

Getting Started

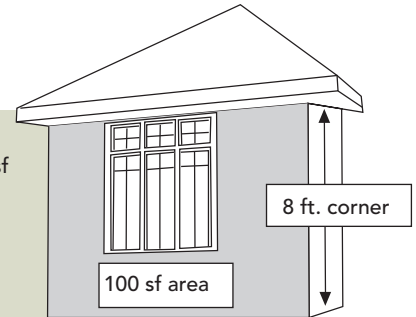
Congratulations on your decision to enhance the look of your home with Boulder Creek Brick products. Boulder Creek Brick products are made from a lightweight concrete material that replicates the look and texture of natural brick, and offers the benefit of being able to be installed directly to any surface.

Calculating Materials Necessary

If you haven't already purchased your materials, you may be wondering how much Boulder Creek Brick will be necessary to complete your project.

- First, measure the square footage of the total area to be covered by brick.
- If you will be using corners on your project, plan for each linear foot of corner pieces to cover $\frac{3}{4}$ square foot of area.
- Example: If you had a 100 square foot wall with an 8 foot corner, the corner pieces would cover 6 square feet of the wall. So, subtracting 6 from 100, you would need 94 square feet of flat brick to cover the face of the wall, and 8 linear feet of corner pieces.

Example:
Total Surface Area= 100 sf
Corner Height = 8 ft.
 $8 \times \frac{3}{4} \text{ sf} = 6 \text{ sf}$
(Coverage by corners)
 $100 \text{ sf} - 6 \text{ sf} = 94 \text{ sf}$



Tips

Some things to keep in mind before, during and after the installation process:

Keep the Brick Clean During Installation

- Keep your hands clean.
- Be cautious not to get mortar on the face of the brick.
- If wet cement is smeared on the brick, it leaves a thin film that dulls the brick. Take a sponge and clean water right away and keep washing with clean water until film is all gone.

Salt will Damage the Brick

- Do not use salt where it may splash or get on the brick.

Prevent Mud Splashing

- Where rainfall may splash mud on the brick, put down hay or straw to prevent mud splashing.

Check Local Building Codes

- Building codes vary from area to area.
- The absence or incorrect installation of water proofing, flashings, J-weep, stucco stop, caulking around doors and windows, cant strips, gutter and down spouts may result in water infiltration and cause damage in later years.

Cold Weather installation

- Installations should be protected from temperatures below 40° F (4° C).

Environmental Considerations

- It may be required to moisten the scratch coat and the back of the bricks being applied.

DO NOT USE ACID TO CLEAN THE BRICK

Tools and Materials

For the installation, we recommend the following tools and materials:

- | | | | |
|-----------------------------------|------------------|------------------|-------------------------|
| • Hammer | • Tin Snips | • Level | • Dust Mask |
| • 1 $\frac{3}{4}$ " Roofing Nails | • Wheel Barrow | • Grinder | • Grout Bag |
| • Hammer Tacker | • Hoe | • Circular Saw | • Medium Bristled Brush |
| • $\frac{1}{2}$ " Staples | • Masonry Trowel | • Safety Glasses | |

Step 1: Preparing the surface

J-Weep/Weep Screed

Apply corrosion resistant High Back J-Weep or Weep Screed at the bottom of the wall. The J-Weep should be held at least 4" above grade or 2" above hard surfaces, i.e. sidewalks, driveways, patios, etc.. If the hard surface is supported by the wall foundation, the J-Weep, may be set as close as 1/2" - 3/4" above hard surface to allow for proper drainage.

Water Resistive Barrier (WRB)

If you will be installing the brick on an exterior non-masonry surface it is recommended to apply a WRB such as a two ply Grade D 60 minute paper or two layers of #15 felt. Starting with the bottom edge at the lip of the J-weep continuing upward in a shingle-like fashion. Overlap WRB a minimum of 2" on horizontal seams and 6" on the vertical seams.

