

PART 1-SAWN THIN VENEER GENERAL

WORK INCLUDED:

All labor and material for the furnishing and installing of exterior or interior stone building veneer.

RELATED WORK:

Masonry Contractor shall include building into the masonry equipment and materials furnished through other divisions such as lintels, steel framing, shelf angles, anchors, sleeves, thimbles, piping, flashings, and other miscellaneous items, and shall also be required to do the cutting and patching of masonry where necessary to accommodate work of other trades, all as hereinafter specified, shown on plans, or reasonably implied in either, providing a complete job.

SYSTEM DESCRIPTION:

Non-structural building wall veneer comprised of naturally occurring quarried stone sawn thin to 3/4" - 1-1/2" +/- thick, set in cement mortar.

SAMPLES:

Provide samples of adequate size and quantity to represent the full range of color, texture, and other naturally occurring characteristics of the stone for approval.

DELIVERY, STORAGE, AND HANDLING:

1. Stone shall be delivered on pallets.
2. General Contractor shall provide a dry, stable roadway for stone delivery truck and equipment for removing loaded pallets from truck.
3. Pallets shall be placed on level ground and shall not be stacked.
4. Contractor shall provide tarpaulin covering during inclement weather.

SITE CONDITIONS:

Before commencing with work, tarpaulins shall be provided to protect newly laid masonry from damage by inclement weather. This protection shall be placed and removed as required. Ambient temperature shall be 40 degrees or above while masonry is being erected. When ambient temperature falls below 50 degrees the mortar mixing water and that used for wetting down stone shall be heated.

PART 2 - CHOOSE THIN VENEER PRODUCT

[VIEW OUR THIN VENEER PRODUCT ONLINE](#)

PART 3 - STEPS TO PREPARATION

MEASURE AREA

1. **FLATS:** Find your square footage by multiplying the length of your area. Then measure the square footage of any doors, windows, etc. and subtract their square footage from the total square footage.
2. **CORNERS:** Measure the lineal footage of the corners needed. Handy packs hold 10 lineal feet. Please Note: The following corners, because of their larger size, are packaged 8 lineal feet instead of 10 lineal feet: Wisconsin Split Fieldstone, Wisconsin Granite Cobbles, Aqua Grantique 7 1/2", Aqua Grantique Tumbled 7 1/2", Highland Brown 7 1/2", Glacier Bay 7 1/2", Sandy Creek 7 1/2", Carmel Cream 7 1/2", Desert Blend 7 1/2" & Wausau Red. Crates hold 100 linear feet of corners.

Please note: You will need to round up to the nearest 5 square feet. Handy packs hold 5 square feet. Thin veneer crates hold 100 square feet. Crates hold around 250 square feet. (Example: If, after subtracting your windows, doors, etc. from the total square footage, you have 121 square feet, you would have to round up to 125 square feet. Then you would order 1 thin veneer crate and 5 handy packs.)

SELECT MATERIAL

Determine the look you are trying to achieve. Choose the material that best meets the color, shape, and size for your design.

PURCHASE MATERIAL

1. Stone

When purchasing the material you may place an order and pick it up from Krukowski Stone if it is a quantity your vehicle can handle or if you prefer to buy the material as you need it. Another option is setting up a delivery so you can receive all the material at once and save multiple trips.

2. Weather-Resistant Barrier

ASTM D 226, Type 1 No. 15 felt

3. Metal Lath

Minimum 2.5 lb. expanded metal lath (diamond mesh) galvanized or 18 gauge galvanized woven wire mesh or other code accepted mesh or lath. For metal buildings & open stud construction minimum 3.4 lb. 3/8" rib expanded galvanized metal lath.

4. Fasteners

Galvanized nails, staples, or concrete nails.

5. Mortar

Mortar: Type N

Mortar Color: iron oxide color (if desired).

GET READY

1. Gather all the material needed for your project.

- Veneer Material
- Masonry Hammer or Nippers
- Weather Resistant Barrier
- Strike Tool or Joiner
- Galvanized Metal Lath
- Whisk Broom
- Type "N" Mortar
- Grout Bag
- Mason Sand
- Safety Glasses
- Water
- Dust Mask
- Wheelbarrow or Cement Mixer

Optional Materials / Tools

- Trowel

- Skill Saw with diamond/masonry blade
- Gloves
- Stone Sealer

2. Follow all safety procedures.

- Wear gloves and safety glasses to protect your hands and eyes.

3. Tips

- For irregular shaped material cutting or trimming may be required. To shape the veneer material, use a hammer and stone chisel to score a line where you want the stone to break. Do not hit the chisel too hard or it will cause the stone to break unpredictably or in many pieces. Another way to cut the stone is by using a circular saw with a diamond tipped blade, and for some materials you may also need some water.

PART 4 - VENEER STONE EXECUTION

BUILDING CODE REQUIREMENTS

Building code requirements vary from area to area. Check with local authorities for building code requirements in your area.

PREPARE YOUR SURFACE

1. Concrete wall

Real Quarried Stone can be mortared directly to Concrete (poured or block walls) or Brick on interior and exterior surfaces. Concrete that is painted or coated must be cleaned using sand or water-blast. If unable to thoroughly clean, a metal lath will need to be adhered and a scratch coat of mortar applied.

2. Wood or Metal frame surface

On Wood or Metal frame surfaces (1/2" plywood, drywall, wallboard, cement board, wood paneling or metal building) you would need to prepare the surface by doing the following steps.

