

Installation Guide

StoGuard® Transition Membrane

StoGuard® Transition Membrane is a flexible air barrier membrane for use on vertical above grade wall construction. StoGuard® Transition Membrane is used with StoGuard coatings to provide a continuous air and moisture barrier over properly prepared concrete, concrete masonry, glass mat gypsum and wood-based sheathing.

StoGuard Transition Membrane is available in widths of 4.75, 6, 9, 12, and 18 inches (120, 152, 229, 305, 457 mm).

StoGuard Transition Membrane is applied with any of the following Sto air and moisture barrier products:

- Sto EmeraldCoat®
- StoGuard® VaporSeal™
- Sto AirSeal™
- StoGuard® RapidSeal™
- StoGuard® RapidFill™
- Sto Gold Coat® (StoTherm® ci and StoTherm® ci XPS Systems)



When properly installed, StoGuard Transition Membrane can be used to span joints and seams in wall construction. StoGuard Transition Membrane can also be used as a flashing component instead of self-adhering membrane flashing tape.

StoGuard Transition Membrane is bonded to the substrate using Sto products. It will not peel or lose bond due to rain or changes in ambient temperature and relative humidity once the bonding product has dried or cured.

This Installation Guide provides basic information regarding details and steps for application of StoGuard Transition Membrane. These installation guidelines are not intended to represent every possible configuration that may be encountered. Consult with your local Sto Representative and product literature available at www.stocorp.com for more information.

See the General Notes at the end of this document for additional guidance when using StoGuard Transition membrane.

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Attention

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Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to Sto products, and to the structure of the building or its components. **STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.** For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, www.stocorp.com.



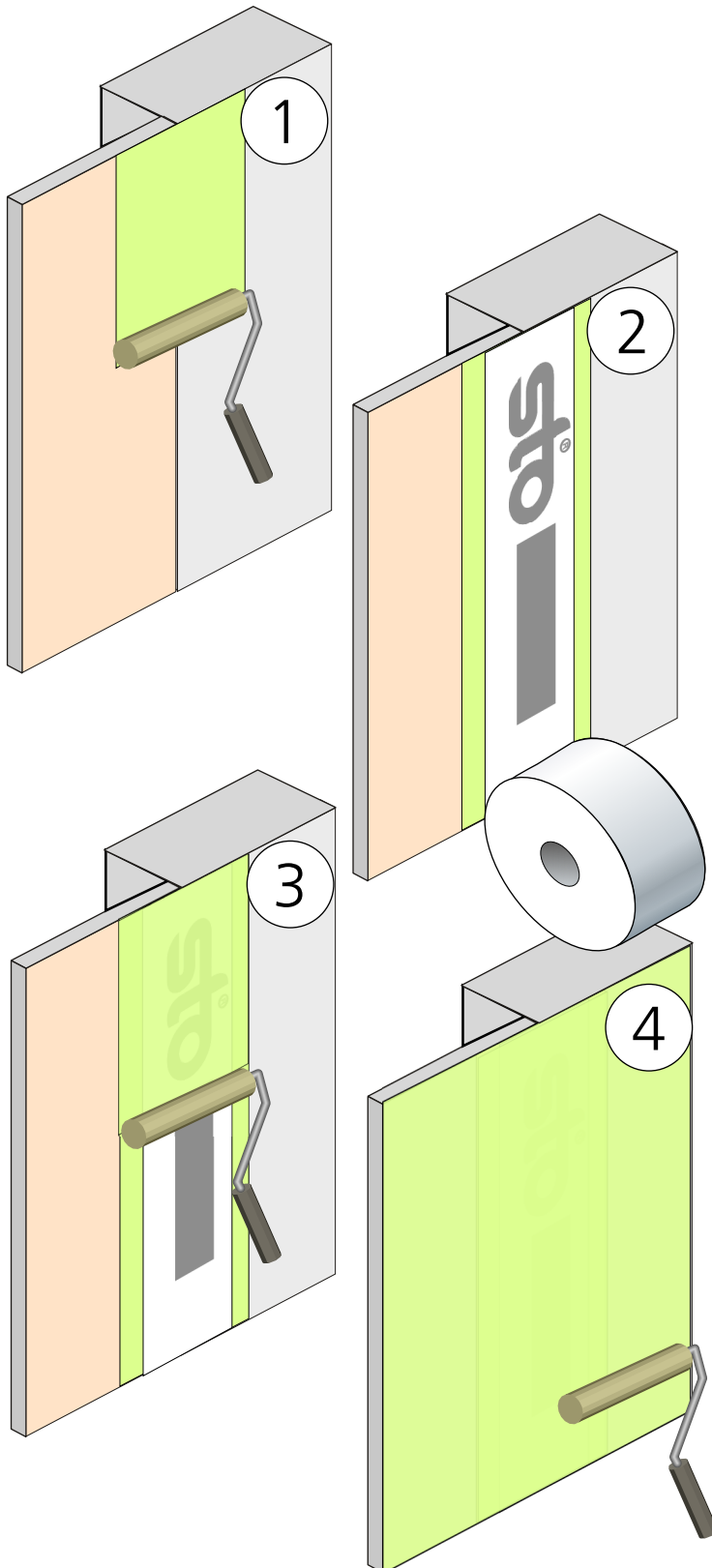
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OPTION 1: General Installation Steps with StoGuard Coatings



Application Steps:

