

IRREGULAR COBBLE STONE PAVING**(SURFACE OR BASE OPTION No. S 08)****INTRODUCTION**

Cobble Stone Paving is one of a number of road surface improvement or paving options that use **natural stone** and are suitable for construction using **labour** and **simple equipment**. Other options are Water Bound Macadam (WBM), Dry Bound Macadam, Hand Packed Stone, Telford Paving, Stone Setts or Pavé, Dressed Stone, and Stone Chippings. None of these options normally require the use of expensive bitumen or cement binders, or high-cost equipment. Therefore a high proportion of the costs may be spent in, and benefit, the local community. Cobble Stone Paving is suitable for use as a surfacing or road base in appropriate circumstances.

DESCRIPTION

Irregular Cobble Stone Paving consists of a layer of roughly cubic shaped or selected stones of thickness about 100 - 120mm, laid on a bed of loose sand or fine aggregate of thickness 50 – 100mm. The individual stones should have at least **one** face that is fairly smooth, to be the upper or surface face when placed. The sand around each stone (or cobble) is adjusted with a small (mason's) hammer and the stone is then tapped into position and to the level of the surrounding stones. Sand is brushed into the spaces between the stones. When a sufficient area of stones is placed, the layer is compacted with a vibrating or non-vibrating roller. Additional sand is brushed into the surface if necessary. An edge restraint or kerb constructed (for example) of mortared stone or concrete improves durability.

ADVANTAGES

- Proven performance in all climates.
- Suitable for light to heavy traffic.
- Does not require expensive equipment to construct or maintain.
- Built with stones roughly shaped and laid by hand. It is therefore suitable for construction by small contractors or communities themselves, or in remote areas with access problems for crushing equipment or heavy plant.
- Can be constructed at any gradient.
- Low maintenance, easily repairable.
- Cobble Stone Paving can be later upgraded by covering with a sealing layer in a stage construction strategy.

DISADVANTAGES

- Requires hard stone to be available locally.
- Cobble stones must be roughly cubical in shape.
- Requires skill in laying to achieve a smooth finished surface.
- If non-vibrating equipment is used it should be heavy.
- Surface is porous, so foundations should not be liable to severe weakening when wet.
- Smooth to medium surface roughness.
- Stones that 'polish' by traffic, or are slippery when wet, must not be used.

