



**ProPerm VP
Fluid-Applied,
Vapor-Permeable,
Water Resistive
Air Barrier System
Application Manual**

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Pecora Air Barrier System Product Offerings

Fluid-Applied, Vapor Permeable Air & Water Resistive Barrier Coating

Pecora ProPerm VP is a single component, water based, primerless, fluid applied, cost effective, vapor retarding, water resistive air barrier membrane for exterior wall assemblies where it functions as an air and moisture vapor retarder. Applied with a roller or airless sprayer this elastomeric weatherproofing membrane provides superior protection from moisture vapor and air intrusion contributing to a seamless, durable, and airtight building envelope.

Available packaging: 5-gal (18.9L) pails, 50-gal (189L) drums
Color: Grey (custom colors available)

Liquid Flashing & Joint Filler

Pecora XL-Flash is a unique one-part, fast curing, non-sag elastomeric STPU (silyl-terminated polyurethane) gun grade, trowelable liquid flashing & joint sealant with many of the strengths of a two-component sealant but with the user-friendly ease-of-application properties of a one-component sealant. Pecora's XL-Flash is specially formulated for the Air and Vapor Barrier Industry. It is resistant to ultra violet rays, ozone and airborne contaminants. It is designed to achieve high tensile and tear strengths, abrasion resistance and an average ultimate hardness of at least 55, yet still withstand 25% total joint movement. XL-Flash utilizes low VOC formulation that achieves primerless adhesion to most substrates.

Available packaging: 20 oz. (592mL) sausages
(Custom order – 200 gal min. batch size)
Color: Tru-White

Pecora Dynatrol I-XL Hybrid Joint Sealant may be substituted for use as a liquid flashing/joint filler on a per project basis upon approval by Pecora Technical Service.

Pecora Air Barrier System Product Offerings (cont.)

Silicone Transition Membrane

Pecora XL-SPAN is a preformed silicone transition membrane used in combination with Pecora AVB Silicone Sealant/Adhesive to form an air and water tight barrier at transitions between building façade components such as fenestration products, roof to wall, internal expansion joints, and other openings in AVB and WRB systems. For use in cavity wall and curtain wall transition seals.

Available packaging: 4", 6" and 9" width / 50' roll
Color: Translucent

Self-Adhered Flashing Membrane

Pecora XL-Wrap TWF is a 45-mil cold applied, self-adhering membrane designed to act as a general purpose and thru wall flashing. The membrane is comprised of a durable cross laminated high-density polyethylene facer laminated to an exterior facing UV and weather resistant aluminum foil facer. XL-Wrap TWF utilizes a non-asphaltic, butyl-based adhesive that exhibits excellent adhesion and compatibility to a wide variety of building substrates. XL-Wrap TWF can be applied independently or as a component of the Pecora XL-Perm and ProPerm fluid applied air barrier systems.

Available packaging: 4", 6", 9", 12" and 18" width / 50' roll
Color: Silver Aluminum

Sealant/Adhesive

Pecora AVB is a single component 100% silicone sealant designed to adhere to low surface energy materials utilized in traditional and novel air and vapor barriers. Pecora AVB Silicone is designed as an integral component for transition seals between dissimilar materials in air and vapor barrier systems.

Pecora AVB is also utilized as the adhesive for the Pecora XL-SPAN Pre-formed Silicone Transition Membrane.

Available packaging: 20 oz. (592mL) sausage
Color: Black

**Application Guidelines
Pecora ProPerm
Vapor Permeable Air
&
Water Resistive Barrier System**

The information presented in this manual is an installation guideline only and will assist in the application of the Pecora ProPerm Vapor Permeable Air & Water Resistive Barrier Fluid-Applied System. This guide does not cover all possible applications. Alternative application methods may be approved based on project specific jobsite conditions. Please consult the Pecora Technical Service Department for assistance prior to deviating from the guidelines published here.

Preconstruction

- Preconstruction meetings should be held with the appropriate design engineers, consultants, contractors, and/or building owners to ensure a continuous air & vapor barrier will be achieved across the building envelope.
- A project specific mock up and subsequent testing is highly recommended in order to determine whether the appropriate air & vapor barrier system has been selected.
- Ensure that all adjacent building components e.g. windows, doors, penetrations, etc. are installed in accordance with the manufacturer's application instructions.
- Coordinate the installation of all flashings and sealants in order to prevent water infiltration and subsequent damages.

Substrate Requirements

- All substrates must be installed in accordance with manufacturer's specifications.
- Masonry joints should be struck flush with the CMU.
- All substrates must be clean, dry and frost-free and free of contaminants such as dirt, dust residue, oil and grease.
- Substrates should be flat and free of any fins or irregularities.
- Pecora ProPerm VP is not approved for use below grade or areas subjected to intermittent or continuous water immersion.
- Any substrates that do not conform to the afore-mentioned requirements should be addressed prior to the installation of the Pecora ProPerm air & vapor barrier system.

Sheathing Fasteners

- Exterior sheathing fasteners must be installed flush with the exterior face of the sheathing and not deform the underlying substrate upon application.
- Fastener should be compressed to the Pecora air barrier coating surface making a complete and tight seal.
- Fasteners are preferably placed to penetrate at framing locations as opposed to the sheathing field.
- Fasteners penetrating at locations in sheathing field are approved provided they are not countersunk or installed in such a way to cause a breach in the wall/coating system.
- Gasketed fasteners will eliminate the need for placement over framing.
- If fastener penetrations cause a breach in air barrier coating the use of Pecora XL Flash or AVB silicone to post seal the fastener is recommended.

Jobsite Conditions

- When applying Pecora ProPerm VP at ambient temperatures below 50°F (10°C) or above 95°F (35°C) consult Pecora Technical Services.
- Products should be stored at temperatures above 40°F.
- Do not apply Pecora ProPerm VP in rain or when rain is eminent.
- Pecora ProPerm VP may be exposed to six (6) months of continuous UV. Contact Pecora Technical Services if left exposed longer than six (6) months.

General Product Application – ProPerm VP Vapor Permeable Air & Water Resistive Barrier System

- Ensure all surrounding areas are protected from damage during installation of the Pecora ProPerm VP coating.
- Complete all change of plane, seams, static joints and flashing with Pecora XL-Flash Liquid Flashing and Joint Filler before applying Pecora ProPerm VP. When used as a flashing, apply XL-Flash at 20 - 40 wet mils.
 - *Dynamic (moving) joints must be sealed with the Pecora 890NST Silicone Sealant or approved equivalent.*
- For transitions between building components with significant movement use Pecora XL-SPAN transition system.
- Pecora ProPerm^{VP} may be applied with a roller or approved airless sprayer. Coverage rate: 80 – 110 sq ft/gallon
 - Spray apply to exterior wall in a single coat at a minimum 10 - 16 wet mils (7 - 12 DFT) through approved airless spray equipment. Size 517 to 623 spray tip is recommended.
 - Roller apply to exterior wall assembly using vertical strokes. Recommended nap size: Rough surfaces such as CMU = ½" to 5/8" depending on porosity. Smooth surfaces such as exterior sheathing = ½".
 - Apply to recommended thickness of 10 - 16 wet mils (7 - 12 DFT).
- Inspect for pinholes, voids or gaps in the membrane and repair as needed.
- Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.
- Pecora ProPerm Air Barrier System has a service temperature range of 0°F to 180°F.

Substrate Coverage Rate Guidelines

Pecora ProPerm VP is a low mil, water based fluid applied coating for use on a variety of common building components. Differences in coverage rate can be expected due to the varying degrees of porosity found among common building components. The amount of substrate absorption in combination with inherent volume shrinkage will ultimately dictate the coating coverage rate and dry film thickness (DFT).

Pecora recommends a coating dry film thickness (DFT) of 7 – 12 mils applied in a single coat.

The Pecora Technical Service Group has evaluated a variety of common building components for coverage/absorption rate. All coatings were applied and cured at standard laboratory conditions. The following results were obtained:

Substrate	Wet Film Thickness, mils	Coverage Rate, sq ft / gal	Dry Film Thickness, mil
Exterior Grade Sheathing	14	120	10
Plywood	14-16	100	10
OSB	14-16	100	10
Concrete Block	20 (two 10 mil coats)	75	12-14

Spray Application Guidelines

SPRAY EQUIPMENT REQUIREMENTS (>60°F Ambient Temperature)

- **Electric-Powered or Gas Hydraulic Airless Sprayer**
 - Suggested models include, but not limited to, the following:
 - **Graco Ultra Max 695 Electric Airless Sprayer** <http://www.graco.com/us/en/products/contractor/ultra-max-ii-695.html>
 - **Titan Impact 740 Electric Airless Sprayer** <https://www.titantooll.com/products/product-detail/impactTM-740/>
 - **Graco GH200 Gas Hydraulic Airless Sprayer** <http://www.graco.com/us/en/products/contractor/gh-200-convertible-na.html>
- **Minimum operating pressure:** 2000 PSI
- **Minimum flow rate (delivery):** 0.80 GPM
- **Hose Diameter:** 3/8" or 1/2" (1/2" hose diameter is recommended with >25 ft hose lengths)
- **Recommended airless spray tip:** RAC (Reverse-A-Clean) type
- **Tip size:** 517 (10" fan / 0.017" orifice)
 - Tip sizing can vary and will be dependent on the product temperature/viscosity, desired fan width, and flow rate of pump. Tip sizes can range from: 517 to 625
 - Wider fan patterns and larger orifice sizes will require higher flow rates.
- **Fluid suction hose - DRUM ONLY**
 - Hose will be attached to inlet suction tube in order to siphon coating from 55 gallon drum containers.

SPRAY EQUIPMENT REQUIREMENTS – LOW TEMPERATURES (<60°F Ambient Temperature)

- **Electric-Powered or Gas Hydraulic Airless Sprayer**
 - Suggested models include, but not limited to, the following:
 - **Graco TexSpray Mark V Electric Airless Texture Sprayer** <http://www.graco.com/us/en/products/contractor/texspray-mark-v.html>
- **Minimum operating pressure:** 2000 PSI
- **Material Conditioning:** **minimum 65°F**
 - Material should be stored in a conditioned space prior to use, if feasible. Drum or plastic pail heater bands may be used during the spray application in order to maintain minimum coating temperature (65°F).
- **Minimum flow rate (delivery):** 1.35 GPM
- **Hose Diameter:** 3/8" or 1/2" (1/2" hose diameter is recommended with >25 ft hose lengths)
- **Recommended airless spray tip:** RAC (Reverse-A-Clean) type
- **Tip size:** 517 (10" fan / 0.017" orifice)
 - Tip sizing can vary and will be dependent on the product temperature/viscosity, desired fan width, and flow rate of pump. Tip sizes can range from: 517 to 625. Wider fan patterns and larger orifice sizes will require higher flow rates.
- **Fluid suction hose - DRUM ONLY**
 - Hose will be attached to inlet suction tube in order to siphon coating from 55 gallon drum containers.

GENERAL SPRAYING GUIDELINES

- Spray gun should be held approximately 12 inches from the substrate surface.
- Spray gun should be held straight at the surface. Fanning of gun will cause an uneven mil thickness.
- Move the spray gun at a smooth, steady rate. Increase rate if coating is too thick, decrease rate if too thin.
- Spray at lowest pressure required to atomize coating. Slowly increase pressure if fingers/tails are evident in spray pattern.
- 30 – 50% overlap with each pass to ensure total substrate coverage.
- Periodically measure coating thickness with a mil gauge to ensure proper coverage is being achieved.
- **REMOVE SCREENS PRIOR TO SPRAYING.** Screens are typically located in spray gun handle and pump manifold.

CLEANING & PURGING

Pecora recommends **water** for purging all pumps and components as well as cleaning of any tools. Pumps and components should be purged prior to and after spraying the coating. Purging is required at the end of the each work day. Do not allow the coating to dwell in the pump and components for extended periods of time. During any breaks in the work day, it is good practice to protect the spray guns and open pails/drums from ambient moisture by wrapping the spray gun and temporarily sealing any open containers.

Low Temperature Application Guidelines

Water-based fluid applied coatings, such as the ProPerm VP, should not be applied at temperatures below 40°F due to potential freezing of the liquid material. Pecora recommends that the ProPerm VP coating be stored at temperatures above 60°F. This may require storing the pails/drums in a heated van or temperature controlled area of the project.