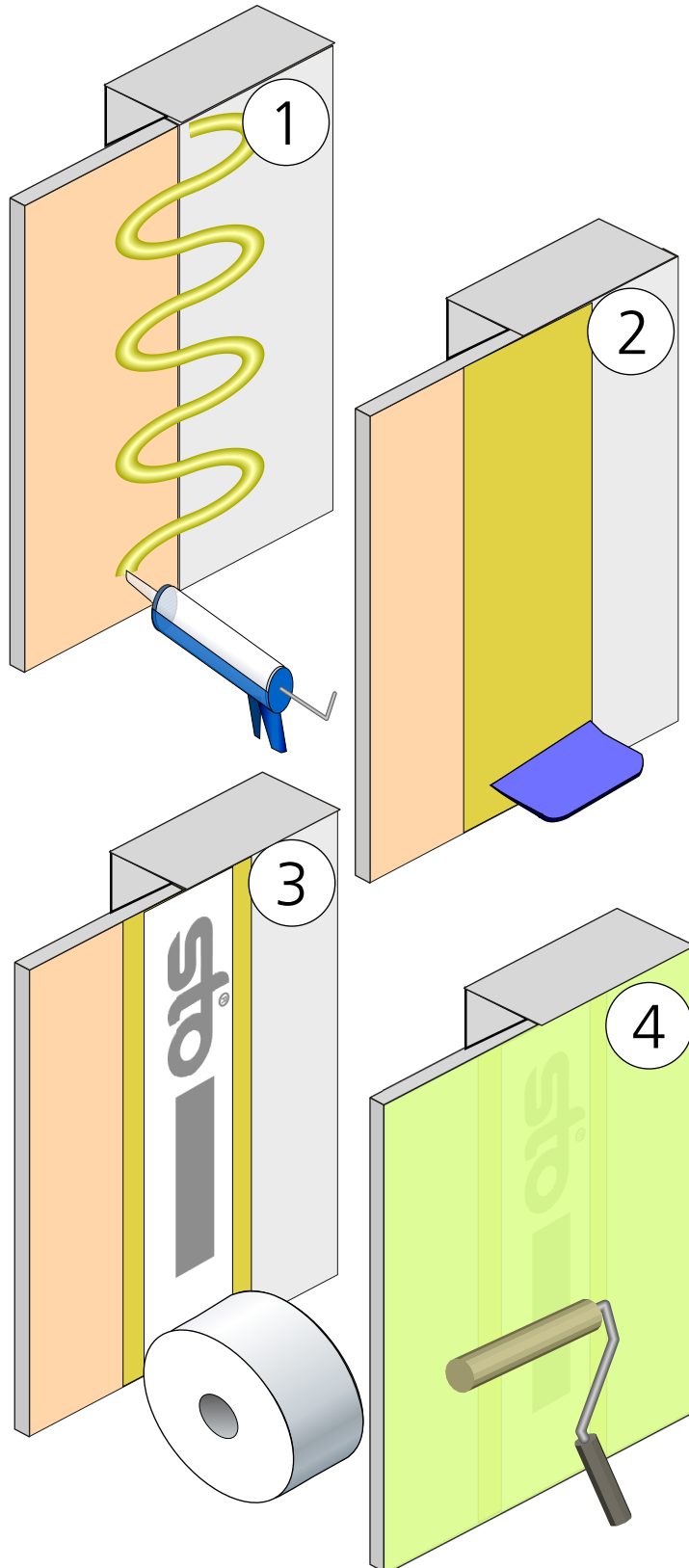
1. Apply StoGuard coating liberally by roller, brush, or spray. Limit length of application as needed for Step 2 to be completed before coating dries.
2. Press StoGuard Transition Membrane into wet coating. Smooth wrinkles or fish-mouths.
3. Cover StoGuard Transition Membrane with second application of StoGuard coating. Use sufficient coating to hold StoGuard Transition Membrane in place.
4. After the coating applied in Step 3 has dried, apply StoGuard coating to entire wall area, recoating the transition membrane.
5. Ensure all laps, seams and edges are fully embedded in coating.

Notes:

1. High-temperature, low humidity, direct sunlight, and windy conditions will reduce working time for the coating.
2. Pre-cut StoGuard Transition Membrane to length, for most efficient installation.
3. Pins or staples may be used to temporarily support long runs of membrane between steps 2 and 3.
4. Installation process is the same for vertical and horizontal orientations on the wall. (Except for sealing of top horizontal edge seams - see page 8.)

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OPTION 2: General Installation Steps with StoGuard RapidSeal or StoGuard RapidFill



Application Steps:

1. Apply StoGuard Rapidseal (or StoGuard RapidFill) to substrate
2. Spread StoGuard RapidSeal (or StoGuard RapidFill) sufficiently to provide adhesion of full width of StoGuard Transition Membrane.
3. Press StoGuard Transition Membrane into wet StoGuard sealant. Smooth wrinkles or fish-mouths with plastic spreading tool until membrane is fully adhered and flat.
4. Top-coat with StoGuard coating.

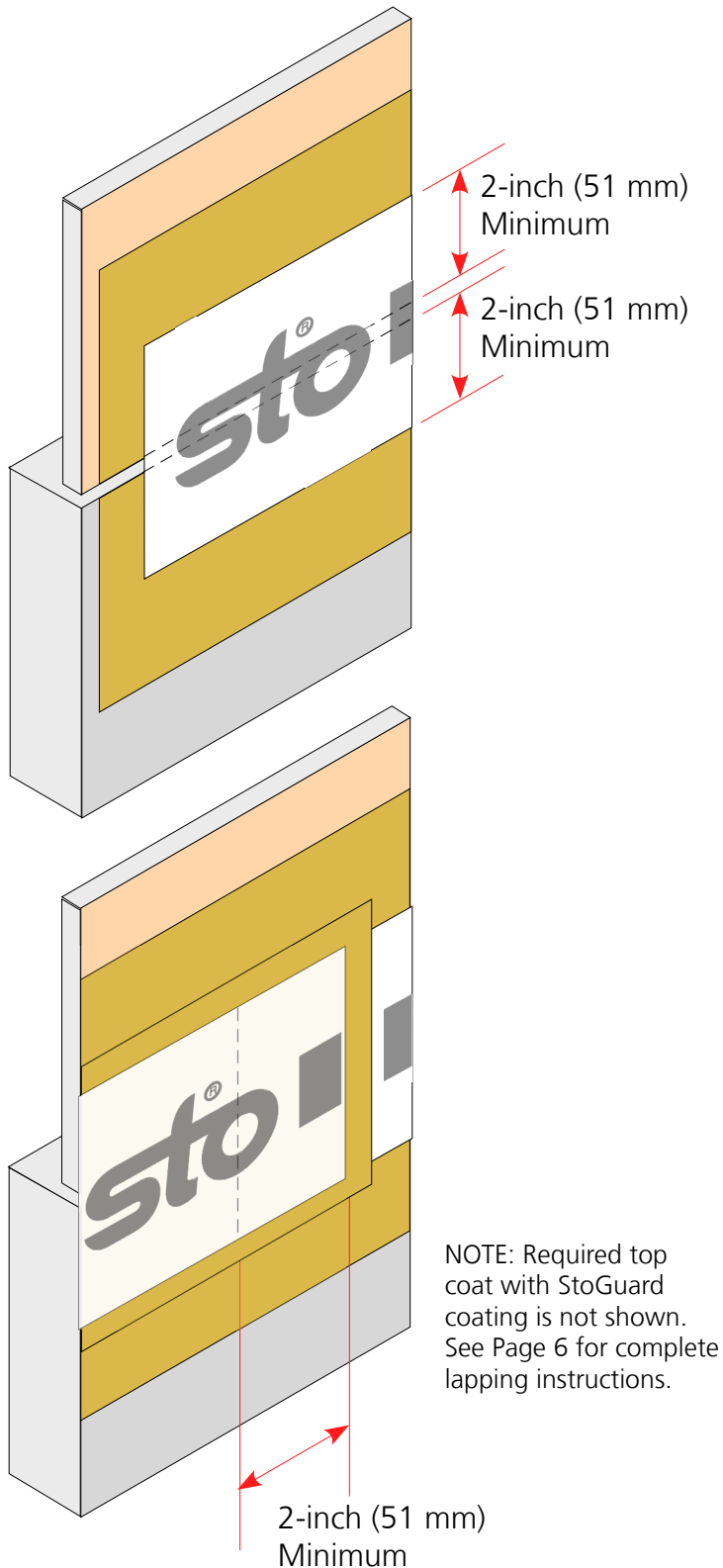
Notes:

1. Ambient conditions affect working time. StoGuard RapidSeal and StoGuard RapidFill have moisture curing characteristics which may be an advantage in high humidity conditions and most climate zones.
2. Pre-cut StoGuard Transition Membrane to length, for most efficient installation.
3. Apply top coat after the material skins and within 48 hours of drying.
4. Installation process is the same for vertical and horizontal orientations on the wall. (Except for sealing of top horizontal edge seams - see page 8.)

