HPM CUSTOM METAL ROOFING

SHUR-LOCK

DESIGN & DETAIL GUIDE

HPM BUILDING SUPPLY

WWW.HPMHAWAII.COM

HPM CUSTOM METAL ROOFING

Table of Contents

DETAIL	PAGE
General Design Information	1
Panel Profile Information	2
Clip Information	3
Standard Fastener Sheet	4
Floating Eave w/Cleat	5
Floating Extended Eave	6
Rake / Gable	7
Rake Wall with Reglet (Saw Cut)	8
Rake Wall with Reglet	9
Ridge / Hip	10
Vented Ridge/Hip	11
Head Wall	12
Vented Headwall	13
High Eave / Peak	14
High Slope to Low Slope Transition	15
Valley	16
Pipe Boot Detail	17
Roof Curb Layout	18
Upper Roof Curb / Saddle	19
Curb Headwall	20
Curb Sidewall	21
Trim Lap	22
End Dam Isometric	23

HPM CUSTOM METAL ROOFING

SHUR-LOCK GENERAL NOTES PAGE 1

General Information
The enclosed roofing system information and details are a design aid and do not represent all conditions. The designer and end-user are responsible to review climate and environmental conditions such as marine and salt air, acid rain from volcanic activity, governing code requirements, and the building use to modify the details and specify the appropriate project specific materials.

Slope Requirement:
Shur-Lock roofing panels should be installed on a minimum slope of 2:12 or greater. Shur-Lock is intended for residential and commercial applications.

Substrate:
Shur-Lock roofing panels can be installed over both solid substrates and spaced purlins.

Panel Attachment:
Review the Shur-Lock fastener recommendations in this guide to select the correct fastener. For the attachment schedule, contact your HPM Technical Representative for proper spacing and fastener size, type, and quantities to meet the project's wind uplift (negative) load requirements. *NOTE: Concealed and exposed fasteners may be vulnerable to accelerated corrosion if not specified correctly. Consult with HPM for recommendations on appropriate fastener types.*

Condensation, Insulation, & Ventilation:
It is the designer's responsibility to determine the need and composition of condensation control materials including insulation, vapor retarders and ventilation requirements. Metal roofing is susceptible to condensation and its control should be carefully considered. Applications over rigid insulation may require solid blocking/framing for installation of perimeter flashings and drag load fasteners.

Cleaning and Maintenance
Minimum maintenance of ZINCALUME® Steel, whether bare or pre-painted, is required. Cleaning is recommended at least twice a year. See recommended procedures.

Cut Edge Corrosion Protection:
Metal roofing panels and flashings have cut edges that are not as protected as the main panel surface areas which have substrate treatment and paint as a barrier. Left untreated, the effects of exposure from marine air, and acid rain from volcanic activity will cause a condition called cut edge corrosion a.k.a. 'edge creep'. The designer should specify the end user/installer field apply a product designed to seal the cut edge and protect the base metal. This treatment should be applied during the initial install and annually as regular maintenance. *See HPM's website for information about Edge Seal™, a product developed by a leading paint manufacturer specifically to protect cut edges and retard edge creep.*

Flashings:
It is best practice to specify all flashings are the same material gauge, color, and finish as the roof panels. Where possible, flashings should be lapped away from prevailing winds. Check with an HPM Technical Representative if you intend to specify a prefinished flashing in a material different than the roof panels. The enclosed details have minimized the use of exposed fasteners where possible. The edges of flashings are shown hemmed to strengthen and minimize the exposure of cut edges. *See notes under the 'Cut Edge Corrosion Protection' section.* HPM provides standard flashing drawings as a reference in this guide and on the website. Project specific flashing drawings are generally the responsibility of the installer.

Valleys:
Valley dimensions must be the proper width to account for slope and rain conditions. Valleys must have positive slope for drainage and be kept free of debris so that water does not back up and intrude under the panels.

Touch-up Paint:
During installation minor scratches may occur. Most conditions can be treated with an air-dry Kynar paint pen. HPM provides paint pens in colors to match the roof panel system. Touch-up paint should always be used sparingly.

Thermal Movement:
Panels and flashings must allow for thermal movement (expansion and contraction) of the materials, especially where long lengths are used.

Underlayment:
Prior to installation, an underlayment material may be installed over the roof substrate. The designer should select and specify an appropriate material. The specified material must have a non-abrasive top surface that will not mar, scratch, or abrade the underside of the metal panels and flashings.

Oil Canning:
Flat metal surfaces can display waviness commonly referred to as “oil Canning”. This can be caused by variations in raw material, processing variations, product handling, or variations in substrate and roofing underlayment’s. Panels are available with striations, stiffening ribs, or embossments to minimize oil canning. Oil canning is a condition that occurs, not a defect and is not a cause for rejection.

Product Warranty:
Material options and warranties will vary based on project and site specific conditions such as severe marine, or acid rain from volcanic activity. Consult with your HPM Sales or Technical Representative to discuss the warranty options for your project.

Technical Assistance:
Contact your HPM Sales or Technical Representative for more information and assistance when selecting a custom metal roof system.

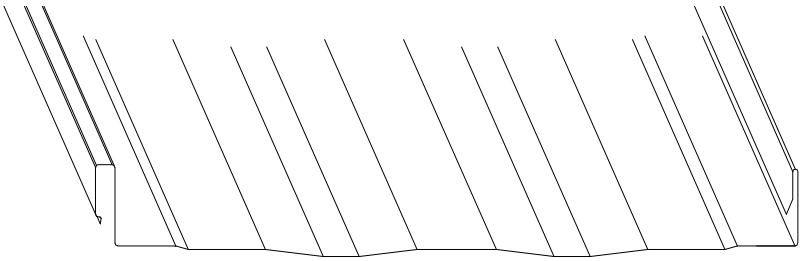
HPM CUSTOM METAL ROOFING

SHUR-LOCK PANEL PROFILE

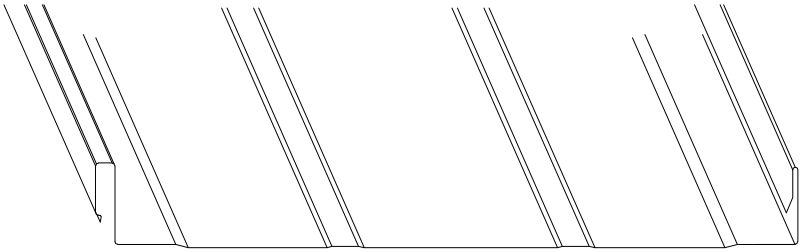
PAGE 2

SHUR-LOCK STANDARD WIDTH IS 12"

OTHER NON-STANDARD WIDTHS AVAILABLE, INQUIRE WITH HPM



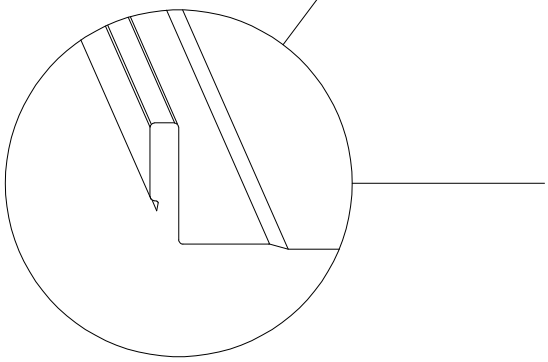
STANDARD -STRIATIONS



OPTIONAL -STIFFENING RIBS

(TWO RIBS STANDARD)

OPTIONAL - SMOOTH



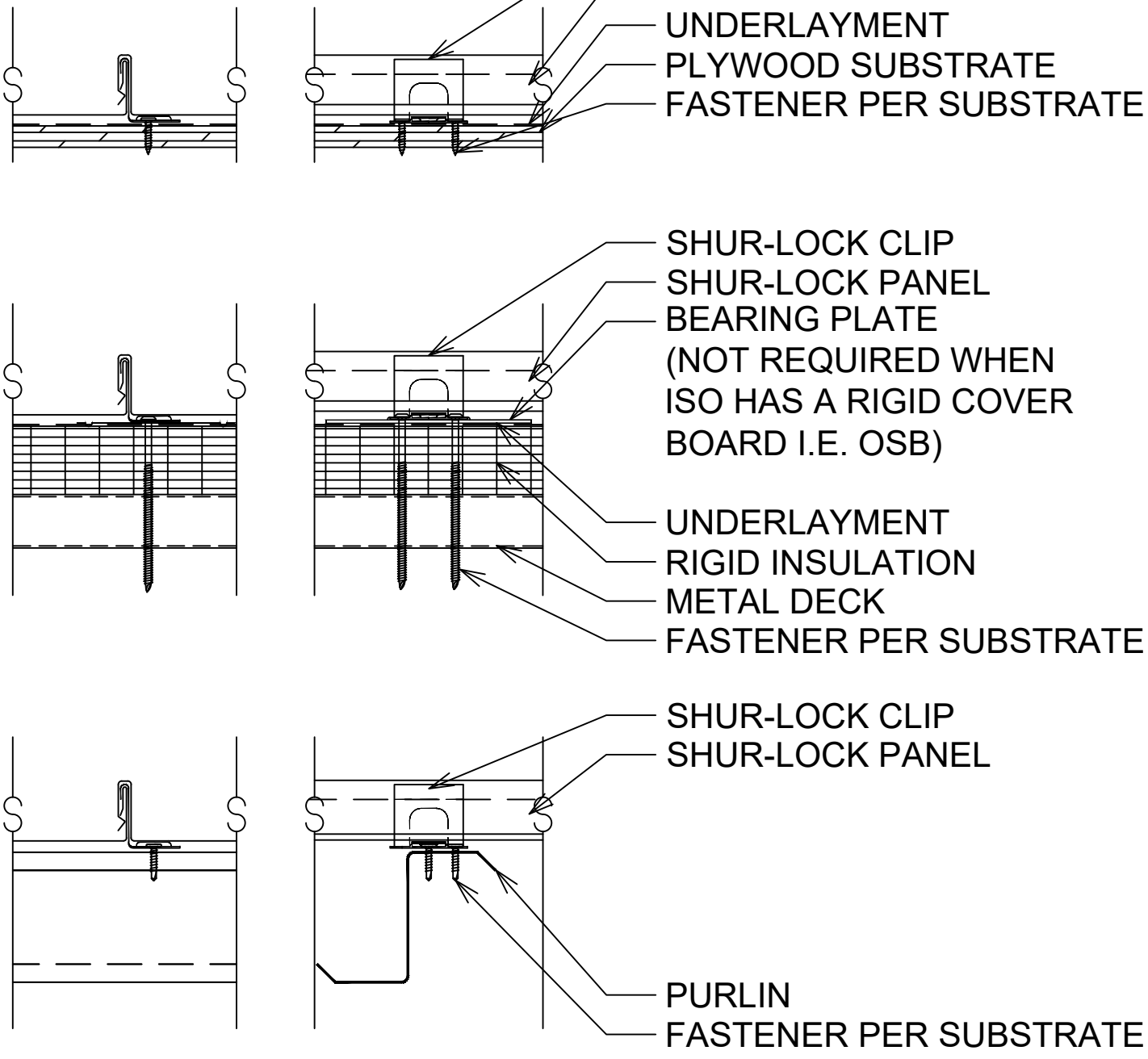
CLIP RELIEF STANDARD ON ALL PROFILES

HPM CUSTOM METAL ROOFING

SHUR-LOCK
PANEL CLIP / SUBSTRATE
PAGE 3

END VIEW

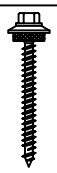
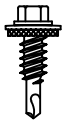
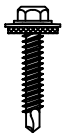
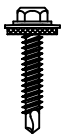
SIDE VIEW



