one:
  - ☐ 180C (min. 14 gauge purlin, 5'-0" O.C. max, min. 1" thick rigid insulation and 29 gauge 9/16" deep deck with articulating clips at 5'-0" max) or
  - ☐ 287 (min. 16 gauge purlin, 5'-0" O.C. max. with low/high articulating clips at 5'-0" O.C. max with Light Transmitting Panels) or
  - ☐ 308A (min. 14 gauge purlin, 5'-0" O.C. max, min. 1" thick rigid insulation and 22 gauge 1 1/2" deep metal deck with articulating clips at 5'-0" O.C. max.) or
  - ☐ 450 (min. 16 gauge purlin, 5'-0" O.C. max. with low/high floating/articulating clips with domed Light Transmitting Panels) or

- ☐ **518** (min. 16 gauge purlin, 5'-0 1/4" O.C. max. with low/high floating/articulating clips with Light Transmitting Panels) or
- ☐ **519** (min. 22 gauge, 1 1/2" deck with max. 6" rigid insulation with low/high floating/articulating clips 5'-0" O.C. max.) or
- ☐ **520** (min. 29 gauge 9/16" deck with max. 6" rigid insulation with low/high floating/articulating clips 5'-0 1/4" O.C. max. with Light Transmitting Panels)]

See the current UL Roofing Materials and Systems Directory for requirements of each construction method.

3. Metal roof system must be tested in accordance with Factory Mutual Research Corporation (FMRC) Standard 4471 for Hail Damage, Fire Resistance and Wind Uplift.
4. Metal roof system must be installed in accordance with FMRC tested procedures yielding: [choose one:
  - ☐ **Class 1-60** (24in. 24ga. panel, using Articulating clips spaced 4'-0" o.c. installed over 16ga. Purlins) or
  - ☐ **Class 1-60** (24in. 24ga. panel, using Floating clips spaced 5'-0" o.c. installed over 16ga. Purlins) or
  - ☐ **Class 1-75** (24in. 22ga. panel, using Floating clips spaced 5'-0" o.c. installed over 16ga. Purlins) or
  - ☐ **Class 1-90** (24in. 22ga. panel, using Floating clips spaced 4'-0" o.c. installed over 16ga. purlins) or
  - ☐ **Class 1-90** (18in. 24ga. panel, using Articulating clips spaced 5'-0" o.c. installed over 16ga. purlins) or
  - ☐ **Class 1-105** (24in 22ga. panel, using Floating clips spaced 3'-6" o.c. installed over 16ga. purlins) or
  - ☐ **Class 1-105** (24in. 22ga. panel, using Articulating clips spaced 4'-0" o.c. installed over 16ga. purlins)].
 Contact CORLE regarding requirements for each construction method.

5. Metal roof system must have details, engineering calculations, computer printouts, and data examined by the ICBO Evaluation Service, Inc. and have been found to comply with the 1997 Uniform Building Code.
6. Metal roof system must qualify for a Class 4 rating when tested in accordance with Underwriters Laboratories, Inc. UL-2218 "Test Standards for Impact Resistance".
7. Resist the roof design pressures calculated in accordance with [# choose one: SBBCI, UBC, BOCA, ASCE or an applicable national or local building code]. Determine panel bending and clip-to-panel strength by testing in accordance with ASTM E 1592-95. Capacity for gauge, span, or loading other than those tested may be determined by interpolating test results.
8. Metal roof system must meet the air infiltration requirements of ASTM E 1680-95 when tested with a 6.24 PSF pressure differential with resulting air infiltration of 0.0071 cfm/sq. ft.

## Seam-Lok

## SPECIFICATIONS

9. Metal roof system must meet the water penetration requirements of ASTM E 1646-95 when tested with a 12.0 PSF pressure differential with no uncontrollable water leakage when five gallons of water per hour is sprayed per square foot of roof area.

**# Specifier:** Select construction method for paragraph A.1. and applicable building code for paragraph A.2.

### 1.04 SUMITTALS

#### A. Shop drawings:

1. Submit complete shop drawings and erection details, approved by the general contractor's third party metal roof consultant, to the architect (owner) for review. Do not proceed with manufacture prior to review of shop drawings. Do not use drawings prepared by the architect (owner) for shop or erection drawings.
2. Shop drawings show methods of erection, elevations, and plans of roof and wall panels, sections and details, anticipated loads, flashings, roof curbs, vents, sealants, interfaces with all materials not supplied, and proposed identification of component parts and their finishes.

#### B. Performance Tests:

1. Submit certified test results by a recognized testing laboratory or manufacturers' lab (witnessed by a professional engineer) in accordance with specified test methods for each panel system.

#### C. Calculations:

1. Submit engineering calculations defining cladding loads for all roof areas based on specified building codes, allowable clip loads, and required number of fasteners to secure the panel clips to the designated substructure.
2. Compute uplift loads on clip fasteners with full recognition of prying forces and eccentric clip loading. Calculate holding strength of fasteners in accordance with submitted test data provided by Fastener Manufacturer based on length of embedment and properties of materials.

#### D. Samples:

1. Submit samples and color chips for all proposed finishes.
  - a. Submit one 8 inch long sample of panel, including chips. Submit two 3 inch X 5 inch chip samples in color selected by the architect (owner).

#### E. Warranty(s):

1. Metal roof manufacturer, upon final acceptance for the project, furnish a warranty [choose one:
  - a. Covering bare metal against rupture, structural failure, and perforation due to normal atmospheric corrosion exposure for a period of 25 years.
  - b. Covering paint finish against cracking, checking, blistering, peeling, flaking, chipping, chalking, and fading for a period of (30) years for wall and roof panels (premium fluorocarbon coating produced with Kynar 500 or Hylar 5000 rein)], (25) years for Galvalume Plus roof panels.

#### F. Test Reports:

1. Submit Test Reports showing that metal panels meet the air infiltration requirements of ASTM E 1680-95 when tested with a 6.24 PSF pressure differential with resulting air infiltration of 0.0071 cfm/sq.ft.
2. Submit Test Reports showing that metal panels meet the water penetration requirements of ASTM E 1646-95 when tested with a 12.00 PSF pressure differential with no uncontrollable water leakage when five gallons of water per hour is sprayed per square foot of roof area.

#### G. Metal Roof System Fabrication Certification:

1. Submit a letter from the metal panel manufacturer certifying the Seam-Lok panels have been produced in a factory environment (not job site) with fixed-base roll forming equipment.

#### H. Third party metal roof consultant approval:

1. Submit a letter from the metal roof system manufacturer indicating acceptance of the general contractor's third party metal roof consultant for use on this specific project.

#### I. Installation contractor's qualifications:

1. Submit certificate from manufacturer certifying that installer of the metal roof system has met all of the criteria outlined in "1.02 C. Installer's Qualifications" and is an authorized installer certified by the manufacturer within one year of the beginning of installation of the metal roof system.
2. Submit the formal syllabus for the classroom and hands-on training.
3. Submit five references from five different architects or building owners for projects that have been in service for a minimum of two years, stating satisfactory performance by the installation contractor.

#### J. Metal Roof System Installation Inspection Reports:

1. Submit written and photographic metal roof system installation inspection reports from the general contractors' third party metal roof consultant appraising the installation of the metal roof system. The written and photographic inspection reports are to be submitted to the architect, owner, metal roof system manufacturer, metal roof system installation contractor and general contractor.
2. A separate report is to be submitted for each of the following stages of the metal roof system installation:
  - a. At completion of the first assembly of secondary framing.
  - b. At the first assembly of substrates.
  - c. Prior to installing a typical roof curb.
  - d. Prior to installing a typical trim/flashings condition.
  - e. Prior to installing an unusual component or condition.
  - f. At final completion of all metal roof system work.

## Seam-Lok

## SPECIFICATIONS

### 1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

#### A. Delivery

1. Deliver metal roof system to job site properly packaged to provide protection against transportation damage.

#### B. Handling:

1. Exercise extreme care in unloading, storing, and erecting metal roof system to prevent bending, warping, twisting, and surface damage.

#### C. Storage:

1. Store all material and accessories above ground on well skidded platforms. Store under waterproof covering. Provide proper ventilation of metal roof system to prevent condensation build-up between each panel or trim/flashing component.

### 1.06 WEATHERTIGHTNESS WARRANTY

- A. If a weathertightness warranty is chosen, the contractor may provide to the owner, a single source warranty signed by the roofing manufacturer of the Seam-Lok Roof System as outlined below:

1. For a period of [# choose one: twenty (20), fifteen (15), ten (10), or five (5) years from the date of substantial completion, the roofing manufacturer WARRANTS to the Building Owner ("Owner"): that the roofing manufacturer's furnished roof panels, flashing, and related items used to fasten the roof panels and flashing to the roof structure ("Roof System") will not allow intrusion of water from the exterior of the roof manufacturer's Roof System into the building envelope, when exposed to ordinary weather conditions and ordinary wear and usage. The date of substantial completion is the date that is certified by the Architect, Owner, or Owner's Representative, when the roofing manufacturer's Roofing System is completed and accepted by or on behalf of the Owner.
2. The roofing manufacturer shall have the SOLE AND EXCLUSIVE obligation for all the warrant work commencing on the date of substantial completion and under all circumstances, terminates on the [#insert appropriate number of years] year anniversary of the date certified as Substantial Completion of the roofing manufacturer's Roof System. During the period in which the roofing manufacturer has any warranty obligation, the roofing manufacturer shall take appropriate actions necessary to cause the non-performing portions of the Roof System to perform their proper functions.

#### B. Roofing Manufacturer's Liability

1. The total liability of the roofing manufacturer under this warranty is [choose one: limited solely to two (2) times the cost of the roofing manufacturer's Roof System as invoiced to the roofing manufacturer's customer, or limited solely to four (4) times the cost of the roofing

manufacturer's Roof System as invoiced to the roofing manufacturer's customer, or unlimited]. The roofing manufacturer shall have the right to charge to the liability account, all reasonable expenses (including, but not limited to, investigation expenses) incurred in satisfying the requirements of this warranty.

#### C. Field Quality Control

1. During installation, provide for three on-site inspections of roof application by qualified technical representatives of the manufacturer.
2. Upon completion of installation, provide final inspection by a technical representative of roofing manufacturer to confirm that roofing system has been installed in accordance with manufacturer's requirements.
3. At completion of project, submit manufacturer's quality report of field inspections, including final inspection punch list.

#### D. Contact Corle for weather tightness warranty pricing.

### PART 2 – PRODUCTS

[# Seam-Lok structural standing seam metal roof system; minimum slope of ¼:12]

#### 2.01 MATERIALS

##### A. Metal roof system profile:

1. 3 inch high rib x [# choose one: 24" or 18"] wide panel.

##### B. Metal roof system style:

1. Trapezoidal rib, positive snap together, standing seam, utilizing male and female rib configurations, with factory applied hot melt mastic in female rib.

##### C. Gauge: [#choose one]

1. 22 gauge (UL-90 rated – Underwriters Labs)
2. 24 gauge (UL-90 rated – Underwriters Labs)

##### D. Substrate:

1. Galvalume Plus® steel sheet, 0.5 ounces/sq. foot, minimum yield of 50,000 PSI.

##### E. Clip:

1. Two piece floating clip providing thermal expansion or contraction (UL-90 rated – Underwriters Labs).
2. Articulating clip, providing thermal expansion or contraction, correcting for out-of-plane sub-framing alignment to a maximum of 7 degrees (UL-90 rated – Underwriters Labs)
3. One piece fixed clip 22 gauge with factory applied mastic (UL-90 rated – Underwriters Labs).



# Seam-Lok

# SPECIFICATIONS

## F. Texture:

1. Smooth.

## G. Finish: [#Choose one]

1. Premium fluorocarbon coating produced with Kynar 500 or Hylar resin (30 year warranty).
2. Bare Galvalume Plus® (25 year warranty).

## H. Color:

1. Selected from metal roof system manufacturer's standard offering.

## I. Acceptable Manufacturer:

1. CORLE – Imler, PA – (814) 276-9611.
2. # Insert: Architects' (owners) method of approval of "or equals".

## J. Other manufacturers desiring approval comply with Section 01630.

## K. Acceptable Curb and Equipment Support units:

1. Design Components – Fayetteville, GA.
2. Kentuckiana Curbs – Louisville, KY.

## L. Prefabricated Roof Jacks:

1. Construction Fasteners – Wyomissing, PA.
2. ITW Buildex – Itasca, IL.

## M. Rooftop Walkways:

1. Design Components – Fayetteville, GA.

## 2.02 MISCELLANEOUS MATERIALS

### A. Fasteners:

1. All self-tapping/self-drilling fasteners, bolts, nuts, self-locking rivets and other suitable fasteners shall be designed to withstand specified design loads.
  - a. Use long life fasteners for all exposed fastener applications.
  - b. Provide fasteners with a factory applied coating in a color to match metal roof system application.
  - c. Provide neoprene washers under heads of exposed fasteners.
  - d. Locate and space all exposed fasteners in a true vertical and horizontal alignment. Use proper torque settings to obtain controlled uniform compression for a positive seal without rupturing the neoprene washer.

### B. Closures:

1. Metal roof system must be installed with die cast metal closures at all ridge and high eave transitions. These die cast metal closures must be installed with mastic and fasteners that stitch the panel to a 16 gauge pre-formed backer plate to ensure a positive compression of the tape sealant. The use of a continuous angle butted to the panel ends to form a closure is not an acceptable installation method.

### C. Accessories:

1. Provide all components required per the metal roof system manufacturer's approved shop drawings for a complete metal roof system to include panels, panel clips, trim/flashing, fascias, ridge closures, sealants, fillers, and any other required items.

- a. All outside closures will be fabricated from Galvalume Plus® sheet steel of the same gauge, finish, and color as the panels.
- b. All tape seal is to be pressure sensitive, 100 percent solids, polyisobutylene compound sealing tape with a release paper backing. Provide permanently elastic, non-sagging, non-toxic, non-staining tape seal approved by the metal roof system manufacturer.
- c. All joint sealant is to be a one-part elastomeric polyurethane sealant approved by the metal roof system manufacturer.

## 2.03 FABRICATION

- a. Material shall be in-line tension leveled prior to roll forming panel profile.
- b. Where possible, roll form panels in continuous lengths, full length of detailed runs.
- c. Standard panel length shall be no more than 45 feet long (for longer length availability, contact manufacturer).
- d. Fabricate trim, flashing and accessories to detailed profiles.
- e. Fabricate trim and flashing from same material as panel.

## 2.04 PREFABRICATED CURBS AND EQUIPMENT SUPPORTS

- a. General: Comply with loading and strength requirements as indicated where units support other work. Coordinate dimensions of curbs and supports with equipment supplier/manufacturer.
- b. Fabricate curbs of structural quality hot dipped galvanized or Galvalume® sheet steel, factory primed and prepared for painting with mitered and welded corner joints. Provide integral base plates and water diverter crickets. Front base plate shall be a minimum of 18" from beginning of water diverter. Curbs shall be designed to install over metal roof system on the low side.
- c. Minimum height of curb shall be 8" above finished metal roof system.
- d. Curbs shall be constructed to match slope of roof and provide a level top surface for mounting equipment.
- e. Curb flanges shall be constructed to match configuration of roof panels.
- f. Submit roof curb manufacturer's shop drawings to metal roof system manufacturer for approval before fabrication of curbs.

## 2.05 PREFABRICATED ROOF JACKS

- a. Pipe flashings shall be a one piece (# choose one: EPDM [ethylene propylene diene monomer]) molded rubber boot having a serviceable temperature range of -60°F to 270°F (for standard applications) or neoprene molded rubber boot having a serviceable temperature range of -45°F to 250°F (for exposure to petrochemicals) or silicone molded rubber boot having a serviceable temperature range of -100°F to 450°F (for high temperature applications) and shall be resistant to ozone and ultraviolet rays. Units shall have an aluminum flanged base ring. Do not install pipe flashings through any panel seams- install ONLY in the flat portion of the panel.

# Seam-Lok

# SPECIFICATIONS

## PART 3 – EXECUTION

### 3.01 SURFACE CONDITIONS

#### A. Examination:

1. Inspect installed work of other trades and verify that such work is complete to a point where this work may continue. Verify that installation may be made in accordance with approved shop drawings and manufacturers' instructions. This specifically includes verifying that secondary structurals and/or decking are installed to meet UL and building code requirements. Coordinate with metal roof system manufacturer to insure that reduced clip spacing at eave, rake, ridge, and corner areas are accommodated.

#### B. Discrepancies:

1. In event of discrepancy, notify the architect (owner).
2. Do not proceed with installation until discrepancies have been resolved.

### 3.02 INSTALLATION

1. Install metal roof system so that it is weather tight, without waves, warps, buckles, fastening stresses, or distortion, allowing for expansion and contraction.
2. Install metal roof system in accordance with manufacturer's instructions and shop drawings.
3. Provide concealed anchors at all panel attachment locations.
4. Install panels plumb, level, and straight with seams and ribs parallel, conforming to design as indicated.

### 3.03 ROOF CURB INSTALLATION

1. Comply with metal roof system manufacturer's shop drawings, instructions, and recommendations for installation of roof curbs. Refer to metal roof system manufacturer's standard installation details. Anchor curbs securely in place with provisions for thermal and structural movement.

### 3.04 CLEANING PROTECTION

1. Dispose of excess materials and remove debris from site.
2. Clean work in accordance with manufacturer's recommendations.
3. Protect work against damage until final acceptance. Replace or repair to the satisfaction of the architect (owner), any work that becomes damaged prior to final acceptance.
4. Touch up minor scratches and abrasions.
5. Do not allow panels or trim to come into contact with dissimilar metals such as copper, lead, or graphite. Water runoff from these materials is also prohibited. This specifically includes condensate from roof top A/C units.

**END OF SECTION**

#### DISCLAIMER:

*CORLE makes no warranty, expressed or implied, as to the merchantability or fitness for any particular purpose of any product manufactured by an optional manufacturer. If you choose to use a product manufactured by an optional manufacturer, as defined herein, you take the product as is and at your own risk.*

*Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. CORLE reserves the right to discontinue products at any time or change specifications and/or designs without notice and without incurring obligation.*

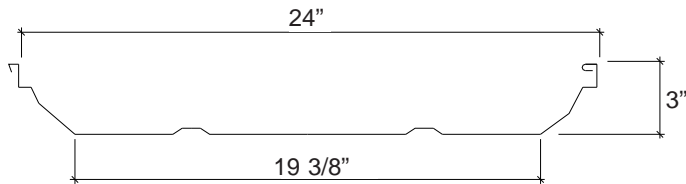
**To insure you have the latest information available, please contact CORLE or visit our web site at [www.corle.com](http://www.corle.com)**

# Seam-Lok

## General Information - Product Checklist

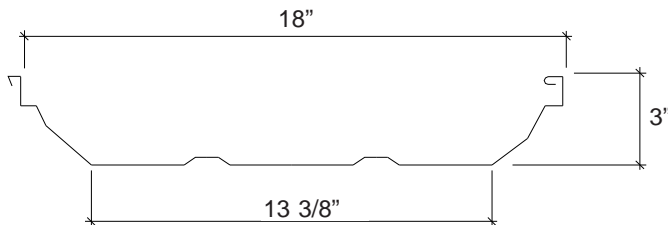
### Seam-Lok 24" Panel

- 24 or 22 gauge
- Factory-applied mastic



### Seam-Lok 18" Panel

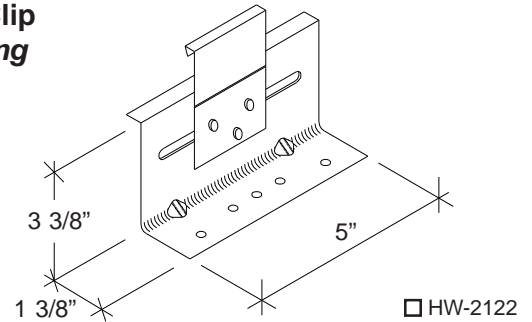
- 24 or 22 gauge
- Factory-applied mastic



\*Total clip movement should be calculated for each project based on the articulated temperature differential of the area in which the project is located.

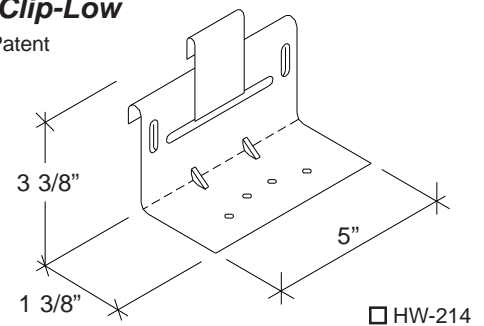
\*Floating clips have a maximum of 1-3/8" movement each direction. Articulating clips have a maximum movement of 1 1/4" each direction. Thermal calculations should be performed for each project to ensure that the thermal movement of the roof is not more than the clips can handle.

### Standard Clip Low Floating

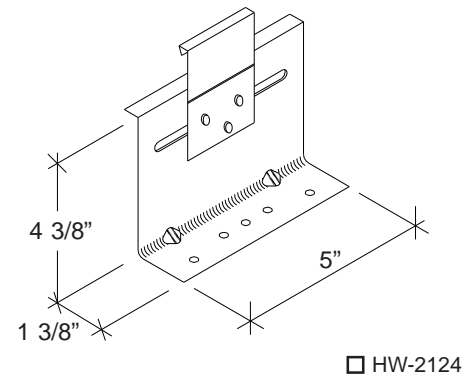


### Articulating\* Clip-Low

\*Protected by U.S. Patent  
 No. 4,796,403

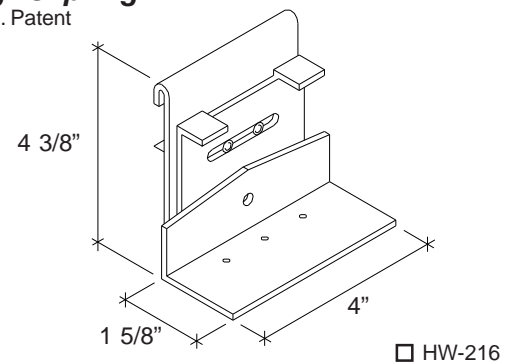


### Standard Clip High Floating



### Articulating\* Clip-High

\*Protected by U.S. Patent  
 No. 4,796,403

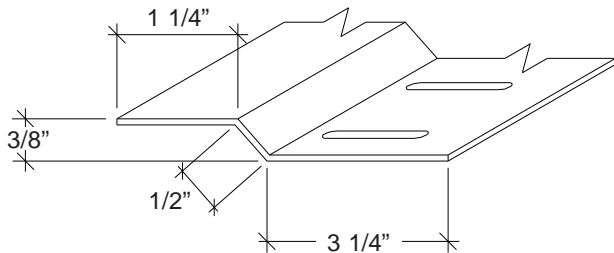


# Seam-Lok

## General Information - Product Checklist

### Fixed or Floating Eave Plate

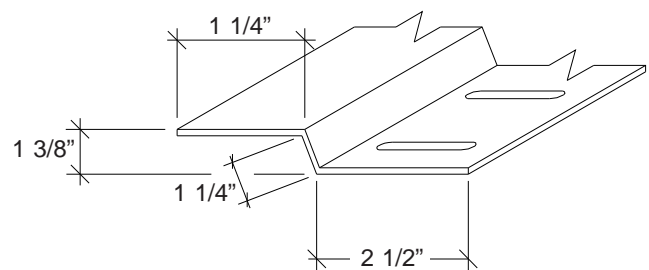
- 8'-0" length
- 16 gauge galvanized
- Factory slots
- For use with low clips



□ EP-LOW

### Fixed or Floating Eave Plate, High

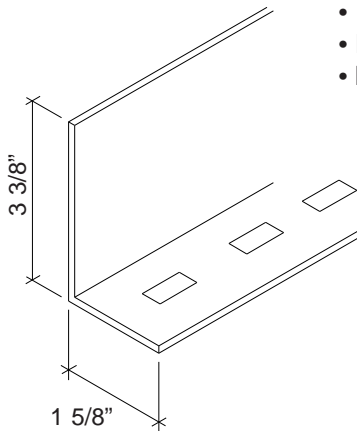
- 8'-0" length
- 16 gauge galvanized
- Factory slots
- For use with high clips



□ EP-HIGH

### Rake Support, Low

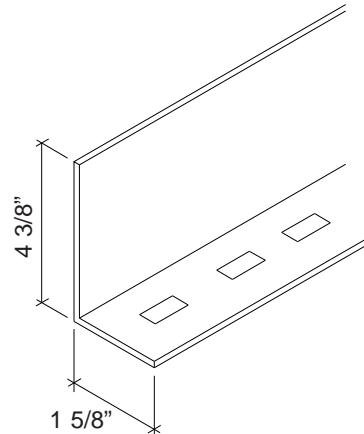
- 20'-0" length
- 16 gauge galvanized
- Factory slots
- For use with low clips



□ RS-LOW

### Rake Support, High

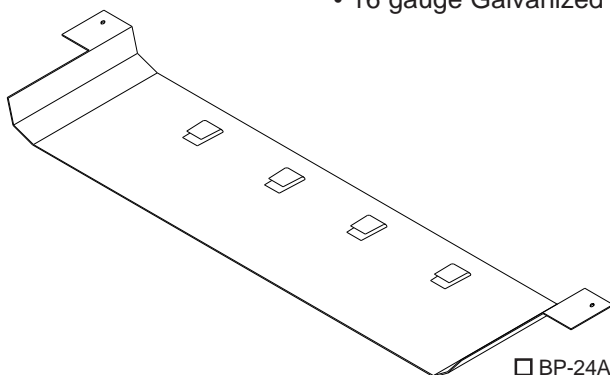
- 20'-0" length
- 16 gauge galvanized
- Factory slots
- For use with high clips



□ RS-HIGH

### Back-up Plate\* (24" or 18")

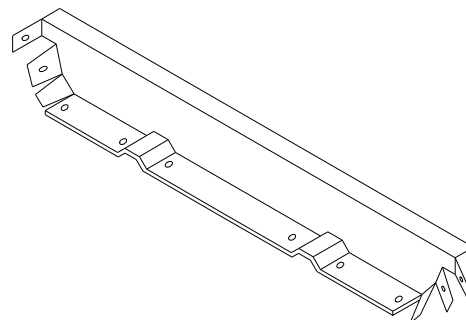
- For use at endlaps, ridge, and high eave.
- 16 gauge Galvanized



□ BP-24A  
□ BP-18A

### Outside Closure, High Eave and Transitions (24" or 18")

- For use at ridge.
- 24 gauge



□ 24-SSOSCL  
□ 18-SSOSCL

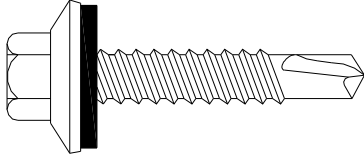


# Seam-Lok

# General Information - Product Checklist

## □ FST#1

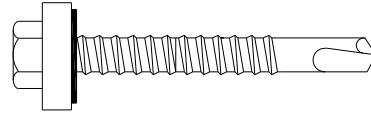
- Clip to purlin
- Eave plate to eave strut



1/4" - 14 x 1-1/4"  
 5/16" Hex Head with 5/8" O.D. Washer

## □ SD150

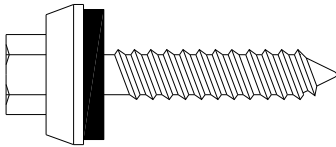
- Rake trim to roof panel
- Outside closure
- Endlap
- Lite Panels
- Roof Curbs



12-14 x 1 1/2" Long Life Self Driller  
 5/16" Hex Washer Head with sealing washer  
 (Long life exterior fastener)

## □ FST#2A

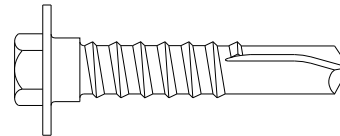
- Use in place of SD150 and FST#4 at all stripouts



17 x 3/4" Type AB Long Life  
 5/16" Hex Washer Head with sealing washer  
 (Long life exterior fastener)

## □ FST #5

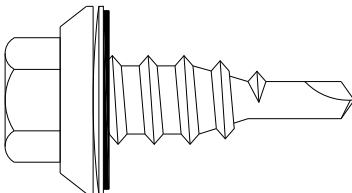
- Rake support to rake angle.
- Floating eave plate to eave strut.
- Eave plate to hip support plate.



1/4" x 20 x 1 1/4" Shoulder  
 5/16" Hex Washer Head, no washer

## □ FST#4

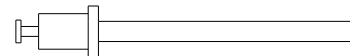
- Ridge and other flashing to outside closure
- Gutter to panel
- Gutter to strap
- Trim to trim connections
- Panel to Eave Plate



1/4" x 14 x 7/8" Lap Tek Long Life Self Driller  
 5/16" Hex Washer Head with sealing washer  
 (Long life exterior fastener)

## □ FST#14

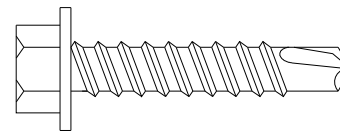
- Gutter splices, outlets and end caps.
- Eave trim to eave plate.



1 1/8" x 3/16" Pop Rivet

## □ TEK1

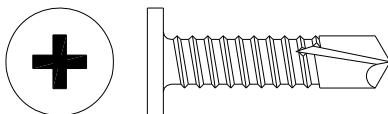
- Inside closure to eave plate or eave strut.
- Outside closure to eave plate at hip conditions.



1/4" x 14 x 1"  
 5/16" Hex Washer Head with 7/16" O.D. Washer

## □ FST #12

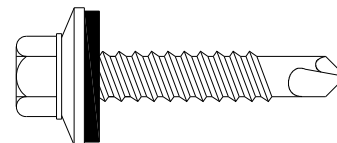
- Valley/Hip support plates to purlin
- Rake angle to purlins



10-16 x 1"  
 #2 Phillips Pancake Head Driller

## □ FST#6

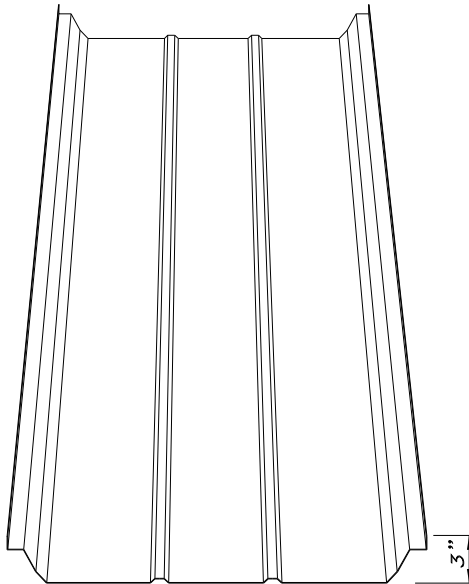
- Clip to joist.
- Eave plate to joist.



12 - 24 x 1 1/4" TEK 4.5  
 5/16" Hex Washer Head with 5/8" O.D. Washer

# Seam-Lok

## General Information - Product Checklist



10'-3" LONG

### FIELD INSTALLED LTP KIT

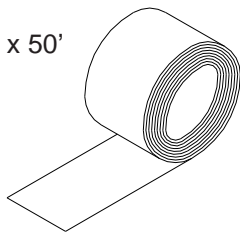
- Seam-Lok or Snap Seal
- Insulated or Non-Insulated
- 24" or 18"

### Each LTP Kit Includes:

- (1) LTP Panel
- (2) Repair Caps
- (2) Back-Up Plates
- (1) Fastener Bag (Unpainted)
- (2) Tubes of Urethane Sealant
- (2) Rolls of Tri-Bead Tape Sealer

### Mastic

1/8" x 1" x 50'



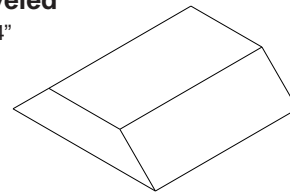
- Used at the eave, outside closures, trim connections, hips and valleys.

95-9T1 ☐

### Tape Sealer - Minor Rib

Pre-Cut Beveled

7/32" x 1 3/8" x 4"

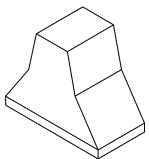


- Used to fill void at minor ribs of the panel at the eave.

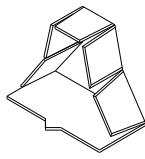
95-9Z ☐

### Inside Closure

- Metal or E.P.D.M. rubber
- For use at the eave



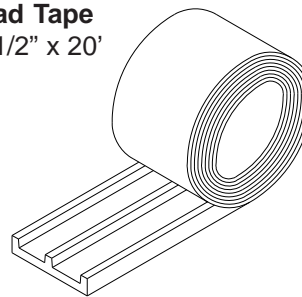
(E.P.D.M.) R-SSISCL ☐



(Metal) M-SSISCL ☐

### Triple Bead Tape

3/16" x 2-1/2" x 20'

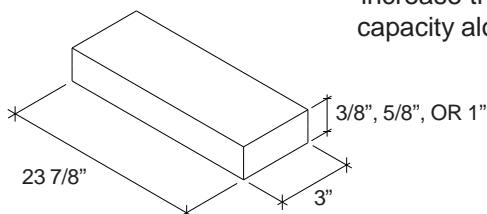


- Used at endlaps and roof curbs.

82-6W ☐

### Thermal Spacer

- Polystyrene block used to increase the insulation capacity along the purlins



THSP 3/8" ☐

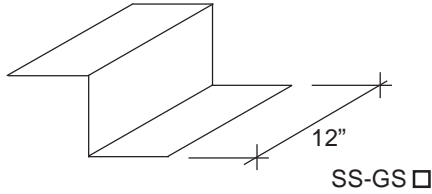
THSP 5/8" ☐

THSP 1" ☐

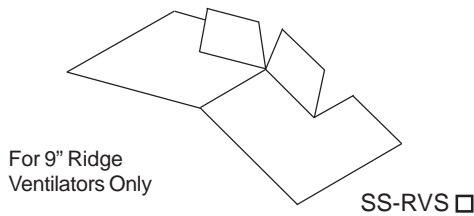
# Seam-Lok

# General Information - Product Checklist

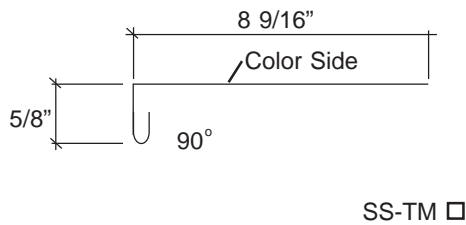
**Gutter Strap**



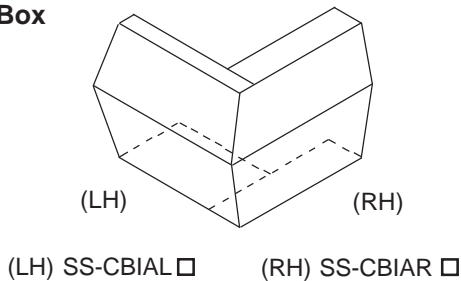
**Ridge Ventilator End Skirt**



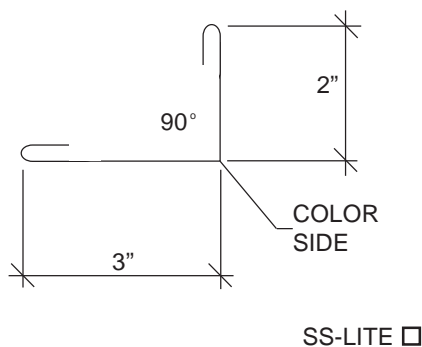
**Variable Termination**



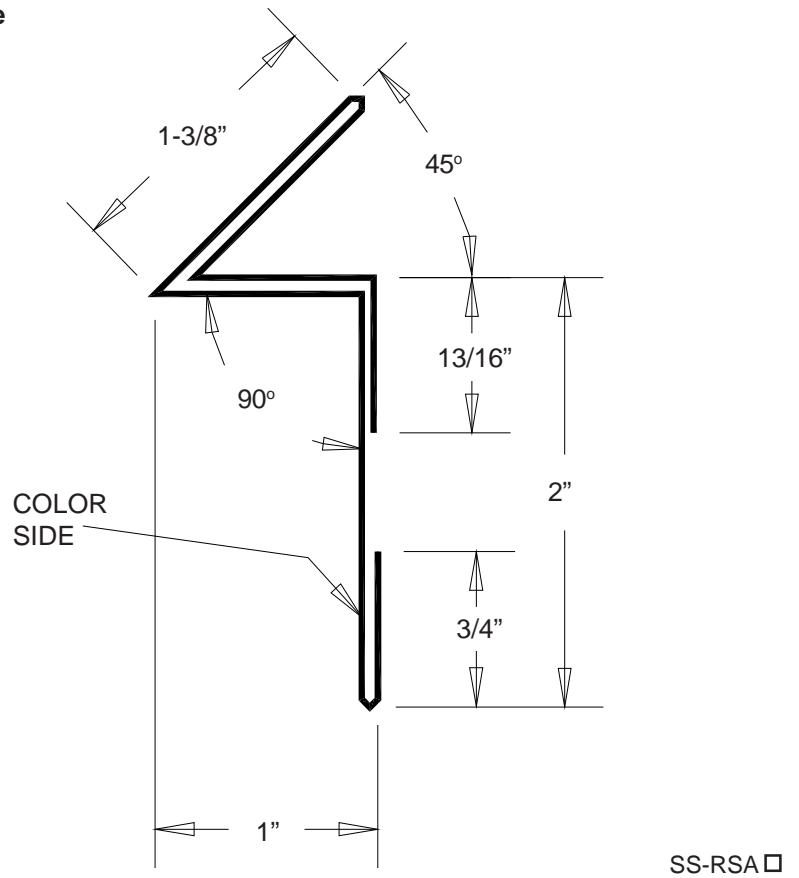
**Corner Box**



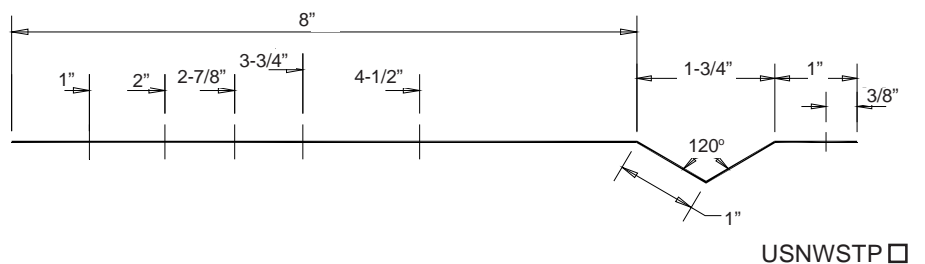
**Light Transmitting Panel Trim**



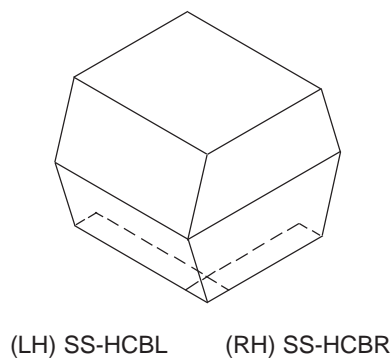
**Rake Slide**



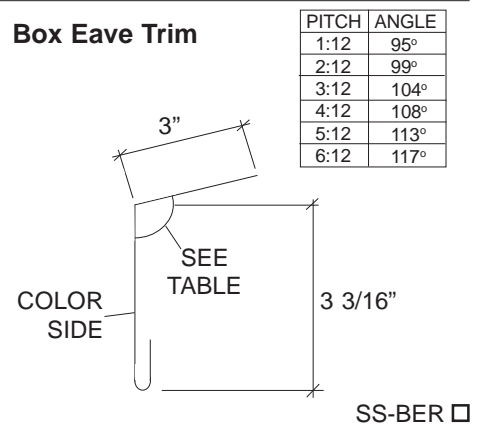
**Universal Snow Gutter Strap**



**High Side Corner Box**



**Box Eave Trim**

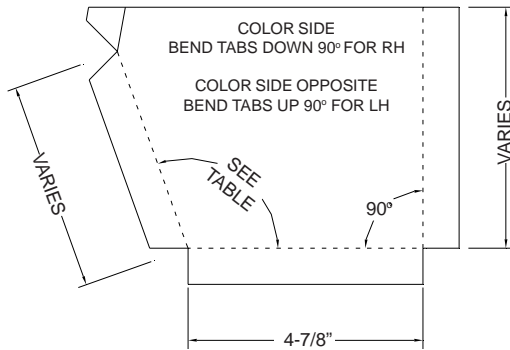


# Seam-Lok

## General Information - Product Checklist

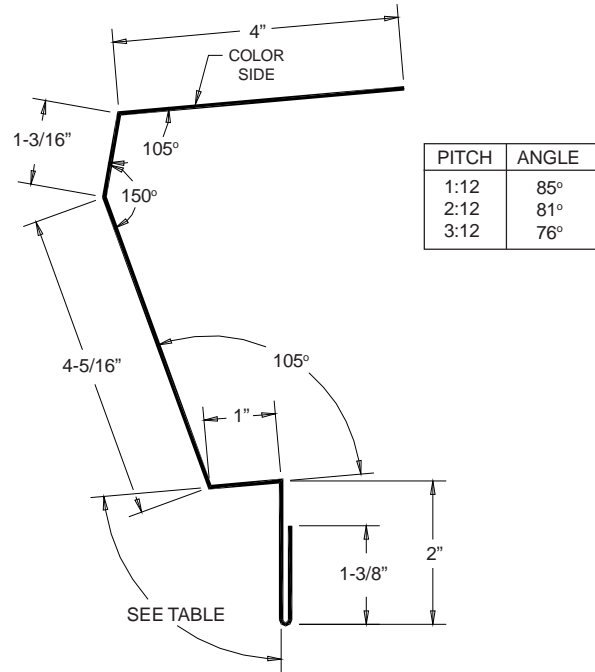
### Gutter Cap(s)

