Ashlar Planter (Mortared)
Low maintenance requirements and indefinite durability make a stone masonry as financially appealing as it is visually attractive. There are two principal styles. Ashlar, or cut stone, creates a formal effect and is frequently used in the construction of commercial and similar buildings. Rubblestone construction has a more rustic appearance because the stone is either not cut at all or receives only a rough cut. Either style can be laid in courses or at random, with or without mortar. However, ashlar is easier to work with because the shapes are more even. For the same reason, ashlar is also much more expensive than rubblestone. An ashlar project of almost any size requires that the stone be purchased rather then cut by you, while rubberstone may be laid up just as you find it, free in the fields.

In addition to the projects that follow, consider building such things as tree wells, barbeque pits, and fireplaces from stone. Even structural walls can take advantage of stone's endurance and beauty with careful construction techniques. Stone is heavy so work carefully to avoid pinching fingers and toes. Wear work gloves if the stone is particularly rough, and always wear safety goggles or glasses when cutting or breaking up stone with a chisel or sledgehammer.

Required Tools & Materials

- QUIKRETE® Concrete Mix and QUIKRETE® Mortar Mix Mason Mix
- 2x4 or 2x8 scrap lumber, nails, and claw or ball peen hammer
- Stone (1 ton = approximately 50 to 60 square feet, 6" thick)
- Mason's hammer
- 2lb. Mash hammer
- Plain stone chisel
- 2' level and 2' square
- Mason's modular rule,
- 50' steel tape
- Slicker jointer
- Pointer trowel
- Ball of line
- Line pins
- Brush
- Mixing box

- Shovel
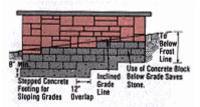- Hoe
- Mortarboard
- Wheelbarrow
- Bucket
- Hose

Step by Step

Footer Construction

1. Stake out an area for a footer 4" to 5" beyond the planter edge on all sides. Excavate deep enough to allow an 8" to 10" footer to be sunk below the frost line.

2. Pour the footer with QUIKRETE® Concrete Mix. Earth or wood forms can be used.

3. If the planter is to be built on a slope, step the footer as shown in order to save on concrete.

4. Depending on how far below grade the footer must be sunk in order to be beneath the frost line, stone can be saved by using concrete blocks to bring the foundation up to the grade level as shown in the diagram. Fill the hollows in the blocks with stone chips and mortar to make a firm base for laying the stone.

Planter Construction

1. Cure the footer for 3 to 4 days before building the planter. Drive stakes and run a mason's line between them parallel to the footer to keep the planter in alignment.

2. The planter is laid up by working from ends towards the middle. Dry-lay the stones first to obtain proper placement; remember to leave ½" head joints between stones.

3. Prepare the QUIKRETE® Mortar Mix or Mason Mix and lay ½" mortar bed along the footer. You are now ready to begin building the planter.

4. Butter the head joints of the stones before setting them in place. Once the first course has been laid, spread a layer or mortar on top of the stones and begin laying the second course.

5. For stability, use larger stones to tie the wall together at the corners.

6. Use the trowel to pack mortar in the joint between courses.

7. Rake out the joints to a depth of ½" after the mortar has set slightly; this will highlight the stone edges. If a slicker jointer is not available for this, use a wooden dowel or small stick.

8. After the second course has been laid, it will probably be necessary to raise the mason's line in order to check that the planter is straight. Because the face of stone is not smooth like brick, the stone is plumbed "bump to bump."

9. Continue building the planter to the desired height, using larger end stones on each additional course. Generally, ashlar planters are constructed 5 or 6 courses high.

10. When the mortar is dry enough not to smear, brush out all of the joints.

For Best Results

- Check local requirements before beginning the project. Many municipalities require a building permit and engineer's approval for any structure more than 3' high.
- To make the foundation more secure, lay parallel 3/8" reinforcing rods lengthwise in the footer and install a 3" gravel drainage bed against it.
- Clean Bedding faces of the stones of all dirt, soil, and vegetable matter before they are laid so that a strong mortar bond is made.
- Use small wooden wedges beneath large stones; their weight might squeeze the mortar out of the joints. After the mortar stiffens, remove the wedges and pack the holes with mortar or QUIKRETE® Quick-Setting Cement.
- If lighting fixtures are to be mounted on the planter, lay the conduit in the wythe cavity at the desired height as work progress.

