

how to: pavers

Landscaping
Solutions

- entertaining areas
- driveways & pathways
- feature areas

Checklist

1. Check with your council

Pavers can usually be laid around your house without council approval. However, if you're doing a driveway or working in an area where water run-off is an issue, you may need to contact your local authority. Some of the newer residential communities have covenants covering the use of driveway materials. If so get authorisation before proceeding.

2. Check off your equipment

- Garden gloves
- Wheelbarrow
- Road base
- Spade
- Rubber mallet
- Coarse sand

To lay courtyard/pathway pavers, you'll also need...

- Fine sand
- Ear muffs
- Spirit level
- String line
- Cement
- Wacker packer
- Bricksaw
- Straight edge
- Broom
- Small trowel

To lay a driveway, you may also need...

- Concrete
- Steel reinforcement

3. Work out how many pavers you need

- Grab a pencil, paper and tape measure. Measure the length and the wide of the area to be paved. Then multiply one by the other to determine the total area in square metres. Make an appropriate allowance for irregular shaped areas or curved edges.
- Multiply the number required per m² by the area to be covered to determine total number of pavers required. Add 2% to this figure to allow for mishaps and cut pavers. Here's a guide to how many of each type you'll need to lay one square metre.

4. Safety

- Always wear eye protection when you're splitting or cutting Hanson pavers. Wear ear protection if you use a whacker packer.
- Bend your knees when lifting heavy pavers.
- Wear work boots to protect your feet & gardening gloves to protect your hands.
- Slip, Slop, Slap if you're working in the sun & keep your fluids up.

Paver size (LxW)	Number required per m ²
600 x 600 mm	2.8
500 x 500 mm	4.0
400 x 400 mm	6.3
390 x 190 mm	13.5
387 x 290 mm	8.9
300 x 300 mm	11.1
250 x 500 mm	8.0
230 x 113 mm	38.5
225 x 113 mm	39.4
200 x 400 mm	12.5
200 x 100 mm	50.0
198 x 98 mm	51.5
190 x 190 mm	27.7

Installation

1. Clear your site

Mark out the area to be paved. Dig out the existing lawn, loose earth to a depth of around 150mm below the required finished height of your pavers. Remove all plant matter including roots as any vegetation you leave in the ground will break down and cause your paving to sink in the near future. Scrape the bottom of your work area flat with your shovel.



Handy tips: Dig and shovel straight into your wheelbarrow. No point double handling.

2. Lay a foundation

Tip in your foundation material(s) to the minimum required depth as indicated on the back page. Fire up your wacker packer and compact 2 or 3 times until you have a nice firm surface. If your foundation is concrete, make sure it is at least 20 MPa in strength and is screeded to a smooth and level pad.



Handy tips: Use ear muffs when you use a wacker packer.

3. Add your bedding type

The most common bedding type used for paving is washed coarse sand. A minimum 25mm layer on top of your foundation should do the trick. Tip in the sand and rake it around until you have an even level distribution of sand. If you are using concrete, you have the option of bedding your pavers in sand, mortar or a suitable propriety adhesive.



Handy tips: Please refer to manufacturers instructions for the correct use of mortar or adhesives as an alternate bedding type.

4. If bedding sand, screed smooth

Working from the far end, screen your sand smooth with a long straight float. Timber edge rails half a paver depth below the existing ground level might help here. Use a spirit level to make sure your compacted sand slopes away from your house and towards your lawn or garden for rainwater run off.



Handy tips: You can't be too smooth. Make sure your sand bed is nice and flat before you lay any pavers.

5. Start paving

Set up a string line and carefully place your first row of pavers in position. Make sure your line is dead straight. Space your pavers a few millimeters apart using the blade of a trowel to get a consistent gap. If you are using mortar or an adhesive as a bed, you can butt your pavers together to achieve that contemporary look you have always wanted. However, if you are going for this option then expansion joints are required. Expansion joints need to be provided at intervals of no more than 4 meters and must mirror all concrete base control joints.



