

THE CONNECT SYSTEM

A simplified mortarless system to mechanically fasten Eldorado Stone CONNECT profiles to a wall with ease.

INSTALLATION GUIDE

THE CONNECT SYSTEM INSTALLATION GUIDE

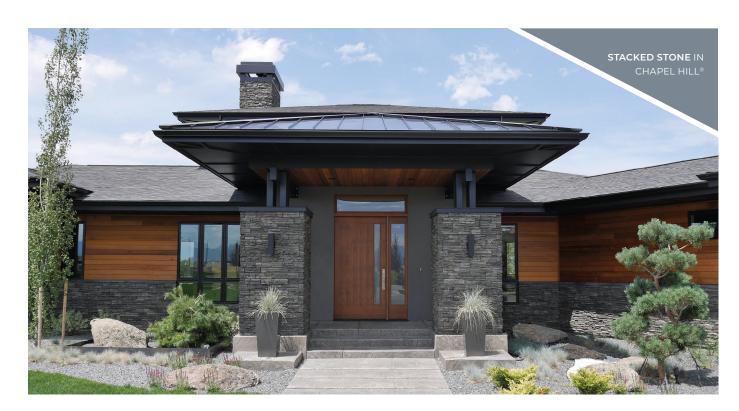
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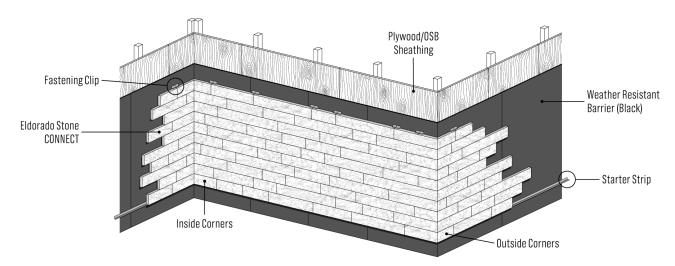
COVER PHOTOS:

(Detail) STACKED STONE IN BLACK RIVER $^{\circ}$ (Install) STACKED STONE IN NANTUCKET

PRODUCT OVERVIEW



The **CONNECT** System offers the authenticity and natural details of Eldorado Stone with a clip system for added installation and wall performance benefits. The **CONNECT** System installs easily with screws and creates a 10mm air gap between the stone and the wall. The air gap allows water and air to pass behind the stone, creating a rainscreen for wet environments. The clip system also allows for simple installation in colder climates where mortar can be difficult to manage.



PROFILE PRODUCTS + ACCESSORIES

FLATS

The **CONNECT** System features the Eldorado Stone Stacked Stone profile and is available in five colors.



BLACK RIVER®

STACKED STONE CONNECT



CHAPEL HILL®

STACKED STONE CONNECT



DARK RUNDLE®

STACKED STONE CONNECT



NANTUCKET
STACKED STONE CONNECT

CORNERS



SILVER LINING STACKED STONE CONNECT

WAINSCOT SILLS*

Corners are available in varying lengths and are meant to be installed alternating vertically between long and short pieces to create a staggered, natural look between courses.



Wainscot sills create a perfect horizontal transition between stone installation and other siding materials. These sills project past the stone veneer installation to divert rainwater. 19.75"L \times 4"D \times 2"H (FACE) / 2.75"H (BACK)



OUTLET & LIGHT BOXES*

These accessories create a simple yet decorative way of transitioning from an outlet or light box to stone veneer. Outlet Box: $6" \times 8" / \text{Light Box}$: $8" \times 10"$





*Note: Installation of any accessories should be completed at the beginning of the installation process to allow for easy access.

HARDWARE + TOOLS REQUIRED

HARDWARE

The following hardware is **not included** and can be purchased separately to complete installation:







1" STAINLESS STEEL #2 SQUARE-DRIVE, PAN-HEAD #8 SELF-TAPPING **SCREWS**



STAINLESS STEEL **STARTER STRIPS**

TOOLS

- Wet Tile or Masonry Saw
- Electric Drill
- #2 Square Drive Drill Bit
- Caulking Gun
- Grinder
- Tape Measure
- Hack Saw
- Self-Adhered Flashing Tape
- Rubber Mallet
- PL Premium Construction Adhesive
- Level

 Recommended PPE Safety Items: gloves, eye protection, grinding face shield, dust mask, dust mitigation cutting system[†] or wet saw, ear plugs or other hearing protection, and steel-toed shoes

*Note: Cutting dust mitigation steps include but are not limited to: wet saw, dust vac system and respirator systems.

OSHA may be required due to specific site conditions.

