

Arrinastone Retaining Walls

Installation Guide | March 2022



Installation tips

The step-by-step guide to build a Arrinastone retaining wall.

Installing with Arrinastone

1

Permits

Check with your local council to ensure all local Building Codes are complied with.

2

Foundation

The foundation material shall be compacted by several passes of a mechanical plate vibrator. Where there are significant variations of foundation material or compaction, soft spots, or where there is ponding of ground water, the material shall be removed, replaced and compacted in layers not exceeding 150mm. Trenches shall be dewatered and cleaned prior to construction, such that no softened or loosened material remains.

3

Levelling Pad (footing)

Build facing on a levelling pad, no less than 150mm thick and 300–600mm wide. It should consist of one of the following options:

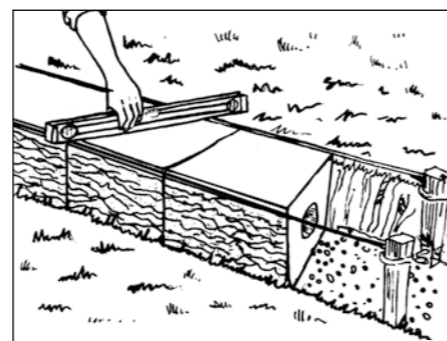
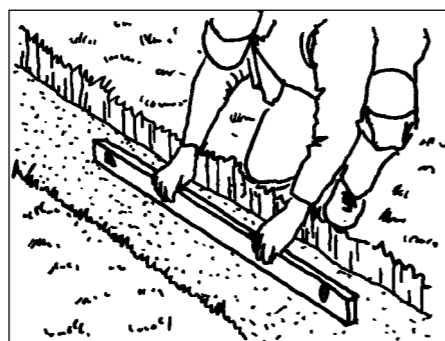
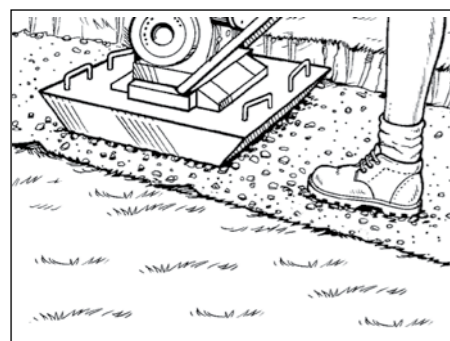
- Compacted road base;
- Compacted crushed rock, well-graded and of low plasticity (without clay content), compacted by a plate vibrator;
- Cement-stabilized crushed rock, with an additional 5% by mass of cement thoroughly mixed, moistened and compacted by a plate vibrator;
- Lean-mix concrete with a compressive strength, at least 15 MPa.

4

First Course

Place the first course on the levelling pad and tap into place ensuring blocks are level, front to back and side to side (check with a spirit level).

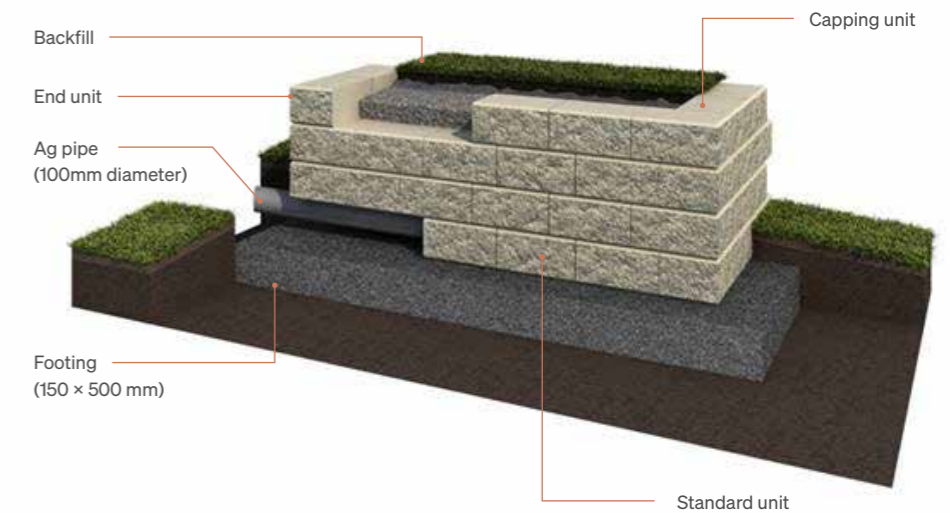
The use of a level and string line is recommended to ensure the first course is laid correctly. For walls up to 600mm high, make sure at least 100mm of the first-course blocks are buried below the finished ground level.



