

# Retaining Walls

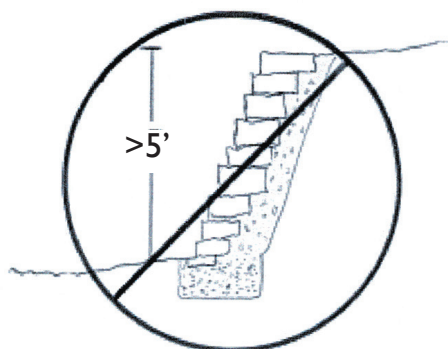
## Dry Stacked Stone Retaining Walls

Functional retaining walls are constructed for purely structural needs. For example, they can be used to level, retain, or terrace a sloping area. Other retaining walls are used for visual effect in the landscape. They are often smaller in size, feature an informal shape, and complement other landscape elements, such as plants, trees, paving and mulches.

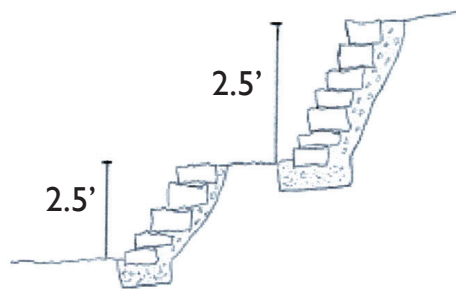
When choosing materials, select the type that is best suited for the desired effect. Many long-lasting materials are available for landscape use including natural wallstone and precast concrete modular units.

Dry stacked walls are held together by friction and the weight of the stones. Because no mortar is used to hold the wall together, water can flow freely behind and through the wall thus relieving a significant amount of pressure on the wall.

Limit the height of the walls to 3 feet or less (a taller wall requires special footings and drain tiles). If a taller wall is needed, the area can be terraced into two or more small walls.



Wrong



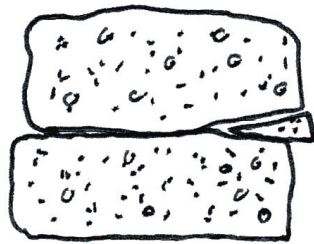
Right

## Step-by-Step Process:

- Step 1: Using a tape measure, string line, stakes, and marking paint, measure and lay out the wall. Use the string line and stakes to mark off any straight portions and the marking paint to draw out any curves. (It is best to keep curves as large as possible.)
- Step 2: Dig a trench about 6"-10" deep and 12"-18" wide along the string line and/or marking paint.
- Step 3: Fill the trench with 3"-4" of paver base. Make sure that the base is roughly level and compacted.
- Step 4: Lay the first course, placing your largest stones in the trench end to end. For best results, check for level front to back and side to side. Use the string line again to make sure the straight sections are straight.

## Step-by-Step Process (cont'd):

Step 5: Next, stack the second course on top of the base course. Make sure the seams between the stones do not line up from one course to the other. Place stones so they fit tightly together for strength and appearance. Often times natural stones will not lay perfectly level. It is then necessary to shim the backs of the stones to eliminate wobbling. Shims are small flat chips that break off the stone when split.



Shim used to eliminate wobble in the wall. The shims are scraps from splitting stones.

Step 6: As you begin to stack the wall up, working from one end to the other, also remember to slope it back toward the high ground, or “batter the wall”. Batter 2” for every 1 foot of height. Backfill behind the wall with crushed stone for good drainage. A barrier of landscaping fabric can be placed behind the crushed stone to retain soil. Also, longer stones can be turned into the hillside to act as anchors or “bond stone”. This will help improve the stability of the wall.

Step 7: Complete the wall by using thinner, flat stones or cap pieces. Use topsoil for final 6”-8” of backfill.