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Width Selection and Lap Width



Membrane Width Selection:

1. Select width of StoGuard Transition Membrane which will provide minimum 2-inches (51 mm) bonded width along both sides of gap to be bridged.
2. For wide gaps that function as movement joints, increase width of StoGuard Transition Membrane as required to "loop" the membrane into the gap as shown in the detail on Page 7 of this Installation Guide.

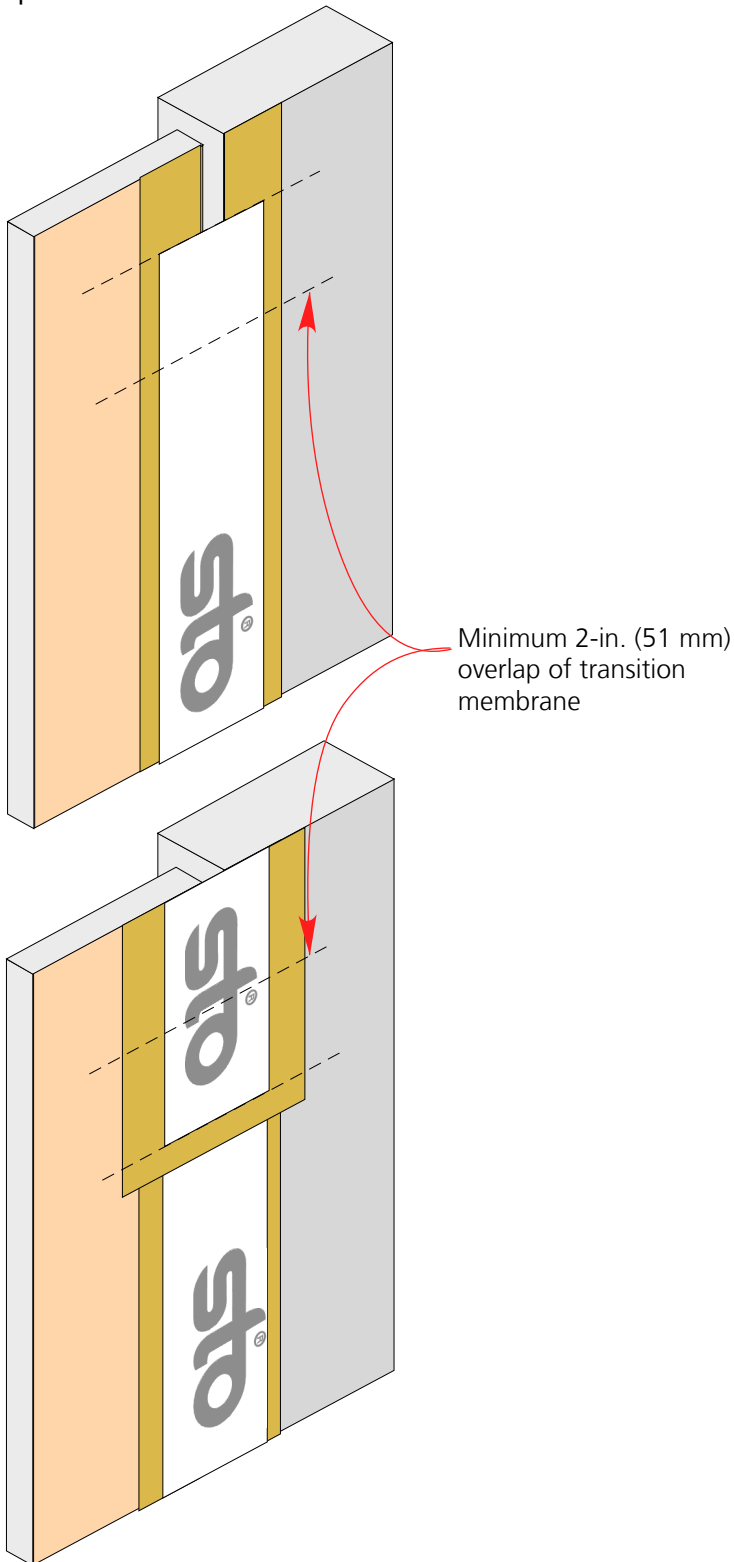
Lap Width:

1. Minimum lap width is 2 inches (51 mm).
2. Shingle lap where StoGuard Transition Membrane is installed vertically and where vertical transition membrane installation intersects horizontal transition membrane installation.
3. See lapping instructions on page 6 of this Installation Guide for complete instructions.

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Lap Instructions



Application Steps:

1. Install StoGuard Transition Membrane per instructions on Page 3 or 4 of this Installation Guide.
2. Where a lap is required, overlap transition membrane minimum 2 inches (51 mm). SHINGLE LAP vertical applications. Apply StoGuard coating liberally between layers of transition membrane to fully seal between layers. (StoGuard RapidSeal or StoGuard RapidFill may be used as alternate to StoGuard Coating.)
3. Apply top coat of StoGuard Coating as soon as the material used to adhere the transition membrane has dried. (The top coat can be applied as part of the overall wall surface coating process.)

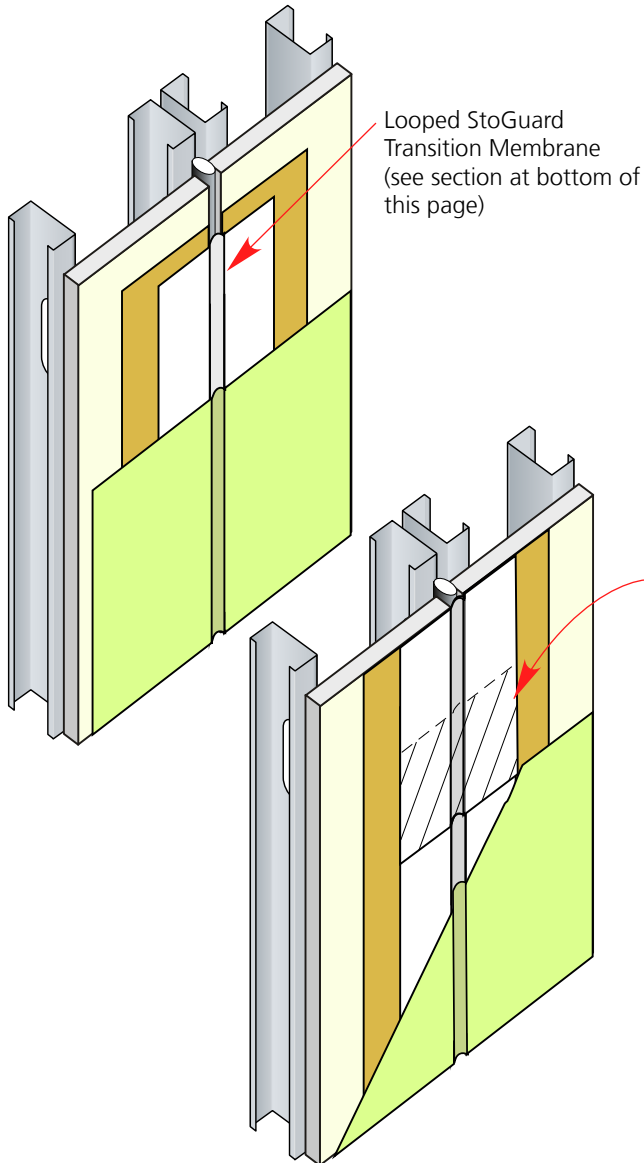
Notes:

1. High-temperature, low humidity, direct sunlight, and windy conditions will reduce working time for the coating.
2. Precut StoGuard Transition Membrane to length, for most efficient installation.
3. Pins or staples may be used to temporarily support long runs of membrane during application.
4. Installation process is the same for vertical and horizontal orientations on the wall.
5. Top-coat not shown.

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Joints with Movement Accommodation (For joints up to 1 inch (25 mm) and up to 50% movement)

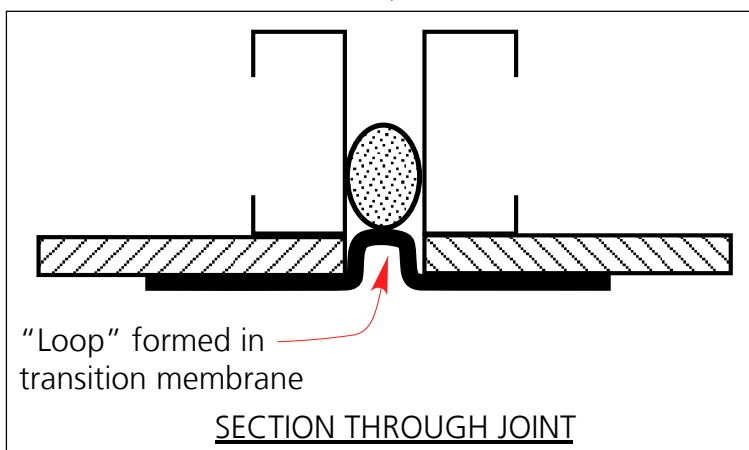


Application Steps:

1. Place backer rod in joint sized to friction fit in the joint (diameter 25% greater than joint width).
2. Install StoGuard Transition Membrane per instructions on Pages 3 - 6 of this Installation Guide.
3. **IMPORTANT:** Press StoGuard Transition Membrane into joint to form a "loop" to accommodate movement. See the section sketch below for guidance regarding the installed profile of the looped transition membrane.
4. Ensure air barrier continuity at membrane laps. Verify full embedment and bond of top layer in StoGuard coating or apply a bead of StoGuard RapidSeal or StoGuard RapidFill to seal outer surface of lapped ends.

Notes:

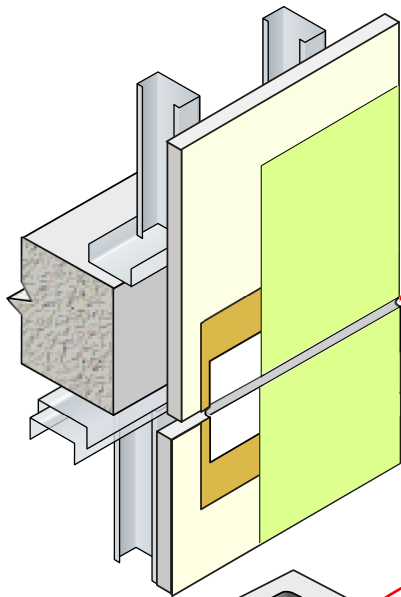
1. This application applies to vertical and horizontal joints.
2. This application applies to joints between dissimilar substrate construction.
3. Choose size of StoGuard Transition Membrane based on joint width + anticipated movement + 4 inches (102 mm) to obtain minimum 2 inch (51 mm) adhesion on each side of joint.
4. Combination of StoGuard RapidSeal and Sto EmeraldCoat is shown. Additional layer of StoGuard coating is required as shown on page 3 where coating is used to adhere StoGuard Transition Membrane.



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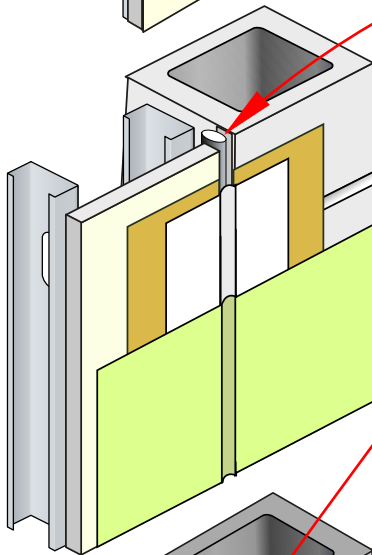
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Typical Joints requiring movement accommodation



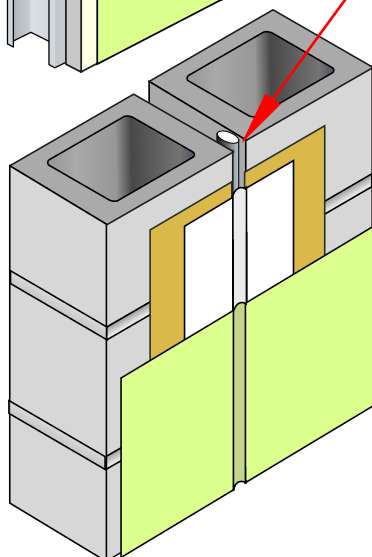
Floor line joint:

1. Use where deflection is anticipated.
2. Use where nested or slotted deflection track is used in frame construction (shown).
3. Use between concrete frame and masonry infill if compressible fill is used at top of in-fill to accommodate dead-load settlement, creep, and deflection.
4. Use at floor lines in multi-floor wood-frame construction to accommodate cross-grain shrinkage in floor members.



Joint between dissimilar construction:

1. Use where framing abuts masonry or concrete, and at other substrate transitions.



Control or expansion joint in masonry construction:

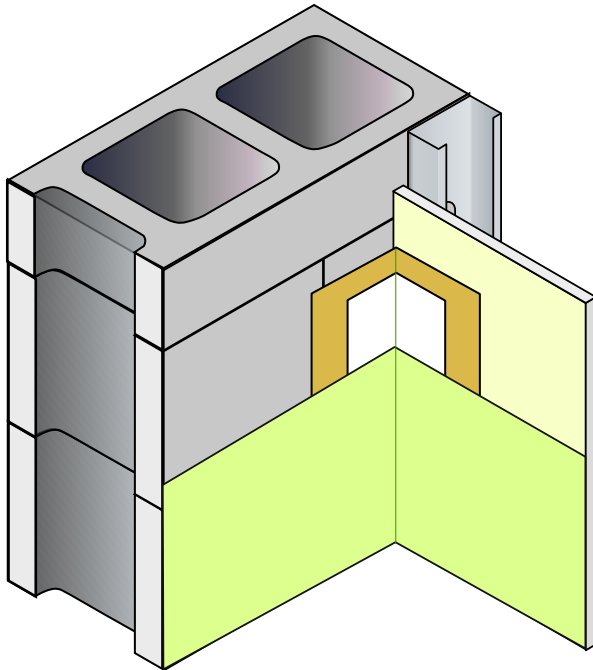
1. Use where control or expansion joints (soft joints) occur in masonry construction.
2. Masonry joints shall be struck flush in preparation for StoGuard installation.