PITCH	ANGLE	PITCH	ANGLE
1:12	95°	4:12	108°
2:12	99°	5:12	113°
3:12	104°	6:12	117°



STANDARD GUTTER		SNOW GUTTER	
LH	RH	LH	RH
SS-GCBL	SS-GCBL	SS-SCAPL	SS-SCAPR

### Sculptured Eave Trim

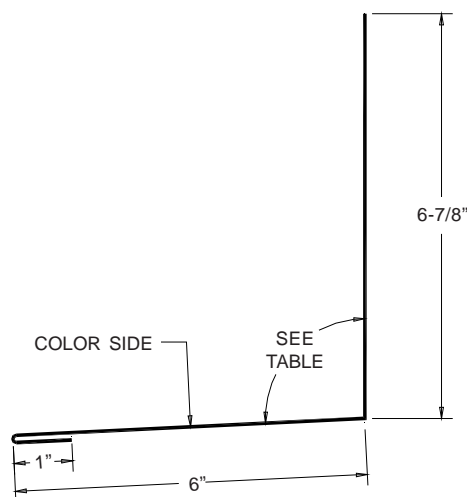


PITCH	ANGLE
1:12	85°
2:12	81°
3:12	76°

SS-DXLEB □

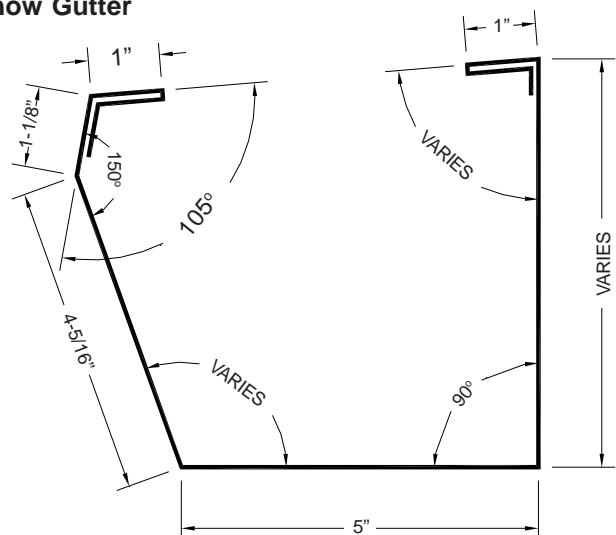
### Perpendicular Transition Trim

PITCH	ANGLE	PITCH	ANGLE
1:12	95°	4:12	108°
2:12	99°	5:12	113°
3:12	104°	6:12	117°



ITT-1A □

### Snow Gutter



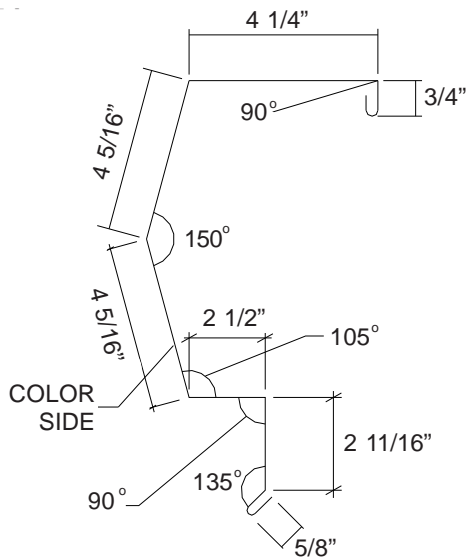
SGUT1616

PITCH	"A"	"B"
1:12	110°	85°
2:12	114°	81°
3:12	119°	76°
4:12	123°	72°
5:12	128°	67°
6:12	132°	63°

# Seam-Lok

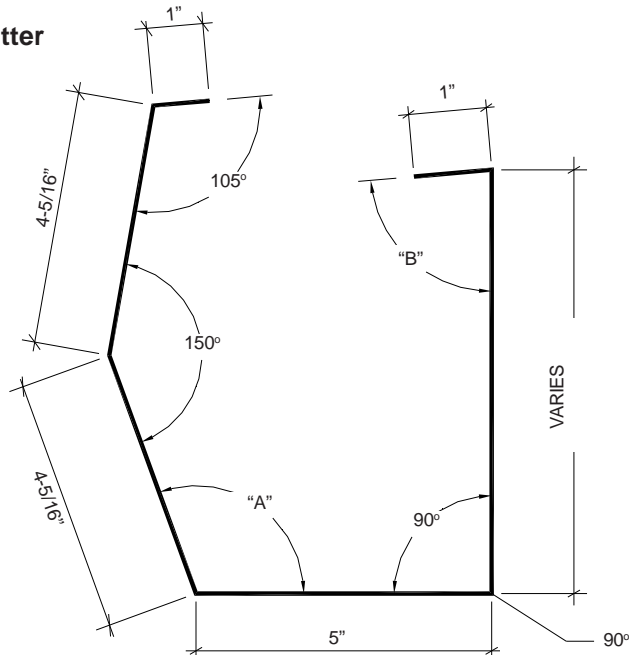
# General Information - Product Checklist

## Rake T



- (16' 3") SS-R1 (With Wall Panel) ☐
- (20' 3") SS-R1-2 (With Wall Panel) ☐
- (16' 3") SS-R2 (Without Wall Panel) ☐
- (20' 3") SS-R2-2 (Without Wall Panel) ☐

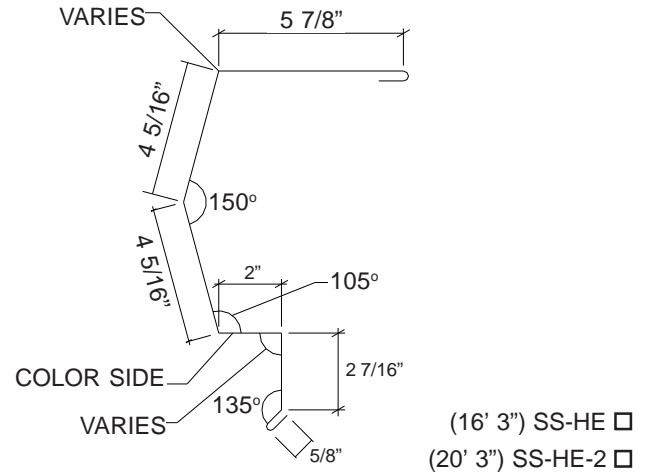
## Gutter



SGUT1616

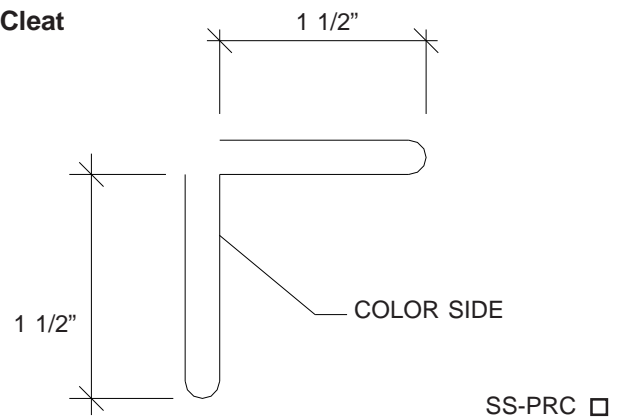
PITCH	"A"	"B"
1:12	110°	85°
2:12	114°	81°
3:12	119°	76°
4:12	123°	72°
5:12	128°	67°
6:12	132°	63°

## High Side Eave Trim

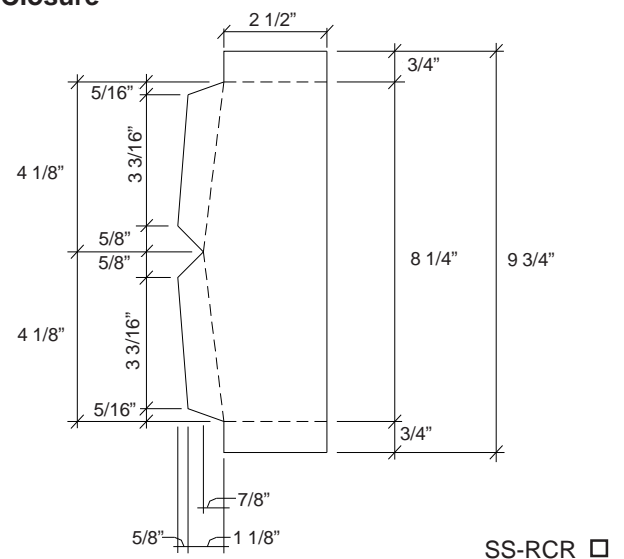


- (16' 3") SS-HE ☐
- (20' 3") SS-HE-2 ☐

## Rake Cleat

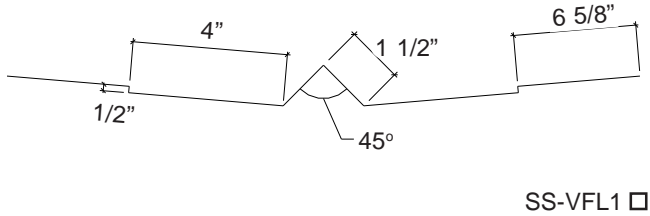


## Rake Closure

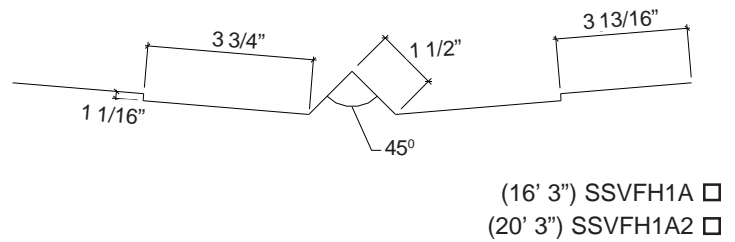


# Seam-Lok General Information - Product Checklist

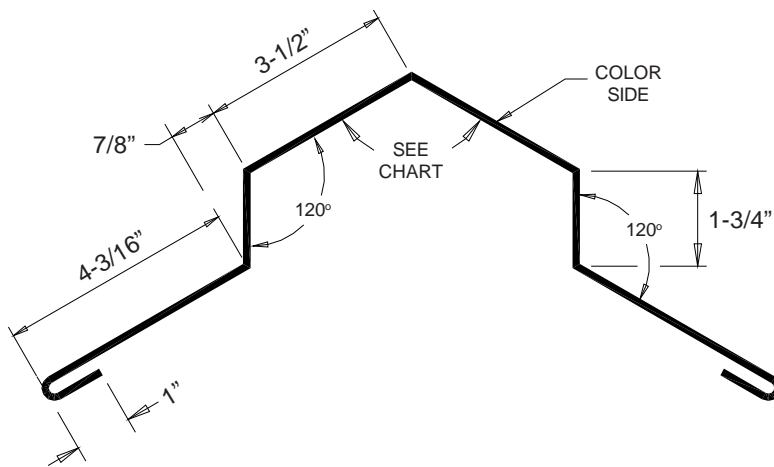
## Standard Valley - Low System



## Standard Valley - High System



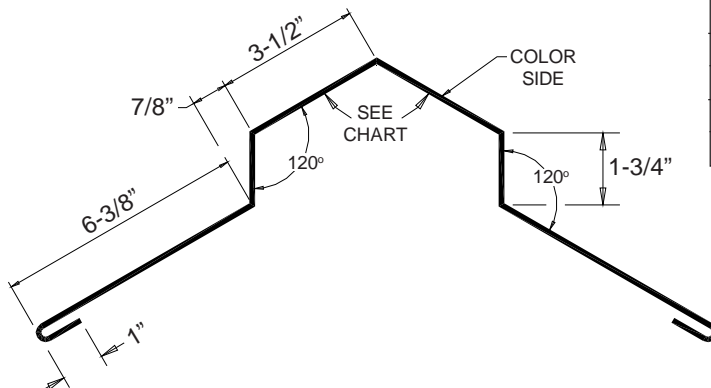
## Ridge Flashing



PART	LENGTH	PURLIN DEPTH	NOMINAL PITCH	ROOF PITCH
SS-RC1	16' 3"	8" - 12"	1:12	0 - 1.50
SSRC1-2	20' 3"	8" - 12"	1:12	
SS-RC2A	16' 3"	8"	2:12	1.51 - 2.75
SSRC2A-2	20' 3"	8"	2:12	
SS-RC2A	16' 3"	10"	2:12	1.51 - 2.50
SSRC2A-2	20' 3"	10"	2:12	
SS-RC2A	16' 3"	11-1/2"	2:12	1.51 - 2.25
SSRC2A-2	20' 3"	11-1/2"	2:12	
SS-RC2A	16' 3"	12"	2:12	1.51 - 2.25
SSRC2A-2	20' 3"	12"	2:12	

ANGLE TABLE	
PITCH	ANGLE
.25:12	178°
.50:12	175°
.75:12	173°
1:12	170°
1.25:12	168°
1.50:12	166°
2:12	163°
2.25:12	159°
2.50:12	156°
2.75:12	154°

## Ridge Flashing



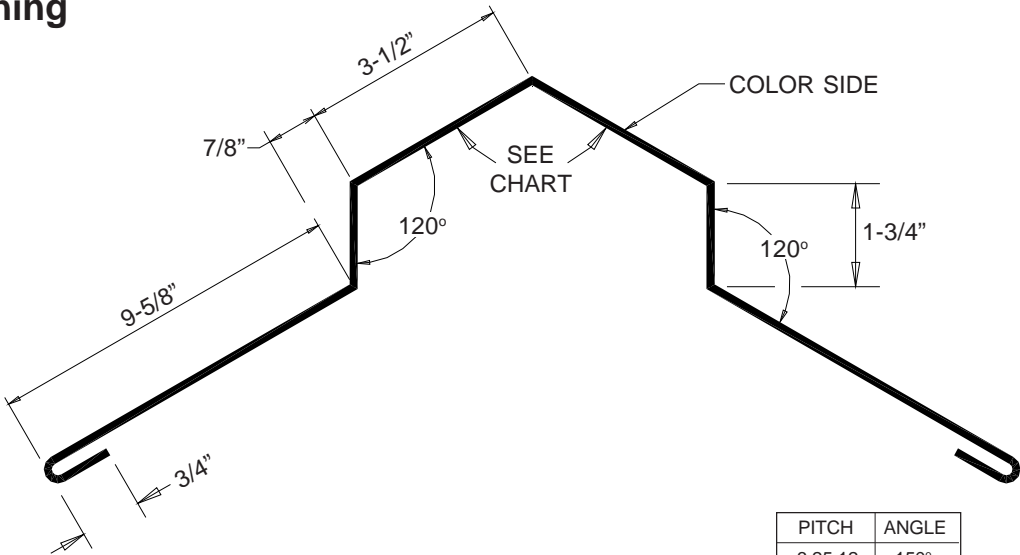
PART	LENGTH	PURLIN DEPTH	NOMINAL PITCH	ROOF PITCH
SS-RC3	16' 3"	8"	3:12	2.76 - 3.75
SS-RC3	16' 3"	10"	3:12	2.51 - 3.25
SS-RC3	16' 3"	11-1/2"	3:12	2.26 - 3.25
SS-RC3	16' 3"	12"	3:12	2.26 - 3.25

PITCH	ANGLE
2.25:12	159°
2.50:12	156°
2.75:12	154°
3.00:12	152°
3.25:12	150°
3.50:12	147°
3.75:12	145°

Seam-Lok

General Information - Product Checklist

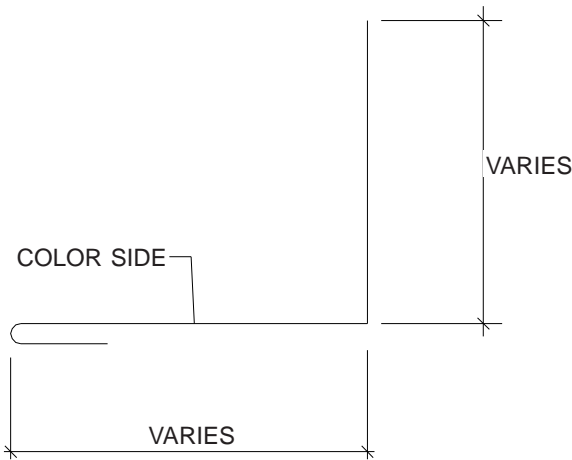
Ridge Flashing



PART	LENGTH	PURLIN DEPTH	NOMINAL PITCH	ROOF PITCH
SS-RC4	16' 3"	8"	4:12	3.52 - 4.25
SS-RC5	16' 3"	8"	5:12	4.26 - 5.50
SS-RC6	16' 3"	8"	6:12	5.51 - 7.75
SS-RC4	16' 3"	10"	4:12	3.51 - 4.25
SS-RC5	16' 3"	10"	5:12	4.26 - 5.50
SS-RC6	16' 3"	10"	6:12	5.51 - 6.75
SS-RC4	16' 3"	11-1/2"	4:12	3.51 - 4.25
SS-RC5	16' 3"	11-1/2"	5:12	4.26 - 5.50
SS-RC6	16' 3"	11-1/2"	6:12	5.51 - 6.25
SS-RC4	16' 3"	12"	4:12	3.51 - 4.25
SS-RC5	16' 3"	12"	5:12	4.26 - 5.50
SS-RC6	16' 3"	12"	6:12	5.51 - 6.00

PITCH	ANGLE
3.25:12	150°
3.50:12	147°
3.75:12	145°
4.00:12	143°
4.25:12	141°
4.50:12	139°
4.75:12	137°
5.00:12	135°
5.25:12	133°
5.50:12	131°
5.75:12	129°
6.00:12	127°
6.25:12	125°
6.50:12	123°
6.75:12	121°
7.00:12	119°
7.25:12	118°
7.50:12	116°
7.75:12	114°

Transition Trim  
 (Floating-Off Module)



- SS-FLOF1 ☐
- SS-FLOF2 ☐
- SS-FLOF3 ☐
- SS-FLOF4 ☐
- SS-FLOF5 ☐

## Seam-Lok

## General Information

### PREPARATORY REQUIREMENTS

1. A single pitch eave strut must be used with the Seam-Lok roof system.
2. Make sure a rake angle has been installed on top of the purlins.
3. The walls do not have to be erected before the roof is installed. However, for the purpose of this manual, we have assumed that the wall panels have been installed.
4. All primary and secondary framing must be erected, plumbed and squared with bolts tightened according to accepted building practices.
5. The substructure (eave to ridge) must be on plane (1/4" in 20' or 3/8" in 40' tolerance).
6. **Seam-Lok** can be erected on various types of construction. However, for the purpose of this manual, we have assumed that the roof will be installed on a new, pre-engineered metal building.
7. **Seam-Lok** roof panels can be furnished in 24" and 18" widths. However, for the purpose of this manual, we have assumed that the roof panels are 24" wide.
8. It is critical that the purlins or joists at the ridge and endlaps be exactly located as detailed and that they are straight from rafter to rafter. Any mislocation or bowing of these members can cause the fasteners at the endlaps or outside closures to foul as the panels expand and contract.
9. Peak purlin spacing - 18" (9" from the centerline of the building).
10. **If your roof is to be UL-90 rated, see special UL 90 requirements on page SL-6.**
11. Read recommended erection practices on Pages SL-52 and SL-53 before proceeding with roof installation.
12. **CORLE recommends the use of a screw gun with a speed range of 0-2000 RPM to properly install all fasteners referenced in this manual. Tools rated to 4000 RPM should never be used for self-drilling fasteners typically applied with metal building components.**

#### NOTE

It is the responsibility of the erector to install this roof using safe construction practices that are in compliance with OSHA regulations. CORLE is not responsible for the performance of this roof system if it is not installed in accordance with the instructions shown in this manual. Deviations from these instructions and details must be approved in writing by CORLE.

#### CAUTION

Diaphragm capabilities and purlin stability are not provided by CORLE's **Seam-Lok** roof system. Therefore, other bracing may be required.

#### CAUTION

The minimum recommended slope for the roof system is 1/4 on 12. A slope of less than 1/4 on 12 could cause severe ponding and will void material warranties.

#### CAUTION

Application and design details are for illustration purposes only, and may not be appropriate for all environmental conditions or building designs. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices.

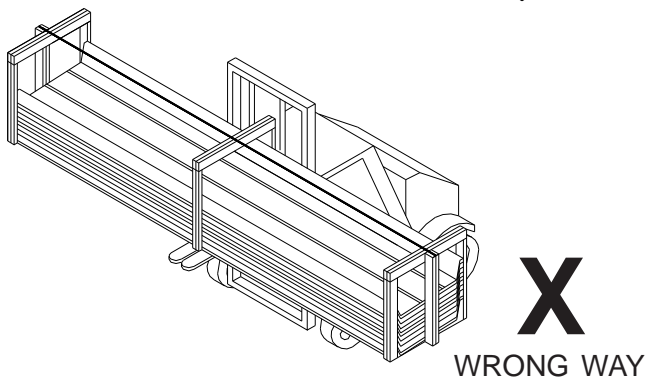
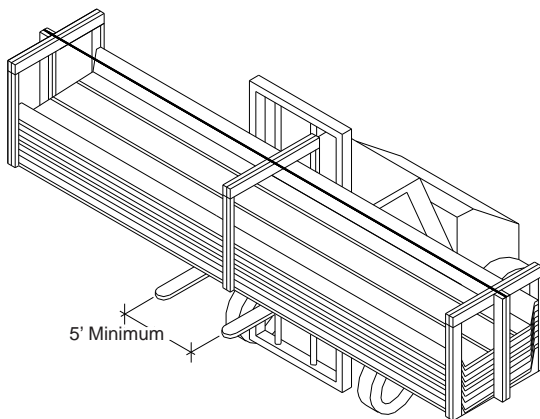
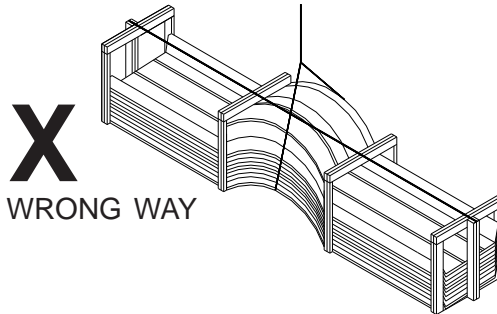
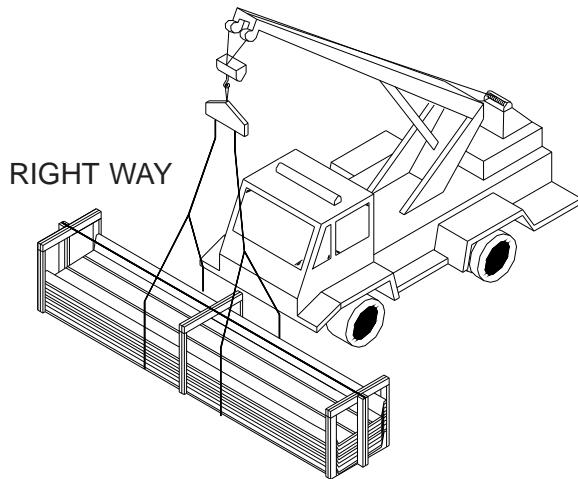
#### WARNING

**Light transmitting panels are not designed or intended to bear the weight of any person walking, stepping, standing or resting on them. CORLE DISCLAIMS ANY WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, that any person can safely walk, step, stand or rest on or near these light transmitting panels or that they comply with any OSHA regulation.**



## Seam-Lok

## General Information



### UNLOADING

Upon receiving material, check shipment against shipping list for shortages and damages. CORLE will not be responsible for shortages or damages unless they are noted on the shipping list.

Each bundle should be lifted at its center of gravity. Where possible, bundles should remain bundled until final placement on roof. If bundles must be opened, they should be retied before lifting.

When lifting bundles with a crane, a spreader bar and nylon straps should be used. **NEVER USE WIRE ROPE SLINGS - THEY WILL DAMAGE THE PANELS.**

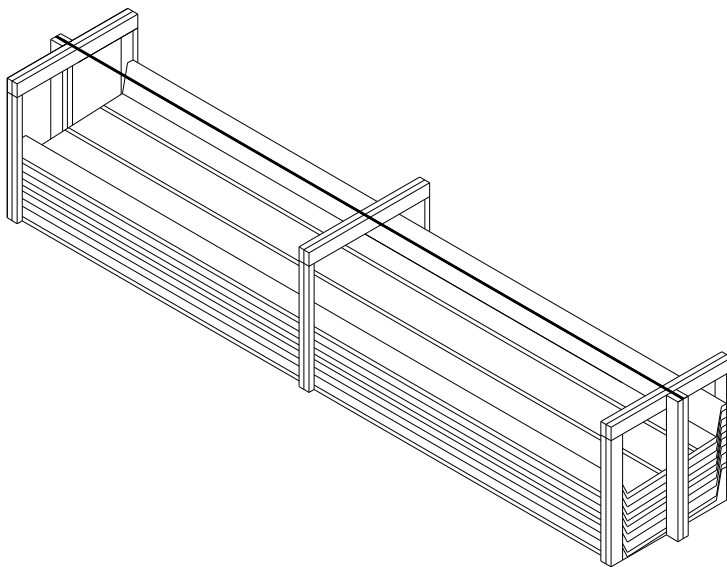
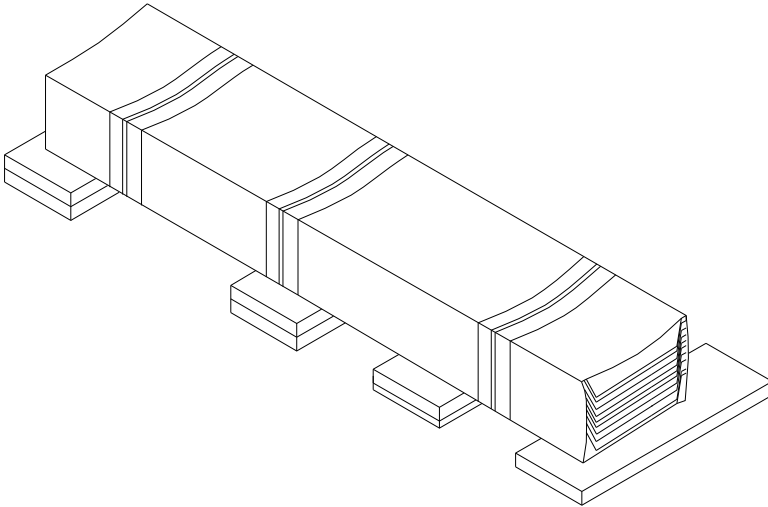
When lifting bundles with a forklift, forks must be a minimum of five feet apart. **DO NOT** transport open bundles. Drive slowly when crossing rough terrain to prevent buckling.

### CAUTION

Improper unloading and handling of bundles and crates may cause bodily injury or material damage. The manufacturer is not responsible for bodily injuries or material damages during unloading and storage.

## Seam-Lok

## General Information



### UNLOADING (continued)

#### FULL CRATE

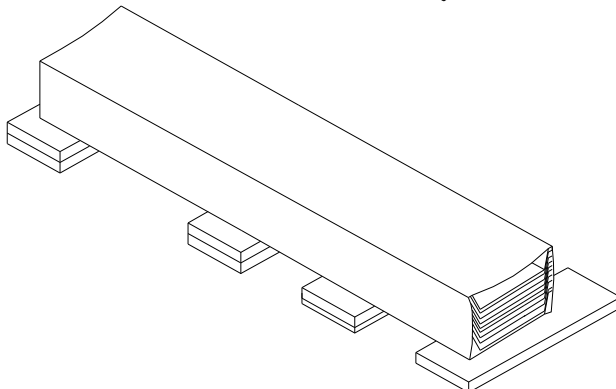
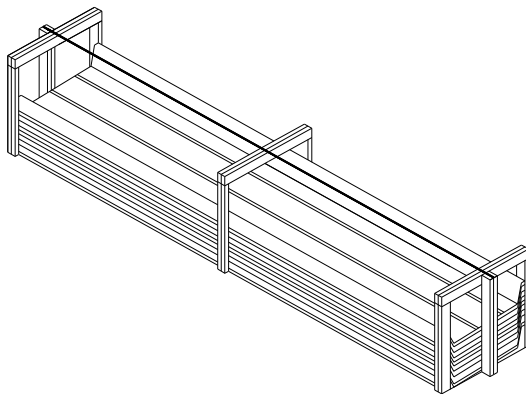
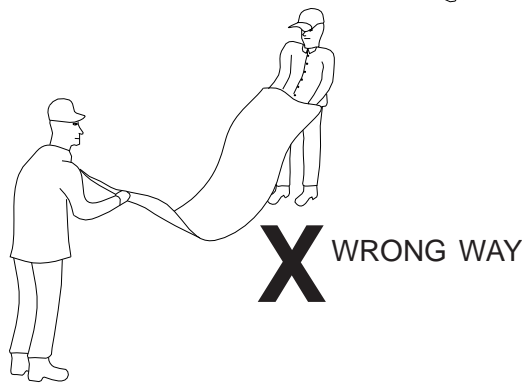
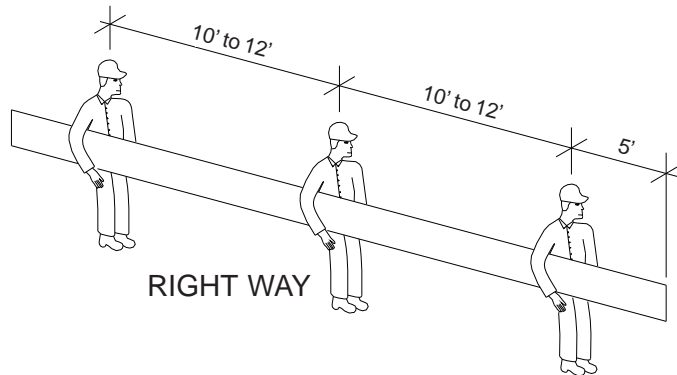
This method is used only on shipments requested by customer's order. 2x4's are strapped under the bundles to allow access for straps or a forklift. Bundles less than 25' long may be handled by a forklift. The forklift should have at least 5' between forks. Bundles longer than 25' should be lifted utilizing a spreader bar with nylon straps. This procedure will require an additional packaging charge to be considered at time of estimating.

#### BAND ONLY

This method is used by CORLE for all deliveries. The panels are banded together without 2x4's causing them to curl up. This enhances the strength of the bundles. Panels bundled in this manner may be handled by a forklift in lengths to 30'. The forklift should have at least 5' between forks. Lengths in excess of 30' must be lifted utilizing a spreader bar. Special care must be given during handling to avoid damage to the locking edges of the panels.

## Seam-Lok

## Erection Sequence



### HANDLING/ PANEL STORAGE

Standing on one side of the panel, lift it by the seam. If the panel is over 10' long, lift it with two or more people on one side to prevent buckling.

Do not pick panels up by the ends.

#### NOTE

Protective gloves should always be used while handling panels. OSHA safety regulations must be followed at all times.

Store bundled sheets off the ground sufficiently high to allow air circulation beneath bundle and to prevent rising water from entering bundle. Slightly elevate one end of the bundle. Prevent rain from entering bundle by covering with tarpaulin, making provision for air circulation between draped edges of tarpaulin and the ground.

### PROLONGED STORAGE OF SHEETS IN A BUNDLE IS NOT RECOMMENDED.

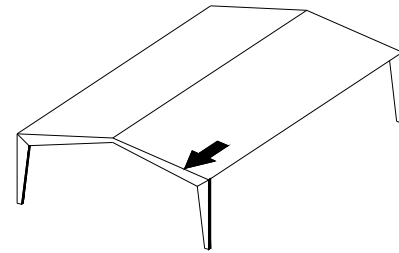
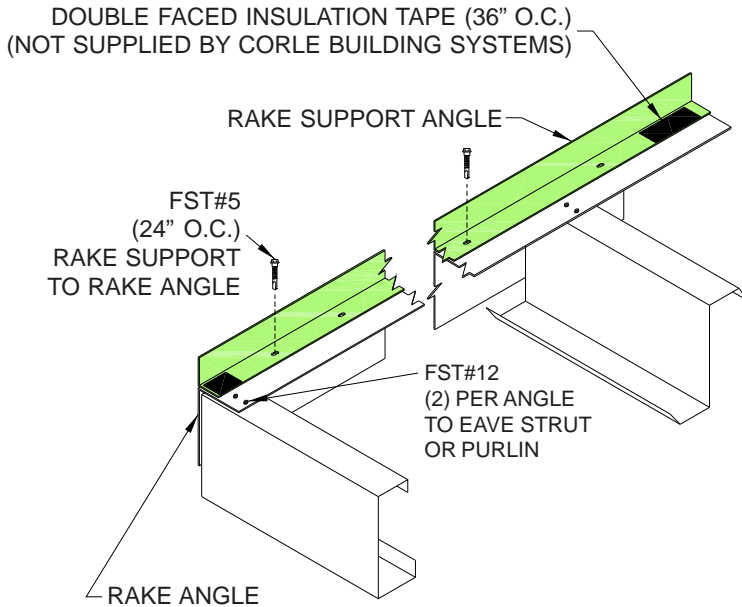
If conditions do not permit immediate erection, extra care should be taken to protect sheets from white rust or water marks.

Check to see that moisture has not formed inside the bundles during shipment. If moisture is present, panels should be uncrated and wiped dry, then restacked and loosely covered so that air can circulate between the panels.

# Seam-Lok

# Erection Sequence

## STEP 1



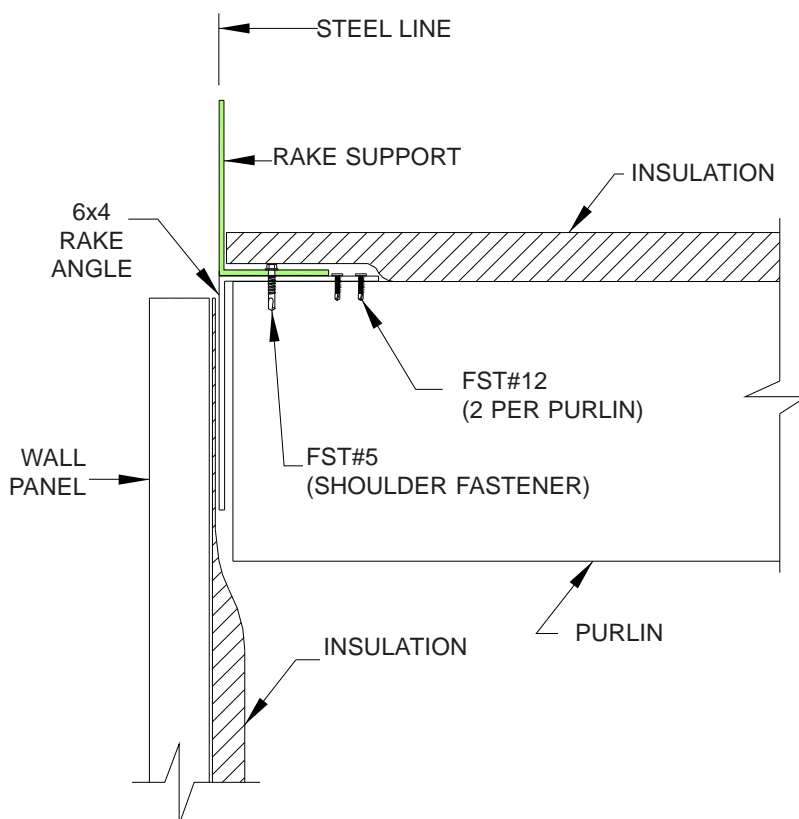
## RAKE SUPPORT

Attach the rake support on top of the rake angle with the proper self-drilling fasteners on 2'-0" centers with a fastener in the first and last prepunched slot. The vertical leg is to be installed flush with the steel line. Center fasteners in slots.

**IT IS IMPORTANT THAT THE RAKE SUPPORT IS INSTALLED STRAIGHT AND SQUARE WITH THE EAVE AS IT CONTROLS THE ALIGNMENT OF THE ROOF SYSTEM.**

Install 6" long pieces of double-faced tape on 3'-0" centers to the top of the horizontal leg of the rake support. This will help hold the insulation in place at the rake.

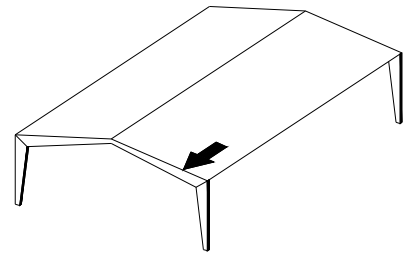
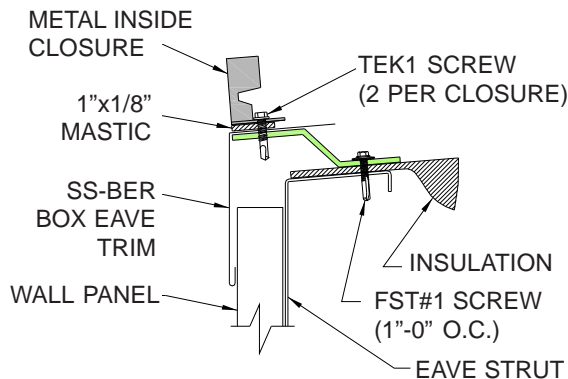
Roll out insulation from eave to peak laying the side of the insulation on top of rake support. The first roll should be 3' wide. This will keep insulation sidelaps 1' away from roof panel sidelaps. Install subsequent rolls of 6' wide insulation as required to stay ahead of the eave plate installation.



# Seam-Lok

# Erection Sequence

## STEP 2



## LOW EAVE/ METAL INSIDE CLOSURE

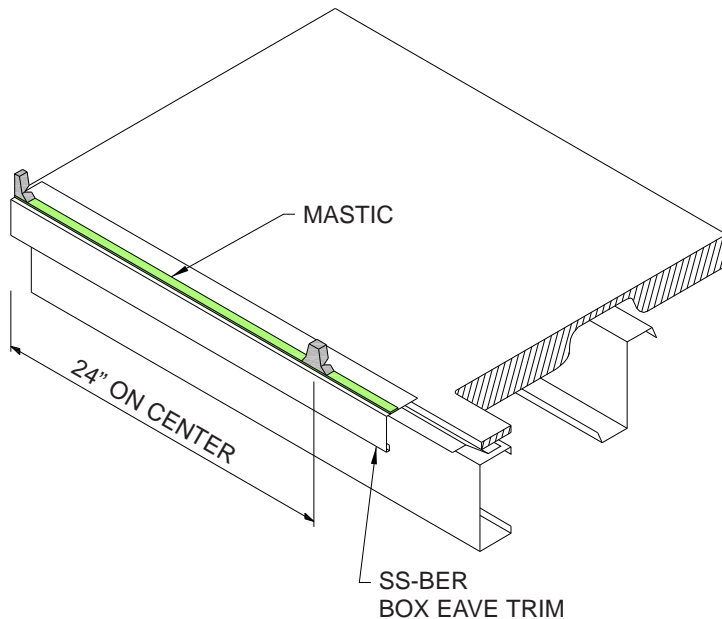
Place mastic tape sealant on the top leg of the eave trim at a point that will be flush with the outside edge of the steel line. The eave is applied as shown over the insulation and will butt against the rake support. Install two TEK1 screws through the first inside closure, locating the face of the closure flush with the steel line. **Note that the closure must be field cut in half to fill the void under the partial rib.**

Locate additional closures on 24" centers from the first closure to maintain panel module and attach each with two TEK1 screws. The first fastener should be installed through the slotted hole to allow for any adjustment that may be required. Do not install fasteners in the eave trim beyond insulation so the next roll can be installed.

