



**Nu-Wave® Corrugated &
IronOx Corrugated Siding**
Installation Guide

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GENERAL NOTES

The attached installation details are intended to be a design aid and do not depict all situations. Modifications are the responsibility of the designer/user and should consider climate conditions such as wind and snow, wildfire, governing code requirements, and the actual usage and maintenance of the structure.

Applications:

Nu-Wave is acceptable for use as a roofing panel and as a wall panel installed in the vertical or horizontal orientation. The recommended minimum slope is 3:12. Nu-Wave can be installed over solid substrates or over spaced supports. This installation guide depicts Nu-Wave installed over mixed substrates. It is the responsibility of the designer/user to make proper installation adjustments to address the installation conditions on the project.

Flashings:

Where feasible, flashings should be lapped away from prevailing winds. Certain flashings should be supported if it is likely that equipment (ladder, etc.) will be used against them. Check with ASC Building Products any time you intend to specify a prefinished flashing in a gauge or finish different than the Nu-Wave panels. It is good practice to specify that all flashings be of the same material (gauge, color, finish) as the roof & wall panels to ensure long-term durability. Painted flashings rarely equal the durability and colorfastness of factory baked-on paint systems. The enclosed details have minimized the use of exposed fasteners where possible. The edges of flashings have also been shown hemmed to strengthen and to minimize the exposure of cut edges.

Flashing design and fabrication is generally the responsibility of the contractor. For convenience, we have provided typical flashing drawings on our website. Applicable Nu-Wave flashing part numbers are referenced within this installation guide. Note that flashing shapes and dimensions may vary greatly based on project requirements. Installation details and flashings referenced within are for general design guidance only.

Condensation, Insulation, & Ventilation:

It is the designer's responsibility to determine the need and composition of moisture control materials including insulation and vapor retarders, as well as ventilation requirements. Metal roof and wall products are susceptible to condensation, and its control should be carefully considered.

For metal roofing panels, an underlayment should be installed over the roof substrate. ASC Building Products recommends using AEP Span Underlayment HT, which is specifically engineered for all ASC Building Products' roofing systems and suitable for use under any metal roofing system or coping. AEP Span Underlayment HT is a high-temperature, self-healing, self-adhering, peel-and-stick underlayment with a non-abrasive surface that will not mar, scratch, or abrade the underside of metal panels and flashings. Please note that additional protection may be required to achieve Class A fire ratings as defined in UL 790 classified assemblies.

Thermal Movement:

Both panels and flashings must allow for thermal movement (expansion and contraction) of the materials, especially where long lengths are used. Appropriate gaps or provisions must be provided to accommodate thermal movement.

Designing for Snow:

If possible, valleys, gutters, roof elevation changes and penetrations should be minimized or eliminated in snow areas. Roof penetrations should be located as close to the ridge or peak of the roof as possible to minimize accumulations of ice and snow.

Building Code Compliance:

Nu-Wave is compliant with the IBC, IRC, CBC, and CRC building codes. Refer to IAPMO-UES Code Compliance Report #ER-0550 for further details. Nu-Wave is also approved as part of a Class A Fire rated assembly when installed in accordance to UL790 listings.

Panel Attachment / Structural Performance:

The structural performance of Nu-Wave is documented in IAPMO-UES Code Compliance Report #ER-0550. Published performance data includes: Panel section properties, inward (gravity) load capacities, outward (wind uplift) load capacities, shear tables, and other product information and limitations.

Oil Canning:

Flat metal surfaces often display waviness commonly referred to as 'oil canning'. This can be caused by variations in raw material, processing variations, product handling, or variations in the installation substrate. Oil canning is a characteristic, not a defect, of panels manufactured from light-gauge metal. To reduce potential for oil canning, substrates should not deviate from a flat plane more than 1/4 inch in 20 feet, or 1/8 inch in 5 feet. Oil canning is not a cause for panel rejection. Additional technical information is available for review on our website.

Protecting the Panels:

Proper handling, storage, installation, and keeping work surfaces clean are key to protecting metal roofing and siding. Regular washing and maintenance after installation further help ensure panel longevity. For detailed guidance, refer to the technical resources on ASC Building Products' website.

References:

The Sheet Metal and Air Conditioning Contractors' National Association Inc. (SMACNA) manual is an excellent reference for sheet metal contractors. It's guidelines for underlayments, gutter and downspout size requirements, and expansion/contraction of metals and flashing joints should be followed.

Technical Assistance:

Contact your ASC Building Products' Sales Representative for additional information.

Nu-Wave Online Product Page:

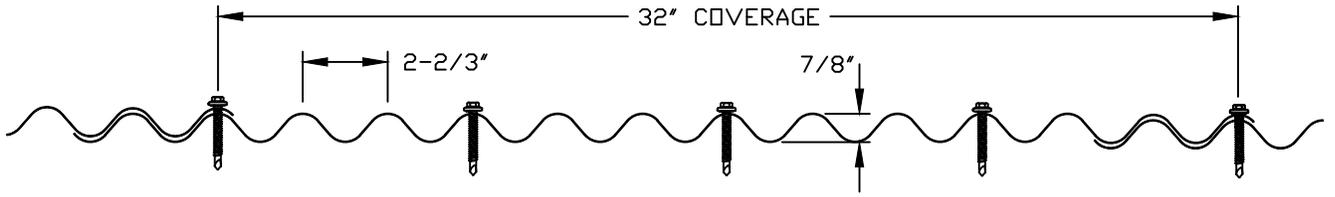


Technical Resources:

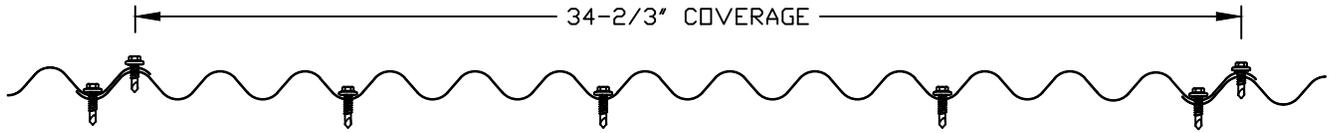


ER-0550 Code Compliance Report:

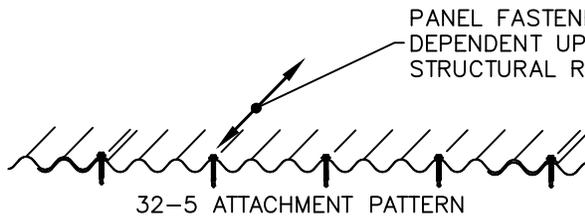




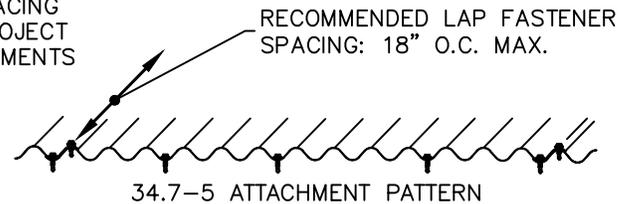
NU-WAVE CORRUGATED
ROOF INSTALLATION (2 RIB LAP)



NU-WAVE CORRUGATED
WALL INSTALLATION (1 RIB LAP)



32-5 ATTACHMENT PATTERN



34.7-5 ATTACHMENT PATTERN



32-7 ATTACHMENT PATTERN

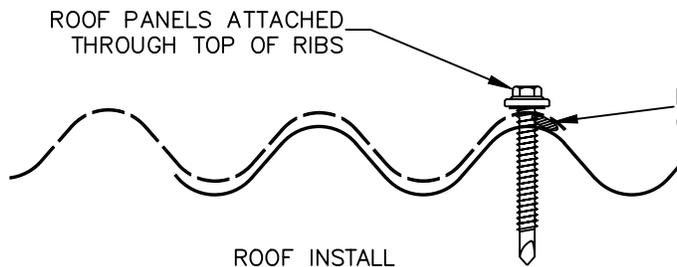


34.7-7 ATTACHMENT PATTERN

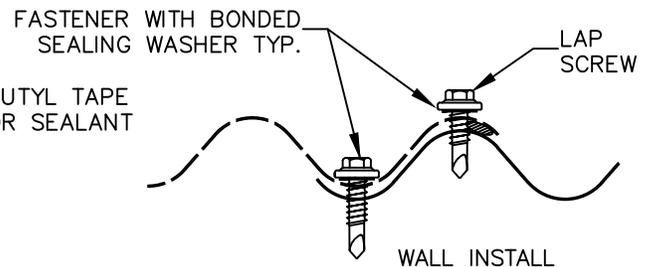
ROOF INSTALL

WALL INSTALL

NOTE: PANEL FASTENER ATTACHMENT (TYPE, SIZE, AND LOCATION) IS DEPENDENT UPON SUBSTRATE USAGE AND STRUCTURAL REQUIREMENTS FOR EACH SPECIFIC PROJECT. DESIGN PROFESSIONAL TO DESIGN OR CONFIRM ADEQUATE PANEL ATTACHMENT. REFER TO GENERAL NOTES SECTION FOR ADDITIONAL GUIDANCE.



ROOF INSTALL



WALL INSTALL

NU-WAVE CORRUGATED
FASTENER INSTALLATION



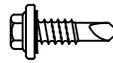
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PANEL DETAILS



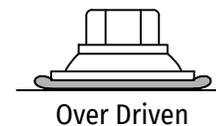
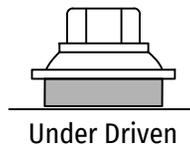
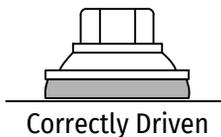
NW-01

Description	Length(s)	Use
 #9 Hex Head Wood Screw (1/4" Drive) with Sealing Washer	1", 1-1/2" 2", 2-1/2" 3"	Panel to dimensional lumber attachments. Color matched.
 #14 Hex Head Wood Screw (5/16" Drive) with Sealing Washer	1" 1-1/2"	Panel to plywood/OSB attachments (7/16" minimum thickness). Color matched.
 #12 Stitch Screw (1/4" Hex Drive) with Sealing Washer	3/4"	Exposed trim and panel lap attachments. Visible head size matches Item #1 wood screw. Color matched.
 #14 Lap Self Driller (5/16" Hex Drive) with Sealing Washer	7/8"	Exposed trim and panel lap attachments. Visible head size matches Item #2 wood screw. Color matched.
 1/8" Diameter Stainless Steel Rivet	1/8" Max Grip Length	Trim to trim, or trim to panel attachments. Color matched.
 #12 Hex Head Self Drill Screw (1/4" Drive)	1", 1-1/2" 2", 2-1/2"	Panel to steel deck or steel framing attachment. Color matched.
 #10 Pan Head Screw	1"	For non-exposed trim to substrate attachments.

Notes:

- The table above shows the fasteners commonly required for ASC Building Products' panel installations. Refer to the enclosed installation details for further guidance.
- Panel attachment screws into plywood/OSB must be long enough to fully penetrate through at least 3/8", or penetrate into solid lumber by at least one inch.
- Exposed fasteners must have sealing washers and should be the same color as the panels and trims they attach.
- Screws must be properly driven to ensure proper seal and holding strength. Do not underdrive or overdrive the screws.
- Note that rivets are not considered watertight.

Proper Installation of Fasteners with Sealing Washers



NU-WAVE



FASTENERS



NW-02

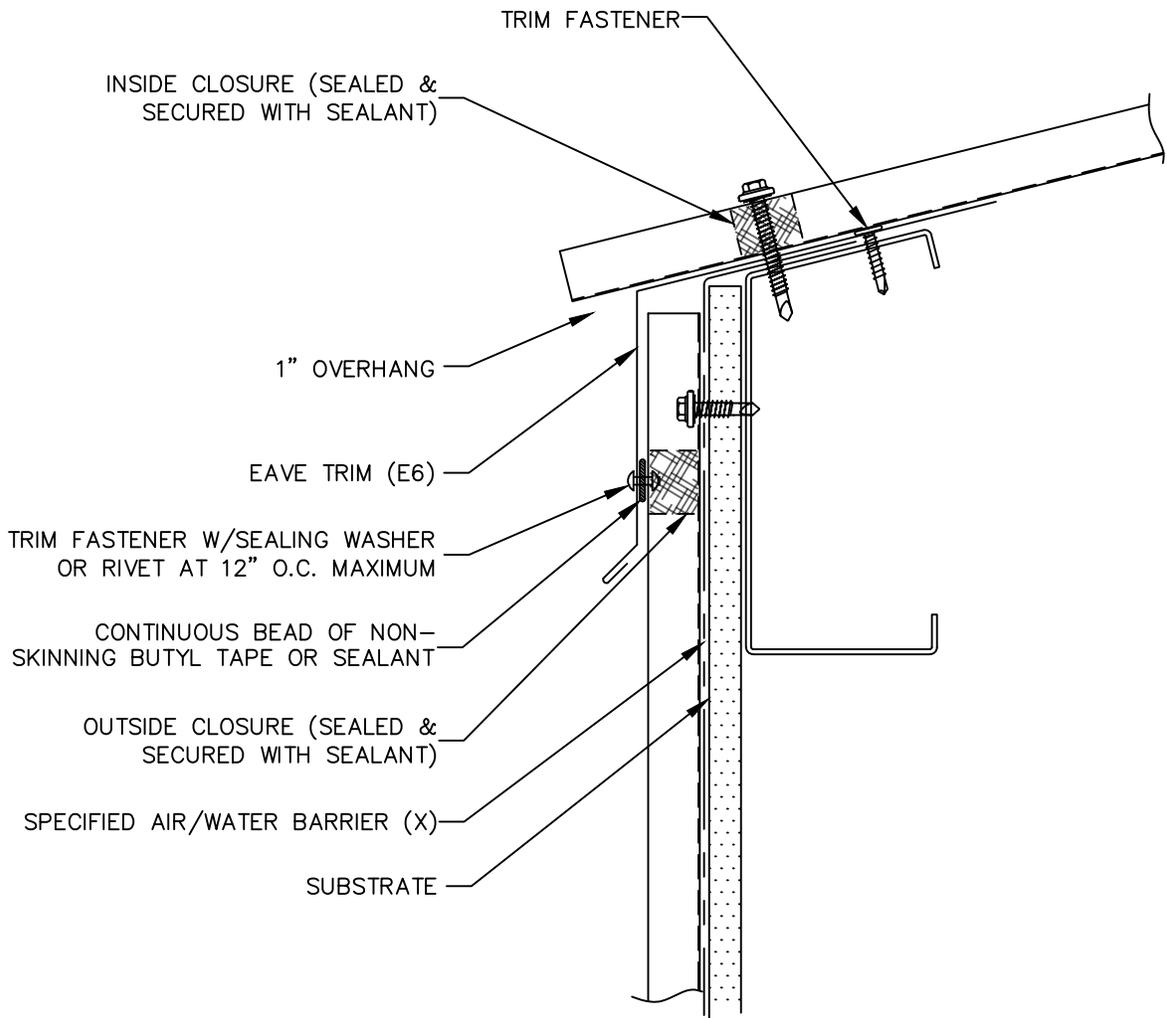
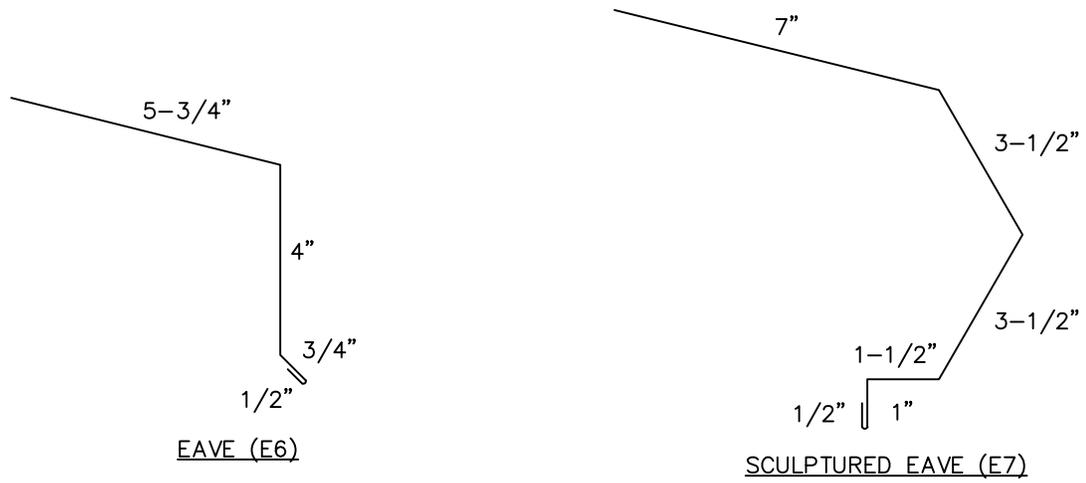
ROOF DETAILS



NU-WAVE



NW-03



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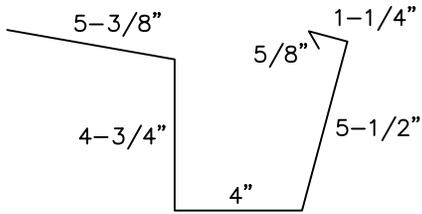


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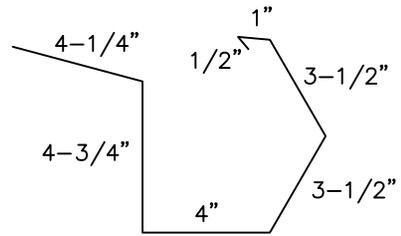
EAVE



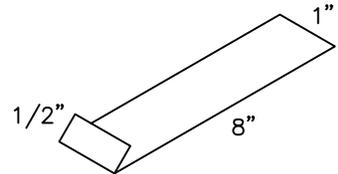
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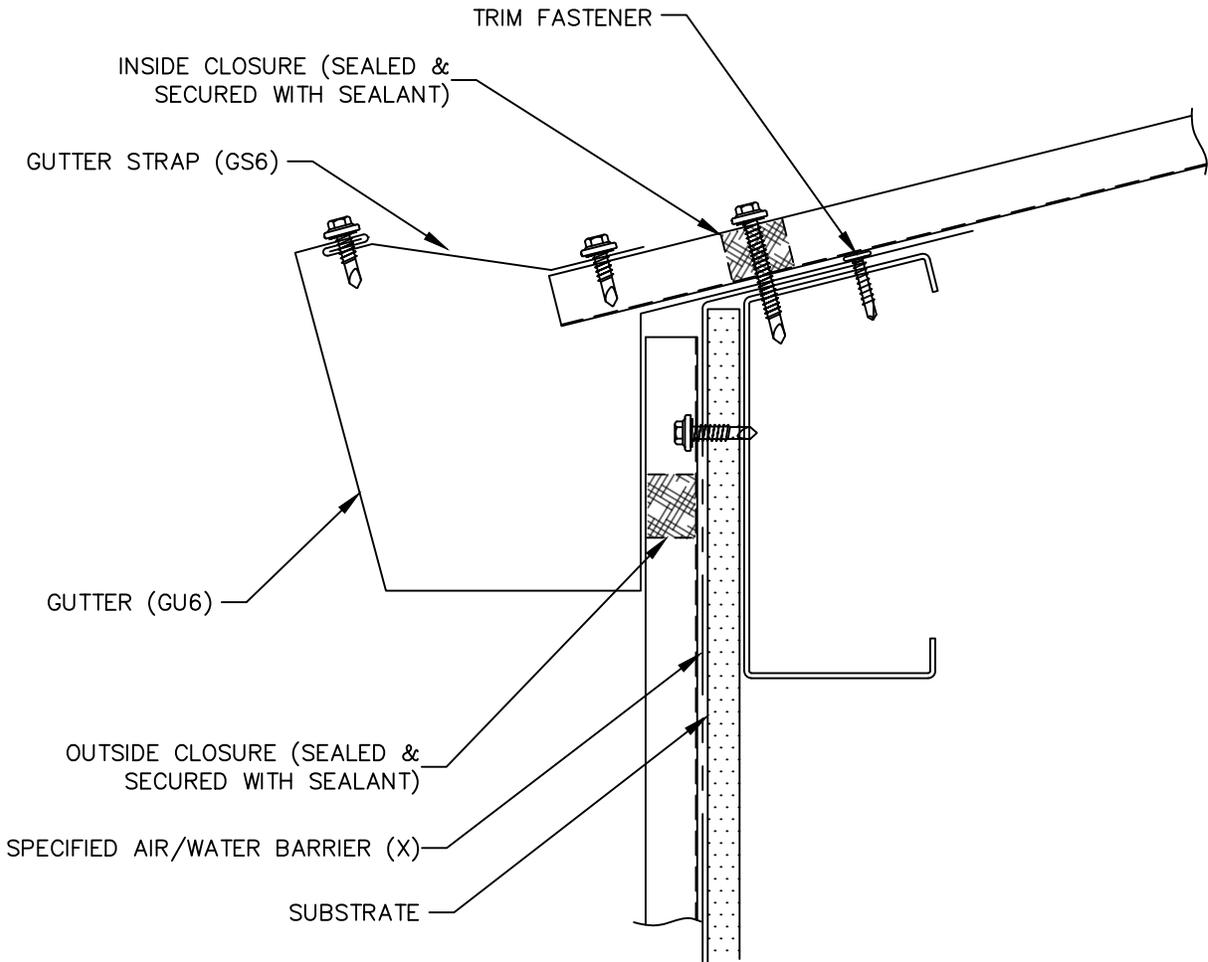
GUTTER, PRE-HUNG (GU6)



SCULPTURED GUTTER, PRE-HUNG (GU7)



GUTTER STRAP (GS6)



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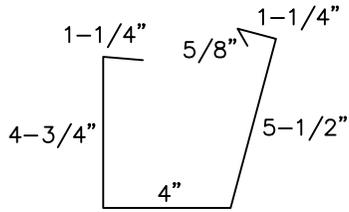
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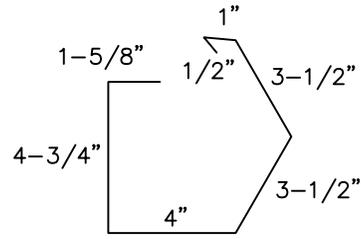
EAVE W/ GUTTER
(PRE-HUNG)



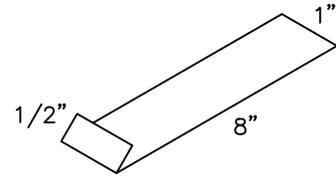
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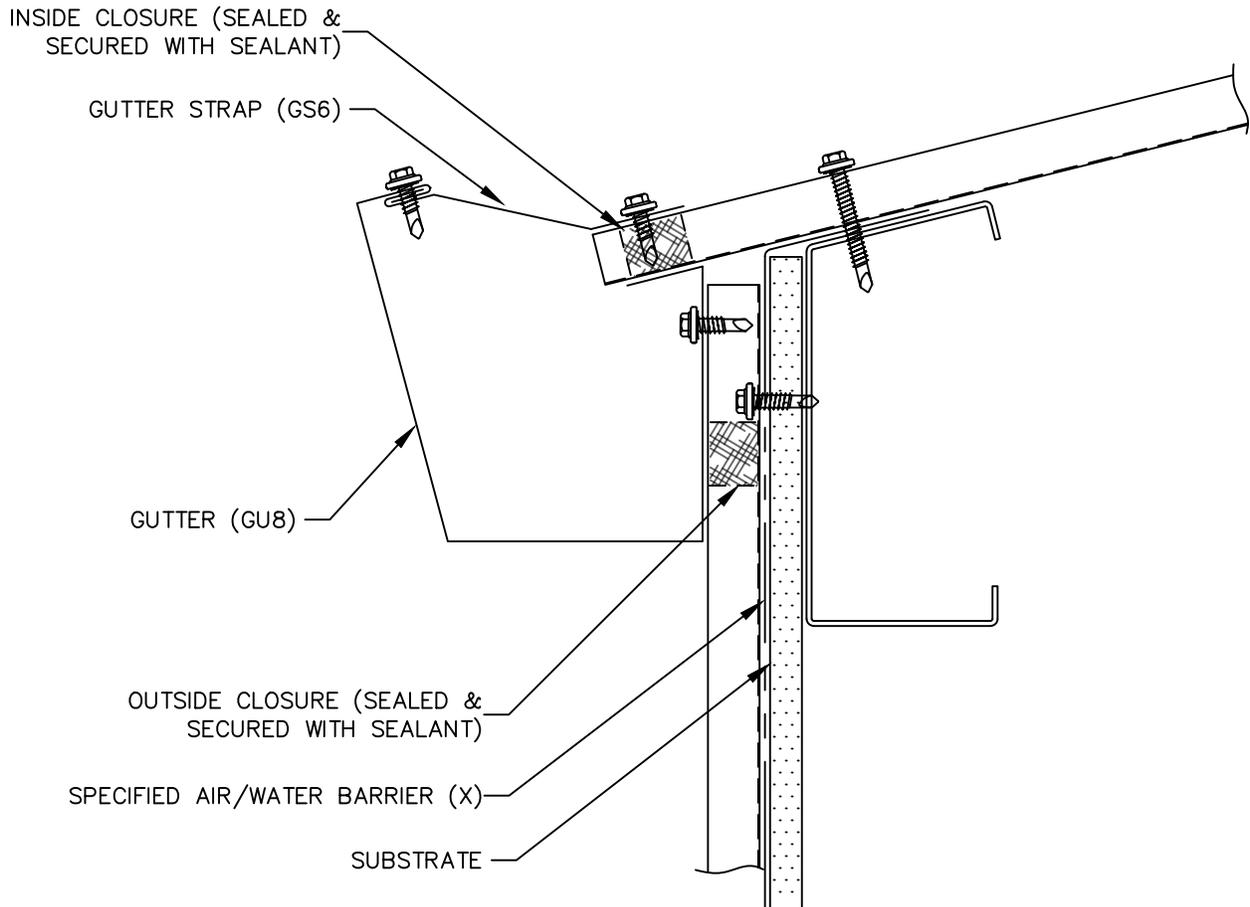
GUTTER, POST-HUNG (GU8)



SCULPTURED GUTTER, POST-HUNG (GU9)



GUTTER STRAP (GS6)



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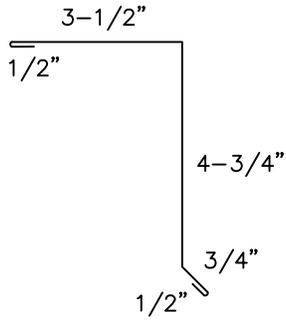
NU-WAVE