Your tool checklist

- String line
- Tape measure
- Walling units
- Compaction tool
- Shovel
- Spirit level
- Wheelbarrow
- Agriculture drain pipe
- Pegs or stakes
- Broom
- Gloves and eye protection
- Saw (to cut blocks if required)
- 10–20mm crushed stone
- Crushed rock (for base)

Retaining wall elements



5

Drainage and Backfill

Place 100 mm diameter agricultural pipe with geotextile sock behind the wall, with a 1 in 100 fall. Backfill behind the courses of blocks to a width of 300 mm using 10-20 mm free draining material (eg. crushed rock aggregate / blue metal).

Backfill behind the drainage layer with selected backfill material in a maximum of 200mm layers.

Compaction rate of 95% must be achieved (use only hand operated plate compactors within 1 metre from the back of the wall). Do not use expansive clays to backfill.

Be careful not to mechanically compact too close to the wall.



6

Laying Additional Courses

Clean any debris from the top of the wall to ensure the next block sits perfectly. Place the drainage material behind the blocks to 300mm. Stack units, placing drainage aggregate and compact backfill for each block layer until the wall is complete.

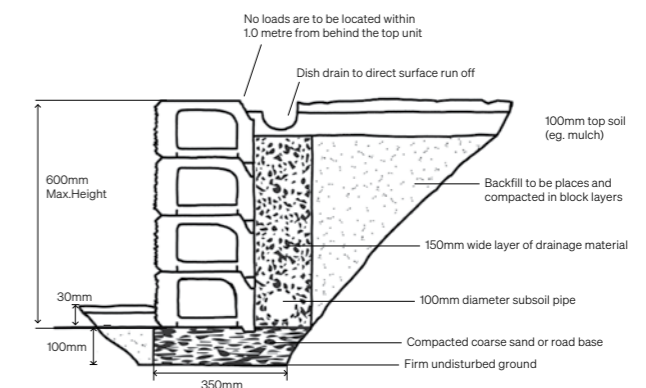
7

Maximum Wall Height

Arrinastone is offered with a 600mm maximum wall height which is based on normal site conditions. This information should be viewed as a guide only.

The particular circumstances of retaining wall projects vary significantly in ways that often dictate the use of particular materials and techniques to address challenges presented by those circumstances.

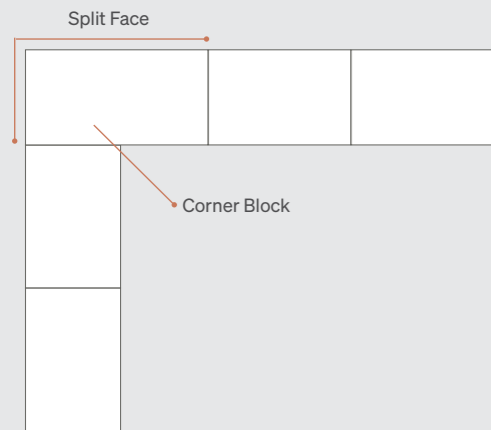
Austral Masonry recommends that you obtain appropriate professional advice tailored to your circumstances before commencing retaining wall projects.



