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iso**REDMAX**[®]
strong-**R**

Structural Insulation

Installation Guide

Our commercial-grade 4-in-1 structural insulated sheathing installs fast, saving you time and money while providing best-in-class energy efficiency, moisture resistance and fire performance.

Made in USA 

4-in-1

Insulation, structural reinforcement, air and moisture barrier in one.

Continuous Insulation

Provides best in class R-value.

Easy to Install

Lightweight design for fast, easy installation.

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Attention:

This installation guide is intended to provide general information for the end user. The following guidelines will help you properly install OX ISO REDMAX Strong-R polyiso sheathing. We encourage you to read these guidelines in order to minimize any risk of safety hazards and to prevent voiding any applicable warranties. This manual is a general installation guide and does not cover every installation situation. Customer is responsible for complying with all applicable laws, regulations, and building codes (collectively, "Laws") of the location where any products (individually, "Product" and collectively, "Products") manufactured by Ox Engineered Products, LLC ("Ox") are actually used, specially including, but not limited to, Laws regarding use and disposal of the Products by Customer. Ox expressly disclaims all liability for the Products other than as expressly provided in the applicable warranty for the Product (the "Product Warranty") which is available from Ox at the address below. OX EXPRESSLY DISCLAIMS ANY OTHER WARRANTY EXPRESSED OR IMPLIED INCLUDING SPECIFICALLY, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. None of the information contained in this brochure shall act as a waiver of any patent, trademark, copyright or other intellectual property right of Ox, nor shall any such information expand any rights or remedies set forth in the applicable Product Warranty. Ox shall not be liable for compliance of the Products with any test results obtained by third parties that may be included in this brochure. Actual results may vary. Not all Products are approved for use in all jurisdictions. The Products are not load bearing. Do not attempt to walk on them. Some Ox Products are amiable. Ox disclaims liability for damages caused by incineration of the Products. By purchasing the Products, Customer irrevocably consents that any dispute

arising between Ox and Customer will be determined under Michigan law without consideration of any of law analysis and that any such dispute shall be brought only in the state or federal courts serving the locality in which Ox's headquarters are then located. By purchasing the Products, Customer expressly consents to the exercise by such courts of personal and subject matter jurisdiction and venue for such purposes.

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Storage:

Maintain packaging protection until using the product. If stored exposed without protective packaging, cover with a waterproof tarpaulin. Do not store directly on the ground unprotected or in standing water. Normal care should be taken to avoid excessive moisture exposure (soaking) to unpackaged product.

Safety Guidelines:

- Follow all OSHA regulations and any other safety guidelines and safety practices.
- Use approved safety belts and/or harnesses or other fall protection equipment

03 | Installation Overview

Overview

The Strong-R System shall be defined to be OX ISO RED MAX Strong-R (ASTM E84 Class A), OX Commercial seam tape and Arctic Flash synthetic flashing tape, and OX ISO RED MAX®. In addition to being subject to the other limitations contained in this warranty, the water and air barrier warranties are expressly contingent upon the use of only Strong-R System component products. The use of any sheathing other than Strong-R Structural Insulation or OX ISO RED MAX or OX Commercial seam tape and Arctic Flash synthetic flashing tape shall render the air and water barrier warranties entirely inapplicable and/or null and void.