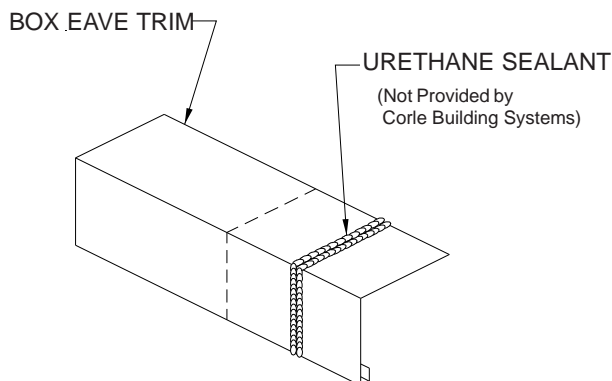
Place mastic on the top and sides of each closure to complete the seal at the eave. These may be pre-taped before installing.

Caulk all eave trim endlaps.

**TO MAINTAIN PANEL MODULE, METAL INSIDE CLOSURES MUST BE ATTACHED ON 24" CENTERS. FOR ACCURACY, MEASURE FROM TAB TO TAB LOCATED ON THE METAL INSIDE CLOSURE.**

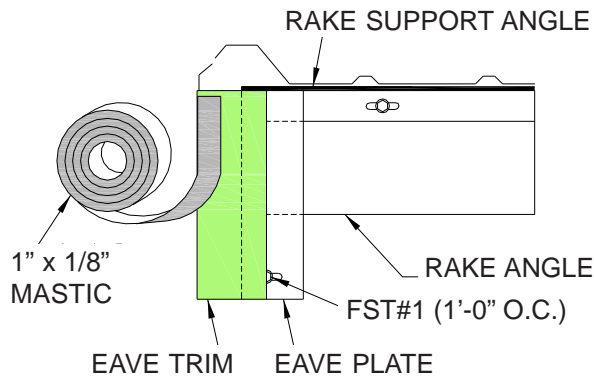


## BOX EAVE TRIM ENDLAP

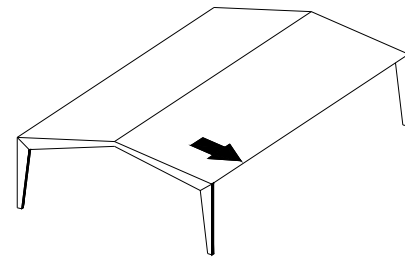


# Seam-Lok

# Erection Sequence



## STEP 2A



## HIGH EAVE/ METAL INSIDE CLOSURE

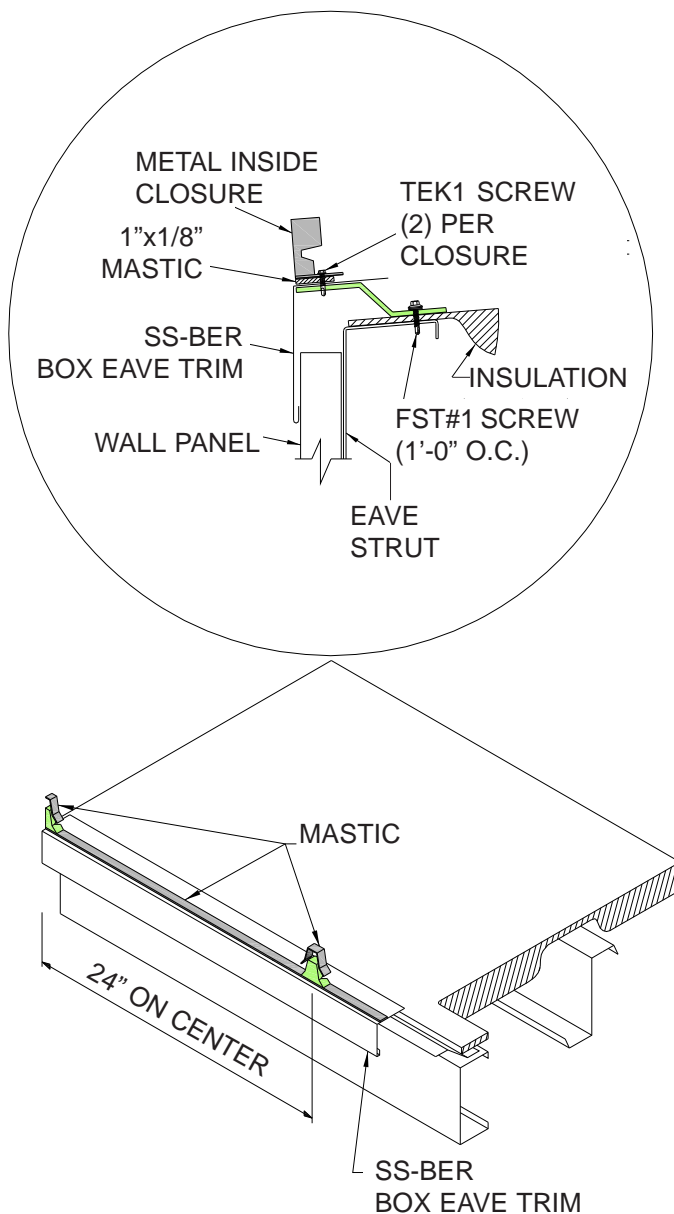
The eave plate must be flush with the box eave trim and will be attached over the insulation with FST#1 screws at each prepunched slot. **THE FIRST EAVE PLATE WILL BUTT AGAINST THE VERTICAL LEG OF THE RAKE SUPPORT.** Do not install fasteners in eave plate beyond insulation so next roll can be installed.

Place mastic across the eave trim, flush with the outside edge.

Use (2) TEK1 screws to attach the metal inside closure, placing it flush with the outside edge of the plate. The first fastener must be installed through the slotted hole. This will allow adjustment of the closure due to any movement that may occur. the first closure must be 24" from vertical leg of rake support to center of inside closure. Place mastic over top and side of inside closure to complete seal at eave. These may be pre-taped before installing.

**TO MAINTAIN PANEL MODULE, METAL INSIDE CLOSURES MUST BE ATTACHED ON 24" CENTERS. FOR ACCURACY, MEASURE FROM TAB TO TAB LOCATED ON THE METAL CLOSURE.**

To close the first panel trapezoid, field cut inside closure to fit.

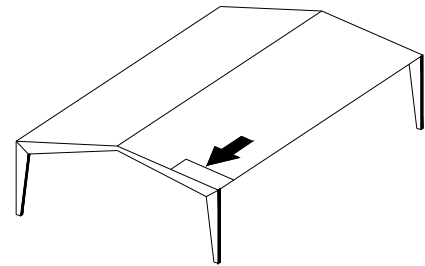
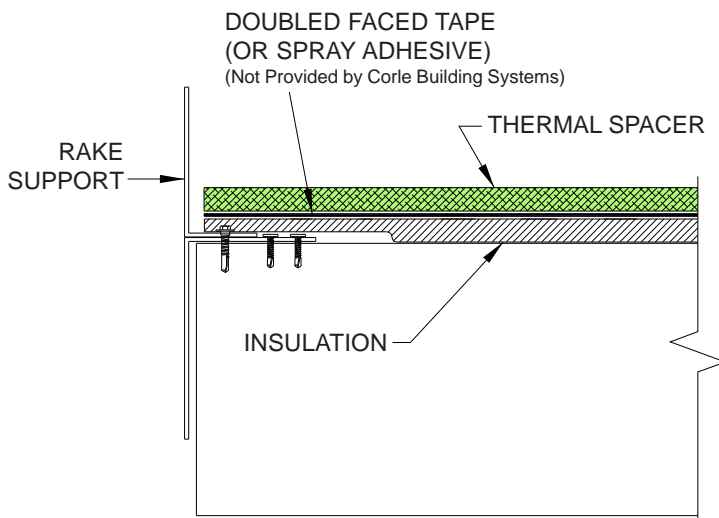
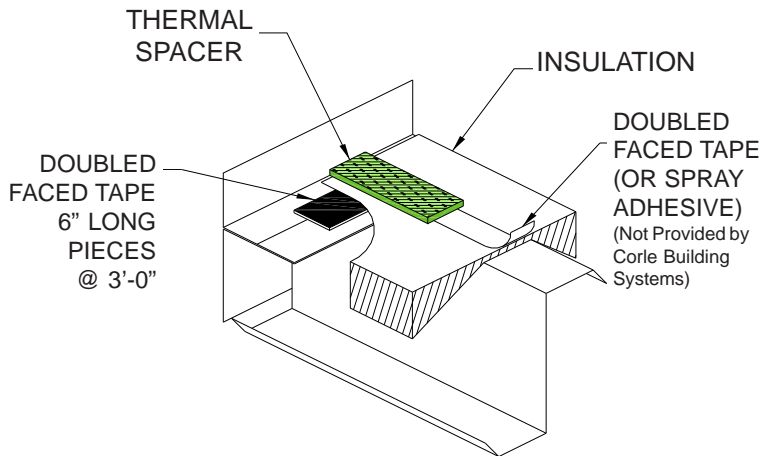
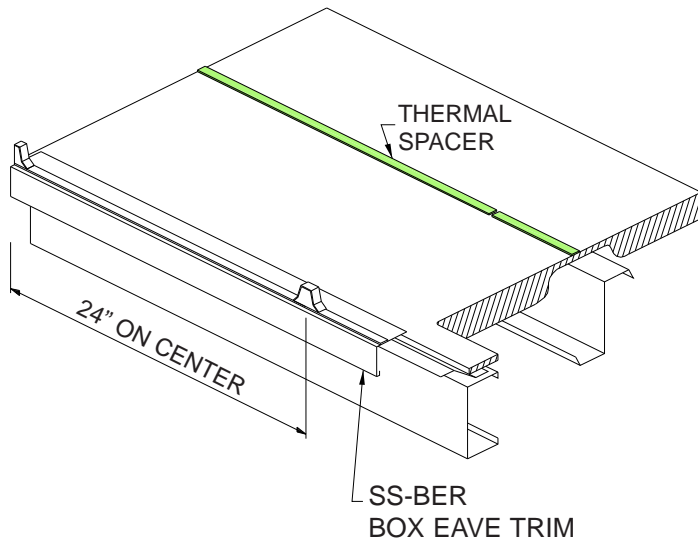




# Seam-Lok

# Erection Sequence

## STEP 3



## THERMAL SPACER

(Refer to SL-5 for Thermal Spacer Requirements)

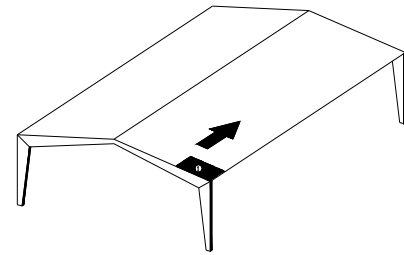
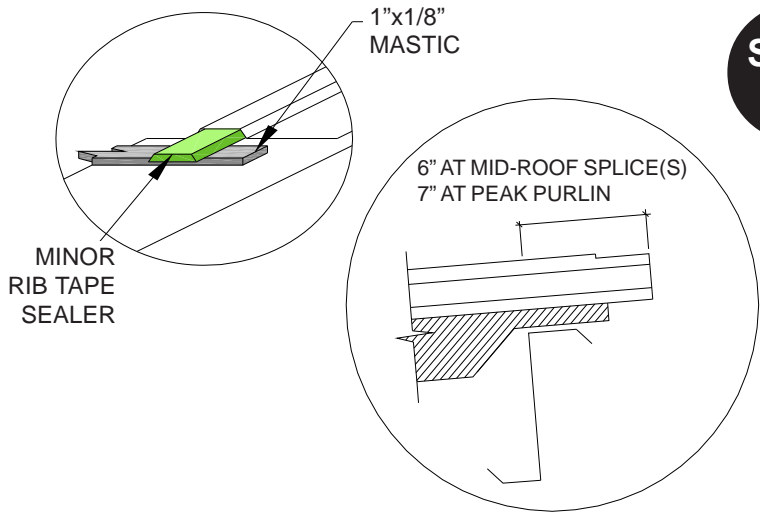
Position the thermal spacer on top of the insulation over each purlin and against the rake support prior to installing the roof panel.

Using double-faced tape or spray adhesive, adhere the thermal spacer to the insulation. The thermal spacer increases the insulation capacity along the purlins.

# Seam-Lok

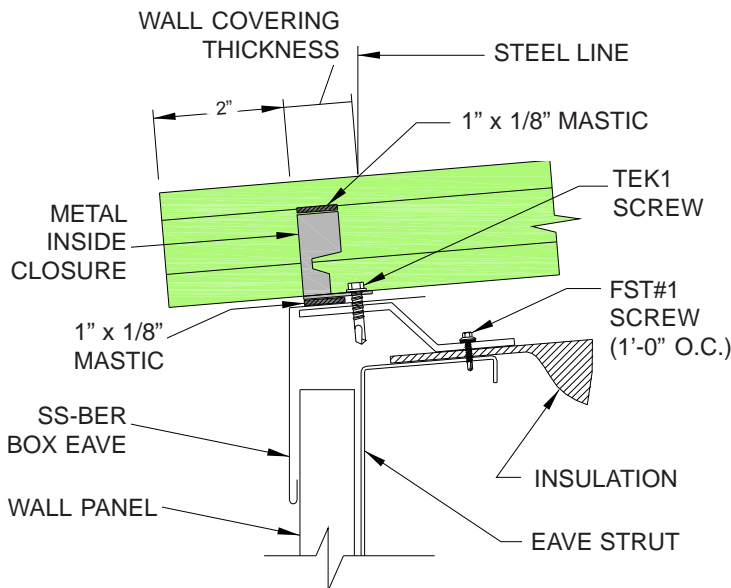
# Erection Sequence

## STEP 4



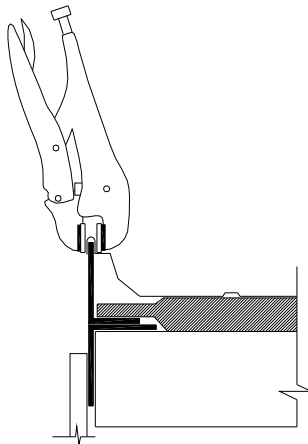
## FIRST PANEL

Apply minor rib tape sealer to the underside of the minor ribs of the panel. Position so that this tape sealer will cross the mastic on the eave trim when panel is installed.



Position the panel so that it overhangs the eave strut by the thickness of the wall covering plus 2". The upper end of the panel must extend beyond the web of the purlin, 6" at mid-roof splices or 7" at the peak purlin.

Place the female lip of the panel over the rake support. To prevent wind damage, secure the female lip to the rake support with locking pliers or temporary fasteners. Fasteners must go through rake support. The panel will not be fastened permanently to the rake support until the rake trim is installed.

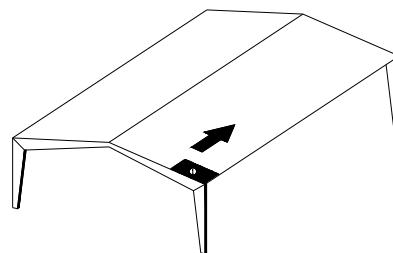




## Seam-Lok

## Erection Sequence

**STEP**  
**4**  
**CONT.**



### FIRST PANEL

#### CAUTION

All primary and secondary framing should be erected, plumbed, and bolts tightened prior to sheeting.

Clamp panel to inside closure fitting profile to profile.

Attach the panel to the eave strut and metal inside closure with FST#4 screws. Eight fasteners are required at this location.

#### NOTE

**IT IS ESSENTIAL THAT THE ERECTOR MAINTAIN A 24" MODULE AT ALL CLIP LOCATIONS, AS WELL AS AT THE EAVE, WITH THE PROPER INSTALLATION OF THE INSIDE CLOSURES.**

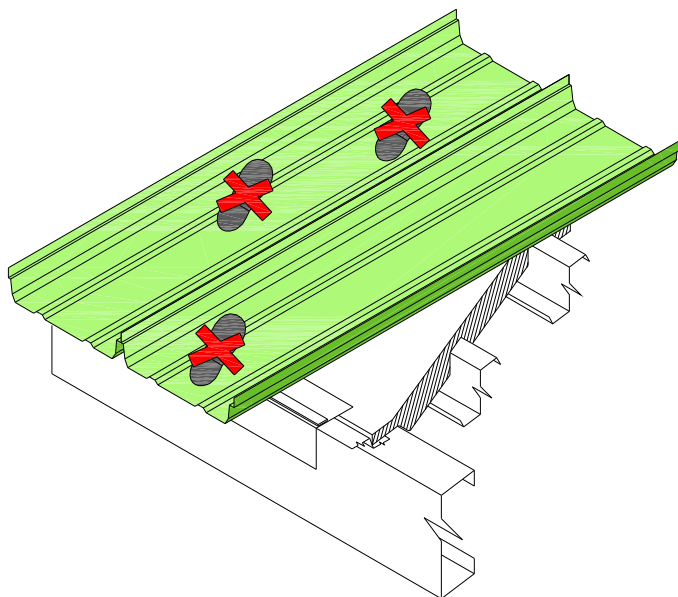
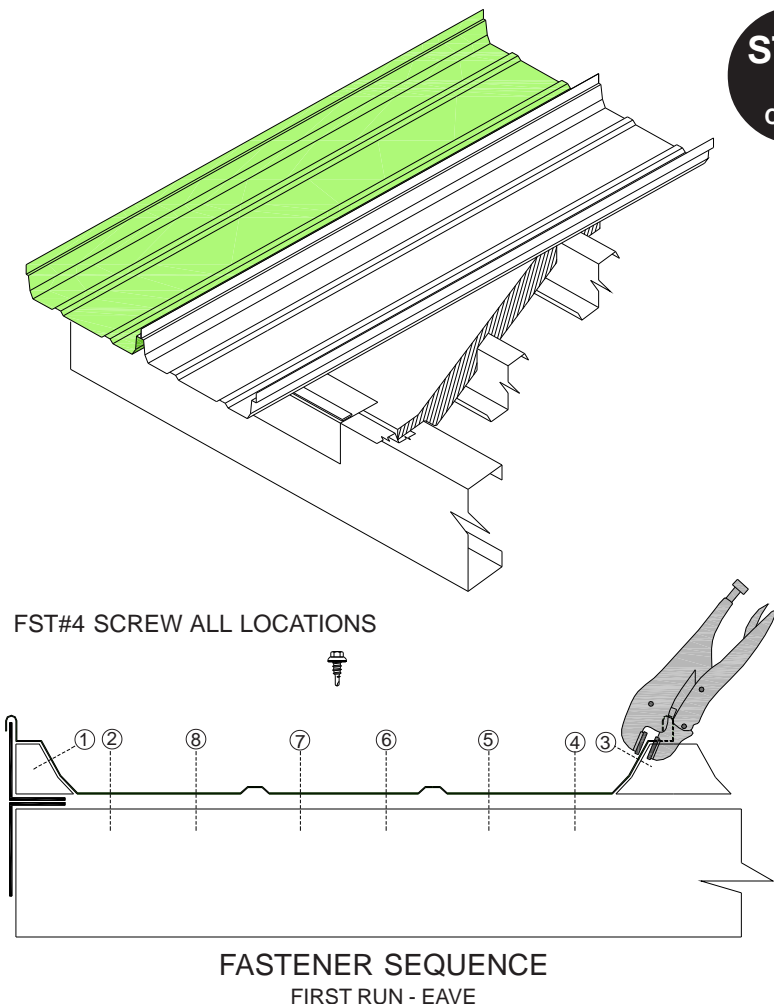
Installing fasteners in proper sequence is important as it helps maintain panel module.

#### CAUTION

Do not, under any circumstance, step on the panel at the seam or at the panel ends until the adjacent sides, end panels or eave fasteners are fully attached. The roof panel may not support the weight of a man at these locations and could affect panel module.

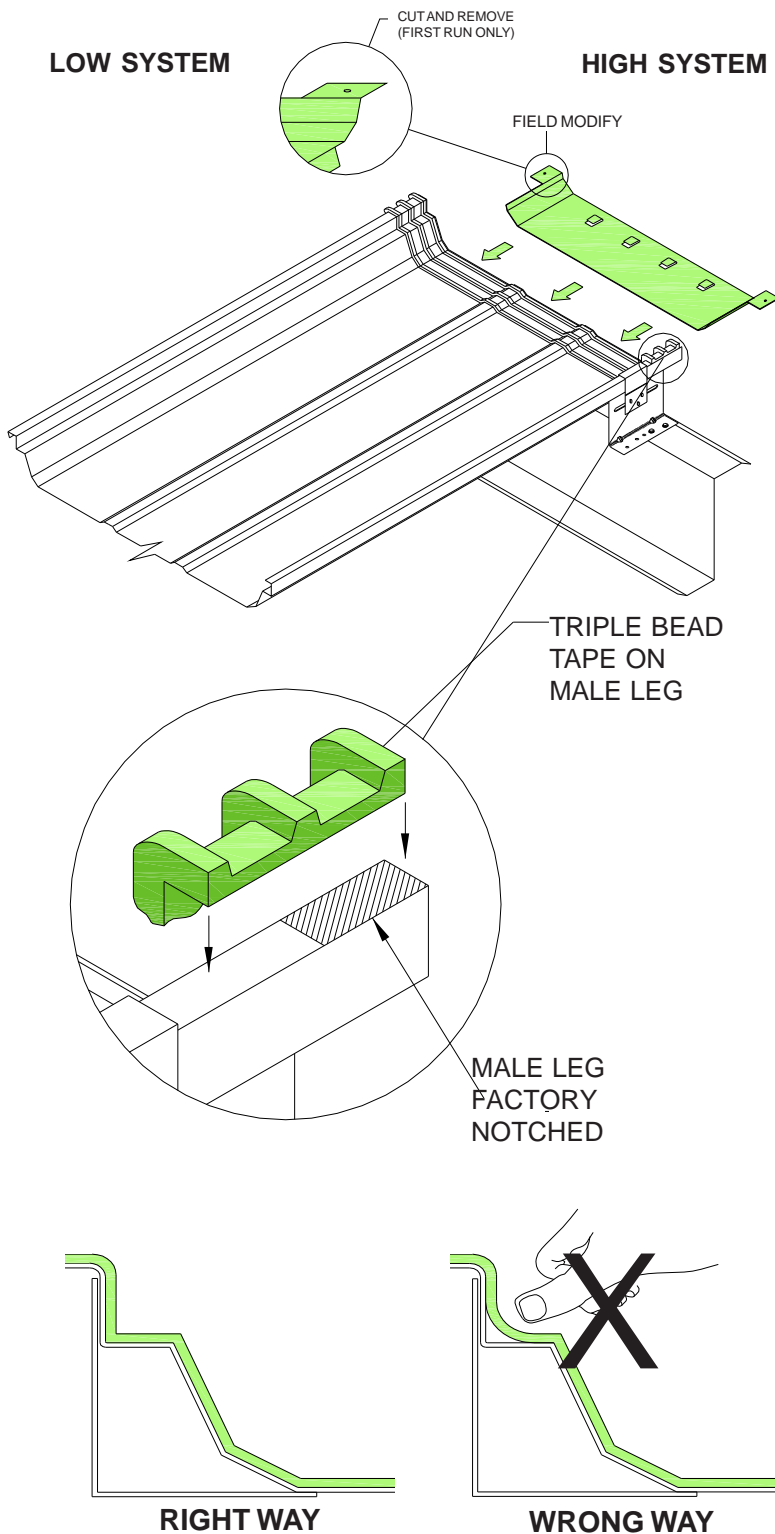
#### CAUTION

The roof should be swept clean of any drill shavings at the end of each day to prevent rust.

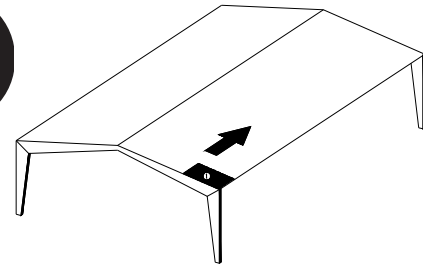


# Seam-Lok

# Erection Sequence



## STEP 5



## BACK-UP PLATE\*

This step will occur for a panel endlap or full length panel at peak of building.

### NOTE

All back-up plates on first panel run will require field modification to avoid fouling rake support.

Slide a back-up plate onto end of panel; make sure the teeth on top of the back-up plate are on top of the panel.

Place triple bead tape over the entire width of the panel. Align the edge of the mastic tape 1/4" away from the end of the panel, following the panel configuration.

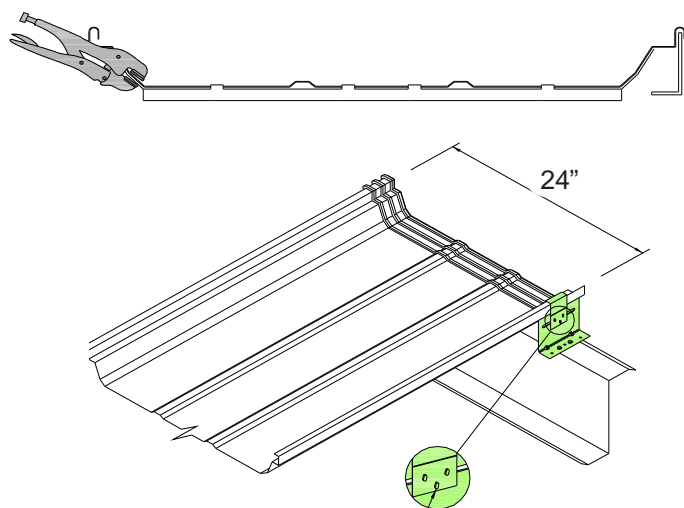
### CAUTION

Forcing the mastic back into the corners will lessen the thickness of the tape sealer where it is needed most.

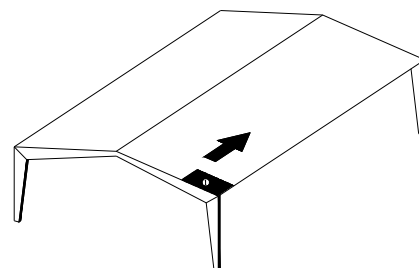
\*Protected by U.S. Patent No. 4,655,020

## Seam-Lok

## Erection Sequence



**STEP**  
**6**



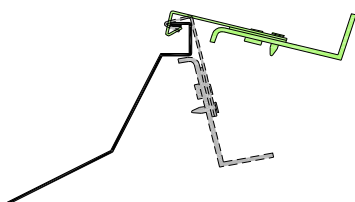
### CLIP INSTALLATION

Before installing the first clip, clamp the male side of the panel to the side of the back-up plate with a pair of locking pliers. This will help maintain panel module at the endlaps.

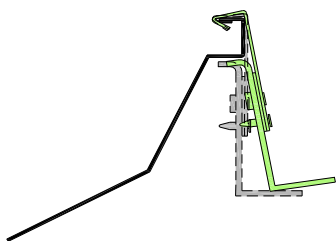
Install a clip on the male leg of the panel at the endlap. **This should be the first clip installed as it controls the 24" module for the remainder of the panel.** Remove locking pliers and install clips on all remaining purlins.

#### NOTE

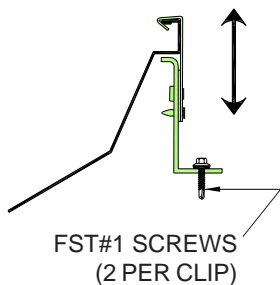
Do not remove plastic pin during installation of roof. Plastic pins are designed to shear off with roof expansion and contraction.



Position the clip over the male leg of the panel as shown.



With the upper clip firmly seated, position the base firmly against the purlin flange.



When properly positioned, the vertical legs of the upper and lower sections of the clip will be pointed upward, as shown.

FST#1 SCREWS  
 (2 PER CLIP)

#### CAUTION

#### FASTENER REQUIREMENTS

Purlins - FST#1  
 Joists - FST#6  
 (Two fasteners per clip)  
 For UL 90 Roofs, see Page SL-6

#### CAUTION

The panel clip has factory applied mastic in the upper lip. This mastic is compressed when the clip is rotated in place. If, for some reason, a clip must be removed, a new clip must be used.

#### IMPORTANT!

As each clip is installed, maintain a 24" module center to center of panel.

#### NOTE

Do not stand on panel during clip installation where it will distort the panel and cause it to be out of module.

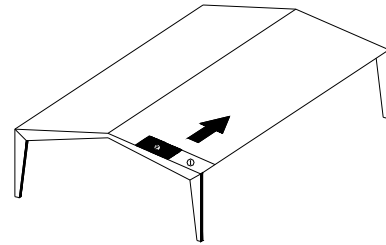
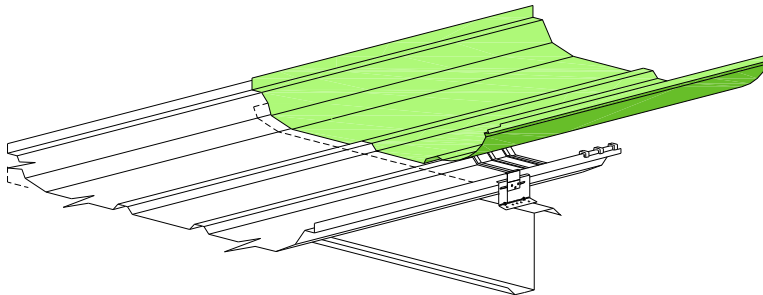
#### NOTE

The floating clip is designed so it can only be properly seated when the upper portion of the clip (the tab) is centered on the base.

# Seam-Lok

# Erection Sequence

**STEP  
7**



## END-LAP PANEL

### NOTE

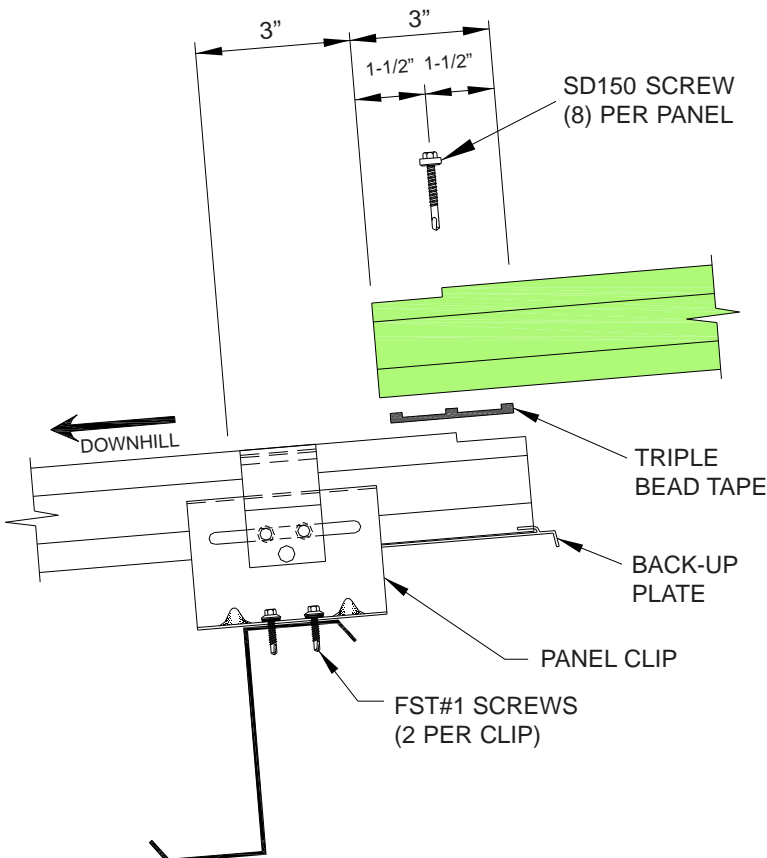
Step 7 applies only where more than one sheet is used in a single slope.

Position female lip of upper panel over rake support, while holding male side of panel up away from the triple bead tape.

Rotate the male side of the upper panel down to nest with the lower panel.

### CAUTION

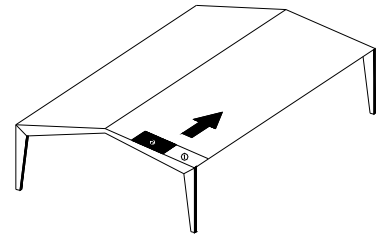
The roof should be swept clean of any drill shavings at the end of each day to prevent rust.



## Seam-Lok

## Erection Sequence

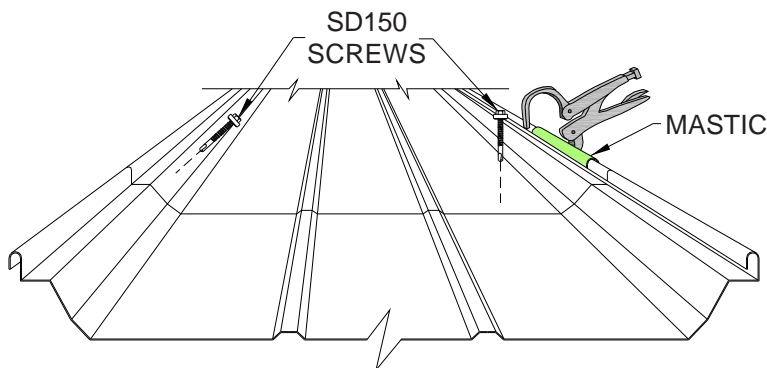
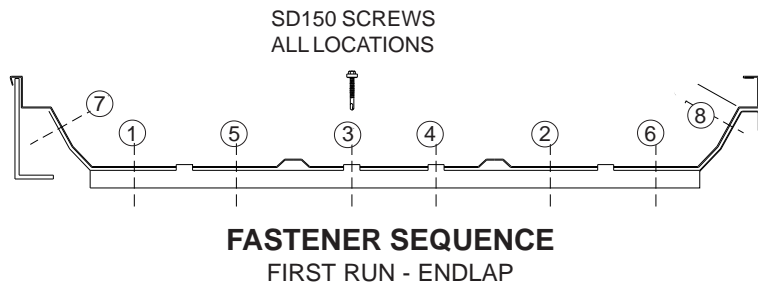
### STEP 8



### ENDLAP - STANDARD

#### NOTE

Step 8 applies only where more than one sheet is used in a single slope.



Install SD150 screws in sequence at 1 1/2" from the end of panel.

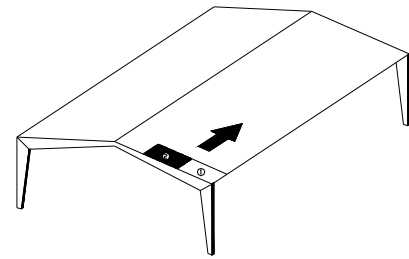
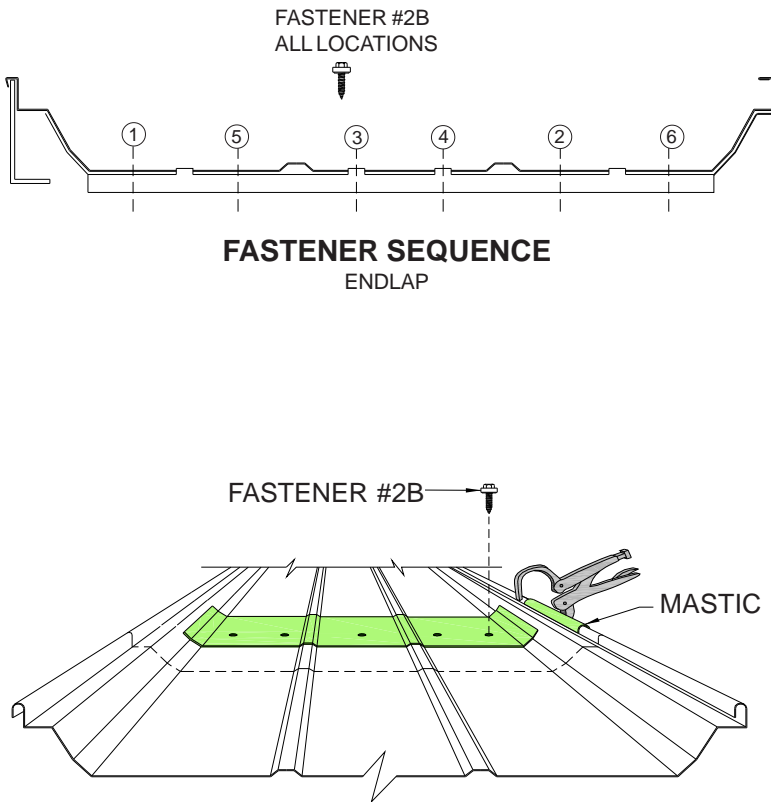
To ensure that the male legs do not separate at the panel endlap, clamp the horizontal ledge with a vise grip C-clamp. This will allow room for the lower panel of the next run to be installed without removing the clamp. **Apply mastic over the notched portion of these male legs.**

Repeat the endlap procedures as required for each panel until the ridge is reached.

# Seam-Lok

# Erection Sequence

## STEP 8A



## OPTIONAL ENDLAP - CINCH STRAP\*

### NOTE

Step 8A applies only where more than one sheet is used in a single slope. All cinch straps on first panel run will require field modification.

Place cinch strap over the endlap and install Fastener #2B in proper sequence. Six fasteners are required at this time.

To ensure that the male legs do not separate at the panel endlap, clamp the horizontal ledge with a vise grip C-clamp. This will allow room for the lower panel of the next run to be installed without removing the clamp. **Apply triple bead tape over the notched portion of these male legs.**

Install a back-up plate and mastic on the upper end of the panel as in Step 5 and install clips as in Step 6.

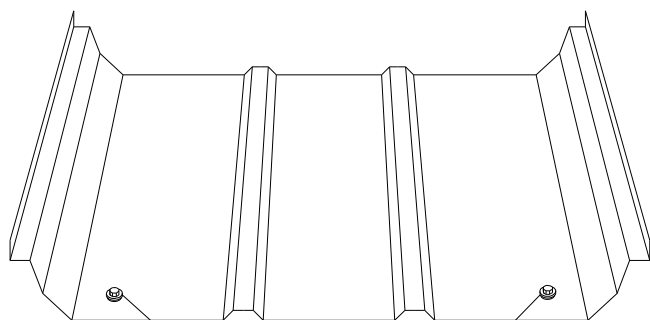
Repeat the endlap procedures as required for each panel until the ridge is reached.

\*Protected by U.S. Patent No. 4,655,020

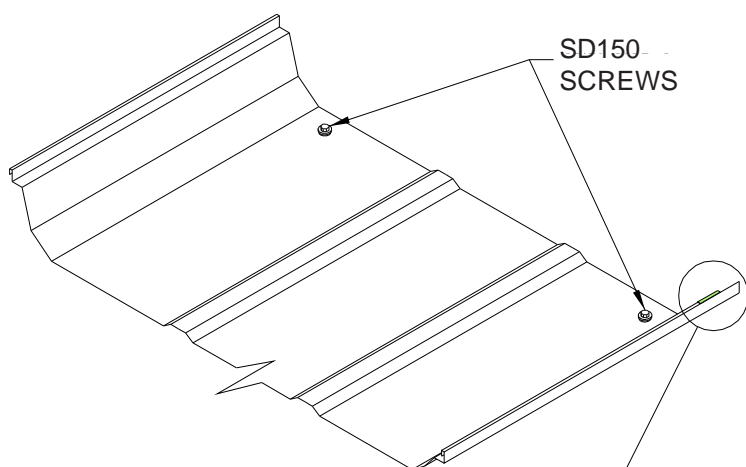
## Seam-Lok

## Erection Sequence

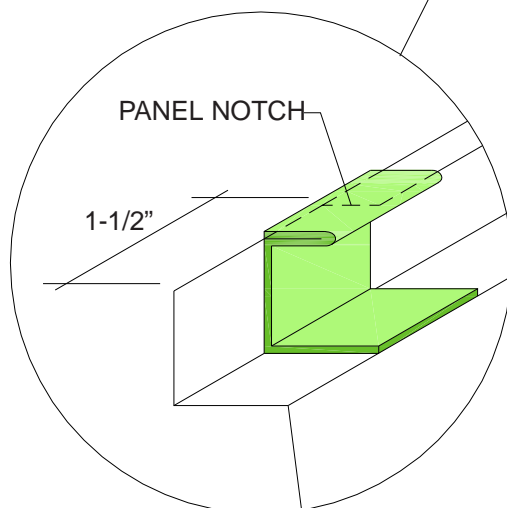
**STEP**  
**9**



SD150 SCREWS

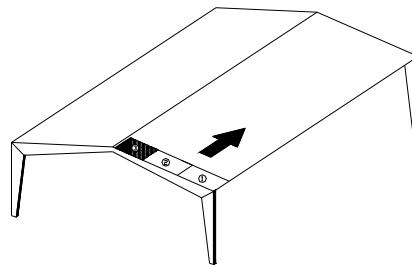


SD150  
SCREWS



PANEL NOTCH

1-1/2"



### RIDGE PANEL

Temporarily install SD150 screws in the holes at each side of the panel. This will help maintain modularity at the ridge.