Handy tips: Keep close to the ground (not arched over) when laying pavers to protect your back.

procedures

6. Cut corners

If you're paving out into an area bounded by grass (or a movable garden bed edge) you might get away without needing to cut any pavers. But if you want to in-lay a pattern, do a curved edge or fit your paving snugly around things like down pipes, it's time you went to your local hire place and get yourself an electric brick saw. While your there, ask them about the correct procedures for cutting concrete pavers.



Handy tips: Choosing the right sized paver for certain jobs can eliminate the need to get in a brick saw.

7. Set square

With the first line of pavers laid, it's time to head off in a different direction. Grab a big right angle square to set a course at exactly 90 degrees to the first row and off you go. As you work forward, use a rubber mallet to tap your pavers down for a nice flush surface.



Handy tips: Don't walk on your screeded bed of sand.

8. Edging

Unless your pavers are being laid up against a wall they should be secured at every edge with pre-mixed concrete (add water only) or a mixture of coarse sand and cement at a 4:1 ratio. The finished edge of your paved area should be raised a little bit above any surrounding lawn.



9. Sweep in sand

This is the easy bit. With all your pavers now in position, it's time to tip a load of fine sand (joint filling sand) on top and sweep it into all the little crevices. Note: All expansion joints shall be filled with an appropriate flexible material.

Handy tips: For a neat job, trowel the excess concrete up against the paver at a 45 degree angle.



10. Pack it in

Drag the whacker plate on to the paved areas and begin compacting the pavers. Once or twice will do the job. If you have returned the compactor to the hire yard, don't panic - a piece of solid timber used in conjunction with a rubber mallet will do the job. Note: this is ONLY to be done if your bedding type is sand.

Handy tips: For ease of filling the joints, the joint filling sand and pavement surface should be dry.

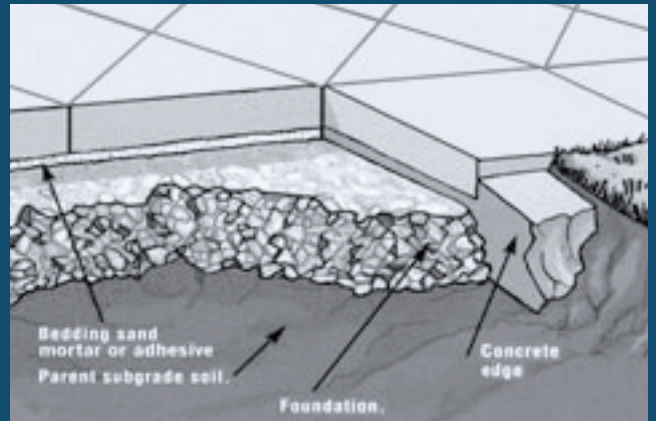


11. Seal your pavers

It is not compulsory to seal your pavers; however doing so will assist in reducing the chances of permanent staining and water penetration. It will also improve the aesthetic appeal of the finished pavement. Speak to your distributor for an appropriate sealer for your project.

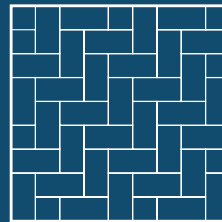
Handy tips: An old piece of carpet under the compacting plate will avoid chipping any pavers.

Cross-sectional diagram of pavement

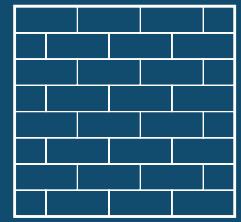


Please refer to the table on the back page for the appropriate foundation and bedding type.