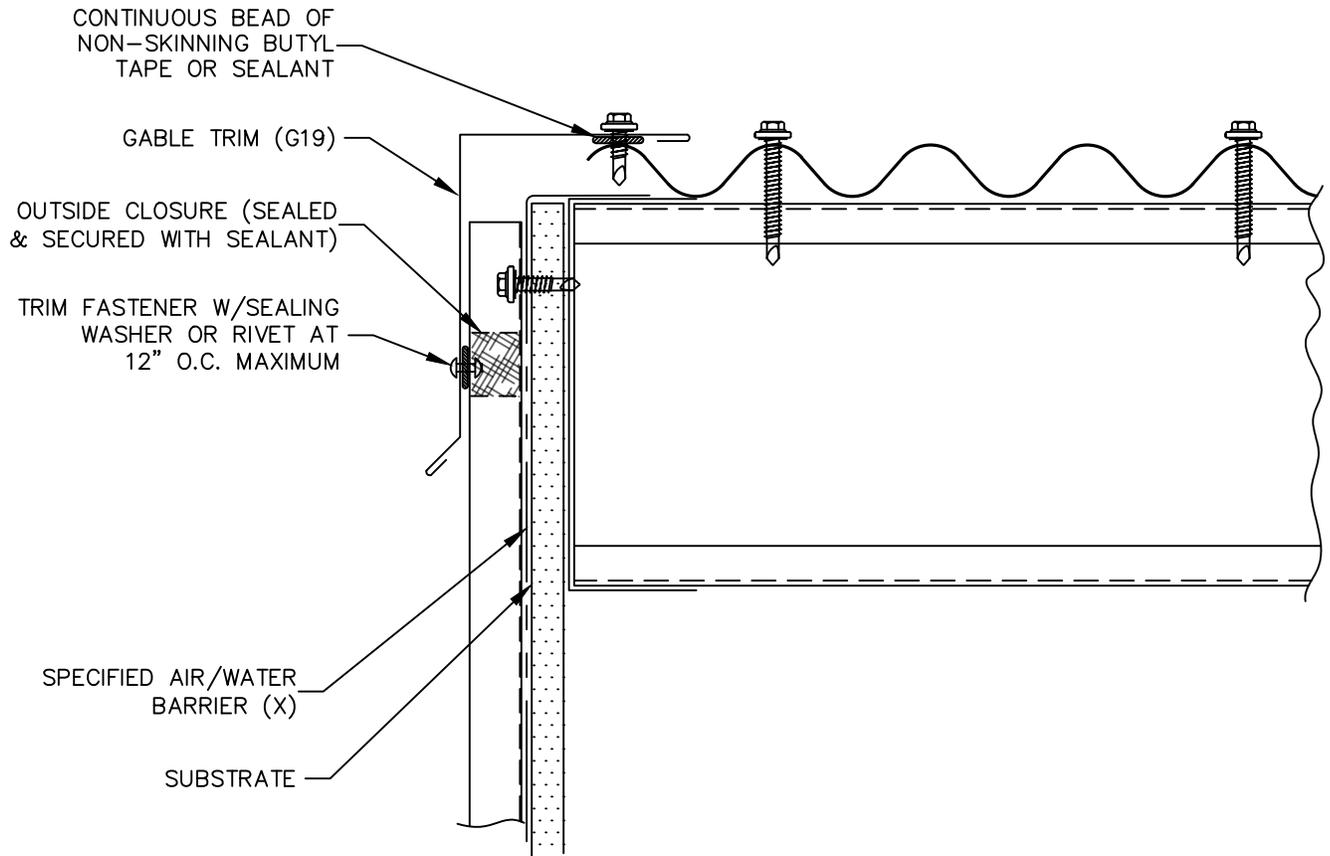
EAVE W/ GUTTER
(POST-HUNG)



NW-06



GABLE TRIM (G19)



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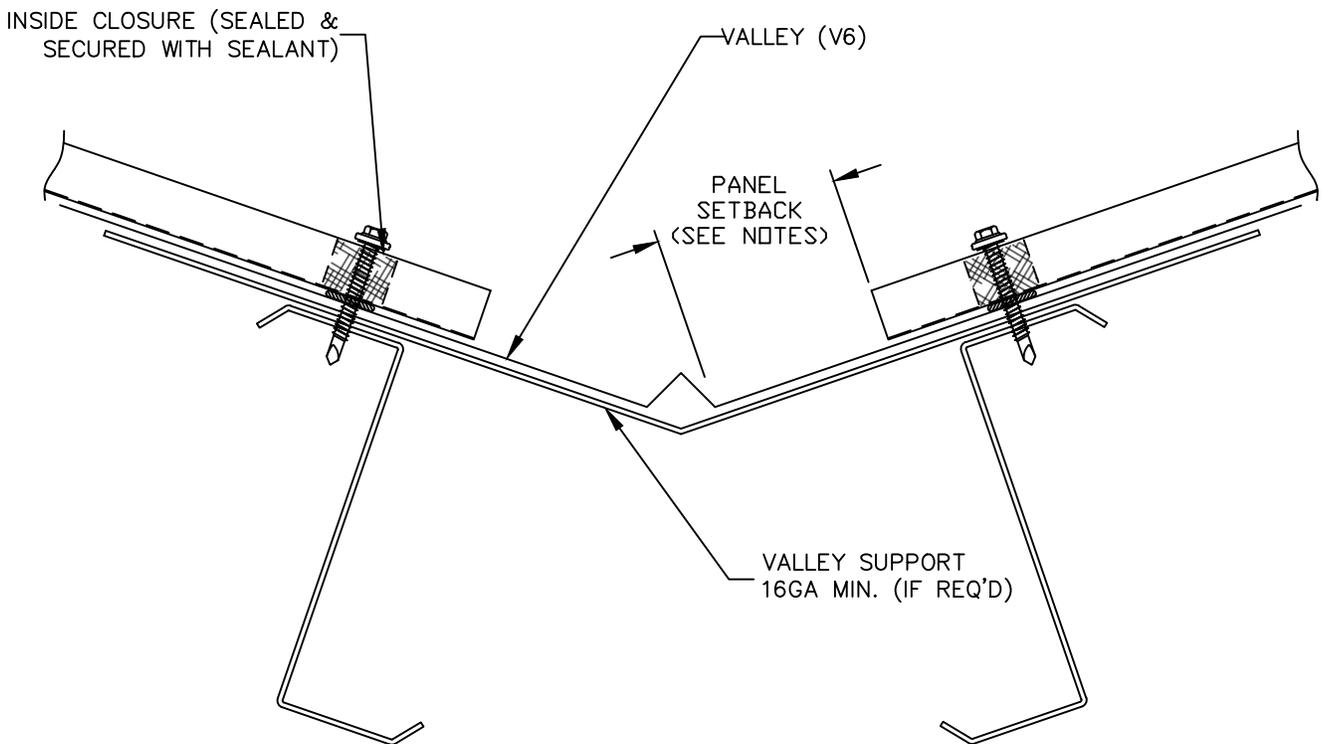
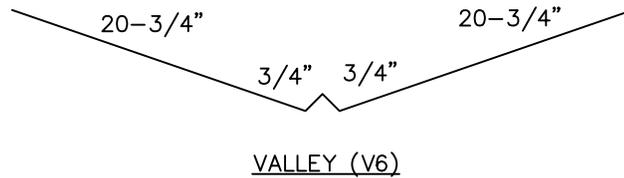
NU-WAVE



GABLE



NW-07



NOTES:

- PANEL SETBACK 8" MIN FROM VALLEY CENTERLINE. PROJECT CONDITIONS (SLOPE, ICE, EXCESSIVE SNOW OR RAIN) MAY REQUIRE LARGER SETBACK. CONSULT DESIGN PROFESSIONAL AS NEEDED FOR ASSISTANCE.
- VALLEY MUST BE THE PROPER WIDTH TO ACCOUNT FOR SLOPE, SNOW, ICE AND HEAVY RAIN CONDITIONS.

- A RUBBERIZED COLD-APPLIED MEMBRANE IS RECOMMENDED, EXTENDING A MINIMUM OF 3'-0" UP FROM THE CENTER OF THE VALLEY ON EACH SIDE.
- BE ADVISED THAT ROOF VALLEYS INSTALLED IN REGIONS OF WILDFIRE RISK MAY REQUIRE AN ALTERNATE CONSTRUCTION TO MEET CODE REQUIREMENTS.



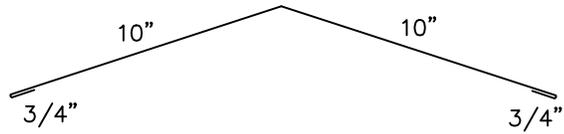
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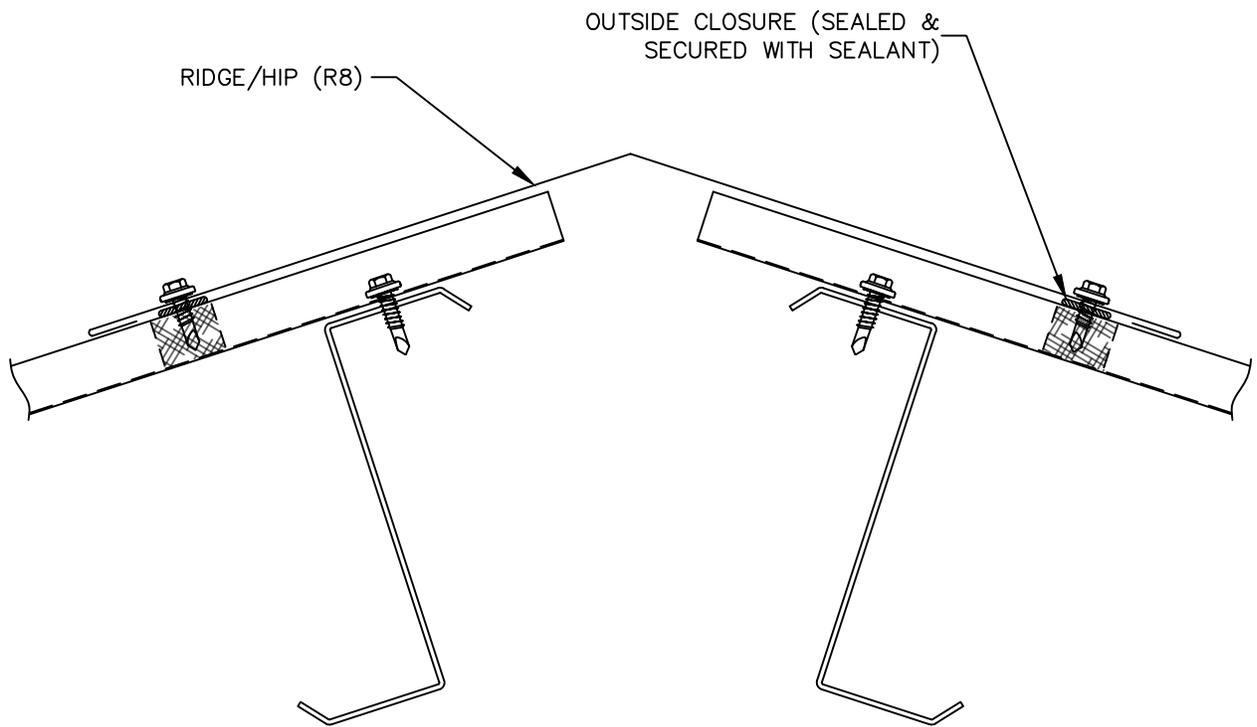
VALLEY



NW-08



RIDGE/HIP (R8)

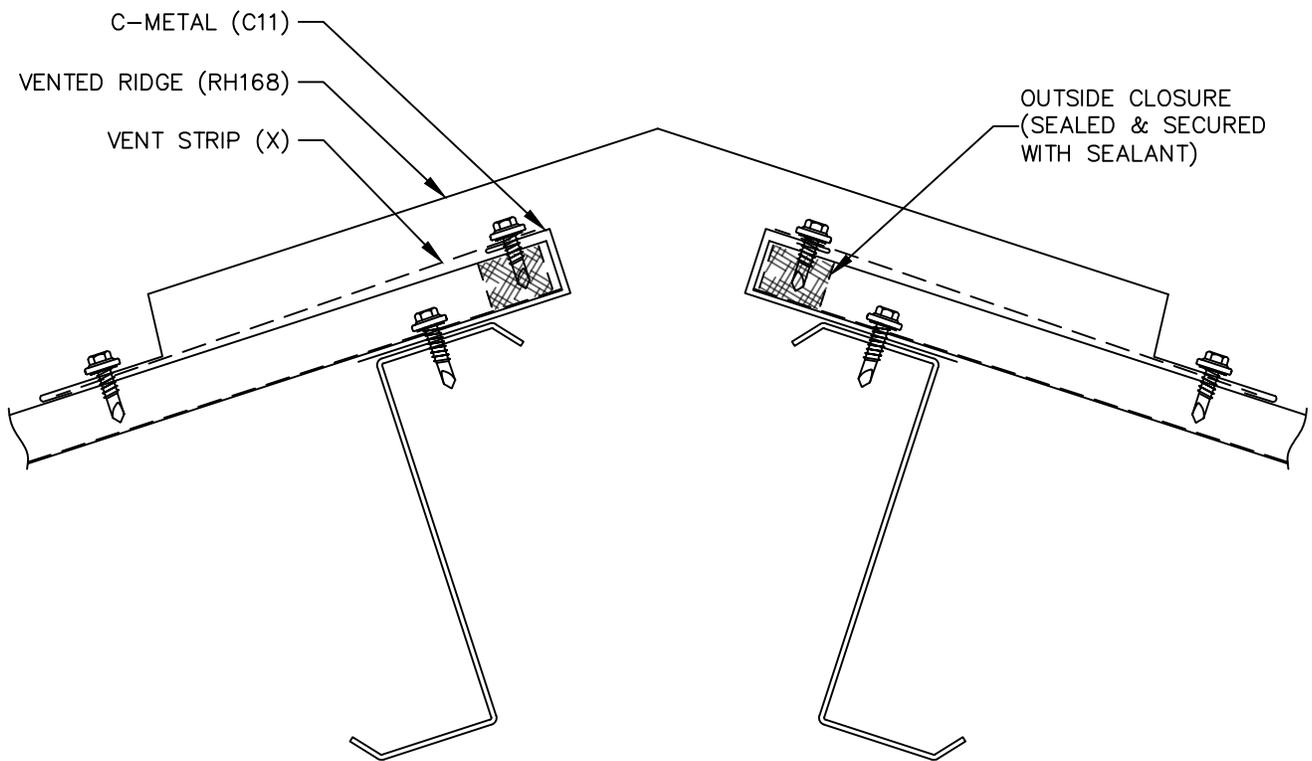
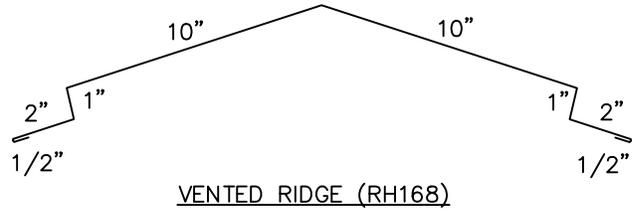
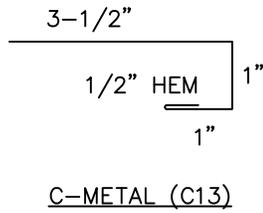


NU-WAVE

RIDGE



NW-09



NOTE:
- THIS DETAIL MEETS IWUC AND CALIFORNIA WUC FIRE CODE REQUIREMENTS IF: VENT MATERIAL IS NON-COMBUSTIBLE METAL, HAS A CORROSION RESISTANT FINISH (GALVANIZED, OR SIMILAR), AND HAS VENT HOLES BETWEEN 1/16" AND 1/8" IN DIAMETER.

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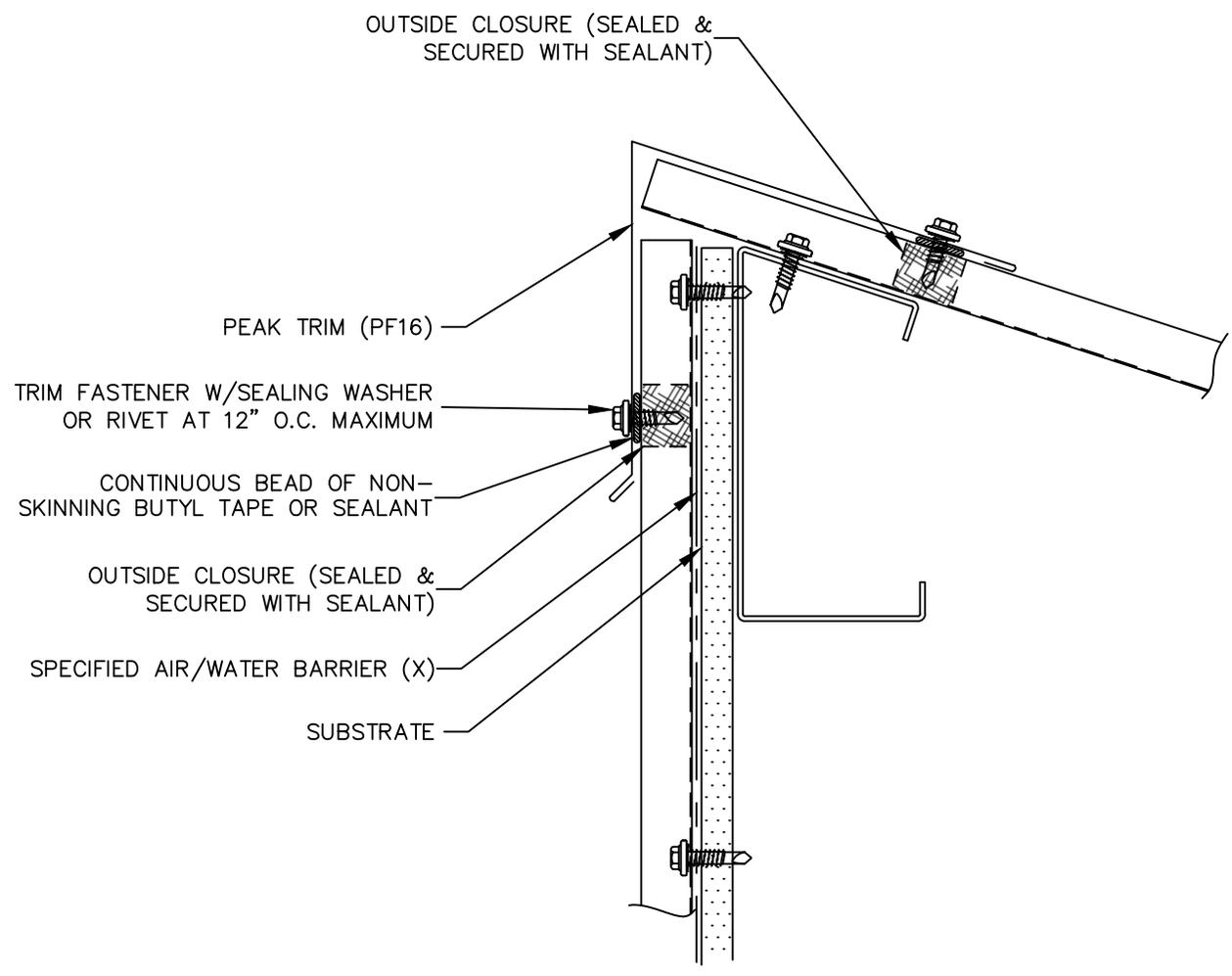
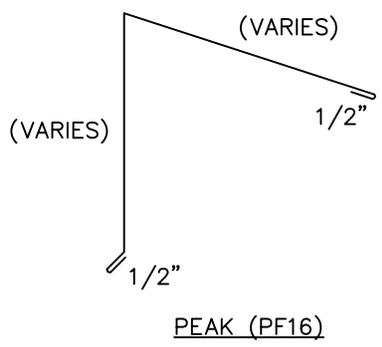


NU-WAVE

VENTED RIDGE



NW-10



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NU-WAVE

PEAK



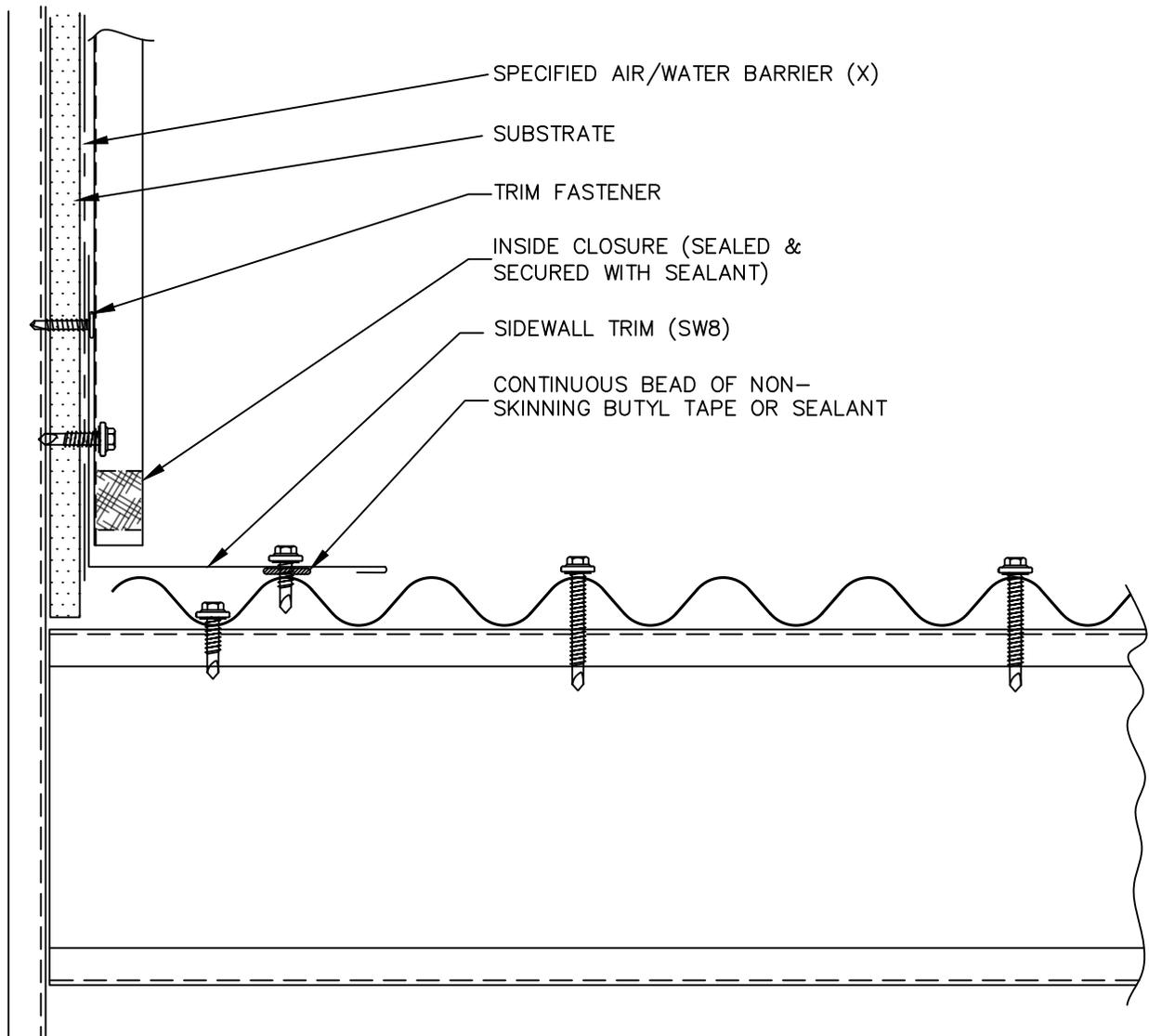
NW-11

5-1/4"

5"

1/2"

SIDEWALL (SW8)



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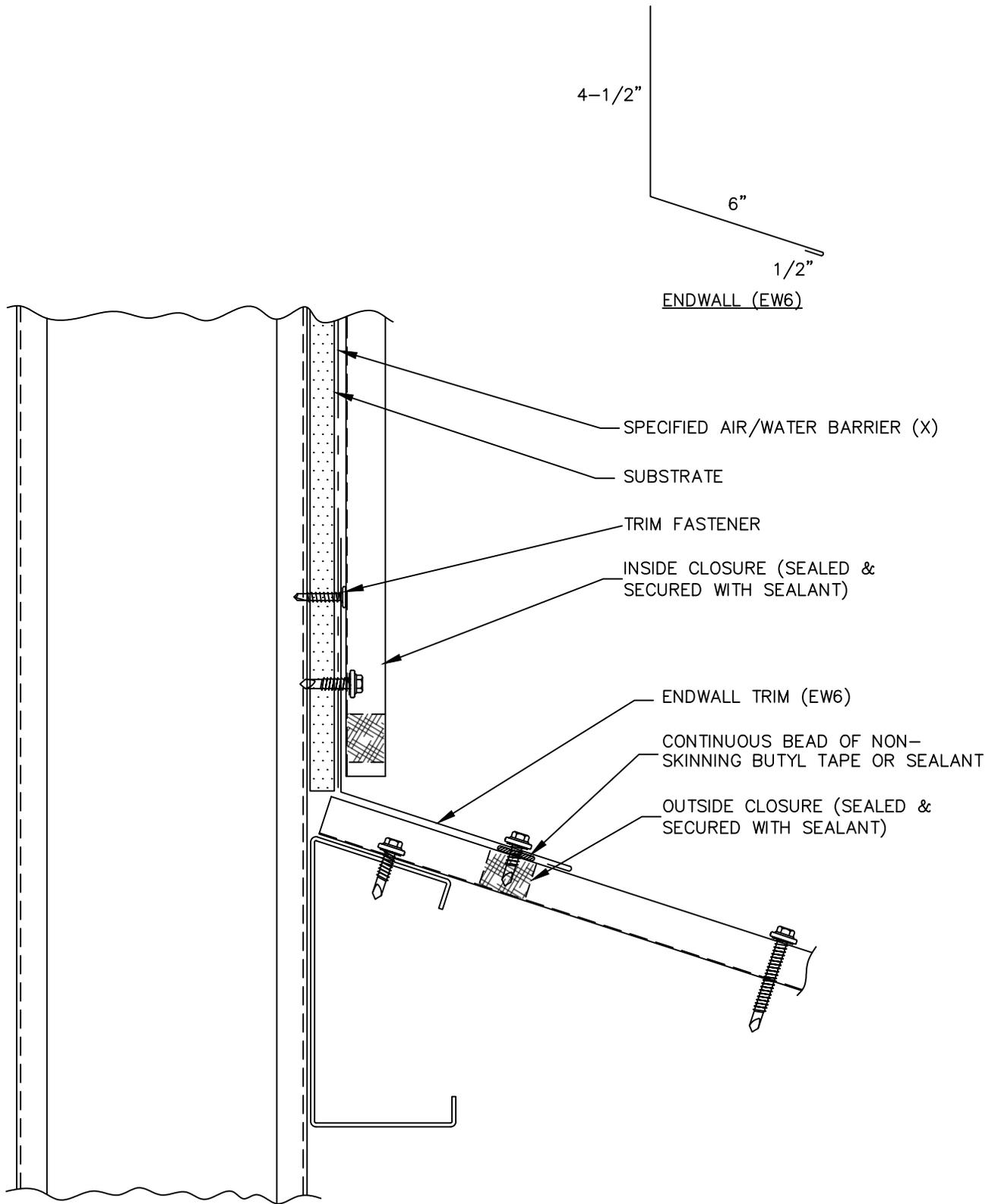
NU-WAVE