Install mastic across the profile of the male leg at the ridge. This tape sealer will be centered 1 1/2" from the end of the panel. (See Page SL-70 for mastic installation detail). **DO NOT INSTALL MASTIC ACROSS PANEL AT RIDGE AT THIS TIME.**

Install clips on ridge panel as in Step 6.

### CAUTION

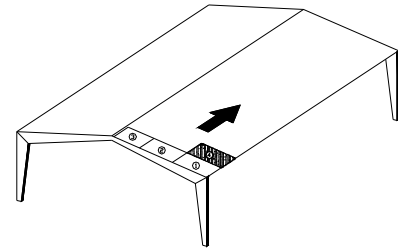
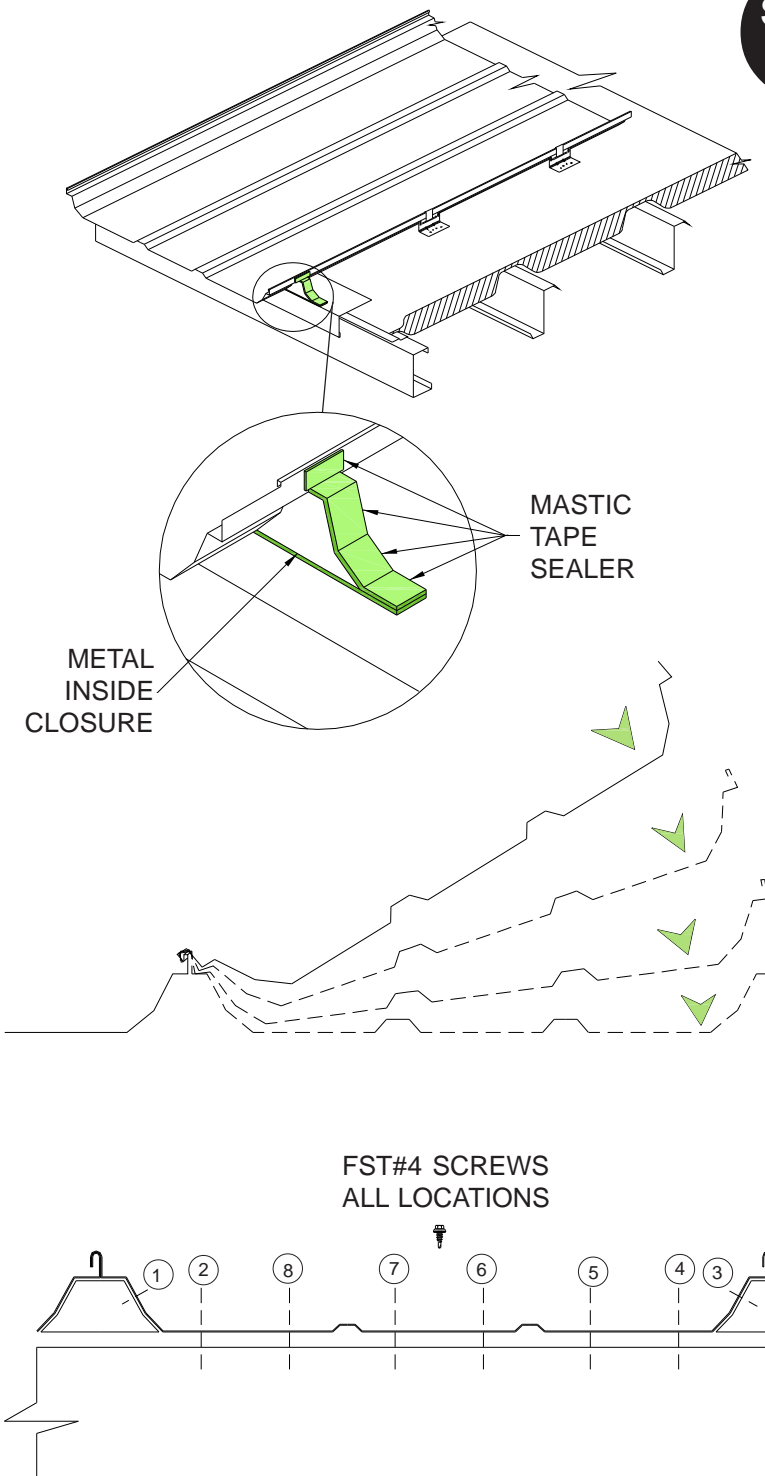
Installing the mastic to the male leg at the ridge is important. Without it, water could be driven behind the outside closure by a strong wind.



## Seam-Lok

## Erection Sequence

### STEP 10



### SUBSEQUENT RUNS EAVE

Apply a 2" piece of mastic to the male leg of the first panel run directly over the inside closure. This will prevent water infiltration through the end of the seam. With the next run of insulation in place, install the remainder of the FST#1 screws in the eave plate. Install the next inside closure on top of the previously installed eave trim and mastic. The second run of roof is now ready to install.

Holding the male side of the next panel up, lay the female lip on top of the male leg of the adjacent panel and align it flush at the eave. Rotate the panel down, visually checking that the female lip is engaged onto the male leg of the adjacent panel along its entire length.

**IF THE PANEL MUST BE RAISED FOR FURTHER ALIGNMENT, CARE SHOULD BE TAKEN TO AVOID PULLING THE FACTORY APPLIED MASTIC FROM THE FEMALE LIP.**

Install FST#4 screws at eave in the recommended sequence. Eight fasteners are required at this location.

### CAUTION

Do not walk on the minor ribs.

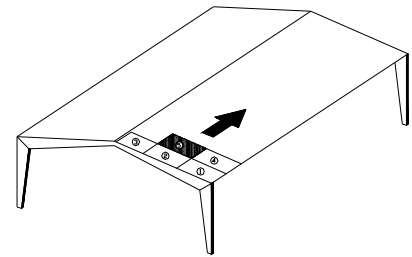
### CAUTION

The roof should be swept clean of any drill shavings at the end of each day to prevent rust.

# Seam-Lok

# Erection Sequence

## STEP 11



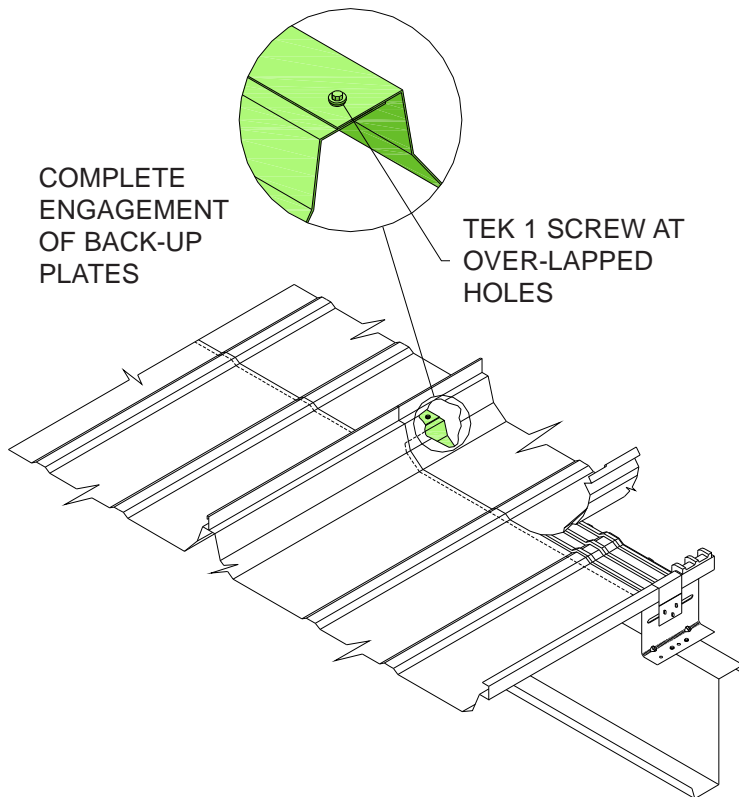
## SUBSEQUENT RUNS ENDLAP

Install back-up plate and triple bead tape as in Step 5. However, on this and all subsequent runs, care must be taken to properly align the holes on the tabs of the backup plates. Install a TEK1 screw through the overlapped holes. This procedure will assist in maintaining a 24" panel module.

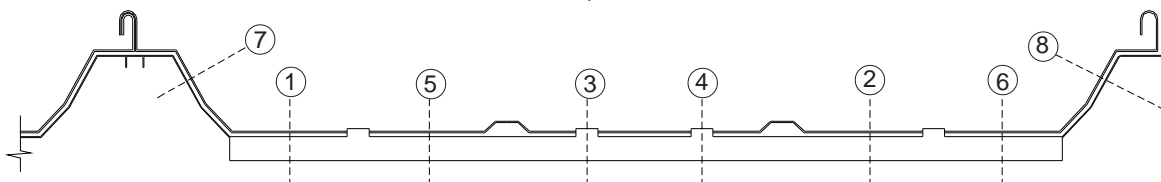
Install clips as described in Step 6.

Install upper panel as described in Step 7 & 8.

Repeat the endlap procedures as required for each panel until the ridge is reached.



SD150 SCREWS  
 ALL LOCATIONS

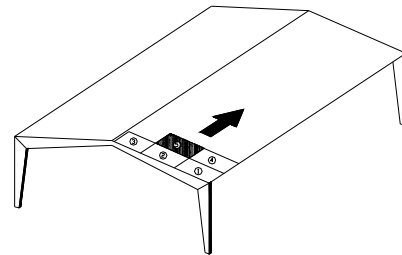
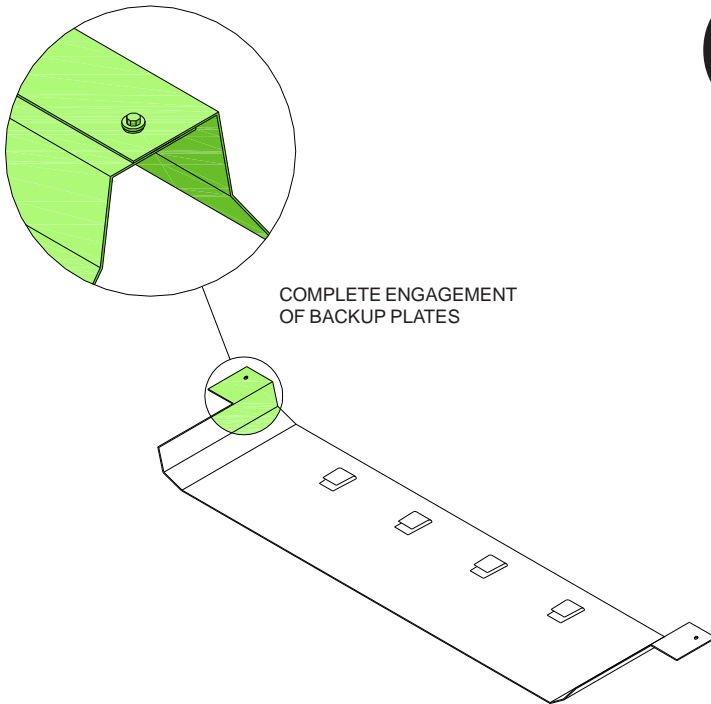


FASTENER SEQUENCE  
 SUBSEQUENCE RUNS - ENDLAP

# Seam-Lok

# Erection Sequence

## STEP 12

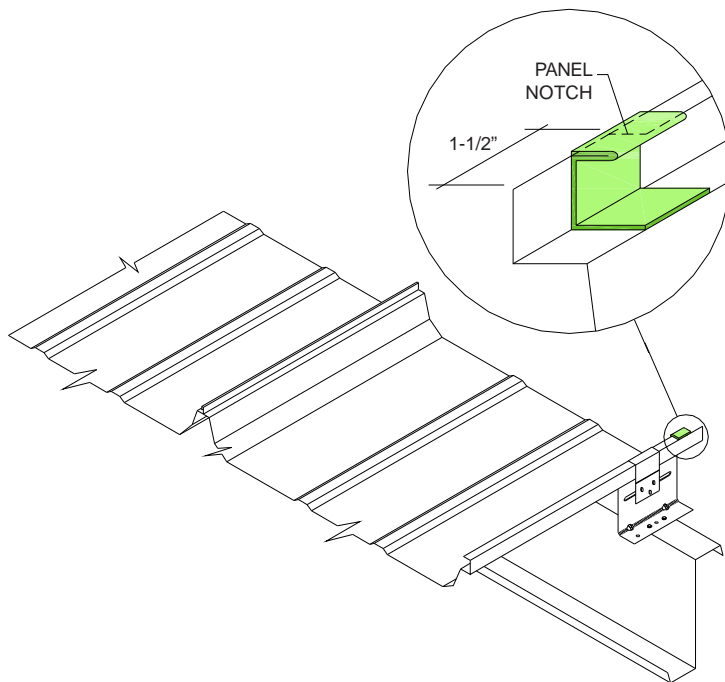


## SUBSEQUENT RUNS RIDGE/OUTSIDE CLOSURE

Install back-up plate, properly align the holes on the tabs of the backup plates. Install a TEK1 screw through the overlapped holes.

Install temporary fasteners and mastic as described in Step 9.

Install clips as described in Step 6.

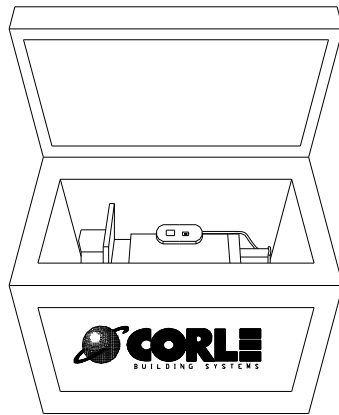


## CAUTION

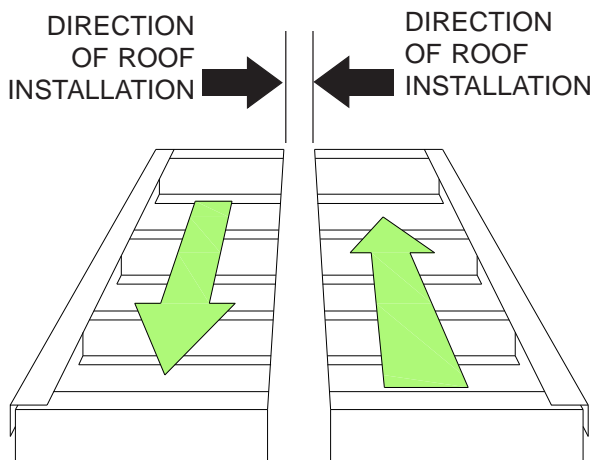
Installing mastic to the male leg is important. Without it, water could be driven behind closure by strong wind.

## Seam-Lok

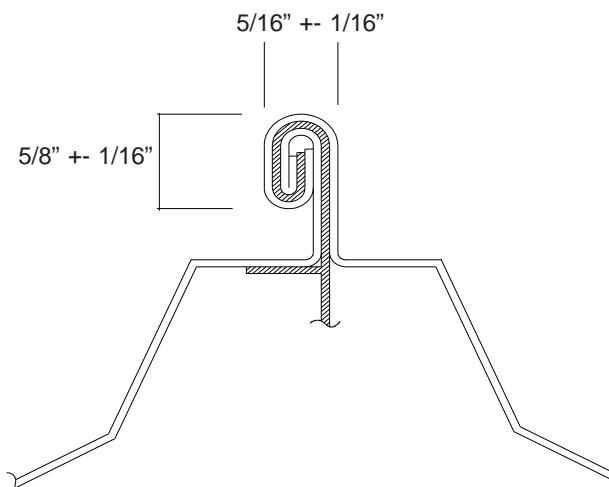
## Erection Sequence



SEAMER KIT BOX



DETERMINING DIRECTION OF SEAMER



CROSS SECTION OF FINISHED SEAM

### STEP 13

## SEAMING PANEL SIDELAPS

The seamer comes in a specially designed box accompanied by a field manual and a hand seaming tool.

**READ THE SEAMER MANUAL THOROUGHLY BEFORE STARTING THE SEAMING OPERATION.**

**FAILURE TO ADHERE TO THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND DAMAGE TO THE SEAMER AND/OR PANELS.**

**THE ERECTOR WILL BE HELD LIABLE FOR ANY COSTS INCURRED FOR REPLACEMENT OR REPAIR.**

### PRE-SEAMING INFORMATION

1. Locate seamer box. Assemble hand seaming tool.
2. Locate power source and check against power requirements in field manual.
3. Check seams for proper engagement.
4. Clean dirt, debris and excess sealant from seams and panel surfaces to avoid interfering with the seaming operation.
5. Panels do not have to be seamed as they are installed. However, to prevent panel separation by a strong wind, panels should be seamed as soon as possible. **ALL PANELS SHOULD BE SEAMED AT THE END OF EACH DAY.**

### SEAMING OPERATION

To determine the direction of the seaming process, stand at the eave and look upslope. If the roof is being installed from upslope. If the roof is being installed from left to right, the seamer will run from the ridge to eave. If the roof is being installed from right to left, the seamer will run from eave to ridge.

### INSPECTION OF SEAM

A visual inspection of the seam should be made to determine if the seam is forming properly. Check seam against the cross section provided. **IF THE SEAMER IS NOT PRODUCING A FINISHED SEAM IDENTICAL TO THE CROSS SECTION PICTURED, STOP AT ONCE AND CALL CORLE BUILDING SYSTEMS AT 814-276-9611.**

# Seam-Lok

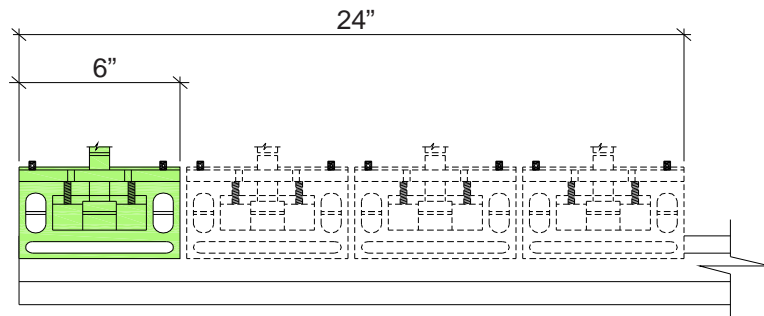
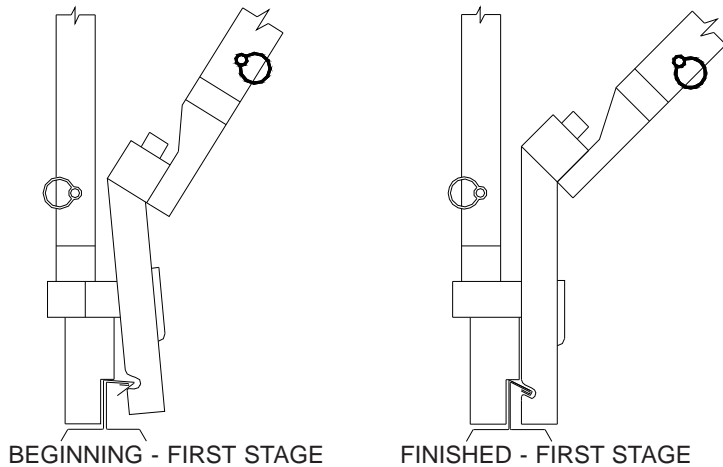
## Erection Sequence

### STEP 13 CONT.

## SEAMING OPERATION

### CAUTION

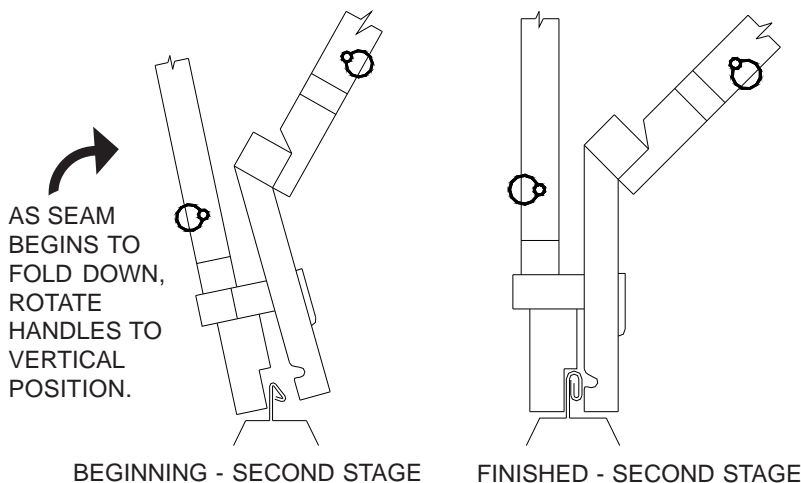
Before using the electric seamer, it is critical that the panel seams are crimped and folded as shown below. **Failure to follow these guidelines will result in damaged seams.**



To begin seaming, set the hand tool on the seam. Align the edge of the hand tool with the end of the panel. Handles on hand tool should be vertical.

Pull handles apart to crimp female lip. This should be done four times along the seam for a total of 24".

Return to the end of the panel to begin the second stage. Set hand tool onto seam backwards from before. Handles should be leaning away from open side of seam. Pull handles apart to flatten seam. This should be done one time which produces a finished 6" long seam. The relationship of this 6" of finished seam to the 24" of crimped seam is critical to the proper alignment of the rolls in the electric seamer.

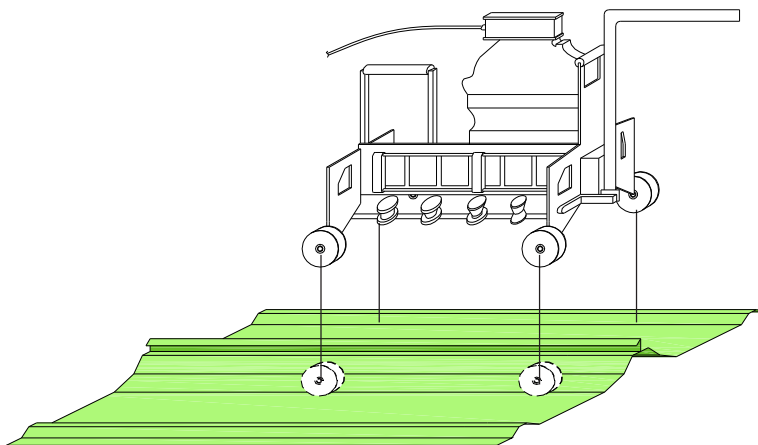
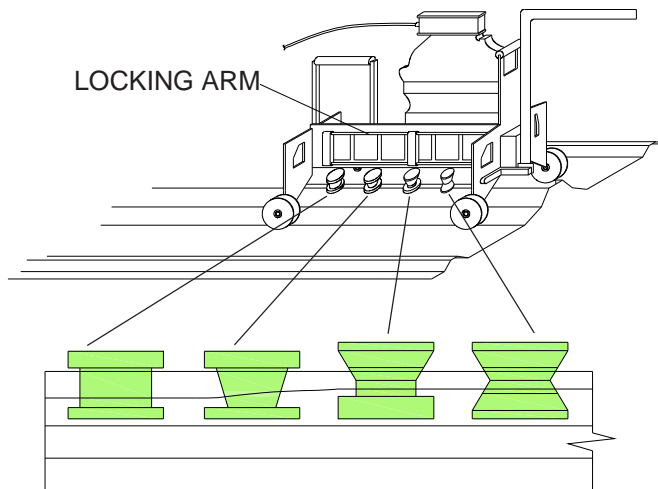
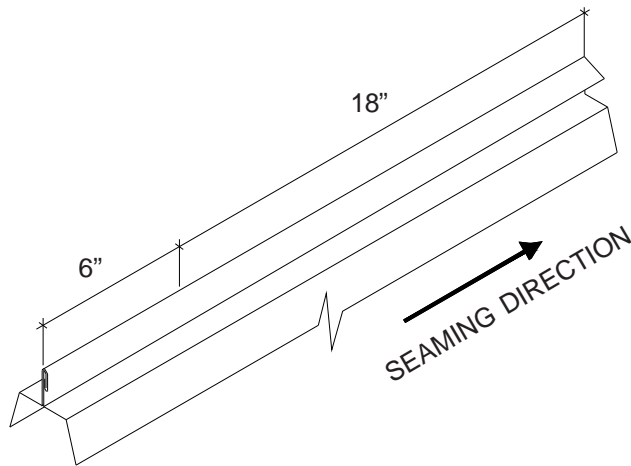


## Seam-Lok

## Erection Sequence

### STEP 13 CONT.

### SEAMING OPERATION



The seam is now ready to accept the electric seamer.

Set seamer on seam with the locking arm up and to open side of the seam. The rear wheels should be approximately 2" from the edge of the panel.

Check to see that the last two forming rollers of the seamer are on the finished portion of the seam and the first two forming rollers are on the crimped portion of the seam. Push the locking arm down to engage the forming rollers and turn the seamer on.

### CAUTION

Seamer operation should be closely supervised at all times. A safety tag should be attached to the seamer.

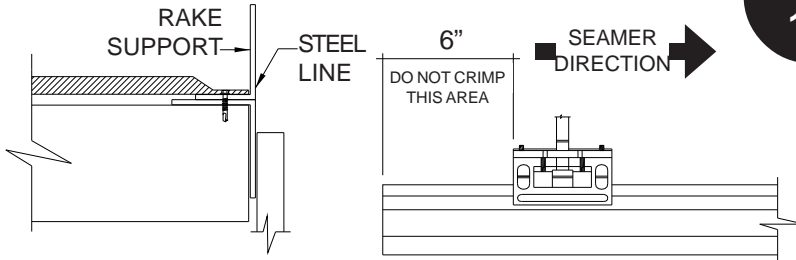
Stop seamer about 6" from the end of the panel. Disengage locking arm and remove the electric seamer.

Finish seam with hand tool by first crimping the remaining portion of female lip. Then, using the second stage of the hand tool, fold and finish the seam. Repeat this procedure for all panels.

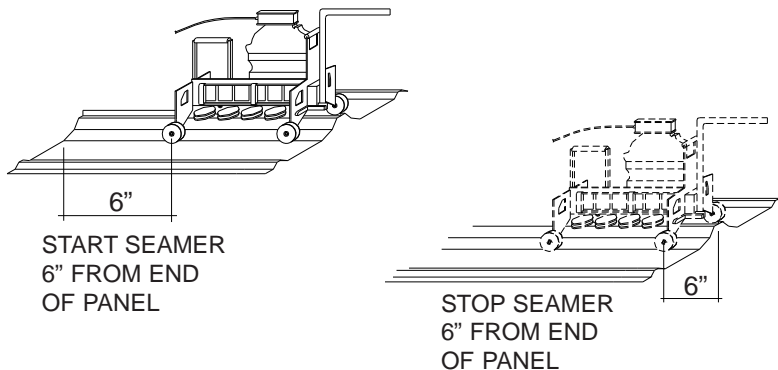
## Seam-Lok

## Erection Sequence

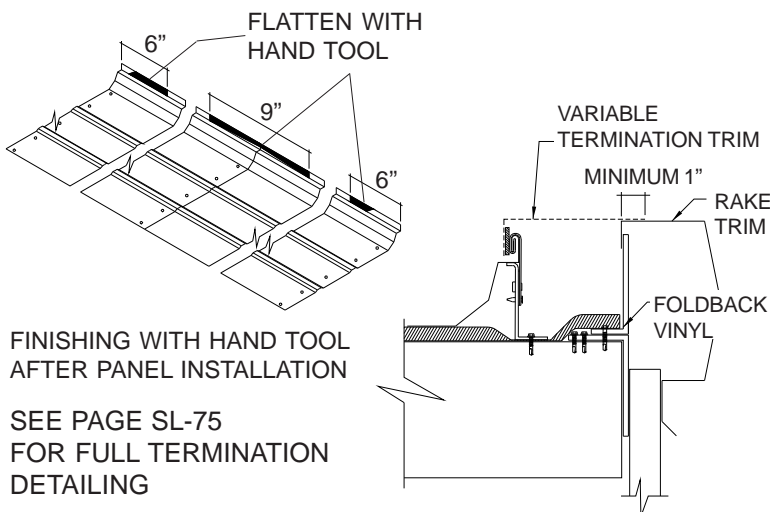
### STEP 14



#### PREPARING PANEL FOR SEAMER WITH HAND TOOL

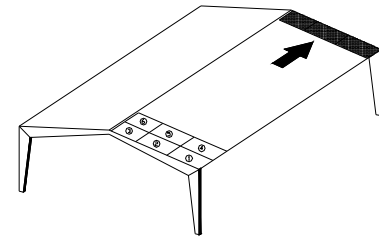


#### FLATTENING MALE LEG BEFORE PANEL INSTALLATION



FINISHING WITH HAND TOOL AFTER PANEL INSTALLATION

SEE PAGE SL-75 FOR FULL TERMINATION DETAILING



### LAST PANEL RUN

The roof system is designed to finish in the high on even or odd footage buildings, by using 24" or 18" panels on the last run.

With insulation in place, install rake support along steel line.

#### FINISHING ON MODULE

If your roof is finishing on module, the male leg of the last panel run must be flattened before installation, with the exception of the first and last 6" of each panel. This will allow for proper panel engagement at endlaps once panels are installed. Use the hand tool to flatten the male leg 6" from the starting end. (Refer to legend plate on seamer to determining the end that the seamer will start from.) With locking bar up, place seamer on male leg so that the last two rollers of the seamer are on the flattened portion of the seam. The first two rollers will be under the unflattened portion of the seam. Lower locking bar and run seamer withing 6" of the end of the panel. Raise locking bar and remove seamer. Repeat this procedure for all panels. Install panels as usual. Use hand tool to finish the unflattened portion of the male leg at the eave, ridge and endlap.

#### FINISHING OFF MODULE

If the panel ends 6" away from the rake support due to an out-of-square condition or other factors, simply install the panel clips and run seamer over male leg. This will lock the clips in place and flatten the male leg. This system allows for the roof to be trimmed in the high.

### CAUTION

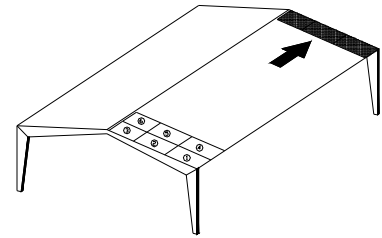
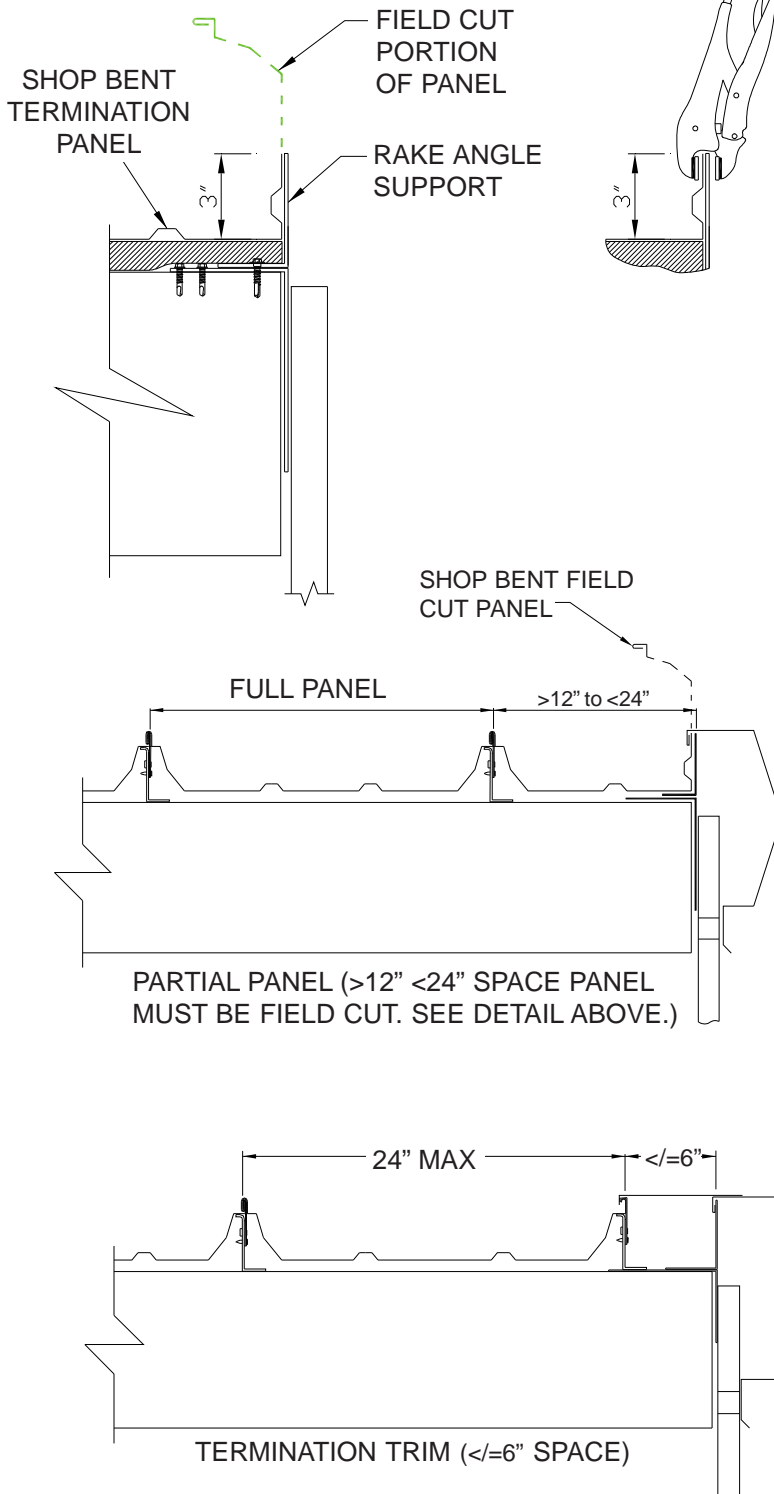
The seamer will not support itself while flattening the male leg on the last run. It must be supported during this operation.



# Seam-Lok

## Erection Sequence

### STEP 14A



### LAST PANEL RUN (OPTIONAL)

The roof is designed to finish in the high on even footage buildings. Odd length buildings and variations in erection practices will dictate that an alternate detail be used.

When terminating an odd dimension, a panel may be shop bent to a specific dimension to finish the roof. Field cutting of the panel is required to complete the installation. The vertical dimension of the panel must be 3" to insure proper engagement with the rake trim.

After laying the last insulation run, install the field cut panel. Temporarily fasten the formed leg of the panel to the rake support with locking pliers.

The use of a field formed panel or Variable Termination Trim may be used to accommodate large dimensions as shown.

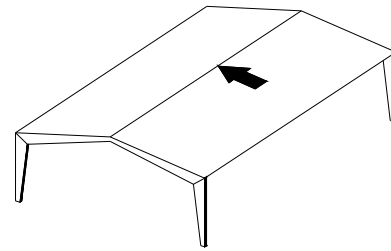
### CAUTION

To prevent rust, the roof should be swept clean of any drill shavings at the end of each day.

# Seam-Lok

# Erection Sequence

## STEP 15



## OUTSIDE CLOSURE

After all panel runs are installed and seamed, return to first panel run at the ridge. Remove temporary fasteners from panel and install mastic across full width of panel.

Rotate outside closure into position contacting the female side of the panel first.

Push the other end of the outside closure into position and align the closure with the mastic tape. Install SD150 screws, except for the screw at the panel seam.

**DO NOT INSTALL PANEL SEAM FASTENER AT THIS TIME.**

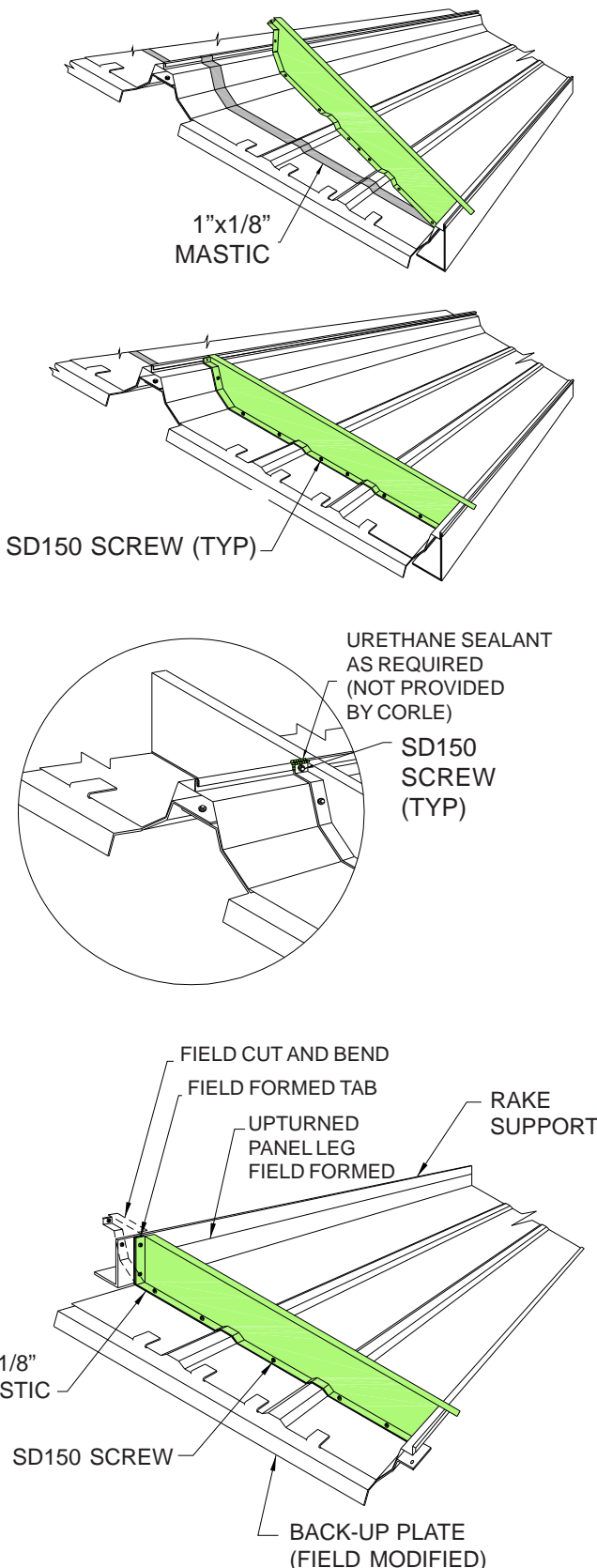
Install all outside closures on both sides of the ridge.

On roof systems that terminate off module, the final outside closure on the last panel will require field modification (as shown).

A tab should be formed by the web of the outside closure for attachment to the upturned leg of the roof panel (field formed).

This tab should be attached to the panel with SD150 screws, two required.

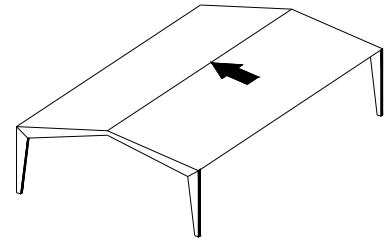
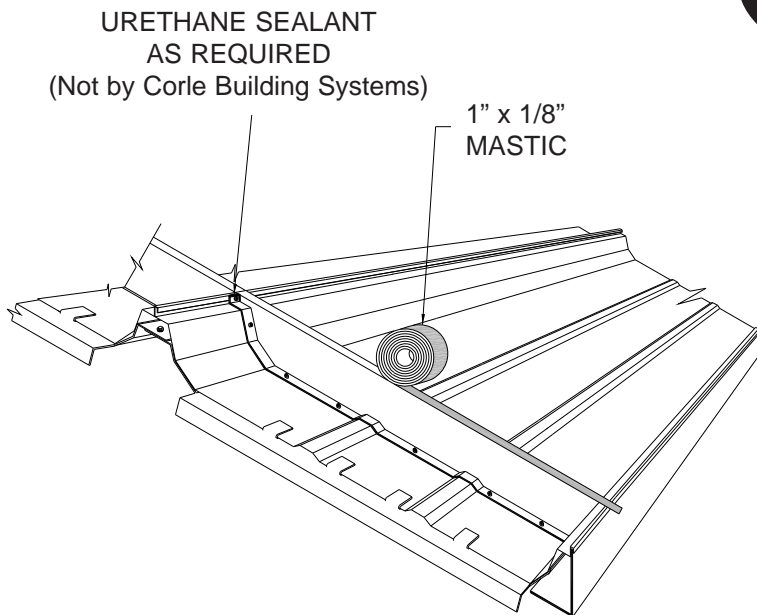
Install an SD150 screw in the panel seam of all outside closures. The fastener must go through the panel seam and the corresponding hole of the adjacent outside closure.