Notes:

1. All substrate possibilities are not shown. However, the installation of the StoGuard Transition Membrane will generally be the same for any joint which is constructed for the purpose of accommodating building movements.
2. Combination of StoGuard RapidSeal and Sto EmeraldCoat is shown. Additional layer of StoGuard coating is required as shown on page 3 where coating is used to adhere StoGuard Transition Membrane.

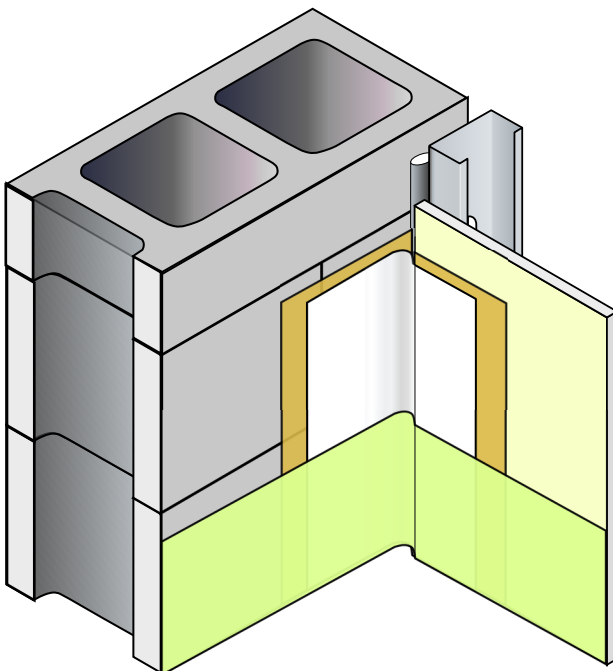
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Inside Corner with Dissimilar Substrates



Static Connections

1. Install StoGuard Transition Membrane as described on page 2 or page 3 of this Installation Guide.
2. Center StoGuard Transition Membrane along the interface of the two substrates.
3. Shingle lap vertical applications.



Corners with movement accommodation

1. Install StoGuard Transition Membrane as described on page 6 of this Installation Guide.
2. Create a loop of StoGuard Transition Membrane in the gap between substrates.
3. Shingle lap vertical applications.
4. StoGuard coatings, StoGuard RapidSeal or StoGuard RapidFill may be used to adhere the transition membrane. (StoGuard RapidSeal shown for illustration purposes).

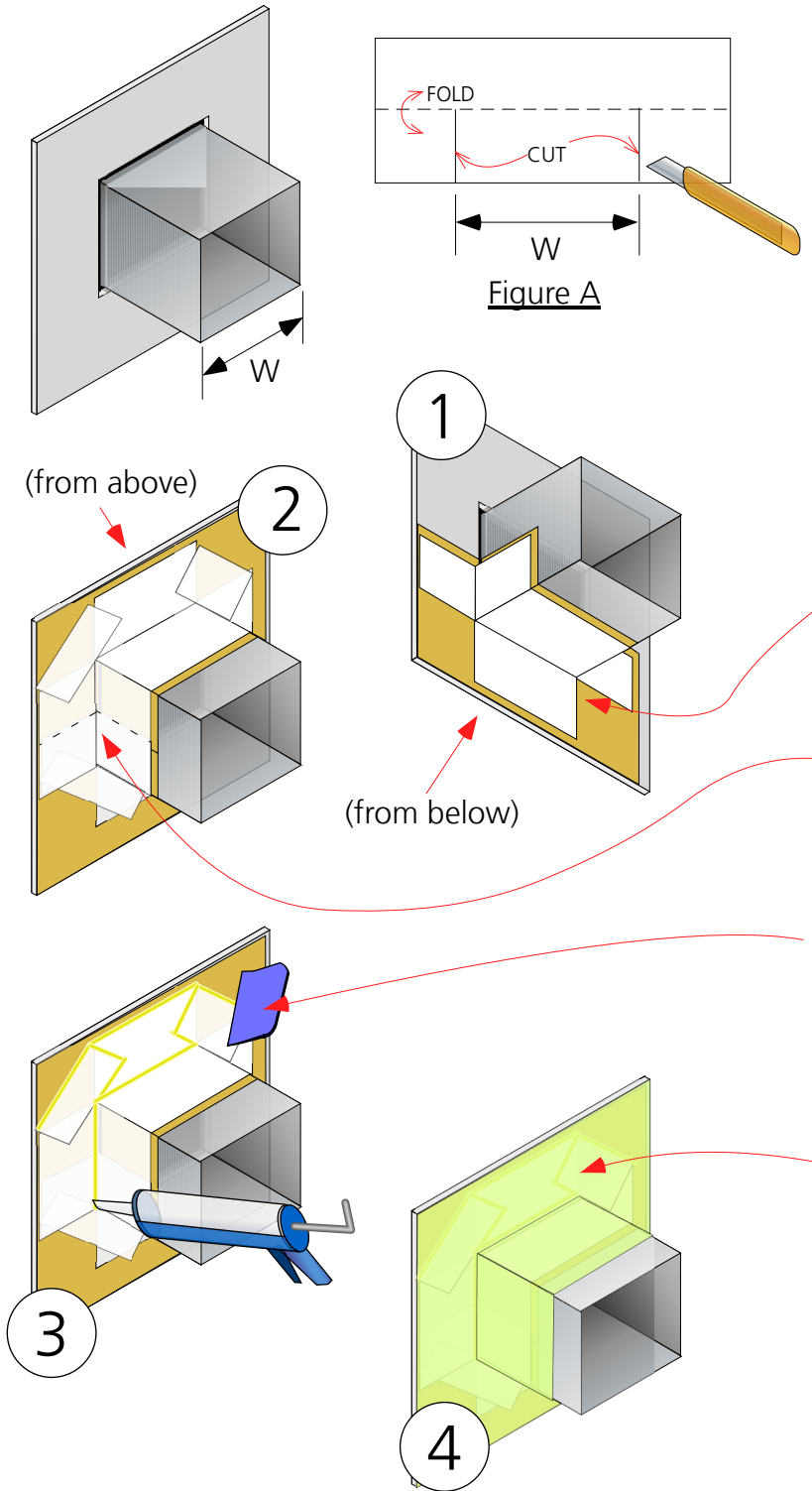
Note: Combination of StoGuard RapidSeal and Sto EmeraldCoat is shown. Additional layer of StoGuard coating is required as shown on page 3 where coating is used to adhere StoGuard Transition Membrane.

