



How to... ...Brick Pave

Introduction

When landscaping your gardens it is important to include what is known as "hard landscaping" to provide an area for entertaining, seating and a surface which is reliable all year round. The most common type of product for this application and the easiest project for the handyman is paving.

This can be clay brick, stone or concrete pavers as while the finishes and sizes can vary, the preparation and installation remain the same. While installation is certainly the most labour and time intensive component of this project many people don't fully protect their new pavers and find that they are constantly battling moss, mould and even experiencing damage to the pavers because the completed pavers were not sealed.

This project leaflet will show you how to achieve professional results with the installation of your paving and apply a sealer to protect your paving for years to come.

Materials

Clean fill	Roller
Rubber mallet	Paint brush
Straight edge x 3	Old carpet
Spirit Level	Compactor

Step 1 – Measurement

It is important to correctly measure the area to be paved for several reasons:

- Pavers will vary from batch to batch, to ensure even colouring, you will want to ensure all your pavers come from the same batch
- When you order pavers, there is a cost for delivery, if a second order is required, you will be paying for a second delivery

It is important to consider any curves, as there will require cut pavers and therefore some wastage is inevitable.

To get a square metre rate multiply the width of the area by the length of the area. It is recommended to add 10% and then round up to the nearest whole metre to allow for break-ages, mistakes and wastage.

Step 2 – Site Preparation

The quality of the finished result is largely dependant on the preparation of the substrate (the base on which the paving is laid). When preparing the site, several considerations need to be made as follows:

- The finished height in relation to the house and adjoining materials

- The site should be level and compacted
- Drainage of stormwater and general moisture
- Only clean fill (sand without any rubbish or other materials should be used

The finished height should be slightly lower than the home to avoid any moisture or water run-off entering the home a space of 30 to 40mm is recommended as the step will be more noticeable, and reduce the chances of tripping.

When clearing and compacting the site, you will need to allow for clean fill to be added. This should be to a height of 50mm. Most pavers are between 40 and 60mm thick. Therefore the cleared area should be between 90 and 110mm below the finished height.

Once the clean fill has been added, the area should be thoroughly compacted either mechanically with a petrol driven compactor available from hire shops or by hand with a dolly.



Compacting the sand with a mechanical compactor

It is worth noting that it is better to have slightly more sand than required to allow for a slight gradient and adjustment when laying the paving.

Step 3 – Set-out

By looking at other paving jobs, many set-outs are started in one corner, and then any adjustments are made on the finishing row. This results in a unbalanced finish, and if the paved area is not perfectly square, this will be obvious.

The preferred method is to centre out the paved area, in a similar fashion to ceramic tiling. This will allow any adjustments and cuts to be balanced, and small cuts to be avoided by having the centre of the paving the middle of a paver, or the middle of a gap.

Style

There are several laying patterns that can be used for paving as outlined below:

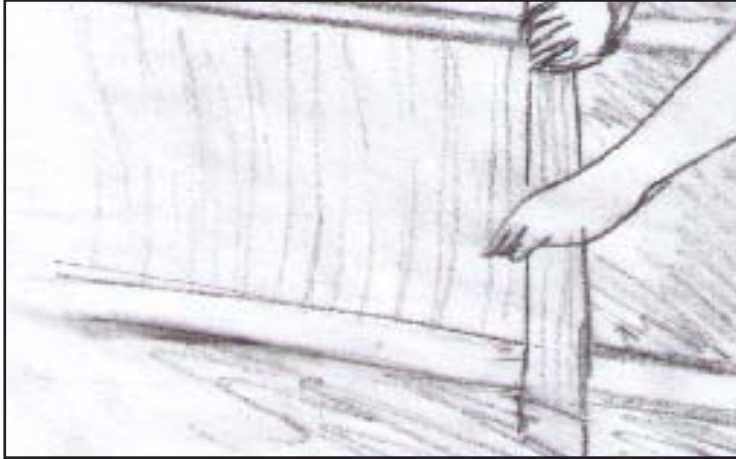
- Straight Lay – Used with square or rectangular pavers. This is end to end, with all of the joints lining up.
- 45 degrees – This is the same as the straight lay, however offset 45 degrees for a diagonal finish.
- Brick Bond – Each subsequent row is half a brick across similar fashion to brick walls.
- Basket weave – This is where two rectangular pavers form a square, and then each subsequent pair is rotated at 90 degrees.
- Herringbone – This is one of the strongest patterns as each rectangular brick is locked at 90 degrees to the previous brick.