PREPARATION

WALL PREPARATION

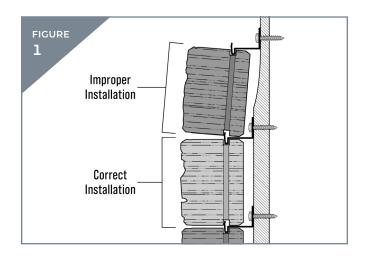
For successful installation, wall surfaces must be flat and smooth, and corners should meet at a 90° angle. **See Figure 1.** Doing so ensures that stones sit correctly on the wall. Slight imperfections are typically absorbed by the natural flexibility of the fastener. If you're finding it difficult to get the stones to sit properly, recheck the flatness of the wall and the squareness of the corners.

Note: The **CONNECT** System is designed to be installed on a vertical wall surface only. Do not attempt installation on a sloped wall or soffit.

Where a WRB is required, it should be installed as two separate layers, in shingle fashion. Fasteners, fastening schedule, and vertical and horizontal lap requirements should follow the manufacturer's installation instructions. The WRB layers must be continuous through inside and outside corners, typically extending 16" to the next framing member. Building codes may allow a single layer of a 60 min WRB to be used when a drainage space is incorporated in the wall system. If the primary WRB is lighter in color, consider covering with a #15 felt meeting ASTM D226 intended for wall application.

BUILDING CODES

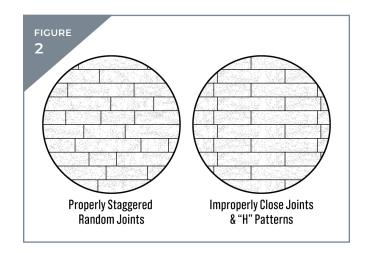
Install products according to the latest building codes and laws. This installation guide is intended to be used in concert with the standard NCMA MSV Installation Guidelines. All wall preparation requirements, material requirements, cautions, disclaimers, and general information should be reviewed and followed.



STONE LAYOUT

By mapping out your stone placement beforehand, you can create a random pattern that will result in a more aesthetically pleasing design. To emulate the realistic appearance of natural stone, we suggest staggering each course with large and small pieces throughout and to avoid having seams line up between two courses. *See Figure 2*.

Furthermore, using stones from at least 3 different boxes will generate a richer variation in colors than you would get from just pulling from one box.



INSTALLATION

1 INSTALL THE STARTER STRIP AT THE BOTTOM OF THE INSTALLATION

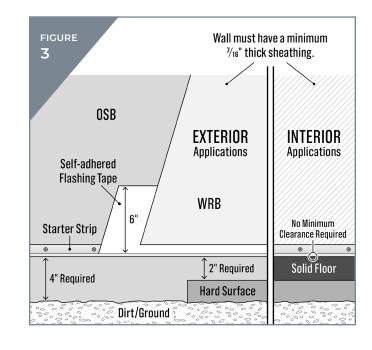
1. Make sure your wall meets the minimum requirements for installation.

Wall sheathing must be a minimum of 7/16" thick OSB or plywood. This will ensure the screw and clip system will attach securely to the wall and adhere to code and compliance minimums. See Figure 3.

Note: Sheathing should be installed per local building code requirements.

2. Place your starter strip on the wall based on the requirements specific to exterior or interior applications.

For exterior applications, the starter strip will need to be installed a minimum of 4" above the ground, or 2" if installed over a hard surface, such as asphalt. For interior applications you can install the starter strip at floor level, if the floor is a solid, flat surface such as concrete or wood. **See Figure 3.**





3. Secure the starter strip to the wall.

Draw a chalk line at the desired location of the starter strip to ensure it is straight and level. Then secure the starter strip to the wall with 1" stainless steel #2 square-drive, pan-head #8 self-tapping screw. Screws should be placed in each available starter strip hole. See Figure 4. When possible, align screws to hit framing member.

Note: When installing two starter strips next to each other, leave a 1/4" space between them.

4. Install 6" flashing at starter strip location.

Flashing should extend a minimum of 3½" above the starter strip's top edge. Self-Adhered Flashing Tape is suitable for this application.

5. When you reach a corner, follow instructions below.

Outside Corners (see Figure 5): Leave 1/8" space between the end of starter strip and outside corner.

Inside Corners (see Figure 6): Leave a 3" space between the end of starter strip and inside corner.





2 INSTALL FIRST PIECE OF STONE ONTO STARTER STRIP

1. Place your first stone onto the starter strip at one end of the wall.

Once the initial starter strip has been screwed in place, you can begin installing the first piece of stone at one end of your wall. Line up the starter strip's metal flange with the groove on the bottom of the stone. Push the stone down onto the flange until the stone touches the starter strip base. *See Figure 7.*

2. Place the fastening clip into the stone's groove using downward pressure.

Place a fastening clip in the top groove of the stone near the end of the stone with the screw hole up. Push down the spring end of the fastening clip into the top groove in the stone. See Figure 8.

Note: If this is an inside corner, the clip placement may vary. Please see **CORNER INSTALLATION** (page 11) for details.

