



# Q-STONE INSTALLATION



## **Q-Stone**

### **Bond Ratio 55/45**

**55% 6" ("VS") Size and  
45% 12" ("C") Size**

**Pre-Split**

**Pre-Blended**

**Pre-Packaged**

**Antiqued and Rocked**

**All on Two Cubes**

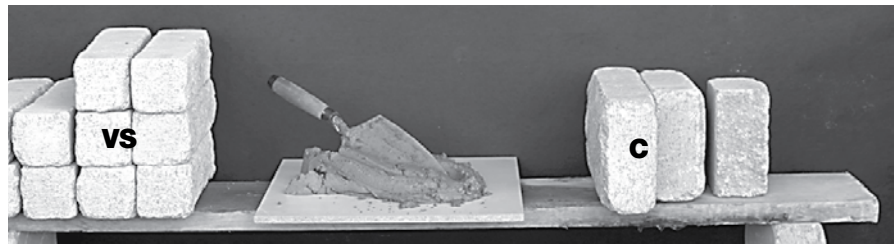
Congratulations! Q-Stone is the Ultimate Choice in Stone for Elegance, Permanence and Warm Visual Beauty. Pre-Split, Pre-Blended, and Pre-Packaged with Antique and Rock-Stone all on two cubes. Follow the Installation Guidelines in a one cube 6" ("VS") Size to one cube 12" ("C") Size ratio for a perfect 55/45 Bond Ratio in the completed wall. Cube quantity 6" ("VS") Size 81 sq. ft. and 12" ("C") Size - 64 sq.ft.





## Getting Ready

Spread smaller Stones 6" ("VS") Size along scaffold with the 12" ("C") Size.



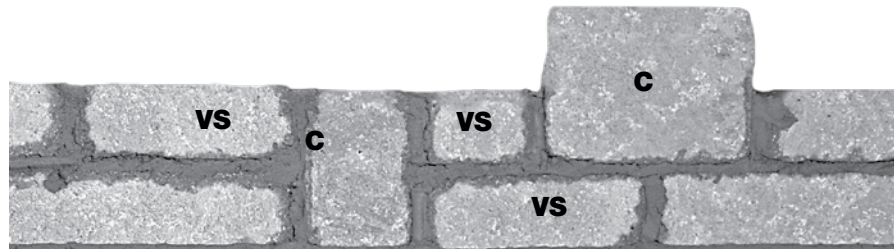
## Getting Started

Lay 6" ("VS") Size in running bond, placing 12" ("C") Size at intervals so the "C"s and "VS"s are installed at approximately the same time.



Use the 12" ("C") Size Stones to break the horizontal lines formed by the 6" ("VS") Size Stones

Use a ½" Mortar Bed Joint to maintain 12" Coursing.

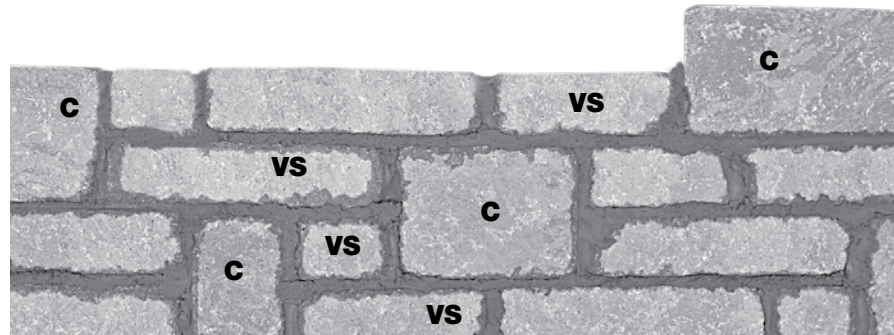


Use a Chisel or Splitter to cut the Stones when required (**Wear Eye Protection**).

Leave Textured Split ends facing out at Openings and Corners.

Distribute the 12" ("C") Size Stones evenly throughout the Wall

Always try to maintain a Maximum 12" Vertical Mortar Joint Height and a Minimum 2" Overlap



Overlap Head Joints a minimum of 2".



Use the longer units in both the "C" and "VS" size to build the Corners.



To create Angle Corners, cut the Stone with a chisel at the desired angle. Use a Chisel or Splitter to cut the Stones when required (**Wear Eye Protection**).



Rub the cut end with a broken piece to restore the Weathered Face.



Allow Mortar Joints to dry to Thumbprint Stiffness then strike with the desired tools, e.g. Concave, Flush or Raked joint.



Sweep the wall with a soft brush to clean up the Joints.

## Masonry Cement

Shouldice Designer Stone recommends the use of Type N masonry mixed at a ratio of 3 to 1 with clean sharp masonry sand. Type S masonry should not be used in conjunction with standard veneer applications.

There are many mortar joint options, including concave, brush, bagged, tooled, struck, raked and flush joint. When the joint type is selected, weather

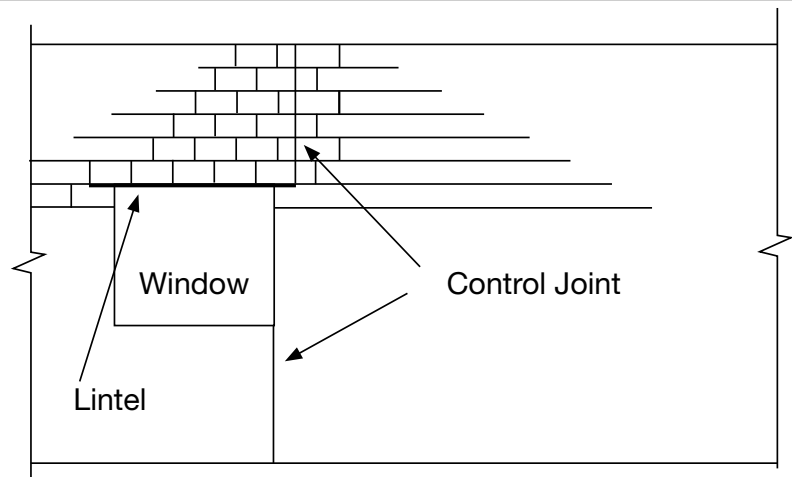
resistance and appearance must be considered.