## Seam-Lok

## Erection Sequence

### STEP 16

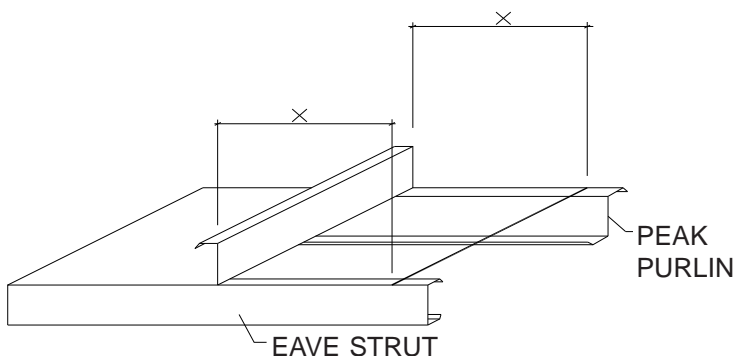
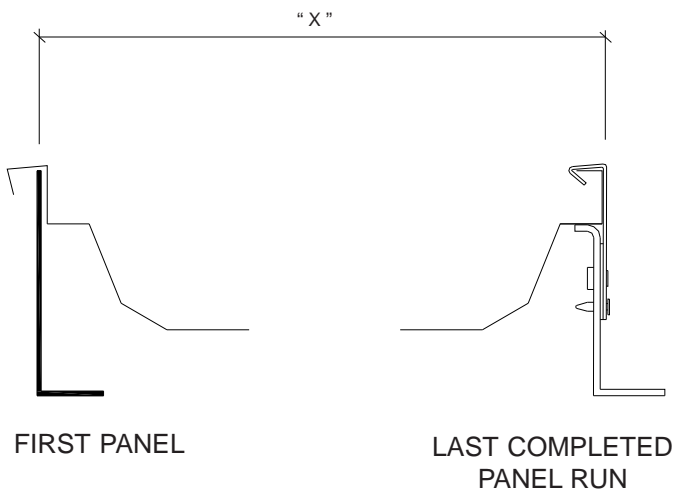
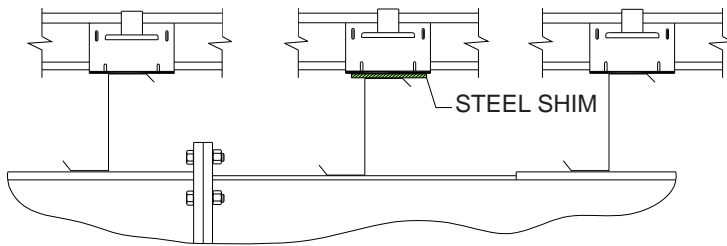


### RIDGE-OUTSIDE CLOSURE (Continued)

Apply mastic to the top of the outside closure.

## Seam-Lok

## Special Erection Techniques



### RECOMMENDED ERECTION PRACTICES

#### CORRECTING OUT-OF-PLANE SUBSTRUCTURE

Occasionally, a purlin may be encountered that is lower (out-of-plane) than those adjacent to it. When a clip is attached to this purlin, it will go down further than those adjacent to it, distorting the seam. This can cause the next panel to sidelap to be difficult to snap together in this area. To compensate for this lower purlin, a steel shim may be placed under the clip to bring it up to the proper height (in plane). This shim should be no thicker than 1/4". If 1/4" is not enough, then structural modification will be necessary.

Avoid "stair-stepping" of the panels at the eave. This will cause problems engaging back-up plates at the endlap and ridge.

Any "stripped out" fasteners at the endlaps or outside closures should be immediately replaced with fastener #2B. Place a 1" long piece of mastic over the "stripped out" hole before installing fastener #2B. This will allow the fastener threads to be coated with mastic and provide a good seal.

**NEVER ALLOW PANELS TO COME INTO CONTACT WITH LEAD, COPPER, GRAPHITE, GASOLINE OR HARSH CHEMICALS AS THIS WILL VOID THE GALVALUME WARRANTY.**

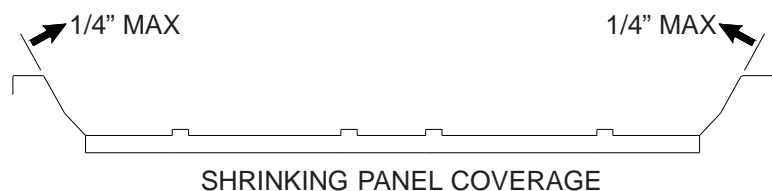
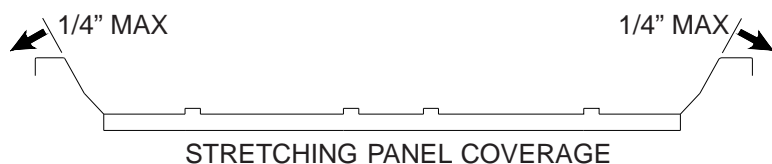
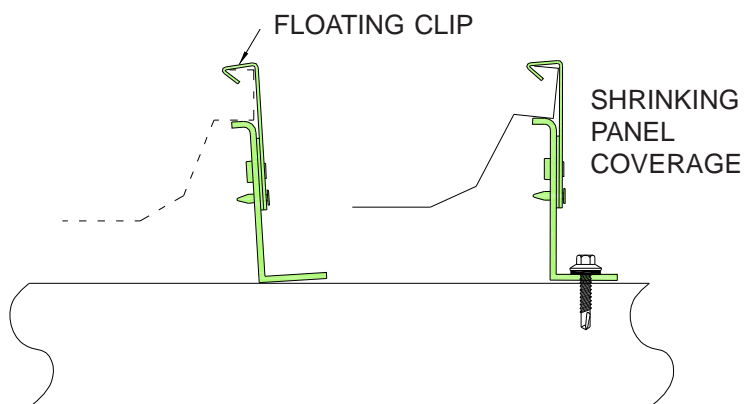
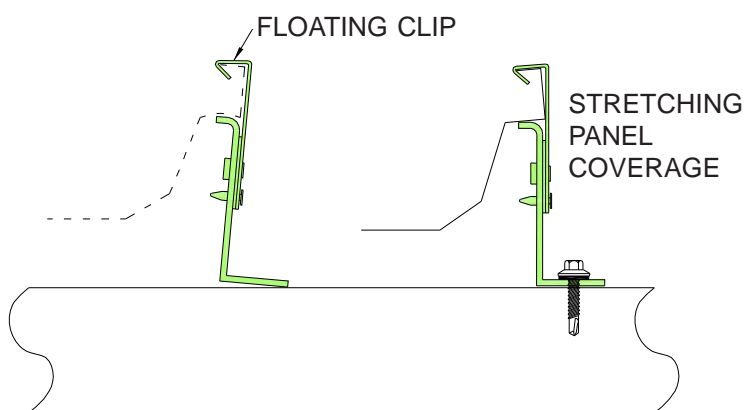
#### CHECK ROOF FOR PANEL ALIGNMENT

Check the roof every three or four runs for panel alignment as it is being erected. This can be accomplished by two different means:

1. Measure from the rake support to the seam of the last completed panel run. Take measurements at the ridge, eave, and all endlaps.
2. Attach a string line to the eave plate and ridge purlin, running parallel to the rake support. The stringline should stay ahead of the work and can be moved across the roof as construction progresses. Measure from the stringline back to the last completed panel run. Take measurements at the ridge, eave, and all endlaps.

## Seam-Lok

## Special Erection Techniques



## RECOMMENDED ERECTION PRACTICES

(CONTINUED)

### ADJUSTING PANEL WIDTH

#### NOTE

**DO NOT ADJUST PANEL WIDTH MORE THAN 1/2" ON ANY PANEL AREA.**

To stretch panel coverage, install the clip at the panel endlap or ridge with the base angled away from the panel. As the fastener is installed through the base of the clip and into the purlin, the clip base will rotate down to the purlin causing the top of the clip to move outward, stretching the panel coverage. Install the remainder of the clips in the same manner.

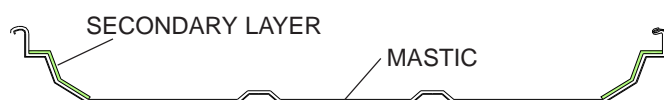
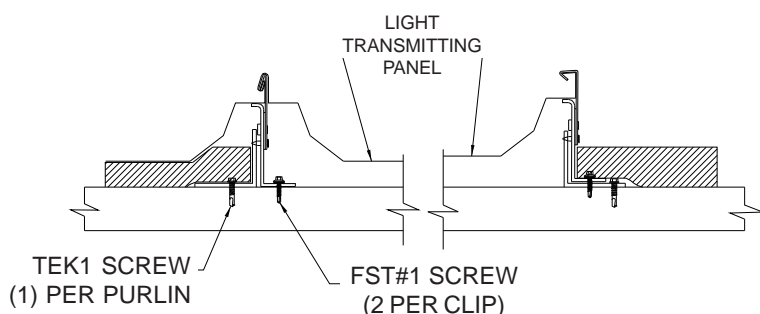
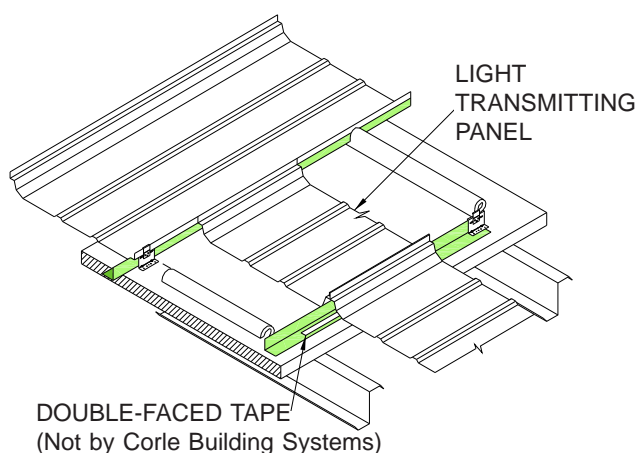
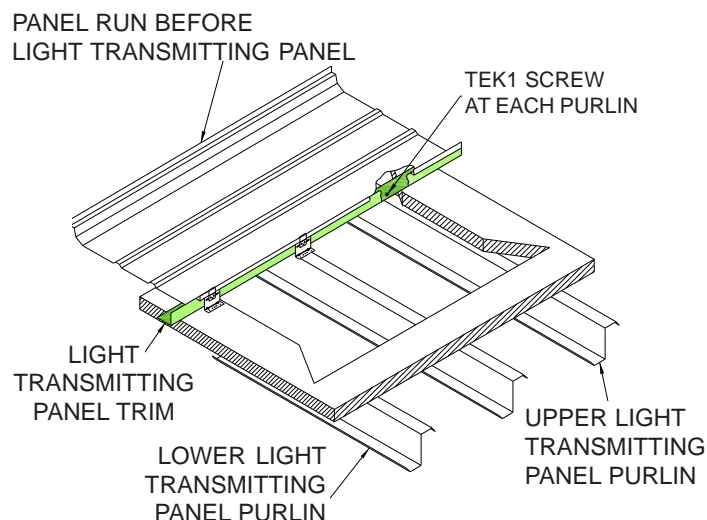
To shrink panel coverage, install the clip at the panel endlap or ridge with the base angled toward the panel. As the fastener is installed through the base of the clip to move inward, shrinking panel coverage. Install the remainder of the clips in the same manner.

To stretch panel coverage, bend the sides of the back-up plate out and install at endlap or ridge. Do not bend either side more than 1/4". Install clips as usual.

To shrink panel coverage, bend the sides of the back-up plate in and install at endlap or ridge. Do not bend either side more than 1/4". Install clips as usual.

## Seam-Lok

## Special Erection Techniques



### MASTIC PLACEMENT FOR LIGHT TRANSMITTING PANEL ENDLAPS

## LIGHT TRANSMITTING PANEL TRIM INSTALLATION (OPTIONAL)

Light transmitting panel trim is available to cover the exposed insulation at the sides of the light transmitting panel opening. Two pieces of 2 1/4" x 3 1/4" x 10'-3" angle are required per light transmitting panel. This angle is designed to work with either the low or the high system. **THE 2 1/4" LEG IS TURNED UP FOR THE LOW SYSTEM AND THE 3 1/4" LEG IS TURNED UP FOR THE HIGH SYSTEM**

### INSTALLATION PROCEDURE

Install panels up to light transmitting panel run. Do not install clips on this run until first light transmitting panel trim piece is installed. Cut and remove insulation where light transmitting panel is to be located. Leave enough insulation at the top and bottom of the opening to be rolled back, allowing only the backing to be exposed. Place double-faced tape on top of the horizontal leg of the trim to hold the insulation.

Notch trim for back-up plates and install directly under male leg of last panel installed, running from lower light transmitting panel purlin to upper light transmitting panel purlin. Attach to purlins with TEK1 screws. Install clips. Install lower light transmitting panel run panel. Leave upper-most clip off until next trim piece is installed. Fold insulation end tab under lower panel and install light transmitting panel.

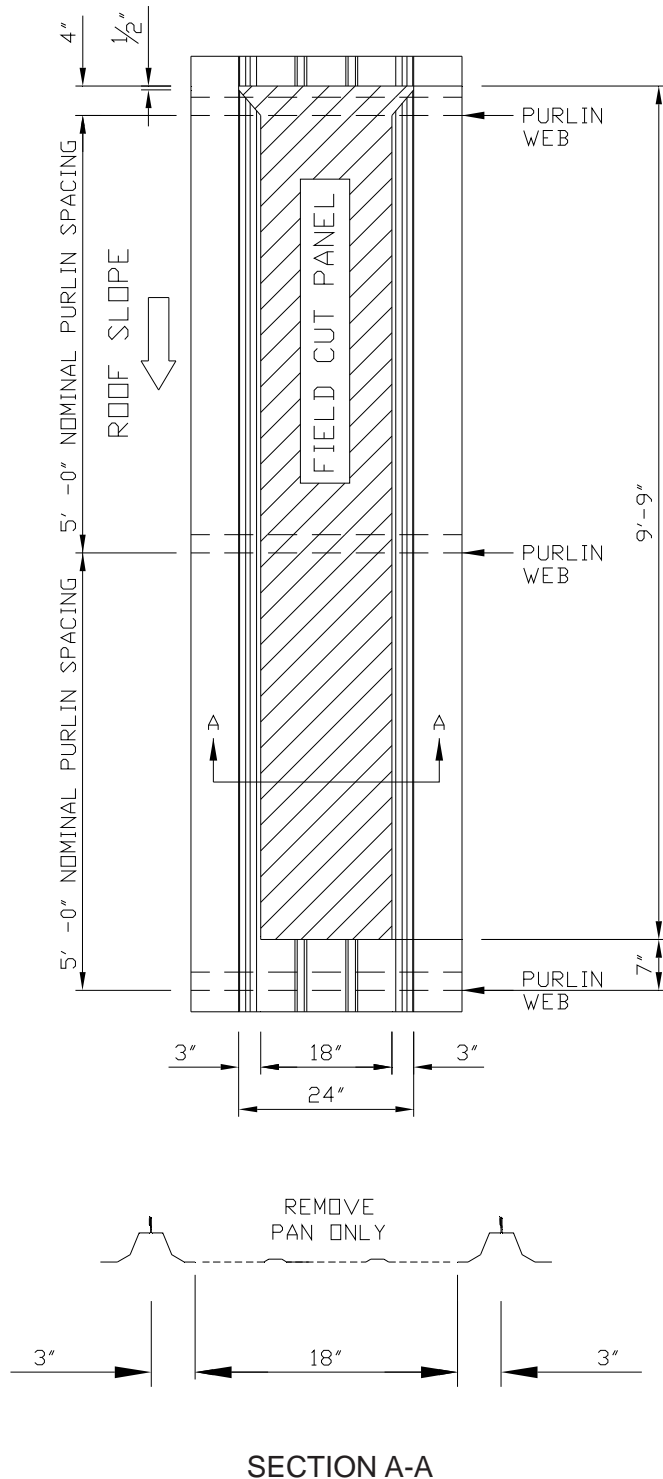
Fold upper insulation end tab above light transmitting panel and install upper light transmitting panel. Place double-faced tape on next trim piece and notch for back-up plates. Install directly under male leg of light transmitting panel and clip all panels down.

### MASTIC PLACEMENT FOR LIGHT TRANSMITTING PANEL ENDLAPS

Install first layer of mastic across panel width as outlined on page SL-36. However, for the upslope and downslope endlaps for light transmitting panels, install a second layer of mastic across the trapezoidal areas of the panel.

## Seam-Lok

## Special Erection Techniques



### Field Located LTP Installation Directions

The Field Located LTP can be installed at any time, either during roof installation or after the roof has been completed. The Field Located LTP may be installed almost anywhere in the roof. The LTP must involve at least two purlin spans and must be at least 5' from the eave, ridge or rake.

Once the Field Located LTP location is determined, verify the exact purlin location at the up slope and down slope ends of the LTP. Cut out the panel flat as shown in the adjacent drawings. At the up slope end only, notch out the panel ribs as shown.

The opening for an LTP on a roof with 5' purlin spacing will measure 9'-9" long by 18" wide. The opening at the down slope end will be 7" from the web of the purlin. The opening at the up slope end will be 4" from the web of the purlin.

### WARNING

**These light transmitting panels are not designed or intended to bear the weight of any person walking, stepping, standing or resting on them.**

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## Seam-Lok

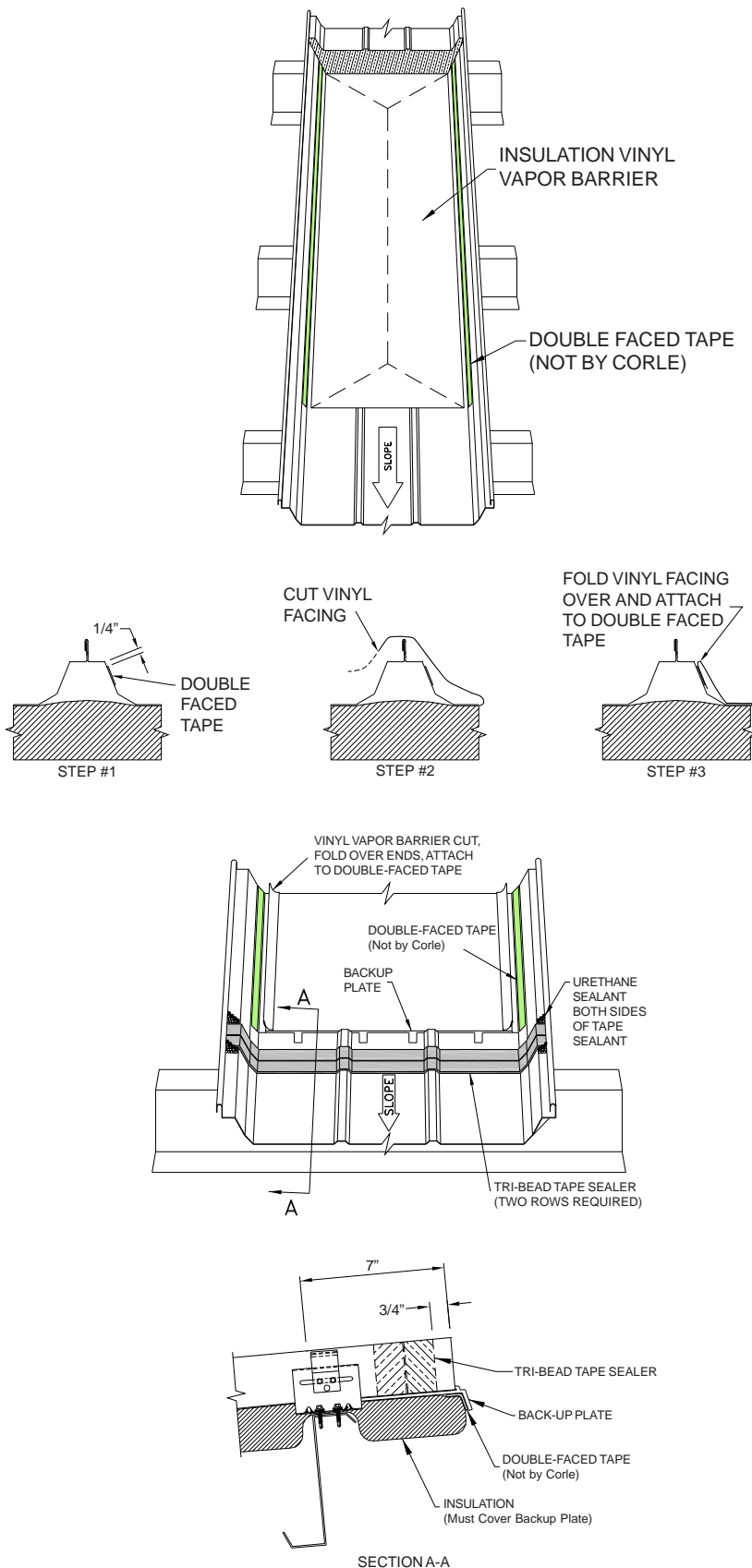
## Special Erection Techniques

### Field Located LTP Installation Directions (CONTINUED)

After the metal has been removed from the LTP opening, remove the exposed fiberglass insulation without damaging the vinyl vapor barrier. This can be aided by carefully running the blade of a utility knife along the edge of the metal at the opening. Do not penetrate the vapor barrier.

Apply double-faced tape along the side of the panel trapezoid on both sides of the opening as shown in Step 1. Pull the vapor barrier over the panel ribs, then cut vinyl vapor barrier as indicated by the dotted lines as shown in Step 2. Fold vapor barrier and push tightly to the double-faced tape as shown in Step 3. At both the up slope and down slope ends, the vapor barrier should be tucked under the metal panel.

At the down slope end of the opening, install a backup plate onto the end of the roof panel, then install two rows of Tri-Bead tape sealant across the width of the panel. The up slope edge of the tape sealant should be 3/4" down slope from the edge of the opening. Apply a liberal bead of urethane sealant across the tape sealant at the panel seam on either side of the opening.



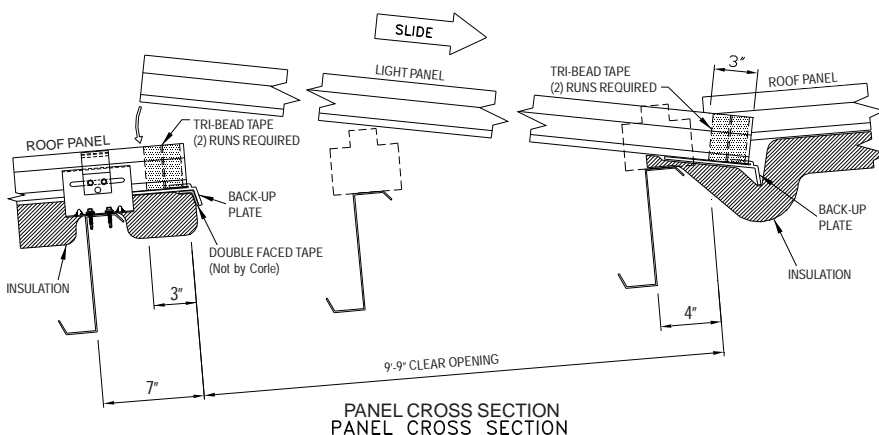
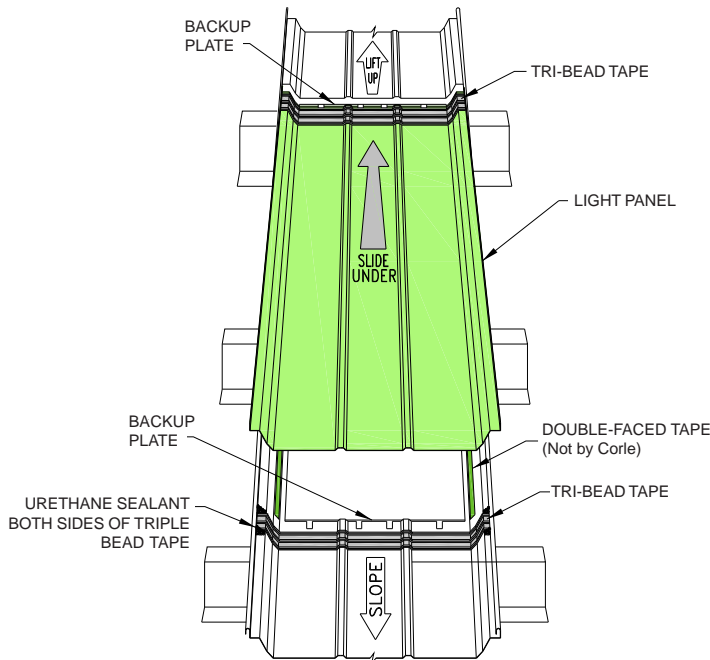
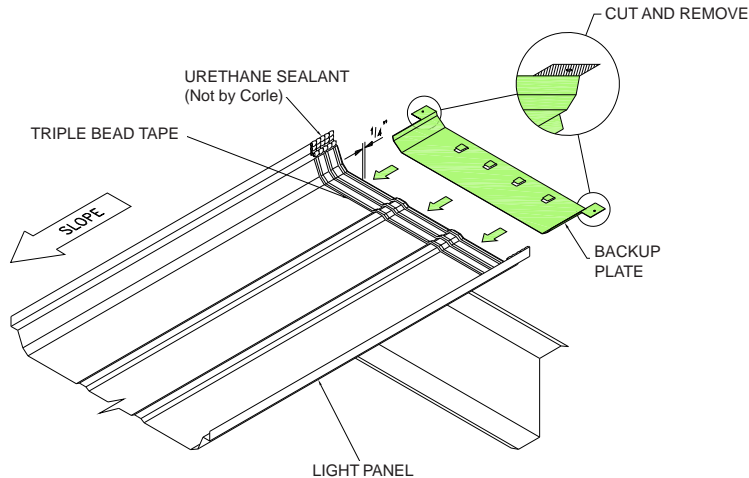
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# Seam-Lok

# Special Erection Techniques



## Field Located LTP Installation Directions (CONTINUED)

At the up slope end of the LTP, install two rows of Tri-Bead tape sealant across its width, up to the horizontal shelf of the trapezoid. The up slope edge of the top run of tape sealant should be 3/4" from the edge of the LTP. Apply a 3" long bead of urethane sealant that covers the rest of the rib of the LTP and marries to the tape sealant. This should be done on both sides of the LTP.

Cut the "engagement flanges" off of both sides of a back-up plate and install onto the up slope end of the LTP.

Lift the metal roof panel at the up slope end of the opening. While the metal panel is lifted up, slide the up slope end of the LTP (with the back-up plate engaged on it) under the metal panel for 3". Once the 3" end lap has been achieved at the up slope end, lower the down slope end of the LTP onto the metal panel.

## WARNING

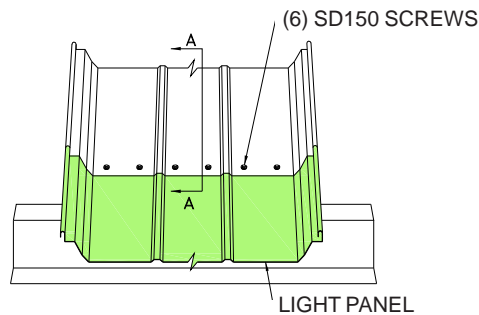
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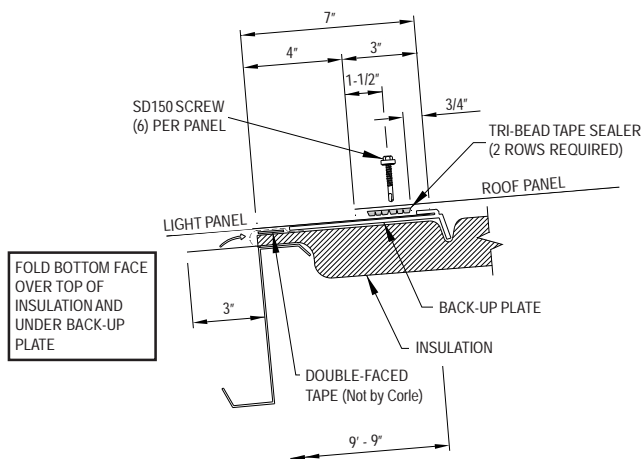
## Seam-Lok

## Special Erection Techniques

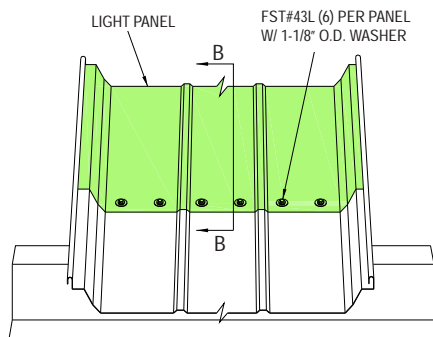
### UP SLOPE END OF LIGHT PANEL



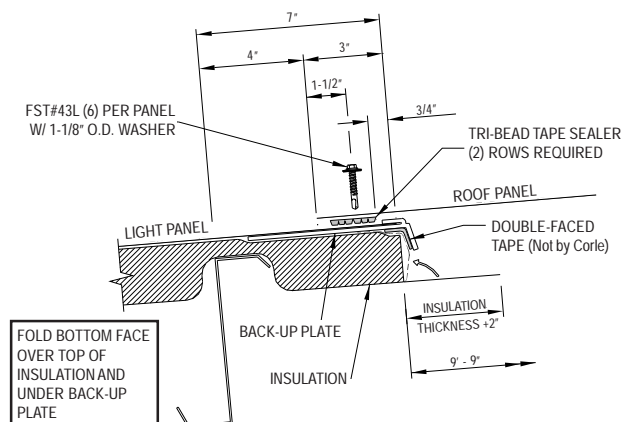
### SECTION A-A



### DOWN SLOPE END OF LIGHT PANEL



### SECTION B-B



## Field Located LTP Installation Directions (CONTINUED)

At the up slope end of the LTP, install six SD150 fasteners through the metal panel, LTP and into the back-up plate. Fasteners should be 1-1/2" up slope from the edge of the metal panel and spaced evenly across the flat of the panel as shown in the top two drawings.

At the down slope end of the LTP, install six #43L fasteners through the LTP, the metal panel and into the back-up plate. Fasteners should be 1-1/2" up slope from the edge of the LTP and spaced evenly across the flat of the panel as shown in the bottom two drawings.

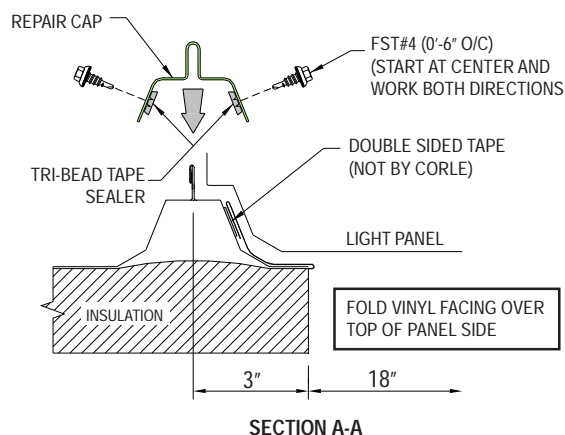
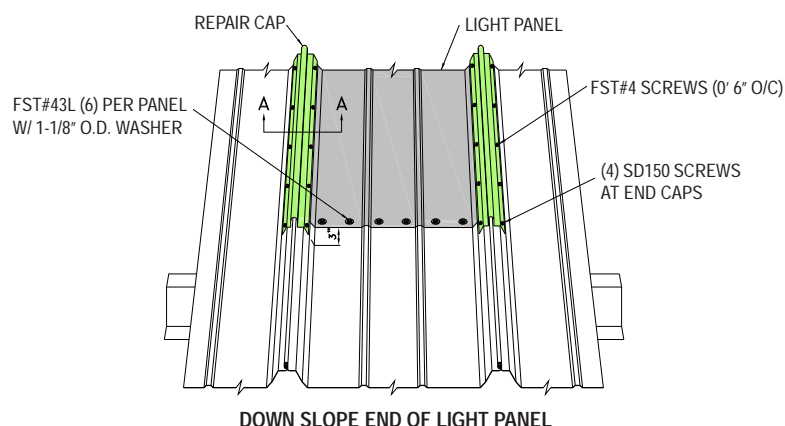
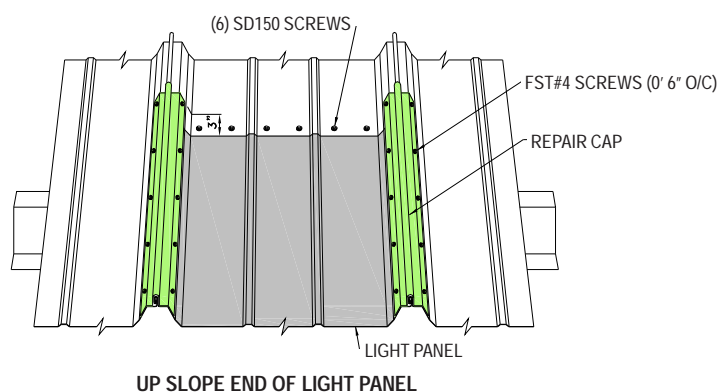
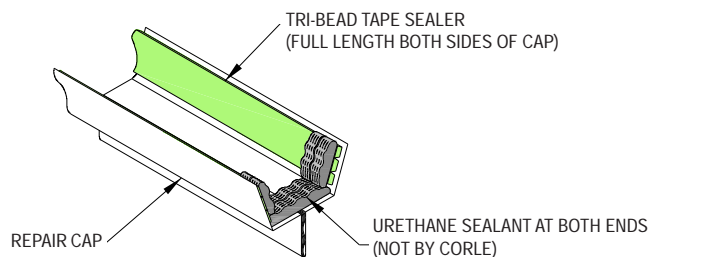
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## Seam-Lok

## Special Erection Techniques



### Field Located LTP Installation Directions (CONTINUED)

Install Tri-Bead tape sealant on the inside and along the full length of two repair caps. At each end of both repair caps, apply a liberal amount of urethane sealant in the rub and up both sides.

Install the repair caps to either side of the LTP. The repair caps should extend past the LTP an equal distance at both ends. While putting moderate foot pressure on the repair cap, install Fastener #4 at 6" on center. Fastener must penetrate through the tape sealant on the inside of the repair cap and into panel side cinching repair cap tight. It is best to pre-mark the fastener locations and start in the middle of the repair cap and work towards both ends installing the fasteners.

When repair caps are attached, inspect the up slope end of each to insure that the urethane sealant completely sealed the repair cap to the panel and that there are no voids. If any voids are found, inject more urethane sealant into the area and finger wipe.

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# Seam-Lok

# Special Erection Techniques

## RIDGE VENTILATOR INSTALLATION

### NOTE

CORLE does not recommend the use of a ridge ventilator on standing seam roof systems. Sidewall or endwall exhaust fans or other ventilating methods should be considered. These details are for your convenience only. Only a 9" ridge ventilator can be used with this SSR system. **DO NOT USE RIDGE VENTILATORS ON ANY ROOF OVER 200' IN WIDTH OR WITH A SLOPE LESS THAN 1:12 OR GREATER THAN 4:12.**

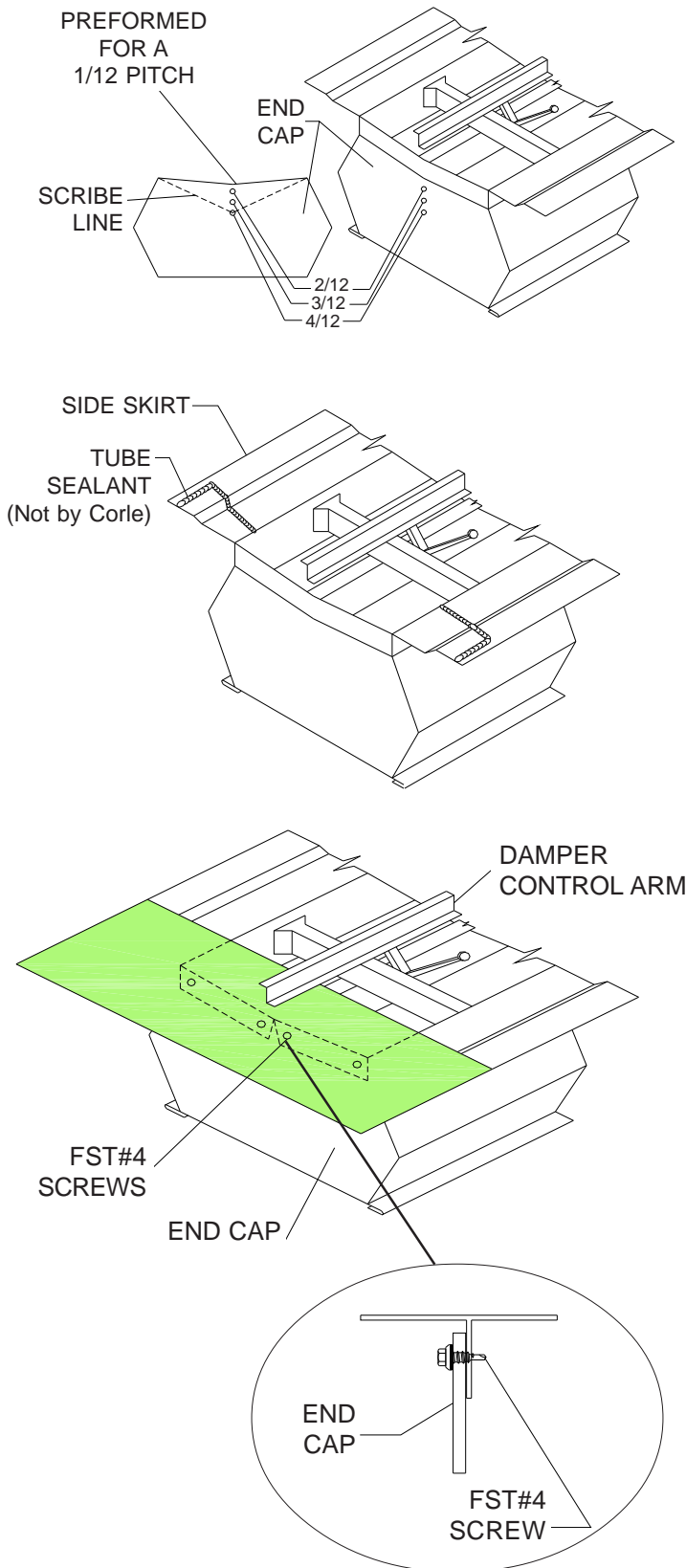
Turn ventilator over and place gently on its top. Note that the end cap is pre-formed for a 1/12 roof pitch. The three bench mark dots represent 2/12, 3/12, and 4/12 roof pitches. Draw a line between indicated corners and the appropriate dot for the roof pitch.

Cut and remove that portion of the end cap. The end cap is now ready to receive the end skirt.

Position the end skirt over the end cap, aligning center of end skirt with center of end cap. Mark the perimeters of the end skirt on the side skirts of the ventilator. Remove end skirt and apply tube sealant to the side skirts of the ventilator, just inside the marks. This will prevent water from being forced between the two pieces and entering the building.

Reposition end skirt onto end cap. Be sure the down-turned angle of the end skirt is inside of and up against the end cap. Attach end skirt to ventilator end cap with FST#4 screws in four places.

