

1. First an assessment of the size of joist must be made, this will depend on the span of the room and the number of joists that you require (joist centres) these are typically at 400mm.

2. New joists can be hung via joist hangers across the room from solid walls (not stud walls) Note that the new joist must not come in contact with the existing ceiling or joists (if you are removing ceiling). If joist hangers are not possible due to the position of stud walls then the joists can be attached into wooden battenning running the length of the stud wall.

3. Noggins should be added to this structure to maintain rigidity between the new joists.

4. Acoustic mineral wool needs to be friction fitted in between joists across the entire surface leaving no gaps, 100mm ARW 60 kg is ideal

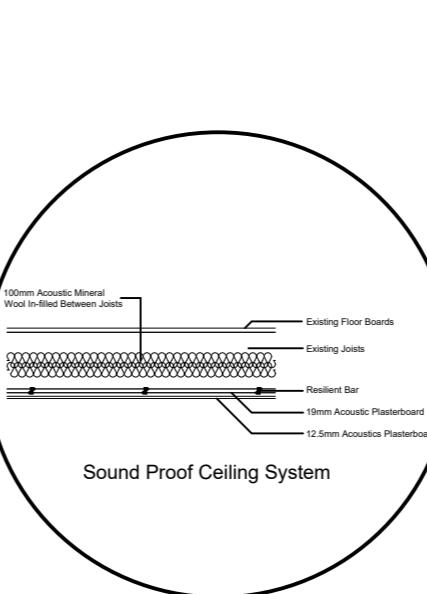
5. Perpendicular to the run of the joists fit resilient bars at 400mm centres. The resilient bars should be fitted with the 32mm dry wall screws provided. Resilient bars should end close to walls. At the ends of the room resilient bar noggins need to be cut and fitted in the line of the joist where the joist runs near the wall. Where resilient bars need to be joined overlap them by 60mm.

6. 19mm Planc boards are then screwed to the resilient bar flange with 32mm screws at 230mm centres. It is important to screw into the hanging flange of the resilient bar and NOT the joist. (This is critical to reduce impact sound from above) These should be fitted snugly to the wall leaving no gaps, where possible. Any gaps to be sealed with acoustic mastic provided.

7. 12.5mm soundbloc plasterboard is affixed next, with 42mm screws screwing into the flange (mark line of resilient bar flange with chalk line or laser level, or pencil). The joints of the soundbloc board should be staggered so that joints don't coincide with 19mm planc boards.

8. The perimeter of the ceiling should be carefully checked for gaps and filled with acoustic mastic that should be run around the perimeter

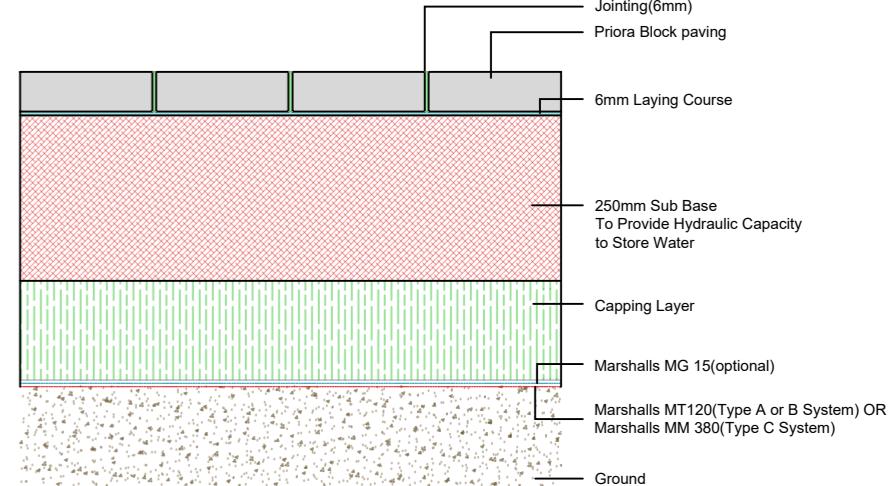
9. Taping and finishing with Easifil compound or by skim plastering can finish ceiling.