When installing the ProPerm VP at low temperatures (<60°F), the following guidelines are to be followed:

- **Areas to receive coating must be clean, dry and free of frost or any contaminating substances.**
- **Low temperatures will extend the cure time of water-based, fluid applied coatings.** The Pecora ProPerm VP water-based formulation is sensitive to low ambient temperatures and an extended cure time can be expected at these conditions. See table below for skin times and cure rates at low temperatures:

Cure Conditions	Skin Time (Elastomer Formation), Time	Full Cure, Time	Coating Thickness, wet mils
75°F / 50%RH	15 - 20 min	45 - 60 min	10 - 16
40°F / 30%RH	24hrs	48hrs	10 - 16

Installation Specific Guidelines

Pecora ProPerm

Vapor Permeable

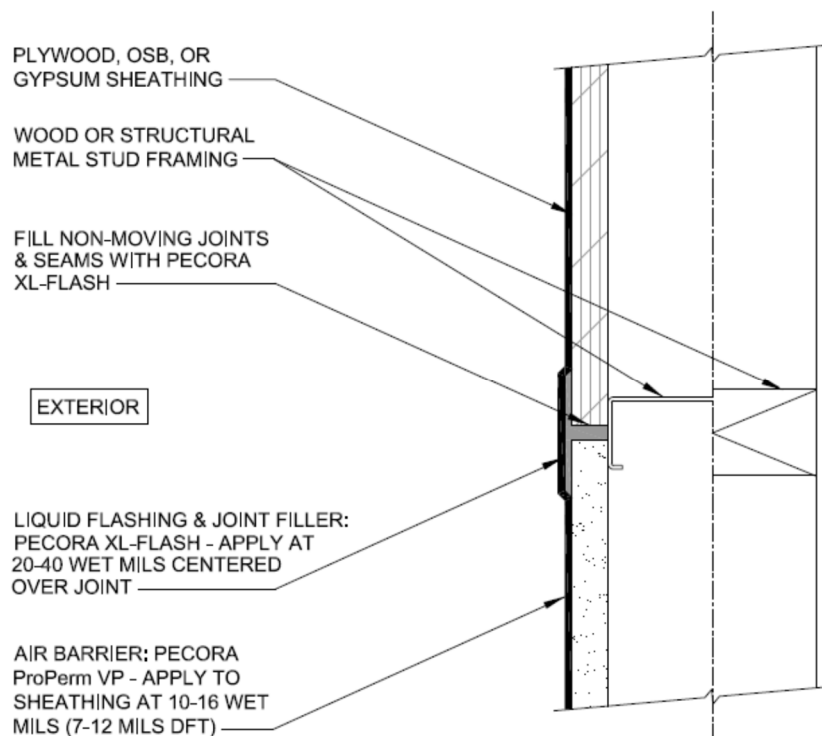
Air & Water Resistive Barrier

System

Sheathing Joints & Fasteners

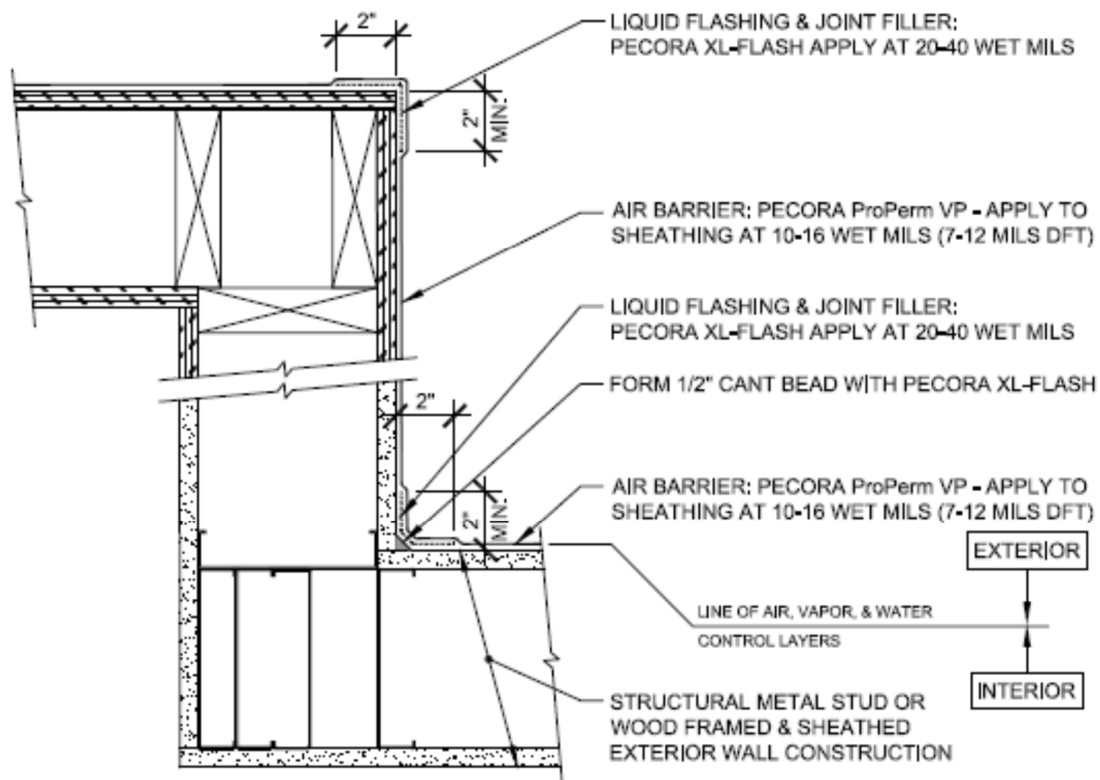
DWG# SJT-001

1. Fill all seams and static joints with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than $\frac{1}{4}$ " will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Extrude and tool XL-Flash over the sheathing joint in a minimum 2" wide band centered over the joint.
 - a. XL-Flash thickness should be applied at 20 - 40 wet mils.
3. Apply the Pecora ProPerm VP coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).
 - a. Exposed sheathing fasteners will be sealed during the ProPerm VP Air & Vapor Barrier coating application. Properly installed sheathing fasteners will not require detailing prior to coating application.
 - b. Any missed or improperly installed sheathing fasteners should be sealed with a dollop of the XL Flash Liquid Flashing & Joint Filler either before or after the ProPerm VP Air & Vapor Barrier coating application.



Inside / Outside Corners Sheathing DWG# IOC-001

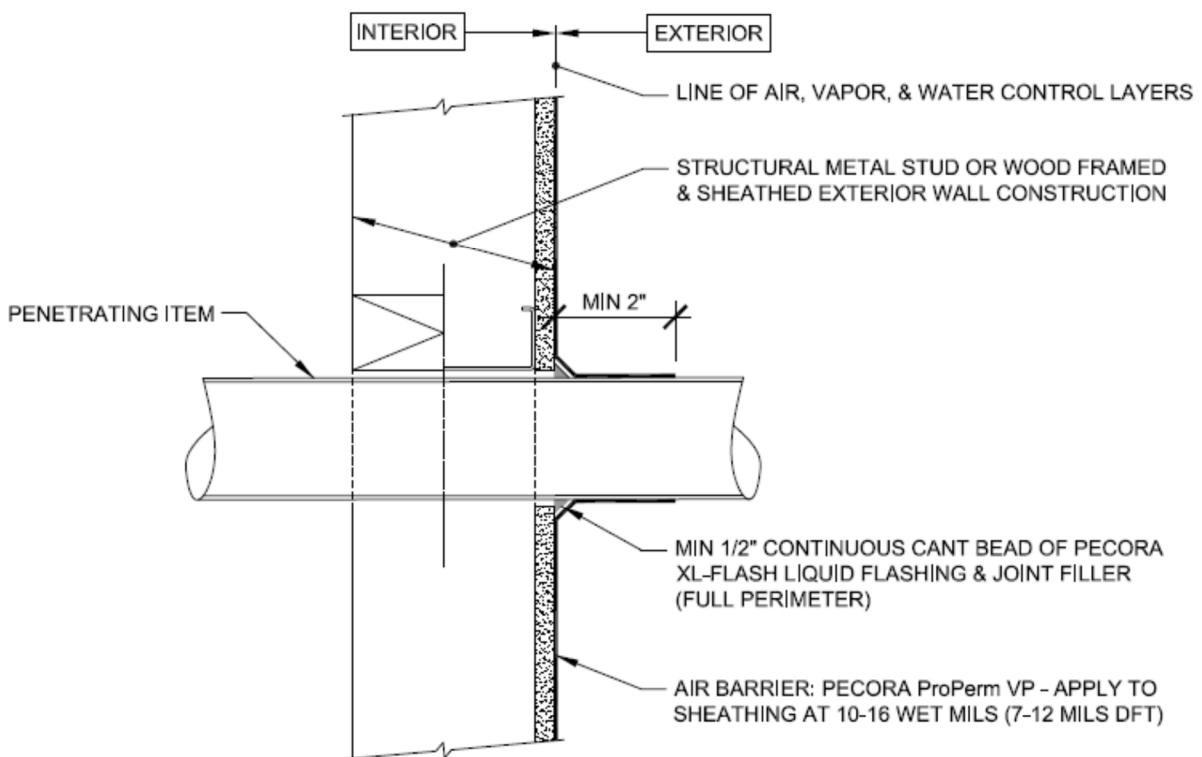
1. Fill all seams and static joints with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than $\frac{1}{4}$ " will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Apply a minimum $\frac{1}{2}$ " fillet bead of Pecora XL-Flash to all inside corners.
3. Apply 20 - 40 wet mils of Pecora XL-Flash and extend a minimum 2" over the inside/outside corner areas. Liquid flashing must be applied to both sides of the corner.
4. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).



Sheathing Penetrations Mechanical & Pipe DWG# PEN-001

Ensure all penetrations are firmly secured prior to installation of air & vapor barrier system.

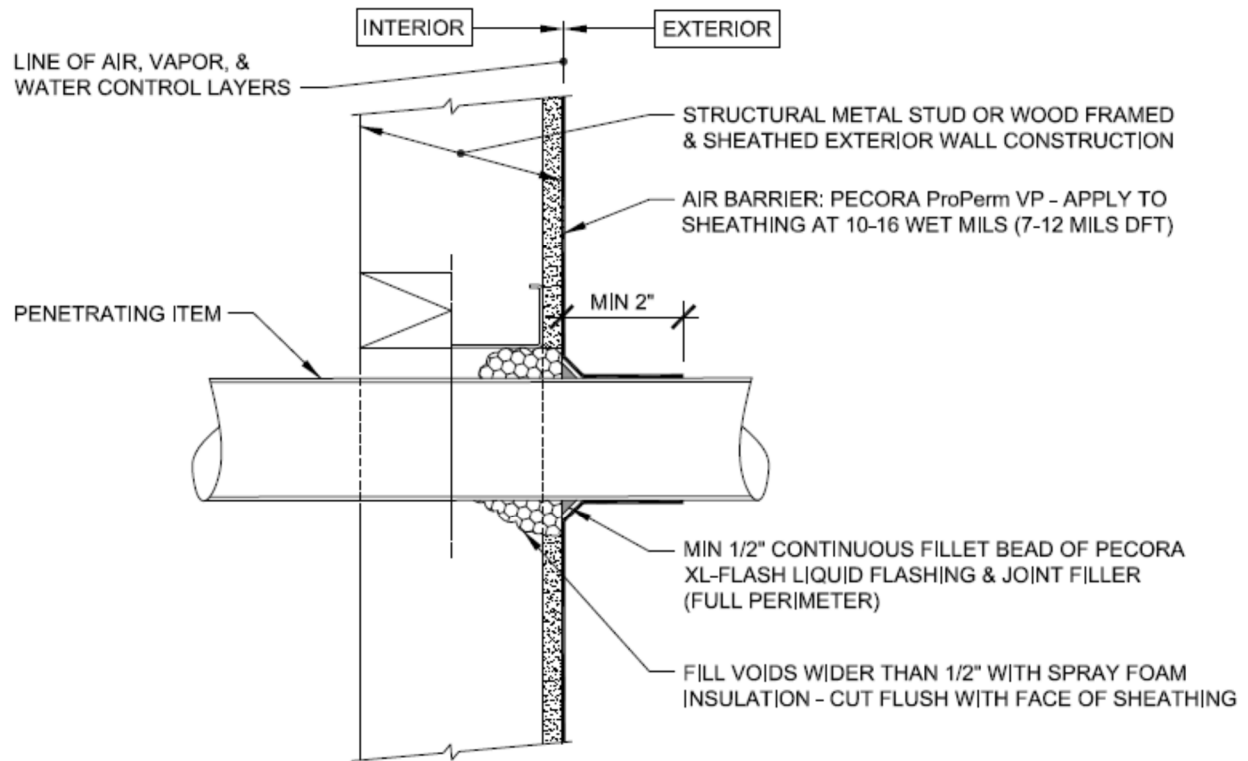
1. Fill all seams and static joints with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than $\frac{1}{4}$ " will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Apply a minimum $\frac{1}{2}$ " bead of XL-Flash around penetration and onto adjacent sheathing.
 - a. For larger gaps, apply spray foam around penetrations and shave excess foam flush with sheathing prior to sealing with Pecora XL-Flash. See DWG# PEN-002.
3. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).
 - a. Extend coating a minimum 2" onto penetration.