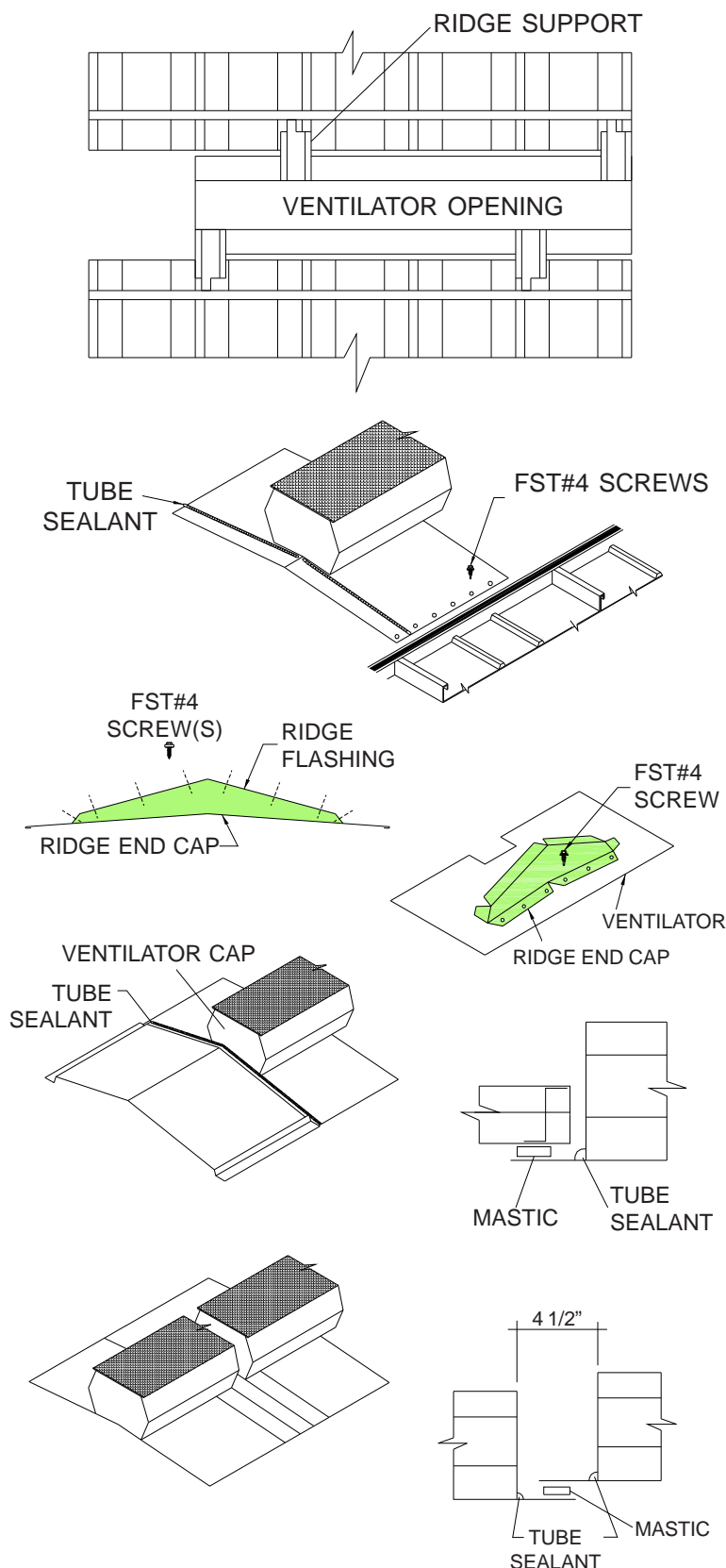
Reposition end skirt onto end cap. Be sure the down-turned angle of the end skirt is inside and up against the end cap. Attach end skirt to ventilator end cap with FST#4 screws in four places.





## Seam-Lok

## Special Erection Techniques



### RIDGE VENTILATOR INSTALLATION (continued)

With TEK1 screws, install two ridge supports on each side of the ridge to support the ventilator. Two fasteners are required for each ridge support.

After mastic has been applied to top of outside closures, install ventilator in proper location. Be sure to center in opening. Attach ventilator to outside closures with FST#4 screws on 6" centers. Use tube sealant to seal between the outside of the ventilator and the end skirt.

Install the ridge flashing as in Step 16, except for those pieces on either side of the ventilator. These will be positioned on top of, and seal to, the ventilator end skirt with a ridge end cap. Use mastic to seal the ridge end cap to the ridge flashing and the end skirt. Use FST#4 screws to install the end cap. Six fasteners are required to tie the end cap to the ventilator end skirt. Eight fasteners are required to tie the end cap to the ridge flashing.

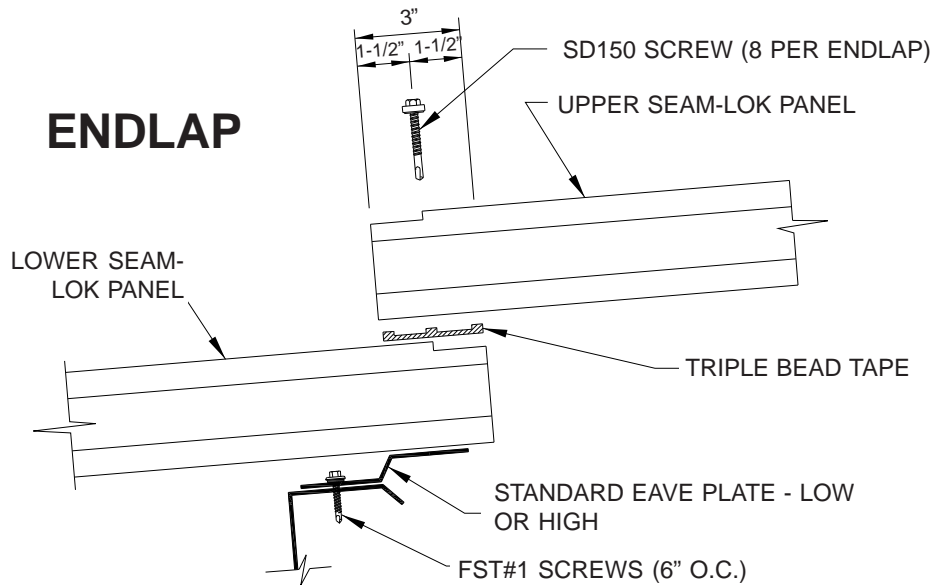
For continuous ventilators, install end skirts on both ends of all ventilators. The end skirts will overlap each other at each ventilator connection. Use mastic to seal between the end skirts and tie together with FST#4 screws on 6" centers. The ridge ventilators must be spaced 4 1/2" apart. This will require a cable rather than the linkage rod to hook the damper control arms together. Do not connect more than 3 vents to the same linkage.

**NOTE:** Tube Sealant not provided by Corle Building Systems.

## Seam-Lok

## Special Erection Techniques

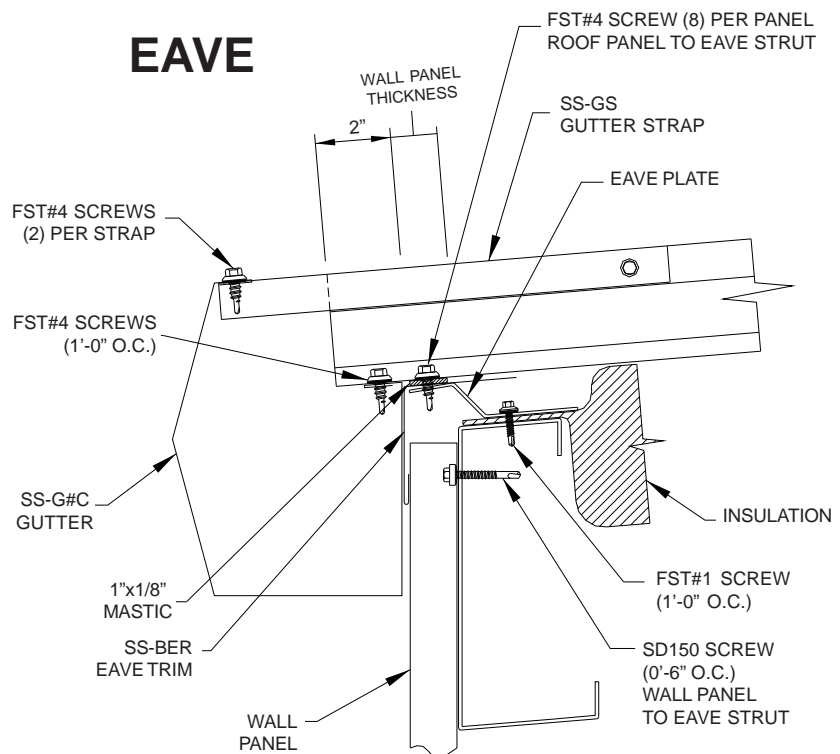
### MID SLOPE FIXED CONDITION



#### NOTES

1. This special detail is for use when a panel run exceeds the thermal movement capabilities of the panel clip. Please refer to Page SL-5.
2. A positive panel attachment is made at the mid-point in the panel run allowing for thermal movement to the eave and ridge.
3. The standard floating ridge condition must be used in conjunction with this special eave detail.
4. The **floating eave plate** must be used to allow for panel movement to the eave and ridge.
5. Floating clips have a maximum movement of 1" in each direction. Articulating clips have a maximum movement of 1 1/4" in each direction. Thermal calculations must be performed for each project to ensure that the thermal movement of the roof will not exceed the design of the clips and 2" slots in the special eave plate.

### EAVE

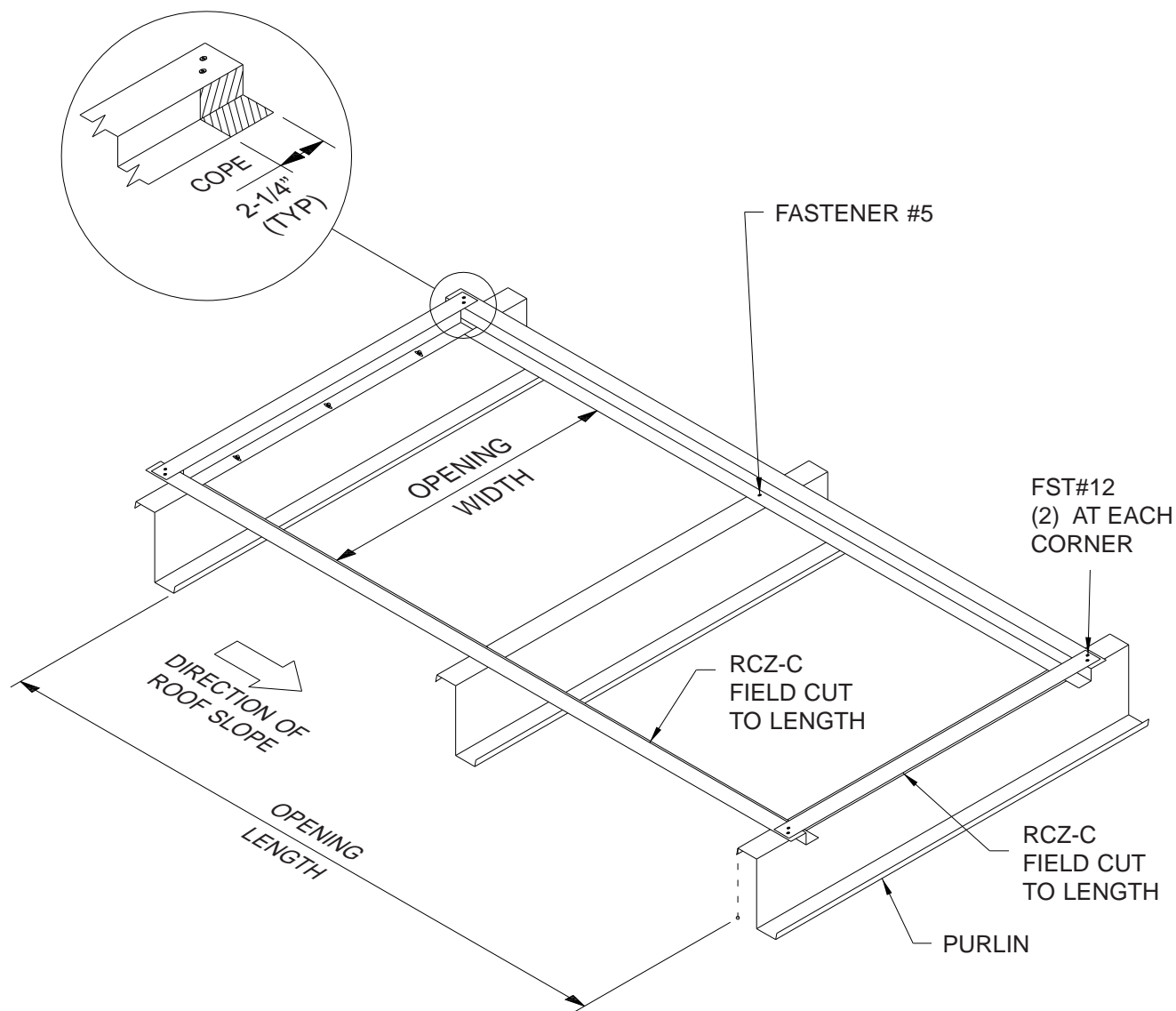




# Seam-Lok

# Special Erection Techniques

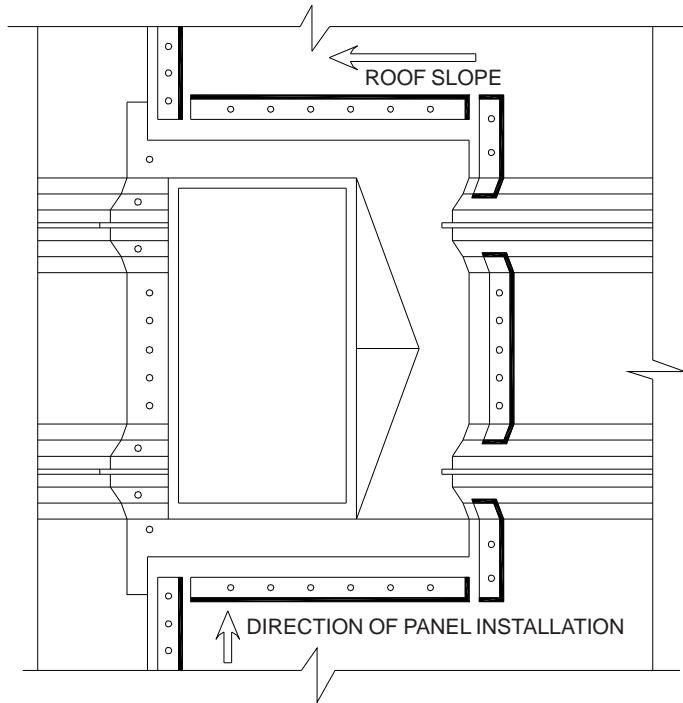
## ROOF CURB "Z" SUPPORT INSTALLATION



# Seam-Lok

# Special Erection Techniques

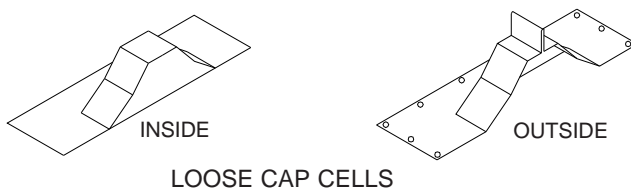
## CURB INSTALLATION



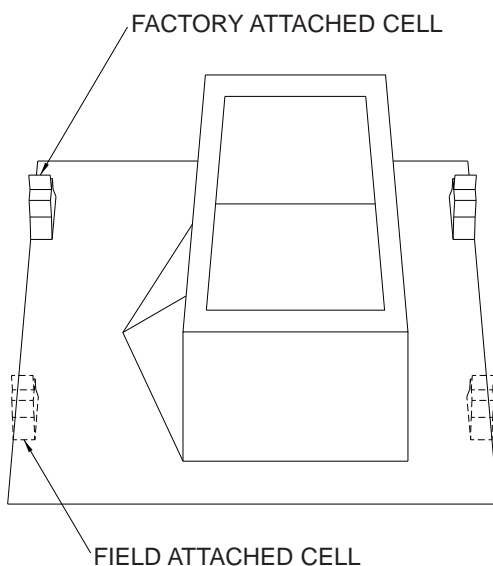
The manufacturer recommends that only one-piece roof curbs be used with SSR roof systems.

The roof curb will be installed under the roof panels on the upslope end and over the panels at the downslope end. To accomplish this, the roof panels must be endlapped at the downslope end of the curb. This allows both ends of the curb to shed water and places the heavier gauge metal of the curb under the roof panels for better resistance to foot traffic at the upslope end of the roof curb. Since there are endlaps at this area, back-up plates provide support.

Inside cap cells (for top) and outside cap (for bottom) are used to seal the panel trapezoid to the roof curb. If curb placement is not critical (within 12"), the cap cells may be factory attached to the curb. If the curb must be located in a precise location, order the cap cells loose for field installation.



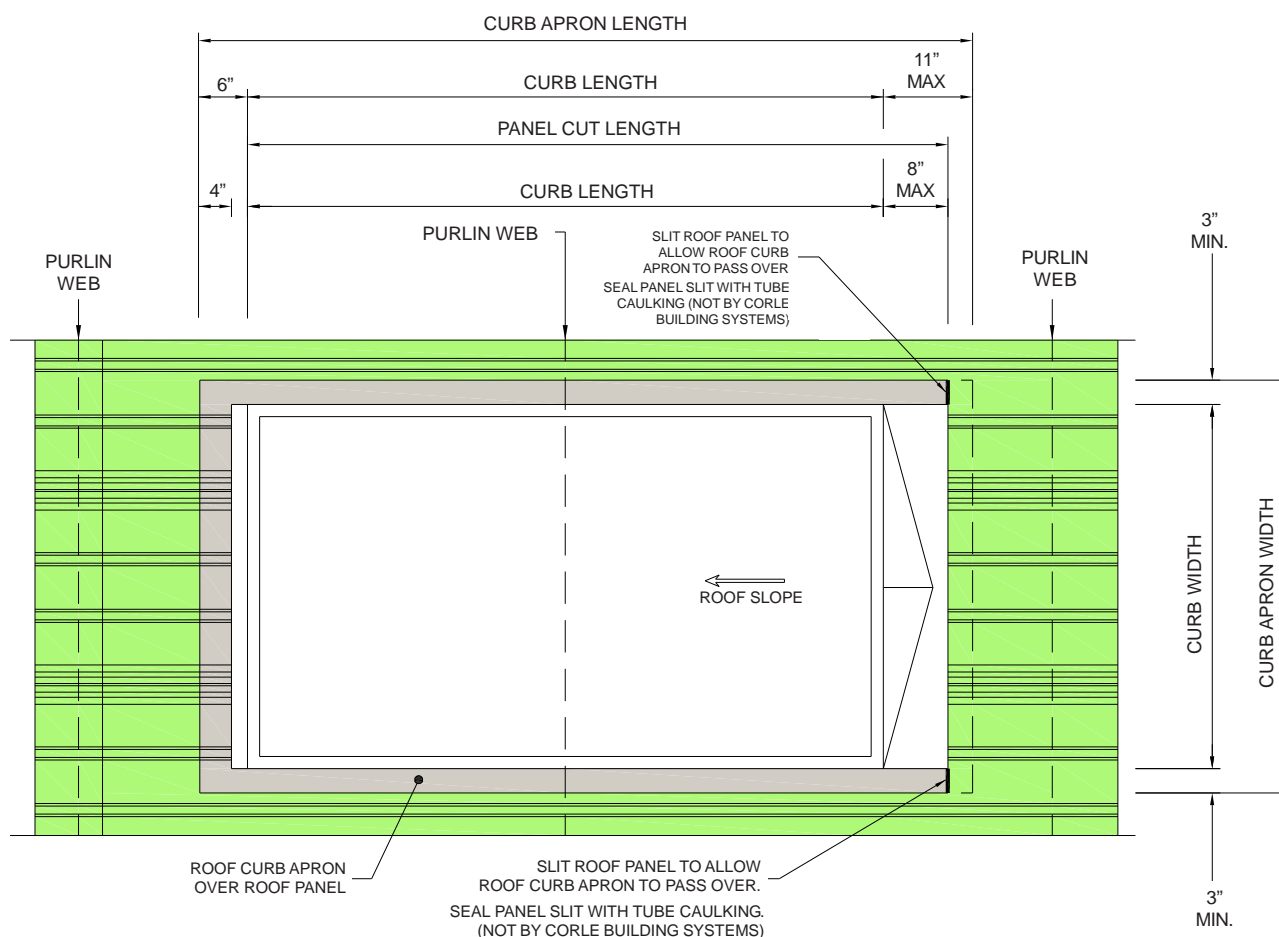
For the purpose of these instructions, a curb with factory attached cap cells is illustrated.



## Seam-Lok

## Special Erection Techniques

### CURB INSTALLATION



Install top run of panels cutting the panels at each side of the curb to fit. Apply urethane sealant to seams of all panels that seal to the inside cap cells on the upslope end of the curb. End of top panels should be 8" from the back of the roof curb. Top panel should lap onto curb 3".

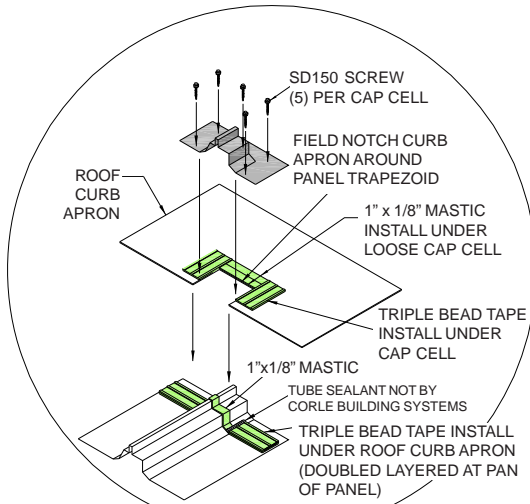
Fasten the roof curb with SD150 screws at 3" O.C. Fasteners must go through the triple bead tape.

Full length panels may now once again be used. For drawings with call-outs, see Page SL-69.

# Seam-Lok

# Special Erection Techniques

## MASTIC LAYOUT AT ROOF CURB



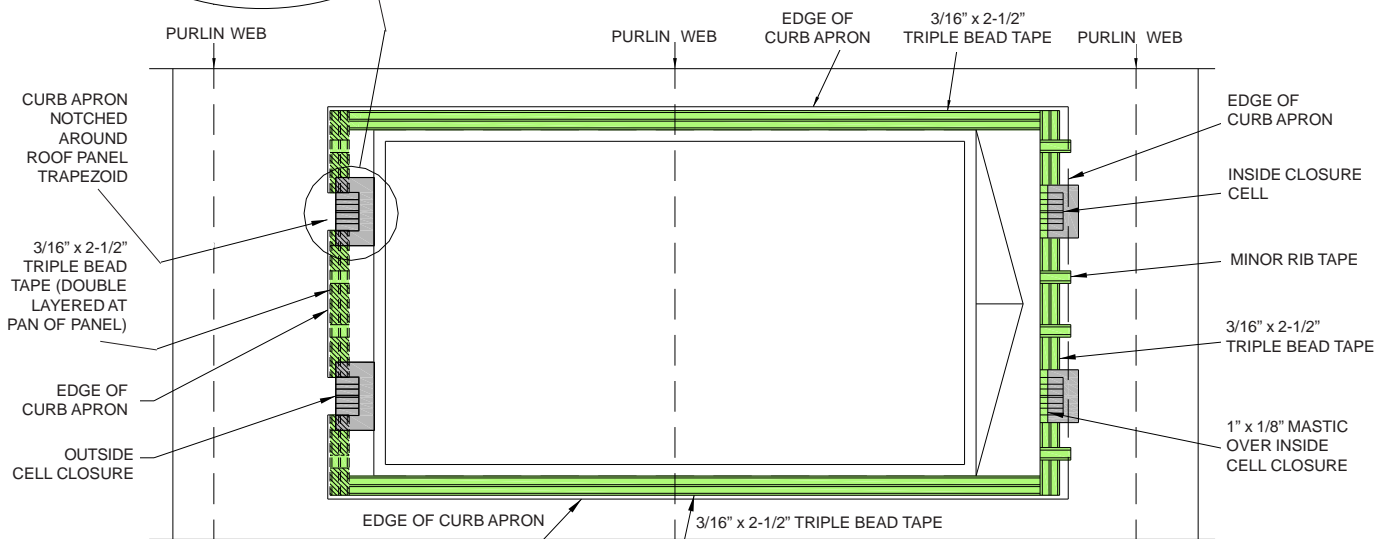
## CURB INSTALLATION

Corle Building Systems recommends installing roof curbs after the installation of the roof, but curbs may be installed during the installation of the roof. **The roof curb "Z" supports must always be installed during the roof installation.**

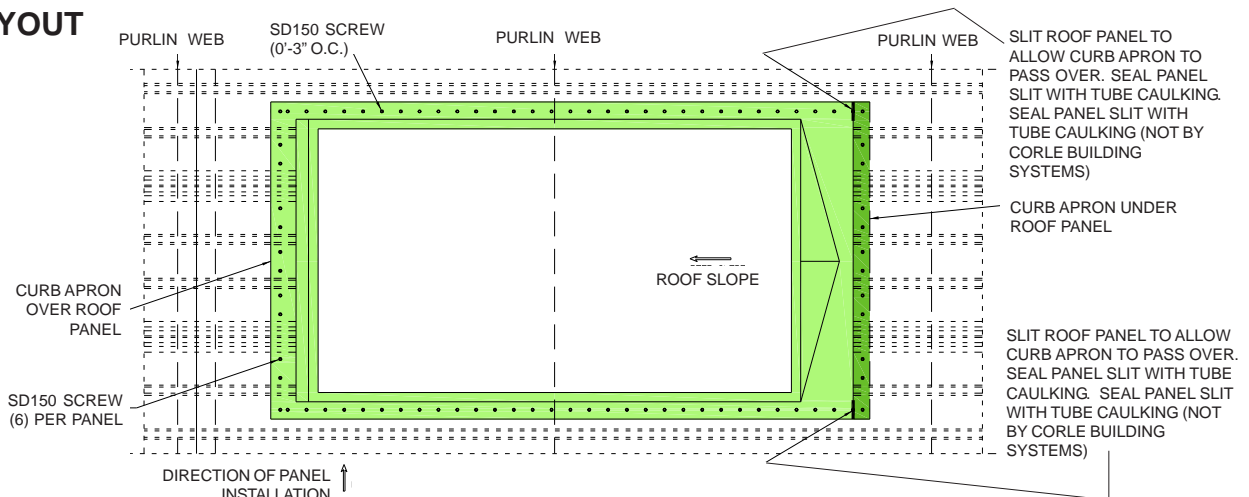
Install all bottom panels, attaching back-up plates and mastic to each panel as it is being installed. **It is critical that the triple bead tape be installed over the male leg of the panel before the next panel is installed.** Failure to follow this procedure will cause the curb to leak during rains coupled with high winds. Install curb on top of bottom panels and curb support framing. Apply triple bead tape to sides and upslope end of curb. Fasten downslope end of curb to the bottom roof panels and backup plates with SD150 screws at 3" O.C. Fasteners must go through the triple bead tape.

Full length panels are required to field cut at the roof curb. The roof panels should lap over the curb apron 4" on the downslope side of the curb and 3" on the upslope side of the curb. The first and last field cut panel will also be required to be slit on the upslope end of the panel to allow the roof curb apron to transition from under the roof panel to over the roof panel. **It is recommended that the slit in the panel does not exceed +1/8" on either side of the curb apron.**

Roof curb locations may be adjusted 1'-0" or less in the direction of the purlins and one purlin spacing in the direction of the eave or peak.



## CURB LAYOUT



## Seam-Lok

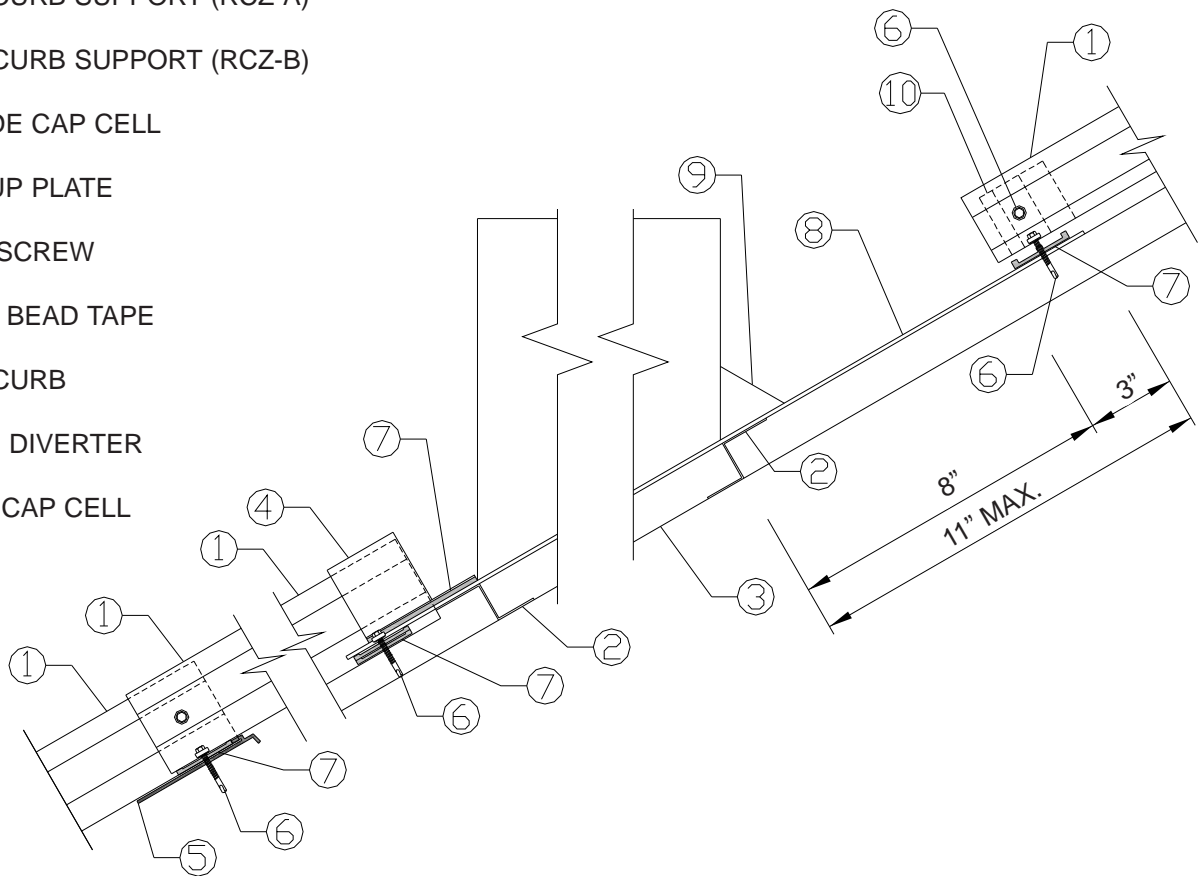
## Special Erection Techniques

### CURB INSTALLATION

Curbs can be ordered from Design Components, Inc. at 1-800-868-9910 or Kentuckiana Curb Co. (KCC International) at 1-800-382-2872.

When ordering curbs, specify one piece curbs as shown on this page.

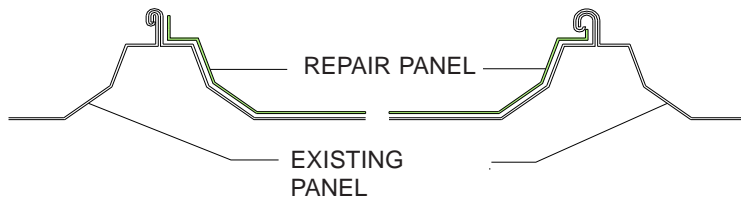
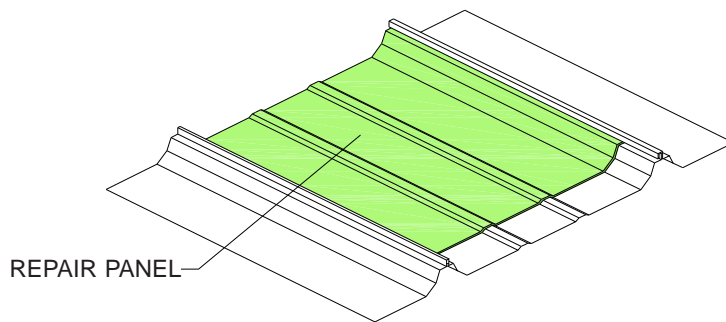
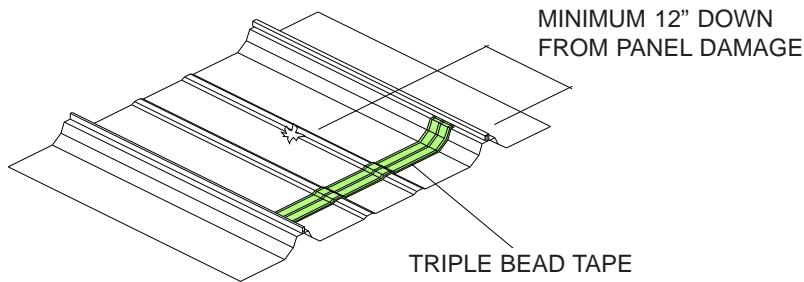
1. SEAM-LOK PANEL
2. ROOF CURB SUPPORT (RCZ-A)
3. ROOF CURB SUPPORT (RCZ-B)
4. OUTSIDE CAP CELL
5. BACK-UP PLATE
6. SD150 SCREW
7. TRIPLE BEAD TAPE
8. ROOF CURB
9. WATER DIVERTER
10. INSIDE CAP CELL



# Seam-Lok

# Special Erection Techniques

## GUIDELINES FOR INSTALLING REPAIR PANEL



Remove ridge flash at damaged area. Remove outside closures from, and on each side of, damaged panel.

Apply triple bead across width of panel 12" below the damaged area.

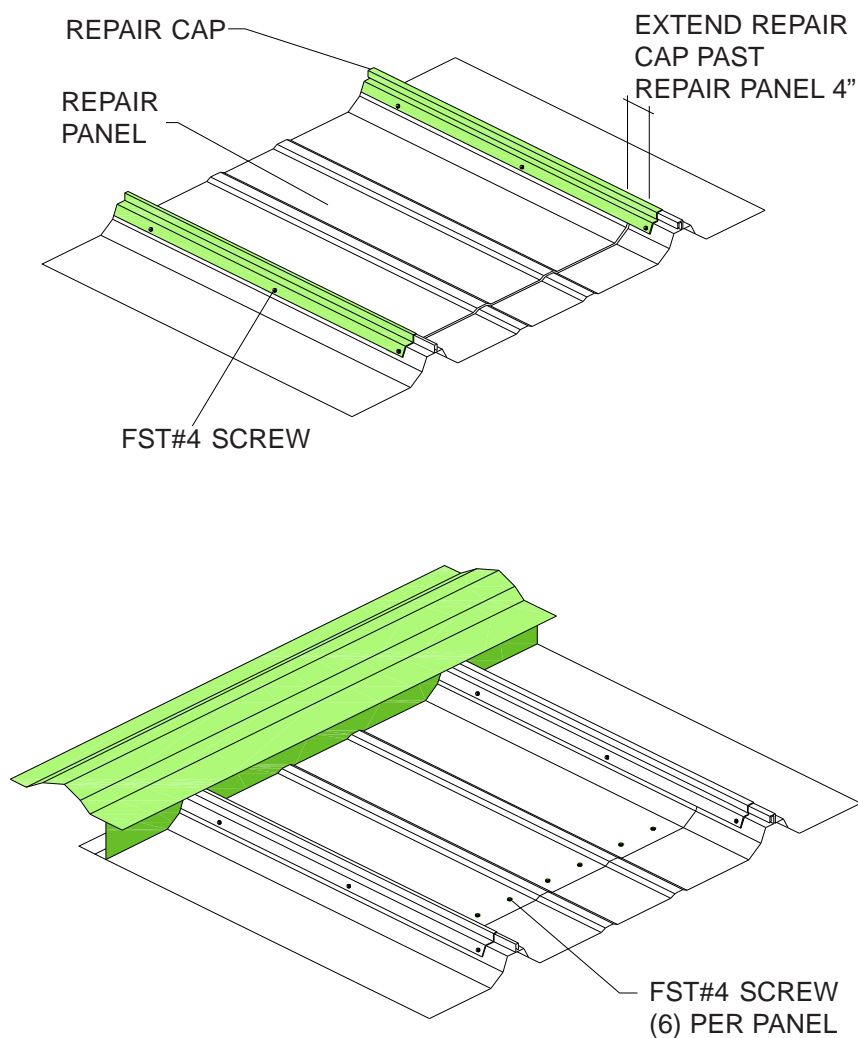
Repair panel has a 1/2" leg on one side and a 1" leg on the other side.

Install repair panel by sliding the 1/2" leg of the panel behind the seam of the existing panel. Repair panel must extend up slope behind outside closure.

## Seam-Lok

## Special Erection Techniques

### GUIDELINES FOR INSTALLING REPAIR PANEL (continued)



Install repair caps over both panel ribs, extending 4" down slope from repair panel.

#### NOTES

See next page for repair cap installation.

Install (6) FST#4 screws. Screws must penetrate through the Triple Bead Mastic Tape.

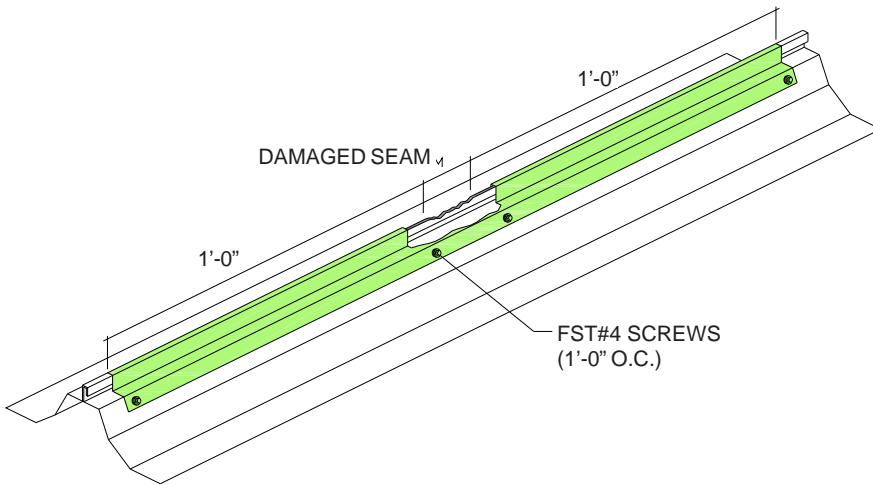
Reinstall outside closures and ridge flash.



## Seam-Lok

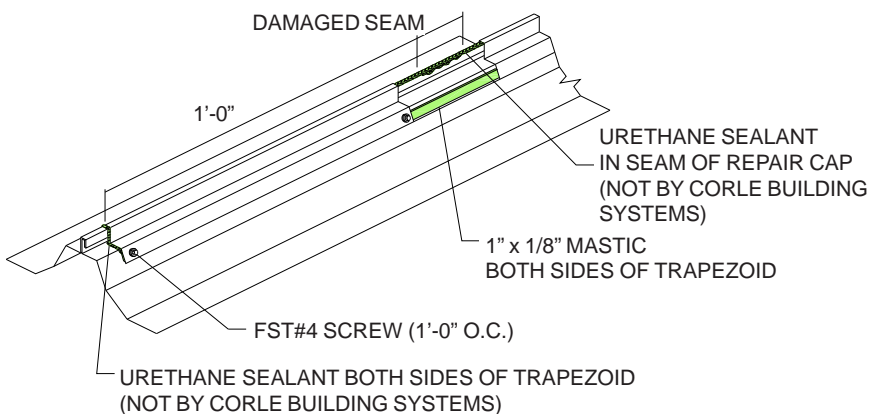
## Special Erection Techniques

### GUIDELINES FOR INSTALLING REPAIR CAP ON DAMAGED SEAM-LOK SEAMS



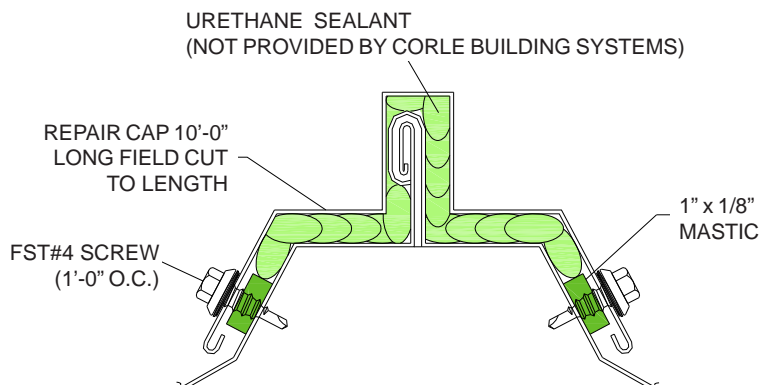
Repair cap must be fabricated from the same gauge material and have the same finish as roof panels and must extend a minimum of 12" above and below the damaged area.