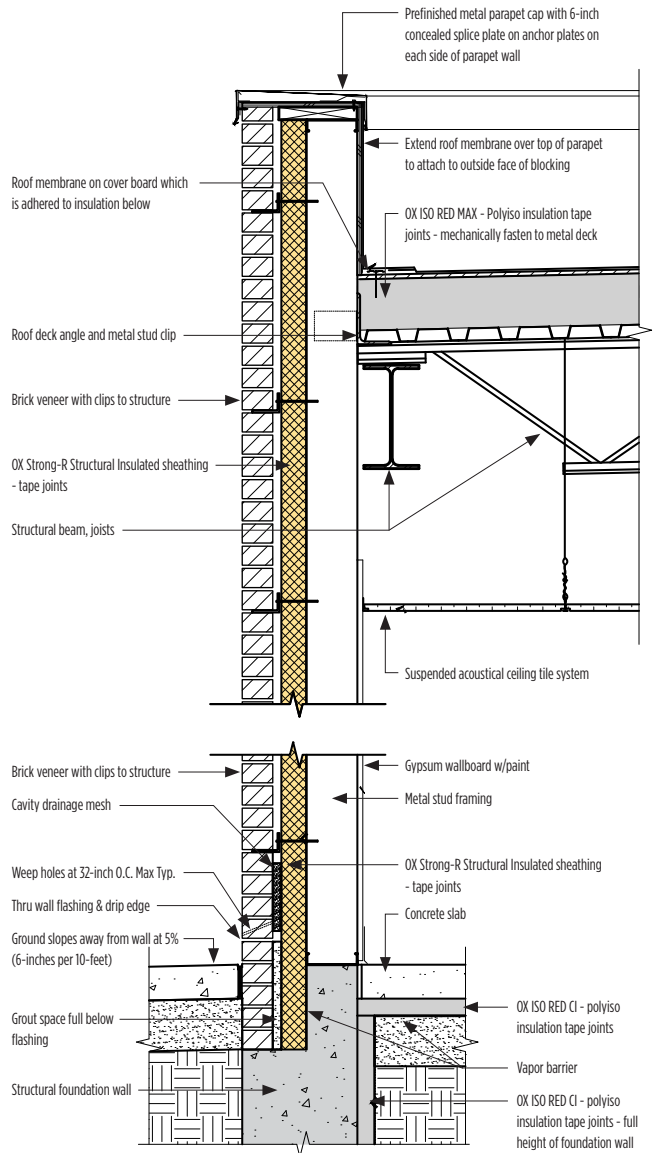
Structural Prep

Install any necessary mechanical strapping directly to framing.

- It is recommended that any metal straps, ties or other connectors designed to resist uplift, shear or diaphragm loading must be installed prior to Strong-R Structural Insulation.
- The requirement for mechanical uplift connections shall be determined by the responsible parties.
- Detail A should not be considered typical and only applies when mechanical uplift connections are required.

TIP: Straps, ties and connectors installed on the exterior face of the stud will not be visible after the Strong-R Structural Insulation panels are installed. Schedule necessary inspections accordingly.

Detail A



04 | Panel Orientation/Fastening

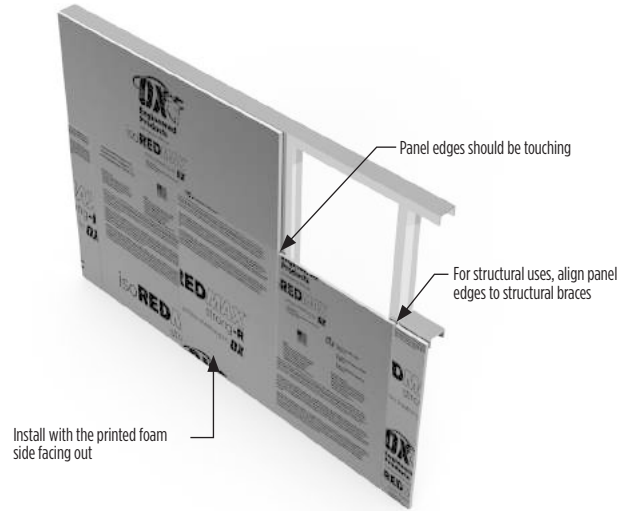
Orient Panels

- Install Strong-R Structural Insulation panels with the printed foam side facing out
- The panels may be installed with the long side of the panels oriented either horizontally or vertically to the framing members
- All panel edges/seams must be fastened and backed by framing for structural applications
- Panels should be installed with foam edges touching
- Cut panels with standard circular saw

Orient Panels (combined w/standard foam sheathing)