Sheathing Penetrations

Mechanical & Pipe

DWG# PEN-002



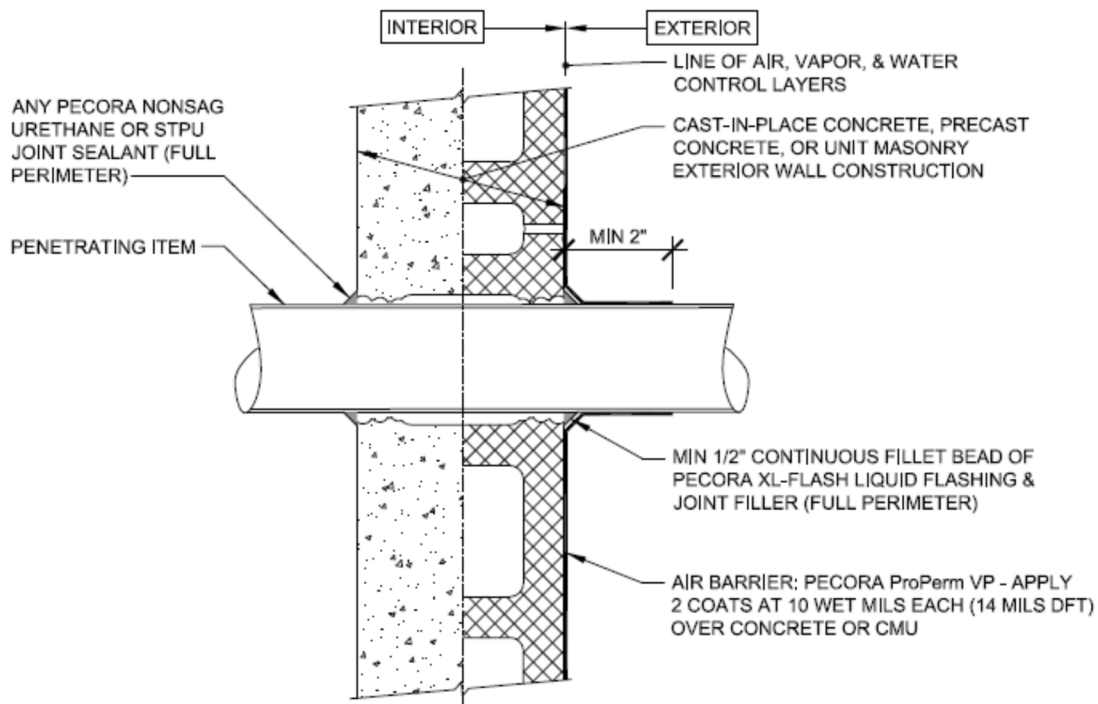
Masonry Penetrations

Mechanical & Pipe

DWG# PEN-003

Ensure all penetrations are firmly secured prior to installation of air & vapor barrier system.

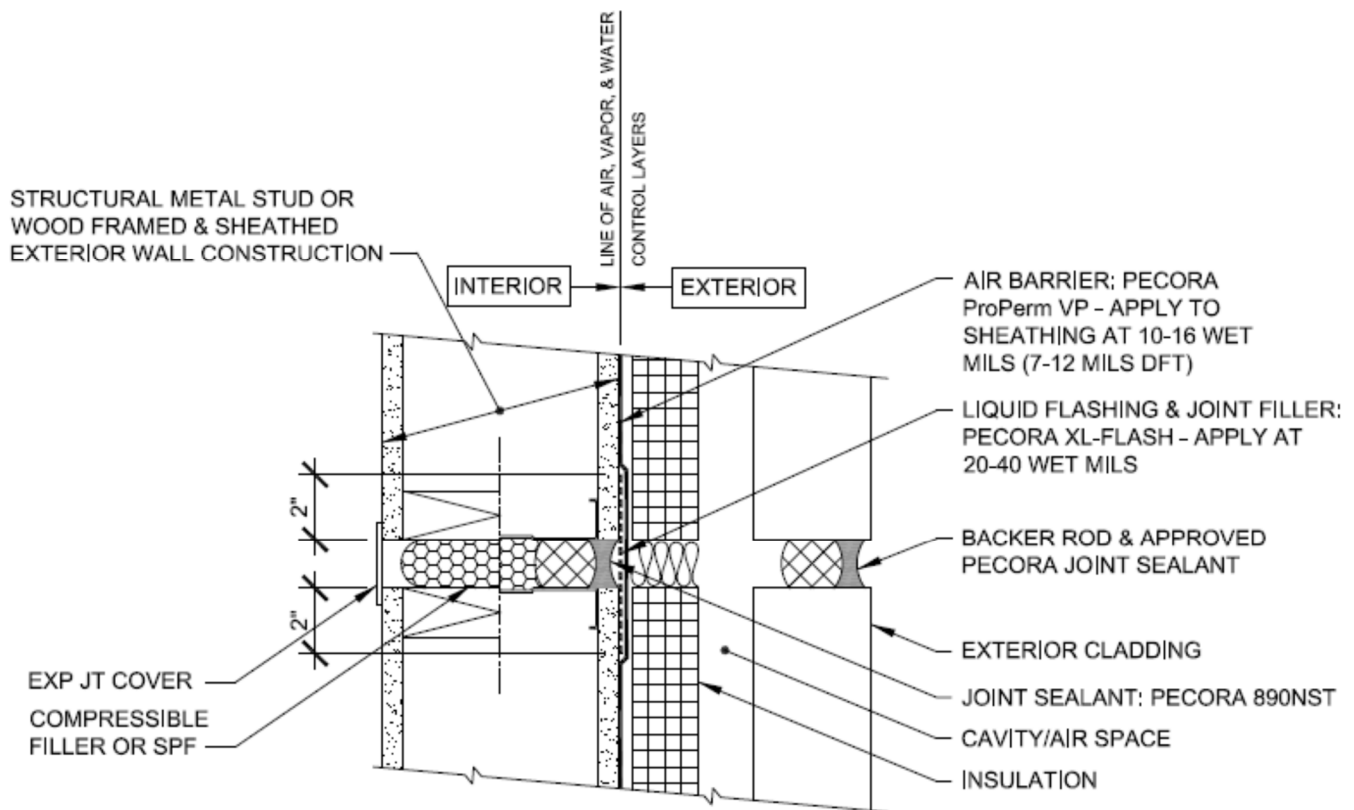
1. Fill all seams and static joints with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than $\frac{1}{4}$ " will require a sealant backing. Sealant should be applied flush with exterior face of wall.
 - a. Large voids should be filled flush with mortar and allowed to cure.
2. Apply a minimum $\frac{1}{2}$ " bead of XL-Flash around penetration and onto adjacent masonry substrate.
3. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in two coats at 10 wet mils each (14 DFT).



Expansion Joints Liquid Joint Sealant

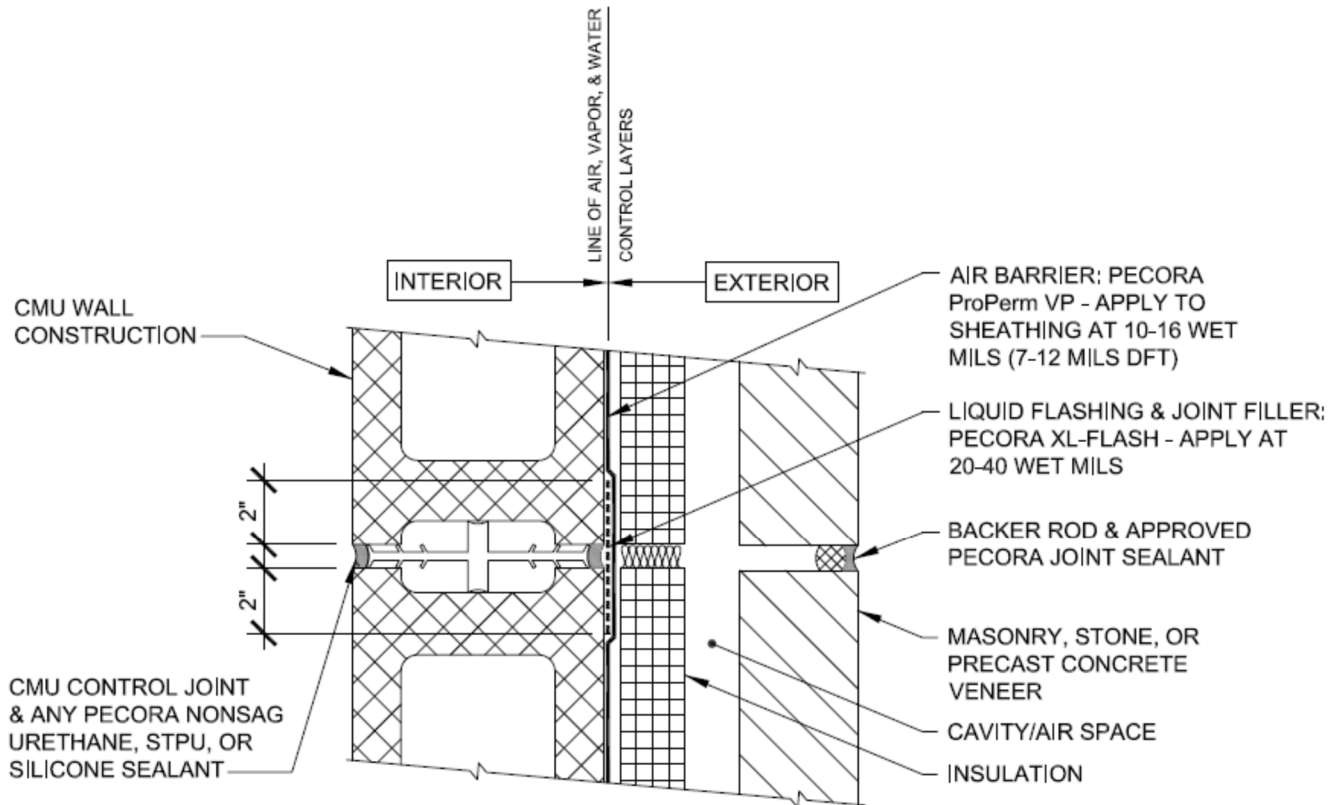
1. Apply Pecora 890NST Silicone Sealant or approved equal and appropriate sealant backing in all expansion joints greater than $\frac{1}{4}$ " wide. Sealant should be applied flush with exterior face of wall.
2. Apply 20 - 40 wet mils of Pecora XL Flash and extend a minimum 2" over each side of the joint.
 - a. XL Flash Liquid Flashing may be applied immediately after installation of silicone based joint sealant.
3. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).

