

A USEFUL GUIDE TO INSTALLING
PAVING BLOCKS, FLAGSTONES
AND GARDEN WALLING

GUIDANCE



London Stone

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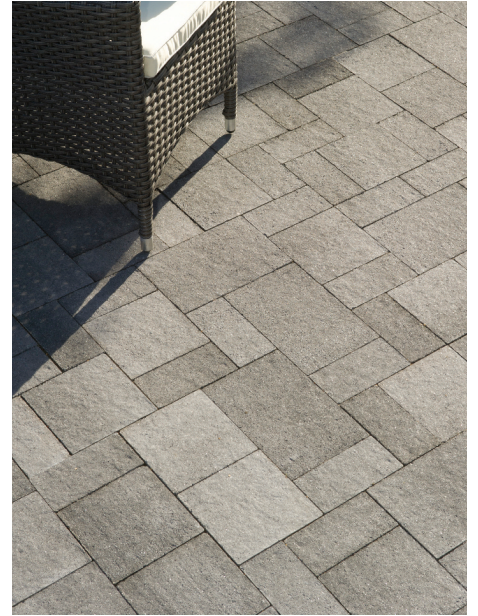


London Stone

We've compiled some helpful advice and guidance to cover a range of topics. Get in touch with us if you have any hard landscaping questions.

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HELP +
ADVICE



BE INSPIRED BY OUR
**LAYING
PATTERNS**
SELECTION

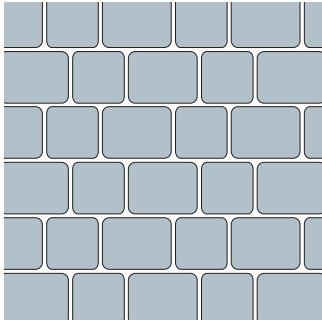
Make It Yours



LAYING PATTERNS

There are many ways to lay flagstones and paving and your choice of laying pattern depends on the size and shape of the stones you are planning to use - as well as your personal taste.

Country Cobble® | Plaza | River Stone | Boulevard® Paving

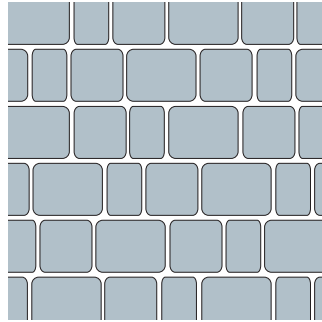


Random Coursed (2 sizes)

Uses 200x150mm + 150x150mm.

Ratio per m²:

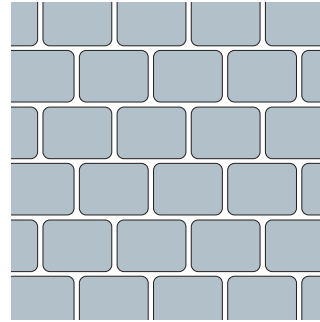
57% 200x150, 43% 150x150.



Random Coursed (3 sizes)

Uses 200x150 + 150x150
+ 100x150mm.

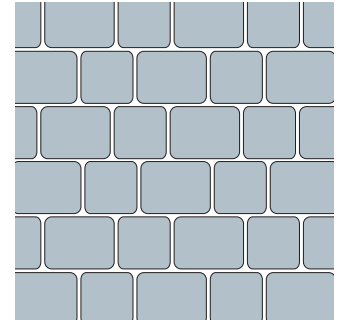
Ratio per m²: 44% 200x150,
34% 150x150, 22% 100x150.



Stretcher Bond (1 size)

Uses 200x150 or 300x150mm.

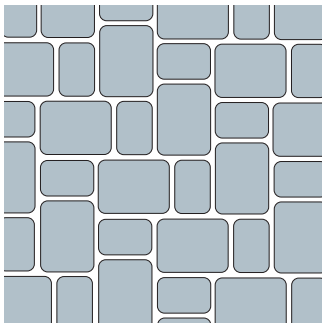
Ratio per m²: 100% 200x150.



Stretcher Bond (2 sizes)

Uses 200x150mm + 150x150mm.

Ratio per m²: 57% 200x150,
43% 150x150.

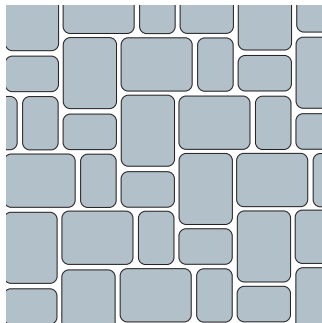


Courtyard Pattern A (2 sizes)

Uses 200x150mm + 100x150mm.

Ratio per m²:

67% 200x150, 33% 100x150.