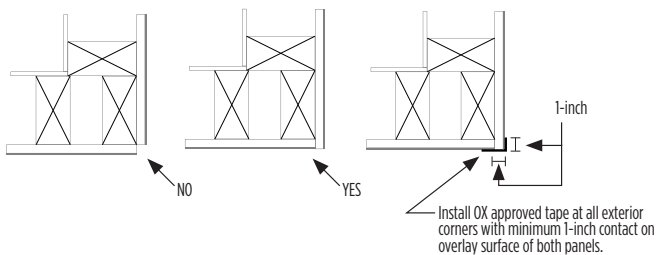
- Use Strong-R Structural Insulation in areas where bracing is required
- Supplement remaining wall with nonstructural foam sheathing such as OX ISO RED MAX Polyiso Foam Sheathing

Detail B

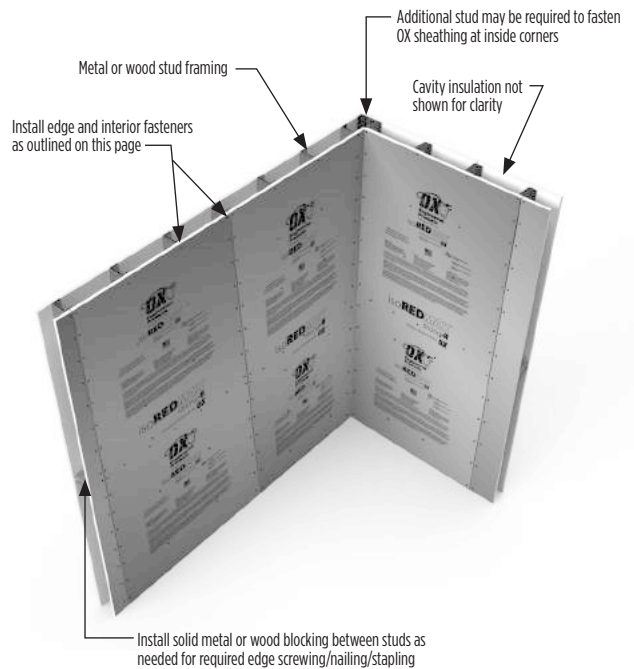


Fasten Panels

- **Metal studs:**
 - Fasten to metal studs with No. 8-18 x 1-1/2-inch Phillips modified truss head self-drilling screws (or equal) 6-inch at the edges and 12-inch in the field.
 - Reduce fastener spacing for added wall rigidity.
- **Wood studs:** Around perimeter and in the field of the board, fasten 6-inches at the edges and 12-inches in the field. Minimum embedment of 1-inch into framing. Countersinking into foam is acceptable:
 - 7/16-inch to 1-inch crown
 - 16 gauge staple with 1-inch embedment. DO NOT countersink staples. Staples must run parallel with wood grain of framing studs at sheathing seams.
 - 11-gauge nail (roofing nail)



