Best Practices for Flashing Details

A valuable resource for installing Cultured Stone® veneer.
Helping Create Strong Bonds

As you know, when applying manufactured stone veneer, it’s of the utmost importance to take steps to prevent two common causes of serious damage—moisture and mold.

Cultured Stone® and Simpson Gumpertz & Heger Inc. (SGH), a well-known and widely respected architectural firm, have created this manufactured stone veneer best practices manual, complete with installation steps and corresponding diagrams, to help give you the extra advantage when installing manufactured stone veneer.

Not only is this manual a tool to help take your expertise—and business—to the next level, it’s a valuable resource for additional construction details and ideas. After all, the fewer misapplications, the more satisfied customers. And the more satisfied customers you have, the higher the demand for your services.

For more information about Cultured Stone® or to easily access an interactive version of these best practices in downloadable formats, visit www.culturedstone.com.
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B-2 Watertable Flashing.
Provide a GSM flashing over the top of watertables and wainscots when additional wall cladding occurs above, including additional courses of Cultured Stone® veneer. The flashing should extend on to the Cultured Stone® watertable/wainscot 1/2" minimum. The outer edge of the flashing should have a hemmed edge for stiffness and to protect a raw sheet metal edge from rusting.

C Bedding Seal Under GSM Flashing.
The objective of the bedding seal is to limit water and air infiltration. The 3 options are: a) A generic weatherseal tape with adhesive to keep in place; b) Polyurethane sealant ASTM C-920, Type S, Grade NS, Class 2S; ASTM C-719; c) Mortar filler into voids and between stones.

D Support Angle.
A galvanized metal bracket or clip capable of supporting 5 lb./LF of weight. The support angle can be a continuous bracket or separate clips to support each stone installed to wall framing/stud blocking at 16" on center, maximum. Or, use a 1/2" x 2" x 1/4" x 18-gage clip (equivalent to Simpson Strong Tie A-21) fastened to wall framing with (2) corrosion-resistant fasteners penetrating into wood wall framing/stud blocking 5/8" minimum. Install support angle over cement plaster scratch coat. Pre-drill holes and fill with butyl sealant to the WRB prior to fastening.

E Scratch Coat.
Base coat of mortar consisting of cement plaster shall cover the lath and be 3/8" minimum thickness. See Owens Corning Cultured Stone® veneer material requirements.

F Lath.
Details show a galvanized metal lath separate from the WRB. Paper-backed lath may be considered for open framing or retrofit conditions when accepted by the local jurisdiction. See Owens Corning Cultured Stone® material requirements.

G Window Perimeter Sealant.
A perimeter sealant joint is recommended between the termination of the plaster base coat and vinyl window/door frames. It may also be necessary between some wood window/door frames when there is no exterior trim covering the joint. The exposed exterior sealant needs to adhere to the plaster termination and frame. The sealant selection should be confirmed with the sealant or window/door manufacturer.

These construction details are provided to assist in the installation of Owens Corning Cultured Stone® products. These construction details will not necessarily apply to every design circumstance that you encounter. These construction details may, and most likely will, require modifications to meet your particular design requirements. Manufacturer accepts no responsibility or liability for the use of these or other construction details.
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A-1 WRB = Weather-Resistant Barrier (aka water-resistant barrier). The minimum requirements must meet applicable building code regulations. Provide minimum 6" vertical laps and 3" horizontal laps (preferred) per NFPA 5000 (2" minimum horizontal laps per IRC). Check with local code authority to verify requirements for WRB at specific projects.

1. WRB over wood framing:
   A. 2000 IBC Section 1404.2 and 2000 IRC Section R703 require (1) layer No. 15 asphalt felt per ASTM D 226, Type 1.
   B. (2) layers of Grade D building paper are required for stucco applications over wood-based sheathing in 1997 UBC Section 14.2 and 2000 IBC Section 2510.6. Generally, 2 layers of grade D, 60-minute building paper provide better performance than 1 layer.
   C. (1) layer of building paper is permitted per International Code Council (ICC) Evaluation Report ESR-1364 for Cultured Stone® exterior wall applications.

2. WRB over CMU/Concrete:
   Generally a WRB is not required for the mortar setting base coat over a substrate of CMU or concrete. However, if there is habitable space to the interior, then consideration for water management should be made which may include a WRB. When a WRB is used over a CMU concrete substrate, the fasteners and integration with flashing, drips and screeds may require special detailing consideration, including the use of a mechanically attached lath.

A-2 GSM = Galvanized Sheet Metal. This usually refers to flashings that are fabricated with 24-gage minimum thickness. The sheet metal is coated with a G90 (preferred) or G60 (minimum) galvanizing. GSM flashings should be mechanically fastened and soldered watertight (preferred method). Or, at a minimum, the sheet metal may be lapped and sealed with a butyl or polyurethane sealant. Nail or screw fasteners for GSM flashings must be corrosion-resistant and penetrate to wall framing/blocking.

A-3 SAF = Self-Adhering Flashing. This refers to peel-and-stick type membrane flashings. A 40-mil thickness is preferred, except where multiple layers lap; then a 25-mil thickness may be considered. Install shingle-fashion with SAF-to-SAF laps of 3" minimum. All edges and seams must be rolled flat and tight with a 1" to 2"-wide solid hand roller. Integrate SAF with flashings and WRB lapped in shingle-fashion.

B-1 Foundation Weep Screed. Provide a means to weep water behind the Cultured Stone® veneer at the bottom of framed walls with the mortar setting bed. A weep screed is a building code requirement with cement plaster over wood-framed walls. Use a #7- or #36-type screw with a 3/" vertical leg. Adjust the ground depth for the thickness of the scratch coat and mortar setting bed.
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