3. Attach with a single screw.

While applying downward pressure on the clip, attach it to the wall with a single screw in the center hole, ensuring that it remains fully inserted in the groove.





3 INSTALLING ADDITIONAL STONES & CLIPS

Method 1

- 1. Insert the second stone onto the starter strip adjacent to the first stone. Tap the end slightly with a rubber mallet to ensure a tight fit between pieces.
- 2. Place a clip between the seam where the two stones meet and secure in place with a screw. See Figure 9.

Be sure that the fastening clip is centered so that it will lay evenly over the seam between two stones. **See Figure 10.**

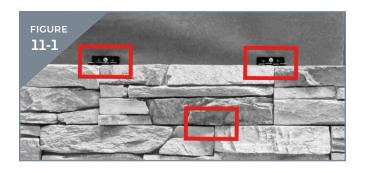
- 3. Continue installing stones horizontally, building one complete course on top of the next, ensuring that there is a fastening clip at the top of each vertical seam between two stones.
- 4. Double check that each stone has three points of contact with a fastening clip.

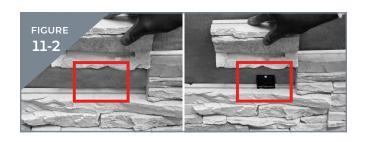
To ensure stones are securely placed, each stone must have three points of contact with fastening clips. See Figure 11-1. Watch for areas where the bottom of the stone does not come into contact with a fastening clip, as this can compromise the installation of that stone. This typically occurs when two small stones are installed on top of a long single stone. In this situation, install an additional fastening clip on the lower stone before placing the next stone in the next course.

See Figure 11-2.









3 INSTALLING ADDITIONAL STONES & CLIPS (CONTINUED)

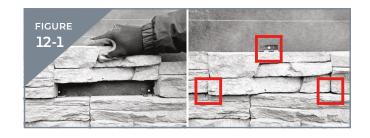
Method 2 (Optional)

- 1. Lay out the first two rows on the ground, making sure that no vertical joints line up.
- 2. Insert the second stone onto the starter strip adjacent to the first stone. Tap the end slightly with a rubber mallet to ensure a tight fit between pieces.
- 3. Place a clip where the vertical joint will occur on the second row of stone above and secure in place with a screw. If no vertical joints occur above the stone being placed, ensure to use at least one clip to fasten the stone on top.
- 4. Continue installing stones horizontally, building one complete course on top of the next, while doubling check that each stone has three points of contact with a fastening clip.

For secure placement, each stone must have three points of contact with fastening clips—two at the bottom and at least one at the top. Two bottom clips keep the stone stable, prevents wobbling, and makes it easy to install the next row. *See Figure 12-1*.

Pro Tips

- By aligning the corner points of each stone, you can reduce the number of clips needed by allowing multiple stones to share the same clips. See Figure 12-2.
- Always have two rows of stone laid out prior to installation on the wall to allow easy placement of the clips on the rows above and to plan vertical joints.





4 ► CORNER INSTALLATION

OUTSIDE CORNERS

1. When you start to reach an outside corner, stop before installing the last flat stone in the course.

Before installing the last flat stone in the course, position the corner piece correctly and measure the distance between the corner piece and the second to last flat stone.

- 2. Cut the last flat stone to fit this distance.
- 3. Install the last flat stone and then install the corner piece, using a fastening clip on the seam between the two stones. See Figure 13.

INSIDE CORNERS

- 1. When you reach an inside corner, you can install the stone on left wall all the way up to the right wall. See Figure 14.
- 2. On the next course, alternate so that the stone on the right wall reaches all the way to left wall.

See Figure 15. This alternate interlocking of stone achieves a more natural look.

3. Repeat, alternating stones in this manner for each additional course. *See Figure 16.*









5 INSTALLING UP TO A TRANSITION

1. Evaluate the space available in the last remaining course.

If the last course of stone does not fit in the remaining vertical space, you can either cut the stones to fit or consider installing a trim board to fill the space. To maintain the integrity of the stone, it is not recommended to cut stone shorter than 1.5" in height.

2. Install clips on the vertical side of each stone instead of on the top.

To ensure the final course of stones can be installed under an existing transition, the final two courses before the transition will need to be secured with clips on the sides of the stones instead of the top. See Figure 18.

3. If necessary cut the clips to adjust to the stone height.

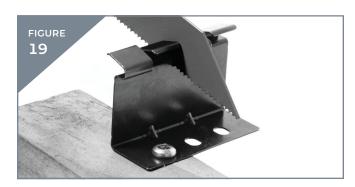
If the clip is wider than the height of the stone, secure the clip and cut it in half using a hack saw, reciprocating saw, or metal cutting blade.

See Figure 19.