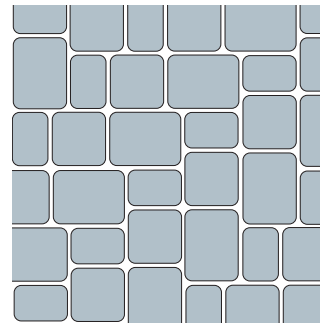


Courtyard Pattern B (2 sizes)

Uses 200x150mm + 100x150mm.

Ratio per m²:

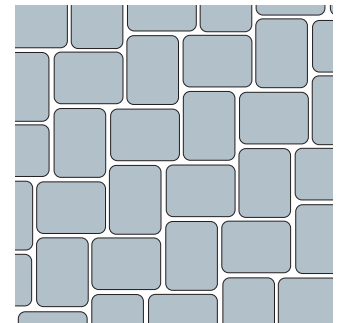
67% 200x150, 33% 100x150.



Courtyard Pattern B (3 sizes)

Uses 200x150mm + 150x150mm
+ 100x150mm.

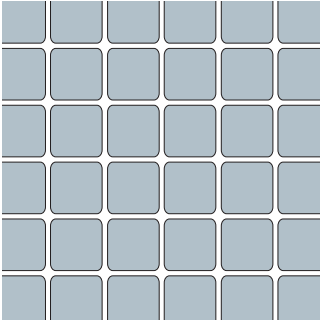
Ratio per m²: 44% 200x150,
34% 150x150, 22% 100x150.



90° Herringbone (1 size)

Uses 200x150mm.

Ratio per m²: 100% 200x150.

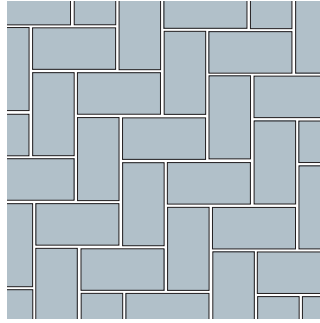


Stack Bond (1 size)

Uses 150x150mm.

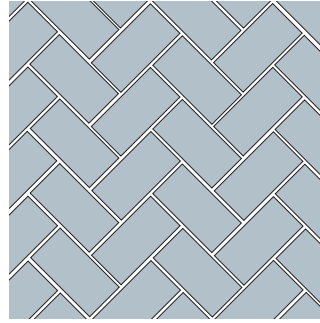
Ratio per m²: 100% 150x150.

Rectangular Paving

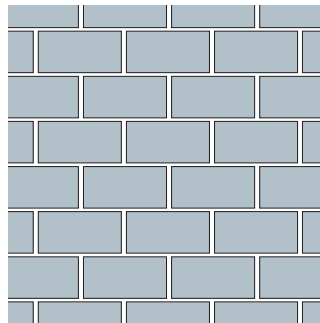


90° Herringbone

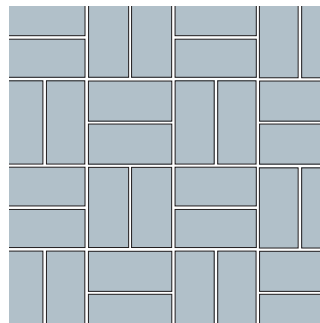
This pattern can be used to lay Machine Lay Rectangular paving blocks.



45° Herringbone



Stretcher Bond



Basket Weave

HOW-TO-LAY

Whether you are planning to do the work yourself or employ a professional to do it for you, this guide covers all the essential points you need to know about.

1. Preparation

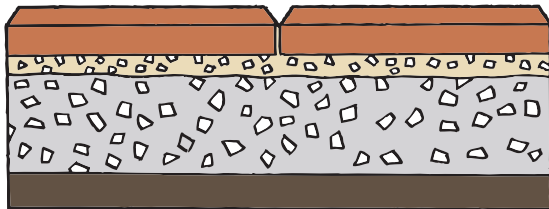
Remove all topsoil then dig down until you reach a layer of hard ground (subgrade) that is firm enough to provide a good foundation. Dig out any soft spots and fill with compacted crushed stone - see below.

Getting the depth right - Allow for the depth of your chosen paving block.

PLUS a minimum of 40mm for bed of compacted grit (laying course).

PLUS if laying paving blocks an additional 3-5mm of compacted sand for bedding in. NB. this is NOT required if laying flagstones - see step 5.

PLUS the required depth of crushed stone or hardcore (sub-layer). For patios and walkways, use a minimum of 100mm of crushed stone. For driveways, at least 150mm should be used. Aggregates for base layers can be sourced from local quarries.



concrete paving
laying course material
sub-layer
subgrade

Example: Installing paving on a driveway

	60mm	(paver)
+	40mm	(compacted 3-6mm clean washed grit)
+	50mm	(additional)
+	100mm	(crushed stone)
<hr/>		
=	250mm	(total depth)

Don't forget... allow for a fall in the finished surface. A gentle slope or fall allows water to run off naturally instead of forming puddles.