SIDEWALL



NW-12



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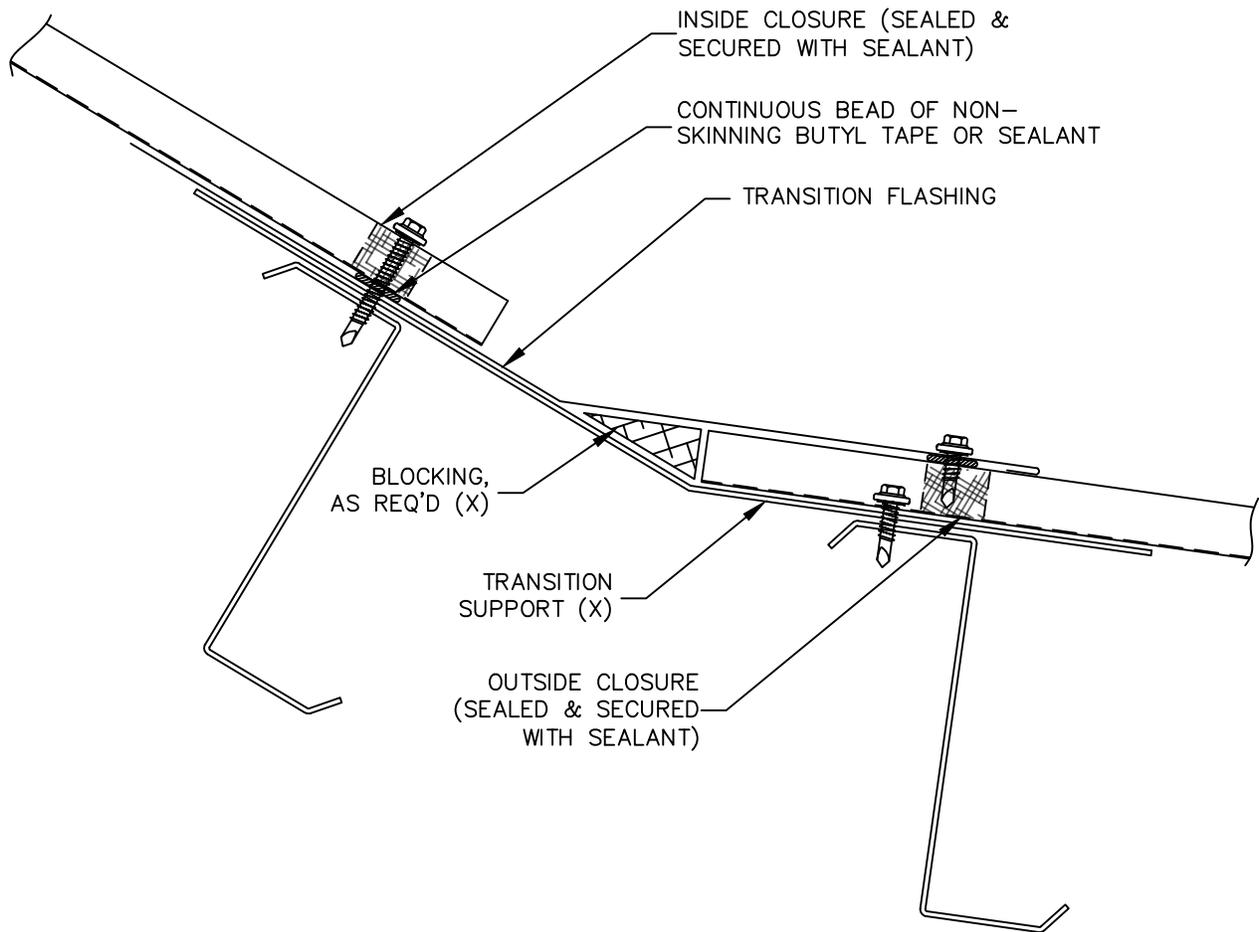


NU-WAVE

ENDWALL



NW-13



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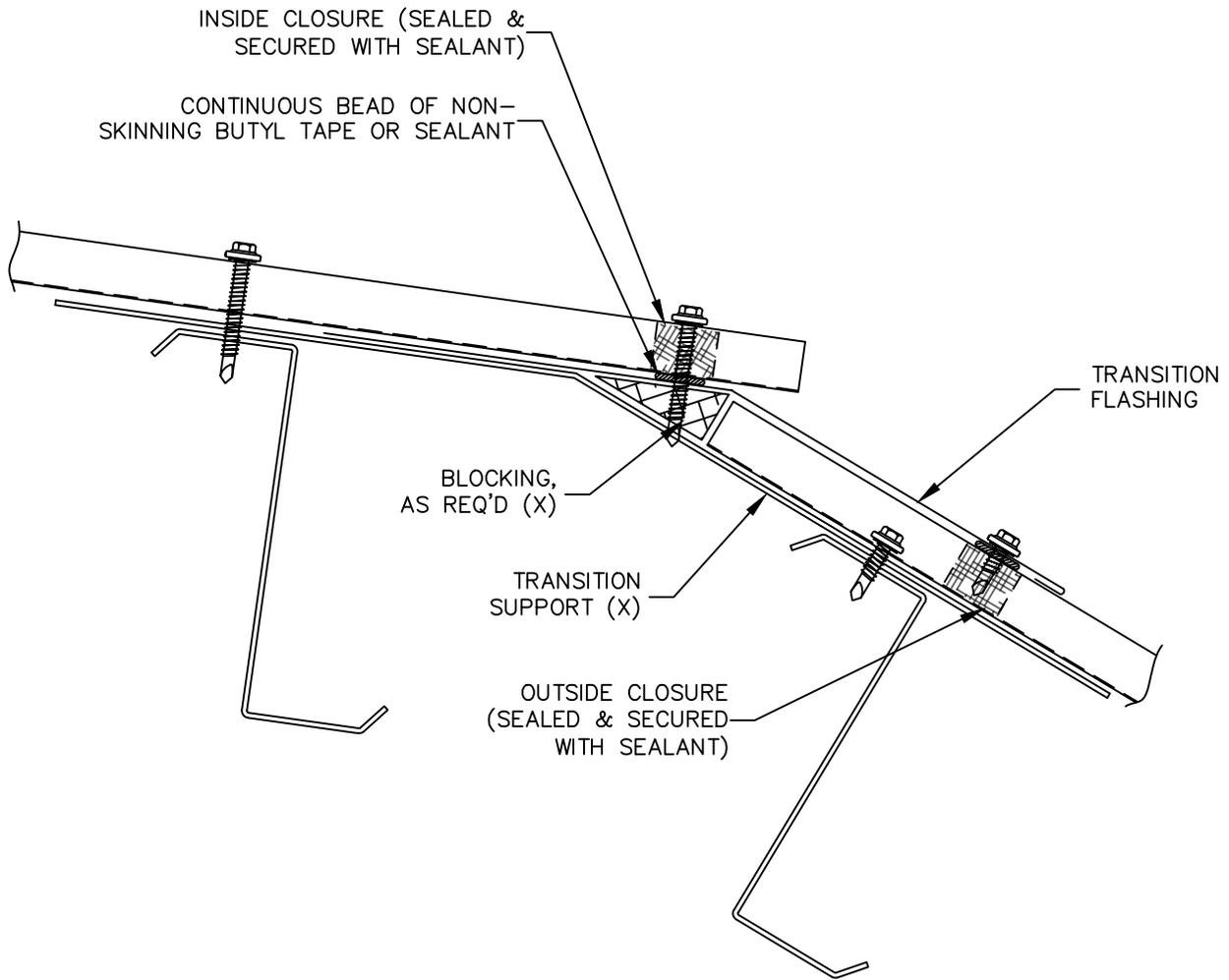
NU-WAVE



HI-LO TRANSITION



NW-14



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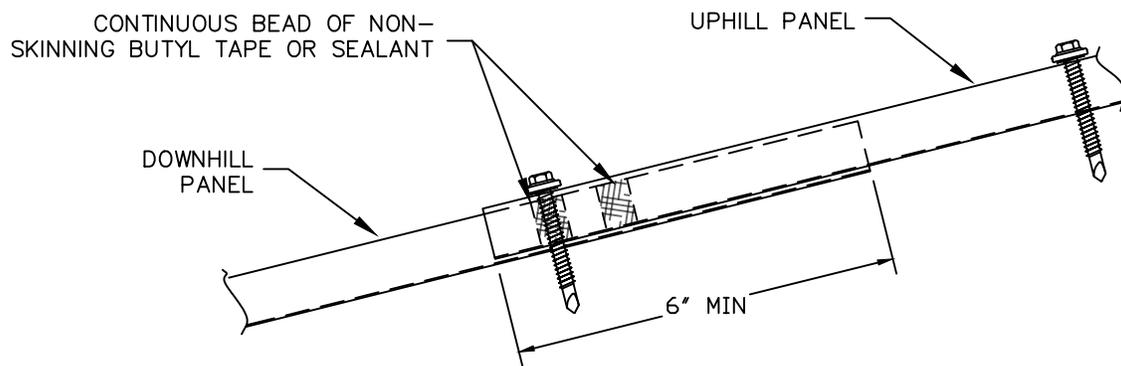
NU-WAVE



LO-HI TRANSITION



NW-15



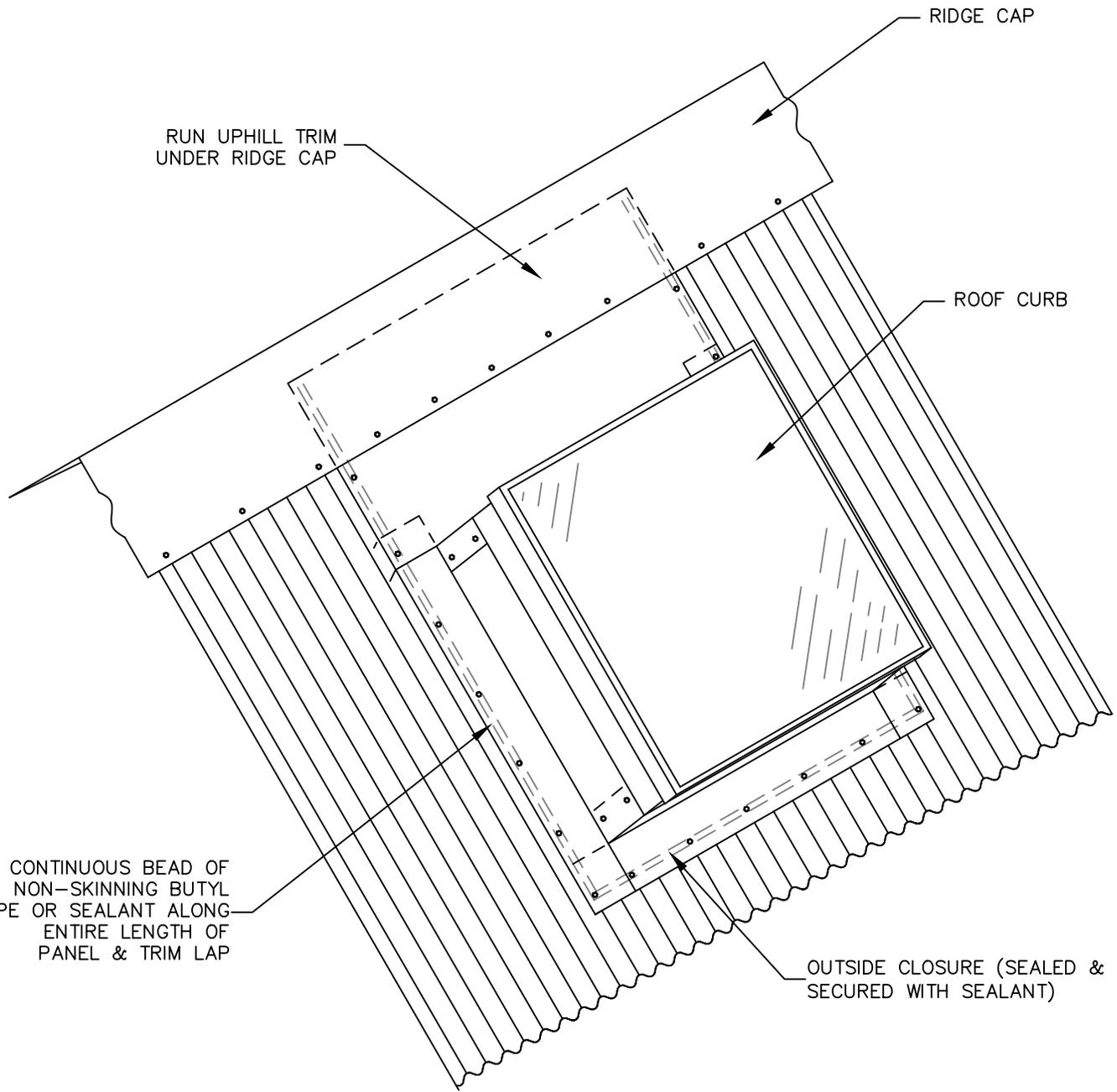
NU-WAVE



PANEL LAP



NW-16



RUN UPHILL TRIM
UNDER RIDGE CAP

RIDGE CAP

ROOF CURB

CONTINUOUS BEAD OF
NON-SKINNING BUTYL
TAPE OR SEALANT ALONG
ENTIRE LENGTH OF
PANEL & TRIM LAP

OUTSIDE CLOSURE (SEALED &
SECURED WITH SEALANT)

SEE FOLLOWING PAGE FOR
EXPLODED VIEW.



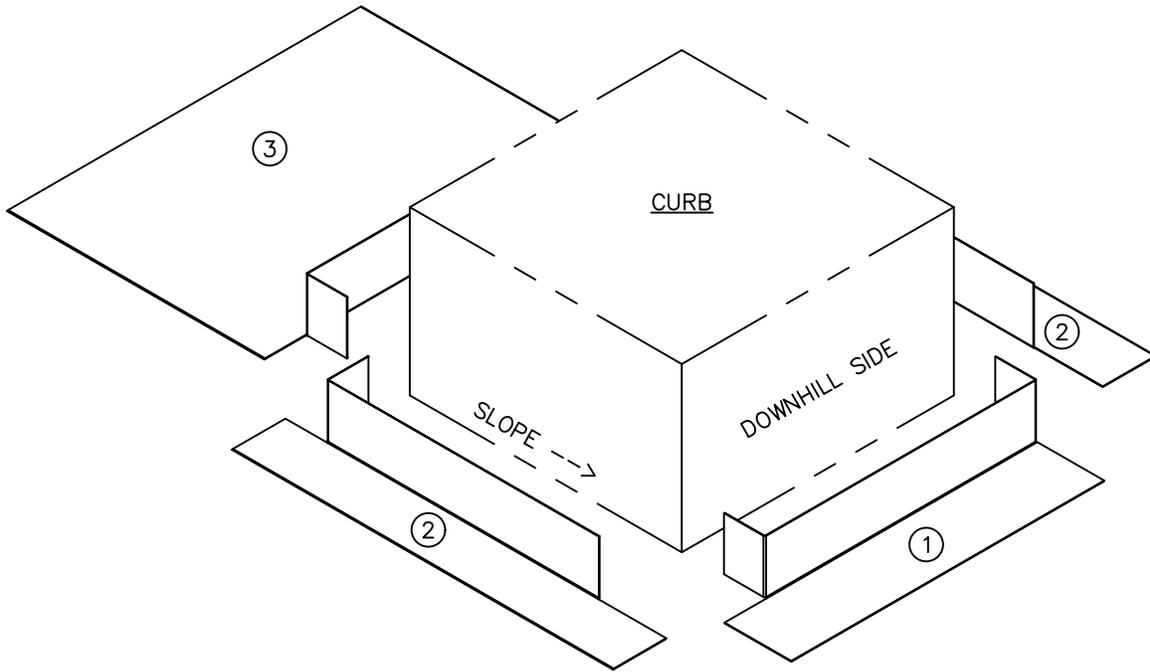
NU-WAVE



ROOF CURB



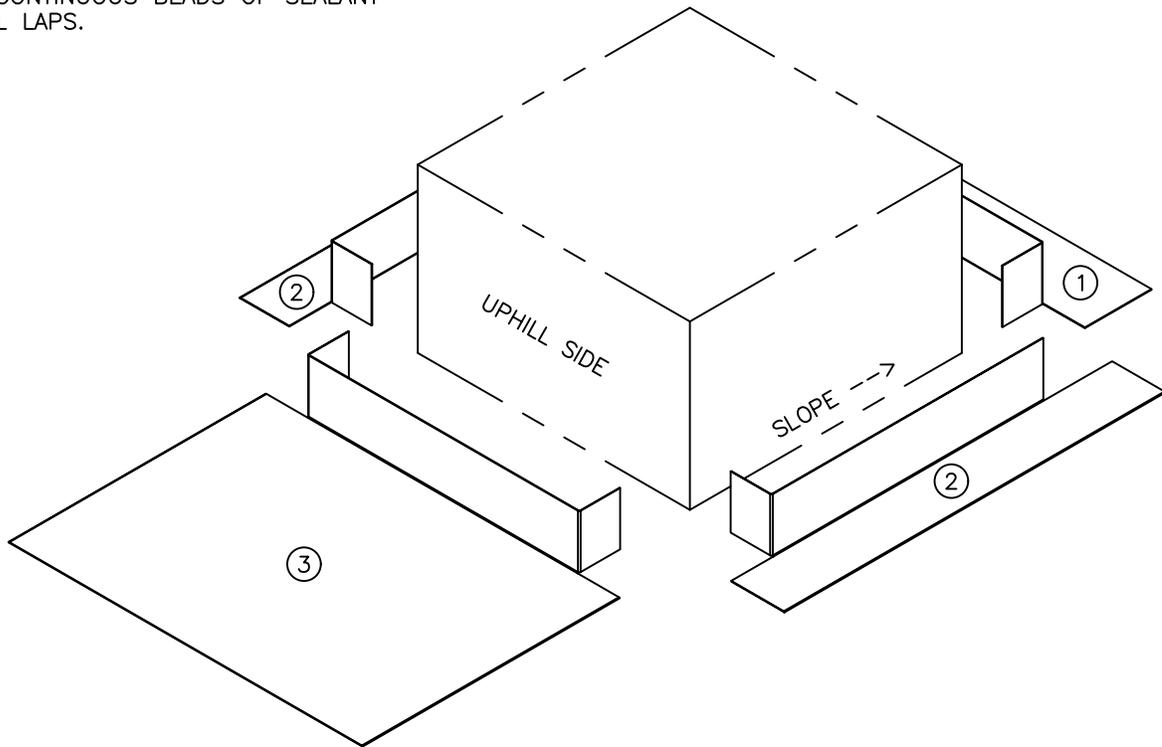
NW-17



INSTALL CURB TRIMS IN ORDER SHOWN:

- 1) BOTTOM TRIM
- 2) CURB SIDE TRIMS
- 3) TOP TRIM

OVERLAP TRIMS IN SHINGLED MANNER WITH CONTINUOUS BEADS OF SEALANT AT ALL LAPS.



NU-WAVE



CURB FLASHINGS



NW-18

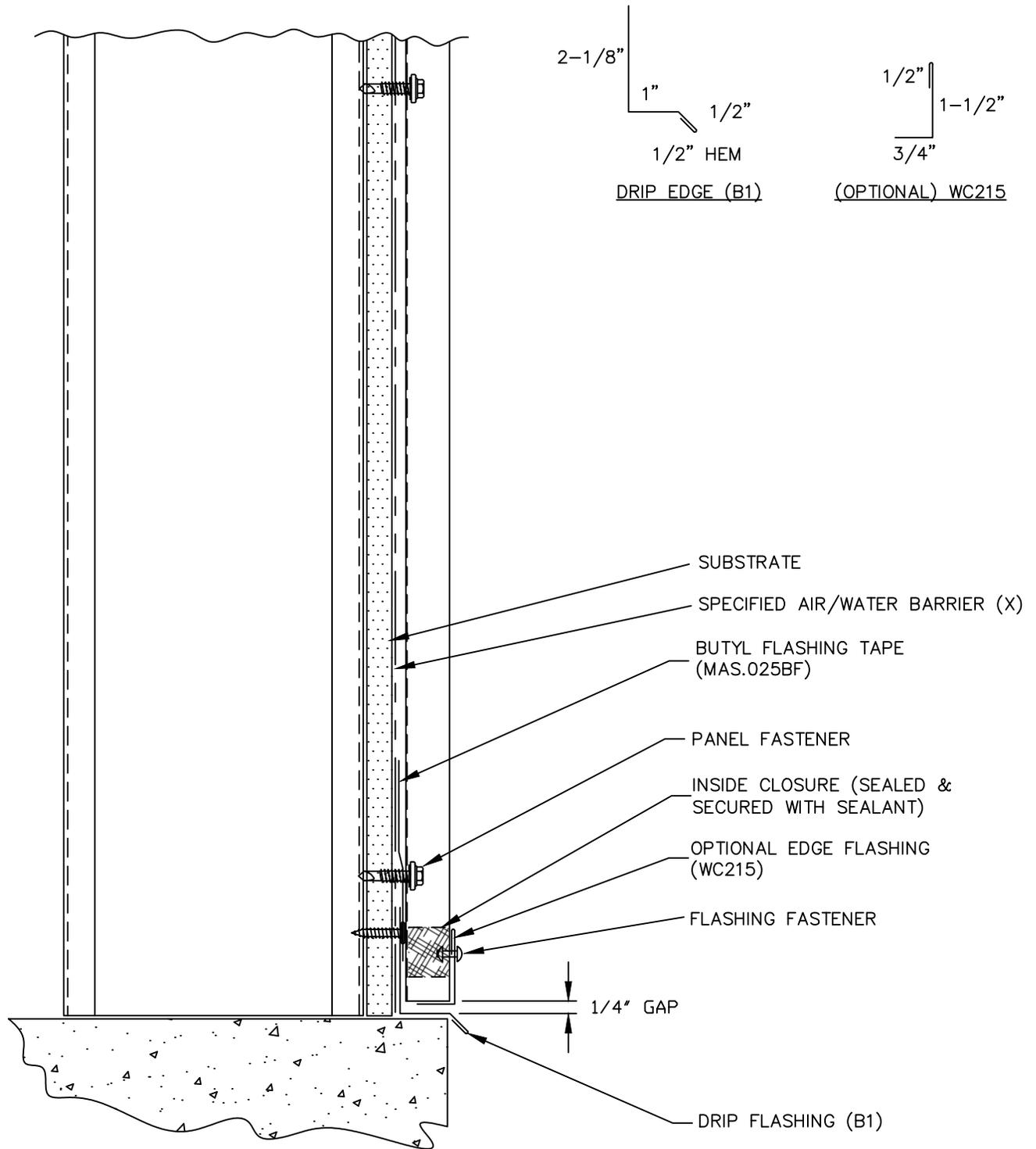
VERTICAL WALL DETAILS



NU-WAVE



NW-19



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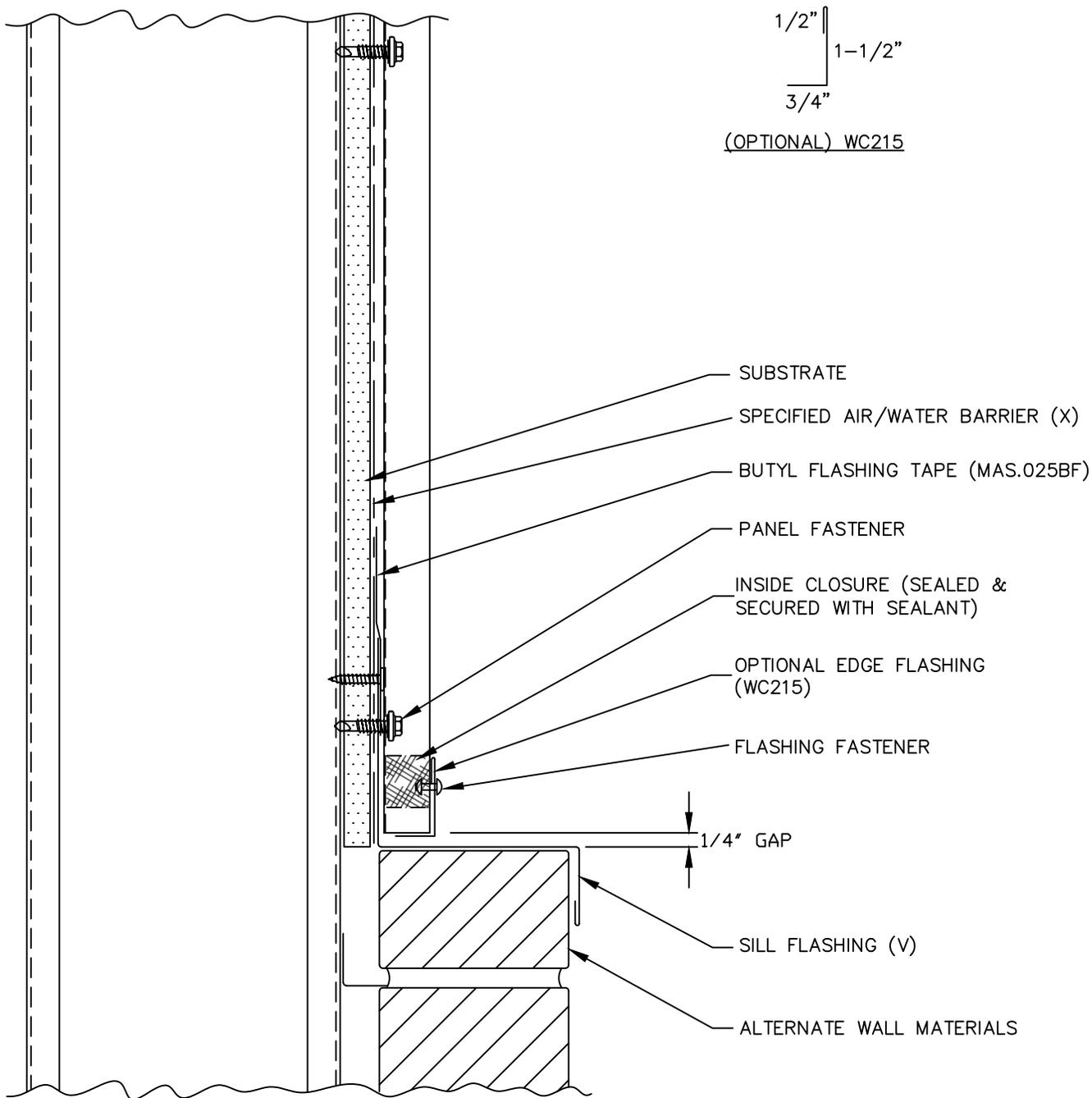