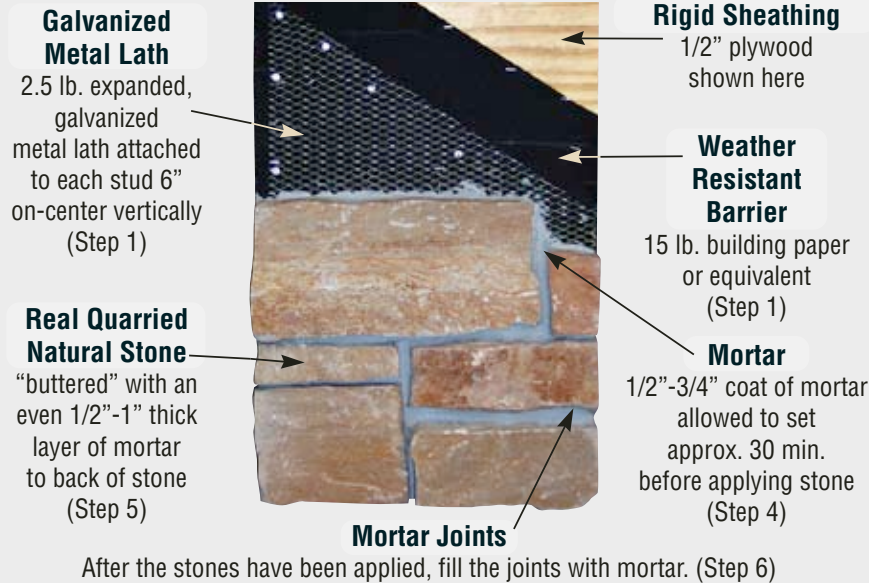


- Apply a moisture control barrier (15 lb. building paper or equivalent) over the rigid sheathing. Lap the barrier 4" at all seams.

- Tightly apply metal lath 6" on center vertically with heavy staples or galvanized roofing nails long enough to penetrate 1" into studs. If going around a corner make sure to wrap the metal lath around the corner at least 16".

- Attach the lath with the correct side up (horizontally-the small cups should be pointing upward).

Wood Frame Sequence Diagram



3. Metal Building

On metal buildings lap and install paper backed 3/8" rib expanded metal lath to metal cladding supports of 20 gauge to 12 gauge. Using U.S. Gypsum Co.'s 1 1/4" type S-12 Pancake Head Super Tight Screws. Screws must penetrate 3/8" beyond the inside face of metal surface.

Screws should to be installed on centers equal to 1 screw per square foot and shall not exceed 6" on center in one direction.

4. Open Studs

Apply a Polystyrene Insulation Board Installed over the open studs.

Lap and install paper backed metal lath to studs using nails which penetrate a minimum of 1" at 4" on center.

LAYOUT OF STONES

Before applying stone, it is best to layout an area of stone near the work area to help find color, shape and size to design your pattern. This will allow you to layout and rearrange the stone in the most pleasing design.

-Because this is a real stone from a quarry you may need to remove debris from some stones; a few pieces may need to be cleaned with water and a brush prior to application.



MIXING THE MORTAR

Type "N" or pre-blended stone mortar mix. Use one part "N" mortar with two parts mason sand. Mix enough water to achieve a workable consistency.

This mortar will be used for the scratch coat, buttering the stone and to grout the joints.

A liquid bonding agent can be added to the mortar for additional bonding strength. Follow manufacturer's instructions.

SCRATCH COAT APPLICATION

Install a scratch coat 1/2" to 3/4" thick coat of mortar to the metal lath in a workable area.

Do not apply scratch coat to the entire area. Only work in sections, approximately 5-10 square feet, and so stones can be applied before mortar dries.

Allow the scratch coat to set for 30 minutes.

If you are applying the stone directly to concrete and masonry surfaces you will need to improve the wall's adhesion capabilities. To do this dampen the wall prior to installation or add a liquid bonding agent to the mortar mix.



APPLY THE STONE

Install **corner stones** first starting at the bottom and working up. Apply an even, 1/2" - 1" thick layer of mortar to the back of the stone (a.k.a. "buttering"). Because each stone will be a different thickness you'll need to adjust the amount of mortar applied to the back of each piece.

You may need to insert galvanized screws around stones that needed to be held in place while mortar sets.



Attempt to keep the joints between stones a consistent height and width no larger than 1/2" if possible (because of the natural contour of the stone there will be areas where joints will be greater than 1/2") and avoid having joints that line up vertically between rows.

Press the stone firmly into place until the mortar behind the stone squeezes out on all sides. Wiggle the stone as you press to assure a firm bond.

Clean stones as necessary during installation. Do not allow the mortar to dry on stone's surface overnight.



Note: Stones can be cut and shaped with a masonry hammer, nippers, or cut to length using a Skill saw with either a dry or wet cut diamond or masonry blade. Position cut edges away from view when possible.



GROUTING & STRIKING THE JOINTS

After the stones have all been applied, fill the joints with mortar using a grout bag. Conceal any noticeable broken or cut stone edges by covering with mortar.

Wait for the mortar to firm in the joints and then rake out the excess using a wood or metal strike tool. Joints can remain flush or raked for the desired look. Portions of the featured Real Quarried Stone photos depict flush and raked joints. Seal all joint edges by applying pressure on the mortar, causing mortar to move in to the joints.

Note: The mortar joints will smear if they are worked too soon.



BRUSHING AND CLEANING THE AREA

When the mortar becomes crumbly use a dry bristle brush or a small whisk broom to clean spots of mortar off the stone's face.

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When the mortar becomes crumbly use a dry bristle brush or a small whisk broom to clean spots of mortar off the stone's face.

Note: Loose mortar and mortar spots should not be allowed to dry overnight.

Using just a stiff brush and clean water is recommended for cleaning the stonework. A mild solution of granular detergent mixed with water may be used to remove dirt or other stains.

Once all cleaning is complete a stone sealer may be applied to enhance the stone's color and give it a shiny appearance. Be sure to test the sealer on an unused stone before applying to make sure you will like the results.