Detail C

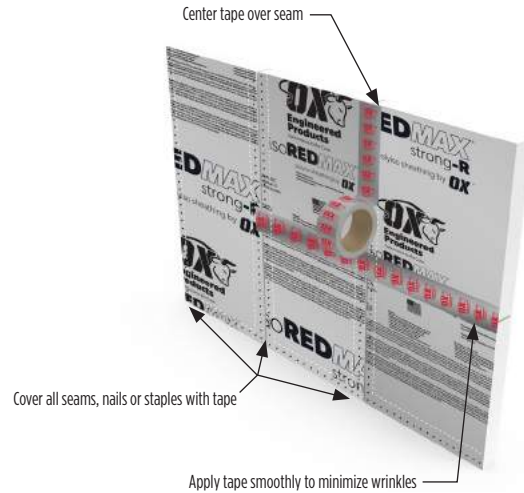


05 | Panel Taping

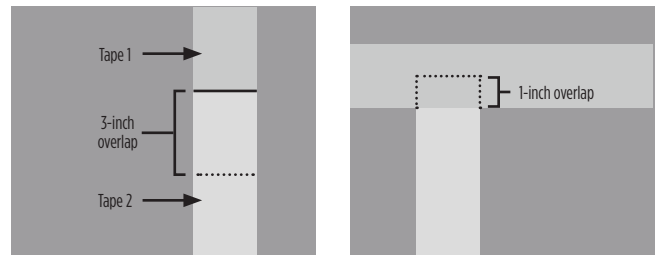
Taping

- Install tape on a clean/dry surface
- Center the tape over the joints/seams
- Apply pressure to the tape to ensure a secure bond. Smooth out any wrinkles to insure proper adhesion.
- When taping joints, use shingle fashion technique as shown in Detail E
- At T-joints, the tape pieces should overlap by at least 1-inch as shown in Detail E
- The warranty requires that interior and exterior corners use Arctic Flash flashing tapes to fully cover the joints/seams as shown in Detail F
- Building wrap is not required to meet WRB requirements if all joints are taped
- **Use only OX approved tape:**
 - **Seam tape:** OX Commercial Seam Tape 2 1/2-inch nominal width
 - **Flashing tape:** Arctic Flash Synthetic Flashing Tape
 - 6-inches at all penetrations
 - 4-inches at interior and exterior corners