NU-WAVE

BASE



NW-20



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



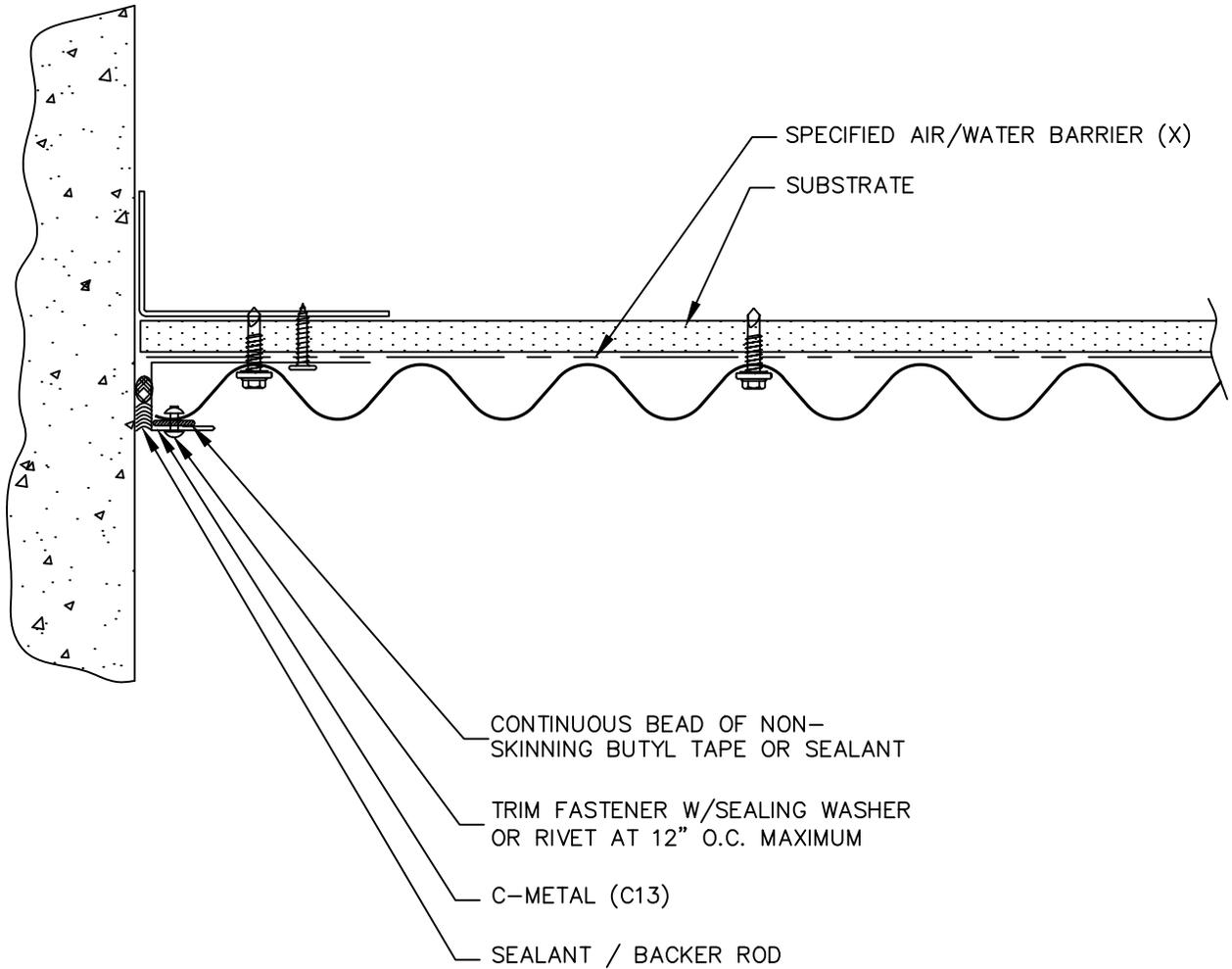
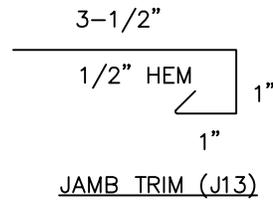
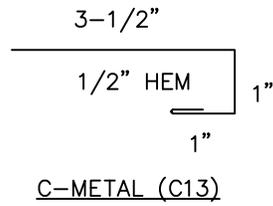
NU-WAVE



SILL



NW-21



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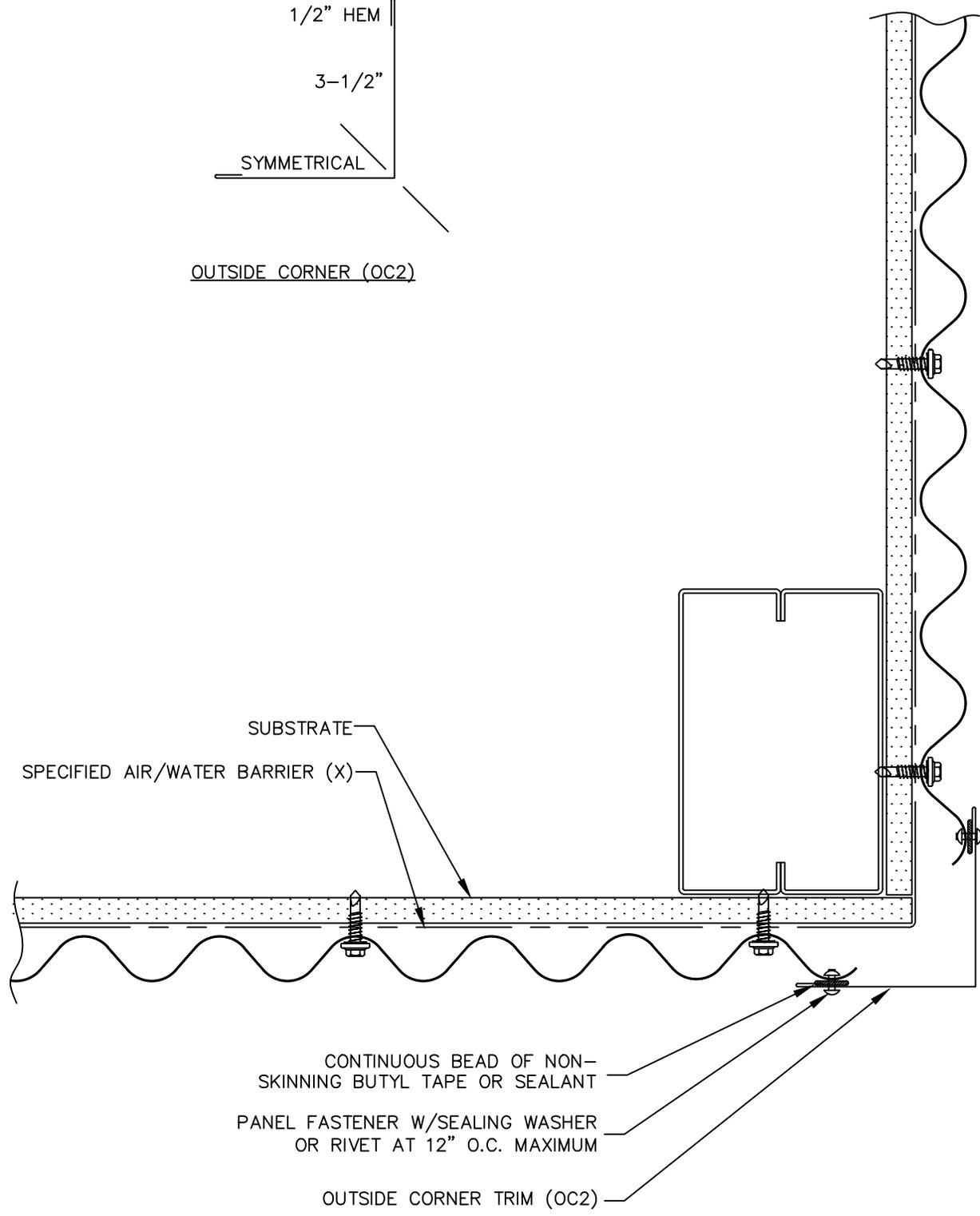
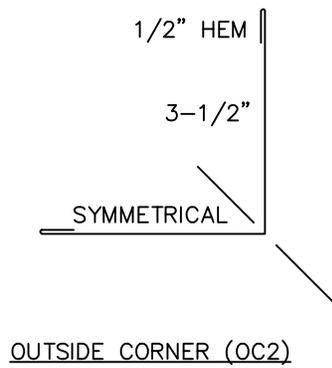


NU-WAVE

END WALL



NW-22



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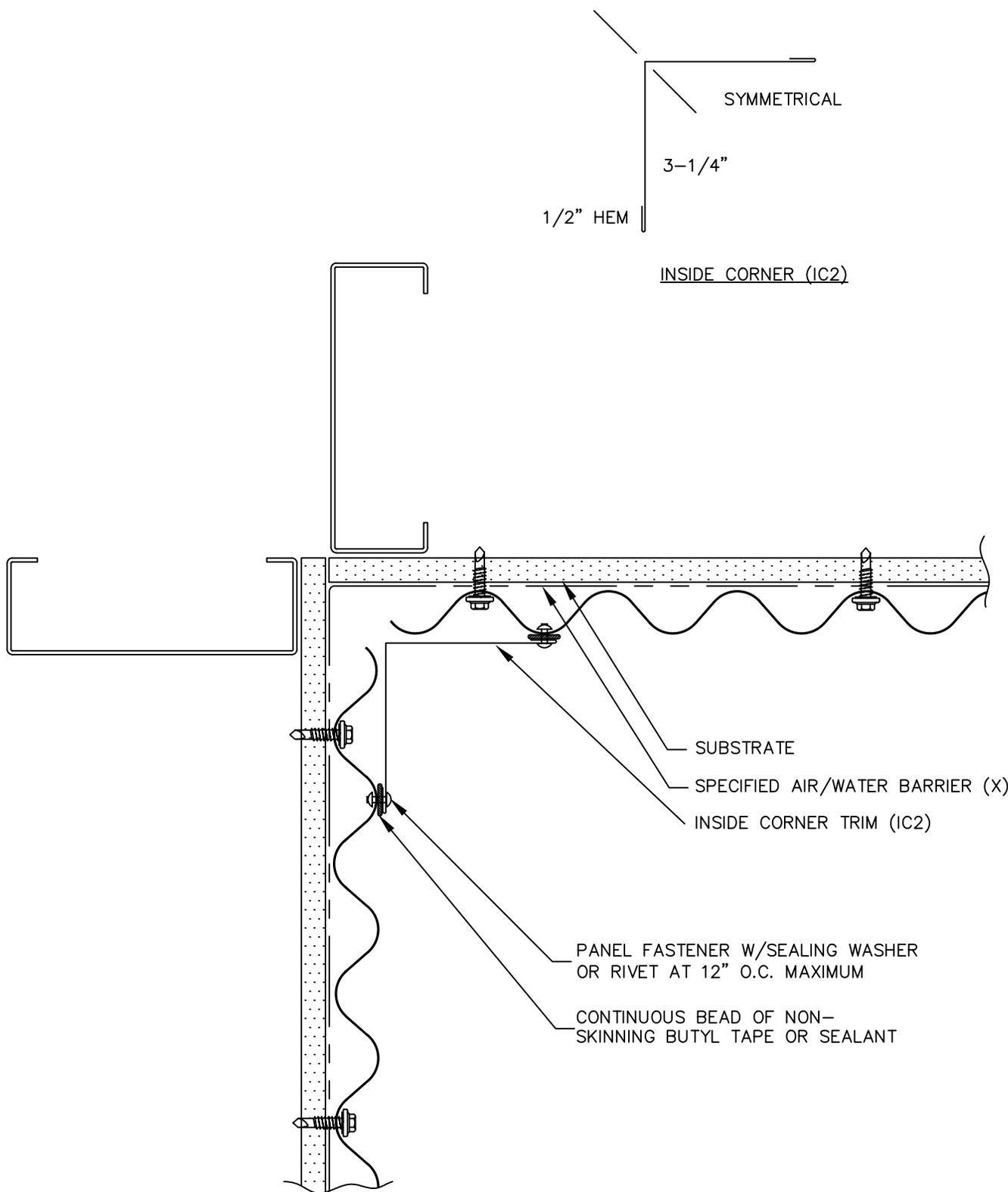
NU-WAVE



OUTSIDE CORNER



NW-23



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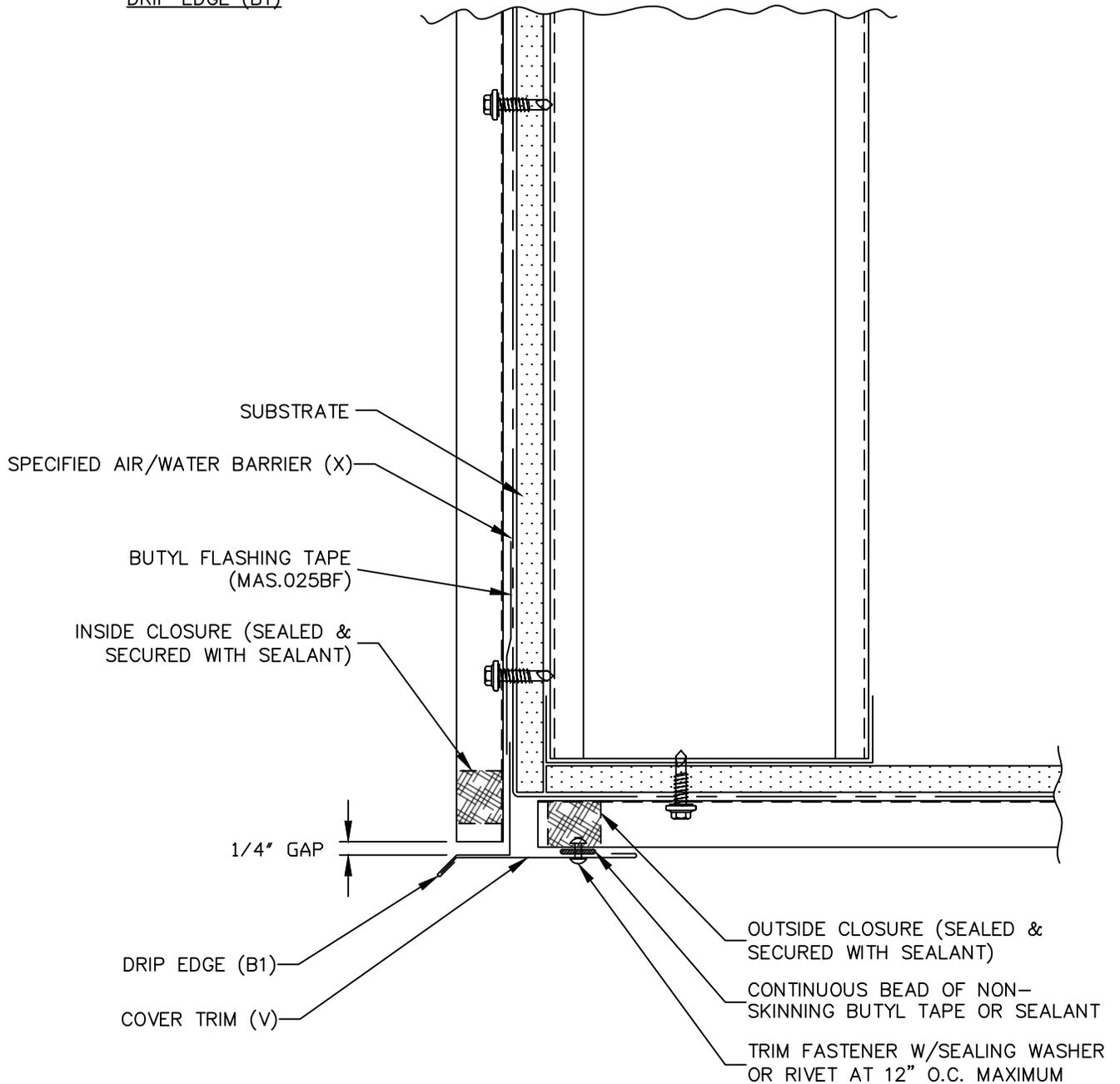
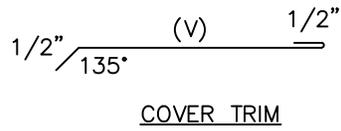
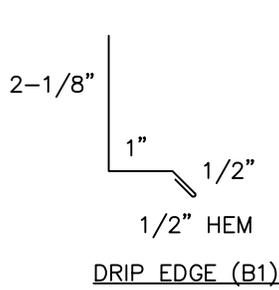
NU-WAVE



INSIDE CORNER



NW-24



(X) - NOT BY ASC
(V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS

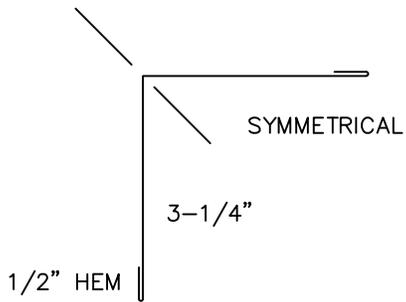


NU-WAVE

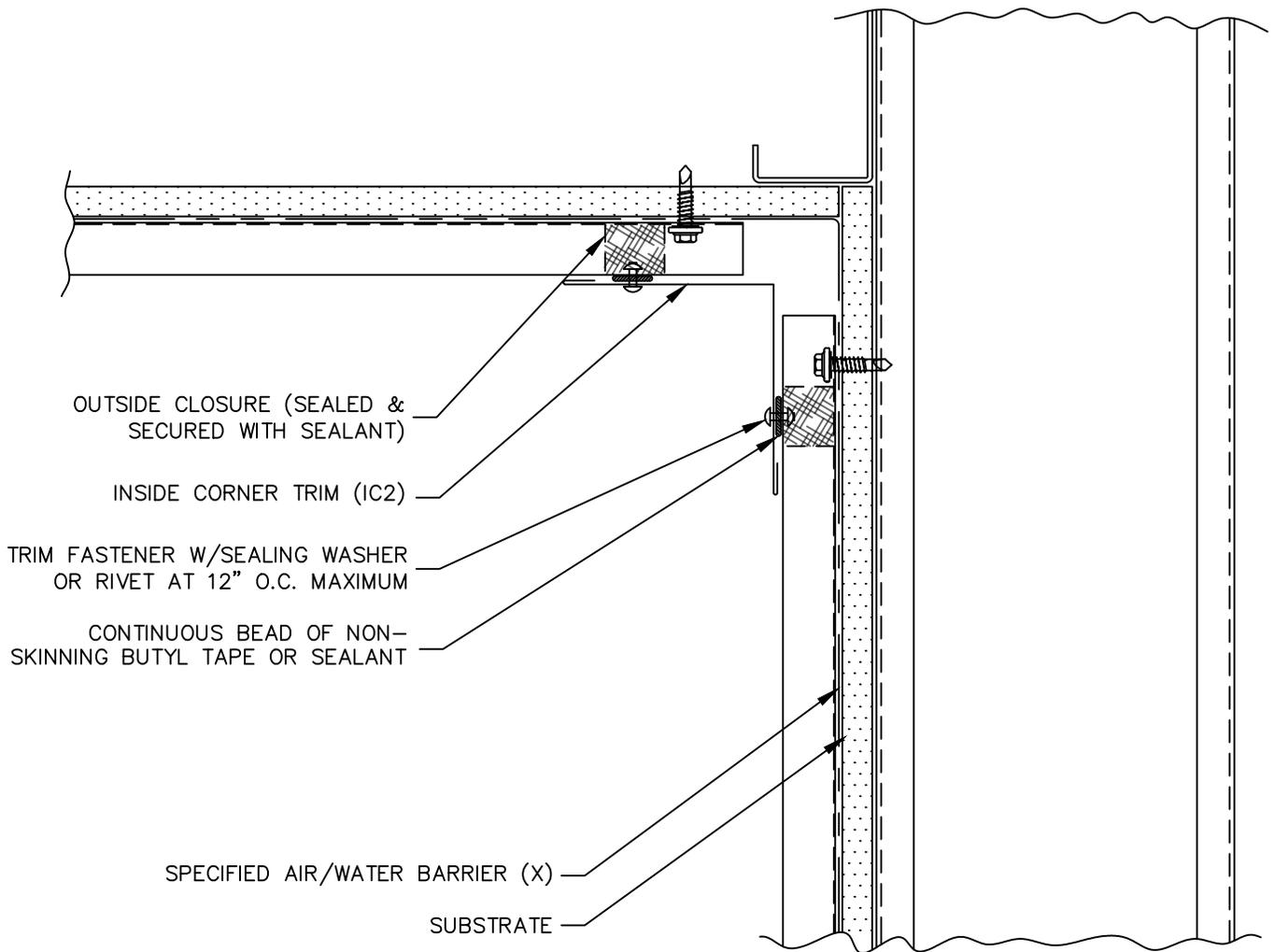
SOFFIT (FRONT)



NW-25



INSIDE CORNER (IC2)



(X) - NOT BY ASC

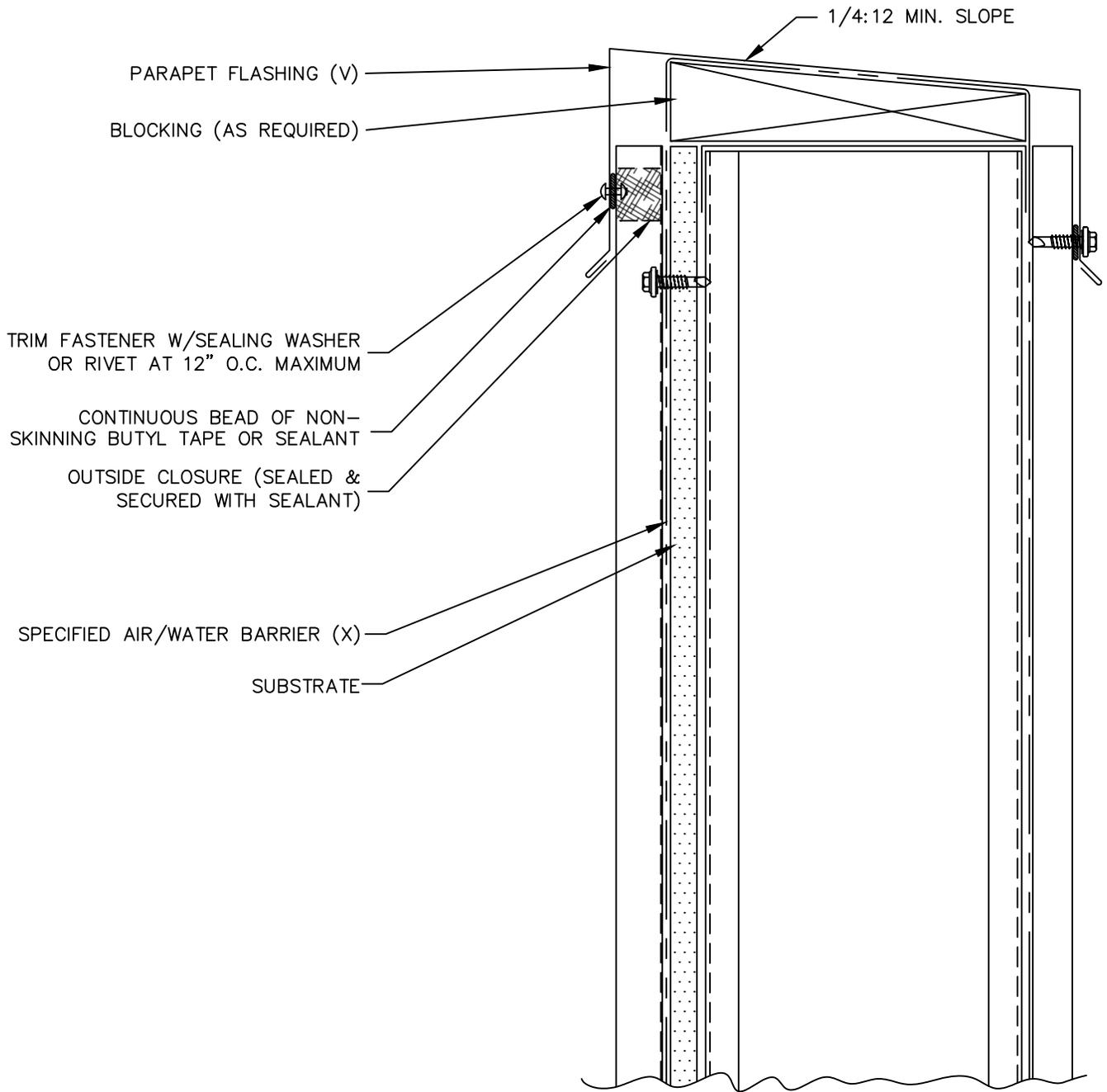


NU-WAVE

SOFFIT (BACK)