HPM CUSTOM METAL ROOFING

SHUR-LOCK STANDARD FASTENERS

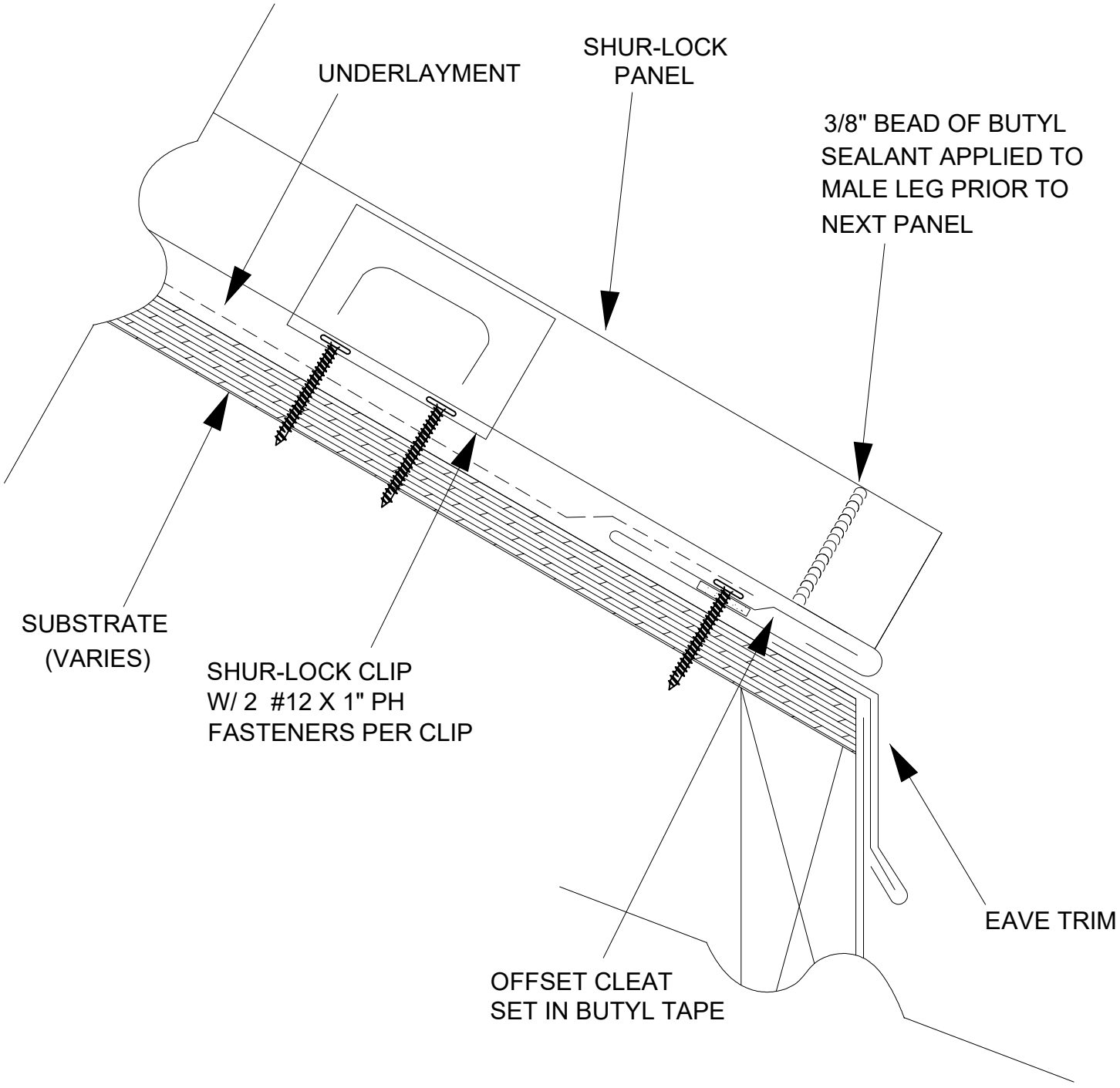
PAGE 4

ITEM CODE		DESCRIPTION	USE	NOTES
9A64 (1") 9A65 (1.5") 9A66 (2") 9A69 (2.5") XX = COLOR		#9–15x1", 2", 2 1/2" WOOD SCREW 1/4" HEX HEAD BI–METAL EVERGRIP–300 SERIES SS	PANEL TO DIMENSIONAL LUMBER	BEST SUITED FOR ZINCALUME AND ALUMINUM PANELS
9DU1034XX XX = COLOR		#10x3/4" SELF DRILLER 5/16" HEX HEAD MARUTEX – ULTRAGRIP	TRIM ATTACHMENTS LIGHT GAUGE TO LIGHT GAUGE	BEST SUITED FOR ZINCALUME PANELS
9DBLAPXX XX = COLOR		#12–14x1" LAP SELF DRILLER 5/16" HEX HEAD	TRIM ATTACHMENTS LIGHT GAUGE TO LIGHT GAUGE	BEST SUITED FOR ALUMINUM PANELS
9DULTRA1XX (1") 9DULTRA15XX (1.5") 9DULTRA2XX (2") 9DULTRA25XX (2.5") XX = COLOR		#12x1", 1 1/2", 2", 2 1/2" SELF DRILLER 5/16" HEX HEAD MARUTEX – ULTRAGRIP	PANEL AND TRIM TO METAL DECKING OR METAL PURLINS	BEST SUITED FOR ZINCALUME PANELS
1"=9DB1XX 2"=9DB2XX XX = COLOR		#12–14x1", 2" SELF DRILLER 5/16" HEX HEAD	PANEL AND TRIM TO METAL DECKING OR METAL PURLINS	BEST SUITED FOR ALUMINUM PANELS
9D121 – PLATED 9DU121 – STAINLESS		#12 X 1" SD PANCAKE	STANDING SEAM CLIP SCREW	PLATED NOT RECOMMENDED FOR ALUMINUM PANELS
9A121A – PLATED 9A121SS –STAINLESS		#12 X 1" "A" POINT PANCAKE	STANDING SEAM CLIP SCREW	PLATED NOT RECOMMENDED FOR ALUMINUM PANELS
SPECIAL ORDER		#14–13 X ?" HD ROOFING FASTENER AVAILABLE IN LENGTHS UP TO 12"	RECOMMENDED FOR STANDING SEAM PROFILES INSTALLED OVER RIGID INSULATION	
9RIVETXX43 XX = COLOR		STST–43 STAINLESS STEEL RIVET 1/8"	TRIM TO TRIM OR TRIM TO PANEL ATTACHMENTS	