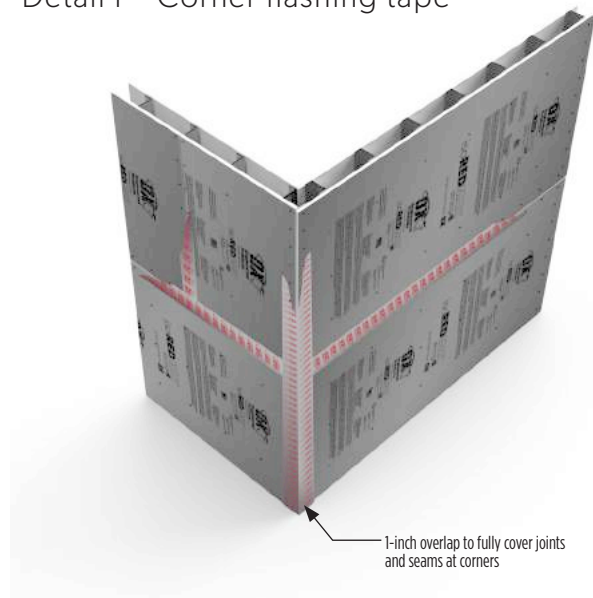
Detail D



Detail E - Shingle fashion technique



Detail F - Corner flashing tape

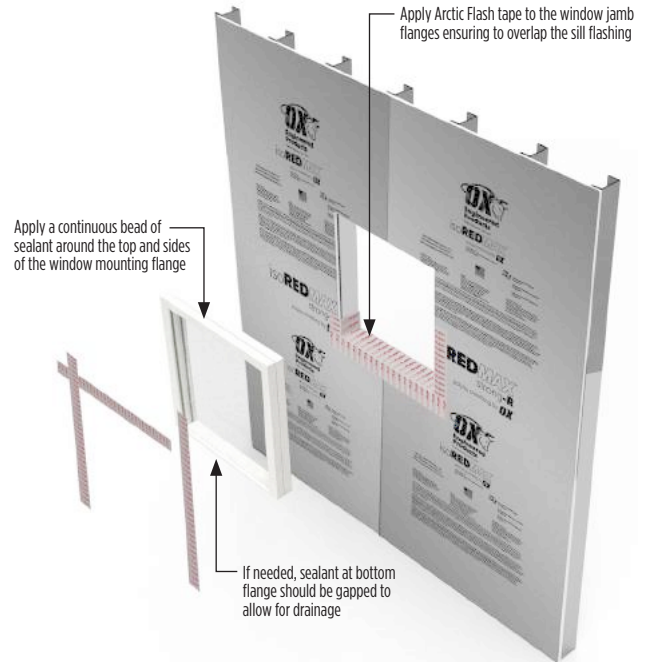


06 | Window Installation

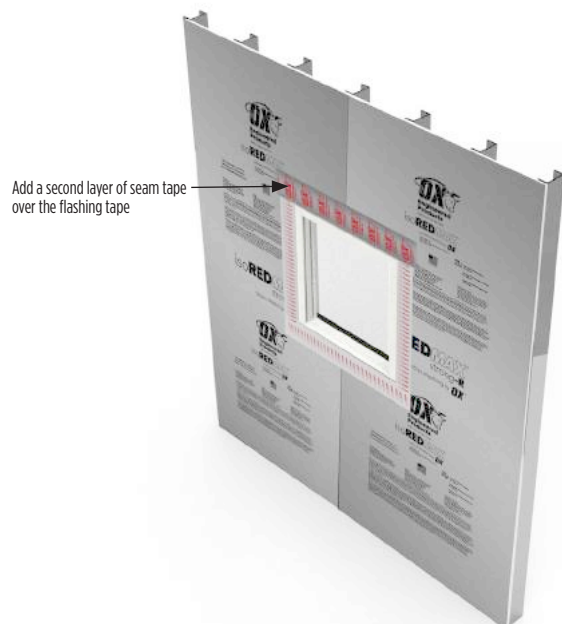
Window Installation

- Install approved OX sill/pan flashing as shown in Detail E on a clean/dry surface
- Apply sealant around inside face of window mounting flange. If needed, gap sealant at the bottom flange to permit drainage. Install and level window per manufacturer's instructions.
- Cut two pieces of approved OX Arctic Flash tape and apply each to the window jamb flanges. Be sure the jamb flashings overlap the sill flashing.
- Cut a length of approved OX Arctic Flash tape and apply to the head flange on the window. Be sure the head flashing overlaps the jamb flashing.
- Apply pressure to the tape to ensure a secure bond and smooth out any wrinkles to insure proper adhesion
- From the interior of the rough opening, apply low-pressure polyurethane foam for windows between the rough opening and the window frame.
- **DO NOT TAPE BOTTOM WINDOW FLANGE**

