



# HOW TO BUILD A RETAINING WALL

## BEFORE YOU START CHECKLIST

### 1. Check with your council

Low garden edging can usually be installed without council approval. However walls over 1m will generally need to be designed and certified by a suitable qualified engineer. Walls in locations close to building or driveways, in places where significant ground water or storm water build up can be expected, in steep or unstable terrain, or where there is reactive clay or fine sandy soils, may need special attention. If in doubt please contact your local council.

### 2. Check you have all the right equipment

- ☐ Garden Gloves
- ☐ Wheelbarrow
- ☐ Spade
- ☐ Rubber Mallet
- ☐ Road Base (for leveling Pad)
- ☐ 10mm – 20mm Blue Metal (for drainage)
- ☐ Safety Glasses
- ☐ Spirit Level
- ☐ String Line
- ☐ Small Broom
- ☐ Hammer & Bolster (for splitting blocks)
- ☐ Compactor

### 3. Important Safety

- Always wear eye protection when you're splitting or cutting an Adbri Masonry retaining wall unit. Wear eye protection when you are using a whacker.
- Bend your knees when lifting heavy products.
- Wear work boots to protect your feet & gardening gloves to protect your hands.
- Slip, slop, slap if you are working in the sun & keep your fluids up.

### Tip before you start

A great retaining wall requires a good foundation, correct backfill and drainage. Pay special attention to getting your leveling pad – Foundation to an even depth, and if using road base make sure your bed is compacted to the correct size. Drainage gravel should be 10mm-20mm in size – blue metal is perfect. Remember the first course of blocks will dictate how the final wall looks, so lay them square and true level side to side and front to back. Use a spirit level across the top of the blocks and tap them down with a rubber mallet.

## ADDITIONAL TIPS

Insert a Stake at the centre of the desired curve then mark an arc on the ground with a spray can, connected by the string. For outside curves, the top course will have the smallest radius so make sure this is not less than the minimum for the block type you are using. Conversely, for inside curves the wall radius increases with each subsequent course. For both inside and outside curves, you will need to include partial blocks to maintain a proper running bond.

## ADDITIONAL TIPS FOR CORNERS

To build an outside corner begin by placing a half unit on the corner then lay the rest of the base course working out from the corner block. Begin the second course with another half unit, this time aligned with the alternate wall. Place the second and third blocks on either side of the corner unit. Continue to alternate the corner unit orientation with each subsequent course.

To build an inside corner, place a full block at the corner then lay a second block at right angles to the first. Continue laying out the rest of the base course working from the corner out. On the second course lay the blocks on bond (e.g. like bricks) on one side of the corner. Once the second course of one wall is established, begin the second course of the adjacent wall. Partial units may be required on this wall to maintain running bond for better strength and appearance. Block placement in the corner should alternate direction with each subsequent course.

## INSTALLATION INSTRUCTIONS

**NOTE:** Most councils will require you to get council approval before constructing retaining walls in excess of 800mm in height. Please check with your local council for their requirements prior to installing a retaining wall. Ensure all the conditions listed on pages 22 and 23 are met if using these designs. Additional information is available in the Segmental Retaining Wall Technical Specification Brochure.



### Step 1 - EXCAVATION

- Mark out location of trench allowing same width as footing detailed in included cross sections
- Excavate the selected area to the nominated levelling pad depth plus half the block height
- Remove any roots, soft earth or debris and compact the base of the trench



### Step 2 - PREPARE FOOTINGS/BASE

- Spread granular material or concrete along the bottom of the trench
- Compact the granular material with a whacker-packer ensuring the surface is level, or screed surface of concrete to level.



### Step 3 - LAYING THE FIRST COURSE

- You can now begin laying the blocks using a string line at the rear of the blocks to guarantee a straight wall, or a piece of hose to preferred curvature for a curved wall.
- Ensure the blocks are laid tightly side by side and installed level front to back, side to side and in relation to adjoining units.
- For walls that are regarded as retaining walls not garden edges, consider a 100mm AG pipe with a protective sock, to encourage water to move away from the rear of the wall. Outlets should be located at low points and occur at no more than 20m centres.
- Now that the first course and subsoil drainage is installed you can begin back filling the wall with drainage material such as blue metal.



### Step 4 - CONTINUE BUILDING THE WALL

- We are now able to lay the second course (which will be the same for any other course from here on in). Make sure to sweep off any loose material sitting on top of the blocks that may effect the placement of the next course.

**Note:** Backfill with drainage material as you go as this will keep the wall stable. Be sure to monitor the locking lugs or lips as you go, they are vital to both the appearance and integrity of the wall.



### Step 5 - SECURE THE CAPPING UNITS

- Once again make sure that the top of the block is free of dirt and dust, before the capping unit is installed.
- The capping unit will need to be secured with a suitable construction grade epoxy or adhesive, this will finish the wall neatly whilst ensuring the cap stays on the wall for years to come.

For more detailed  
instructions visit  
[adbrimasonry.com.au](http://adbrimasonry.com.au)