HPM CUSTOM METAL ROOFING

SHUR-LOCK
FLOATING EAVE W/ OFFSET CLEAT

PAGE 5

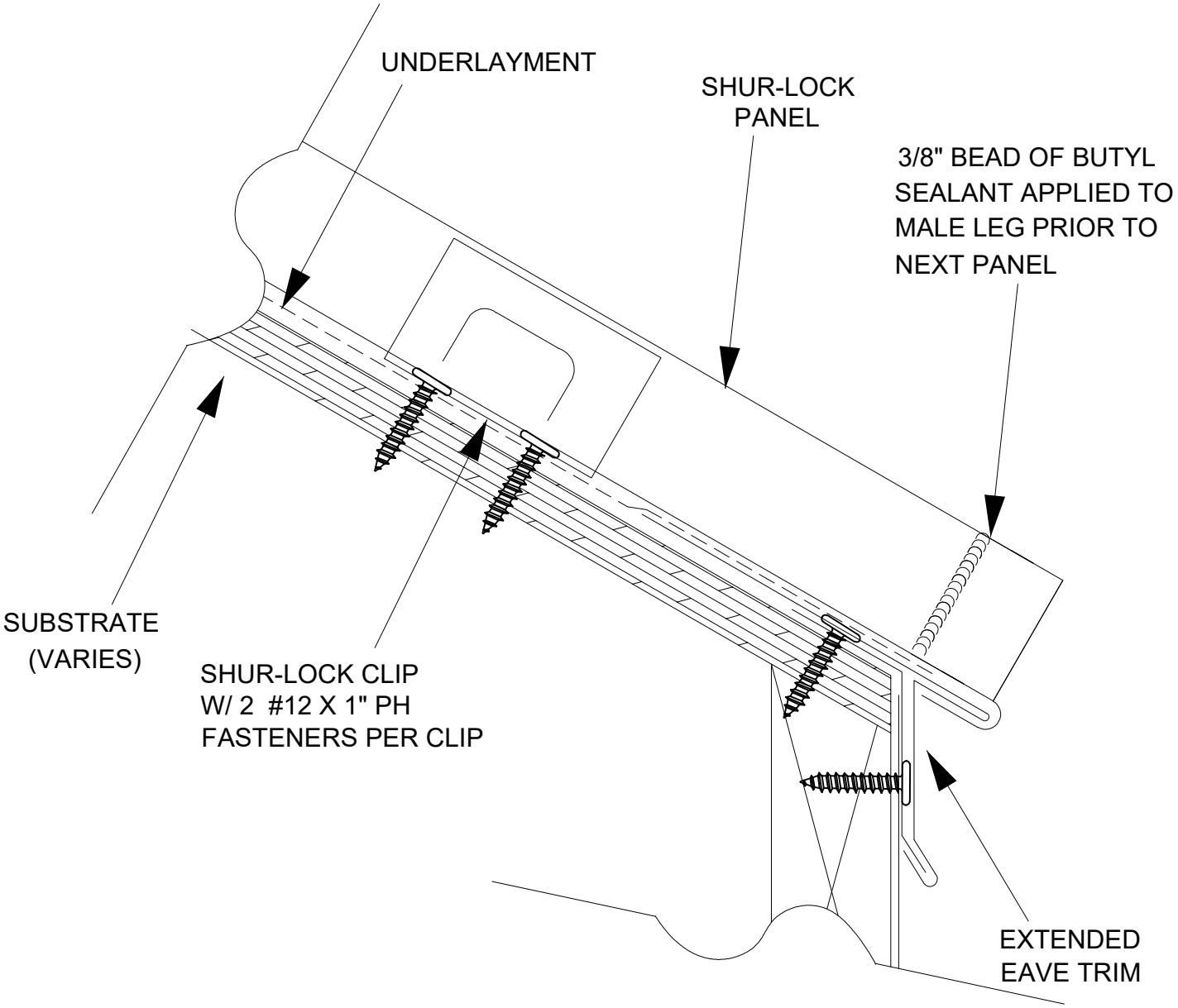


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
FLOATING EXTENDED EAVE

PAGE 6

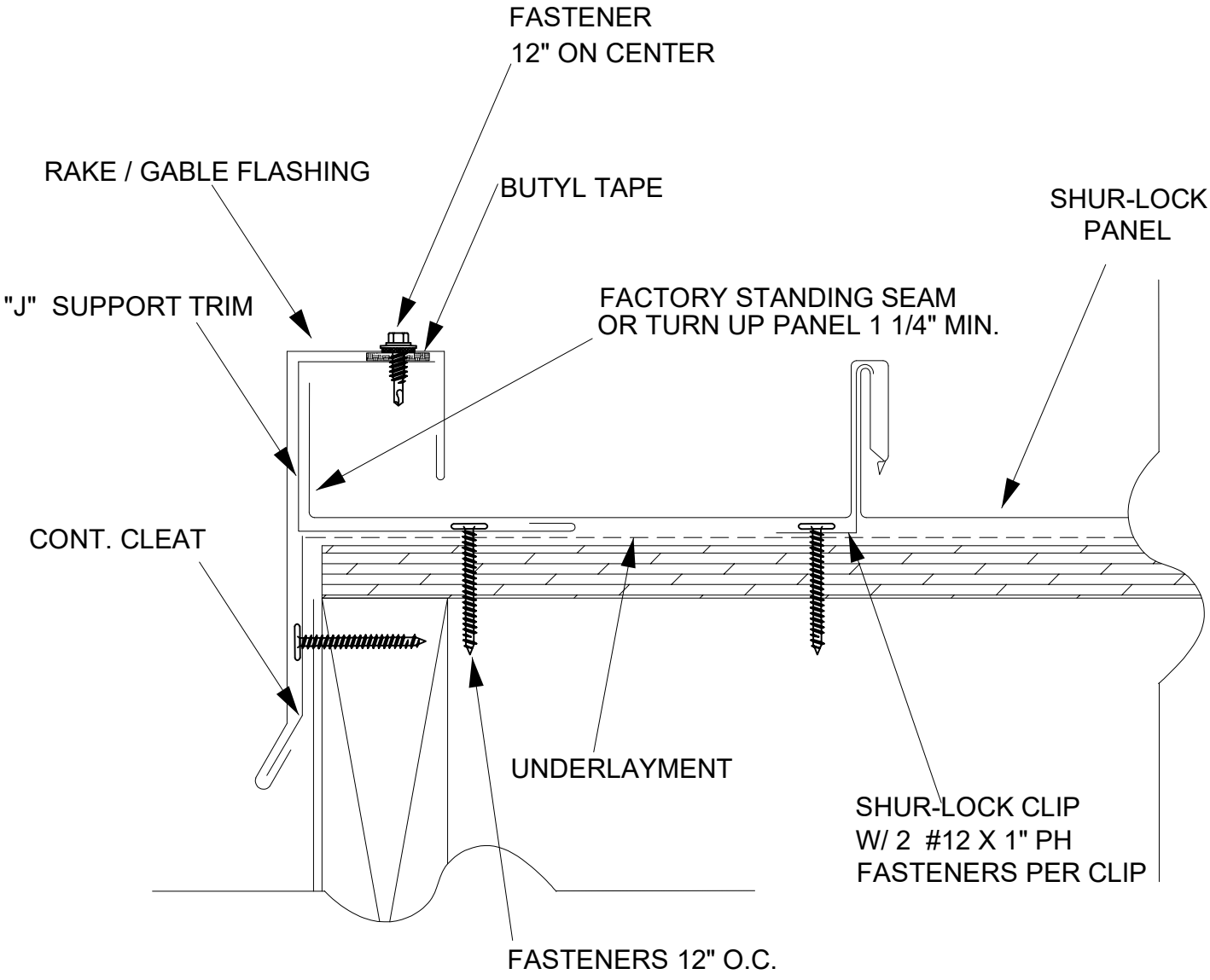


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
RAKE / GABLE

PAGE 7

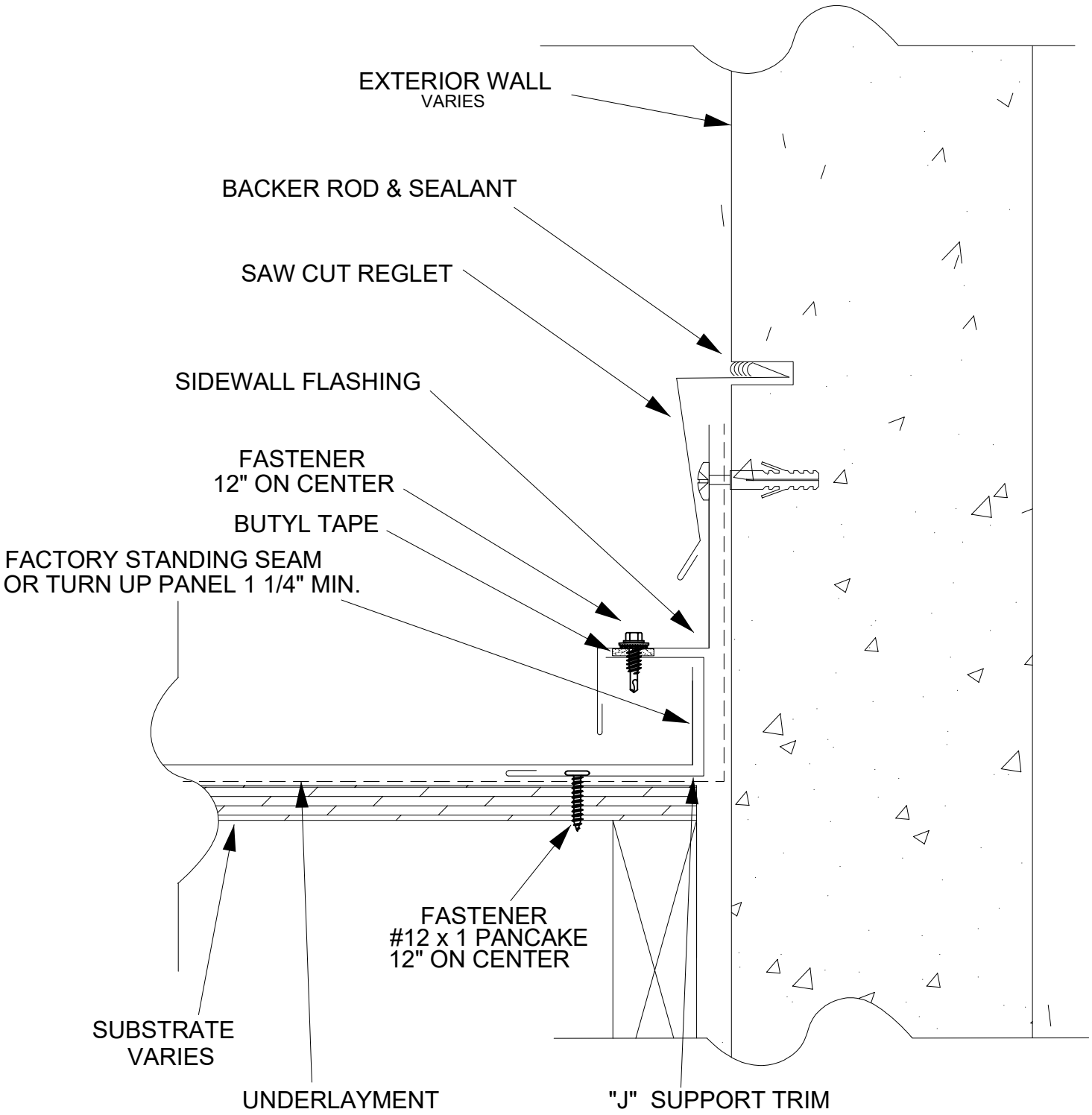


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
RAKE WALL w-reglet (saw-cut)