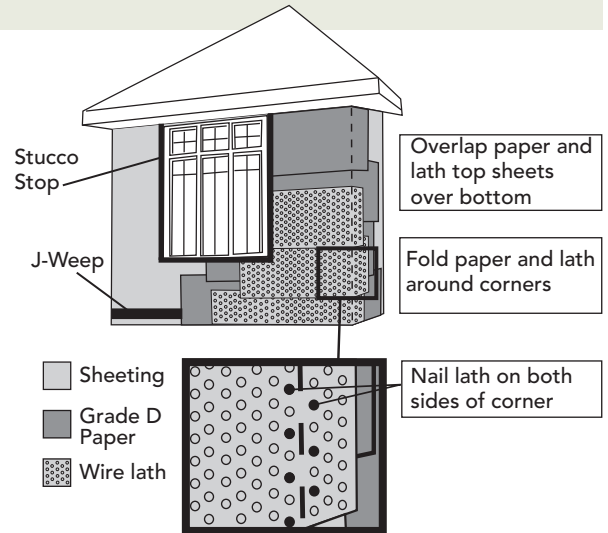
Stucco Stop

Apply stucco stop channels along the sides and bottoms of windows and doors, as well as any vertical transition locations, (change points for cladding materials, i.e. stone to siding). Hold stucco stop back from the door / window frames, or vertical trim / J channels far enough to install the desired rope and caulk sealant, typically 3/8" - 1/2".

Note – make sure the drip cap on the top of the windows or doors extends far enough on each side to cover the stucco stop channels.

Wire Lath

- Directly over the WRB, or directly over the sheeting on an interior project, cover the area with wire lath. Boulder Creek recommends using 3.4 lb. sq/yd or 2.5 lb. sq/yd corrosion resistant lath.
- Install the lath horizontally.
- Overlap the lath a minimum of 2 inches on the vertical seams, and at least 1 inch on the horizontal seams. The overlapping lath must begin or end on a framing member.
- The lath should feel smooth as you run your hand down over the lath and rough as you run your hand up over the lath.
- Use Fasteners (nails, staples, etc) that will penetrate the framing members a minimum of 1 inch. Fasteners to be placed every 6 inches vertically into framing members.
- When working with corners, fold the lath tightly around the corner. This rule applies for inside corners also; fold the lath at a 90 degree angle and fit it tightly into the corner. See diagram above.
- Never have a seam on a corner.
- **It is very important to fasten the lath on both faces of the corner. See diagram above.**

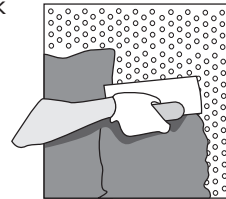


Step 2: Scratch Coat

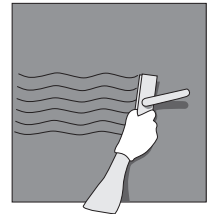
- Mix Mortar
Dry mix together 1 part Portland Type I or II or Type S cement with 2-1/4 parts sand. Slowly add water to the mixture a little at a time and continue mixing the mortar adding small amounts of water as needed until it is the consistency of peanut butter.
- Use a masonry trowel to work the mortar into and over the lath. Cover the entire area of lath with the mortar mixture. The lath should be fully encapsulated. **The scratch coat should be a uniformly level surface.**
- While the mortar is still slightly wet, use a stiff bristled brush or scratch coat rake to rough up the scratch coat.

- After the scratch coat has become sufficiently cured to support the application of brick, the brick could be applied. It may be necessary if the scratch coat has become dry prior to application of the brick to re-dampen the scratch coat and may be necessary to re-dampen while applying the brick. There should be no free standing water on the surface when the brick is applied.
- Use care not to get mortar into the rope and caulk channels created by the stucco stop.

Apply the scratch
over the lath using
a masonry trowel



Use a medium
bristled brush
to rough up the
scratch coat



Step 3: Applying the Brick

Layout the Brick

Before you apply the brick, lay out a few boxes in front of your project. This will give you a sense for the variety of colors you will be working with.

Chalk Lines

Once the scratch coat has set up, snap chalk lines to course out the brick. Be sure to allow for proper spacing. Typical grout joints range from $\frac{3}{8}$ " to $\frac{1}{2}$ ".

Mix Mortar

Dry mix together 1 part Portland type I/II or Type S cement with 2- $\frac{1}{4}$ parts sand. Slowly add water to the mixture a little at a time and continue mixing the mortar adding small amounts of water as needed until it is the consistency of applesauce.