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Installation at rectangular mechanical penetrations

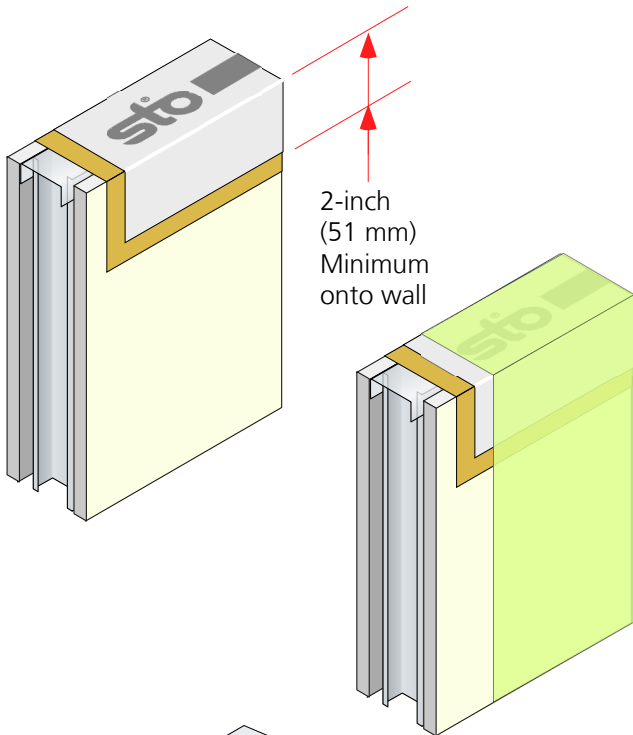
1. Install StoGuard Transition Membrane using methods described on page 3 or page 4 of this Installation Guide.
2. Apply StoGuard Transition Membrane to bottom of projecting element first.
3. Pre-cut length of StoGuard Transition Membrane to run continuously along bottom and up minimum 2-inches (51 mm) on both sides of penetration.
4. Cut as shown in Figure A, to allow folding at corners.
5. Install pre-cut membrane to bottom side of penetration. Install diagonal strips of transition membrane at corners.
6. Repeat application steps 3 through 5 at top of penetration. Cut length of transition membrane to fully lap over the initial installation on sides of penetration.
7. Apply StoGuard RapidSeal (or StoGuard RapidFill) to topmost edges of transition membrane and tool the sealant.
8. Apply StoGuard coating.
9. StoGuard coatings, StoGuard RapidSeal or StoGuard RapidFill may be used to adhere the transition membrane. (StoGuard RapidSeal shown for illustration purposes).
10. This detail is applicable to all rectangularly shaped penetrations and projections.



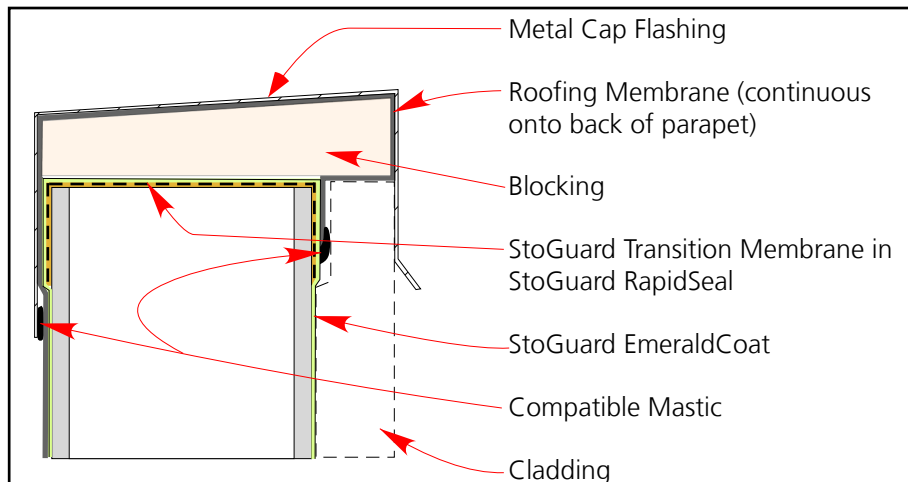
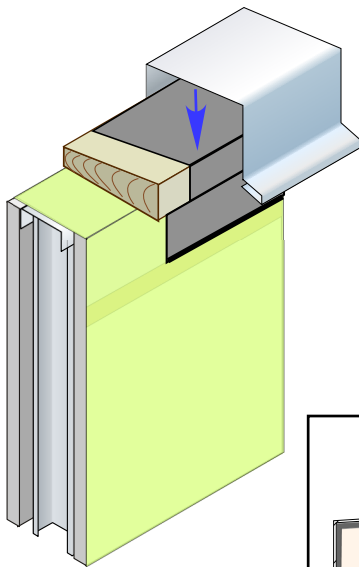
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Parapet Cap



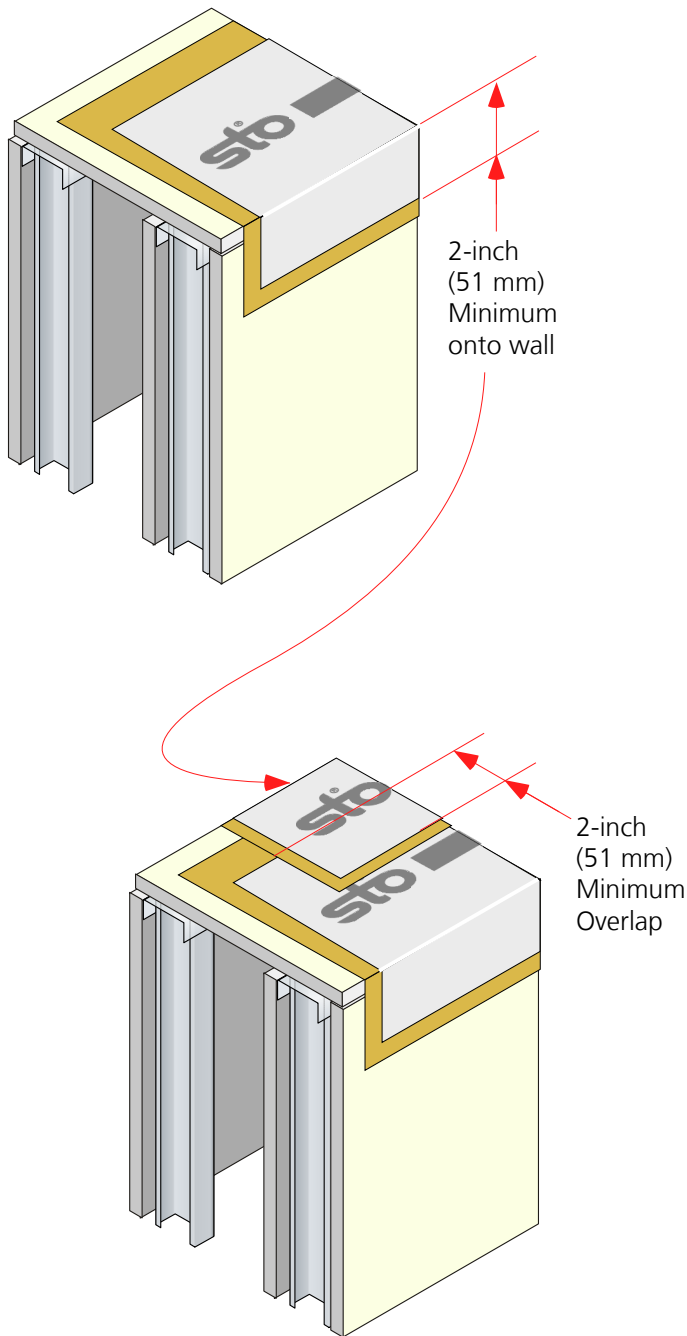
1. Select width of StoGuard Transition Membrane to cover top of parapet wall and extend down both faces of parapet wall minimum 2 inches (51 mm). (See Page 12 for very wide walls where standard widths of transition membrane do not permit a single-piece application.)
2. Install StoGuard transition membrane across top of wall assembly and down onto both faces of the parapet wall minimum 2 inches (51 mm) using techniques described on pages 2 through 5 of this Installation Guide.
3. For permanent weather protection extend roofing material over blocking and connect to air barrier on face of wall (typical) or as detailed by contract documents. See section at bottom of this page for typical condition.
4. Slope parapet tops to provide drainage.
5. Combination of StoGuard RapidSeal and Sto EmeraldCoat is shown. Additional layer of StoGuard coating is required as shown on page 3 where coating is used to adhere StoGuard Transition Membrane