2. Drainage - how to stay on the right side of the law!

Planning permission is only required for new or upgraded front driveways or parking areas bigger than 5m² when the rainwater runs onto the road or into the drainage system.

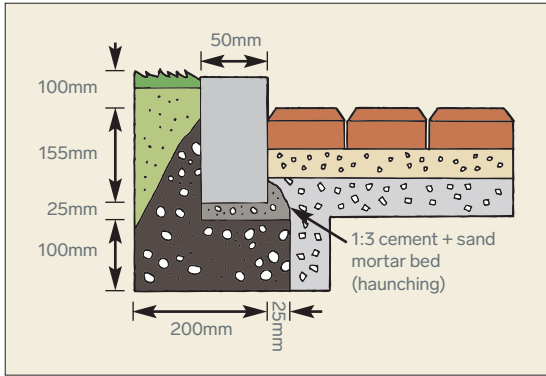
To avoid the need to apply for planning permission, the driveway can be constructed

so that the rainwater soaks into the ground.

Rainwater can be channelled off the surface of the drive into a soak-away which then allows it to disperse naturally into the ground within the boundaries of your property.

Don't forget!

If you are planning to use a soak-away, remember to allow for a gentle fall on the driveway so that rainwater naturally runs off the drive and into the soak-away system.



3. Restraining edges

When laying any sort of pavers, it's important to work within solidly constructed restraining edges. An edge course should be built using kerbs or blocks and should be laid on a concrete bed.

This will act as a rigid frame, preventing the pavers and their foundations from moving. So if you don't already have your edges in place, these need to be built before moving on to the next step (see above top left diagram).



4. Sub layer of crushed stone

Lay crushed stone then compact with a vibrating plate vibrator to create a firm base layer. Add more crushed stone and compact again until the required depth has been achieved across the entire area.

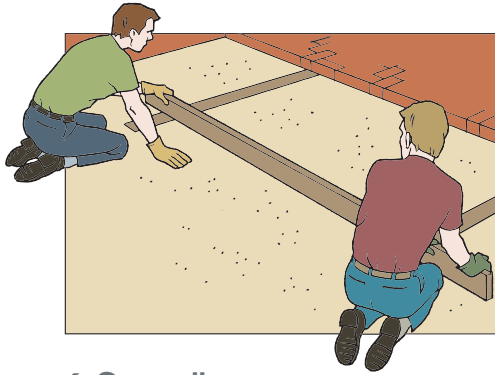


5. Bed of compacted grit (laying course)

Use 3-6mm clean washed grit. Spread the grit evenly and deep enough to allow for compaction, then lightly compact using a vibrating plate.

Remember: the final compacted layer of grit should be at least 40mm - and, if you are laying paving blocks, don't forget to allow an additional 3-5mm for bedding in!

Do not over compact (1 or 2 passes only) at this stage, otherwise the paving blocks will not be able to bed-in when laid.



6. Screeding

Use a screed board (a straight piece of timber) to level the surface of your grit laying course. This can be done by pulling the board along screed rails laid at the desired level in the grit.

Unless you are using one of our permeable paving products, remember to allow a gentle fall in the eventual finished level of the paving so that rainwater will run off the surface into your soak-away system.



7. Fill gaps left by screed rails

Remove the screed rails then carefully fill and compact the gaps left behind in the sand. Carefully screed off these areas to the level of surrounding sand.

Avoid standing on the sand laying course once screeded.



8. Laying paving

Starting from one of the restraining edges, begin laying pavers along one laying face. Set up a builders line and ensure the lines in the pattern remain straight.

When laying product we recommend mixing units from various packs to achieve an even blend of shades.



9. Lay header / string course

Think about laying a header course of pavers or setts (see page 10) of a different colour and/or shape along the edge to create an attractive feature.



10. Cut blocks

For best results we recommend using a stone saw to create clean cuts. Alternatively, use a hammer and bolster chisel, mechanical block splitter.

Remember to wear appropriate safety equipment – including safety goggles – when cutting pavers. Carry out all cutting before moving on to the next step.



11. Bedding in - paving blocks only!

Compact paving with a plate vibrator. This will reduce the finished level of the paving by the 3-5mm allowed for.

Notes: Our River Stone paving requires a 'rubber mat' on the vibrating plate to absorb its undulating surface.

Flagstones should NOT be compacted with a plate vibrator. Instead, gently bed in each flagstone using a rubber mallet.



12. Spreading jointing sand - paving blocks only!

After checking and adjusting the pavers to ensure the lines in the laying pattern are straight, spread jointing sand and brush into joints. Fill joints level to top of pavers.

We recommend you use our 'silver flagging sand' when jointing all grey coloured granite aggregate products.

