

# Natural Oak Setts

## Installation Instructions



Natural Oak Setts Should be installed on a compacted base of coarse sand or fine grit. As with any type of paving there are specific instructions that should be followed in order to make sure the paving will remain stable and maintain falls etc.

### **Base Preparation**

When creating the base for the installation of Oak Setts it is worth remembering that the quality of the base preparation largely determines the quality of the final result. Obviously, base requirements depend on the kind of traffic the paving will be exposed to. For example, a garden path will have different base requirements to a vehicular driveway where the sand will fulfil a load-bearing capacity. The sub-base layers when installed correctly will spread and transfer the traffic load equally resulting in a long lasting paving surface.

### **Pedestrian/Light Traffic Category 1**

This category includes non-load bearing paving such as garden paths and domestic terraces which will only receive foot traffic.

A total excavation depth of 210mm is required to allow for the following base material method:

- Oak Sett – 70mm Depth
- Coarse Sand/Fine Grit (compacted) 40mm
- MOT Type 1 sub-base (compacted) 100mm
- Sub-base Geotextile Fabric

### **Light vehicular Traffic Category 2**

This category includes light vehicular traffic such as cars and medium sized vans for access roadways and driveways.

A total excavation depth of 300mm is required to allow for the following base material method:

- Oak Sett – 100mm Depth
- Coarse Sand/Fine Grit (compacted) 50mm depth
- MOT Type 1 Sub-base (compacted) 150mm Depth
- Sub-base Geotextile Fabric

### **Stablizing**

The sand base layer can be stabilised if the final surface is required to be finished as a gradient. Sufficient drainage must be allowed for if stabilizing is required as this will make the base layer less permeable. The sand base can be mixed with hydraulic additives such as cement or hydraulic lime. As a general guide, 125-150kg of additives should be added to every m<sup>3</sup> of sand.

### **Edge Restraints**

Under the traffic load the paving is pushed sideways and requires an edge restraint to retain it to avoid loss of shape and load bearing capacity. There are numerous edge restraint methods and some of these are as follows:

- Heavy Duty steel edging with fixing stakes
- Bricks/Stone cobble setts
- Oak Landscape sleepers
- Stone/Concrete kerb

## **Drainage**

Where possible, rain water should be drained across the surface of the paving. To promote this and to avoid traffic hindrance from a layer of water on the surface of the paving, the paving should be installed on a gradient to shed water. Generally paving is installed with a gradient sloping sideways so that the water will drain to and off the side as quickly as possible. For larger areas, such as square terraces, gullies should be installed. The surrounding paving should then slope towards the gullies or drainage channels that will then transfer the water into the drainage system.

## **Weathering**

Oak Setts are naturally frost resistant but if the sand base does not drain properly, there is a risk that there will be insufficient expansion space between the joints, therefore causing the sand base to swell or rise, pushing the paving upwards. This phenomenon is known as frost heaving. Poor permeability of the sand base may also cause thawing issues resulting in water collecting in the sand layer and creating 'swamping' or quick sand.

## **Pointing**

Once the Oak Setts have been installed, all left over materials should be removed from the surface and the paving sprinkled with kiln dried sand in dry conditions. After the joints are filled the paving can be compacted using a light plate compactor with a protective rubber shield. Failure to use a protective rubber or plastic shield will result in reactive staining in the form of distinctive blue black marking. This will also occur with any steel tools or items that are not removed from the paving surface. Finally, after compacting, the paving should again be sprinkled with kiln dried sand to finish. It may be necessary to repeat this as necessary throughout its lifetime.

## **Finishing**

Oak Setts do not require treatment and are extremely durable. In the natural weathering process the Oak Setts will change colour from pale yellow/honey to a light grey. If a warm colour is preferred you can dress the Oak Setts with natural oil such as Danish oil which will darken the appearance. If you are unsure please request images or samples of freshly cut and weathered material to determine the desired finish. Oak Setts are a natural hardwood and will vary in appearance. Splits and crack may occur and this is a normal weathering process. Staining or marking as a result of contact with steel can be removed by the application of oxalic acid. Consult a specialist wood stain stockist for more details.