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Wide Parapets

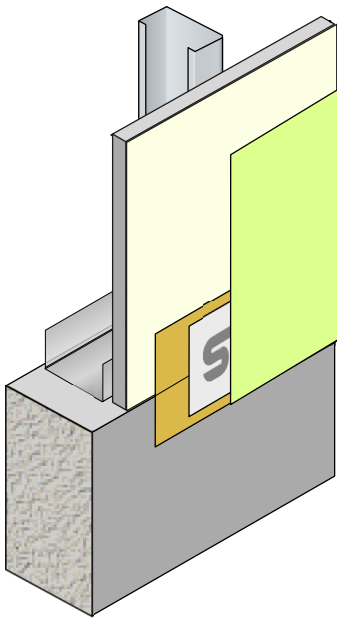


1. Select StoGuard Transition Membrane with a minimum width of 1/2 the wall width plus 4 inches (102 mm).
2. Install StoGuard transition membrane along one side of the top of the parapet and down onto the adjoining wall minimum 2 inches (51 mm) using techniques described on pages 3 through 6 of this Installation Guide.
3. Repeat step number 2 along other edge of parapet wall, providing a minimum 2-inch (51 mm), fully bonded lap of the membrane that is already in-place, and minimum 2 inch (51 mm) extension onto the adjoining wall surface.
4. Complete cap flashing assembly steps as shown on page 11, or as detailed by the contract documents.
5. StoGuard coatings, StoGuard RapidSeal or StoGuard RapidFill may be used to adhere the transition membrane. (StoGuard RapidSeal shown for illustration purposes).
6. Slope parapet tops to provide drainage.
7. Top coating not shown. Refer to page 11 for additional information regarding parapet treatment and integration with roofing and flashing.

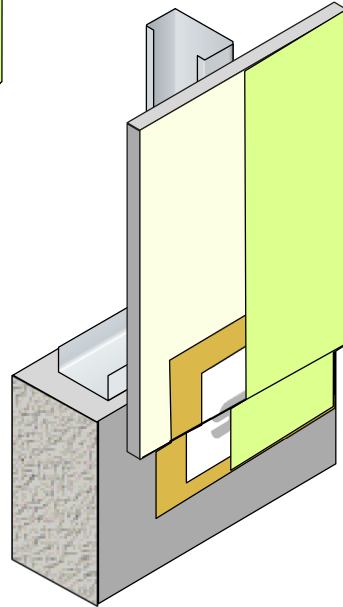
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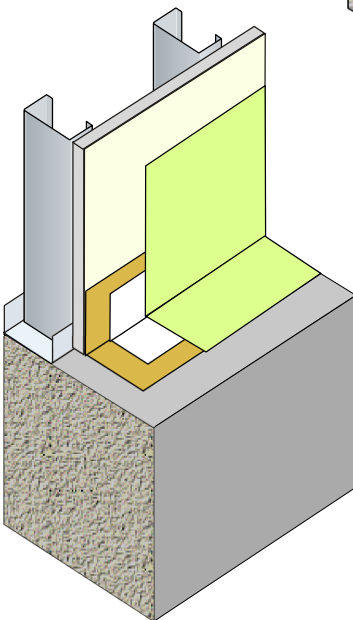
Transition at Foundation



Sheathing Flush with Foundation



Sheathing Overlapping Foundation



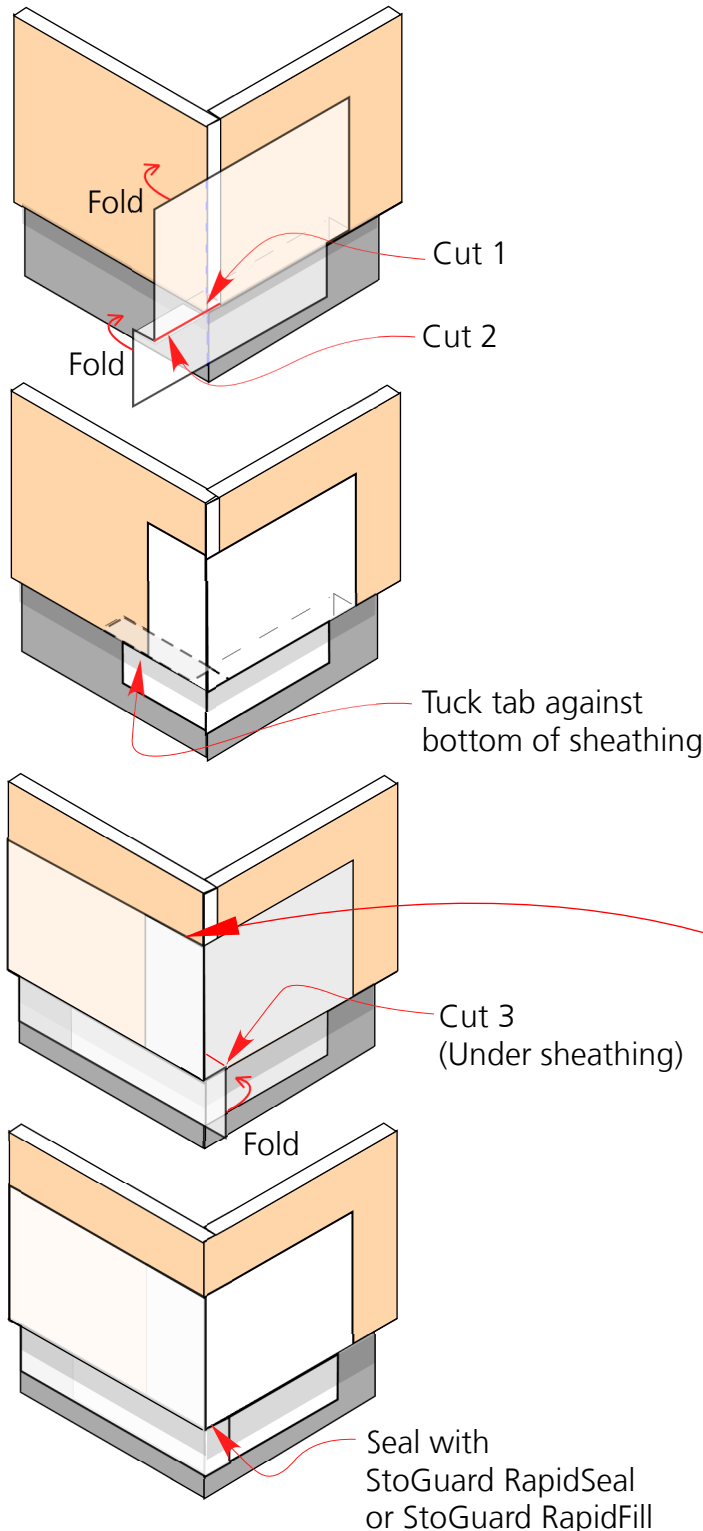
Brick Ledge, Projecting Foundation or Balcony Slab