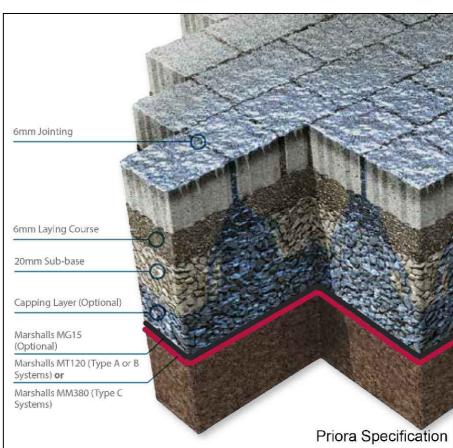
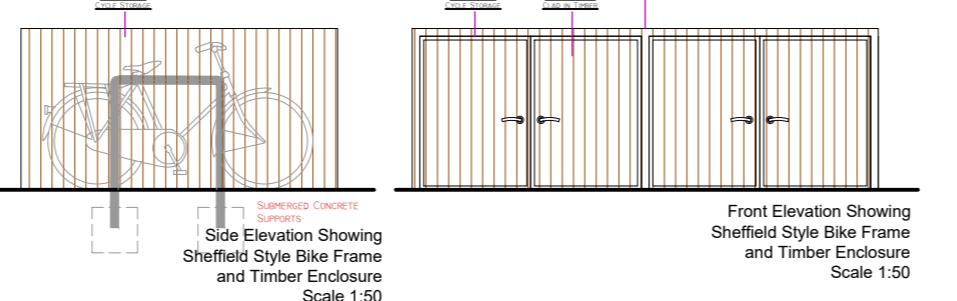
**Jointing**  
A traditional concrete block pavement would use sand to fill the joints between the blocks. A Marshalls Priora system requires a minimum 6mm graded coarse material, which will allow water to easily pass through the sub-base without clogging. It should also be of an angular nature to maximise interlock within the aggregate and between the blocks to provide additional stability to the surface layer. Jointing Aggregate Specification: 6mm Open Graded Crushed Rock

**Laying Course**  
The large size of sub-base material aggregate creates an uneven surface when compacted and has an open textured appearance. Therefore a laying course material is required to provide a flatter platform onto which the blocks are laid. This should prevent any rocking or instability of the blocks in-situ. Crucially, the laying course in a Marshalls Priora system should also provide maximum infiltration properties, allowing water to flow freely through the joints. Laying Course Aggregate Specification: 6mm Open Graded Crushed Rock

**Sub-Base**  
In addition to providing structural stability (as it would in a traditional pavement), the sub-base of a Marshalls Priora system must also provide sufficient hydraulic capacity to store water. This is achieved by using an aggregate with a high permeability. Permeability is measured in terms of the aggregate/void ratio. We recommend the use of an aggregate with a void ratio of between 30% - 32%. In effect this means that every 3m³ of aggregate can store approximately 1m³ of water. Sub-Base Aggregate Specification: 20mm Open Graded Crushed Rock



Permeable Paving Detail



**Planting**  
Planting will take place between October and March when weather conditions permit. No planting to take place during frozen or snowy conditions.

Roots to be protected and remain moist at all times. No roots are to be left exposed to become desiccated. Plants to be planted in a double staggered row 450mm between the rows, with 5 plants per linear meter. Holes are to be hand excavated to a sufficient size to take the entire container. The plant is to be planted to the depth of the root collar.

The soil is to be back filled and then firm around the plant.

The surface of the bed is to be left cultivated and free from weeds, debris and stones. Any broken or unhealthy growth to be pruned from the plant after planting. All plants are to be watered in thoroughly to field capacity of the soil, directly after planting.

Planted areas are to receive an application of slow release fertiliser, to manufacturer's specifications.

#### Maintenance

Planted areas are to be hand weeded fortnightly during the growing season of March to October. All plants to be watered once a fortnight during the growing season of April to September, this may need to be adjusted during extreme climatic conditions.

All plants are to be formatively pruned annually if required, during the winter months. Dead or dying trees and shrubs are to be replaced during the planting season of November to March. They are to be of the same size and species as the original specification for the first 5 years.

#### Front Garden Proposed Planting Schedule

Plant Species	Stock Size	Density/Spacing	Height	Pot Size	Qty
Euonymus Japonicus 'Silver Krista'			30 / 40cm	4 per 1m²/40	
Geranium sanguineum 'Max Frei'			9cm	7 per 1m²/30	