EXPANSION JOINT IN SHEATHING DWG# EJT-001



Expansion Joints Liquid Joint Sealant

EXPANSION JOINT IN CMU WALL DWG# EJT-002



Expansion Joints

Pecora XL-SPAN Preformed Silicone Transition Membrane

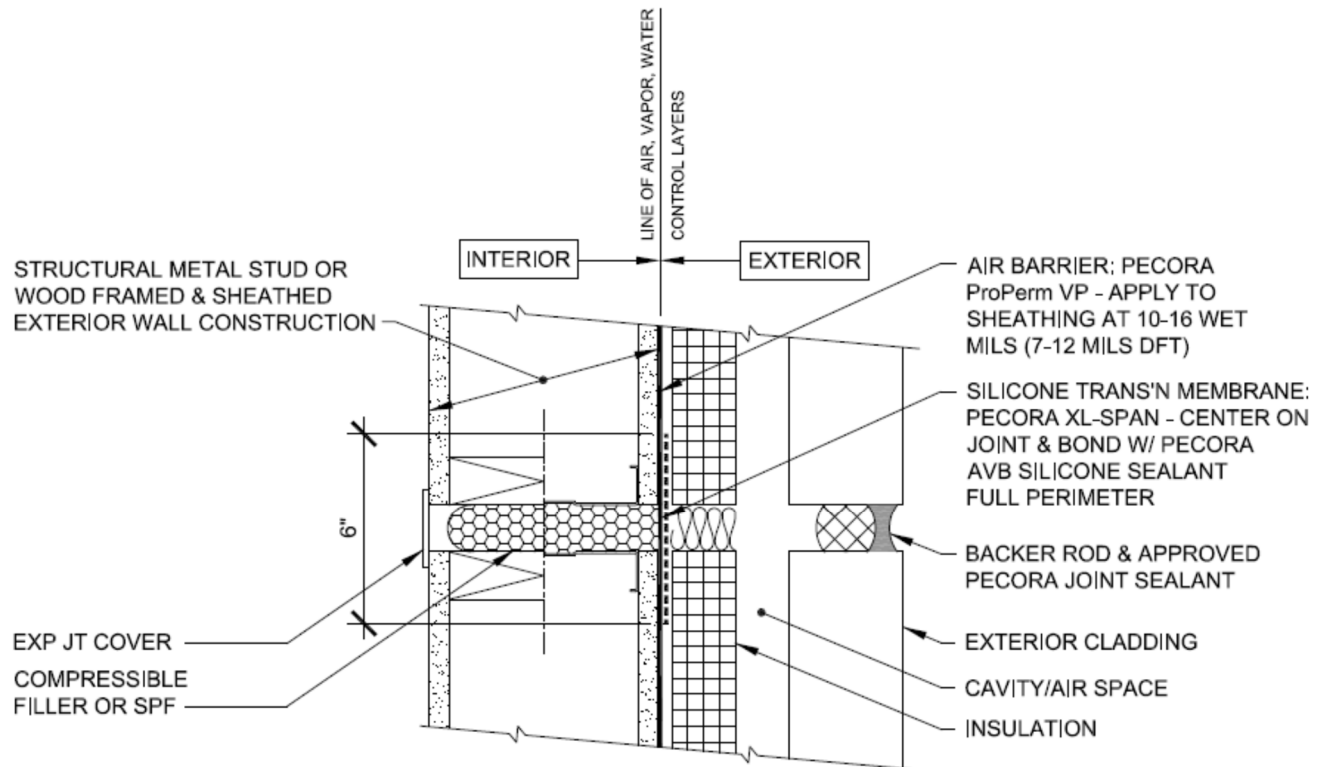
The following instructions will apply to expansion joints less than 1" wide.
Consult Pecora Technical Services for joints greater than 1" wide.

1. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).
2. Apply ½" bead of Pecora AVB Silicone Sealant/Adhesive to both sides of expansion joint.
3. Cover the joint by installing a 4" wide strip of Pecora XL-SPAN Pre-formed Silicone Transition Membrane over freshly applied Pecora AVB Silicone Sealant/Adhesive.
 - a. For vertical joints, always start at the bottom of assembly with all overlapped edges from the top towards the bottom to create a "shingle effect".
4. Press the XL-SPAN onto the substrate using a roller. Apply even pressure to Pecora XL-SPAN to ensure intimate contact with Pecora AVB Silicone sealant/adhesive and building substrate.
5. Once joint is sealed, inspect sealant application for continuity by observation through translucent Pecora XL-SPAN membrane.

Expansion Joints

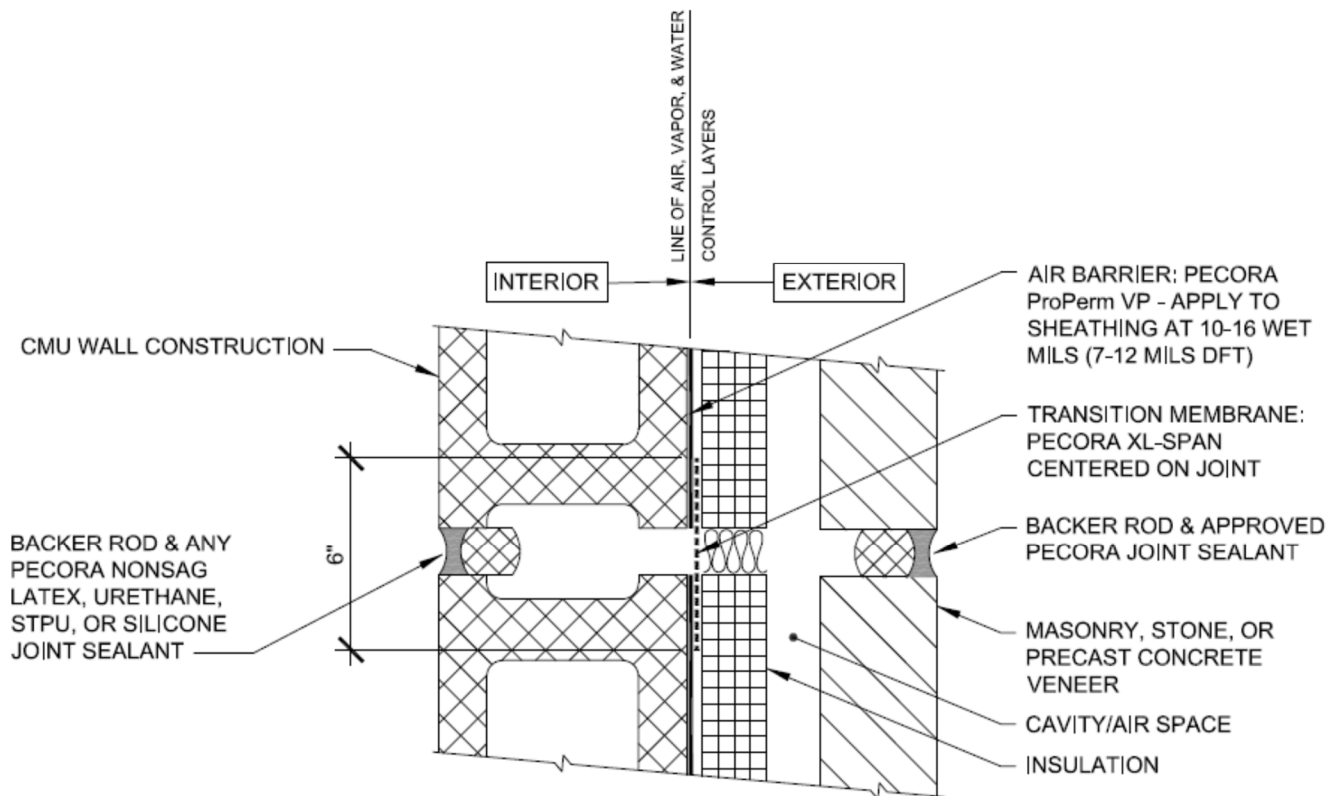
Pecora XL-SPAN Preformed Silicone Transition Membrane

EXPANSION JOINT IN SHEATHING DWG# EJT-003



Expansion Joints Pecora XL-SPAN Preformed Silicone Transition Membrane

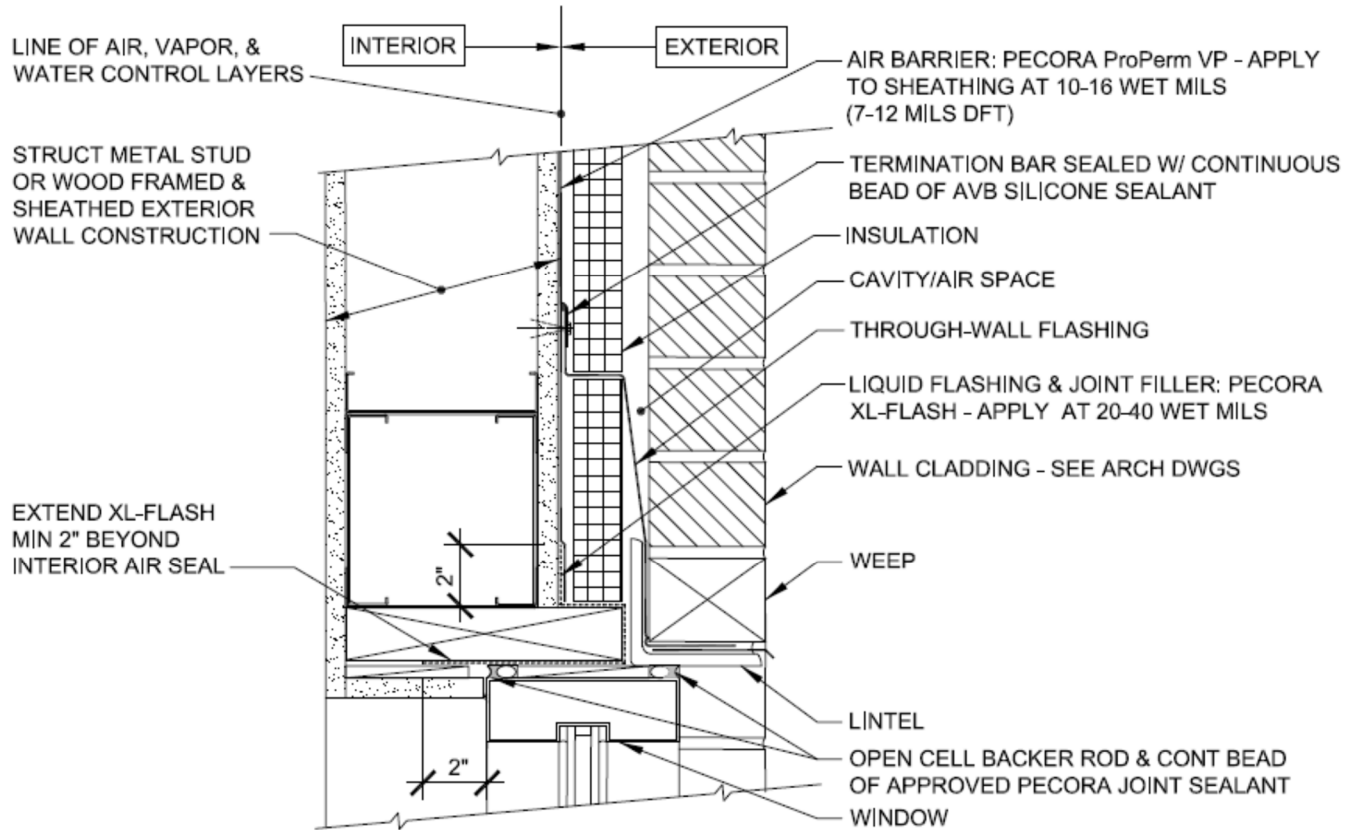
EXPANSION JOINT IN CMU WALL DWG# EJT-004



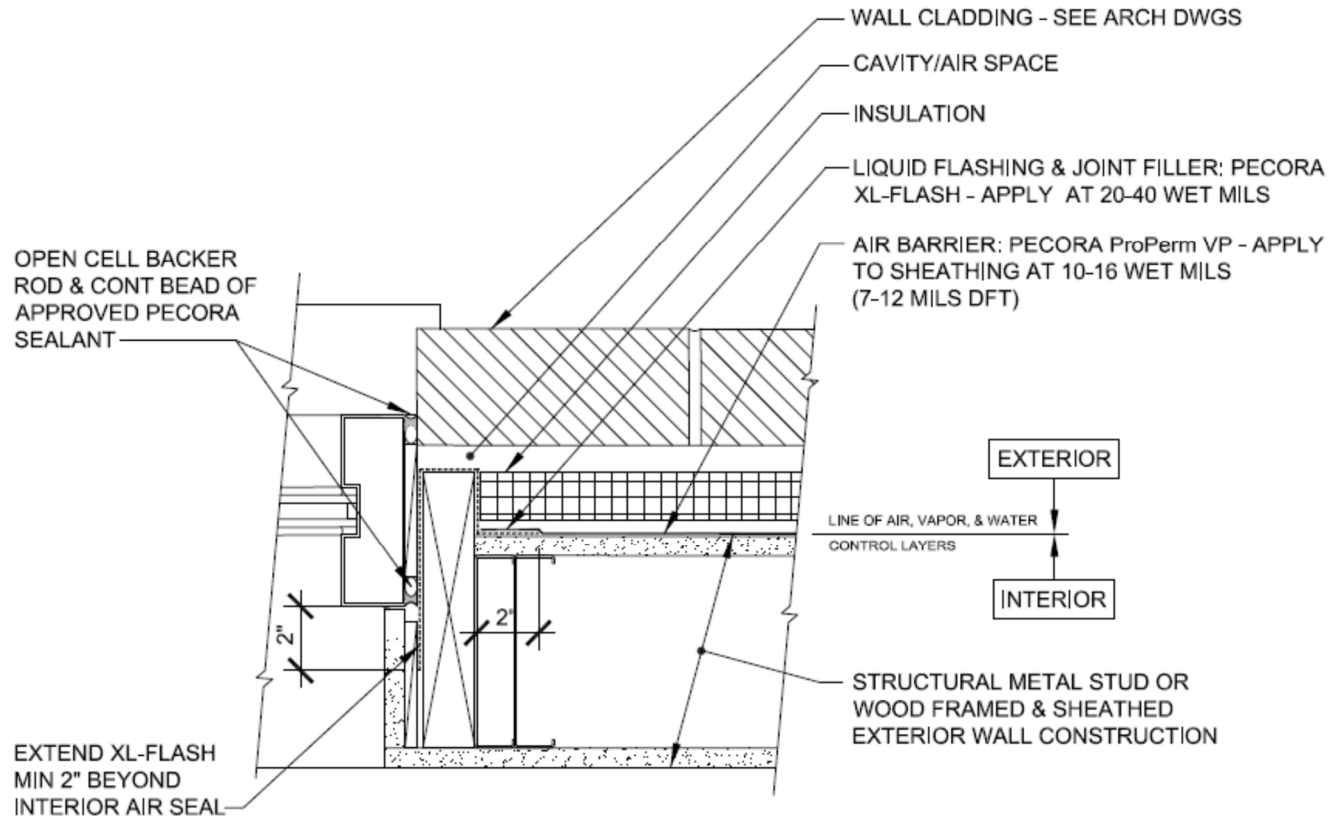
Rough Window Openings Head, Sill and Jamb