NW-26



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



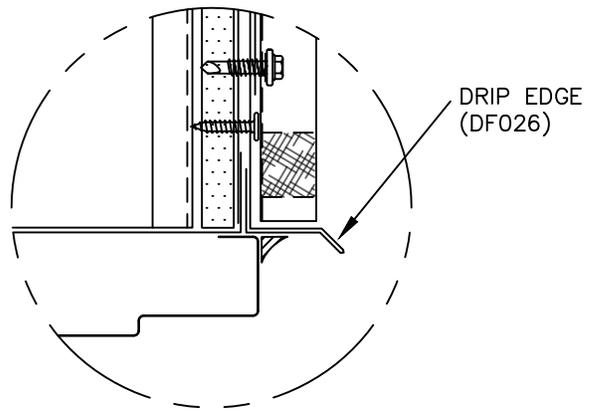
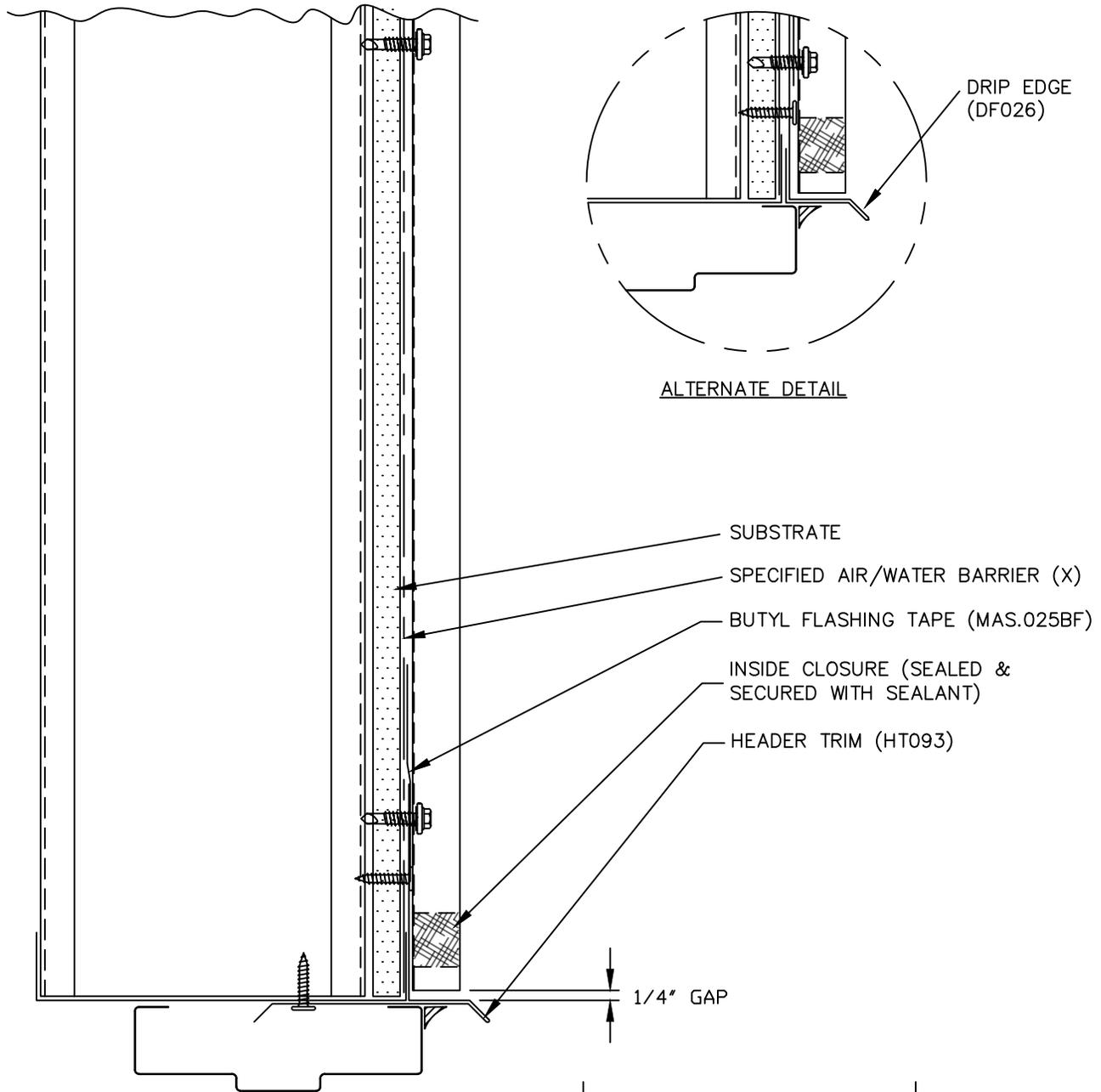
NU-WAVE



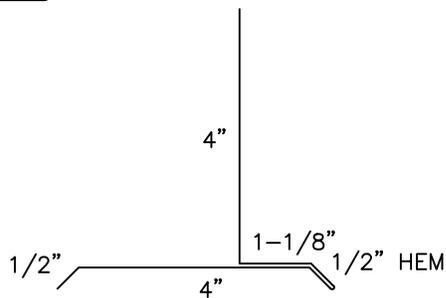
PARAPET



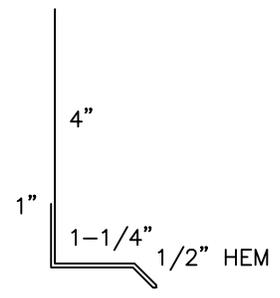
NW-27



1/4" GAP



HEADER TRIM (HT093)



DRIP EDGE (DF026)

(X) - NOT BY ASC



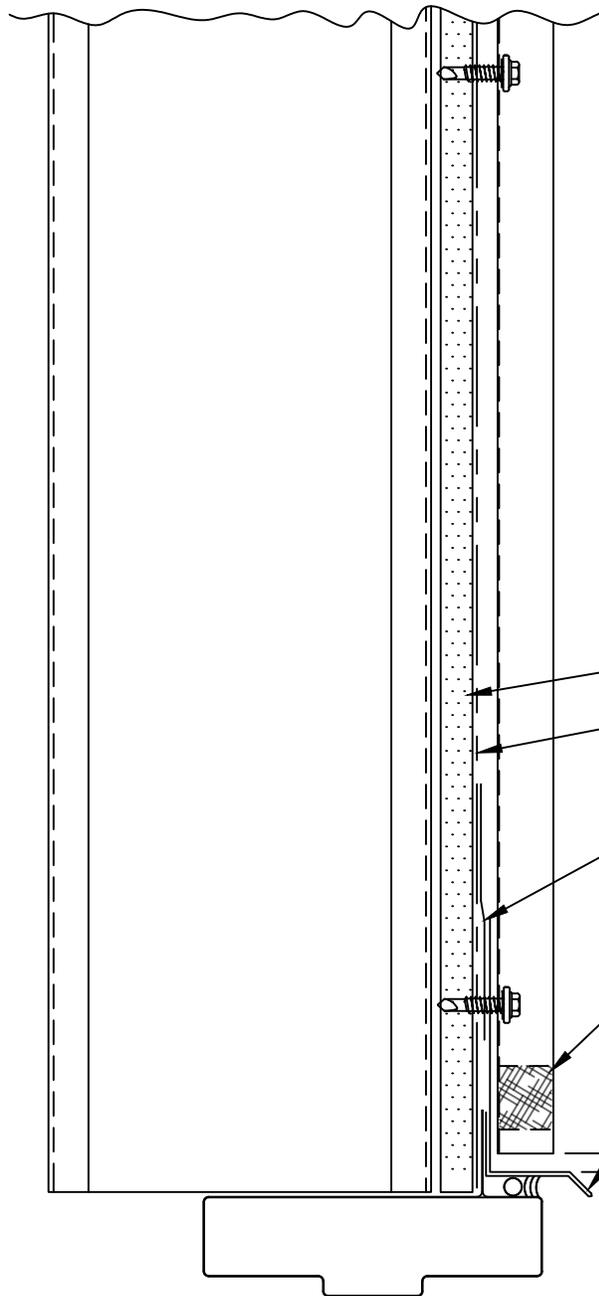
NU-WAVE



DOOR / WINDOW
(HEAD)



NW-28



SUBSTRATE

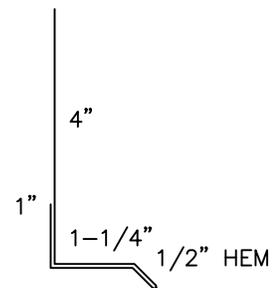
SPECIFIED AIR/WATER BARRIER (X)

BUTYL FLASHING TAPE (MAS.025BF)

INSIDE CLOSURE (SEALED &
SECURED WITH SEALANT)

DRIP EDGE (DF026)

1/4" GAP



DRIP EDGE (DF026)



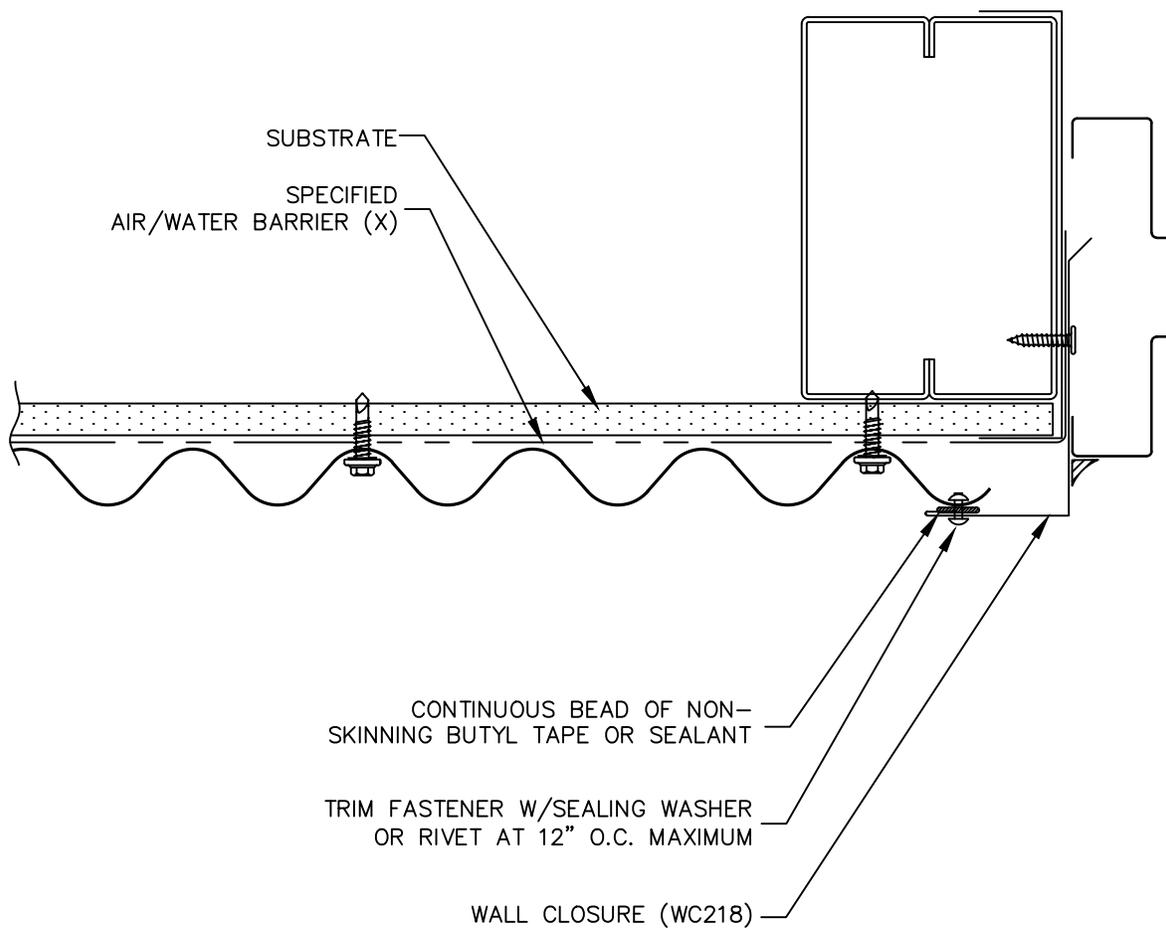
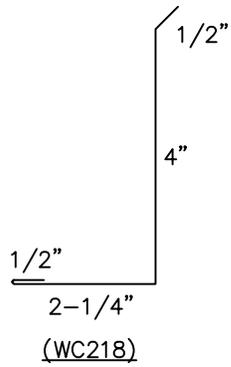
NU-WAVE



OPENING, HEAD
(NAIL FIN)



NW-29



(X) - NOT BY ASC



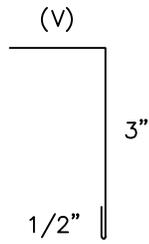
NU-WAVE



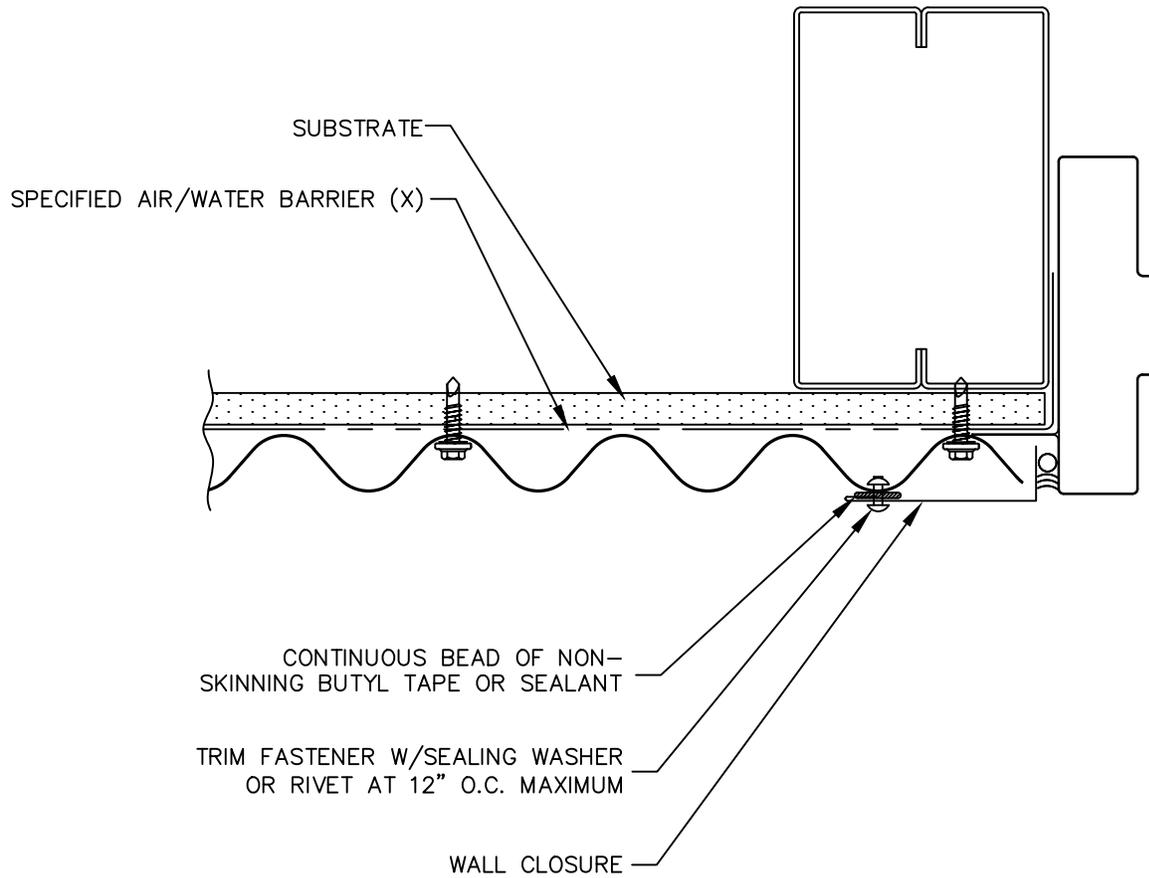
DOOR / WINDOW
(JAMB)



NW-30



WALL CLOSURE



(X) - NOT BY ASC

(V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



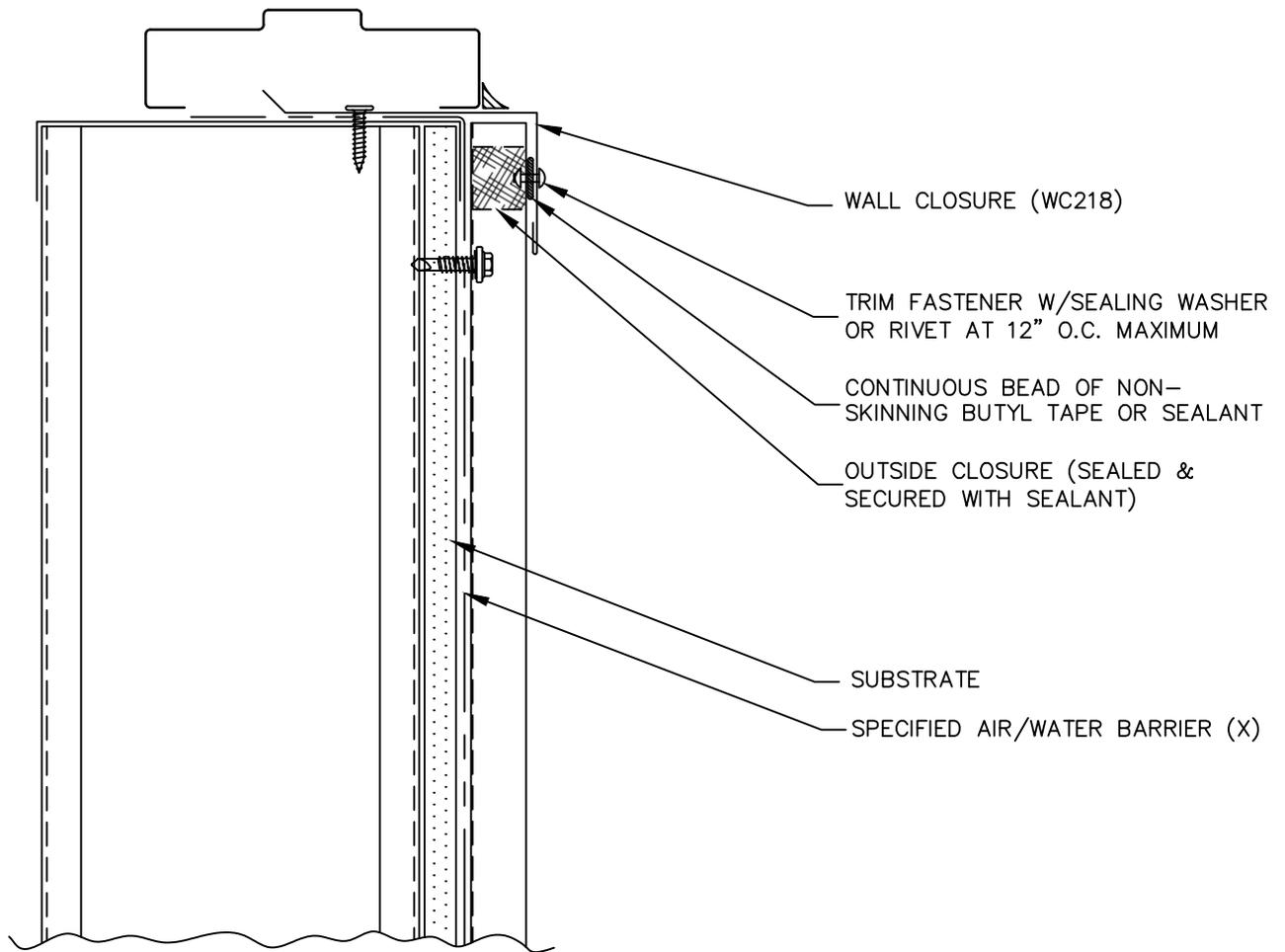
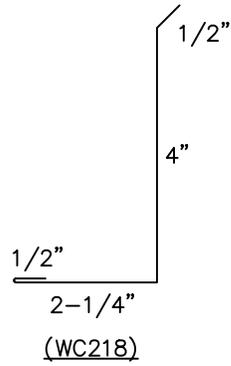
NU-WAVE



OPENING, JAMB
(NAIL FIN)



NW-31



(X) - NOT BY ASC

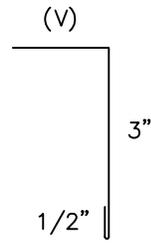


NU-WAVE

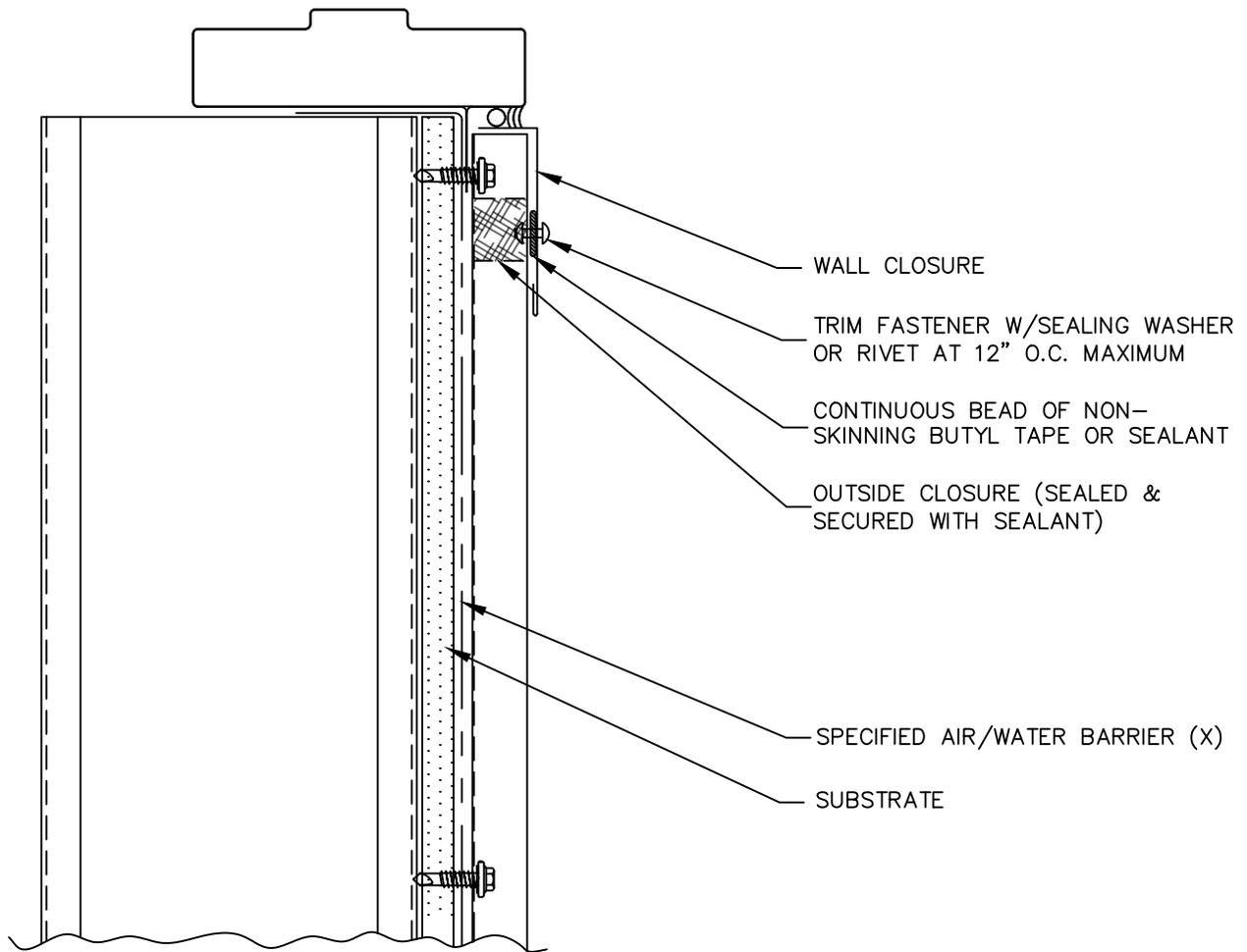
DOOR / WINDOW
(SILL)



NW-32



WALL CLOSURE



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS

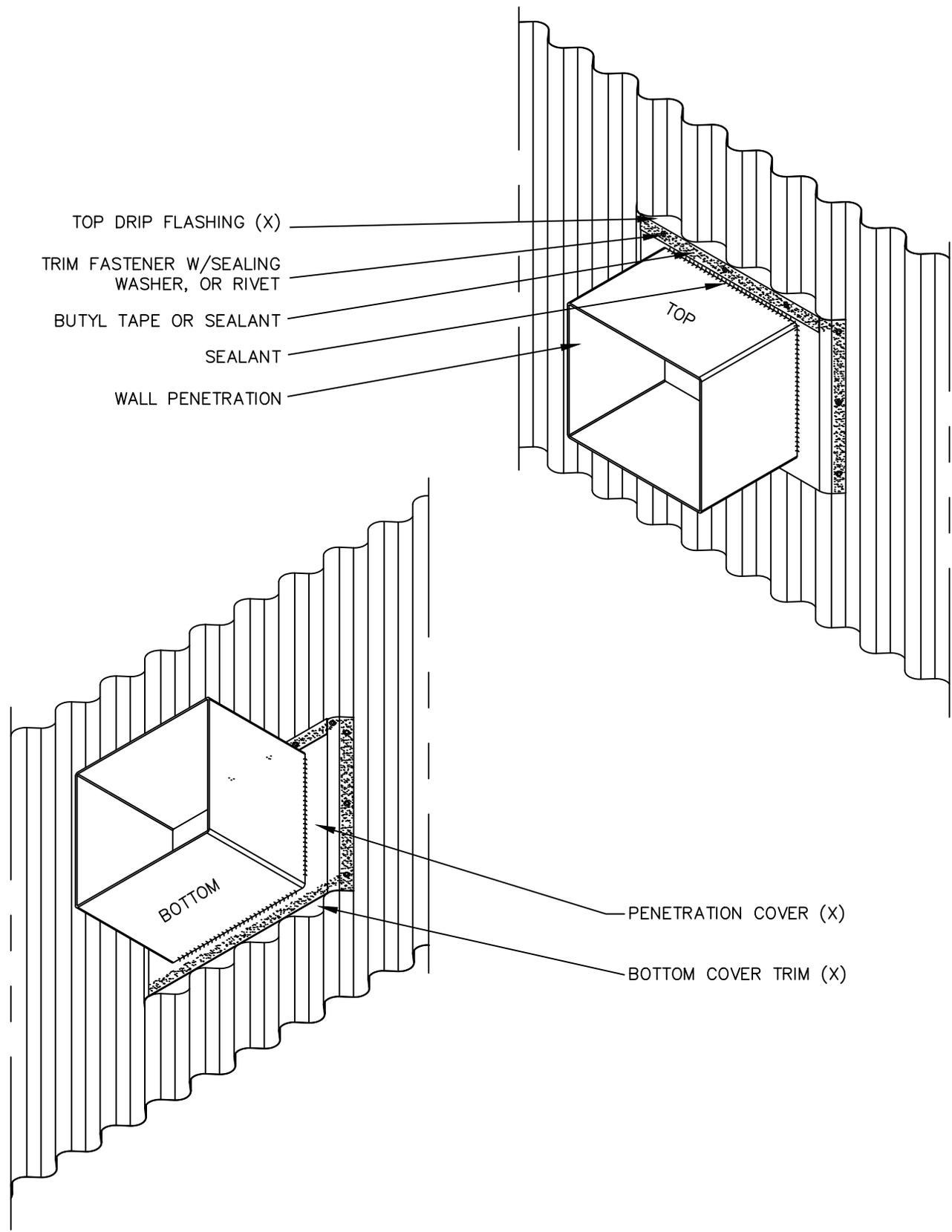


NU-WAVE

OPENING, SILL
 (NAIL FIN)