Install a continuous run of mastic to the inside of both legs of the repair cap. Place lower edge of mastic approximately 1/4" up from the bottom of legs. Fill seam portion of repair cap with urethane sealant. At each end of the repair cap, apply a 3/8" bead of sealant across the inside cross section of the repair cap.



Push repair cap down onto panel and fasten with FST#4 screws -- 1'-0" O.C. Fasteners must go through mastic.

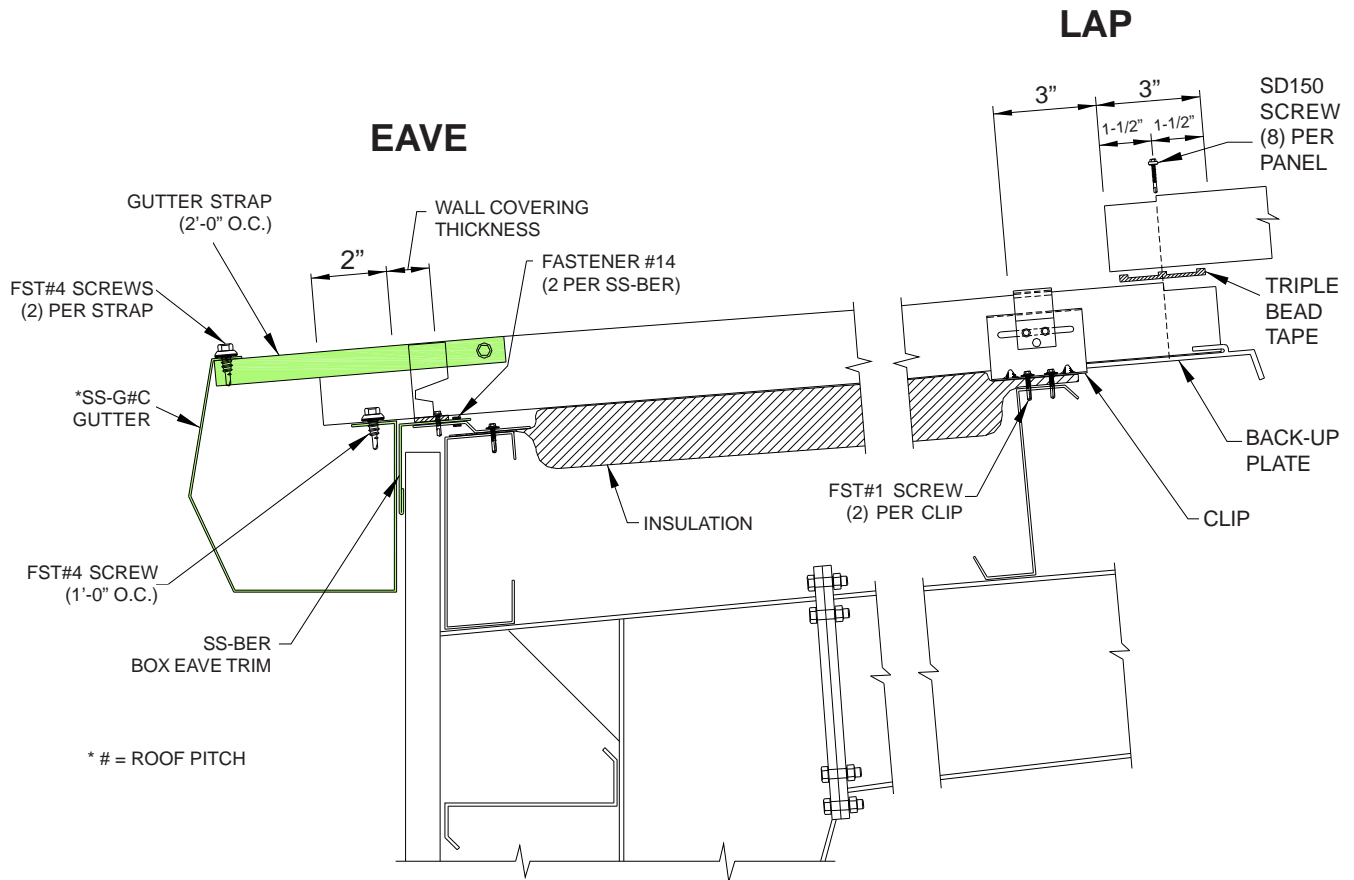
Check repair cap at each end to verify that urethane sealant has sealed across the entire cross section of the repair cap. Wipe off excess sealant.



# Seam-Lok

# Design

## TRIM DETAILS - EAVE TO ENDLAP



### NOTE:

THE ABOVE GUTTER SHOULD NOT BE USED IN AREAS THAT EXPERIENCE SNOW LOADS OF 10 PSF OR HIGHER. SEE PAGE SL-79 FOR THE GUTTER DETAIL FOR THESE AREAS.

SEE PAGE SL-21 FOR FASTENER SELECTION.

# Seam-Lok

# Design

## TRIM DETAILS - RIDGE

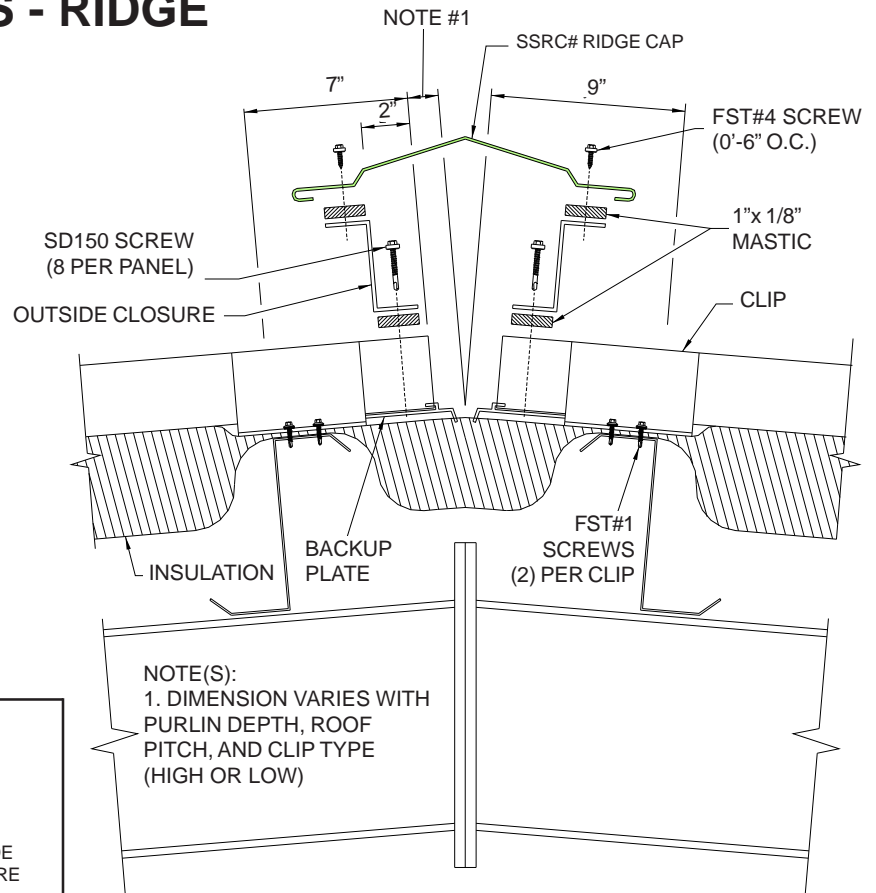
### NOTE

Install the ridge flashing starting and ending 2 1/2" outside the steel line. Fasten the ridge flashing to the outside closures with FST#4 screws on 6" centers. Leave 6" unfastened on each end to allow for the rake trim to be installed later.

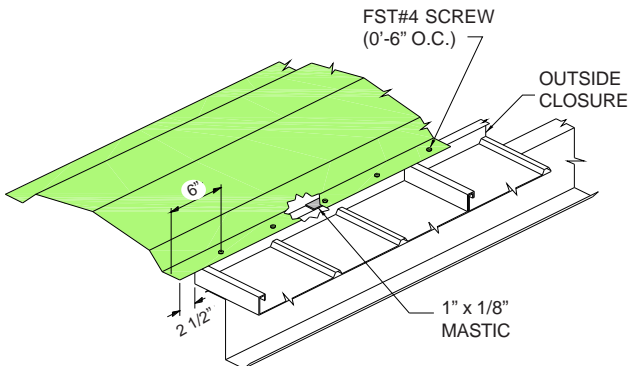
Install the ridge flashing starting and ending 2 1/2" outside the steel line. Fasten the ridge flashing to the outside closures with FST#4 screws on 6" centers. Leave 6" unfastened on each end to allow for the rake trim to be installed later.

**DO NOT FASTEN THROUGH THE LOCK OF THE STANDING SEAM.**

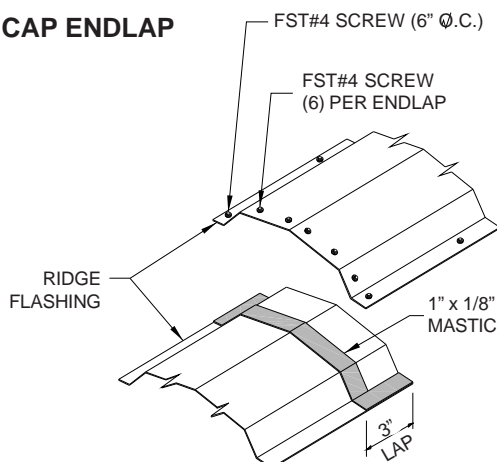
Install 1" x 1/8" mastic across the lower ridge cap, 1" from the end of the trim. Use (6) FST#4 screws to attach ridge caps together. Ensure that the screws go through the mastic on the lower ridge cap.



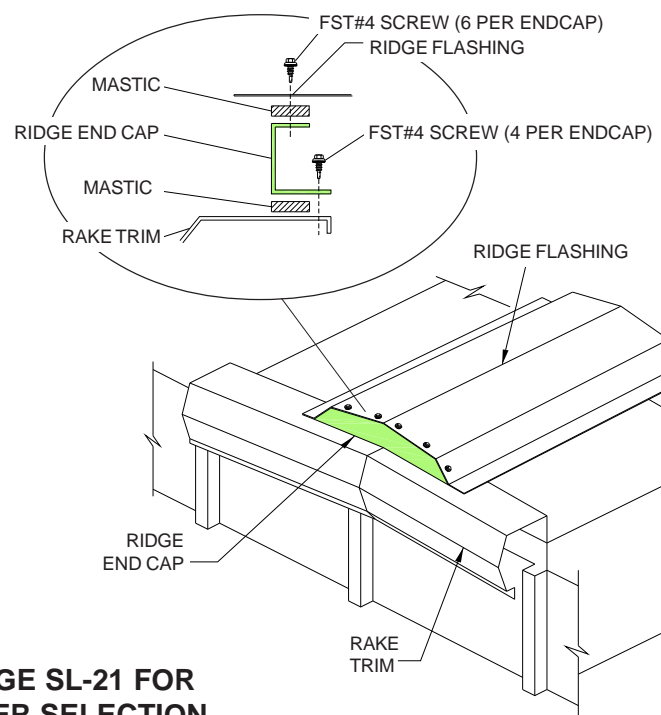
### RIDGE CAP/ MASTIC TO CLOSURE



### RIDGE CAP ENDLAP



### RIDGE CAP - END CAP

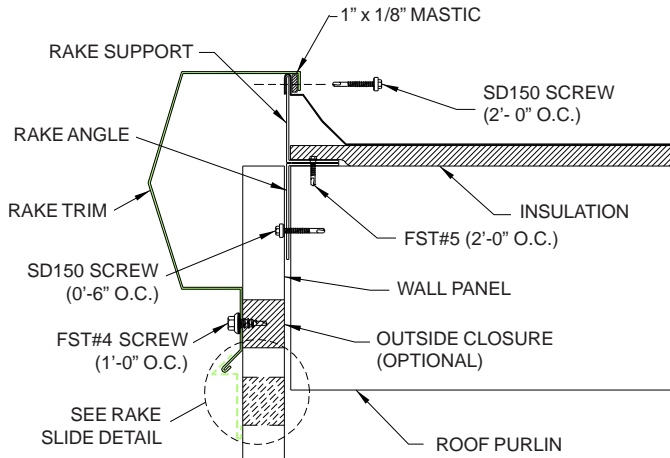


**SEE PAGE SL-21 FOR FASTENER SELECTION**

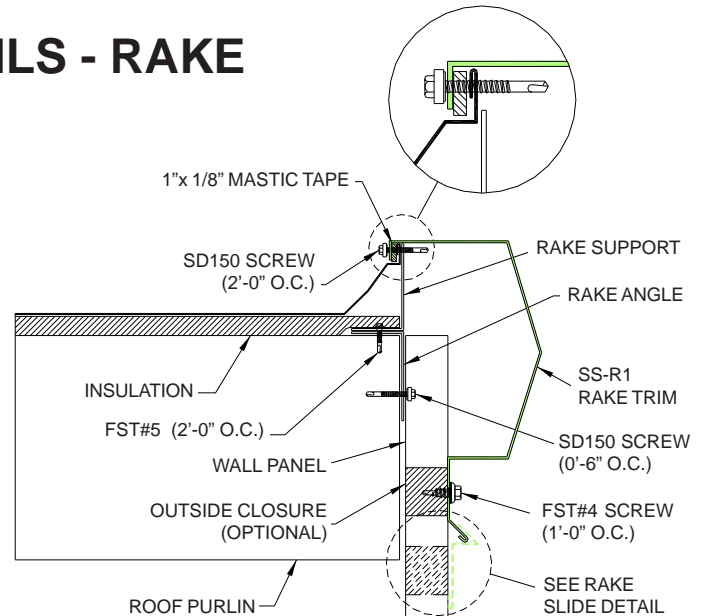
# Seam-Lok

# Design

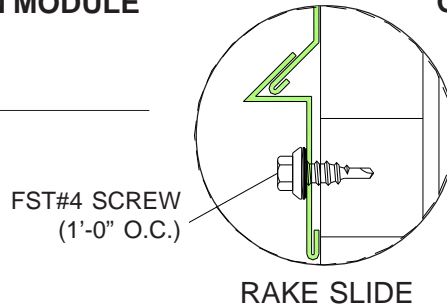
## TRIM DETAILS - RAKE



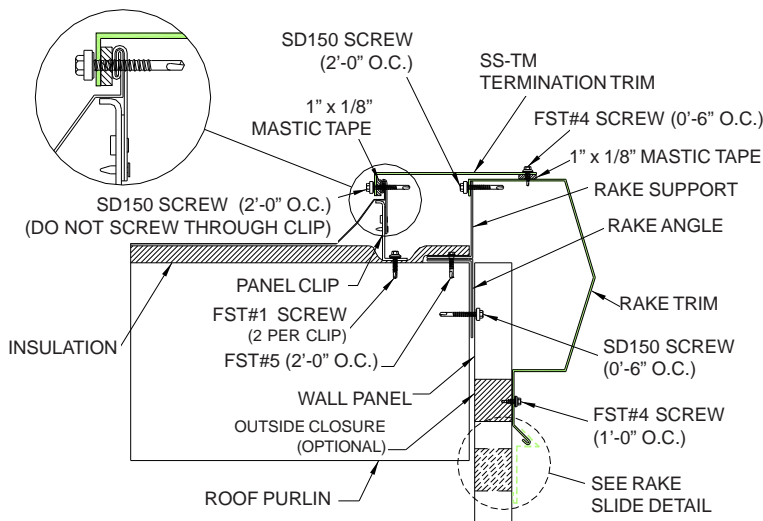
**BEGINNING RAKE TRIM  
ON MODULE**



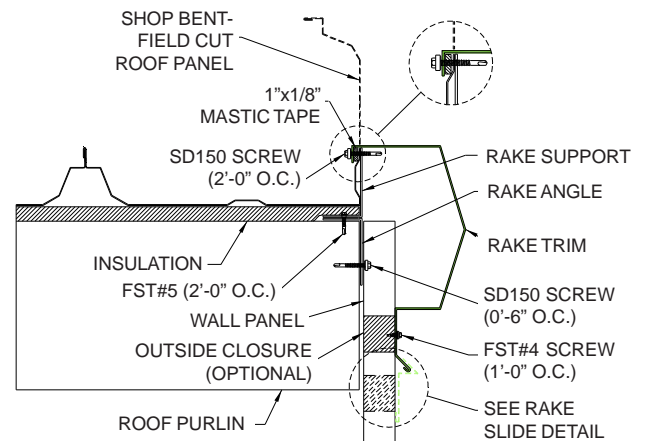
**ENDING RAKE TRIM  
ON MODULE**



ONLY USED ON BUILDINGS:  
 SINGLE SLOPE >90'-0"  
 GABLE BUILDING >180'



**BEGINNING OR ENDING RAKE TRIM OFF MODULE**



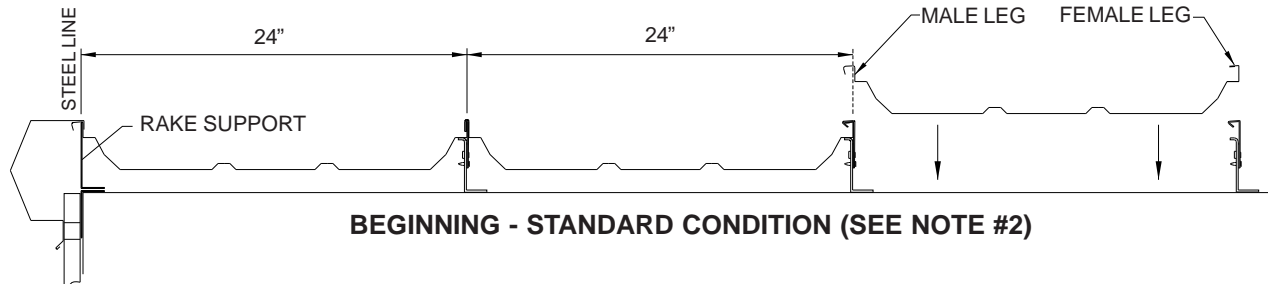
**BEGINNING OR ENDING  
RAKE TRIM OFF MODULE  
(Alternate Method)**

SEE PAGE SL-21 FOR FASTENER SELECTION.

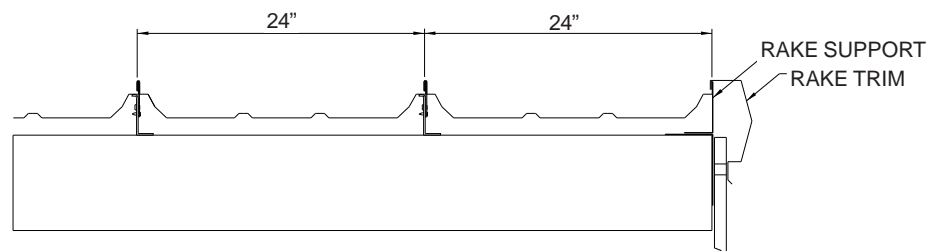
# Seam-Lok

# Design

## PANEL LAYOUT - BEGINNING AND ENDING

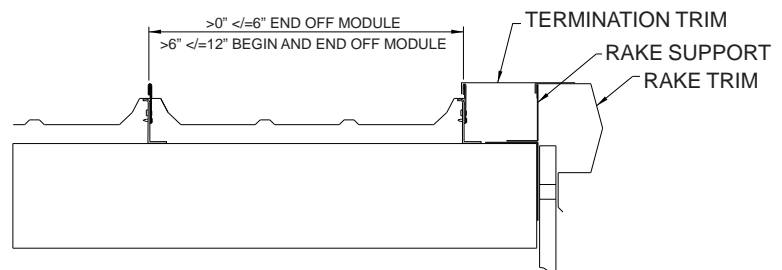


### TERMINATION - STANDARD CONDITION



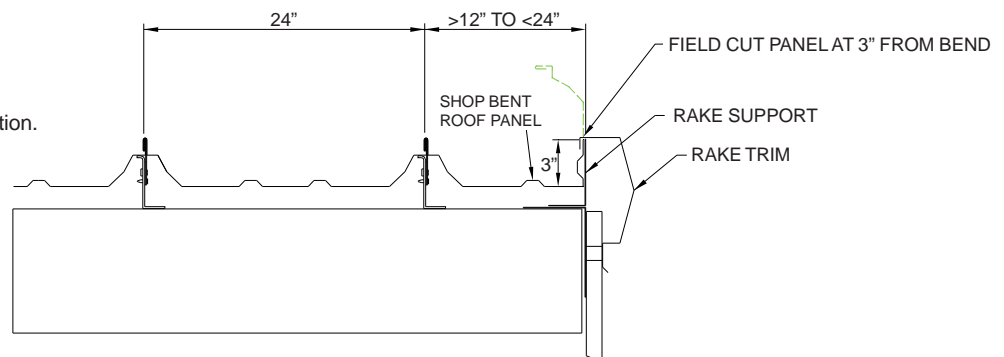
### BEGINNING OR ENDING TERMINATING - ODD FOOTAGE BUILDINGS

Termination trim is provided for this condition.  
See Page SL-75 for mastic and fastener installation.



### BEGINNING OR ENDING TERMINATING - BUILDING OFF-MODULE

Two 24" panels are provided for this condition.  
See page SL-75 for mastic  
and fastener installation.



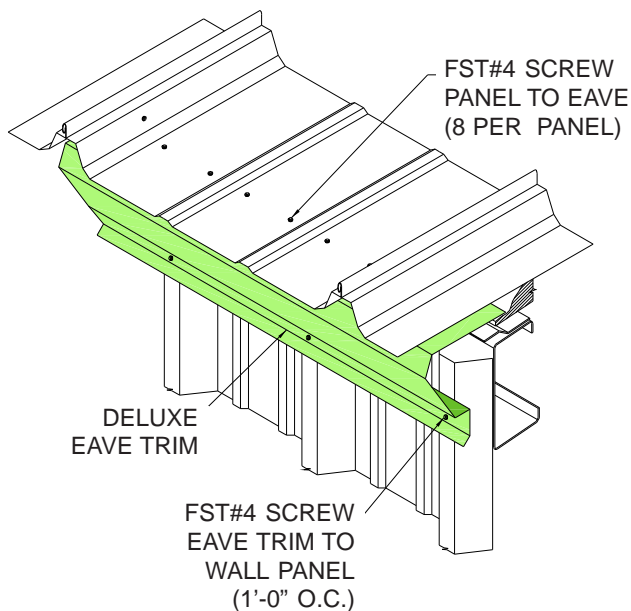
## NOTES

1. For an adequate understanding of how to design the **Seam-Lok** roof system, it is important to read the section of this manual which includes all trim details.
2. In cases where Corle Building Systems deems it necessary to start or end the roof off module (such as at parapets or adjacent buildings), reference the building drawings for the panel start dimension.

# Seam-Lok

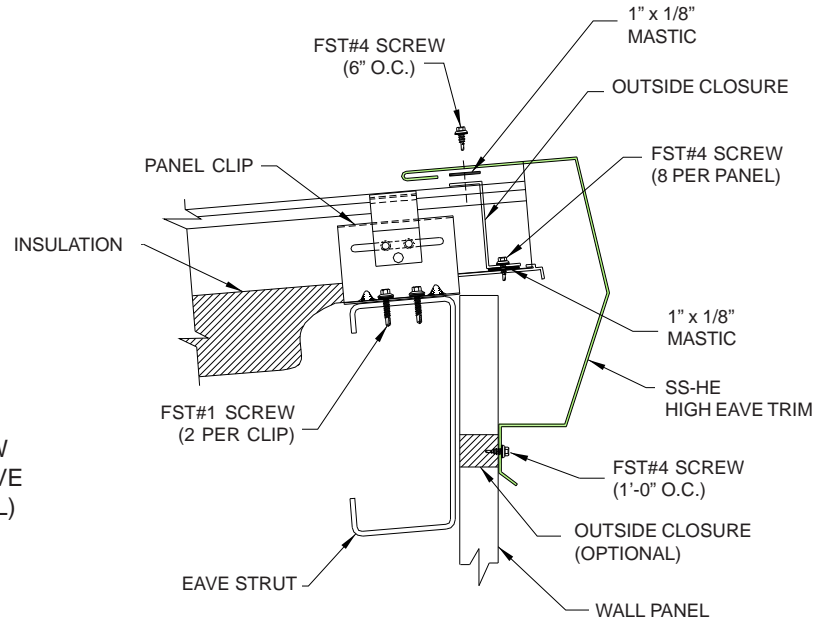
# Design

## TRIM DETAILS - EAVE



### NOTE

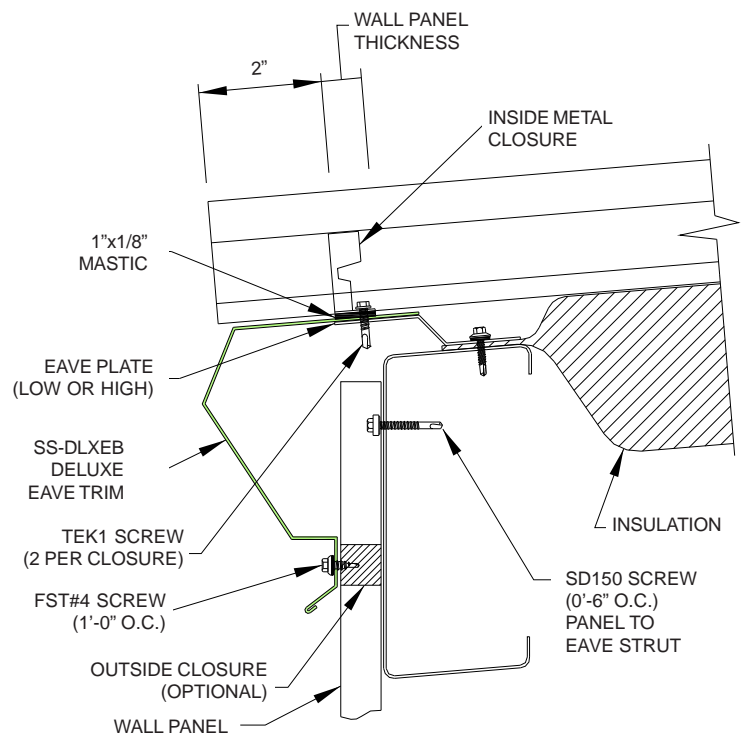
This optional sculptured eave trim is available. However, under certain conditions, it may induce staining of wall panels.



### HIGH EAVE

### NOTE

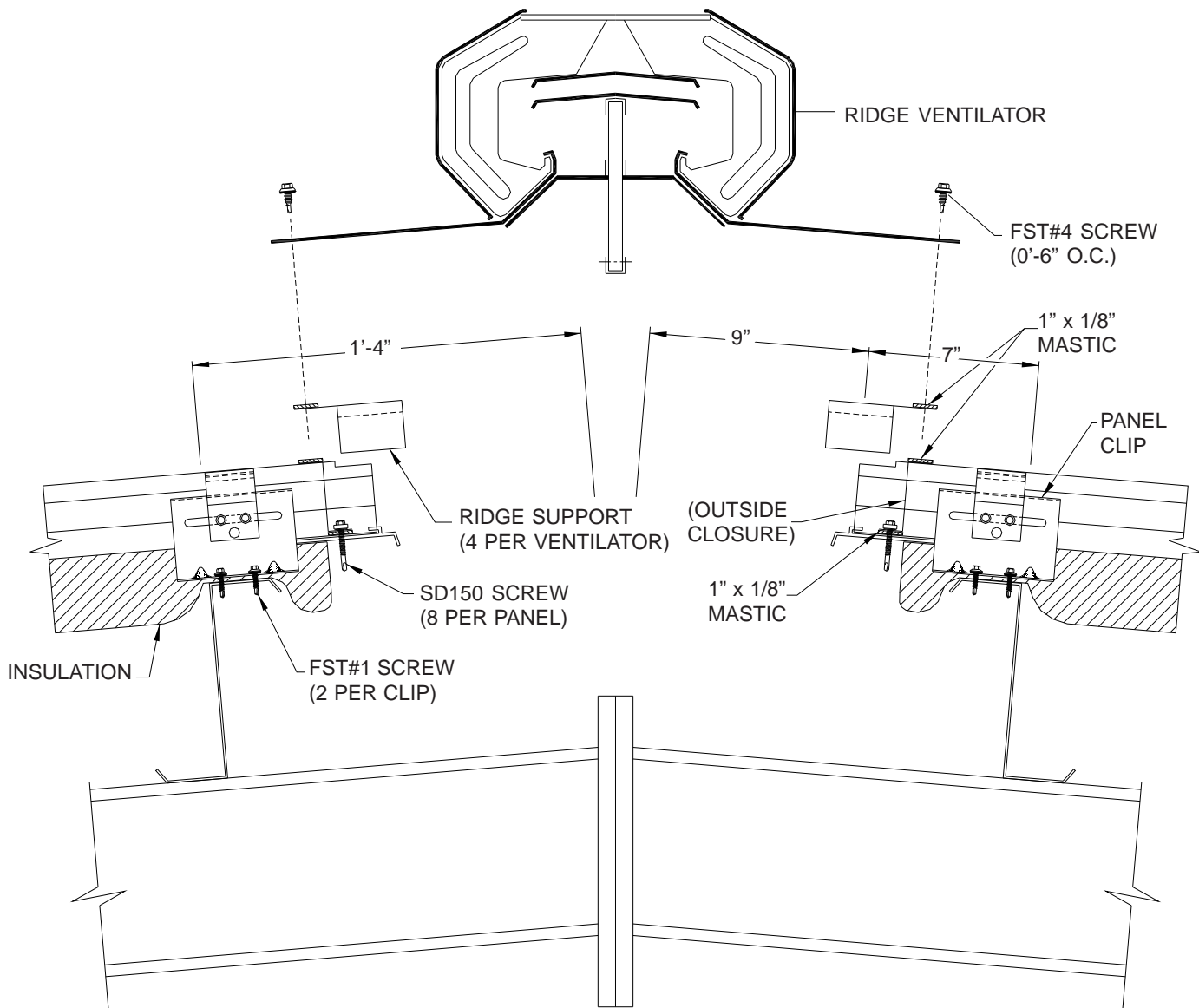
Top leg dimension of high side eave trim may have to be increased to accommodate wall thickness.



# Seam-Lok

# Design

## TRIM DETAILS - RIDGE VENTILATOR



### NOTES

Four ridge supports, two on each side, must be used to support ventilators. Only 9" ridge ventilators can be used with this SSR systems.

Do not use ridge ventilators on any roof over 200' in width or a slope less than 1:12 or greater than 4:12.

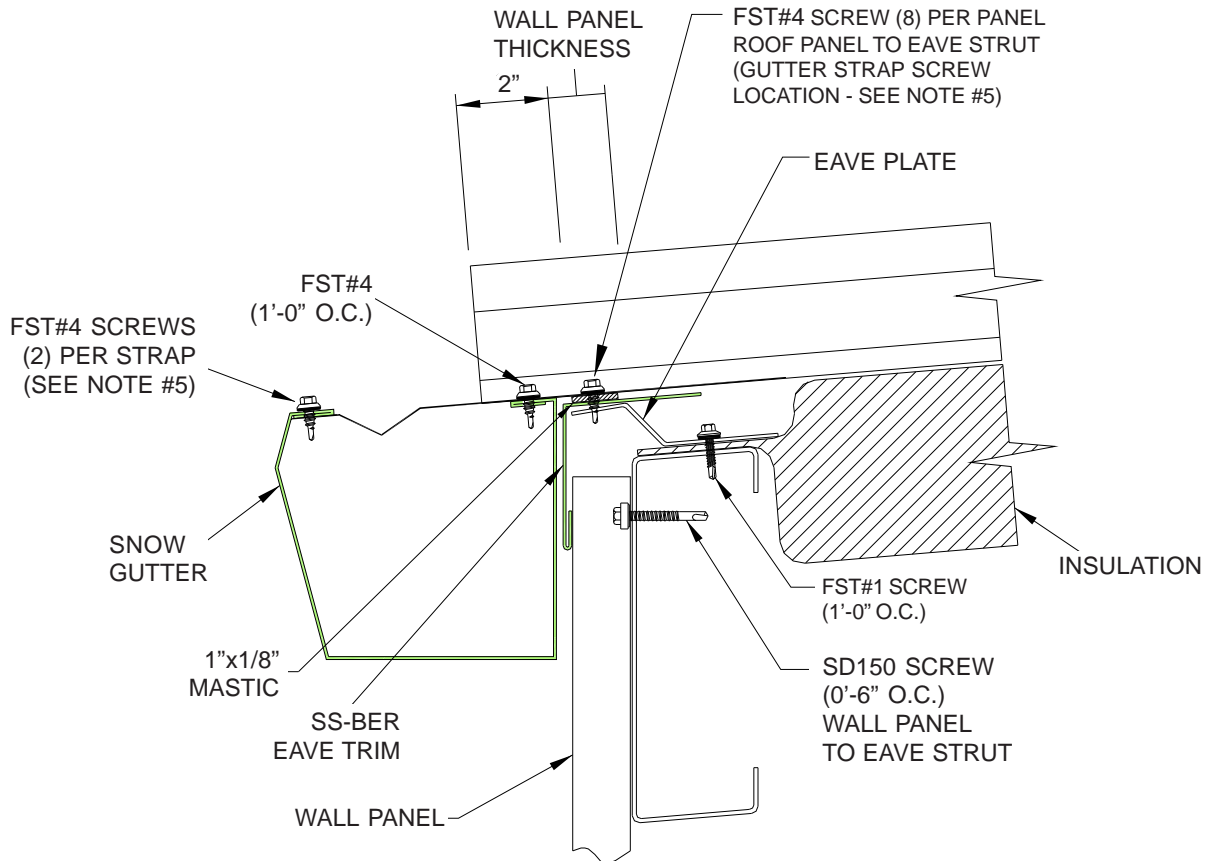
See page SL-21 for fastener selection.



# Seam-Lok

# Design

## TRIM DETAILS - SNOW GUTTER



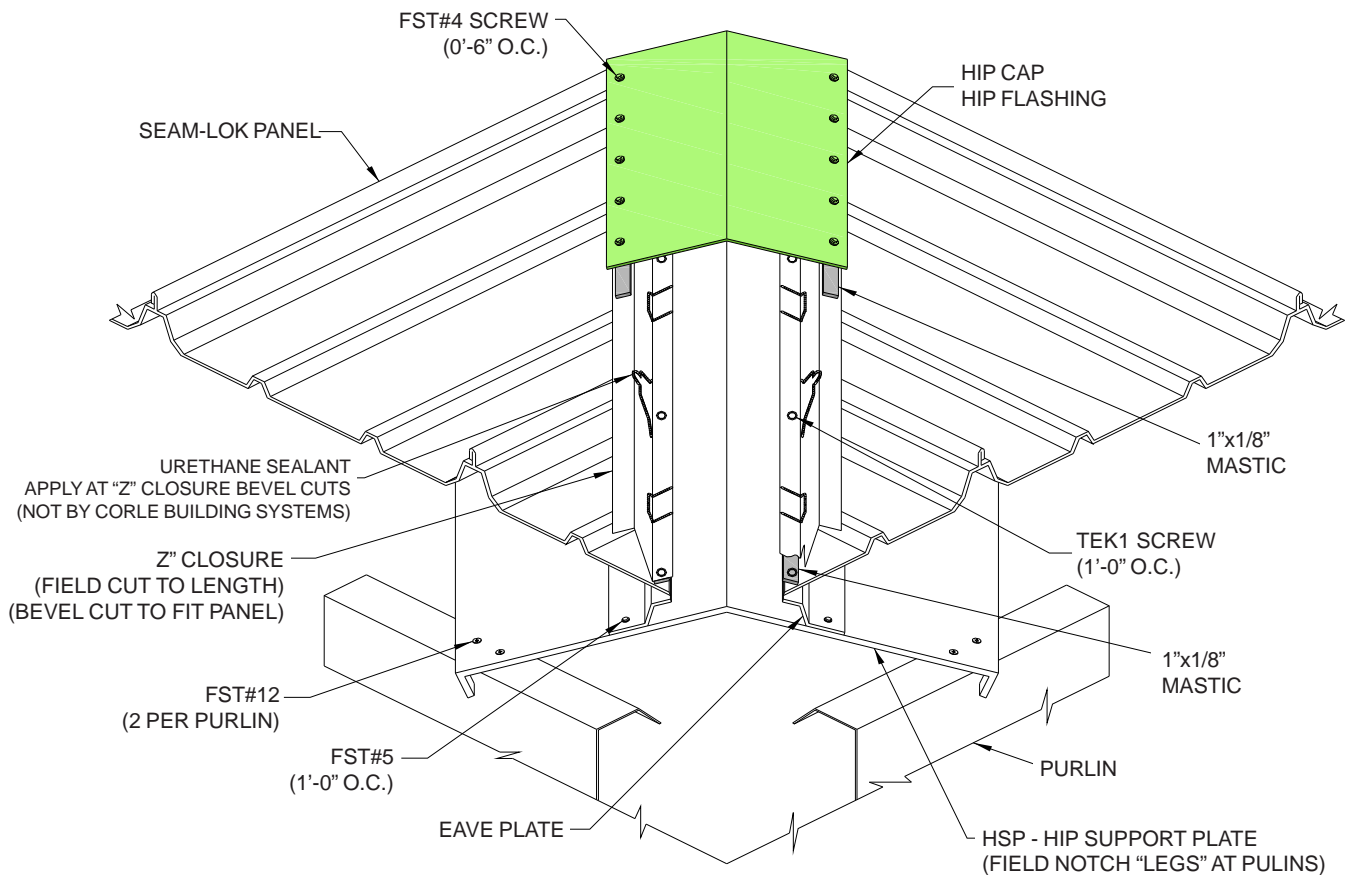
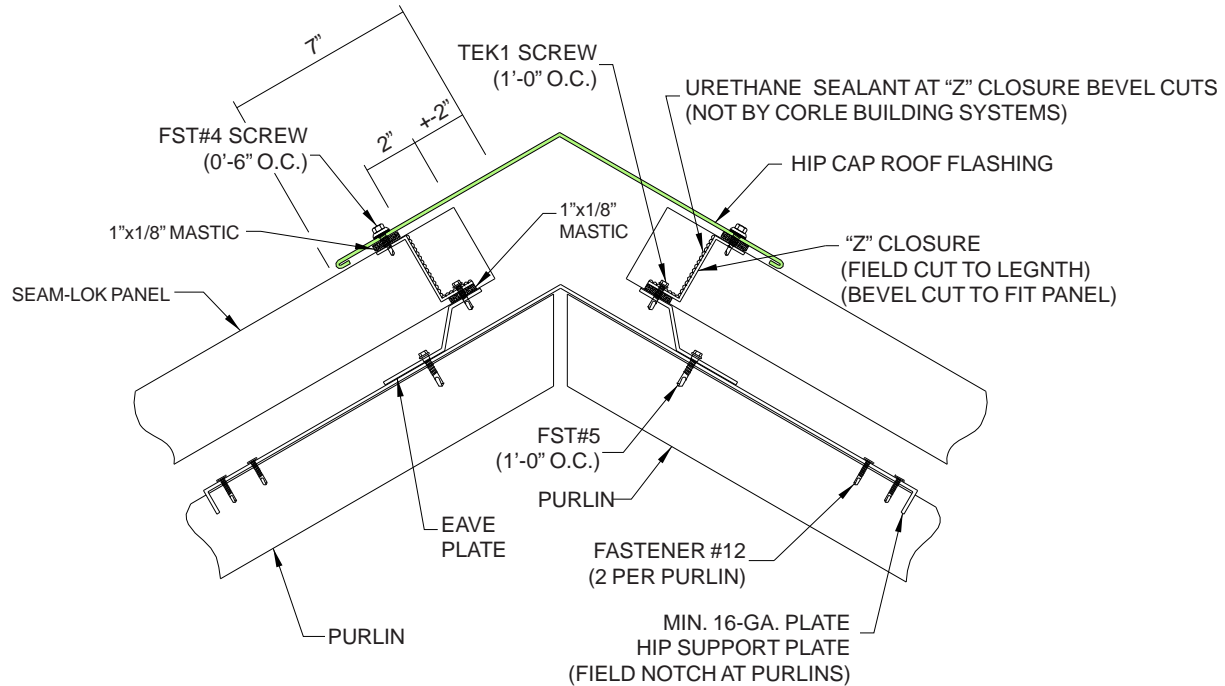
### NOTES

1. Use minor rib tape sealer to fill voids in panel at minor ribs as shown on Page SL-36.
2. Attach panel to eave plate with FST#4 screws. Use 8 screws per panel.
3. Attach back leg of gutter to roof panel with FST#4 screws. Screws are 12" on center.
4. Install gutter strap(s) 2'-0" O.C. Use (2) FST#4 screws per strap.
5. Install the second FST#4 gutter strap screw through whichever gutter strap hole aligns with the eave plate.

