STUDY ON EFFECT OF POLYETHYLENE TEREPHTHALATE IN BITUMINOUS CONCRETE SURFACE LAYER REGARDING ITS DRAINAGE

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ABSTRACT

Drainage of the highway is important because water damage highway structure in many ways, mainly rainwater which can cause erosion on surface or may seep downward and damage pavement. Hence there is an immediate need of surface drainage. In the areas of heavy rainfall, the natural water table is very high and it causes capillary action in water and hence subsurface drainage is also a necessity. It is always preferred to take care of drainage at the primary stage because post construction measures are not only costly but also time-consuming and sometimes may lead to accidents of vehicles leading to loss of precious lives.

Highway drainage systems are installed to capture surface water runoff to alleviate flooding and protect the fabric of the road. The need of an adequate highway drainage is crucial for proper functioning of the traffic.

The main focus of the project is to improve the load carrying capacity of the pavement and to prevent the infiltration of water into the subgrade. The project deals with the usage of plastic waste to improve the stability and decrease the permeability. As the usage of plastic gives the good results in water proofing, the same analogy is extended for the flexible pavement. As there is reduction in seepage of water, there are less chances of differential settlement and hence the use of plastic can be considered as a viable option in the wake of increasing axle load and uncertain flash floods.