NW-33



- TOP DRIP FLASHING (X)
- TRIM FASTENER W/SEALING WASHER, OR RIVET
- BUTYL TAPE OR SEALANT
- SEALANT
- WALL PENETRATION

- PENETRATION COVER (X)
- BOTTOM COVER TRIM (X)



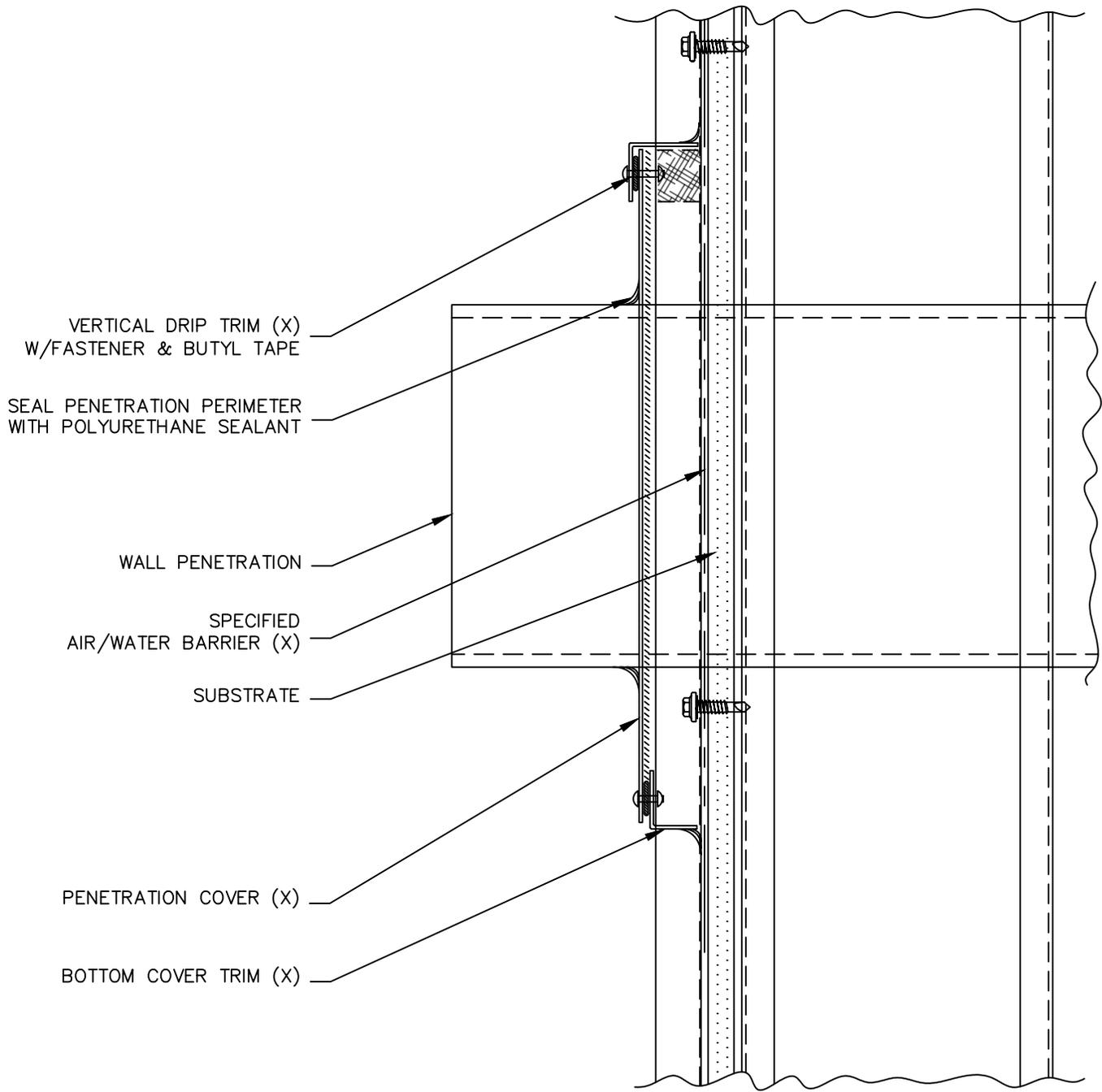
NU-WAVE



PENETRATION (3D)



NW-34



(X) – NOT BY ASC

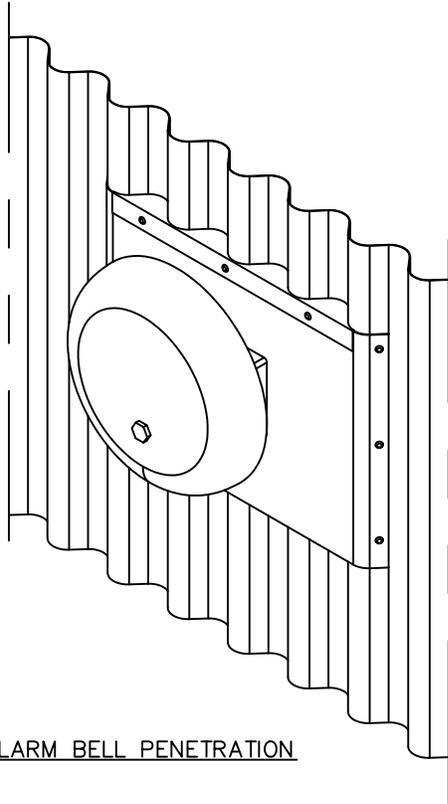


NU-WAVE

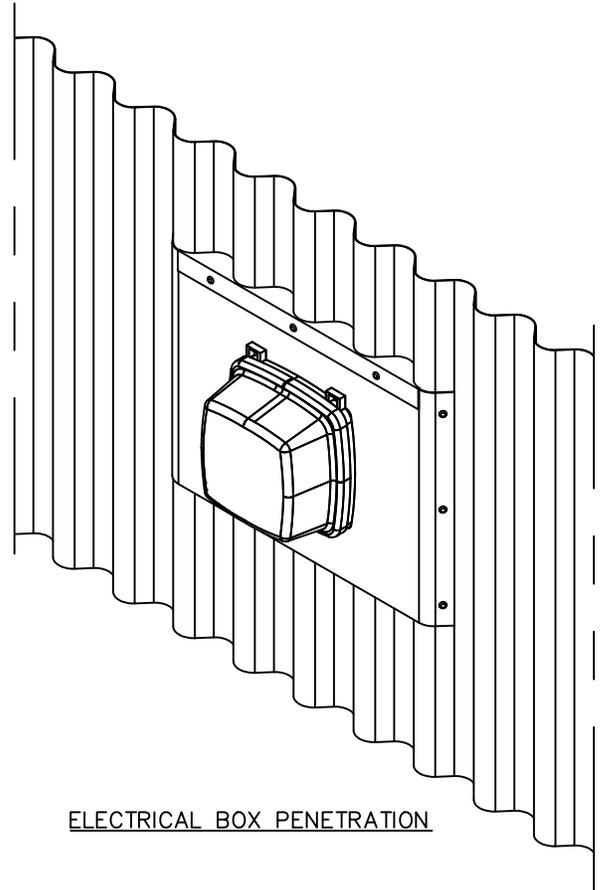


PENETRATION (2D)

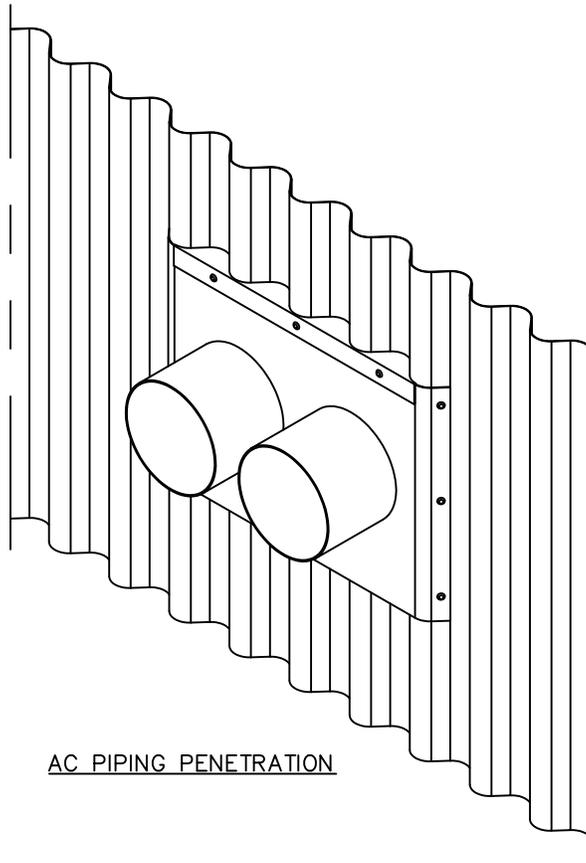
NW-35



ALARM BELL PENETRATION



ELECTRICAL BOX PENETRATION



AC PIPING PENETRATION



NU-WAVE



PENETRATION (3D)
EXAMPLES



NW-36

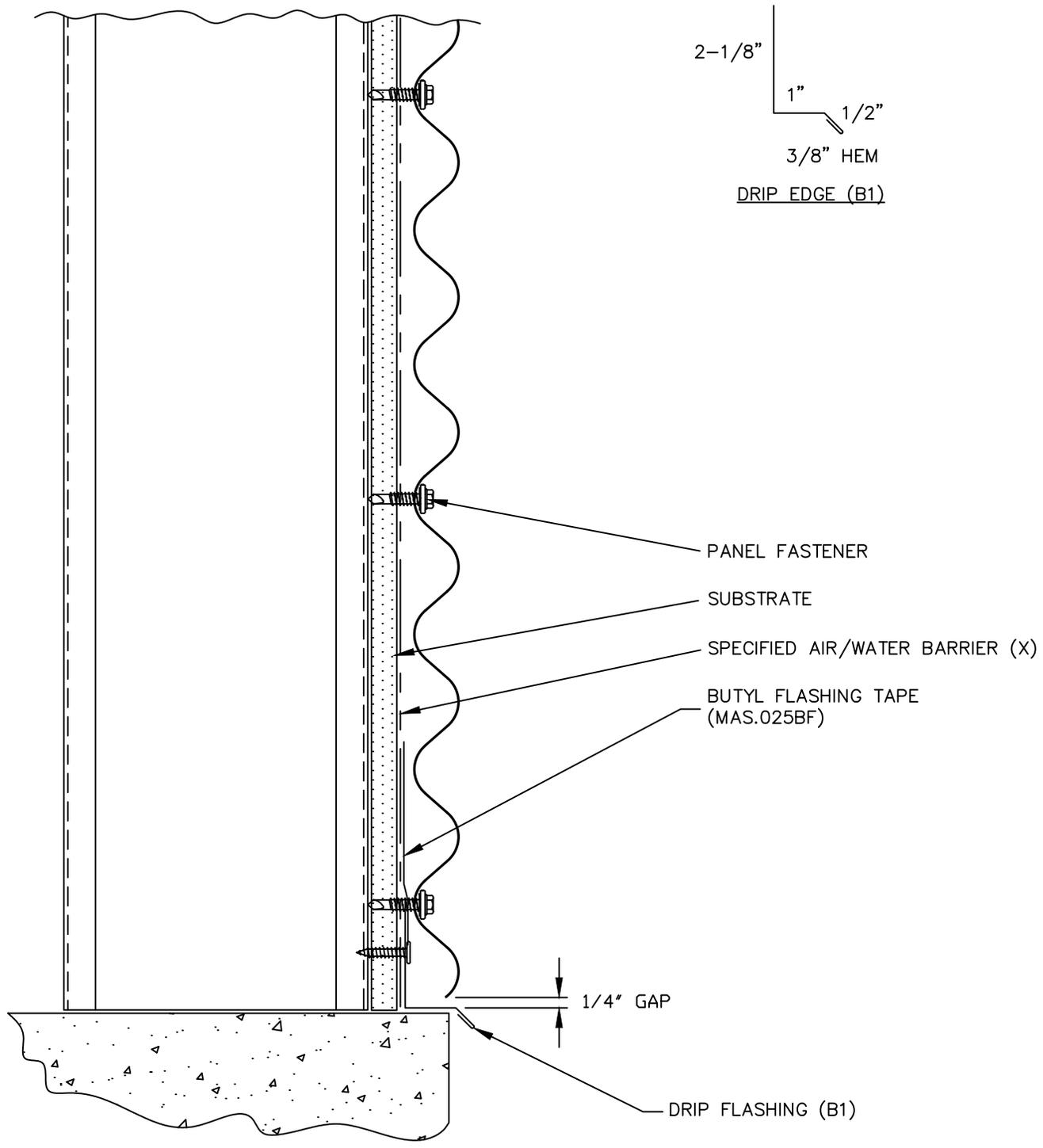
HORIZONTAL WALL DETAILS



NU-WAVE



NW-37



2-1/8"
 1"
 1/2"
 3/8" HEM
 DRIP EDGE (B1)

PANEL FASTENER
 SUBSTRATE
 SPECIFIED AIR/WATER BARRIER (X)
 BUTYL FLASHING TAPE (MAS.025BF)

1/4" GAP

DRIP FLASHING (B1)

HORIZONTAL NU-WAVE PANELS ARE INSTALLED FROM GROUND TO EAVE.

(X) - NOT BY ASC



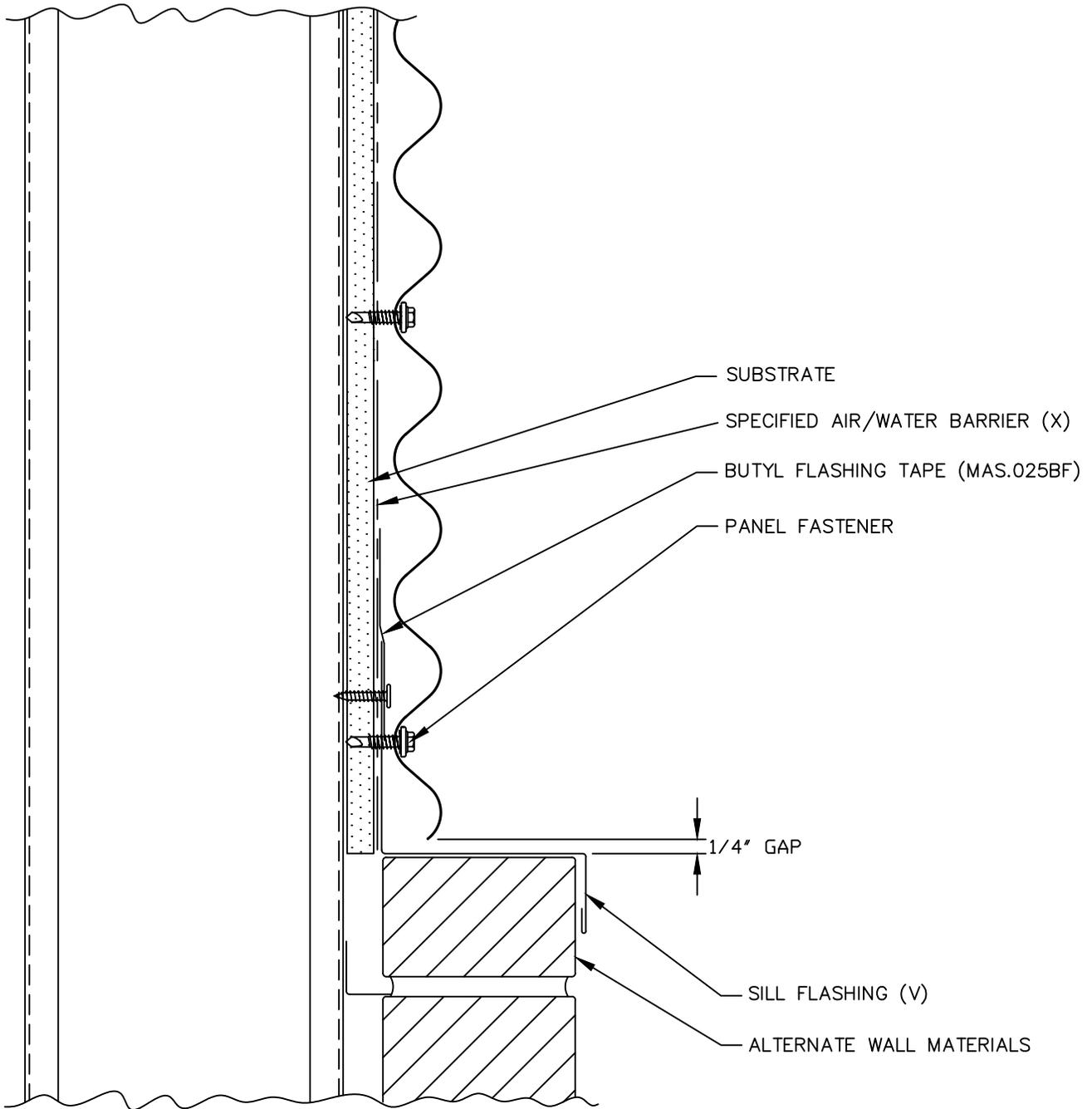
NU-WAVE



BASE



NW-38



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



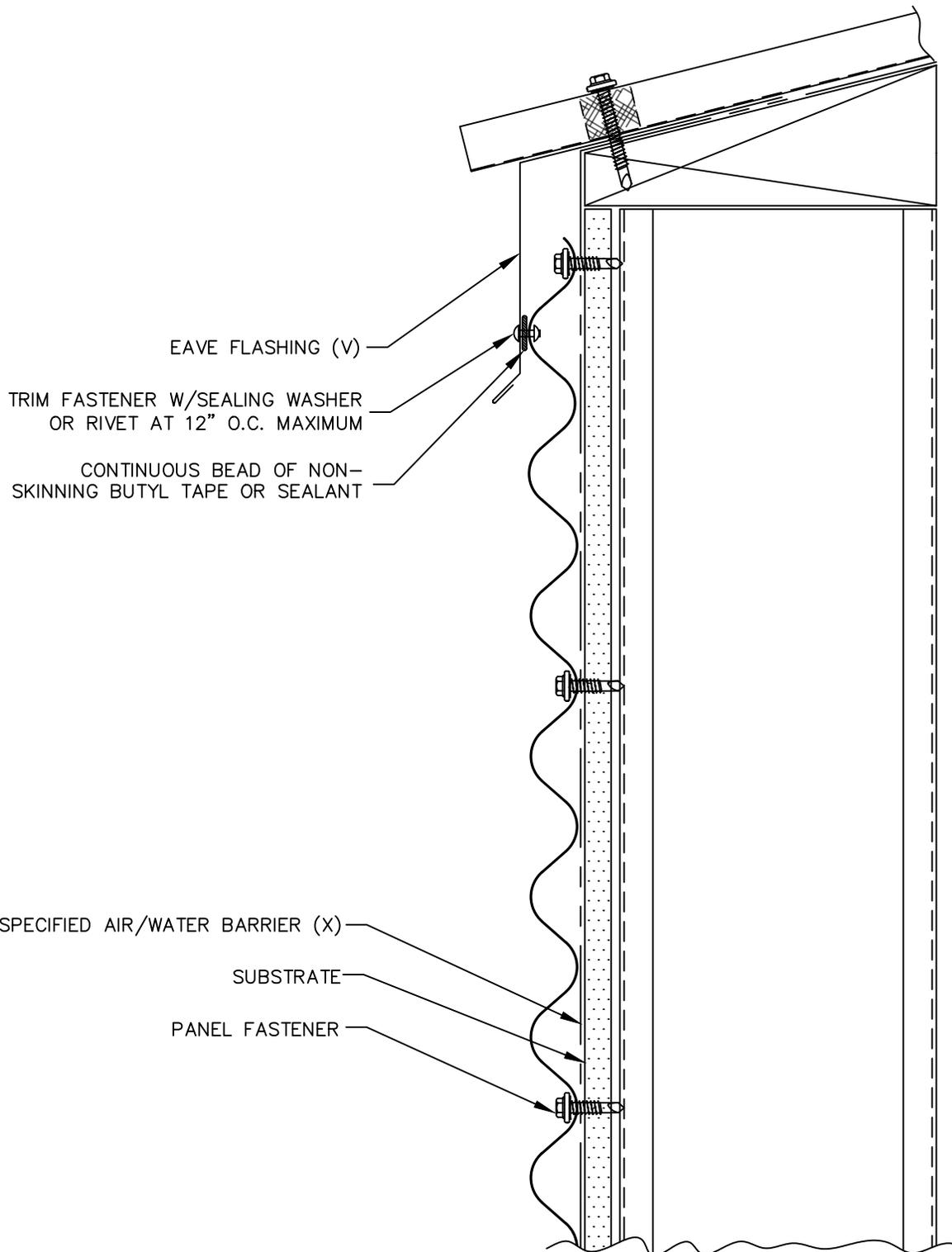
NU-WAVE



SILL



NW-39



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS

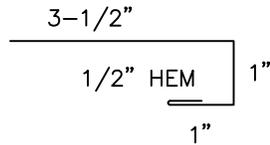


NU-WAVE

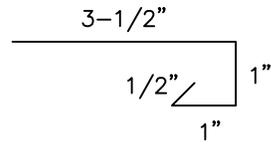
EAVE / FASCIA



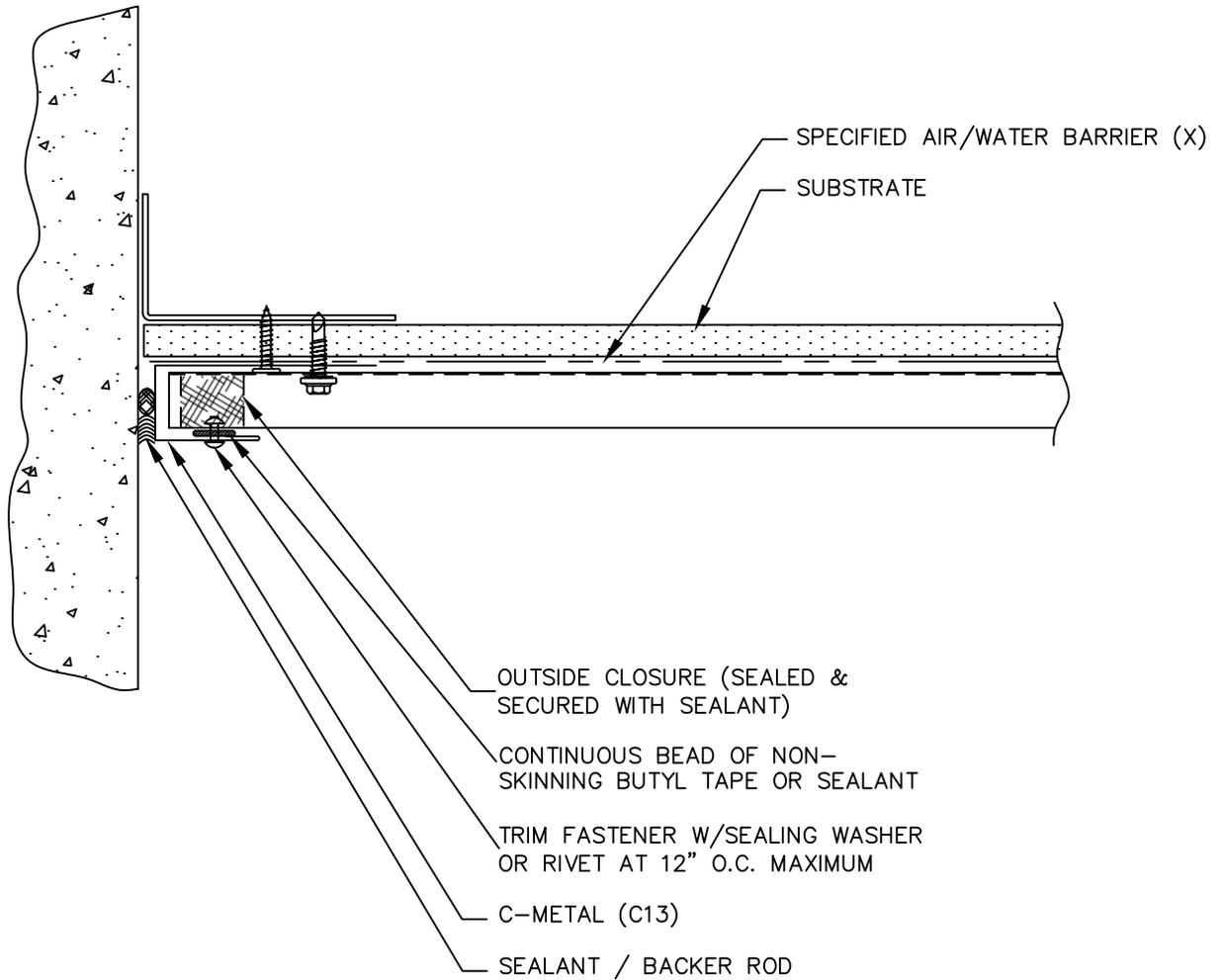
NW-40



C-METAL (C13)



JAMB TRIM (J13)