When setting out, you will also want a small fall, (10mm per

1000mm) to ensure water runs away from any adjacent walls or corners.

Step 4 – Laying the body

With the set-out complete, you are ready to commence laying the pavers. Depending on the set-out, you can use a stringline to mark your desired path. Using 2 thin straight edges (such as angle iron) and a spirit level scrape the two boards into the compacted sand to get your finished level. Using another straight edge, gently scrape the sand to the desired level before laying the pavers. It is also recommended to tap the pavers with a rubber mallet to ensure the paver remains level.



Screeding the compacted sand

Continue this format working on approximately 1 square metre at a time. It is recommended to open all packs and mix throughout the laying process. It is also recommended to regularly check the levels and stand back observe the entire job as you go, as any deviations from the straight lines may not always be visible up close.

Step 5 – Cutting for borders and edges

Once the main body of the paving is complete, you are able to mark and cut the remaining pavers to fill any gaps and create a border. There are two ways to cut pavers.

- Using a brick cutter that works in a similar fashion to a guillotine. These can be hired from most brick outlets or hire shops and are easily used.
- Using a wet saw with a masonry blade. This is effectively a mitre saw with a water attachment to reduce heat and dust. This gives a cleaner cut, however they are not recommended for the novice, as they can be dangerous if you are not familiar with this tool.

Step 6 – Finishing

With all the paving complete there are three finishing steps to lock and hold the paving together. Firstly the pavers should have white clean sand brushed between the joints. This aids in locking the individual pavers together.

Secondly all exposed edges should be haunched. This means to screed cement against the exposed edges to form a solid border. This will stop any border pavers from falling loose over time and shifting.

Lastly a power compactor with a carpet base should be run over the pavers. This will level out any minor differences and lock the paving system together.

Step 7 – Sealing

This step is often forgotten, or thought of as un-necessary, however it has several purposes that will make your paving look and function better for longer. This reduces moss and

mould growing over winter, which makes the area safer, stops stains from barbeques and general use and finally stops pool water entering pavers and eroding the surface.

There is a variety of paving sealers on the market comprising of water based and solvent based sealers which are either penetrating sealers, surface sealers or those that penetrate and seal the surface.

- Penetrating sealers (such as Bondall's Multi Surface Sealer) purely penetrate into the surface and line the pores. These types of sealers are generally solvent based.
- Surface sealers (like Bondall's water based Paving and Concrete Sealer) form an interlocking film on the surface primarily acting as a sacrificial coating and can leave the surface with a glossy appearance. These types of sealers are ideal for areas with a high traffic flow, for example driveways.
- Combination sealers (such as Bondall's water based Natural Finish Sealer) penetrate into the surface of the paver, line the pores and form a film on the surface. These types of sealers are ideal when a natural look is required and are suitable for use around swimming pools.

Remember to ensure that the paving is clean and where possible free from stains, as these will be sealed into the paver. Therefore it is recommended to seal paving as soon as possible after installation.

You will need to make sure the pavers are free from acid which are often used to clean pavers, as any acid residue will attack the coating and weaken the overall finish resulting in the need to re-coat the surface. This is often blamed on the sealer and therefore puts many people off the sealing. In reality when the sealing is correctly done the pavers are better protected and will last a considerably long time.

Sealing should only be done when the temperature is between 10 and 35 degrees. Ensure that rain is not expected within 24 hours. It is also recommended not to re-coat the pavers within 24 hours as this may result in a cloudy finish.

In a similar method to painting, cut in the edges with a brush, however the body of the paving can be sealed with a long nap roller. This will ensure an even application and reduce the time taken compared with a brush.

Working in 1m² areas, ensuring not to paint your self into a corner. As the pavers soak up the sealer, they will have a wet appearance and it should not be too difficult to determine where you have been.

In areas of high traffic or moisture such as a pool surround, a secondary coat is recommended.

It is also worth noting that some sealers will make lighter pavers a shade darker. This is not a fault with the sealer; it is due to the compounds that make the sealer waterproof. If concerned, test a remnant paver, however if the entire area is sealed, the difference will not be highly noticeable.

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