PAGE 8

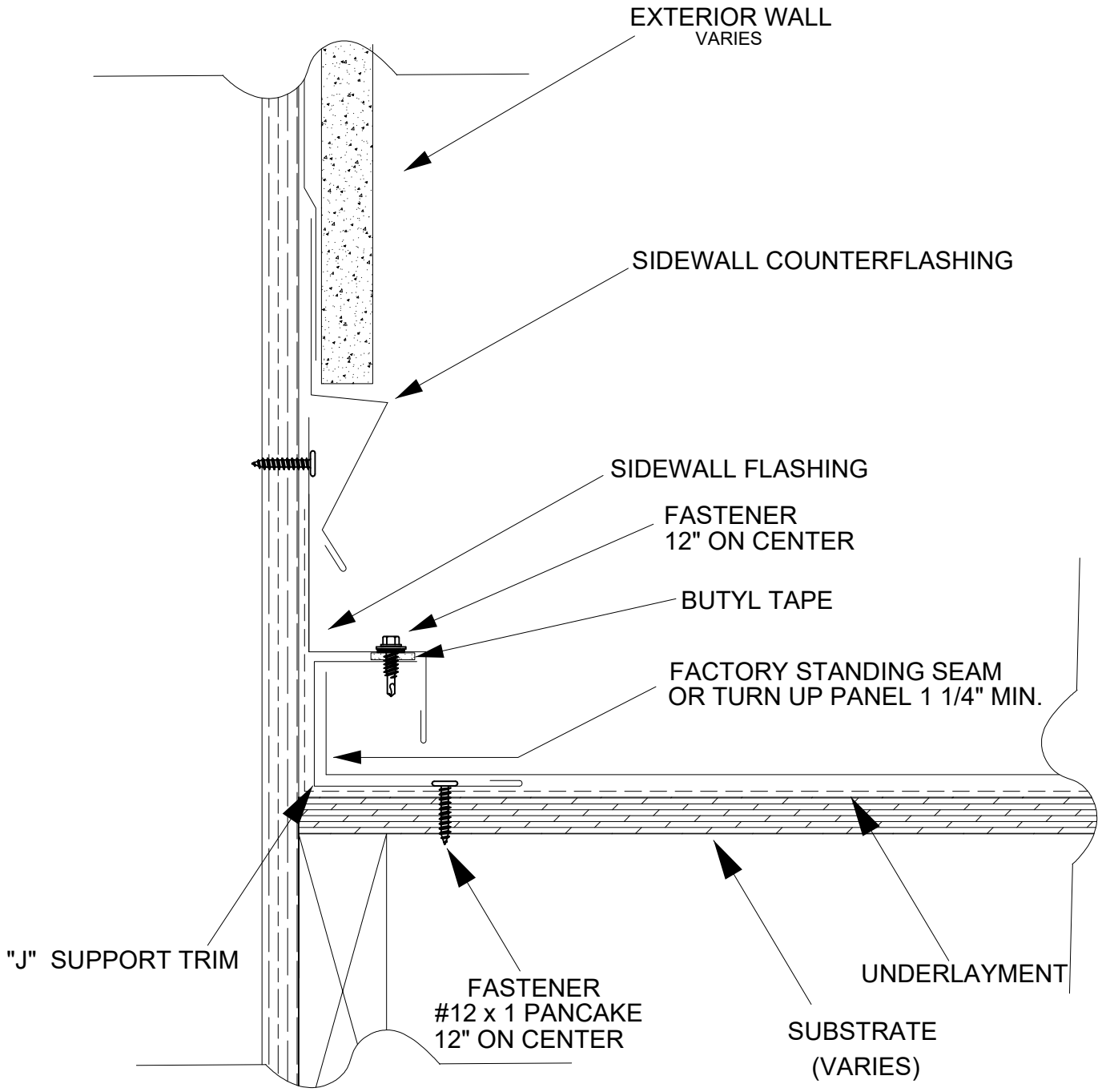


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK SIDEWALL

PAGE 9

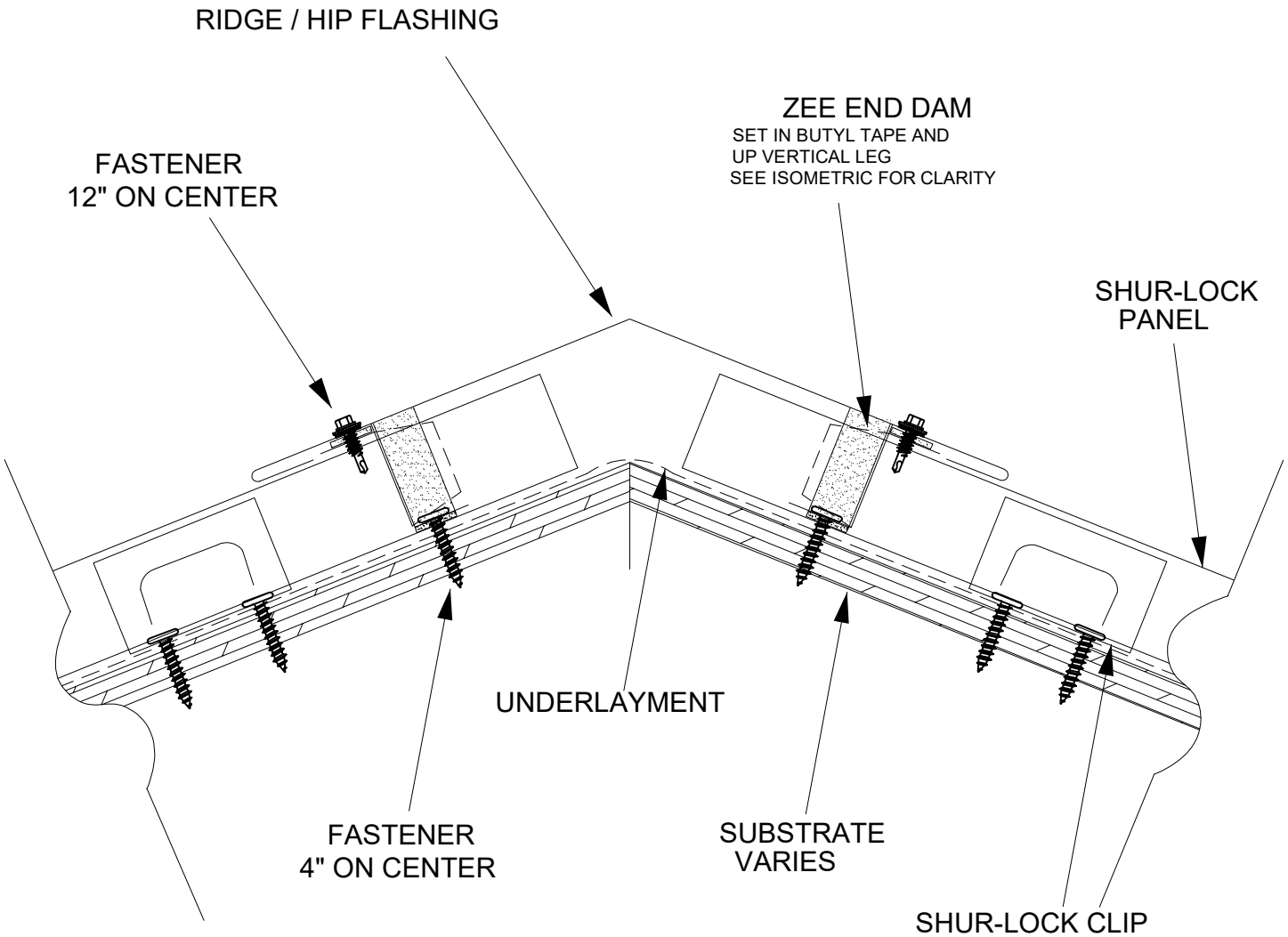


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
HIP / RIDGE

PAGE 10

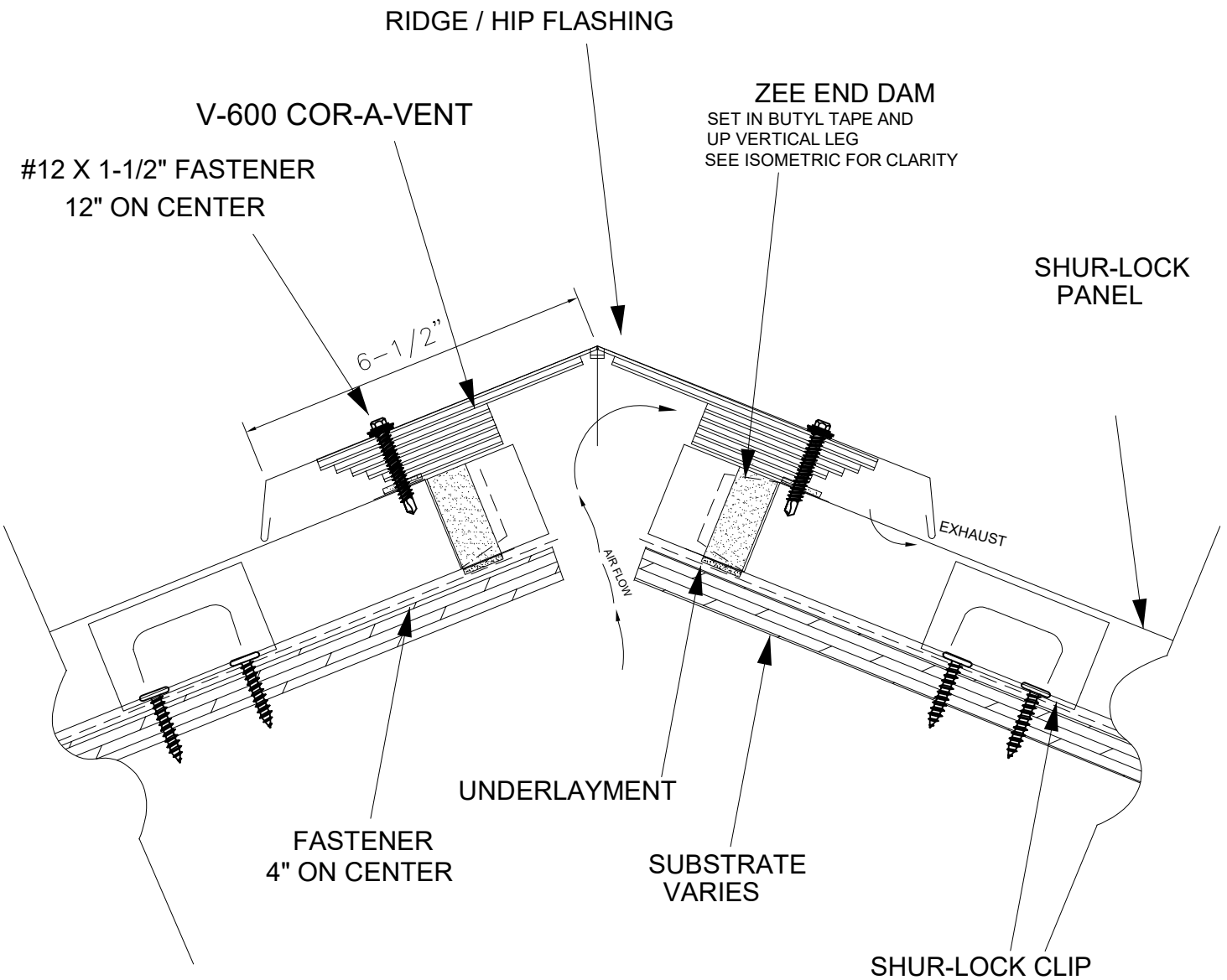


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
VENTED HIP / RIDGE

PAGE 11



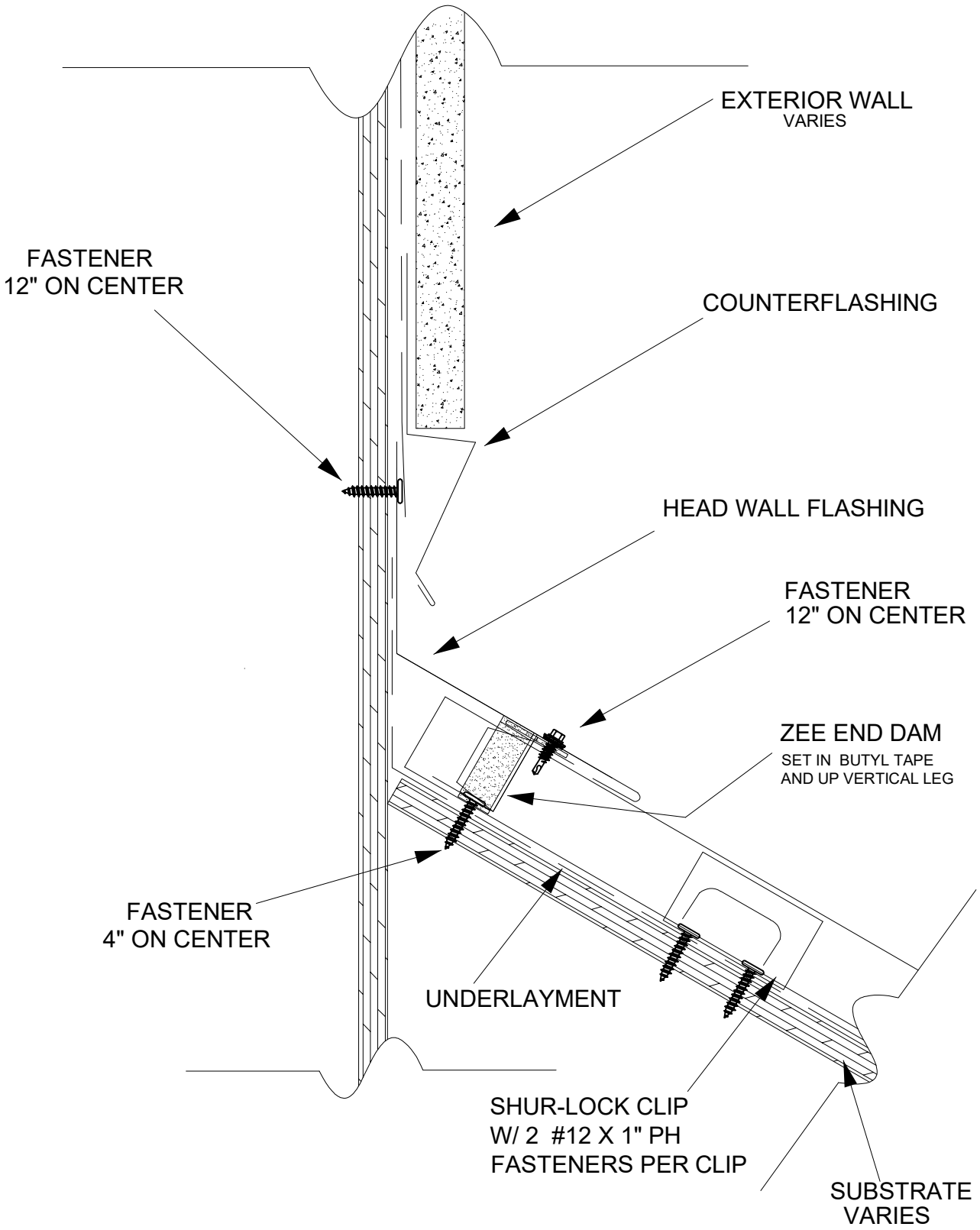
V-600 11"
COR-A-VENT
20 SQ IN NFVA PER LN FT

FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK HEADWALL

PAGE 12

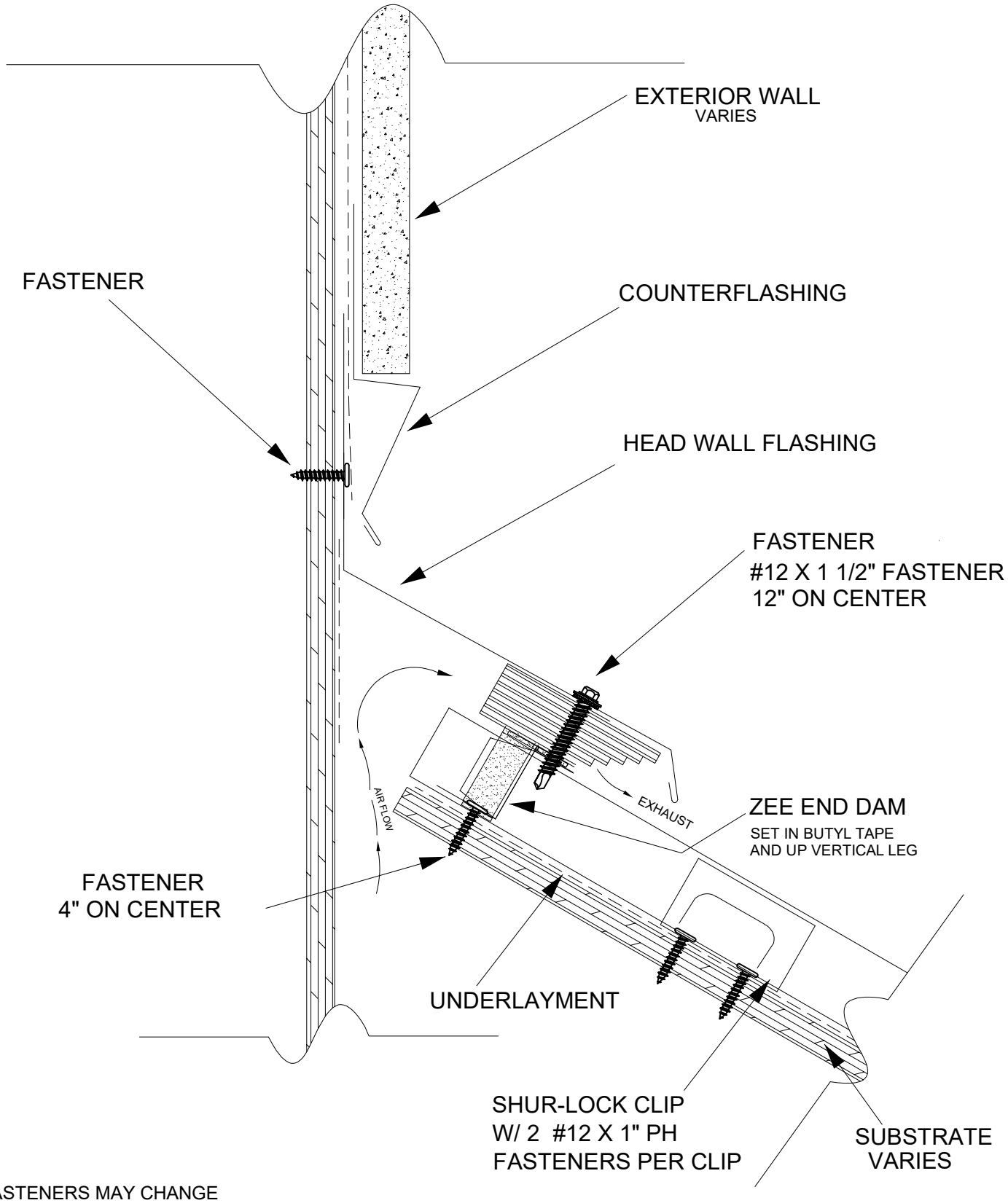


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
HEADWALL- VENTED

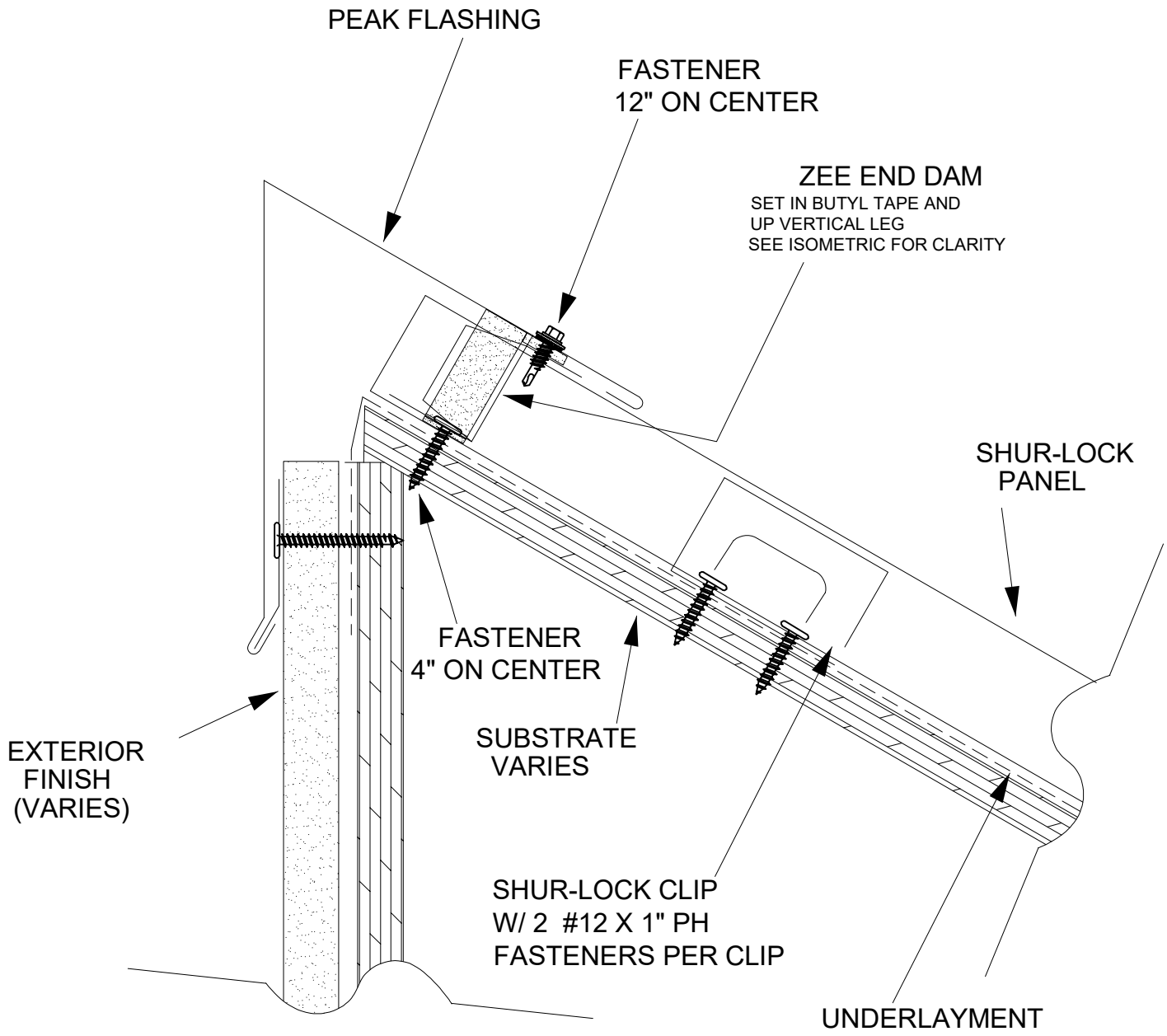
PAGE 13



FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK PEAK



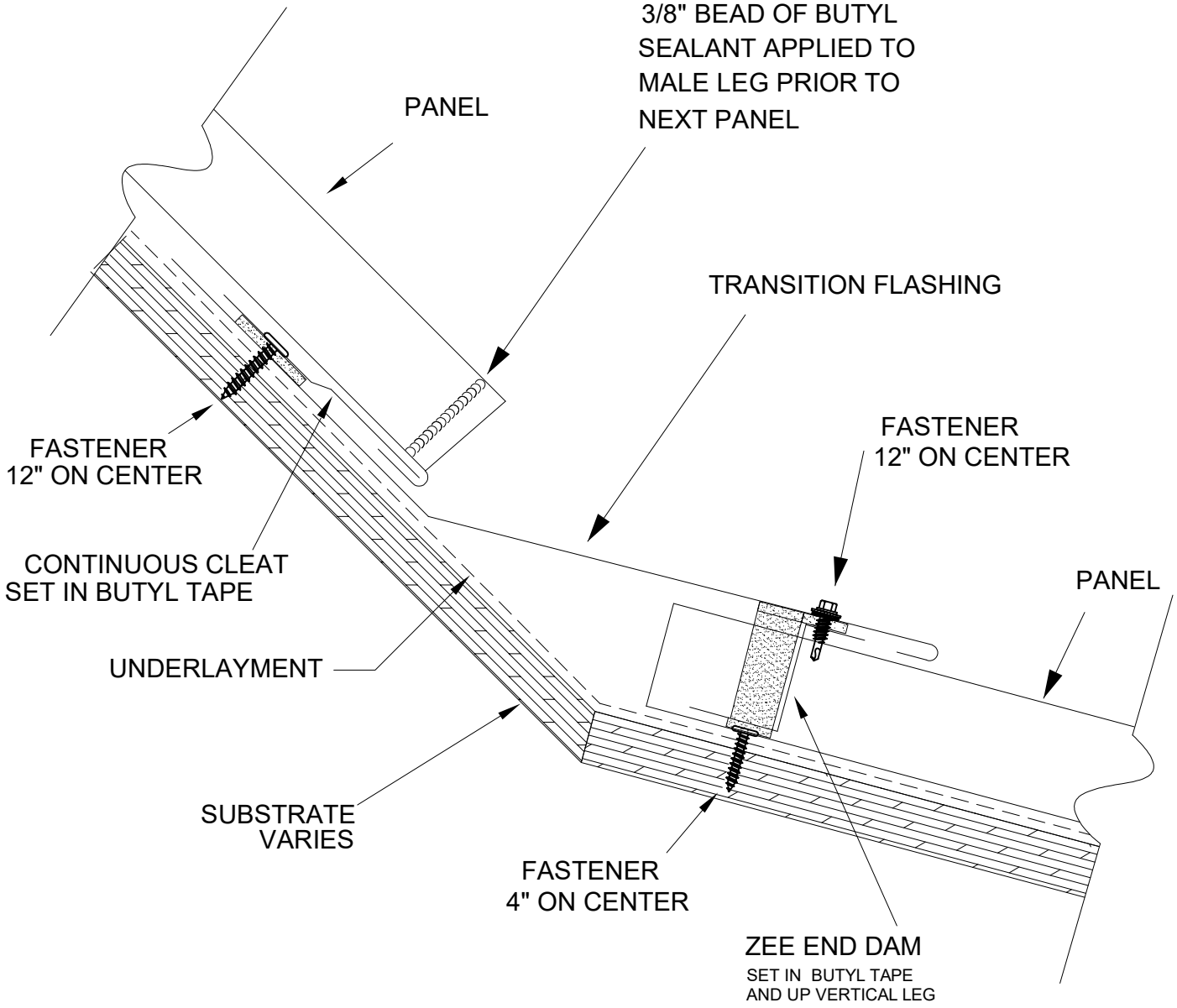
FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK TRANSITION