1. Fill all gaps and seams with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than ¼" will require a sealant backing. Sealant should be applied flush with surface of substrate.
2. Apply ½" bead of Pecora XL-Flash Liquid Flashing and Joint Filler in a "Z" pattern to exterior wall surface adjacent to the rough opening.
3. Spread the flashing using a flat trowel to create a monolithic flashing membrane. Extend flashing a minimum 2" beyond the rough opening on exterior side of wall surface. If voids are present, apply additional flashing as necessary.
4. Apply ½" bead of Pecora XL-Flash in a "Z" pattern to exposed framing located inside the rough opening.
5. Spread the Pecora XL-Flash using a flat trowel to create a monolithic flashing membrane. Completely cover the inside of rough opening. Be sure to extend the flashing out and over flashing previously applied to exterior wall surfaces to create a monolithic membrane. If voids are present, apply additional Pecora XL-Flash as necessary.
 - a. Pecora XL-Flash is to be applied at 20 - 40 wet mils.
6. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).

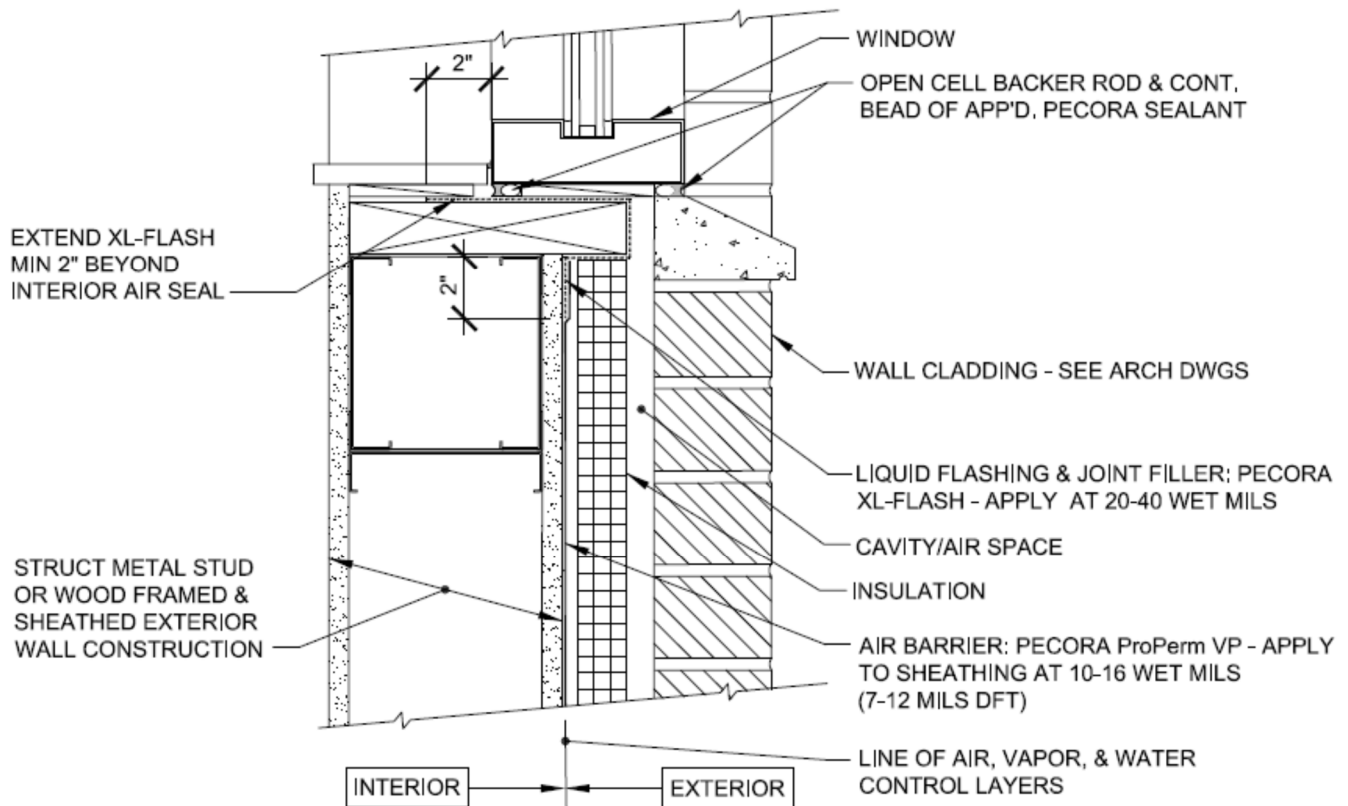
Rough Window Openings Head Detail DWG# RWO-001



Rough Window Openings Jamb Detail DWG# RWO-002



Rough Window Openings Sill Detail DWG# RWO-003



Foundations

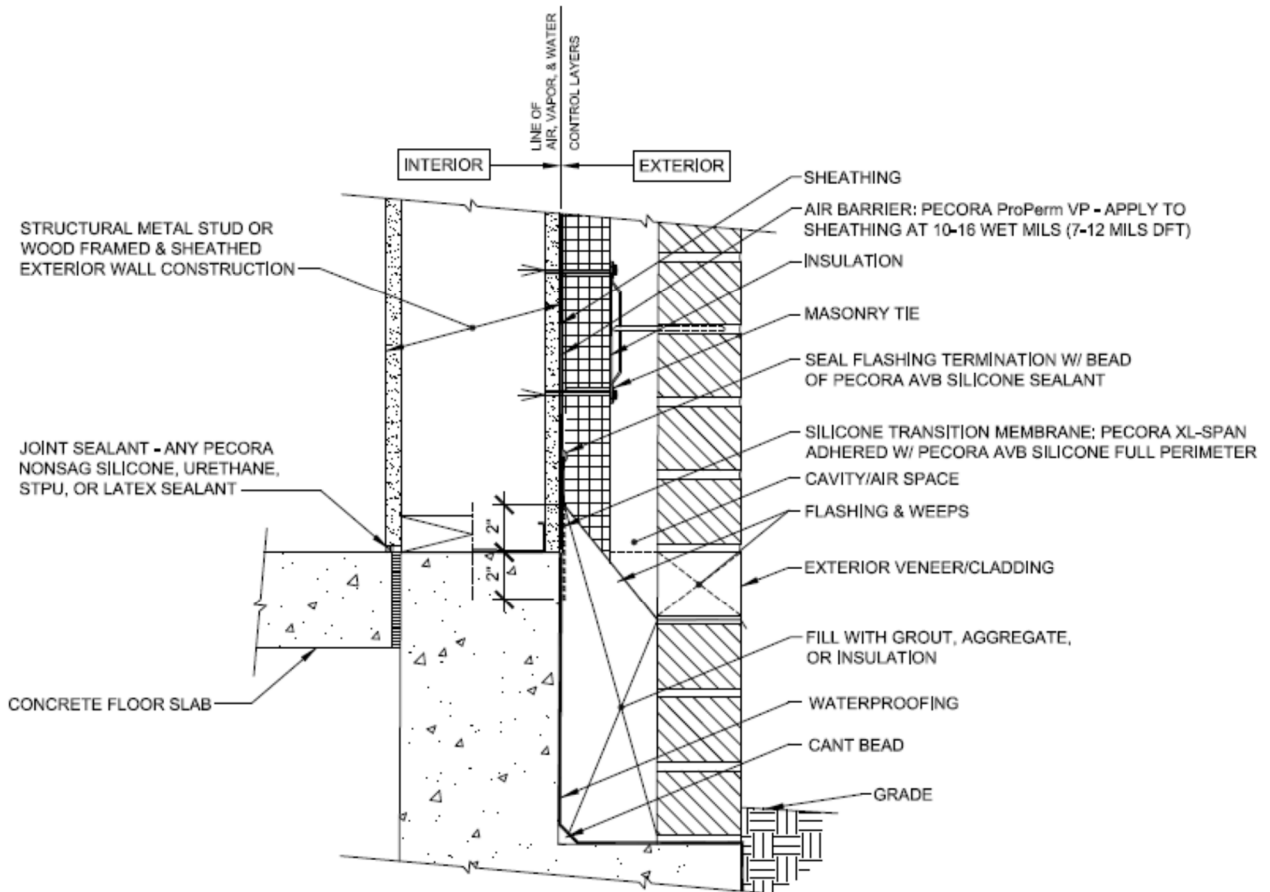
Pecora XL-SPAN Pre-formed Silicone Transition Membrane

1. Fill all seams and static joints greater than ¼" with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than ¼" will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Apply ProPerm VP Air & Vapor Barrier Coating to building façade components per Pecora's installation guidelines.
 - a. Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.
3. Apply ½" bead of Pecora AVB Silicone Sealant/Adhesive to both sides of joint.
4. Cover the joint by installing a minimum 4" wide strip of Pecora XL-SPAN Pre-formed Silicone Transition Membrane over freshly applied Pecora AVB Silicone Sealant/Adhesive.
5. Press the XL-SPAN onto the substrate using a roller. Apply even pressure to Pecora XL-SPAN to ensure intimate contact with Pecora AVB Silicone sealant/adhesive and building substrate.
6. Once transition is sealed, inspect sealant application for continuity by observation through translucent Pecora XL-SPAN membrane.

