

GUIDE LINES FOR INSTALLATION OF JGT IN ROAD CONSTRUCTION -

Process Sequences -

1. Sub-grade is to be excavated to the required level, cleared of all foreign materials and compacted to the OMC and to be prepared up with the specified profile - camber etc. Vegetation, if any, should be uprooted and the area leveled with good earth and rolled.
2. A thin cushion of local sand of 25 mm thick to be spread over the prepared sub-grade to facilitate better drainage and less chances of microbial attack on to the JGT.
3. JGT as selected should be laid by unrolling, ensuring proper drapability so that the fabric touches the sand layer at all points and stapled at an interval of about 750 mm with longitudinally overlaps of 150 mm. Staples should be preferably a U-shaped nails (11 gauge) or suitable similar material like bamboo or country nail.
4. Other rolls of JGT should be laid side by side with an overlap by 100 mm and stapled at an interval of 750 mm.
4. A thin cushion of local sand of about 25 mm thick to be spread over the JGT to prevent puncture/damage due to rolling of the overlying sub-base/base-layer.
5. The first layer of aggregates in the base-layer should be spread with grading as recommended. No traffic should be allowed on an uncompacted base course having thickness less than 200 mm (300 mm for CBR greater than or equal to 3) laid over JGT.
6. Thereafter subsequent layers of GSB, WBM, PMC and Seal Coat should be laid and rolled as mentioned in DPR. It is advisable that at least WBM layer to be completed before monsoon.
7. Any rut that may develop during construction should be filled in.
9. For application in curves, JGT should be folded or cut and overlapped in the direction of the turn. Folds in JGT should be stapled at an interval of 300 mm in curves.
10. Before covering up the JGT, its condition should be assessed for any construction/ installation damage. Torn / damaged portions, if any, may be covered by pieces of JGT and suitably stapled on all sides preferably at an interval of 300 mm.

mm. The extent of overlap should be such as to fully cover the damage / torn portion fully plus at least 75 mm beyond on all sides.

Often the sub-surface water is drained through the JGT and sand medium to the shoulders of a carriage way. In such cases, shoulder drains are required to be constructed either beneath the edge of the shoulder or immediately adjacent to its edge. In the event of existence of black cotton soil or expansive clay, porous drain pipes may also be inserted within the shoulder drain to augment drainage-efficiency. Installation procedure is similar to what has been mentioned for open JGT-Encapsulated trench drains under the section

However, it is advisable that BC soil should be treated with lime or other conventional means prior to use as fill material.

Performance of the pavement with JGT should be monitored closely, especially in regard to development of pot holes, subsidence, road side drainage, dispersion of sub-grade and the like. Frequency and extent of surface treatment and also re-sectioning needed are also to be noted. Special attention is necessary during and after the rains. Pot holes should be immediately restored. Surface drainage over the pavement should not be allowed to hinder due to malfunctioning of road side and shoulder drains.

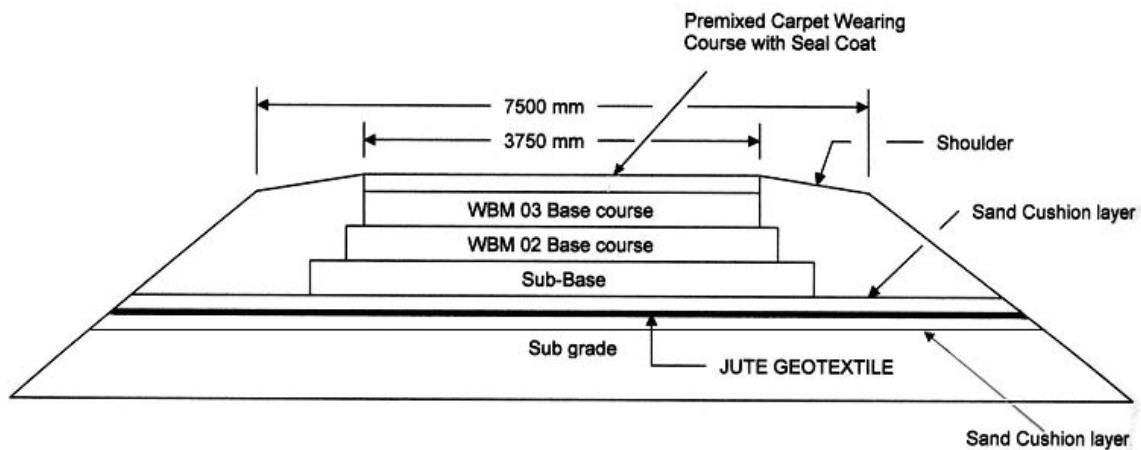


Fig. Typical Cross Section of a road with Jute Geotextile laid on the Sub-grade