# Seam-Lok

# Design

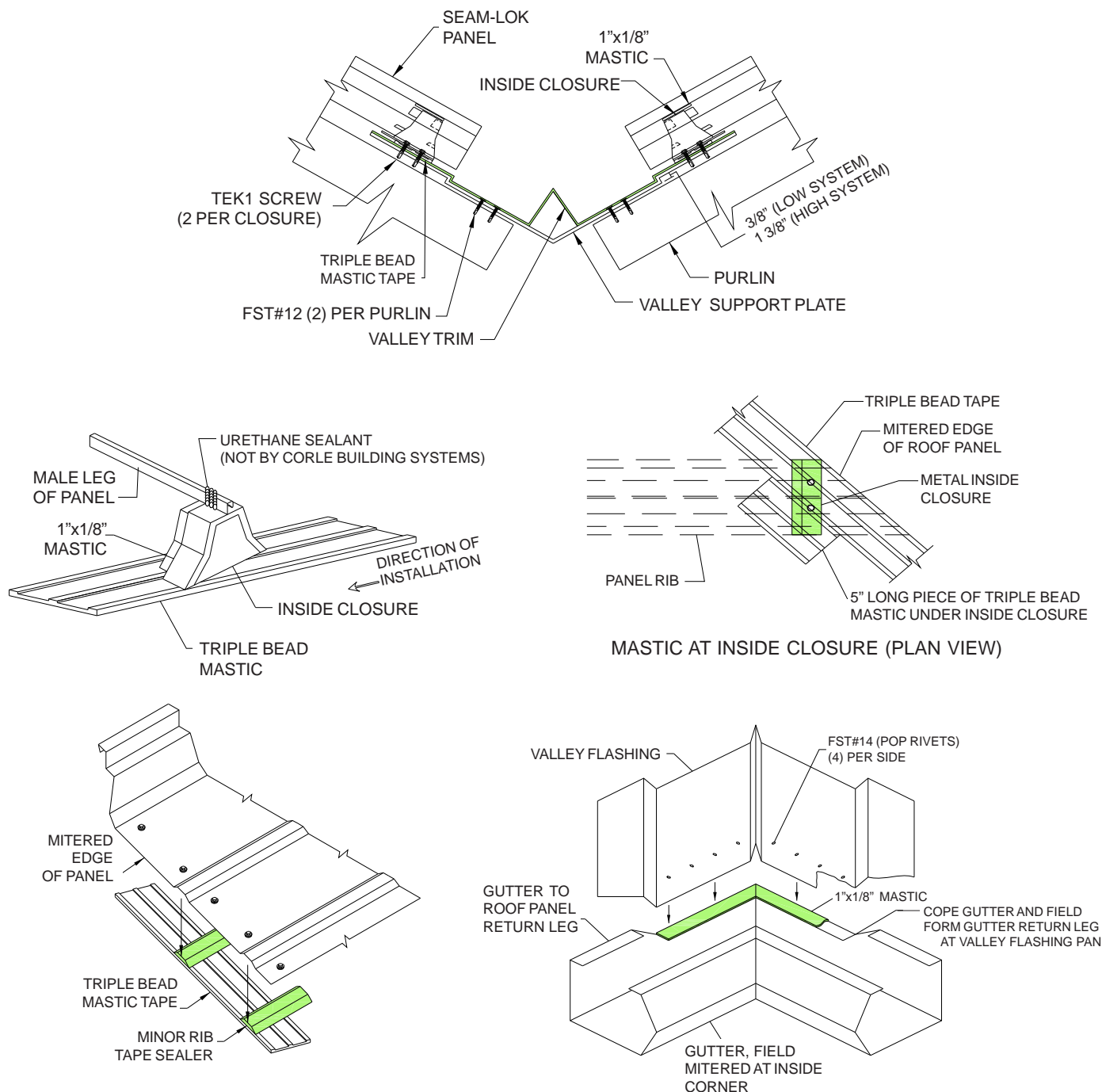
## TRIM DETAILS - HIP



# Seam-Lok

# Design

## TRIM DETAILS - VALLEY

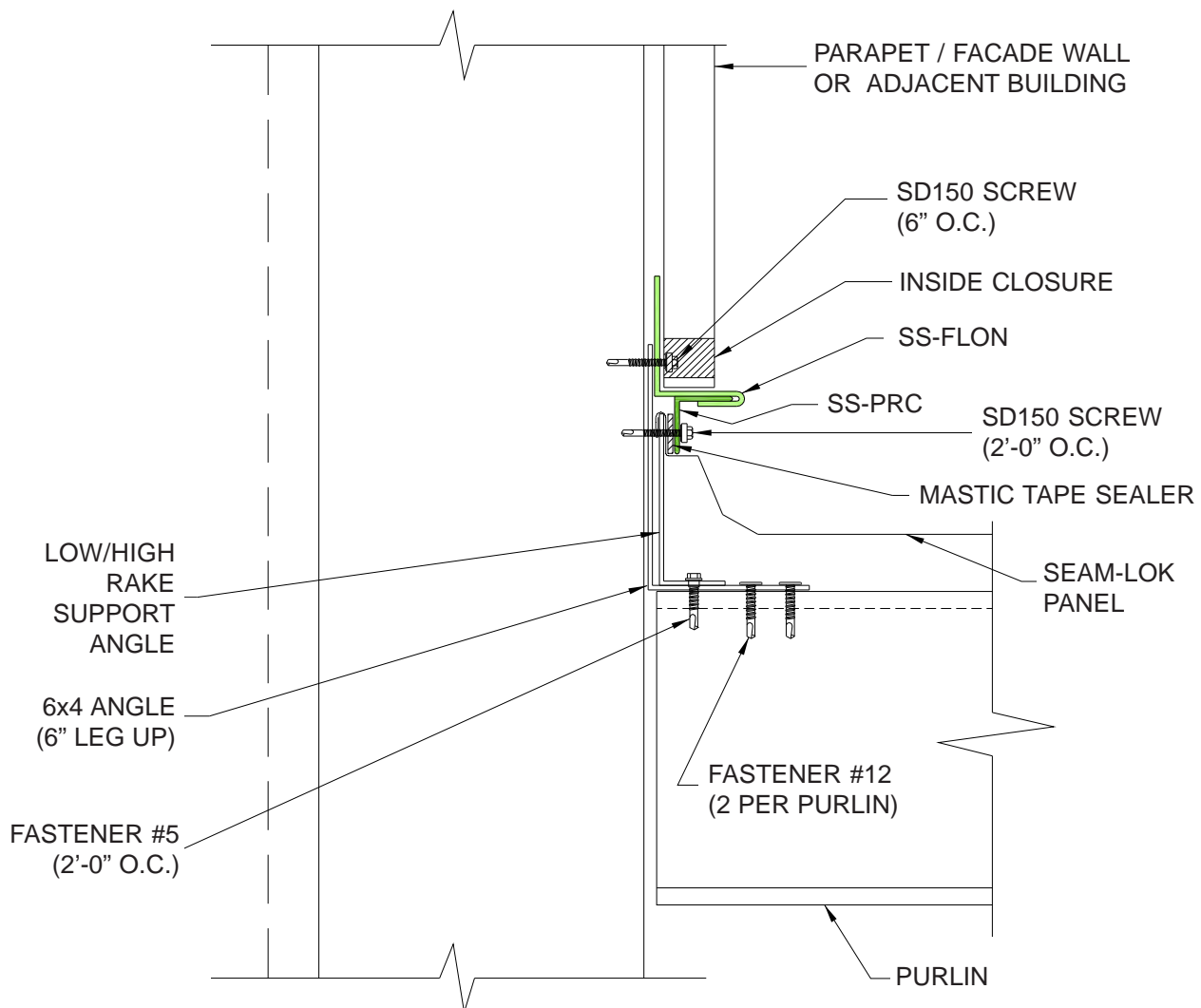


### NOTES

1. NOTCH BACK LEG OF GUTTER TO ALLOW WATER FLOW FROM VALLEY FLASHING.
2. BEND NOTCHED LEG OF GUTTER BACK TO VALLEY PITCH.
3. INSTALL 1" x 1/8" MASTIC TAPE BETWEEN BENT GUTTER LEG AND VALLEY FLASHING.

## TRIM DETAILS - PARALLEL TRANSITIONS FLOATING-ON MODULE

- PARAPET TO ROOF
- FACADE TO ROOF
- ROOF TO ADJACENT BUILDING
- GABLE CANOPY ROOF TO WALL

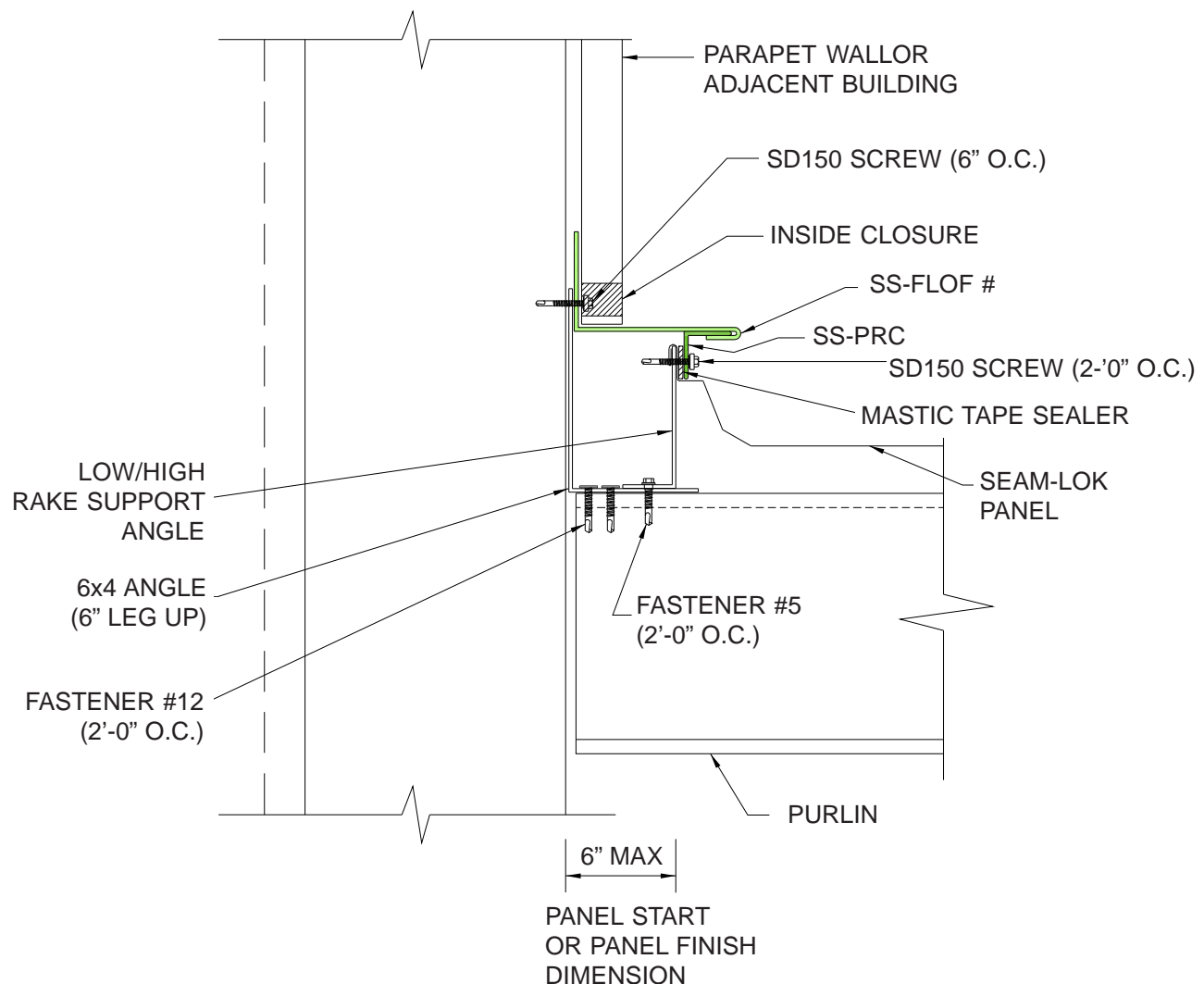


## Seam-Lok

## Design

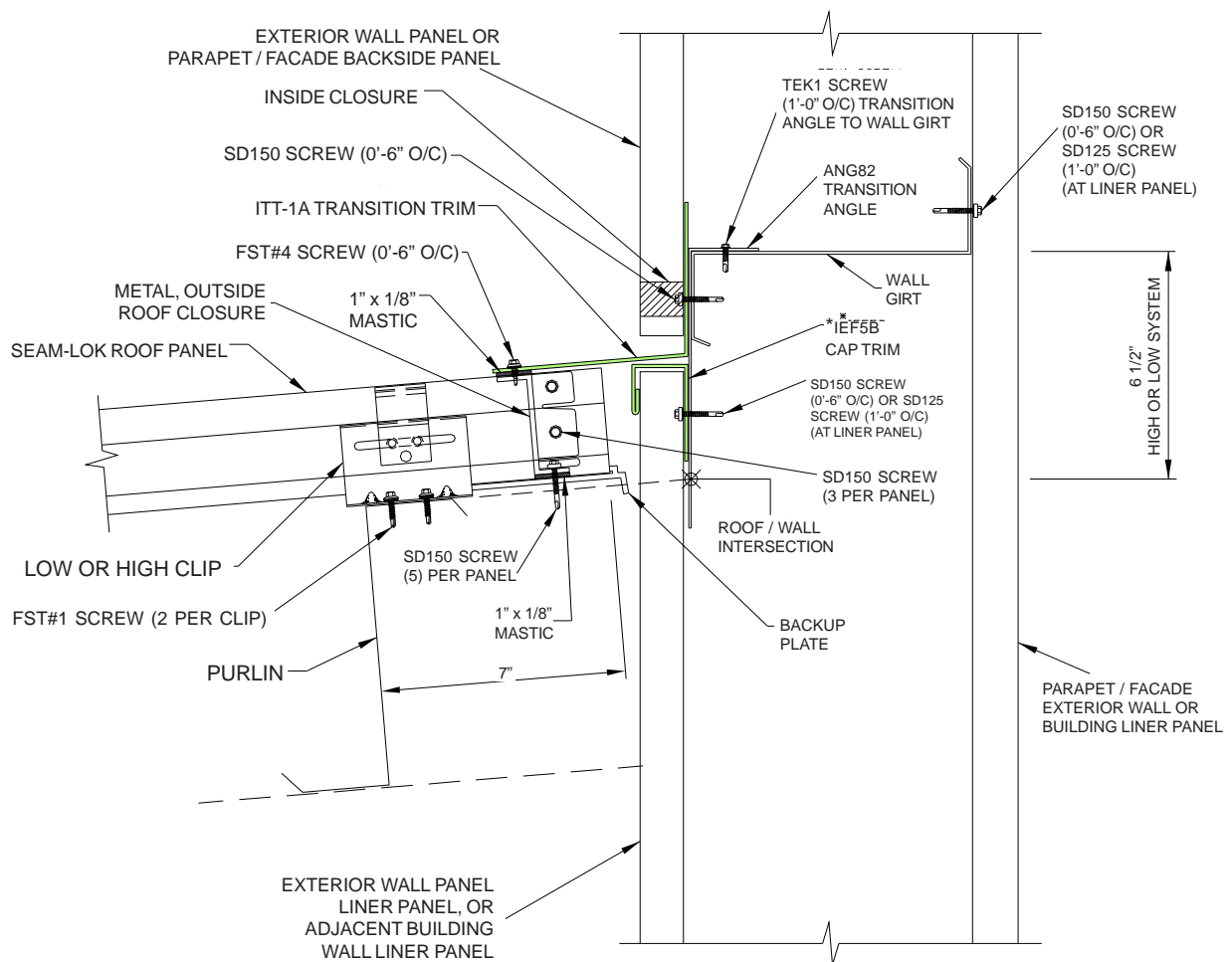
### TRIM DETAILS - PARALLEL TRANSITIONS FLOATING-OFF MODULE

- PARAPET TO ROOF
- FACADE TO ROOF
- ROOF TO ADJACENT BUILDING
- GABLE CANOPY ROOF TO WALL



## TRIM DETAILS - PERPENDICULAR TRANSITION

- PARAPET TO ROOF
- FACADE TO ROOF
- ROOF TO ADJACENT BUILDING
- SINGLE SLOPE CANOPY ROOF TO WALL

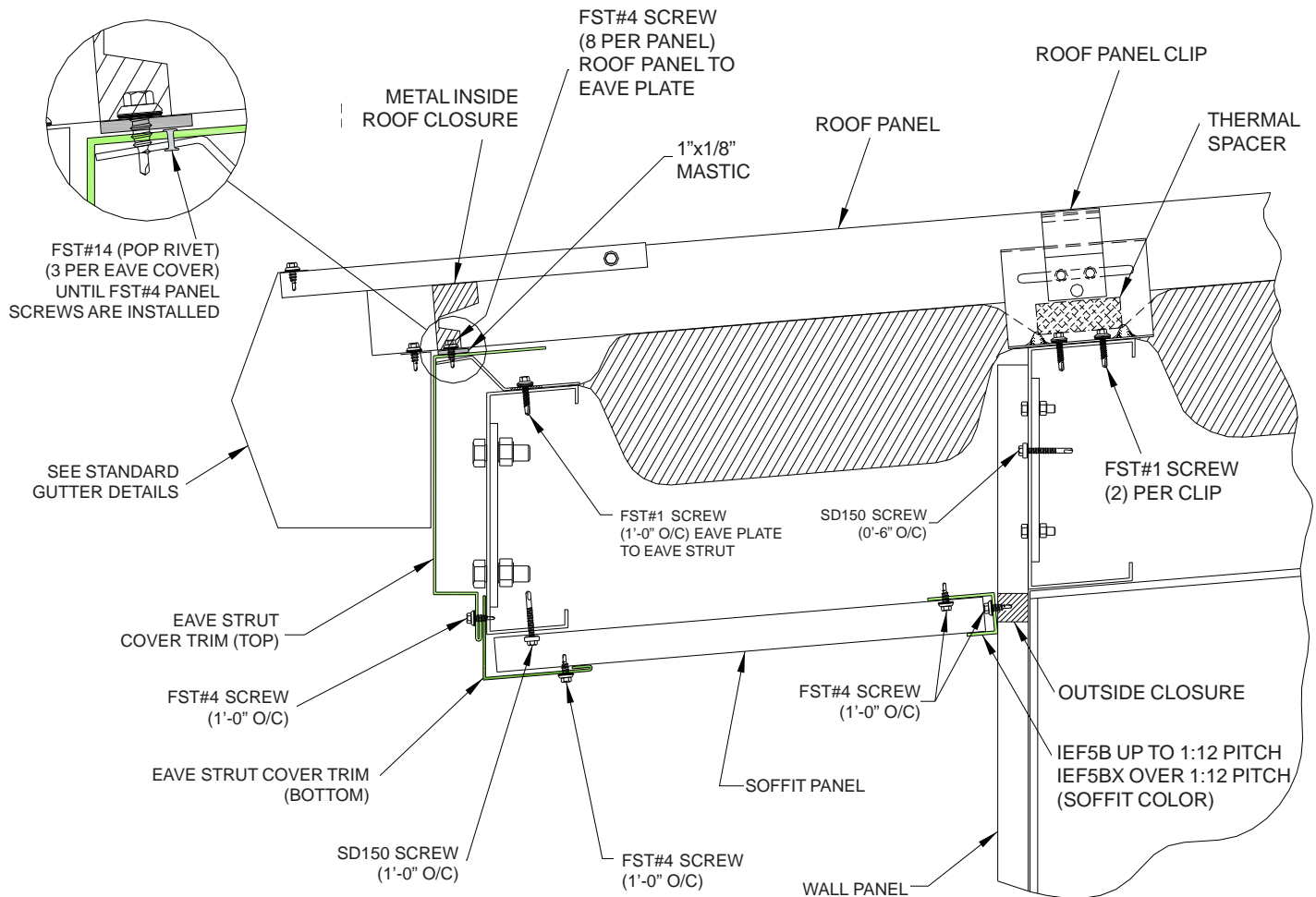


\*CAP TRIM NOT PROVIDED IF: SINGLE SLOPE CANOPY WITH SOFFIT OR LEAN-TO ROOF WITH ROOF LINER PANEL.

# Seam-Lok

# Design

## EAVE EXTENSION WITH SOFFIT

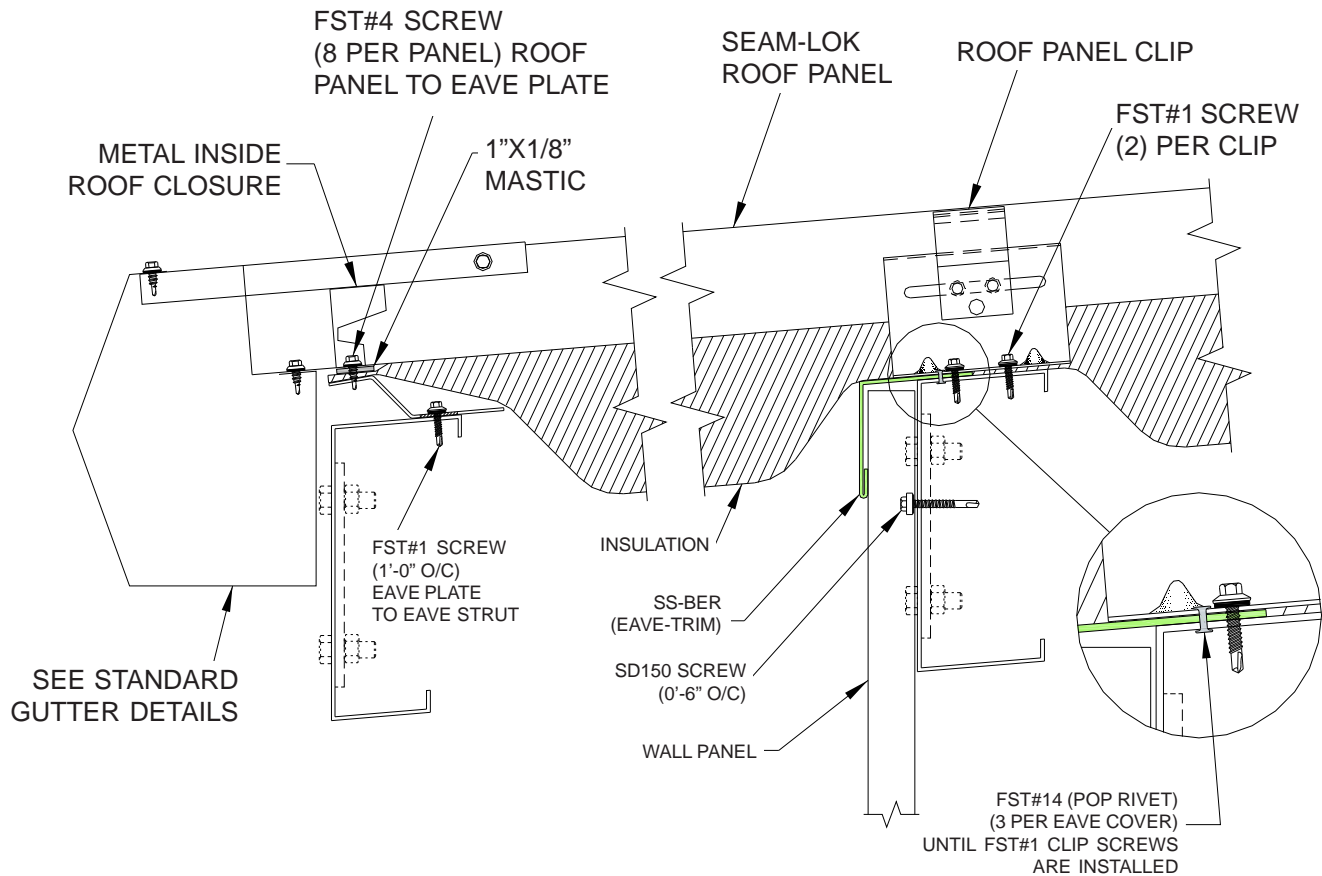




# Seam-Lok

# Design

## LOW EAVE EXTENSION WITHOUT SOFFIT

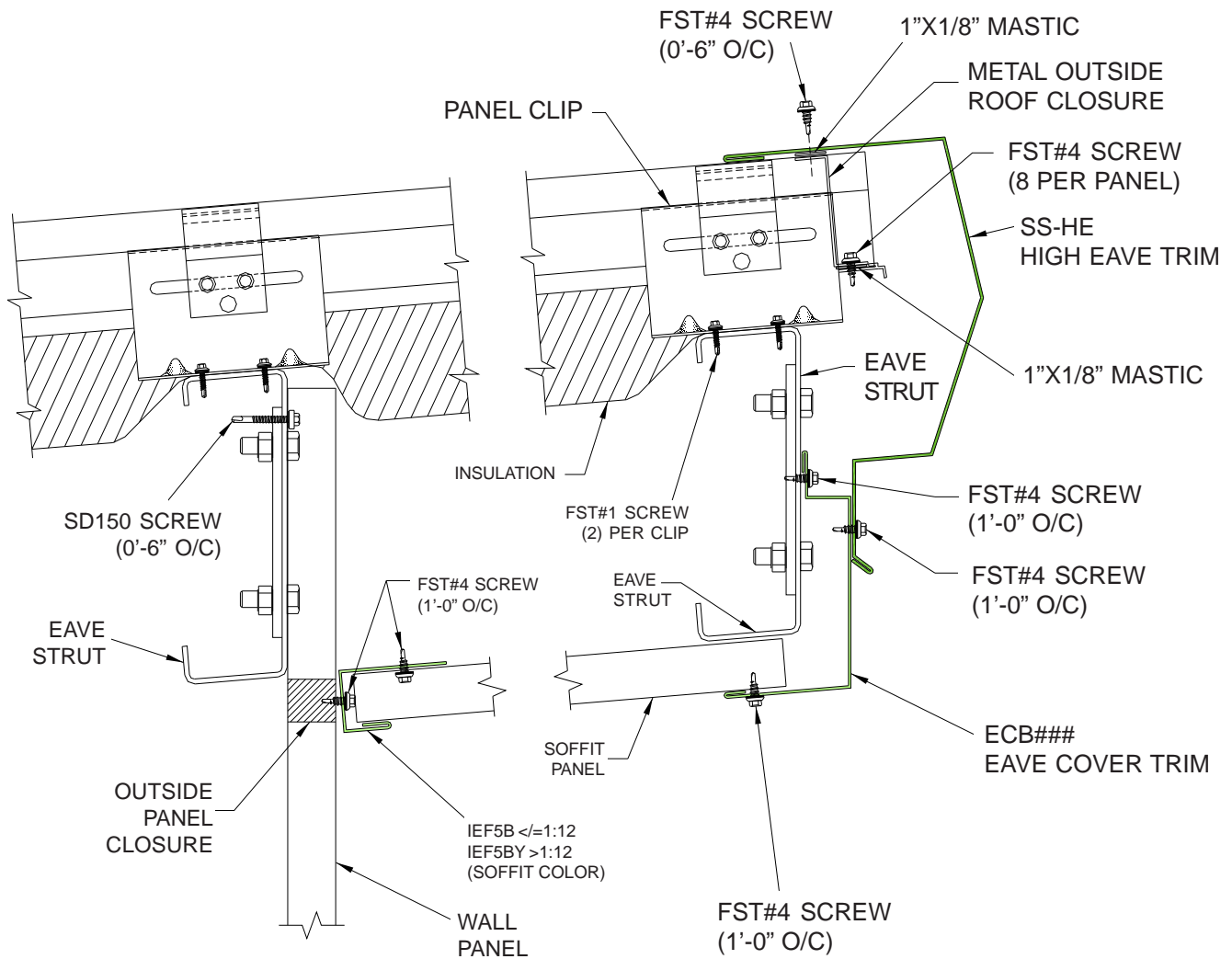


EXTENSION BEAM NOT SHOWN FOR CLARITY

# Seam-Lok

# Design

## HIGH SIDE EAVE EXTENSION WITH SOFFIT

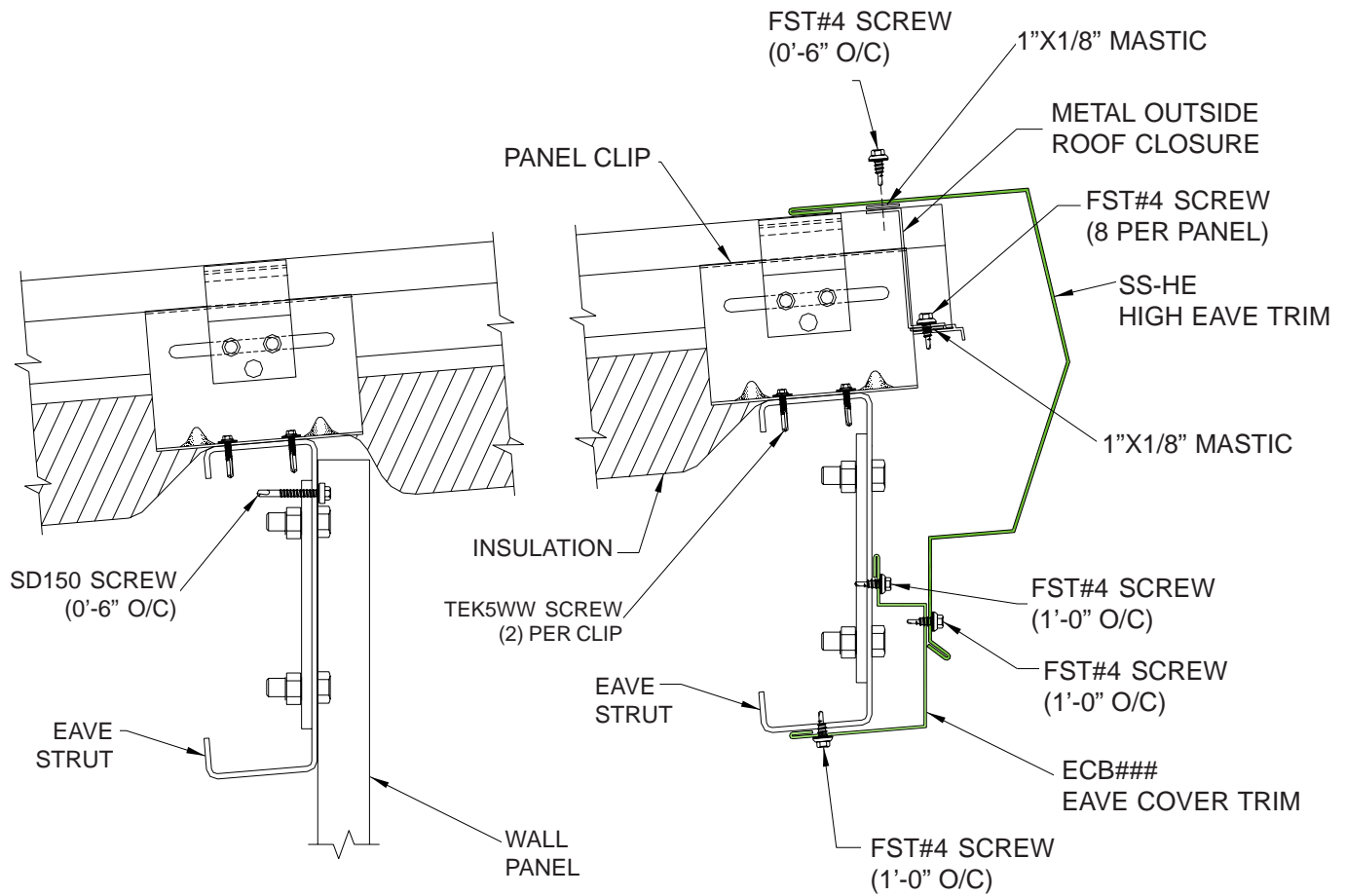


EXTENSION BEAM NOT SHOWN FOR CLARITY

# Seam-Lok

# Design

## HIGH SIDE EVE EXTENSION WITHOUT SOFFIT

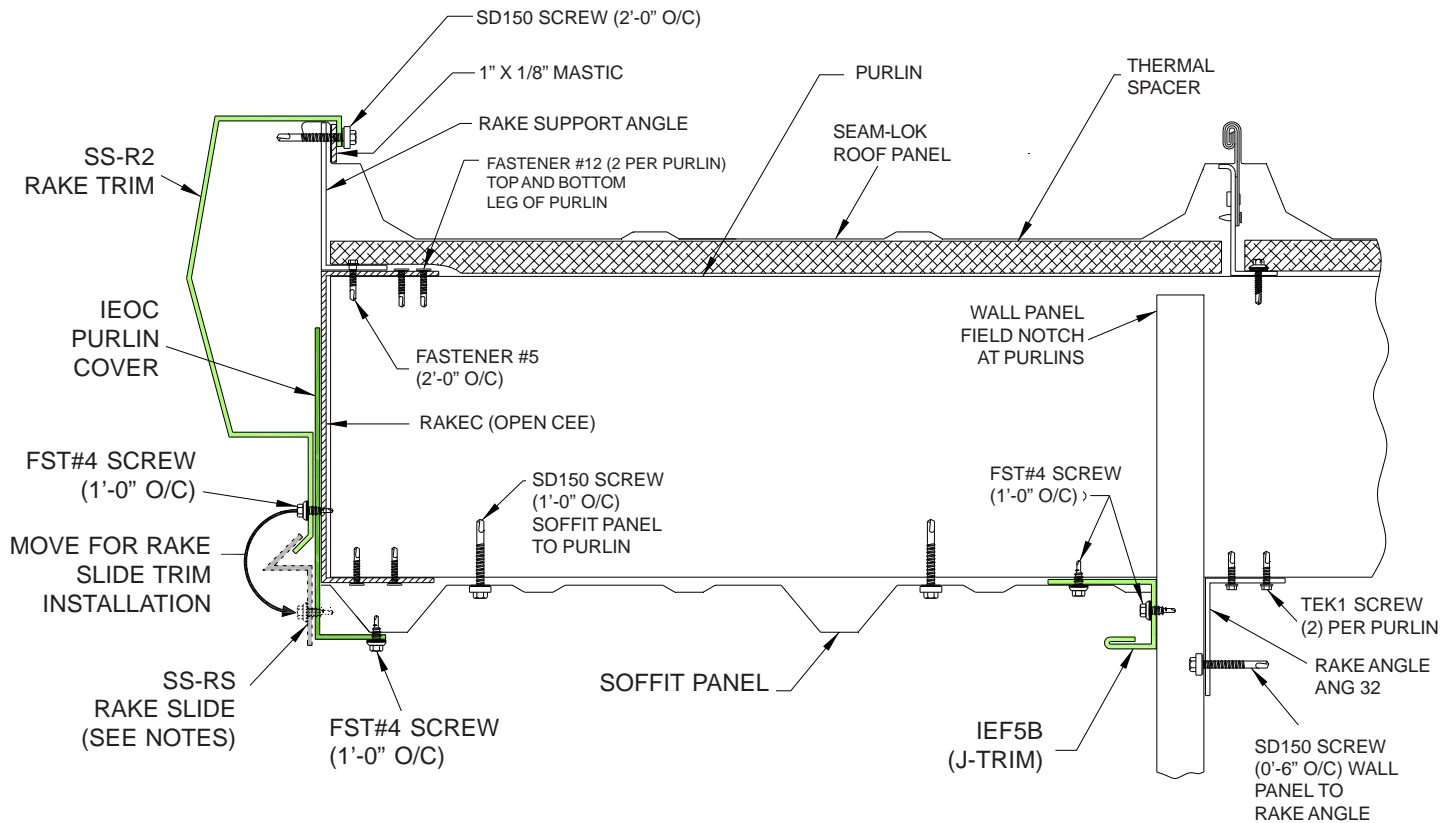


EXTENSION BEAM NOT SHOWN FOR CLARITY

# Seam-Lok

# Design

## RAKE EXTENSION WITH SOFFIT



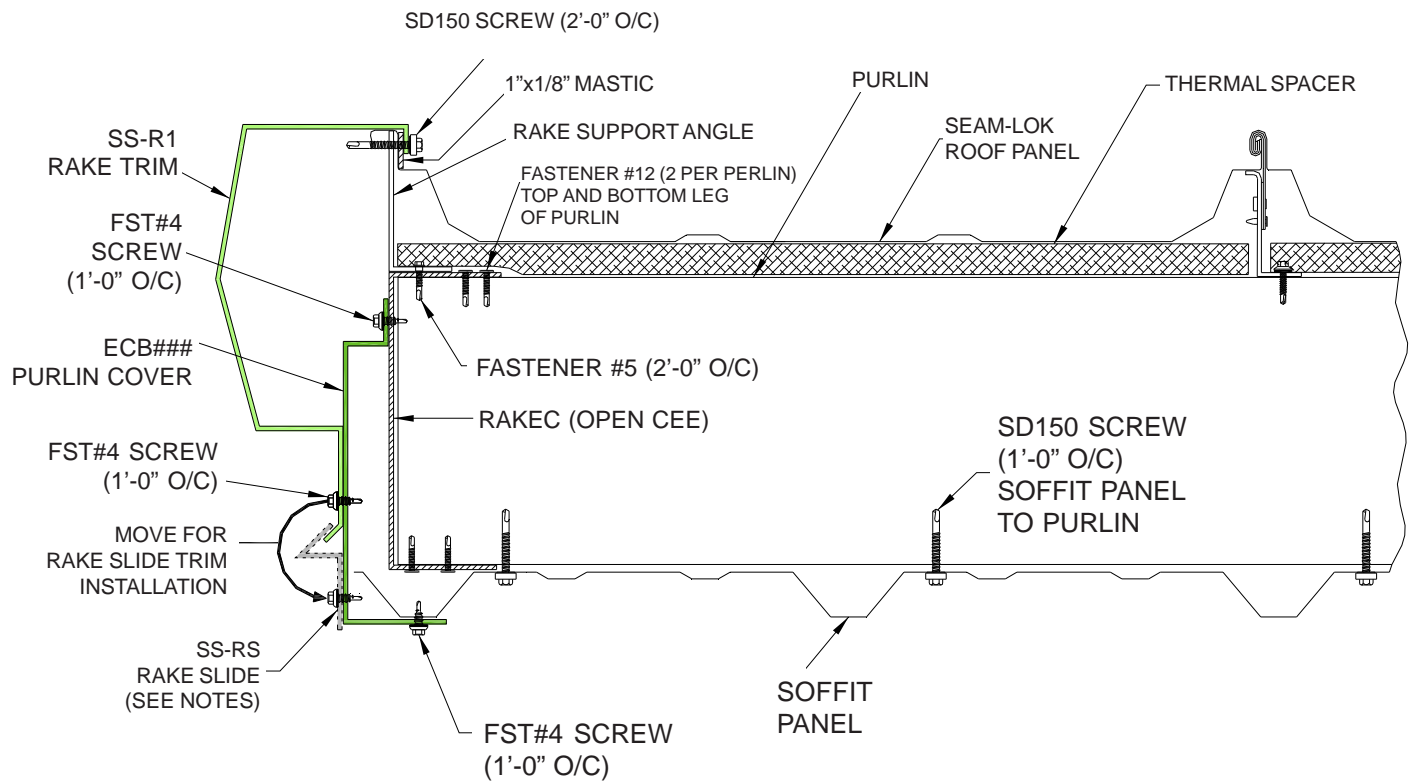
### NOTES:

1. RAKE SLIDE IS USED ON BUILDINGS WHEN:
  - SINGLE SLOPE - BUILDING WIDTH >90' 0"
  - GABLE BUILDING - BUILDING WIDTH >90' 0" FROM EAVE TO PEAK

# Seam-Lok

# Design

## RAKE AT CANOPY OR EAVE ONLY EXTENSION



### NOTES

1. RAKE SIDE IS USED ON BUILDINGS WHEN:
  - SINGLE SLOPE - BUILDING WIDTH >90' 0"
  - GABLE BUILDING - BUILDING WIDTH >90' FROM EAVE TO PEAK
2. RAKE SLIDE IS ONLY APPLICABLE FOR THE EAVE EXTENSION CONDITION, AS AN EXTENSION OF THE ENDWALL RAKE TRIM





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