Foundations

Pecora XL-SPAN Pre-formed Silicone Transition Membrane

DWG# FND-001

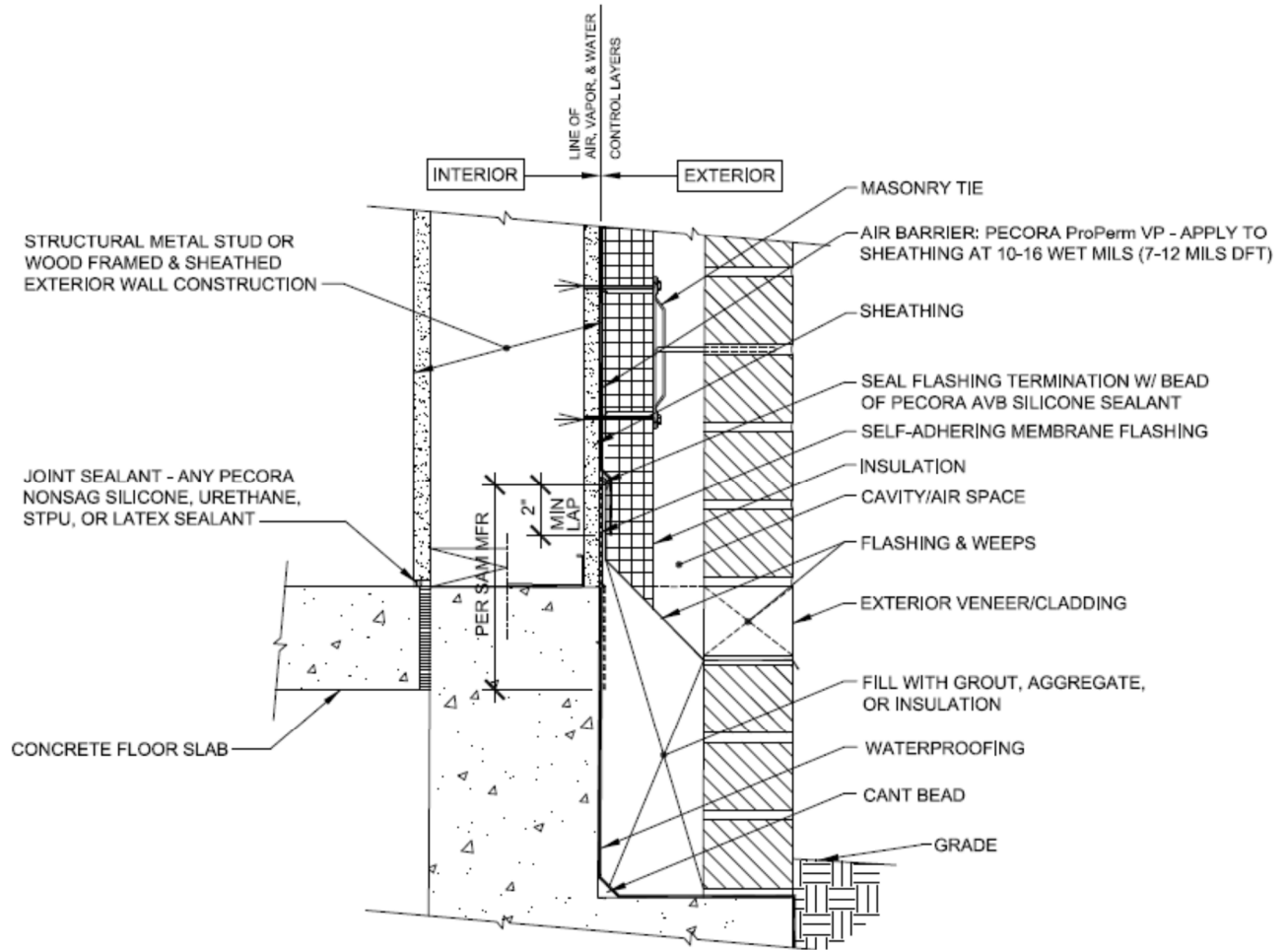


Foundations

Self-Adhered Membrane

1. Fill all seams and static joints greater than ¼" with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than ¼" will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Cover the joint by installing a minimum 4" wide strip of approved self-adhered membrane over exterior sheathing and existing below grade waterproofing membrane.
 - a. Follow self-adhered membrane manufacturer's installation instructions. A contact adhesive will typically be required for use prior to the membrane installation.
3. Seal self-adhered membrane terminations with the Pecora AVB Silicone Sealant or XL Flash Liquid Flashing and Joint Filler.
4. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT). Overlap ProPerm VP Air & Vapor Barrier Coating a minimum 2" over the installed self-adhered membrane.
 - a. Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.

Foundations Self-Adhered Membrane DWG# FND-002

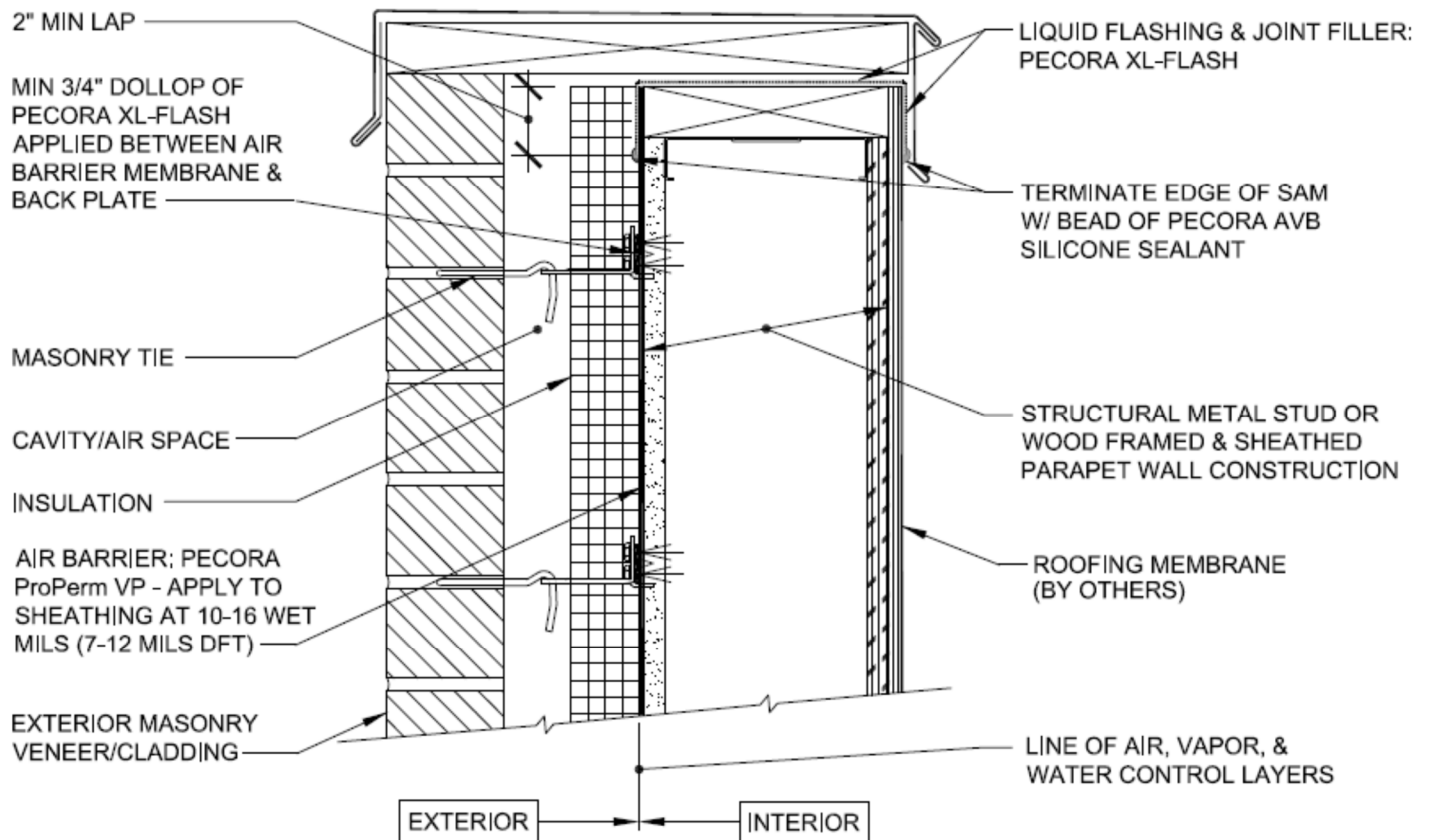


Parapets

Pecora XL-Flash Liquid Flashing

1. Fill all seams and static joints greater than ¼" with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than ¼" will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Apply ½" bead of Pecora XL-Flash in a "Z" pattern to top of parapet.
3. Spread the Pecora XL-Flash using a flat trowel to create a monolithic flashing membrane. Completely cover top of parapet. Be sure to extend the flashing 2" out and over both the interior and exterior face of parapet.
 - a. Flashing will be applied over installed roofing membrane and exterior wall substrate.
 - b. Pecora XL-Flash is to be applied at 20 - 40 wet mils. If voids are present, apply additional Pecora XL-Flash as necessary.
4. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT). Terminate coating at top of wall.
 - a. Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.

Parapets
Pecora XL-Flash Liquid Flashing
DWG# PPT-001

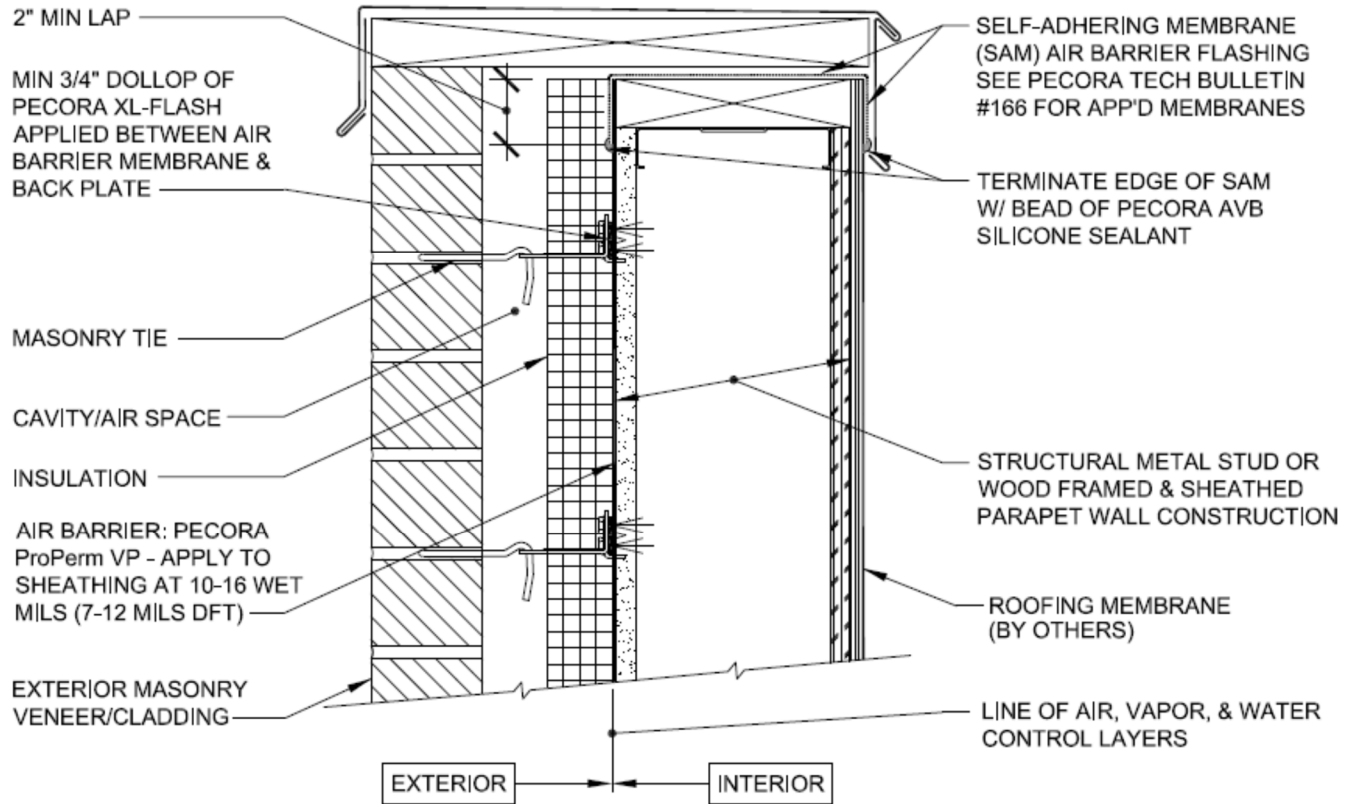


Parapets

Self-Adhered Membrane

1. Fill all seams and static joints greater than ¼" with the XL-Flash Liquid Flashing and Joint Filler. Joints greater than ¼" will require a sealant backing. Sealant should be applied flush with exterior face of wall.
2. Cover the top of wall by installing an approved self-adhered membrane over the coated wall substrate and roofing membrane.
 - a. Self-Adhered membrane sizing requirements will vary depending on the wall dimensions. Self-adhered membrane should extend a minimum 2" onto face of wall substrate.
 - b. Follow self-adhered membrane manufacturer's installation instructions. A contact adhesive will typically be required for use prior to the membrane installation.
3. Seal self-adhered membrane terminations with the Pecora AVB Silicone Sealant or XL Flash Liquid Flashing and Joint Filler.
4. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT). Overlap ProPerm VP Air & Vapor Barrier coating a minimum 2" over installed self-adhered membrane.
 - a. Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.