1. Install StoGuard Transition Membrane using methods described on page 3 or page 4 of this Installation Guide.
2. 6-inch (152 mm) wide StoGuard Transition Membrane suggested.
3. Install transition membrane along base of wall centered along the joint between sheathing and foundation.
4. StoGuard RapidSeal (or StoGuard RapidFill) is recommended for conditions where sheathing overlaps foundation.
5. Apply generous bead of StoGuard RapidSeal along bottom edge of overlapping sheathing. Press and tool transition membrane into wet StoGuard RapidSeal and lap minimum 2 inches (51 mm) onto adjoining wall and foundation surfaces.
6. StoGuard coatings, StoGuard RapidSeal or StoGuard RapidFill may be used to adhere the transition membrane.
7. Slope brick ledges or projecting foundations away from the building for drainage.
8. Combination of StoGuard RapidSeal and Sto EmeraldCoat is shown. Additional layer of StoGuard coating is required as shown on page 3 where coating is used to adhere StoGuard Transition Membrane.

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Transition at Foundation Corner with Overlapping Sheathing



1. Install StoGuard Transition Membrane using methods described on page 3 or page 4 of this Installation Guide.
2. Follow general instructions on page 13 of this Installation Guide. Coatings or sealants are not shown in this detail to focus on installation steps that are unique to this condition.
3. Run StoGuard Transition Membrane past outside corner minimum 2 inches (51 mm).
4. Cut transition membrane from corner of foundation outward, perpendicular to wall (Cut 1).
5. Cut transition membrane along fold at outside edge of sheathing parallel with wall (Cut 2).
6. Fold transition membrane around corner. Tuck folded portion of transition membrane and secure to the bottom of the sheathing, as shown in step 2.
7. Run transition membrane from opposite side of corner to the sheathing corner. Cut along the bottom edge of the sheathing from the foundation corner outward (cut 3).
8. Fold tab below the sheathing around corner and secure.
9. Seal underside sheathing corner with generous application of StoGuard RapidSeal or StoGuard RapidFill.



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General Notes:

1. Surfaces must be structurally sound, clean, dry and free of frost, damage, and all bond-inhibiting materials including dirt, dust, mildew, algae, laitance, efflorescence, form oil, curing compounds, coatings, chalking and other foreign matter. Sheathing must be code compliant Exterior Grade or Exposure 1 wood-based sheathing or glass mat gypsum in compliance with ASTM C1177. Sheathing must be installed in compliance with the building codes and manufacturer's recommendations. CMU surfaces should have flush joints. Concrete and CMU surfaces must be without projecting ridges, form ties or other surface irregularities. See surface preparation instructions for StoGuard air and moisture barrier coatings for additional guidance.
2. StoGuard Transition Membrane is available in nominal widths of 4.75, 6, 9, 12, and 18 inches (120, 152, 229, 305, 457 mm). Select the width of StoGuard Transition Membrane that provides minimum 2-inches (51 mm) bonding along both sides of the application.
3. Use StoGuard Transition Membrane for air barrier continuity of transitions:
 - Sheathing to foundation
 - Dissimilar materials (e.g. CMU to frame wall)
 - Wall to balcony floor slab or ceiling
 - Shingle lap transition onto flashing
 - Floor line deflection joints
 - Masonry control joints
 - Through-wall joints in masonry or frame construction.
4. Always apply StoGuard Transition Membrane with the roll direction parallel to joints and seams.
5. Cut lengths of StoGuard Transition Membrane with scissors or sharp utility knife. Long runs of StoGuard Transition Membrane may be temporarily supported with tacks or staples during installation. Tacks or staples must be removed before applying the final top-coat of StoGuard Coating.
6. StoGuard Transition Membrane may be secured by embedding in any StoGuard coating, including Sto Gold Coat, Sto Emerald-Coat, StoGuard VaporSeal, and Sto Air Seal. StoGuard RapidSeal or StoGuard RapidFill may be used as an option to StoGuard coatings.
7. StoGuard sealants (StoGuard RapidSeal and Sto Guard RapidFill.) are recommended where changes in plane are required over short distances. They are also advantageous in high humidity conditions and moist climate zones.
8. If "fish-mouths" or loose edges of StoGuard Transition Membrane remain after application of the StoGuard top coat, treat with StoGuard RapidSeal or StoGuard RapidFill to provide a continuously sealed transition membrane edge.
9. Comply with the published Sto instructions for storing, handling, mixing, and use of the Sto coatings and sealants that are being used with the StoGuard Transition Membrane. Refer to the most current specifications and product literature, which are available at www.stocorp.com. Use only when surface and ambient temperatures are and will remain above 40°F (4°C) and below 100°F (38°C) during application and the drying period.
10. Apply top coat within 30 days of membrane installation. See applicable product literature for exposure limitations based on the Sto top-coat material used. If top coating with StoGuard RapidSeal or StoGuard RapidFill, top coat after material skins and within 48 hours of drying.
11. Not recommended for moving joints in excess of 1-inch width or \pm 50% movement.
12. Comply with "looped" construction details (page 7) for joints where movement is anticipated.
13. Do not used on surfaces with standing water, below grade, or surfaces subject to water immersion.
14. Not recommended as primary outer weather seal or where exposed permanently to weather. Maximum exposure period is 30 days if left unprotected.
15. Not recommended at service temperature exposures lower than -20°F (-30°C) or higher than 194°F (90°C).