PAGE 15

STEEP SLOPE TO LOW SLOPE

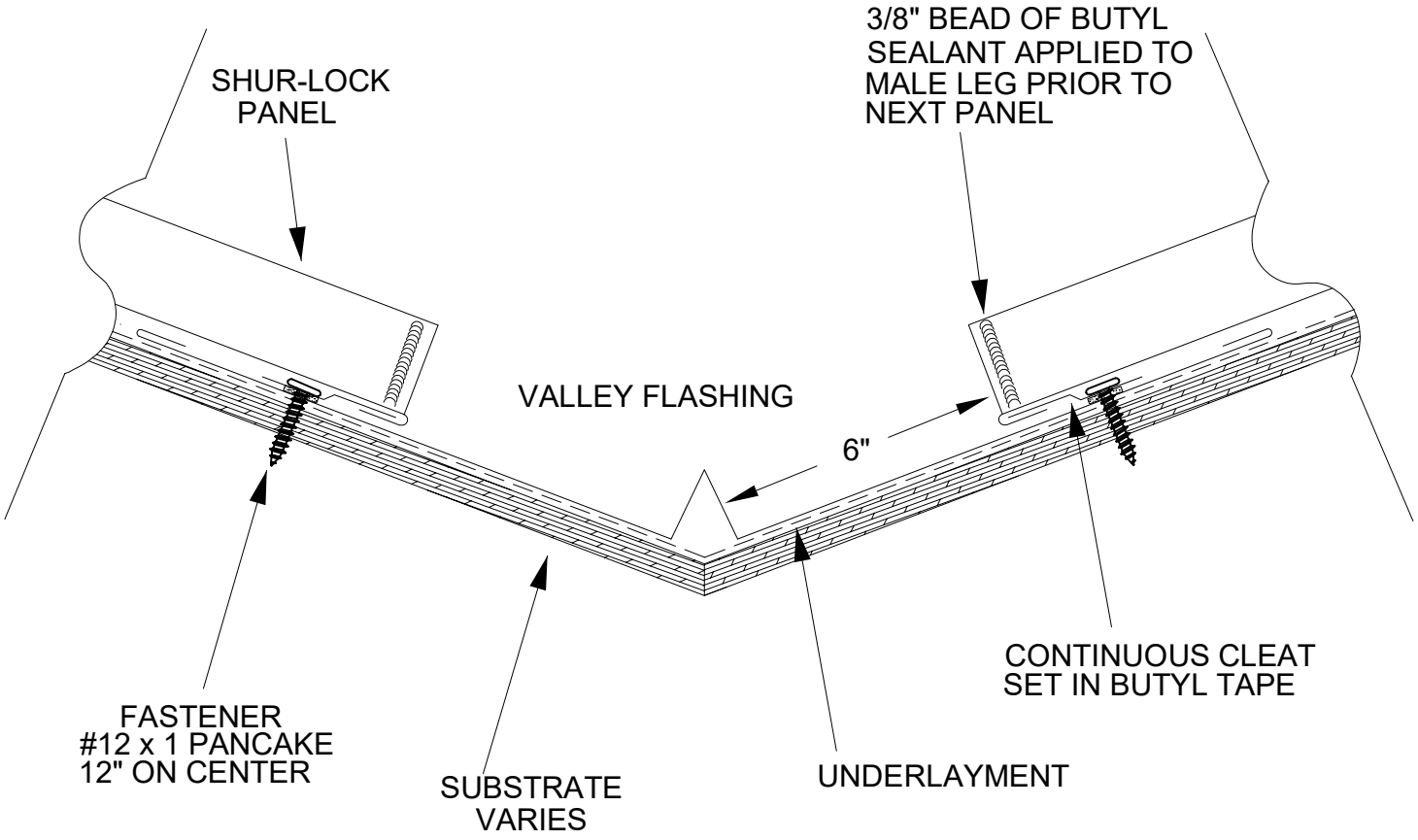


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK VALLEY

PAGE 16



FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

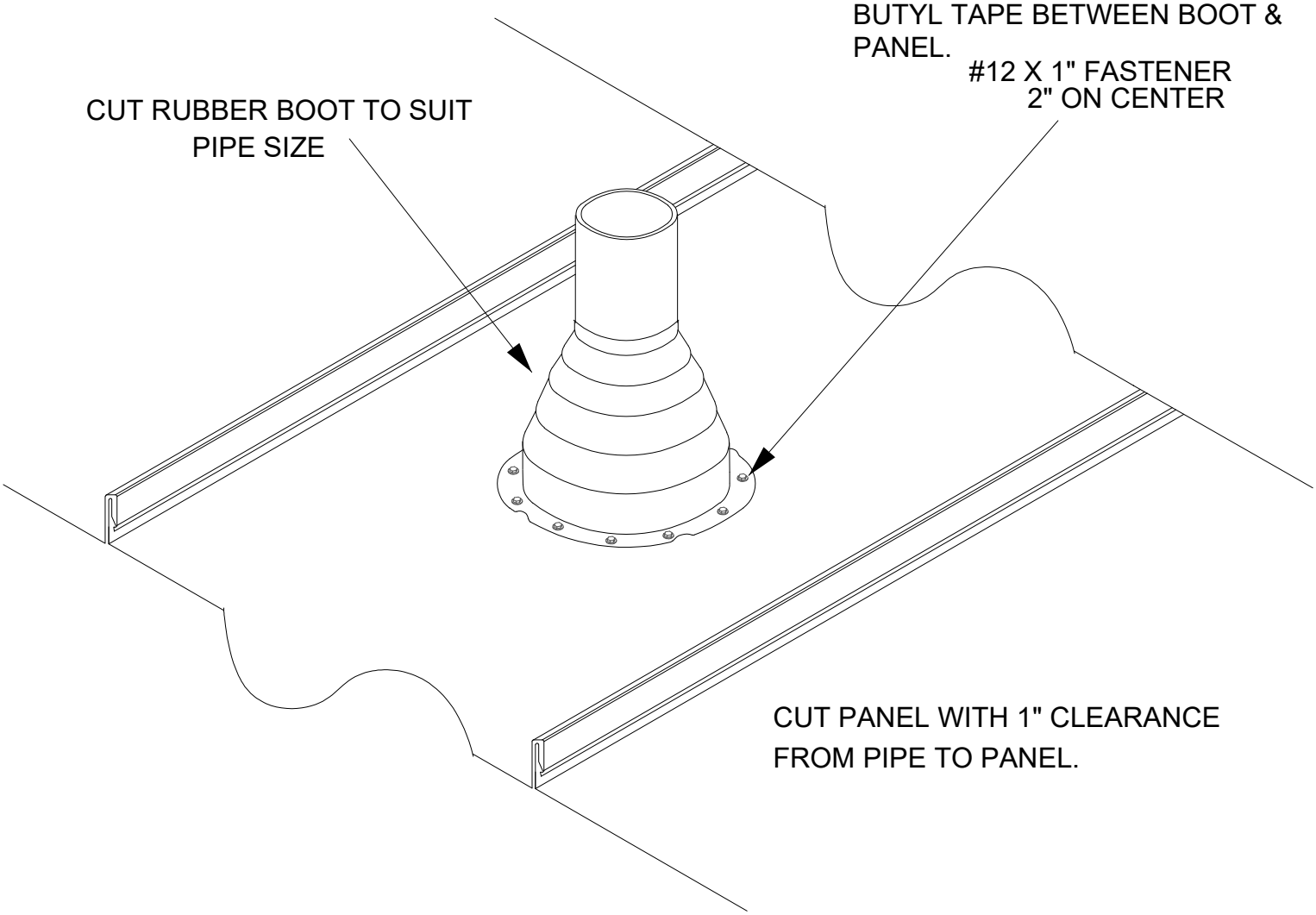
SHUR-LOCK
PIPE BOOT

PAGE 17

FASTEN BOOT TO PANEL AT 2" o/c WITH A CONT. BEAD OF BUTYL TAPE BETWEEN BOOT & PANEL.