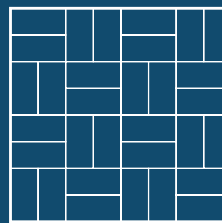
Typical laying patterns



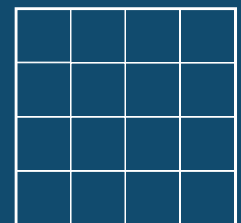
Herringbone



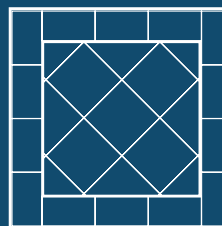
Stretcher Bond



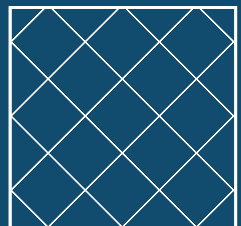
Basketweave



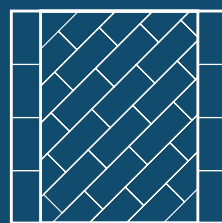
Stackbond



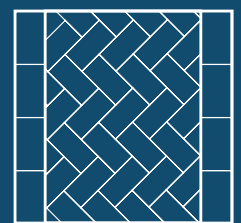
Diamond
with flat header course



Diamond



45° Stretcher Bond
with flat header course



45° Herringbone
with flat header course

Installation Considerations

Beyond the paver themselves is the installation process. There are two basic types of pavements for residential use: Pedestrian areas and Domestic driveways. Pedestrian areas consists of pathways, courtyards, entertaining areas, features areas etc. Basically areas where there is pedestrian access only. Domestic Driveways refers to driveways subject to traffic loadings by vehicles which when fully-loaded have a gross weight less than three tonnes; such as cars, utilities, delivery vans and some light 2-axel trucks.

The next step is to consider the base course materials, known otherwise as the foundation, which the pavers are to be laid on. The two options we recommend laying your pavers on are a road base or on a concrete slab.

■ A road base includes a compacted crushed rock base, cement stabilised or not, with a sand bed overlay. This method of installation, whilst maintaining a traditional paving aesthetic appeal, is a faster and more affordable installation option. However, as site conditions vary, there may be locations where there is inferior soil and it may be prudent to use a concrete slab as a base.

■ A concrete slab will give you extra durability and stability that you may need, however it can be more expensive to prepare. The concrete slab must be reinforced with steel mesh and have a minimum strength of 20MPa, and be level to within a tolerance of 3mm in 3m. This option is flexible enough to offer you three alternate bedding options including sand, mortar or proprietary adhesives.

As Hanson pavers are manufactured differently, they can perform differently under the same situation. Please refer to the below table for details on the recommended installation requirements. We always recommend that you seek the advice of a qualified engineer to assess and design your paved area, including selection of the base to be used.

Pavement Type	Basecourse / Foundation	Bedding Type	Pavers
Pedestrian areas <ul style="list-style-type: none"> • pathways • courtyards • entertaining • feature areas • No vehicle access 	75mm compacted crushed rock	Sand -1	Euro Quartz Stone Santa Fe Reef Tile
	75mm cement stabilised crushed rock	Sand -1	Euro Quartz Stone Santa Fe Reef Tile
	75mm concrete (20MPa)	Sand -1 Mortar Adhesive -2	Euro Quartz Stone Santa Fe Reef Tile
Domestic Driveways <ul style="list-style-type: none"> • traffic loadings by vehicles which when fully-loaded have a gross weight less than 3 tonnes such as cars, utilities, delivery vans and some light 2-axel truck. 	Min. 150mm compacted crushed rock	Sand -1	Quartz Stone
	Min. 150mm cement stabilised crushed rock	Sand -1	Quartz Stone
	Min. 100mm concrete (20MPa)	Adhesive -2	Euro-3 Quartz Stone-3 Santa Fe-3 Reef Tile-3

Notes:

1 - Sand as a bedding type refers to a minimum of 25mm washed course sand.

2 - Adhesive refers to bedding your pavers on a suitable propriety adhesive.

3 - You can use any size in the range up to 450mm x 450mm as specified by the CMAA Design & Construction Guide for Concrete Flag Pavements MA44.