Parapets **Self-Adhered Membrane** **DWG# PPT-002**

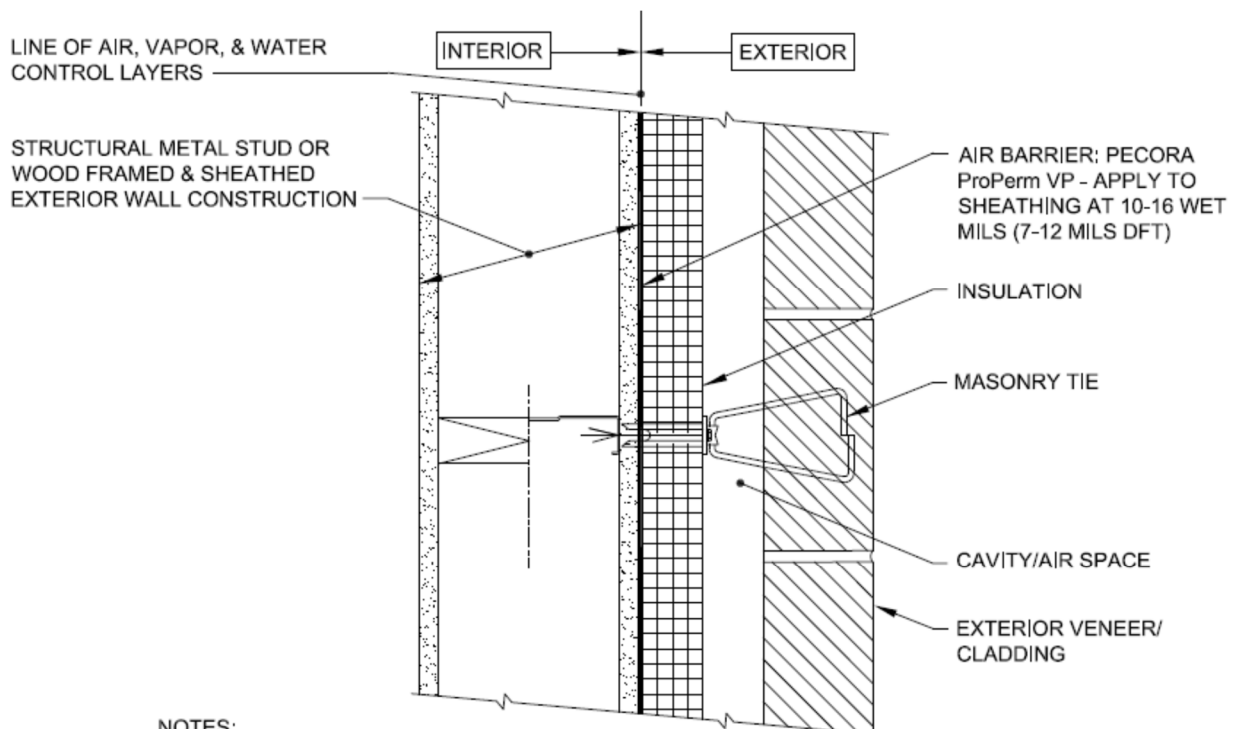


Brick Ties

Sheathing & Masonry

1. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT). Allow product to cure and dry prior to brick tie installation.
 - a. Cure times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.
2. Prior to installing brick tie, apply $\frac{3}{4}$ " dollop of XL-Flash Liquid Flashing & Joint Filler over area to receive brick tie.
3. Brick ties shall be installed per the manufacturer's instructions.
 - a. Any holes resulting from improperly installed & removed fasteners must be filled with Pecora XL-Flash Liquid Flashing & Joint Filler.
 - b. Voids around brick ties in CMU must be filled with Pecora XL-Flash Liquid Flashing & Joint Filler.

BRICK TIE IN SHEATHING – DWG# BRT-001

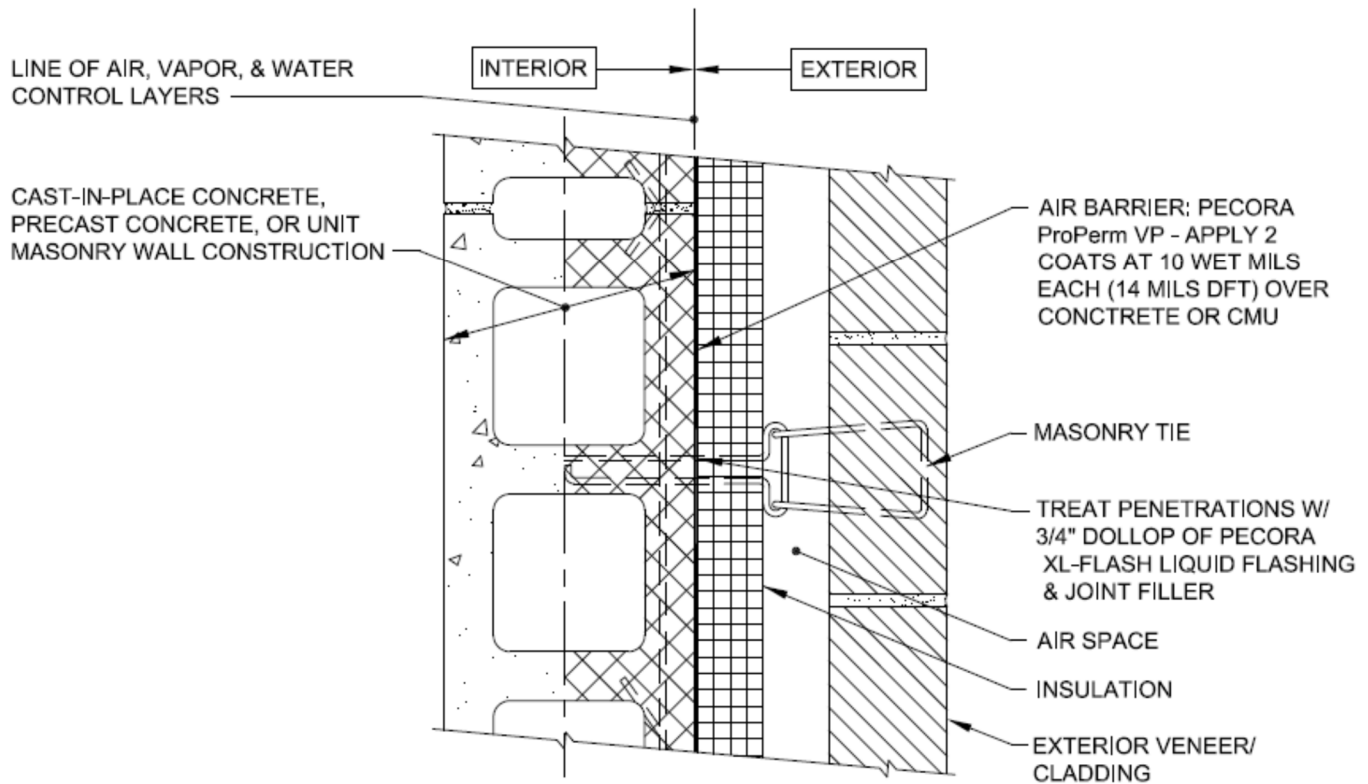


NOTES:

1. APPLY $\frac{3}{4}$ " DOLLOP OF XL-FLASH OVER AREA PENETRATED BY MASONRY VENEER ANCHORS.
2. DOLLOP OF XL-FLASH IS NOT REQUIRED WHERE GASKETED MASONRY VENEER ANCHORS THAT SEAL TO CURED XL-PERM (ULTRA) NP ARE INSTALLED.

Brick Ties Sheathing & Masonry

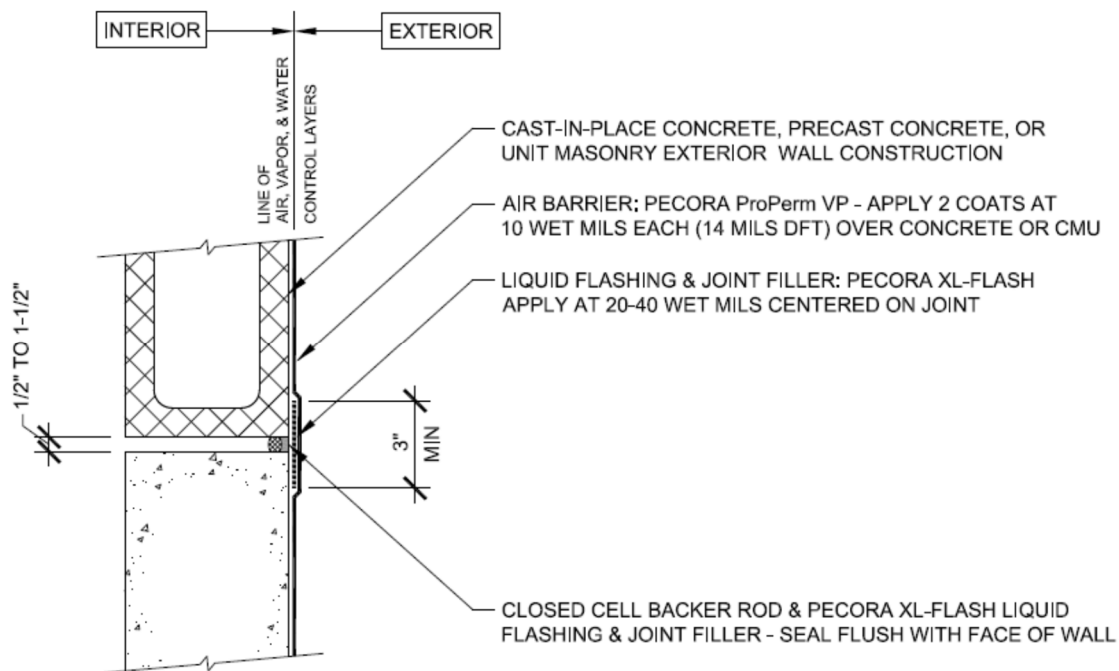
BRICK TIE IN CMU – DWG# BRT-002



Static Transitions (Non-Moving) DWG# TRA-001

The following installation procedure is for Static (non-moving) transitions only. Refer to "Dynamic Transitions" section for installation guidelines over transitions with significant movement.

1. Fill gap between adjoining substrates with Pecora XL-Flash Liquid Flashing and Joint Filler.
 - a. Joints $\frac{1}{4}$ " or greater will require the use of a sealant backing prior to installation of XL-Flash.
2. Apply $\frac{1}{2}$ " beads of Pecora XL-Flash Liquid Flashing and Joint Filler to both adjoining surfaces.
3. Spread the flashing a minimum 2 inches across the newly sealed transition using a flat trowel to create a monolithic flashing membrane. If voids are present, apply additional flashing as necessary.
 - a. Pecora XL-Flash is to be applied at 20 - 40 wet mils.
4. Apply the Pecora ProPerm VP Air & Vapor Barrier coating with a roller or airless sprayer in one coat at 10 - 16 wet mils (7 - 12 DFT).

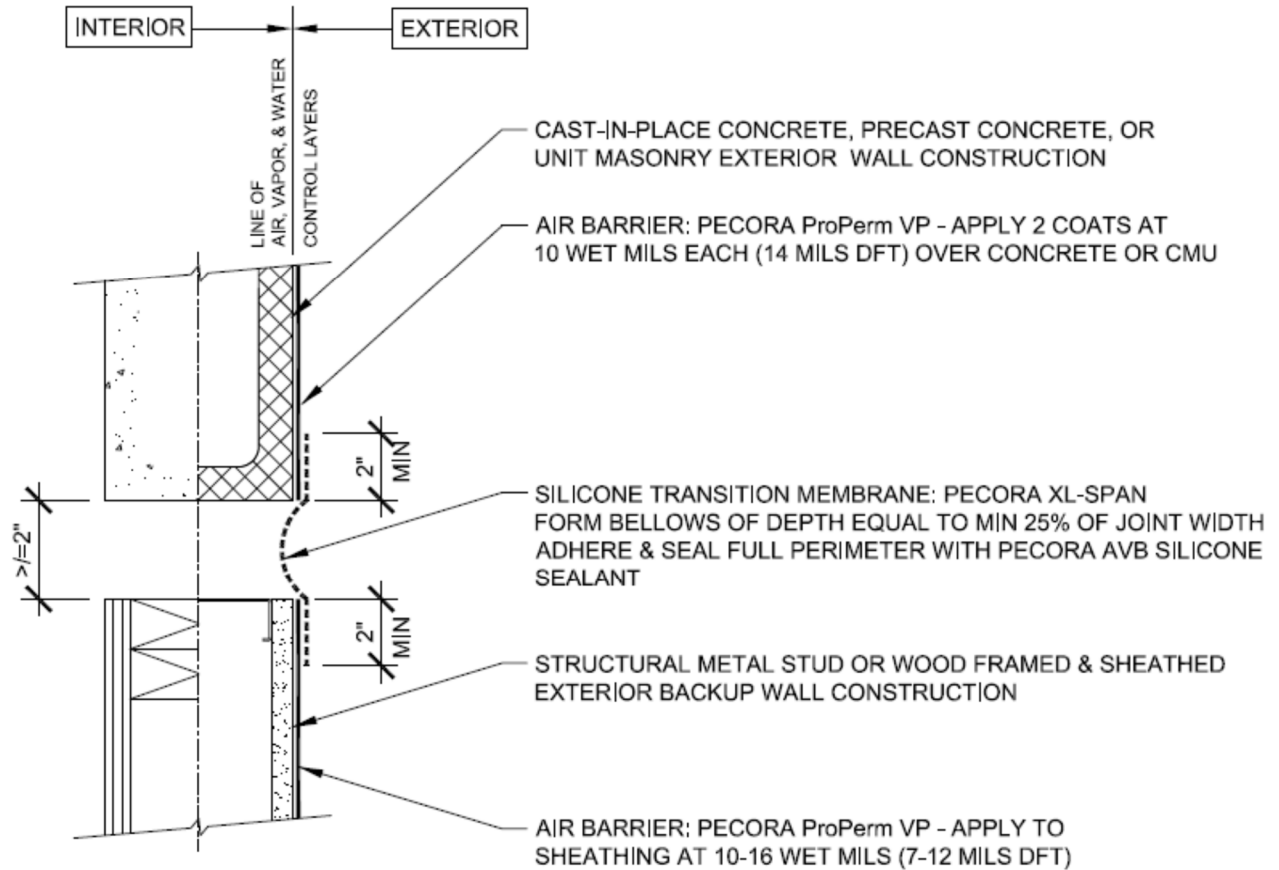


Dynamic Transitions (Moving)

Window to building façade, roof to wall and other transitions with dynamic movement will require the use of the Pecora XL-SPAN Pre-formed Silicone Transition Membrane.