Rubblestone Walls

Required Tools & Materials

- QUIKRETE® Concrete Mix, and QUIKRETE® Mortar Mix Mason Mix
- 2x4 or 2x8 scrap lumber, nails, and claw or ball peen hammer

- Stone sledgehammer
- 2lb. Mash hammer
- Bricklayer's trowel
- Pointing trowel
- Slicker jointer
- 50' steel tape
- 4' level
- Ball line
- Brush
- Batter board
- Plain stone chisel
- Pointing chisel
- Rolling bead jointer (if desired)
- Mixing box
- Shovel
- Hoe
- Wheelbarrow
- Mortarboard

Rubblestone construction will blend a wall naturally with a surrounding lawn or landscape. Care in selecting and laying the stones must be taken if you are going to use a coursed pattern.
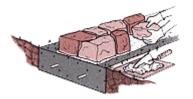
Step by Step

Base Construction

1. Follow steps 1 through 4 in the preceding section.

2. The wall is constructed after the footer has cured for 3 to 4 days. Begin by laying a large stone, approximately as wide as the wall, at each end of the footer. The mortar bed should be thick enough so that the stone rests completely in it, but should not be deeper that 2".

3. String a line between stakes placed at the wall line on each of the footer. The face of each stone should be no more that 1" from the string.

4. Lay the first course in two wythes within the guides, keeping the bed and head joints no more that 2" thick. Use care in selecting the stones so that a larger joint is not required. Larger stones should be used at the bottom of the wall for stability. They will also be easier to position there.
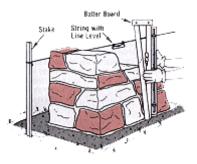

5. On the wider walls and where stones cannot be fitted without

leaving a gap of 2" or less, use stone chips and mortar to fill cavities.

6. Stones of approximate wall-width are laid across the wall at intervals. Bondstones, as they are called, should be placed so that there is one for every 6 to 10 square feet of wall surface to tie the wall together.

Building the Wall

1. Both wythes are worked simultaneously in building up the wall to its full height, with larger stones at lower levels and smaller stones towards the top. Slope the wall inward on both sides 1" for each foot of vertical rise. Use a batter board, which can be built out of scrap wood, to keep the wall plumb.
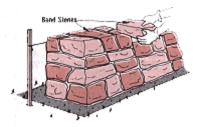

2. Lay end stones first and work toward the middle of the wall. Dry-lay the stones first to obtain proper placement before laying down the mortar. Head joints between stones are not buttered as with brick. Instead, after the stone is set in the mortar bed, mortar is slushed into the head joints between the stones.

3. Periodically lay two smaller stones against a larger one (called a two against one) as each course is laid out. Also, periodically overlap stones. In addition to creating a more natural look, these methods create a firmer bond within the wall.

4. As each course is laid, fill in the cavity between wythes before proceeding to the next course. Bonstones should be set in each course.

5. Broad, thinner stones are laid on top as capping. If possible, they should project 1" on all sides as a drip edge. Tool the joints concave to reduce moisture from entering.
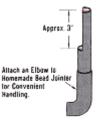
Finishing the Joints

1. Rake out the wall joints ½" to ¾" thick after the mortar has achieved a slight set. Smooth the joints flat with the slicker jointer (use pointing trowel for broader joints) to highlight the stone edges.

2. Brush any lose mortar particles from the joints after they are hard enough to be brushed without smearing.

3. As an alternate, a rolling bead joint can be applied to the wall. After the joints have been raked out to ¾" and brushed, moisten an area that can be pointed within 15 minutes. DO NOT soak the joint.

4. Apply fresh mortar to the joint with a rolling bead jointer, which can be purchased or made from a section of ¾" copper pipe. Apply with a smooth, steady motion from the leading edge of the joint.

5. Blend the joints as smoothly as possible at intersections so that the joints appear unbroken. Going over a joint already laid might pull it away onto the jointer.

6. Brush joints lightly with a soft brush after they have hardened.

For Best Results

Clean all faces of stone before laying them. Dirt, soil, and vegetable matter will prevent the mortar and stone from bonding.

Check local requirements before beginning the project. Many municipalities require a building permit and engineer's approval for any structure more that 3' high.

Construct a small section of the wall to use as a rough gauge of how much mortar to mix and how much will be needed for building the rest of the wall.

The weight of large stones can squeeze mortar out of their bedding joints. Insert small wooden wedges under the stones when they are laid. After the mortar has set enough to hold the weight, remove the

wedges and pack the holes with mortar or QUICKRETE® Quick-Setting Cement.

If stones are in short supply, use concrete blocks to bring the foundation up to the front grade level.

Be sure to keep your tools slightly damp while pointing in order to ease the work. Wipe excess mortar off the tools after each application.