Use consistent batching procedures when mixing mortar and take adequate mixing time. Tool the joint after the mortar has begun to stiffen slightly. Should a joint be tooled too soon (in a wet condition) a light joint results; and conversely, if a joint is allowed to become too stiff, a dark, burned joint will result.

Shouldice Designer Stone is manufactured using an integral water repellent agent which inhibits water absorption and efflorescence. The low absorption rate may affect set up time of the mortar joints in cool weather. This slow set up time will be an advantage in warm dry weather but it is important to keep all material covered and dry in wet or cold conditions to ensure tooling of the joint can be done at the proper time.

## Control Joints

Concrete masonry walls have a tendency to shrink, whereas clay brick walls tend to expand. Both require movement joints to accommodate this movement. The recommended placement of control joints are as follows: maximum panel length to height ratio of 1 to 1-1/2, and a maximum spacing of 20 feet. Vertical joints may be placed at points of stress such as changes in wall height, openings and ends of lintels.



Correct Control Joint location

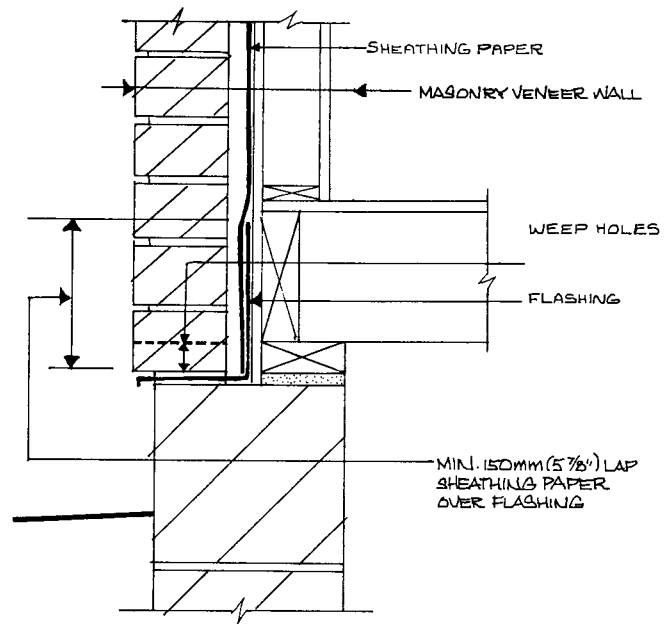
## Flashing And Moisture Barriers

All masonry walls have moisture form in the cavity between the interior wall and masonry veneer from either absorption, condensation or voids in the mortar. The primary role of moisture barriers and flashing is to intercept the flow of water and direct moisture away from the wall interior. Flashings and moisture barriers must be placed at all vulnerable areas. Flashings should be installed at the following locations:

- At grade to prevent dampness or water flow from the ground
- At window sills and headers
- At shelf angles
- At chimney and roof junctures
- At wall roof junctures
- At parapet copings

Weep holes are installed at the elevation immediately above the flashing every 32 inches. Water accumulated by the flashing is relieved by the weep holes. All installations must conform to local and national building codes.

- If Shouldice units are installed in an area that may receive salt or de-icing chemicals or excessive moisture, they must be sealed.
- Failure to follow the above instructions may allow excessive and harmful moisture to accumulate in the wall system.



## Wall Ties and Weepers

Approved wall ties should be used at a ratio of 1 per 2 Sq. Ft. Weepers should be placed approximately every 32 inches at the foundation level and wherever flashings and moisture barriers occur.

## Cleaning Instructions

If cleaning is required, use a mild masonry detergent applied with a soft nylon brush. Contact the office for more detailed information. Pressure washers should not be used as a means for removing excess mortar or splatters.

## COLD WEATHER CONSTRUCTION

When masonry construction is carried on during periods of freezing weather, proper facilities should be available for preparing the mortar and protecting the fresh masonry work against frost damage. The most important consideration is that sufficient heat be provided to ensure hydration of the cement. After combining all ingredients, mortar temperature should be within the range of 4°C (40° F) to 49° C (120° F). The use of an admixture to lower the freezing point of mortars during winter construction should be avoided.

*Always wear eye protection when cutting and shaping Stone, and always wear protection from dust and noise as required.*

**In conditions from freezing to 4° C (40° F):** Heat mixing water, cover walls and materials to prevent wetting and freezing. Covers should be plastic or canvas.

**In conditions below freezing:** In addition to the above, heat the sand. Frozen sand and frozen wet masonry units must be thawed. Maintain masonry above 0° C (32° F) for 16 to 24 hours after laying units.

*Shouldice Designer Stone is manufactured to conform to and exceed CSA A165 Series-04 and the ASTM C90-03 for load bearing units and ASTM C55-03 for veneer units.*



Shallow Lake, Ontario, Canada N0H 2K0  
Phone: 800-265-3174 Fax: 800-211-6060  
www.shouldice.ca • designer@shouldice.ca