(X) - NOT BY ASC

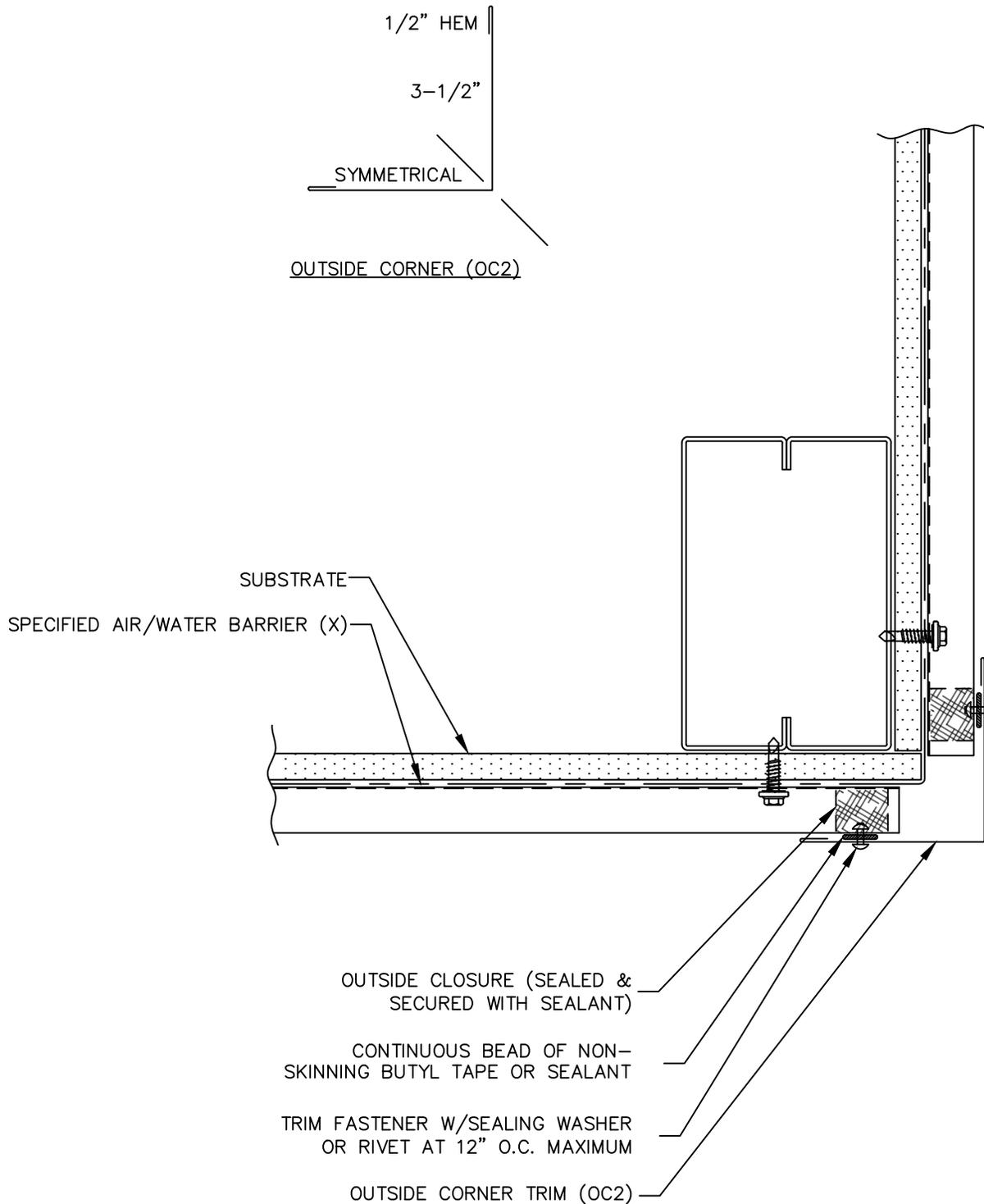


NU-WAVE

END WALL



NW-41



(X) - NOT BY ASC

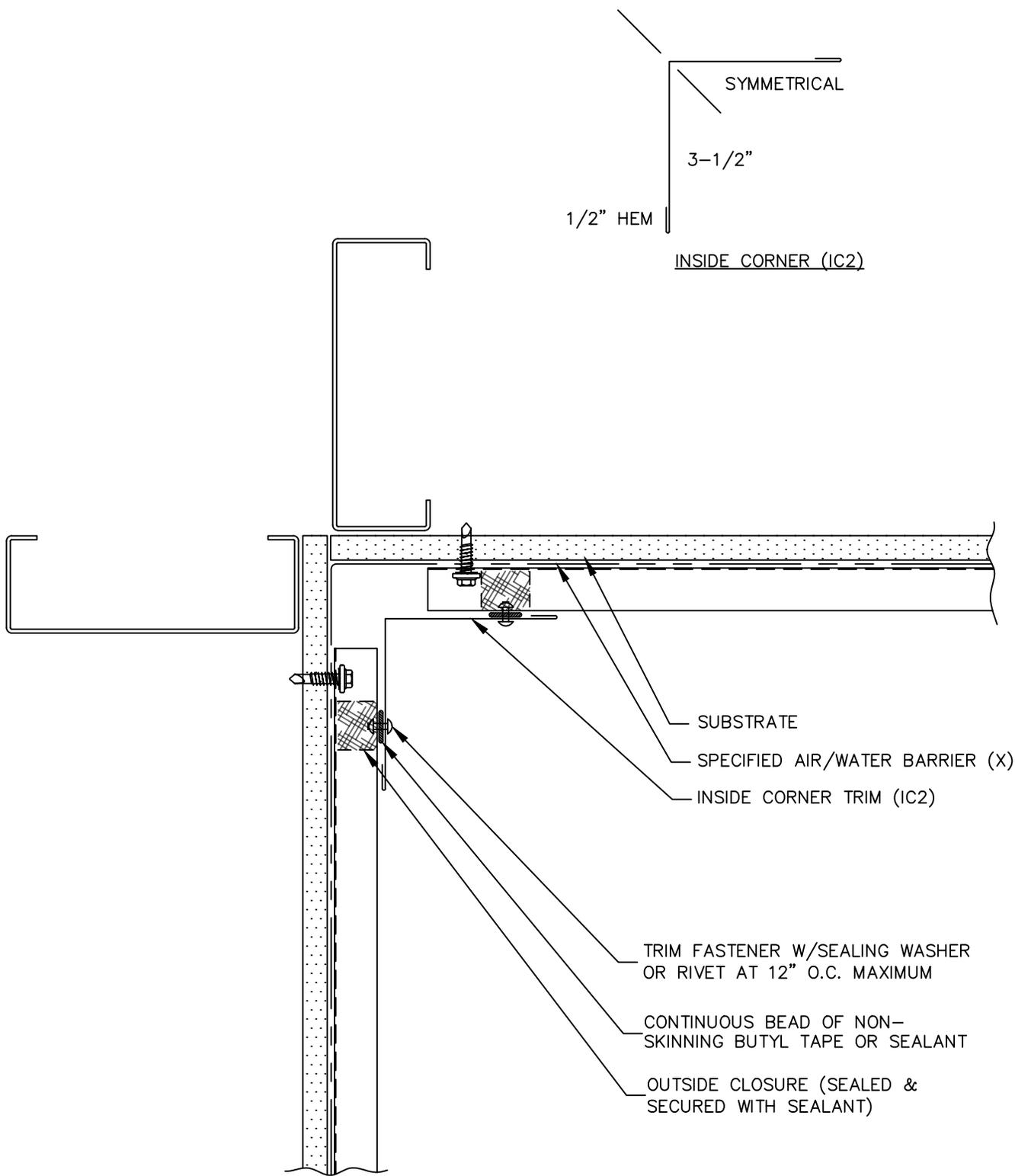


NU-WAVE



OUTSIDE CORNER

NW-42



SYMMETRICAL

3-1/2"

1/2" HEM

INSIDE CORNER (IC2)

SUBSTRATE

SPECIFIED AIR/WATER BARRIER (X)

INSIDE CORNER TRIM (IC2)

TRIM FASTENER W/SEALING WASHER
OR RIVET AT 12" O.C. MAXIMUM

CONTINUOUS BEAD OF NON-
SKINNING BUTYL TAPE OR SEALANT

OUTSIDE CLOSURE (SEALED &
SECURED WITH SEALANT)

(X) - NOT BY ASC

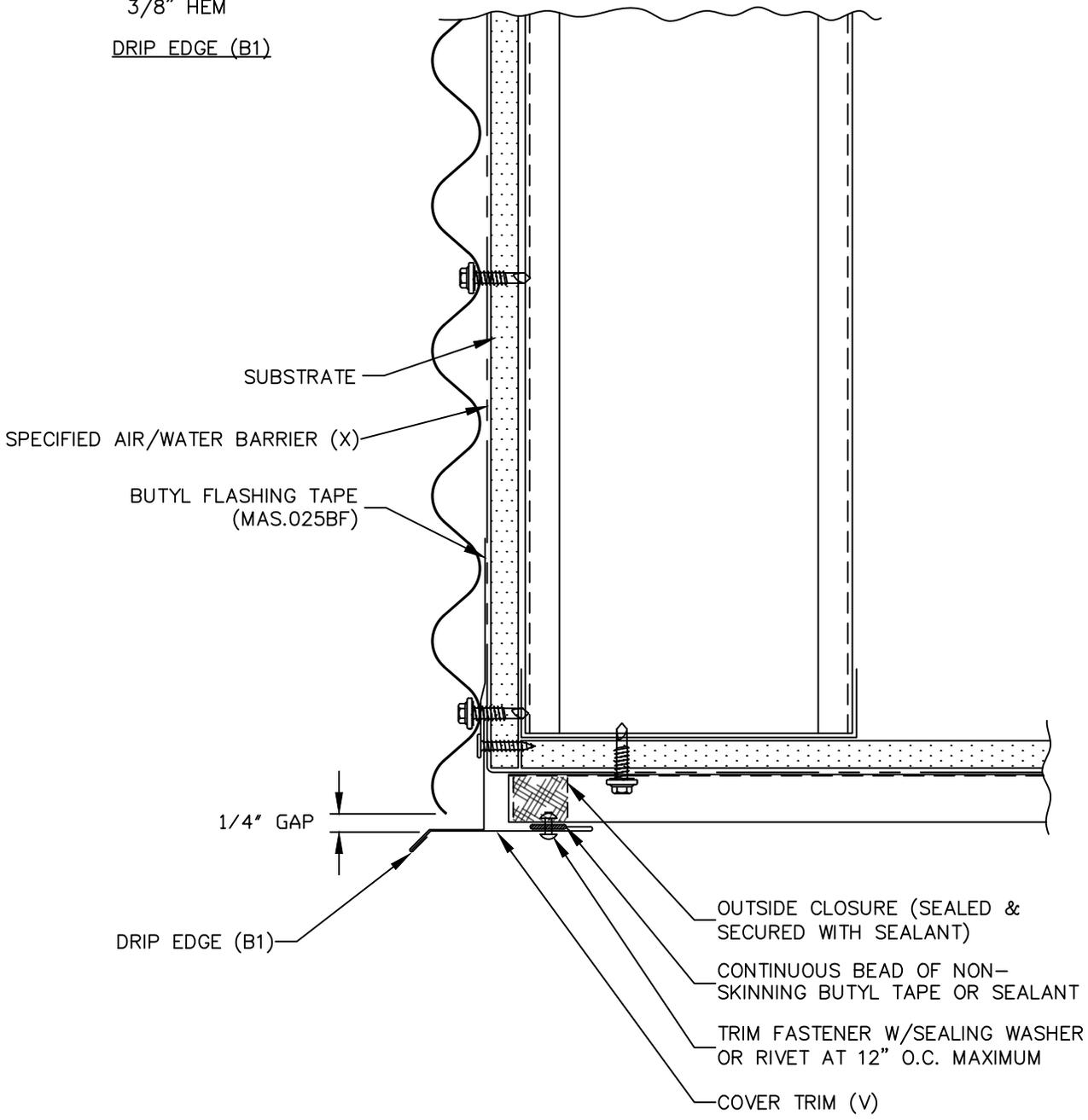
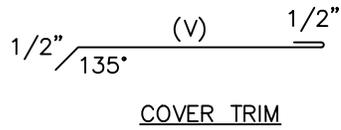
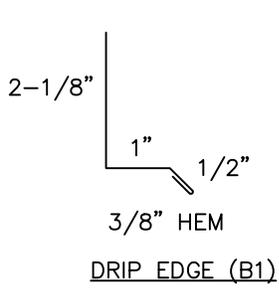


NU-WAVE

INSIDE CORNER



NW-43



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS

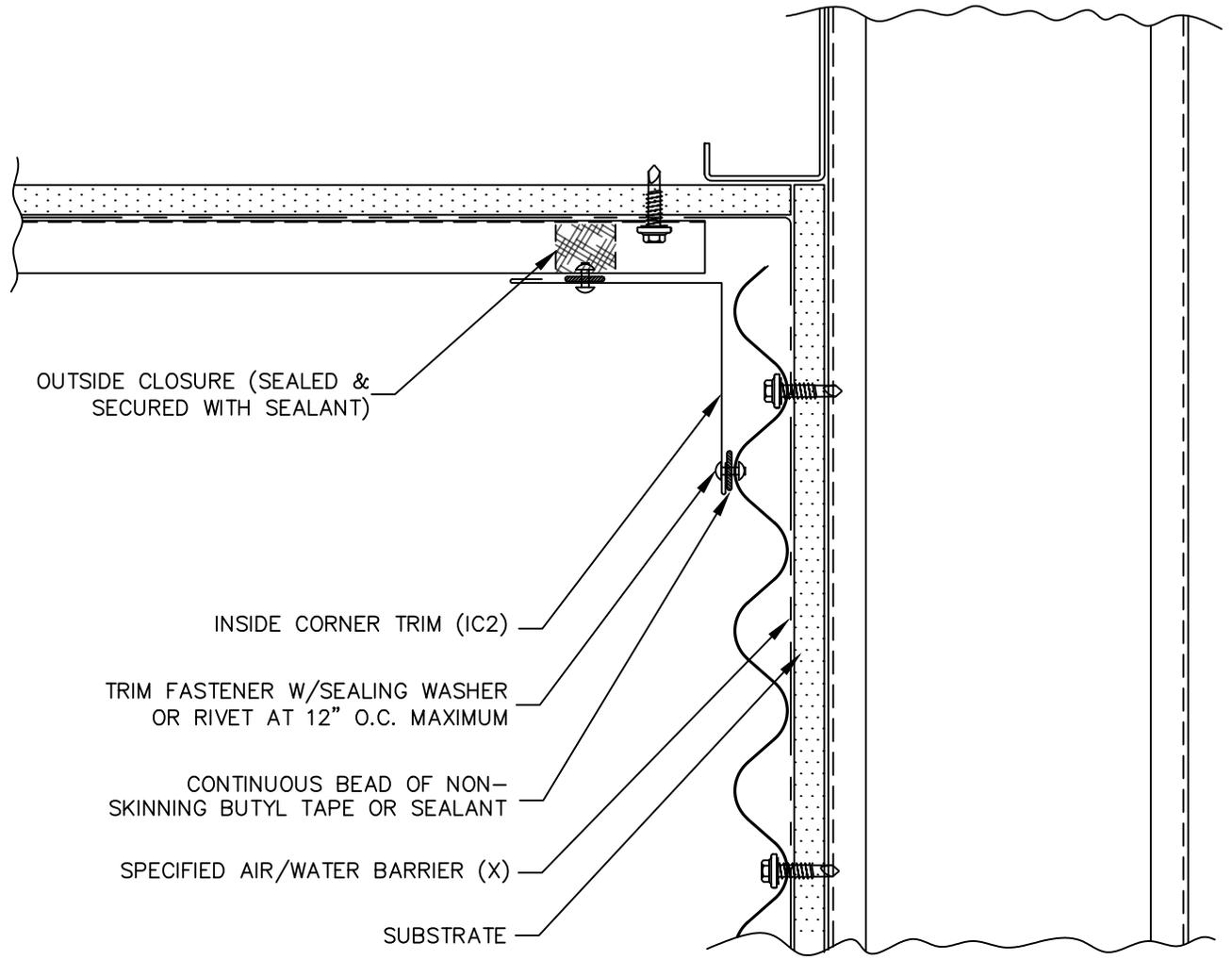
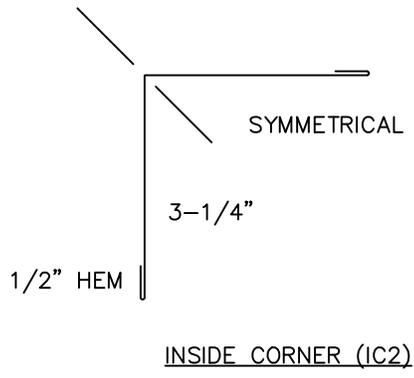


NU-WAVE

SOFFIT (FRONT)



NW-44



(X) - NOT BY ASC

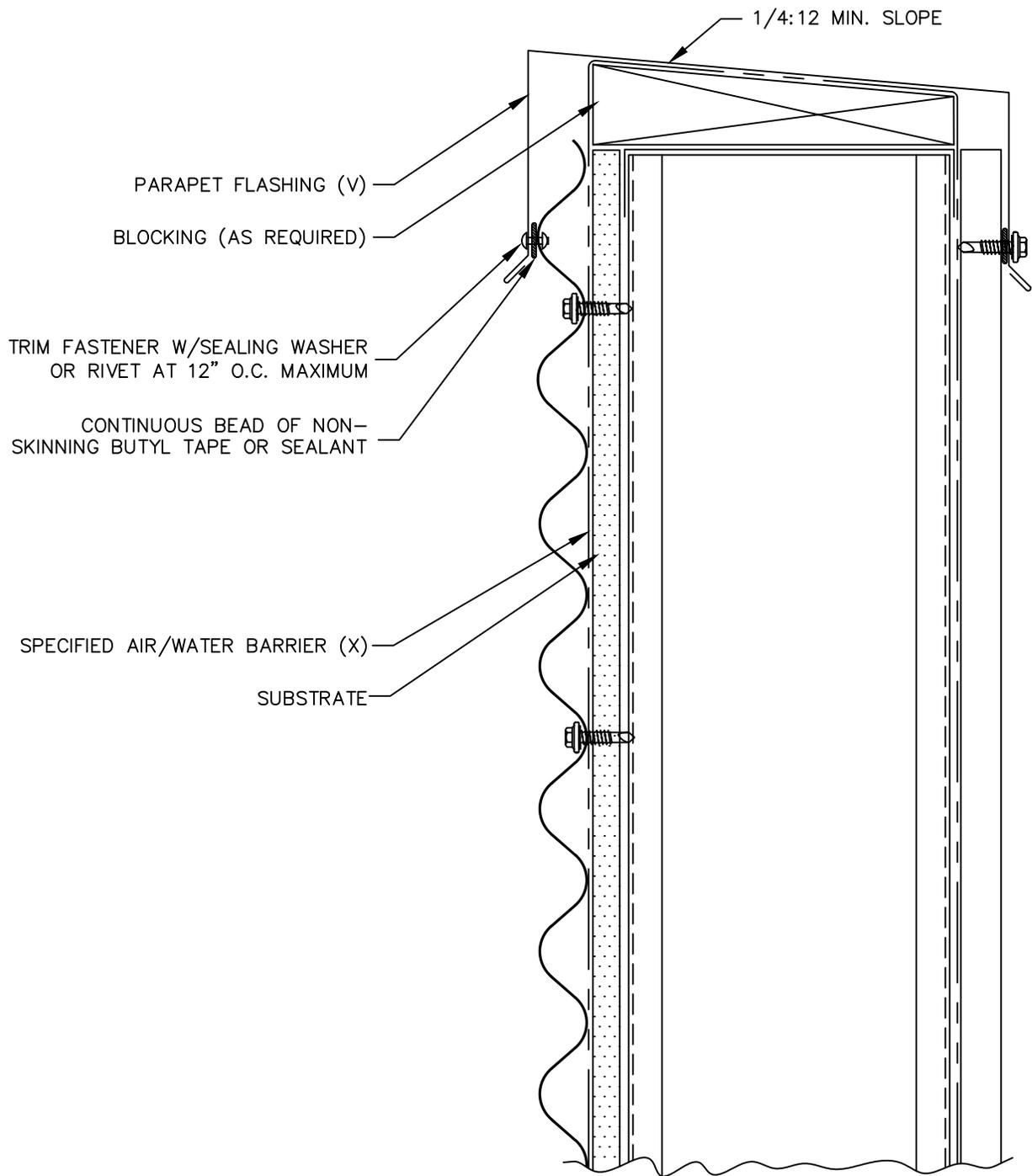


NU-WAVE

SOFFIT (BACK)



NW-45



(X) - NOT BY ASC
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



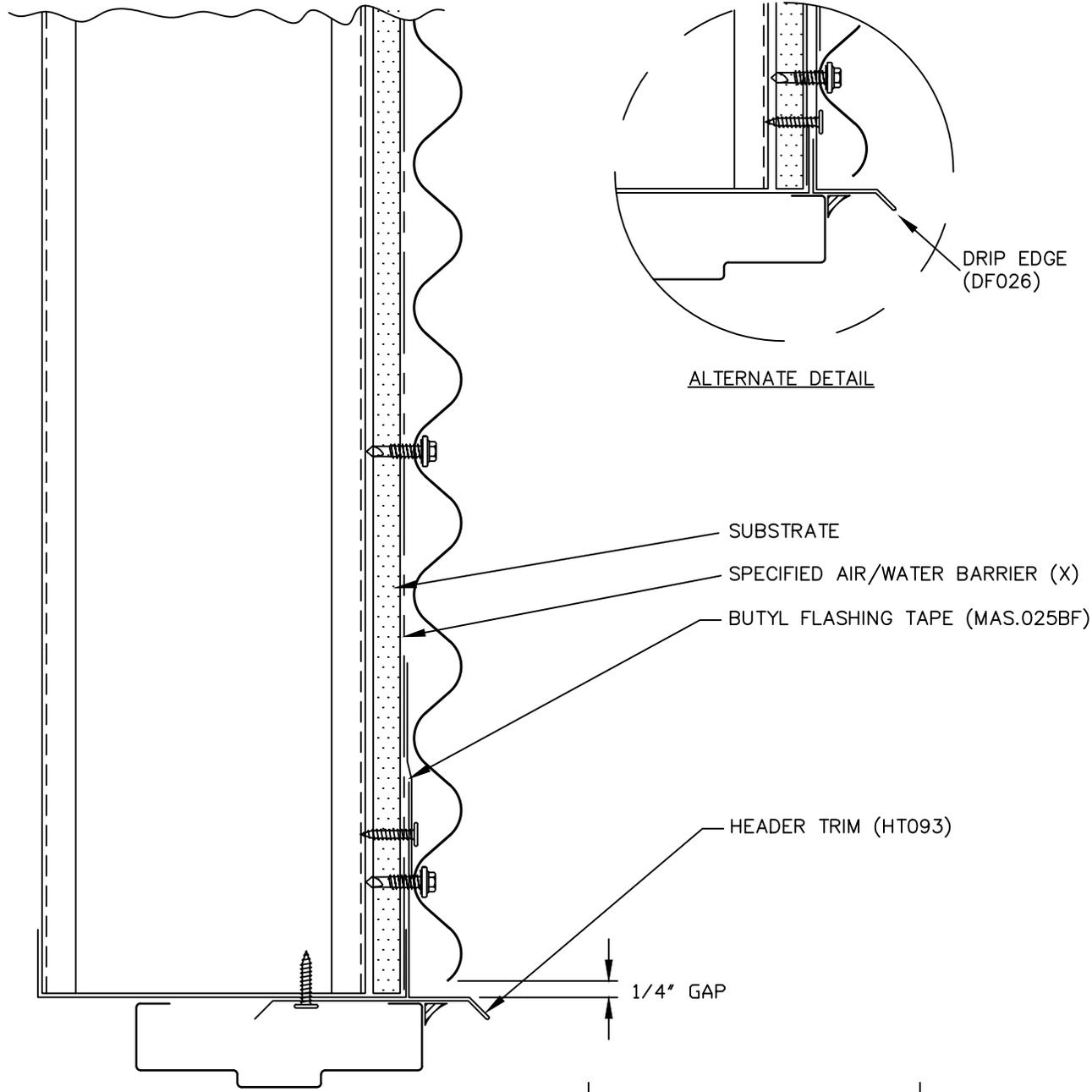
NU-WAVE



PARAPET



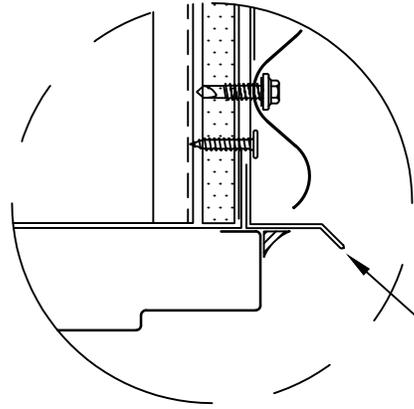
NW-46



SUBSTRATE
 SPECIFIED AIR/WATER BARRIER (X)
 BUTYL FLASHING TAPE (MAS.025BF)

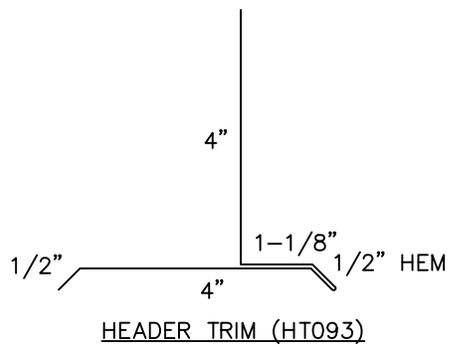
HEADER TRIM (HT093)

1/4" GAP

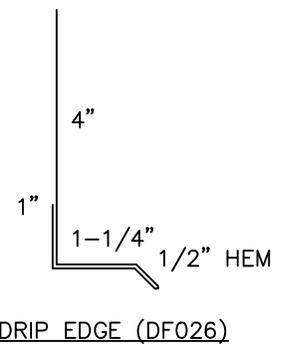


DRIP EDGE (DF026)

ALTERNATE DETAIL



HEADER TRIM (HT093)



DRIP EDGE (DF026)

(X) - NOT BY ASC



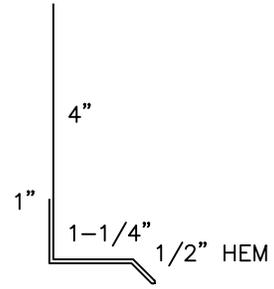
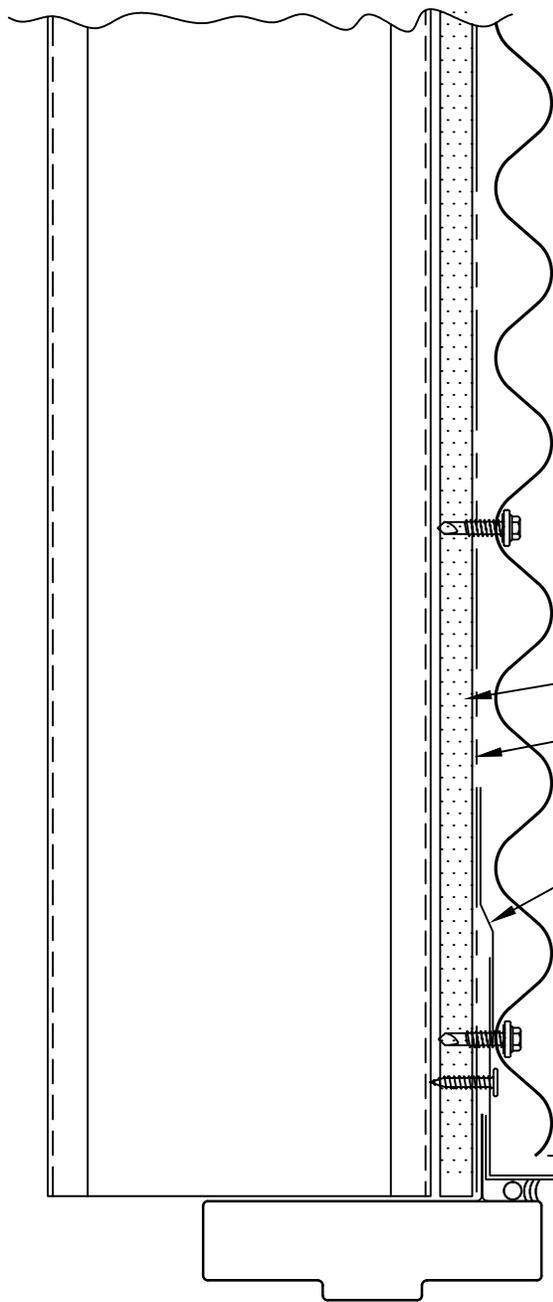
NU-WAVE