#12 X 1" FASTENER 2" ON CENTER

CUT RUBBER BOOT TO SUIT PIPE SIZE



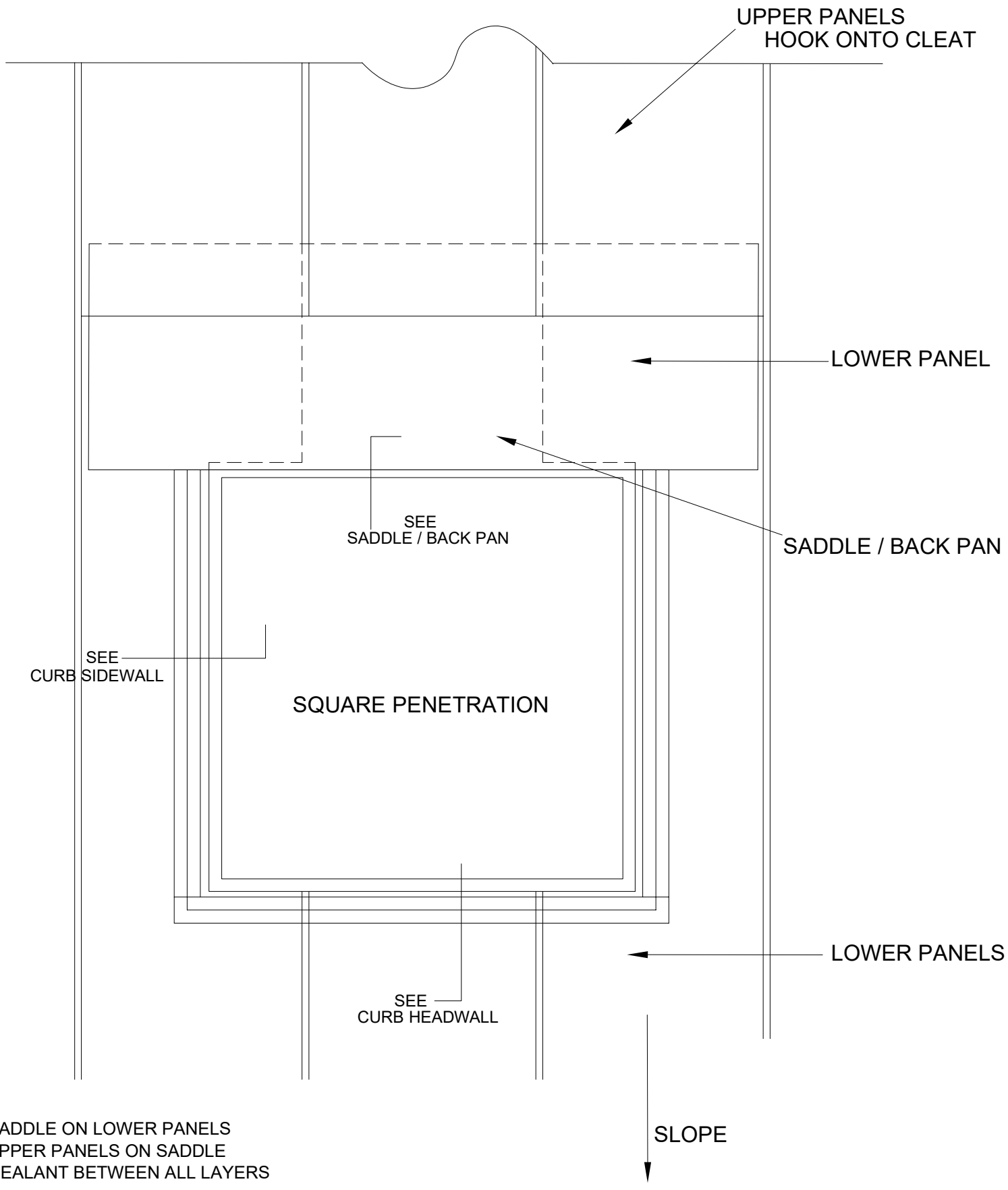
CUT PANEL WITH 1" CLEARANCE FROM PIPE TO PANEL.

NOTES
1. PIPE NEEDS TO BE CENTERED IN PANEL
2. SUBSRATE NEEDS TO BE CUT OUT 1" LARGER THAN BOOT BASE
3. FASTENERS INTO PANEL ONLY TO ALLOW THERMAL MOVEMENT
4. PIPE BOOTS MAY HAVE ROUND OR SQUARE BASE

HPM CUSTOM METAL ROOFING

SHUR-LOCK
CURB DETAIL

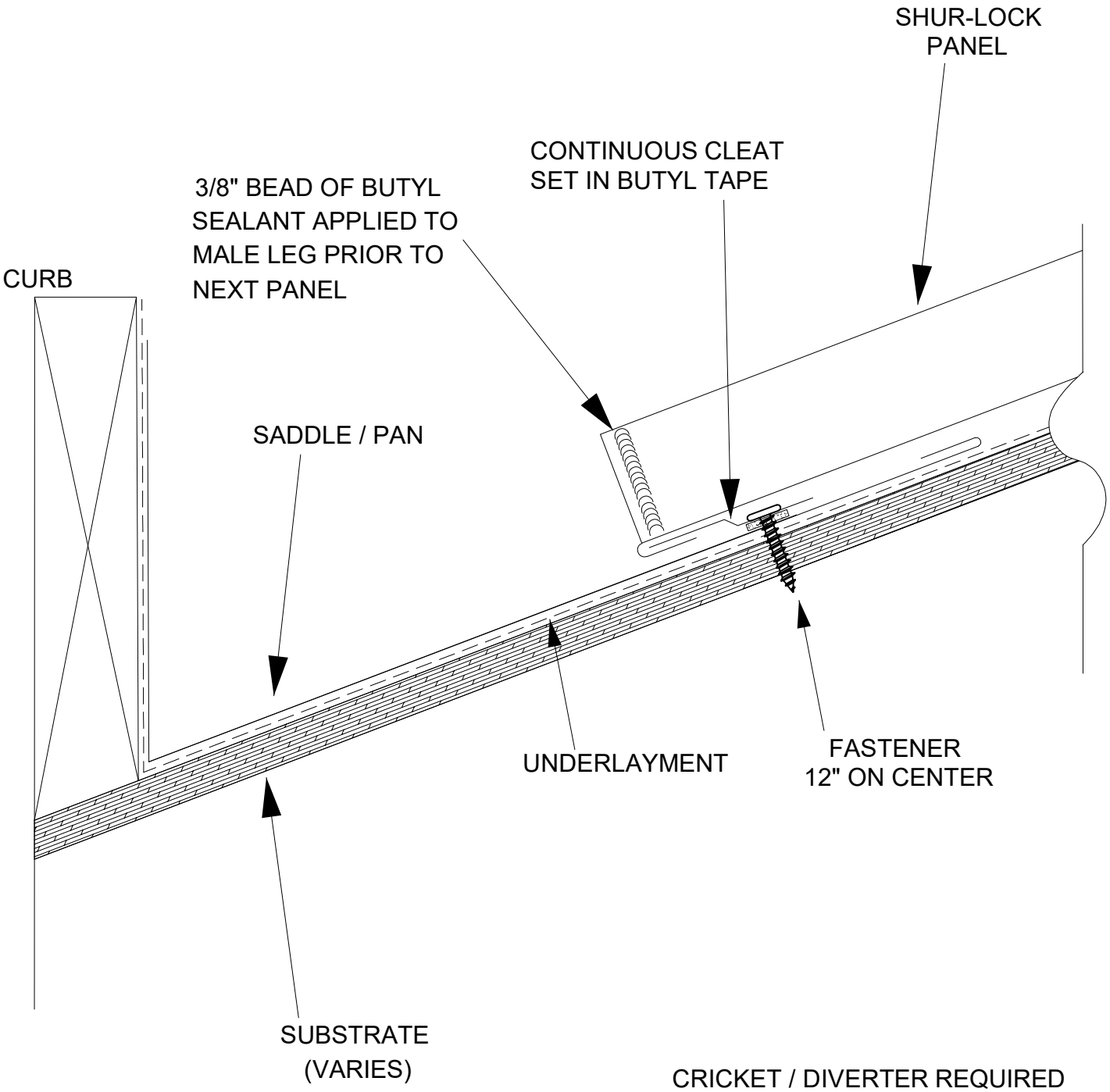
PAGE 18



SADDLE ON LOWER PANELS
UPPER PANELS ON SADDLE
SEALANT BETWEEN ALL LAYERS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
CURB SADDLE / BACK PAN



CRICKET / DIVERTER REQUIRED WHEN CURB IS 30" OR LARGER ON RIDGE SIDE OF PENETRATION

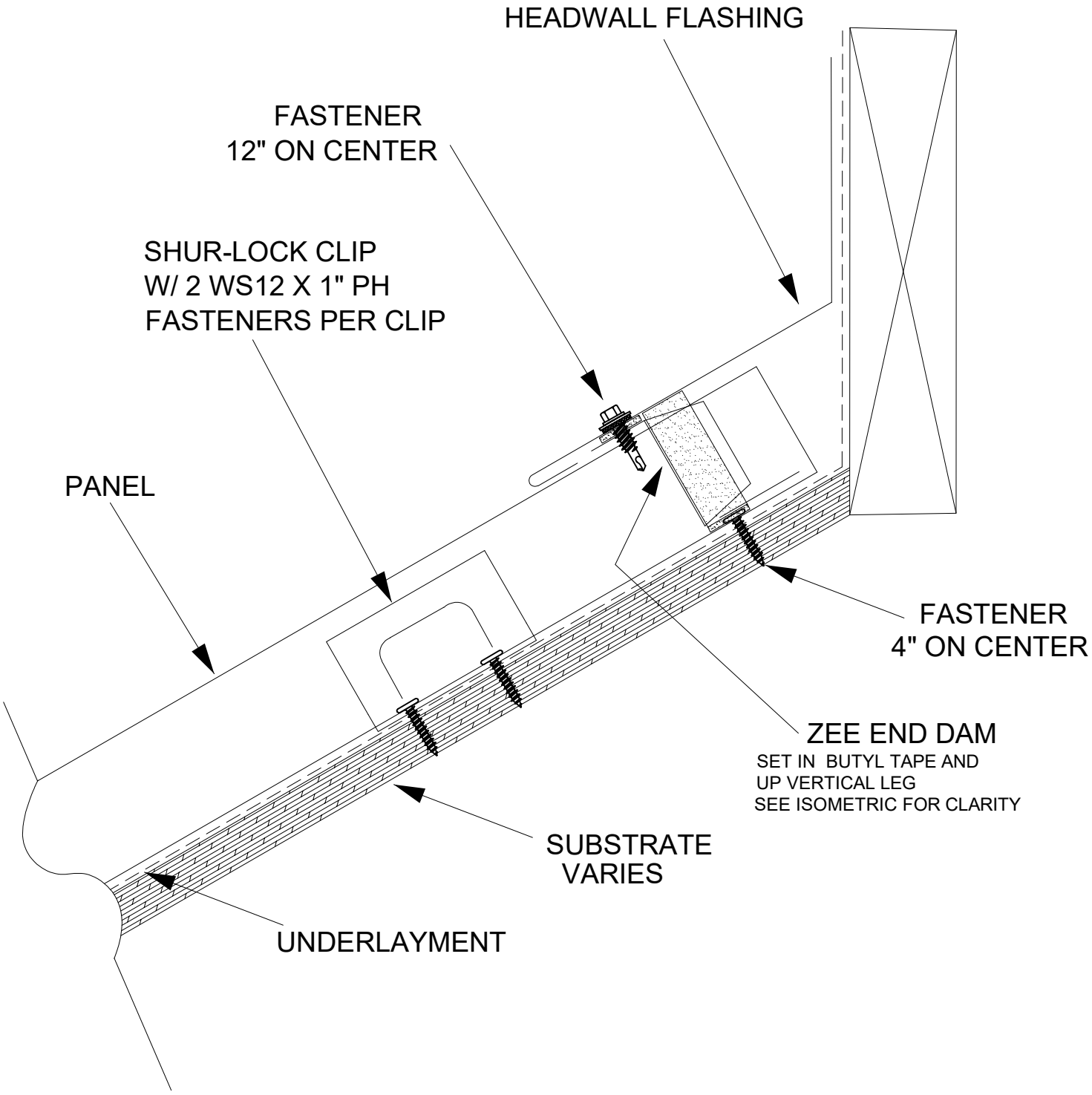
CLEAT DESIGN FOR ROOF SLOPES 3:12 AND GREATER

FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
CURB HEADWALL

PAGE 20

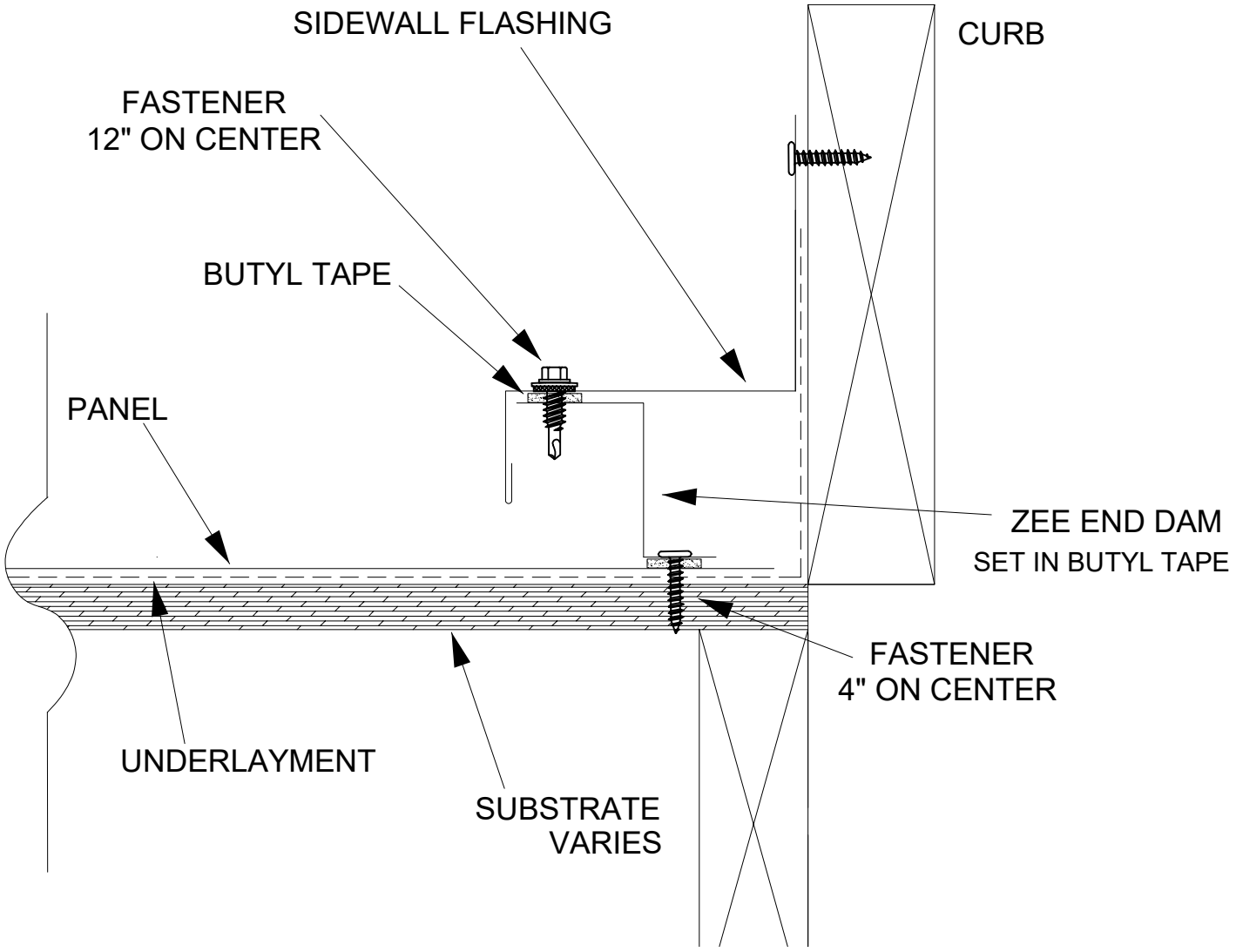


FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
CURB SIDEWALL

PAGE 21

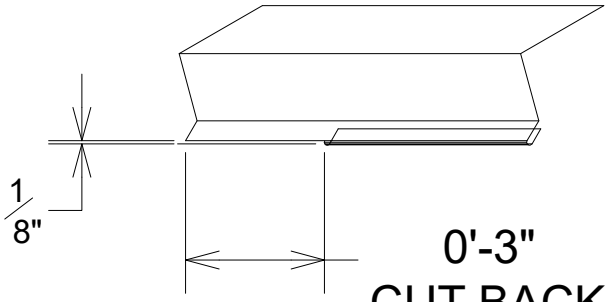


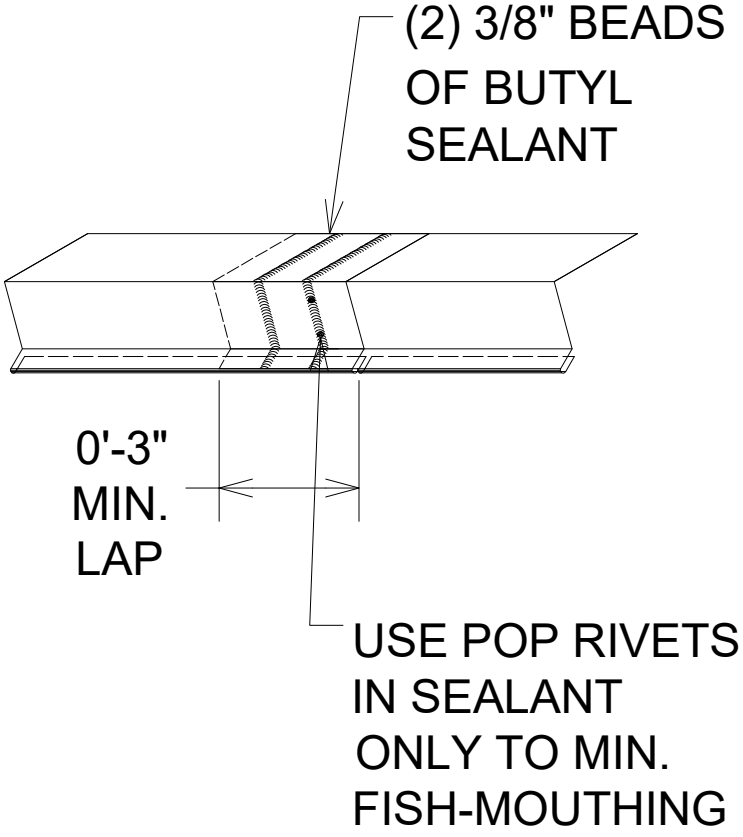
FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE
CLIP SPACING PER UPLIFT REQUIREMENTS

HPM CUSTOM METAL ROOFING

SHUR-LOCK
TRIM LAP

PAGE 22





NOTES:

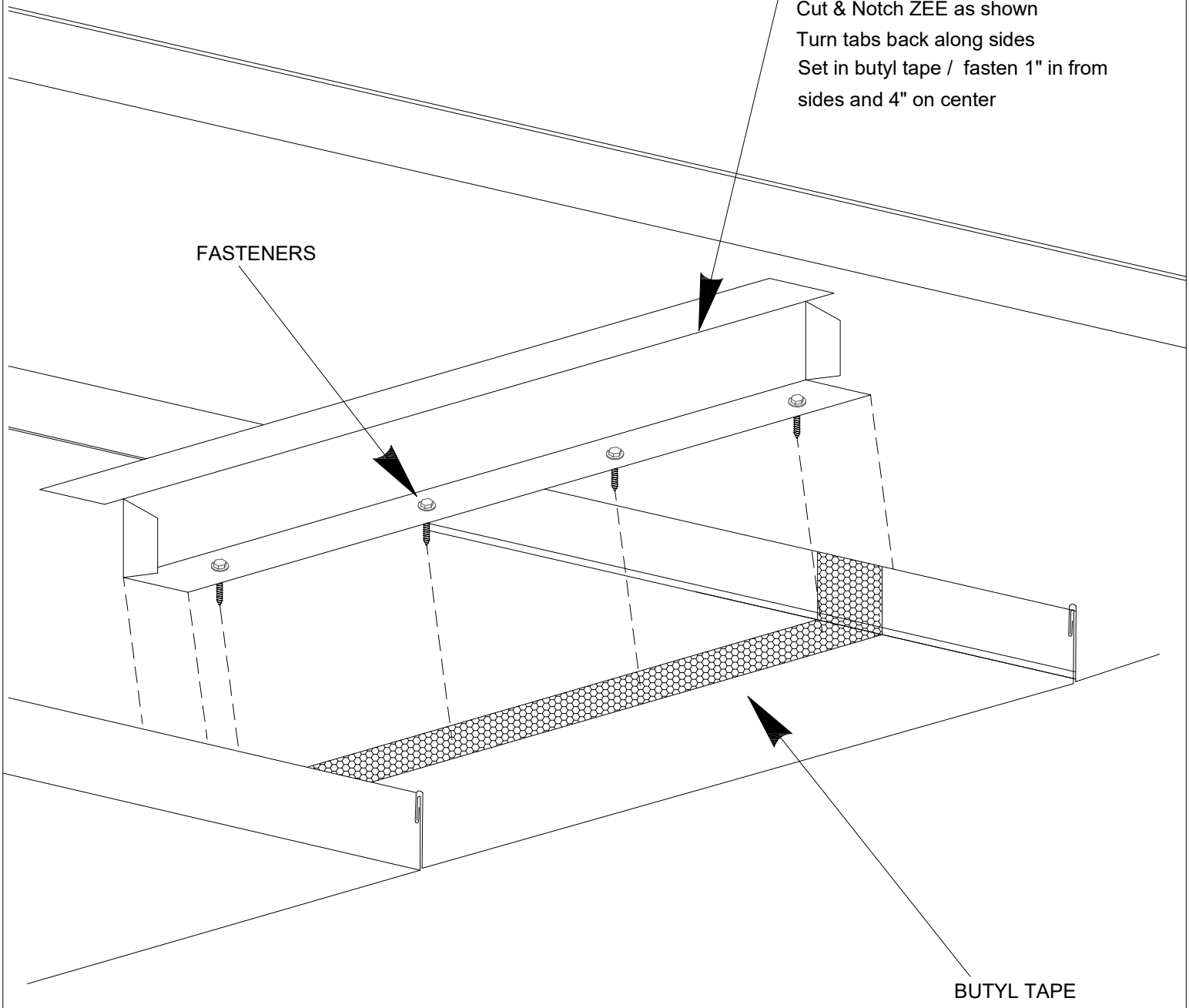
ALL TRIMS REQUIRE A 3" LAP EXCEPT

VALLEY TRIM WHICH REQUIRES A 9" LAP

HPM CUSTOM METAL ROOFING

SHUR-LOCK
END DAM ISOMETRIC

PAGE 23



NOTES:
FASTENERS MAY CHANGE
ACCORDING TO SUBSTRATE

HPM CUSTOM METAL ROOFING

Kapolei, Hawaii
Campbell Industrial Park
91-302 Hanua Street
Kapolei, HI 96707
Phone: (808) 682-8560
Toll Free: (877) 841-7633
Fax: (808) 682-8565
Email: oahu@hpmhawaii.com

Kea‘au, Hawai‘i
Shipman Industrial Park
16-166 Melekahiwa Street
Kea‘au, HI 96749
Phone: (808) 966-5660
Toll Free: (800) 317-4161
Fax: (808) 966-5672

hpmhawaii.com/custom-metal-roofing