Detail G



Detail H - Completed installation

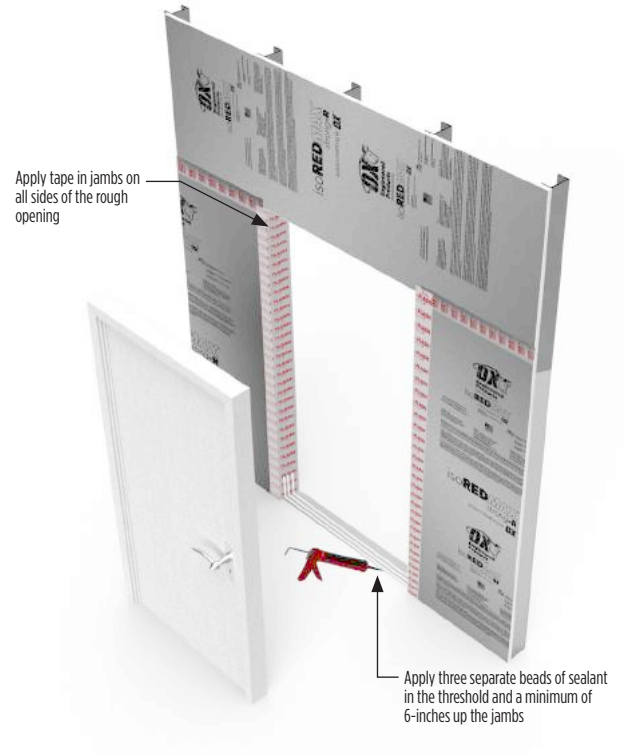


07 | Door Installation

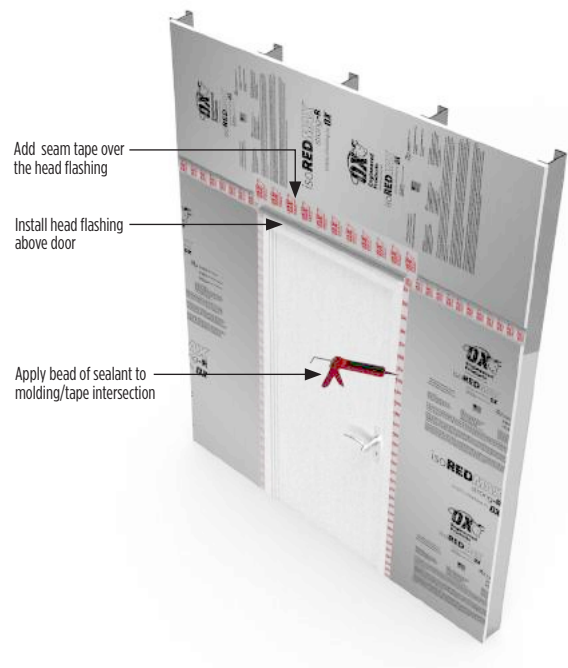
Brick Mould Door Installation

- Install approved OX tape in jambs of the rough opening as shown in Detail I on a clean/dry surface
- Apply three separate beads of sealant in the threshold and a minimum of 6-inches up the jambs
- Once the door has been installed into the rough opening in accordance with the manufacturer's installation instructions, apply a bead of sealant at the molding/tape intersection
- Install head flashing above door and then tape top of head flashing with OX approved tape