1. Apply ProPerm VP Air & Vapor Barrier Coating to building façade components per Pecora's installation guidelines.
 - a. Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.
2. Apply ½" bead of Pecora AVB Silicone adhesive/sealant along substrate edges to form a continuous seal between Pecora XL-SPAN and building façade adjacent assemblies.
 - a. Pecora AVB Silicone sealant/adhesive does not require priming on most common air vapor barrier components. Consult Pecora TB-166 and TB 189 for specific recommendations on surface preparation of pre-approved air barrier components.
3. Press the XL-SPAN onto the substrate using a roller. Apply even pressure to Pecora XL-SPAN to ensure intimate contact with Pecora AVB Silicone sealant/adhesive and building substrate.
 - a. Utilize the "Shingle Effect". Always start at the bottom of assembly with all overlapped edges from the top towards the bottom.
 - b. Ensure a minimum 1" overlap of XL-SPAN onto substrates and a minimum bellows depth equivalent to 25% of the joint width.
4. Once transition is sealed, inspect sealant application for continuity by observation through translucent Pecora XL-SPAN membrane.

Dynamic Transitions (Moving) DWG# TRA-002



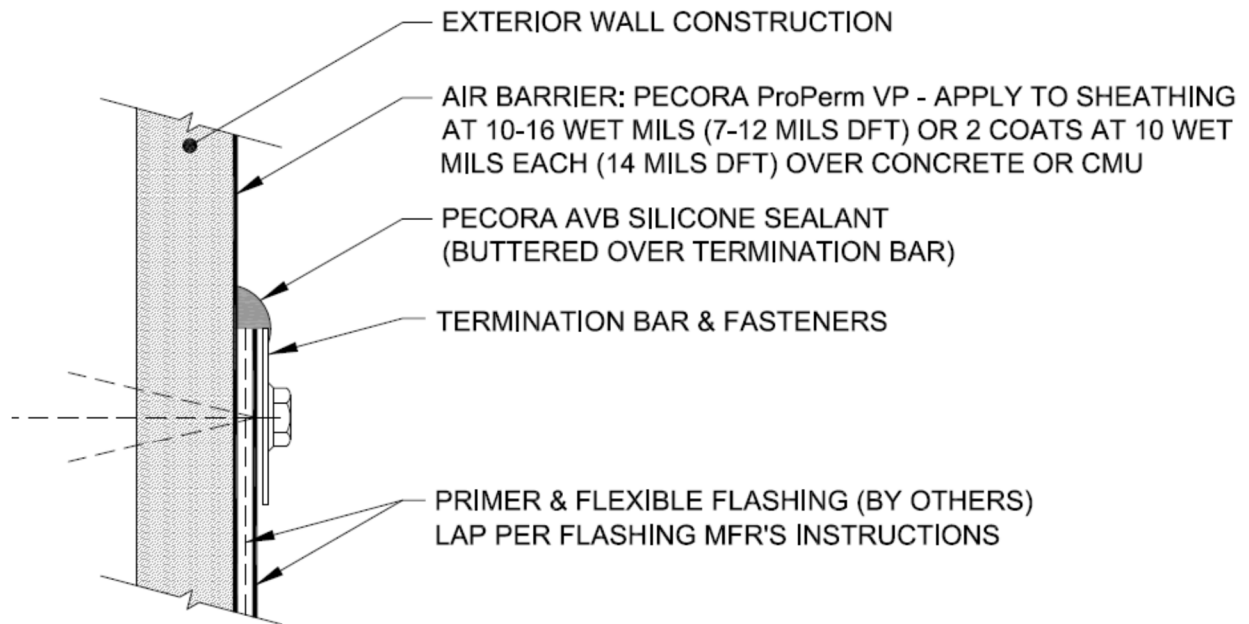
Flexible Flashing Terminations

1. Apply ProPerm VP Air & Vapor Barrier Coating to building façade components per Pecora's installation guidelines.
 - a. Allow product to cure, these times will vary depending on temperature, substrate and humidity. At 70°F and 50% humidity Pecora ProPerm VP should be dry to touch in one (1) hour.
2. Install flexible flashing membrane and primer, if required, over cured ProPerm VP Air & Vapor Barrier Coating per manufacturer's installation instructions.
3. Install termination bar and fasteners per manufacturer's installation instructions requirements.
4. **Detail #1:** Apply bead of Pecora AVB Silicone adhesive/sealant along top edge of termination bar lapping the sealant a ¼" onto face of termination bar to form a continuous seal.

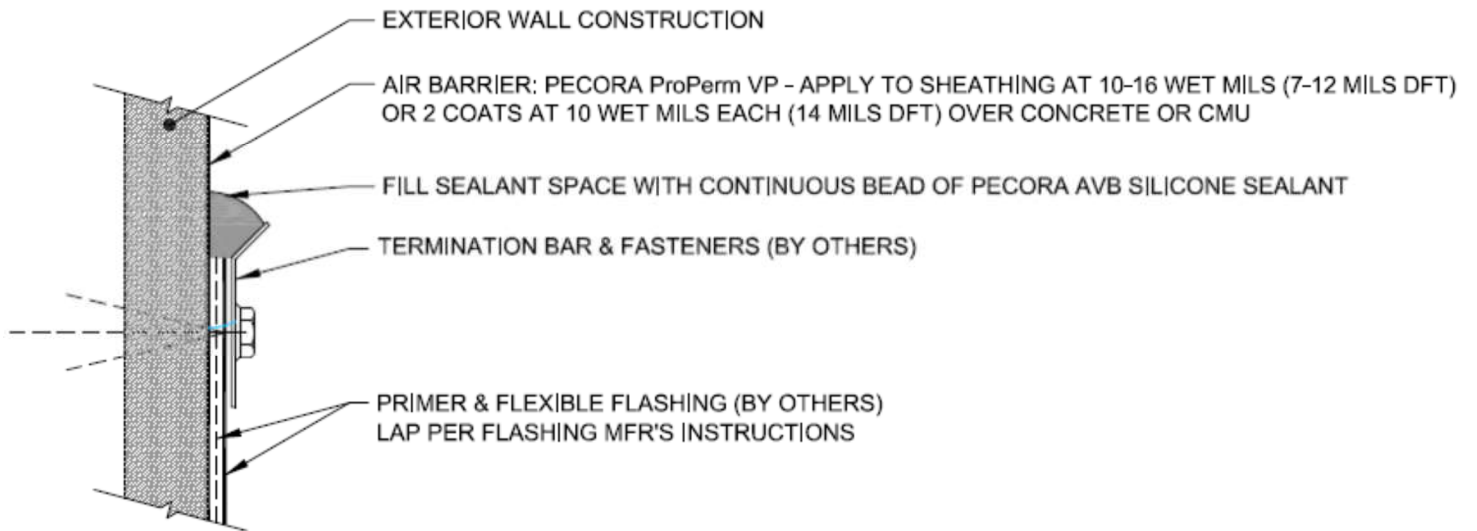
Detail #2: Apply a minimum ¼" deep bead of Pecora AVB Silicone adhesive/sealant to fill channel created by termination bar flange to form a continuous seal. Tool sealant flush or convex in order to avoid creating a reservoir in the event of water/moisture infiltration.

- a. Pecora AVB Silicone sealant/adhesive does not require priming on most common air vapor barrier coatings & accessories. Consult Pecora TB-166 and TB 189 for specific recommendations on surface preparation of pre-approved air barrier components.

**Flexible Flashing Termination –
Option 1
DWG# FFT-001**



**Flexible Flashing Termination –
Option 2
DWG# FFT-002**



Product Compatibility
Pecora ProPerm VP
Air, Vapor & Water Resistive
Barrier System

Approved Air & Vapor Barrier Accessory Products

JOINT SEALANTS/FILLERS/LIQUID APPLIED FLASHINGS

For use *under* ProPerm VP coating:

- Static Joints
 - Pecora XL-Flash Liquid Flashing & Joint Filler
 - Pecora TiltSeal Acrylic Latex Sealant
 - Others as approved by Pecora
- Dynamic Joints
 - Pecora NST Silicones (864NST, 890NST, 895NST, 890FTS)
 - Pecora Dynatrol I-XL Hybrid
 - Pecora AVB Silicone & Adhesive
 - Others as approved by Pecora

For use *over* ProPerm VP coating:

- Pecora AVB (Air & Vapor Barrier) Silicone
- Pecora NST Silicones (864NST, 890NST, 895NST, 890FTS)
- Pecora XL-Flash Liquid Flashing & Joint Filler
- Pecora Dynatrol I-XL Hybrid
- Others as approved by Pecora

Self-Adhered Flashing Membrane/Building Wrap Compatibility by Type

Membrane Type	Pecora Product		
	ProPerm VP	XL-Flash	Dynatrol I-XL Hybrid
Self-Adhered Membrane w/ Asphaltic Adhesive	Approved for use	Not approved for contact with asphaltic adhesive <i>(This limitation also includes applications where the ProPerm VP is applied <u>over</u> the XL-Flash and Dynatrol I-XL Hybrid)</i>	
Self-Adhered Membrane w/ Acrylic Adhesive	Approved for use	Approved for use	Approved for use
Self-Adhered Membrane w/ Butyl Adhesive	Approved for use	Approved for use	Approved for use
Polypropylene Fabric Building Wraps	Approved for use	Approved for use	Approved for use
High Density Polyethylene Building Wraps	Approved for use	Approved for use	Approved for use

- Product compatibility testing was performed in accordance with AAMA 713 *Test Method to Determine Chemical Compatibility of Sealants and Self-Adhered Flexible Flashings*.
- The above-referenced Pecora products should be fully cured prior to any subsequent applications of flashing membranes.
- As noted in the table above, applying asphaltic based adhesives/products over the XL-Flash and Dynatrol I-XL Hybrid is NOT recommended including areas where the ProPerm VP is applied over the XL-Flash and Dynatrol I-XL Hybrid.

Approved Building Components

Pecora **ProPerm VP Air & Vapor Barrier Coating** may be applied over the following:

- Concrete Masonry Unit (CMU)
- Precast Concrete
- “Green” and Damp Concrete
- Exterior Gypsum Sheathing
- OSB
- Plywood
- Wood
- Metal
- Others as approved by Pecora¹

Pecora **XL-Flash Liquid Flashing & Joint Filler**² may be applied over the following:

- Concrete Masonry Unit (CMU)
- Precast Concrete
- “Green” and Damp Concrete
- Exterior Gypsum Sheathing
- OSB
- Plywood
- Wood
- Metal
- Others as approved by Pecora²

*****REFER TO PECORA *TECHNICAL BULLETIN #166* FOR MOST UP-TO-DATE MANUFACTURER SPECIFIC SUBSTRATE APPROVALS AND SURFACE PREPARATION RECOMMENDATIONS*****

NOTES: ProPerm VP may be applied immediately after installation of XL-Flash Liquid Flashing and Joint Filler and/or silicone based joint sealant such as the Pecora 890NST Silicone Joint Sealant.

¹ Pecora routinely performs adhesion and compatibility testing to determine suitability of underlying substrates and building components. Contact Pecora Technical Service with any questions regarding unlisted substrates.

² Sealant primer may be required when using the Pecora XL-Flash as a joint filler. Priming is not generally required on the afore-mentioned substrates. Consult Pecora Technical Services for priming requirements.