AFTERCARE

Simple advice on how to keep outside space looking fantastic.

PAVING + FLAGSTONES

We recommend regular seasonal maintenance at least three times a year. A good rule of thumb is to commence at the start of the growing season (April), the middle of the growing season (July) and at the end of the growing season (September) - this may vary depending on weather conditions.

General Wear

Newly completed areas of paving or flagstones should only receive a light brushing in the first few months to allow joints to settle naturally. From then on, general maintenance should be carried out regularly. Using a bristle brush with mild detergent and hot water is normally all you need to remove any build-up of dirt and grime.

Weeds, Moss + Lichen

Unwanted plants, moss and fungi are easily controlled. The trick is to tackle them as soon as they appear - don't allow them to get established. Use a proprietary weed killer on weeds and grass and a water-based fungicide or algicide on moss and lichen.

Top Tip... Use a separate spray to wash, as combined sprays aren't as effective.

Heavy Staining

To remove hard to shift stains use a non-acid based proprietary cleaner. Always test a small area first and always follow the manufacturer's instructions. Avoid acid based cleaners as they may damage the paving.

Oil Stains

Oil will readily penetrate into most surfaces and once staining occurs it can be difficult to remove. If the staining is substantial it may be necessary to replace the products in the damaged area. Do not attempt to wipe the spilt oil as this only drives the oil deeper into the surface. Soak up stains promptly using absorbent material such as a paper towel then use a non-acid based proprietary cleaner in accordance with the manufacturer's instructions.

Power Washing

We don't recommend using a power hose to clean your paving as high pressure hoses can damage the surface of products and remove the jointing sand or grout which holds them in place. If you carry out the simple, regular maintenance (as recommended previously), power washing shouldn't be necessary. However, if you do decide to use a power washer you can help minimise the risk of damage by observing the following guidance:

- 1) Remove loose debris with a broom;
- 2) Test a small area first;
- 3) Use a medium pressure or low pressure setting;
- 4) Hold the hose at not more than a 30° angle;
- 5) After the paving has dried, replace any jointing sand which has been removed.

Sealing of Paving + Flags

A variety of sealers and cleaners are available. However, please note that applying sealant may affect the colour of paving. Be sure to follow the

manufacturer's instructions and check the product's suitability by testing on a small area first. Responsibility for the performance of sealers and cleaners lies with the user and manufacturer of the product.

Abrasion Assistance

Abrasion marks may be present on pavers with undulating surfaces, these marks are a superficial effect from the slight movement of the product during transit and will disappear after a few weeks weathering.

Efflorescence

Efflorescence (white crystals also known as 'white bloom') can appear on newly installed walls, paving and flagstones which have a high cement content. It is hard to predict how long efflorescence will last due to varying factors such as climate conditions, location and aspect. In some cases it can take around a year to disappear completely. It is in no way detrimental to the performance of the product. We cannot be held responsible for this natural phenomenon.

GENERAL INFORMATION

Advice and assistance

To achieve a quality finish to your project always choose a reputable installer, builder or hard landscaping contractor. Take time to look at previous jobs they have worked on and don't be afraid to ask to see examples of their work in situ.

Connect with local

Landscapers: Simply put your postcode into the search box and browse local Landscapers <http://www.londonstone.co.uk/find-landscapers-and-garden-designers/>

PAVING CONTRACTORS

Choosing the right contractor is an important decision. Follow these simple suggestions to ensure a good quality job.



Plan early

Good contractors are in demand and are often booked up weeks or months in advance. Be wary of contractors who can start immediately.



Always get more than one quotation

We recommend getting at least three but make sure they are like-for-like for a true price comparison. These should be dated with details of how long the quotation is valid for and must be on headed paper with the contractors contact information.



Check them out

Ask if they have the relevant Public and Employer Liability insurance and if they are members of any Trade Associations. Ask for references from previous customers and details of where their work can be viewed. Contact these references and perhaps go and see the job they're currently working on.



Ask their advice

The added bonus of contacting more than one contractor is that you often get a range of advice. Many will have a photograph album of previous jobs that can help you visualise how our products will look in your plan.



Don't decide purely on price

We know that this will be at the forefront of any decision but it's important that you feel comfortable with your contractor, that they understand your needs and that you are confident in their abilities.



Once you have made your decision

Get an estimated start and completion date. These dates should be a little flexible as they can often change due to weather conditions and extended time spent on earlier jobs.

Make any changes or amendments from the initial quotation and have an up-to-date quotation agreed and drawn up.

Make sure you understand the plan fully and that the area measurements and order quantities are correct.

Take an ongoing interest in the work and if there are any variations to what has been agreed deal with them face-to-face.



To avoid wastage

Get your contractor to accurately measure areas on-site before placing an order.