Note: Do not attempt to use any clip cut shorter than 1.5". Clamp or hold clip with a vise or vise grips to secure during cutting.







Caution: Product contains Crystalline Silica. Dust from cutting or sawing may create possible cancer hazard. Dust may cause irritation of the nose, throat and respiratory tract. Avoid prolonged or repeated inhalation of dust. A properly fitted, particulate-filtering disposable NIOSH approved N-95 series face piece respirator ("dust mask") should be used when mechanically altering this product (e.g., sawing, cutting, drilling or similar dust generating processes). Wear a long-sleeved shirt, long pants, gloves and safety glasses with side shields when handling and installing material. Wash hands and face with soap and warm water immediately after handling.

6 ► INSTALLING THE LAST STONE

The last stone requires special attention as it will need to be cut and adhered with adhesive.

1. Cut the back retaining flange off the bottom and sides of the stone with a grinder.

Using proper PPE and safety tools, use a grinder or tile saw to remove the material from the back edge of groove on the back of the stone. See Figure 20.

2. Install additional clips if needed.

It may be necessary to install an additional clip or two to help maintain squareness and proper spacing from the wall when inserting the final stone into the opening.

3. Apply construction adhesive.

Apply approximately 3/8" adhesive bead on the inside edges and any clips on the already installed stones. **See Figure 21.**

4. Insert the final stone into the remaining hole and apply pressure to secure it. See Figure 22.

You must maintain stone and adhesive contact during curing. Using shims or temporary screws is recommended to maintain pressure.







7 ► REPAIRS + REPLACEMENTS

In the case that you need to replace a stone in your wall system, use a **chisel** to remove the damaged stone, then follow the same process as you did for **INSTALLING THE LAST STONE**.

8 - WAINSCOT SILL INSTALLATION

The groove on the wainscot sill is inset into the back, further than the flats and corners to allow for a tight and seamless installation. Building codes require flashing at all penetrations, terminations, and material transitions.

1. Screw three fastening clips upside down underneath your wall transition where you plan to place your wainscot sill. See Figure 23.

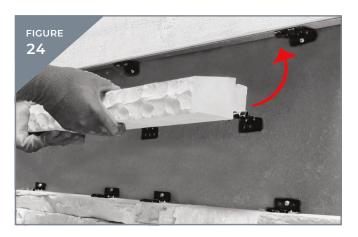
By installing them upside down, you are able to easily attach your wainscot sill later on.

2. Insert two fastening clips upside down into the groove on the bottom of the wainscot sill.

The first clip is centered on the end seam and the second clip is centered on the wainscot. See Figure 24.

- 3. Slide the wainscot sill onto the fastening clips underneath your wall transition. See Figure 24.
- 4. Screw the two fastening clips on the bottom of your wainscot sill to secure it in place. See Figure 25.
- 5. The final wainscot sill will require a third clip at the end of the course.







9 DOUTLET + LIGHT BOX INSTALLATION

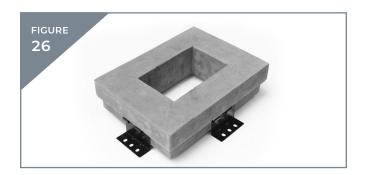
Like the wainscot sills, the grooves on the outlet and light boxes are inset into the back, further than the flats and corners, to allow a tight and seamless installation. Make sure all penetrations are sealed and flashed properly before installing trim pieces.

Note: Installation of accessories should be completed at the beginning of the installation process to allow for easy access.

- 1. Place clips in the grooves on all four sides of the accessory. See Figure 26.
- 2. Secure the accessory to the wall.

Place the accessory over the outlet box and screw it to the wall at all four points, ensuring it is level. See Figure 27.

Note: An outlet box extension as indicated in **Figure 27** may be required by your local building codes.





MAINTENANCE

When needed, you can clean stone using a solution of mild detergent with water and scrub the surface with a soft bristle brush. Never use wire brushes, acid cleaners, power washers, bleach, paint remover, or any other type of concrete or masonry cleaner.

If efflorescence occurs, please contact **Customer Service** at **(800) 925-1491** for recommendations.

Although not required, a water repellent coating will provide added protection and will make the stone easier to clean. Use only a Silane or Silane/Siloxane blend, like **CraftShield**.™ A water repellent coating may affect the stone color and may create a gloss or matte finish. Always test a small area beforehand.

Because Eldorado Stone replicates natural stone, variations should, and can be expected. Even though colors in this brochure are as close to the actual stone as possible, photographic and printing techniques —and actual viewing conditions — can alter perception of color. It is recommended to obtain a sample of Eldorado Stone before placing an order.

If you would like more information on prices, availability of stone, the name of your local distributor, or answers to any questions not covered in this brochure, please contact us. We would be happy to assist you with your stone building plans. Detailed installation instructions, specifications, technical information and test data is available upon request or can be found on our website.





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