Detail I

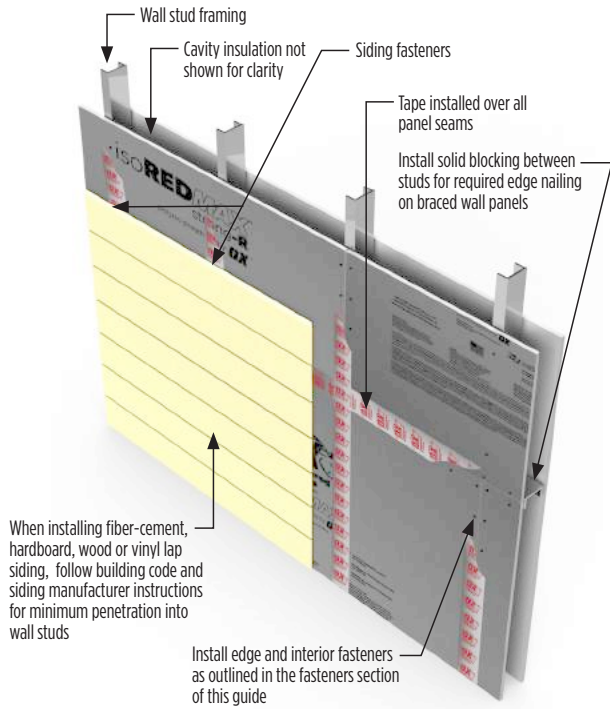


Detail J

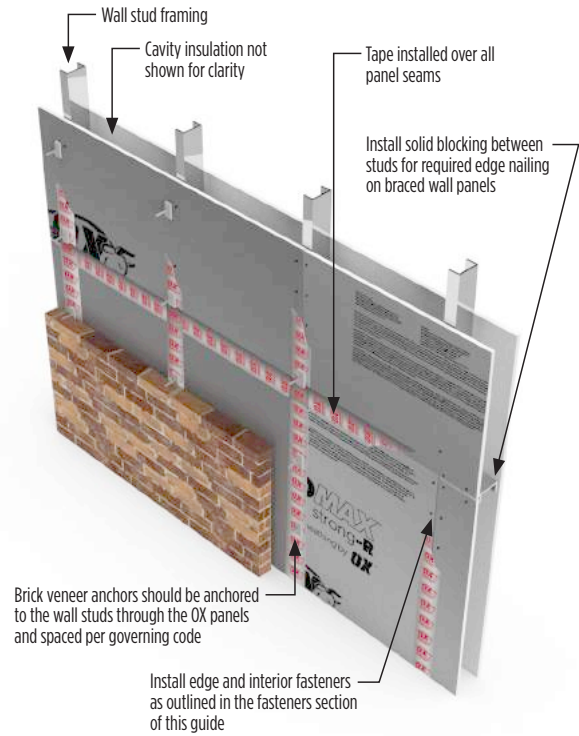


08 | Exterior Cladding Installation

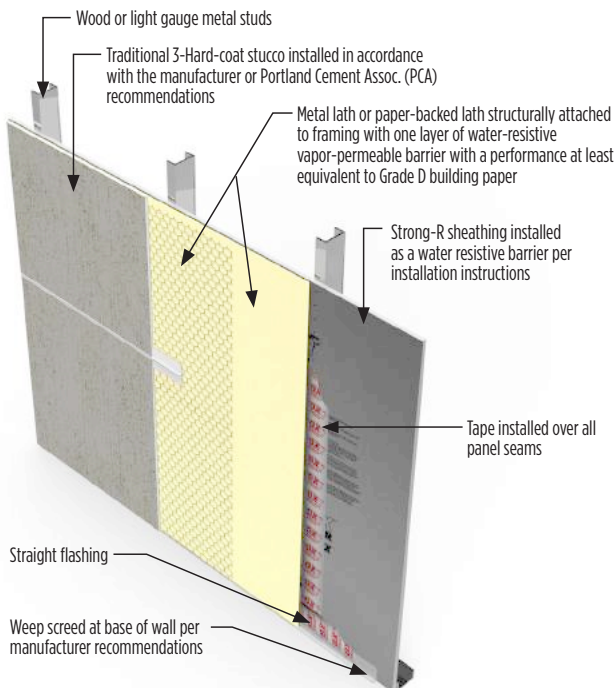
Lap Siding



Anchored Masonry Brick Veneer



Stucco



Disclaimer

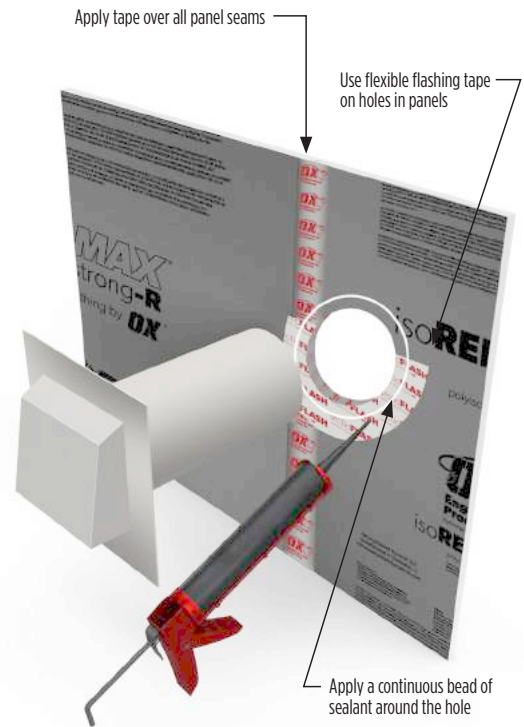
The diagrams in this guide represent a general overview for the proper exterior cladding installation. Please defer to the installation instructions of your cladding manufacturer and local code requirements to ensure best results.

09 | Vents and Openings Installation

Typical Vent Installation

- Install approved OX tape in holes in Strong-R panels as shown in Detail K on a clean/dry surface
- Use flexible flashing tape on lower side of holes covering the foam panel interior
- Apply a continuous bead of sealant on top of flexible flashing tape
- Install heavy flashing on top and sides of vent and then tape top of heavy flashing with OX approved tape
- All vents and penetrations should be properly blocked per manufacturer recommendations

Detail K



Detail L - Completed installation