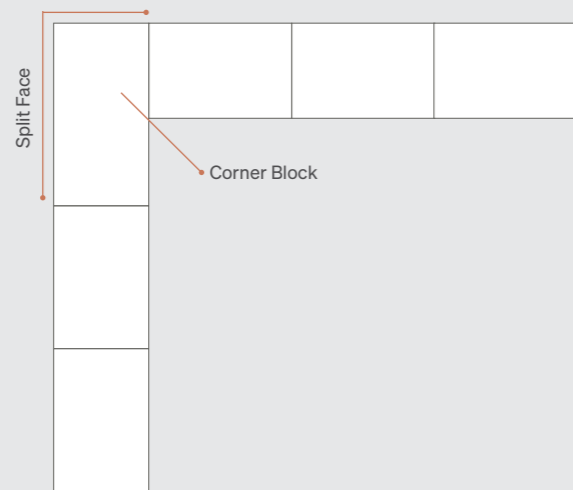
Installing corners

External corners

Even corners

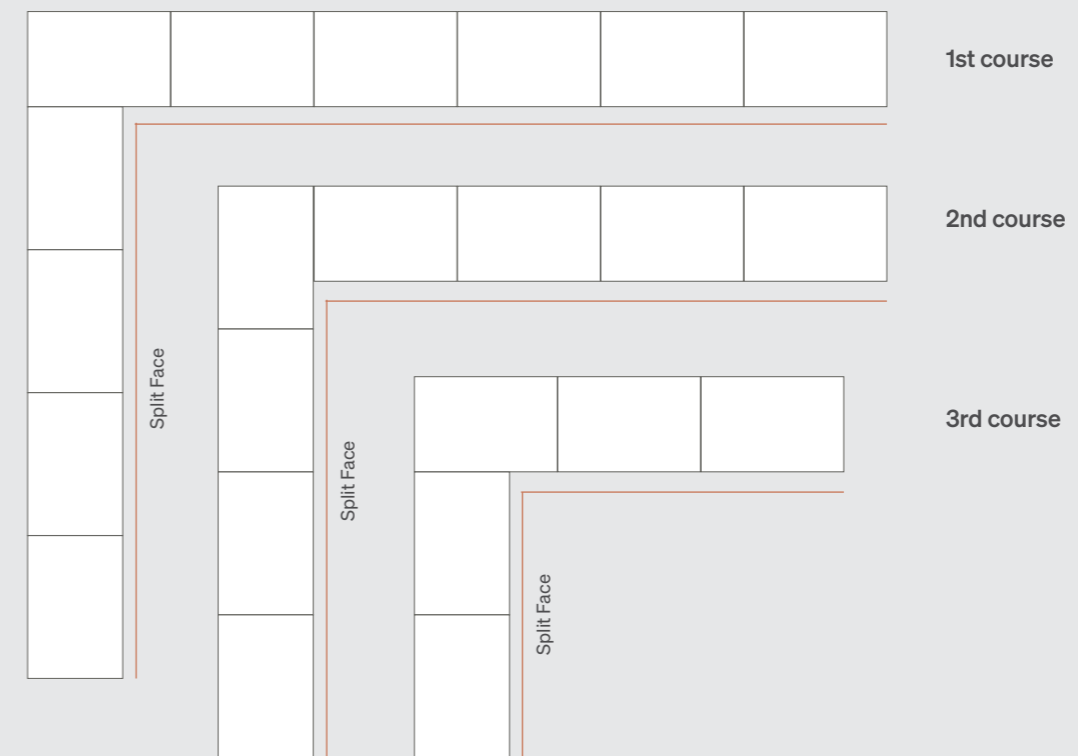


Odd corners



Internal corners

Creating an internal corner with Arrinastone is simple. You simply use Arrinastone standard units (no corner blocks needed), by butting the end of one block up to face of another Arrinastone standard unit laid at a 90 degree angle to the first block.



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