Moisten Surfaces

Thoroughly wet the scratch coat surface with water prior to applying setting bed mortar and brick. It may be necessary (i.e. dry, arid conditions) to also wet the back of the brick prior to applying the setting bed to the brick.

Work From the Top Down

Whenever possible work from the top down to prevent cement from dripping on the bricks beneath.

Install Corners First

Start at the corners and work toward the center of the wall. Be sure to alternate long and short returns on corner pieces.

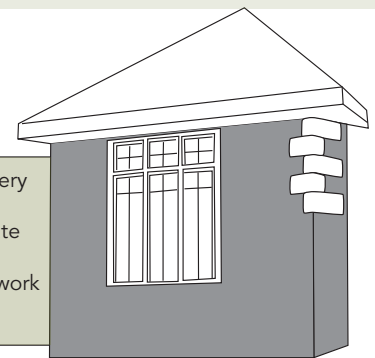
Cutting the Brick

Any power saw with a masonry blade will work. This cutting will be very dusty, so be sure to wear safety glasses and a dust mask and do all cutting outdoors.

Applying the Brick

The back of each brick should be entirely buttered with mortar mixture to a nominal $\frac{3}{8}$ " thickness. Firmly **work** the brick into the scratch coat while pressing and moving back and forth to set the brick, mortar should ooze or squeeze out slightly around the edges of the brick during this process. Cautiously remove excess mortar that has oozed out from behind the brick being careful not to bump or disturb an adjacent brick. Further movement once a brick is set will break the bond. If the bond is broken, you will need to remove the affected brick and mortar and restart the application process.

- Snap Chalk lines every other course
- Lay bricks in alternate rows
- Start from top and work down



Step 4: Applying the Grout

Mix Grout Mortar

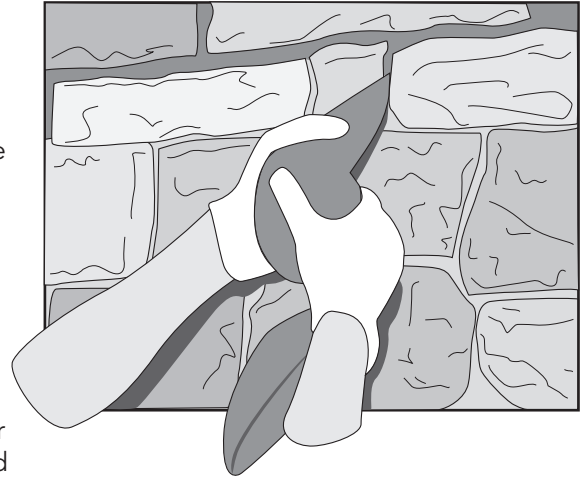
Dry mix together 1 part masons cement (Type N or Type S) with 2-¼ parts sand. Slowly add water a little at a time and continue mixing the mortar adding small amounts as needed until it is the consistency of peanut butter.

Cut Grout Bag

Cut about ⅜" - ½" hole in the tip of your grout bag. It's best to start by cutting a smaller hole, and you can always cut more later, but if the hole is too big, the cement will drip out and stain the brick.

Using Grout Bag

- Fill your grout bag about half full with the grout mixture.
- Twist the top end of the bag and squirt some grout back into the bucket. This will prevent air pockets from causing the grout to accidentally squirt out explosively.
- Keeping the top end of the bag twisted, firmly squeeze the grout into the joints. Fill all the gaps between the bricks with grout mortar to slightly above the desired finish depth. The grout will tighten and seal up the area around the brick.



Letting the Grout Dry

Let the grout dry until it is firm but not solid. You want to be able to push on it without leaving fingerprints, but don't let the grout turn gray or it will be very difficult to strike.

Striking the Grout

Strike the grout using a rake, striking stick or joint tool to achieve the desired look. Be careful not to strike the grout too soon as this will cause smearing.

Sweeping the Brick

Finally, use your medium bristled brush to sweep the dust off the brick.

For further information about Boulder Creek Stone Products,
Please visit us online at www.boulder creek stone.com and www.boulder creek architect.com
or call us at 1-800-762-5902.



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