DOOR / WINDOW
 (HEAD)



NW-47



DRIP EDGE (DF026)

SUBSTRATE

SPECIFIED AIR/WATER BARRIER (X)

BUTYL FLASHING TAPE (MAS.025BF)

DRIP EDGE (DF026)

1/4" GAP



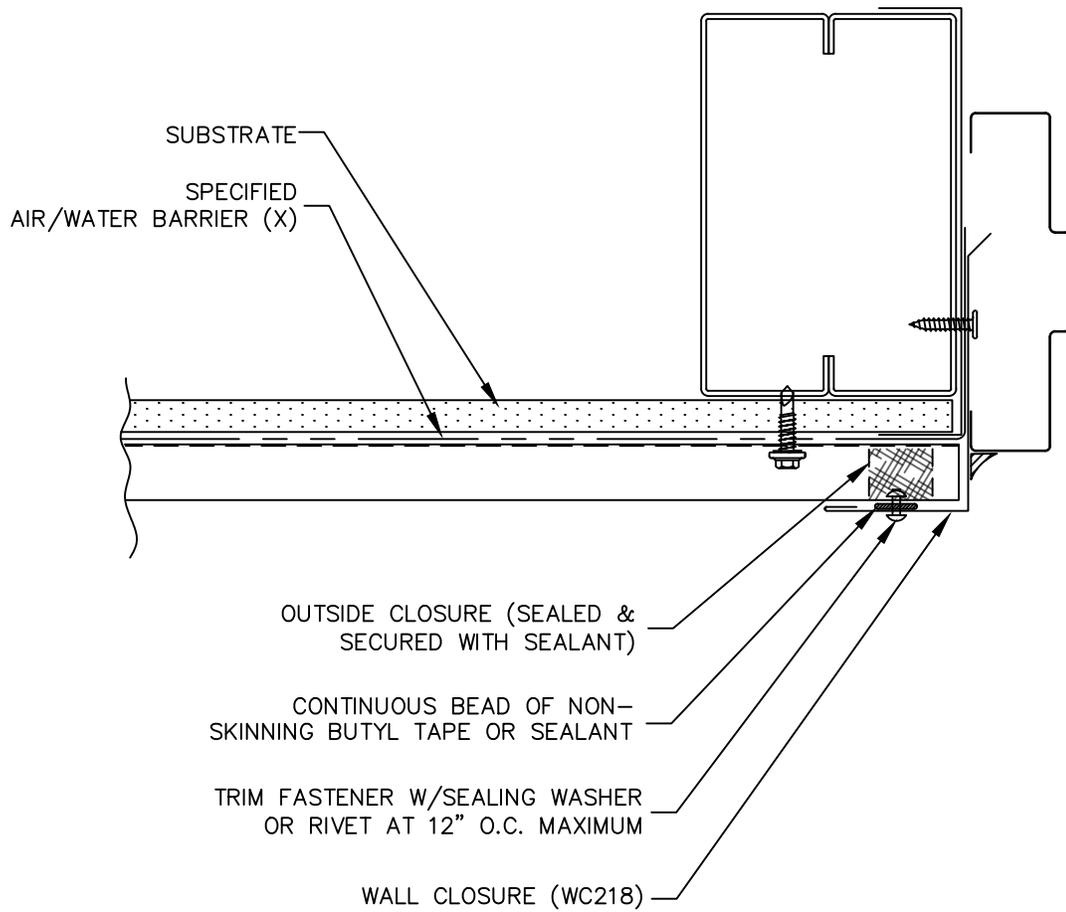
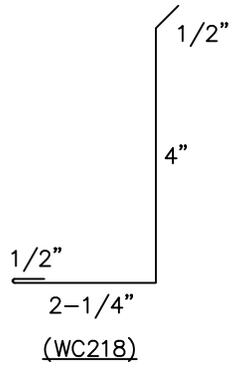
NU-WAVE



OPENING, HEAD
(NAIL FIN)



NW-48



(X) - NOT BY ASC



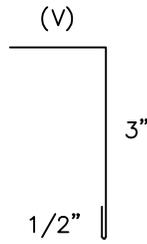
NU-WAVE



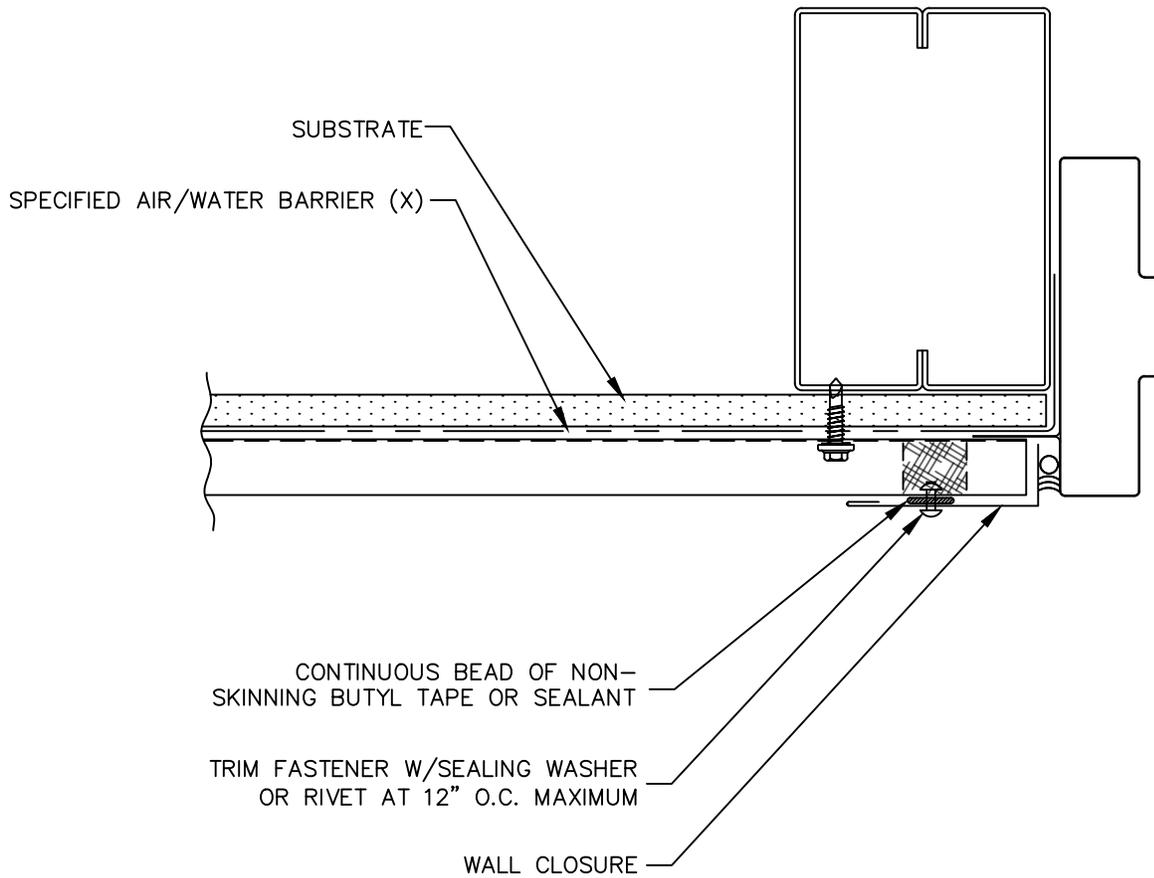
**DOOR / WINDOW
(JAMB)**



NW-49



WALL CLOSURE



(X) - NOT BY ASC

(Y) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



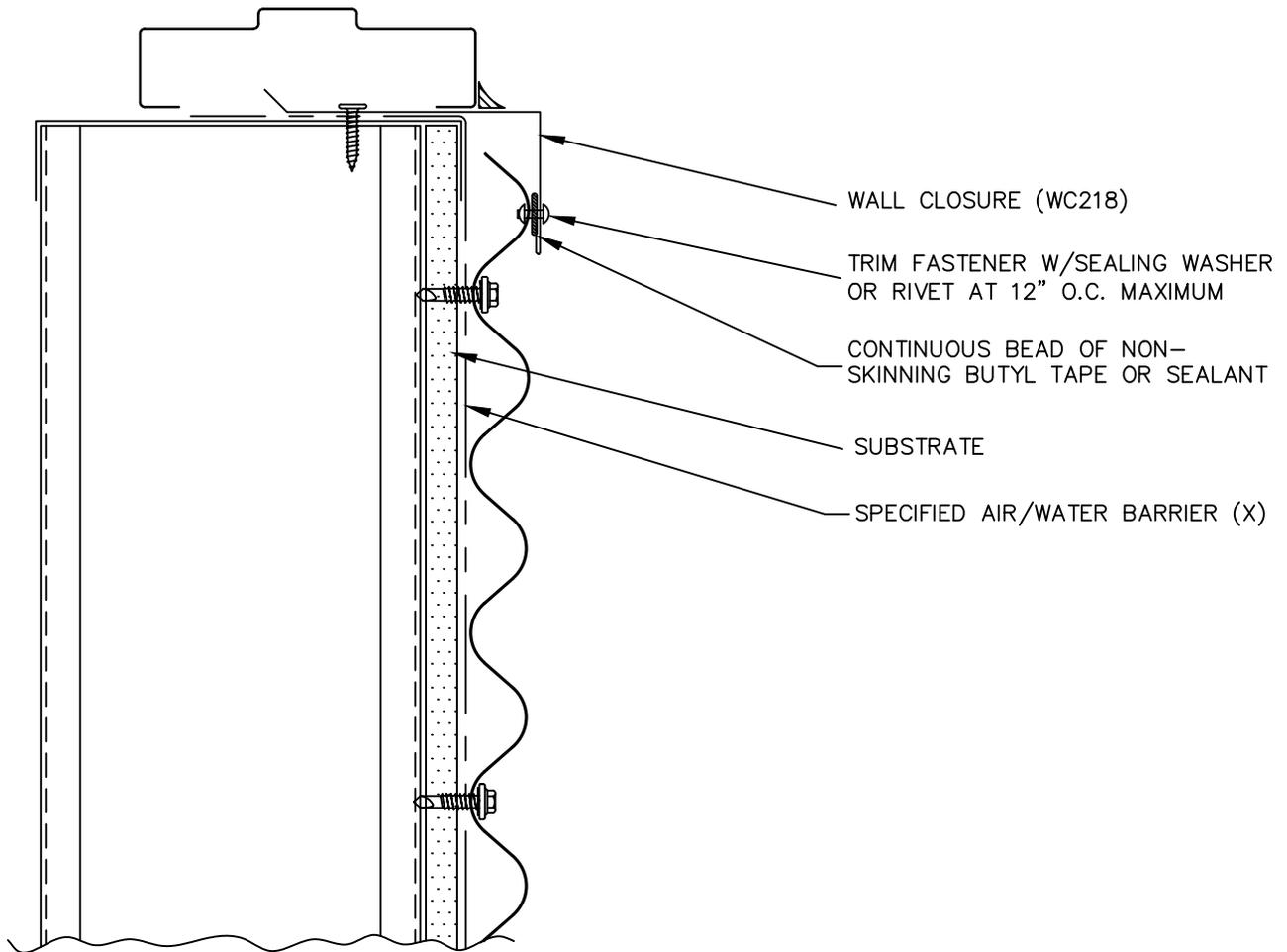
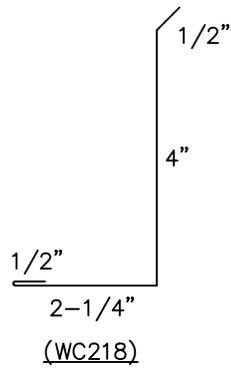
NU-WAVE



OPENING, JAMB
(NAIL FIN)



NW-50



(X) - NOT BY ASC



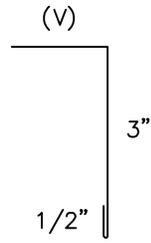
NU-WAVE



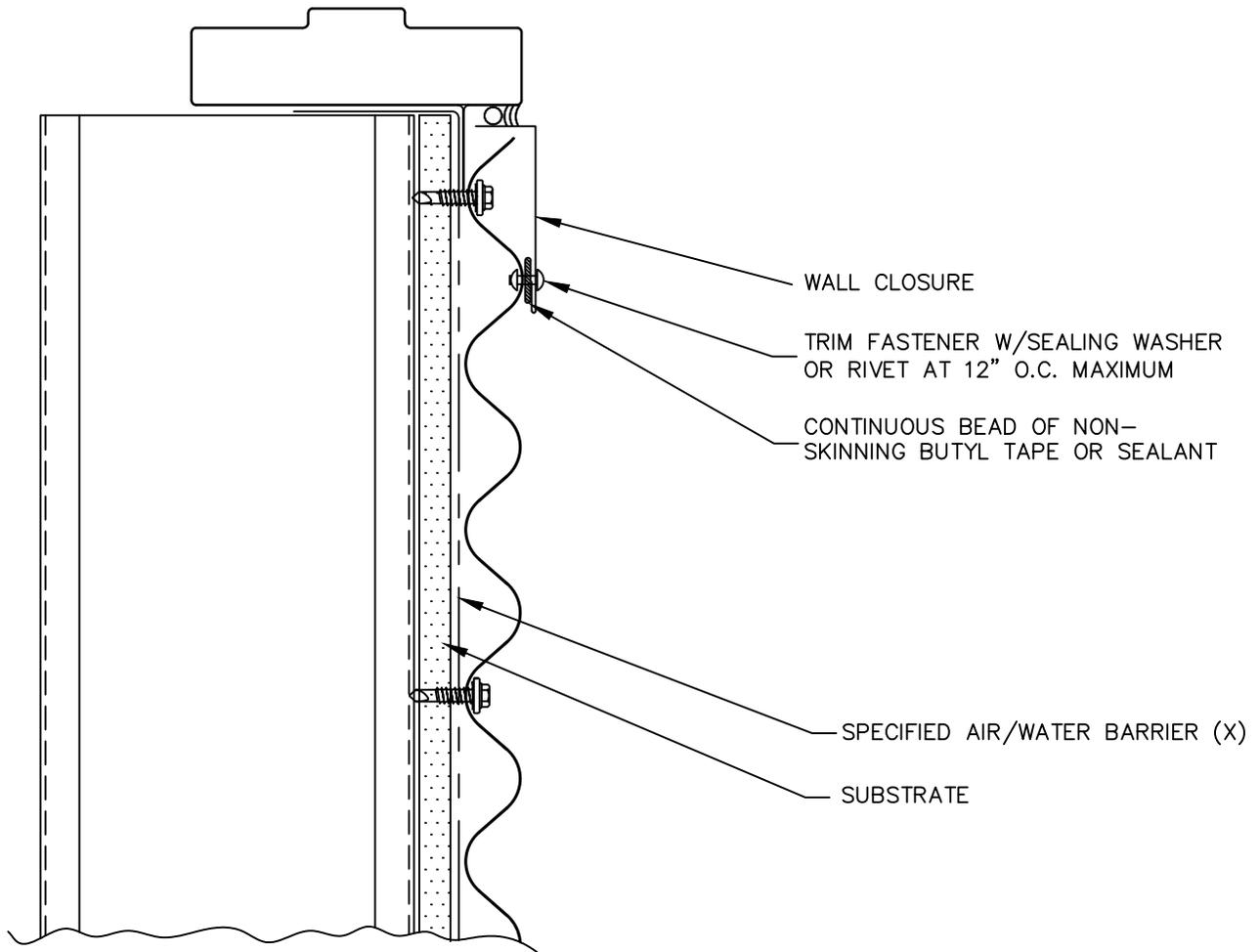
DOOR / WINDOW
(SILL)



NW-51



WALL CLOSURE



(X) - NOT BY ASC



NU-WAVE



OPENING, SILL
(NAIL FIN)



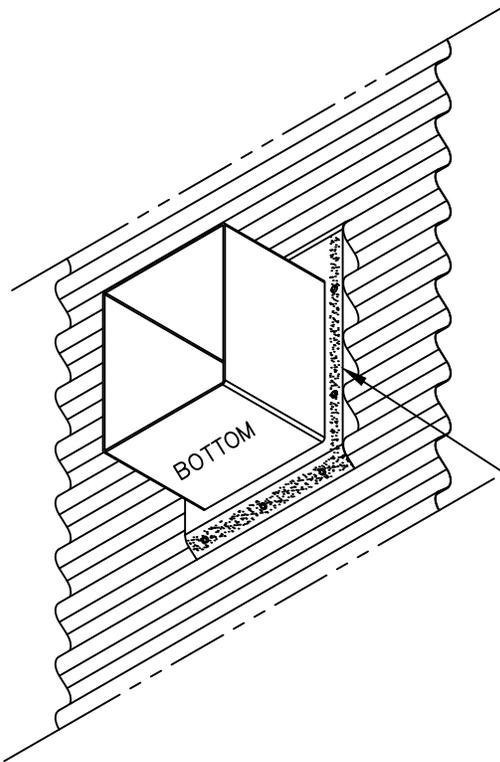
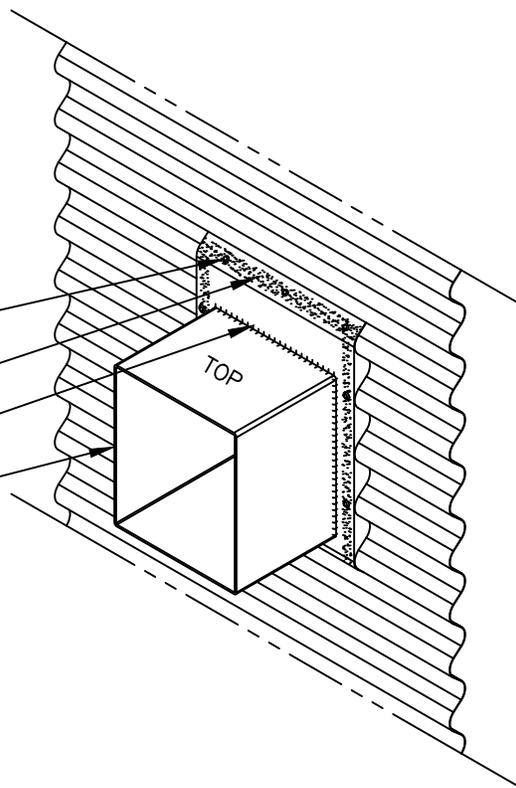
NW-52

TRIM FASTENER W/SEALING
WASHER, OR RIVET

BUTYL TAPE OR SEALANT

SEALANT

WALL PENETRATION



PENETRATION COVER (X)

(X) - NOT BY ASC



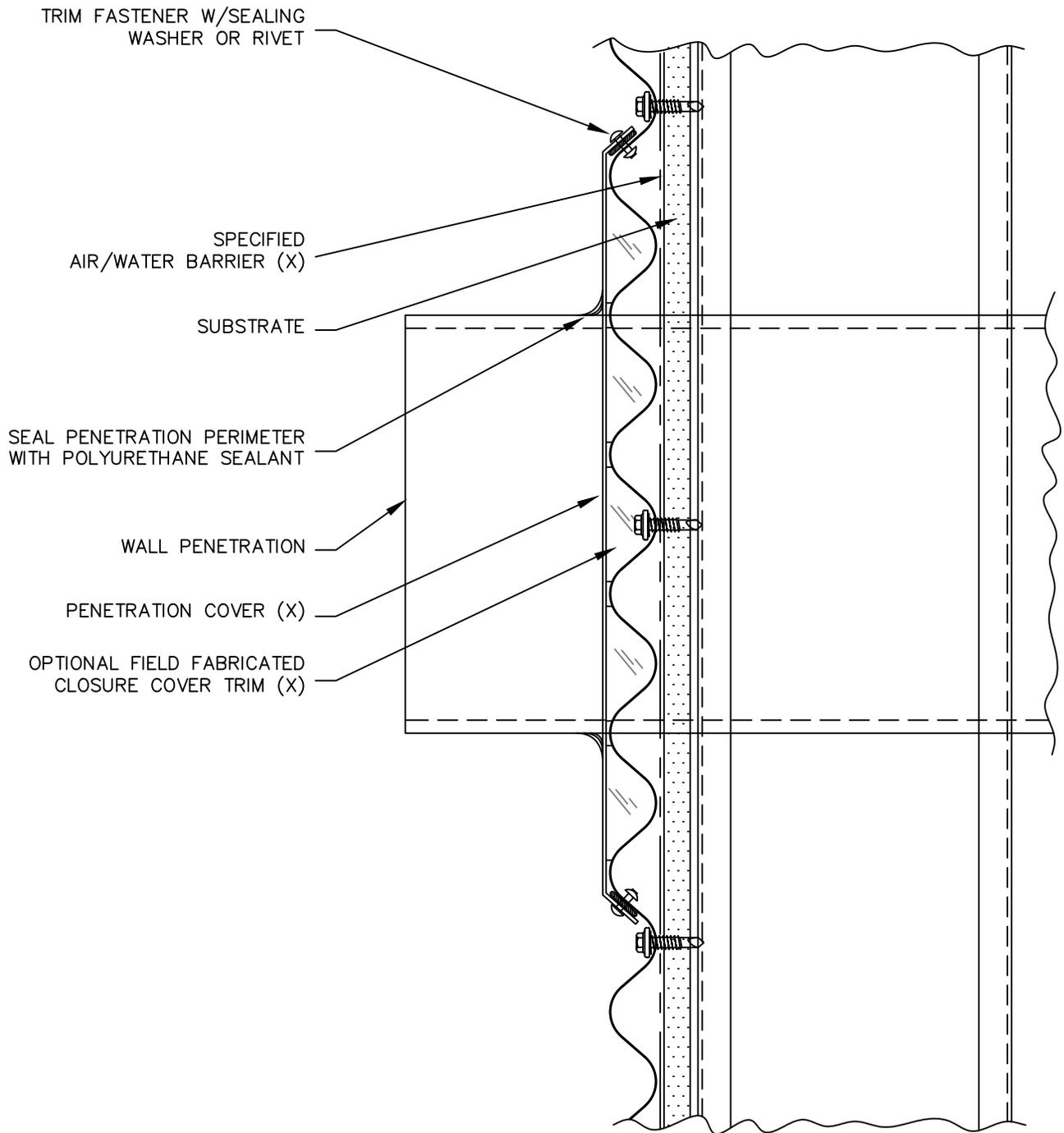
NU-WAVE



WALL PENETRATION (3D)



NW-53



(X) – NOT BY ASC

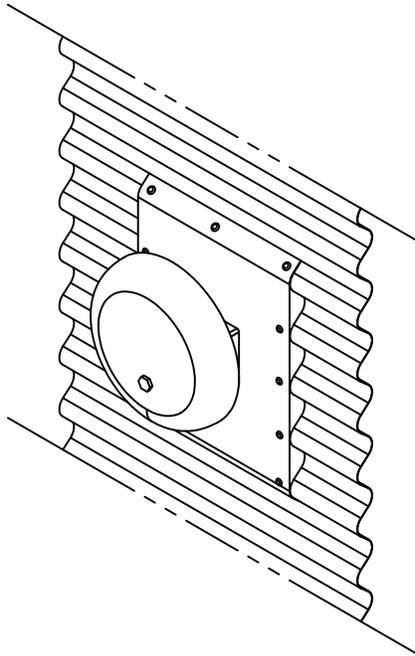


NU-WAVE

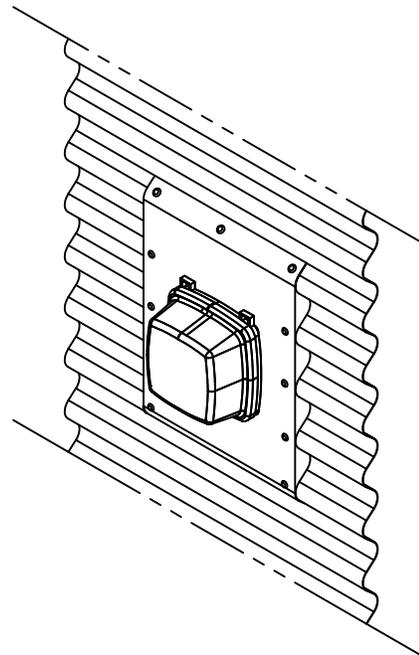
PENETRATION (2D)



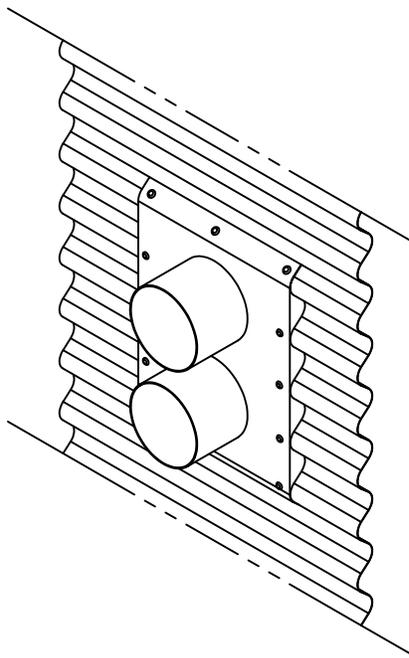
NW-54



ALARM BELL PENETRATION



ELECTRICAL BOX PENETRATION



AC PIPING PENETRATION



NU-WAVE



PENETRATION (3D)
EXAMPLES



NW-55

MANUFACTURING FACILITY:

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2110 Enterprise Boulevard
West Sacramento, CA 95691

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Salem, OR 97301

Washington

4111 East Ferry Ave.
Spokane, WA 99202

CUSTOMER SERVICE:

Oregon

800-272-7023

Washington

509-536-4097

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