PAVEMENTS

Product: Road Mesh™

Problem:
Heavy traffic volumes on the B6454 made it an ideal test site for asphalt pavement reinforcement.

In Autumn 2009, East Lothian Council carried out a site trial with Road Mesh™ on the B6454 Pinkie Road in Musselburgh.

Solution:
Road Mesh™ was installed within both 100mm and 250mm overlays. A 250mm overlay with a glass fibre geogrid reinforcement was also installed in an adjacent section to enable comparison with both Road Mesh™ and unreinforced control sections. Two years after construction all reinforced sections are performing well.

Maccaferri offers a range of reinforcement products for asphalt and unbound pavements. These range from extruded polymer geogrids to MacGrid AR glass fibre asphalt reinforcement and Road Mesh™.

Whereas glass fibre reinforcement reduces reflective cracking, Road Mesh™, structurally reinforces the pavement, providing additional benefits of reduced rutting, shoving and fatigue cracking.

Road Mesh™ was designed for use within the bituminous bound layers of pavements. In remedial overlays the old wearing course is usually planed-off and the Road Mesh™ placed on the exposed surface, then overlayed with a new base course plus wearing course. Road Mesh™ causes the overlay to work as a cohesive mass, absorbing the horizontal tensile stresses and spreading the imposed traffic loadings over a wider footprint, thus reducing its damaging effect.

Client:
EAST LOTHIAN COUNCIL
Main contractor:
EAST LOTHIAN COUNCIL
Designer:
EAST LOTHIAN COUNCIL
Products used:
Road Mesh™
Date of construction
September 2009
Road Mesh™ is made from hexagonal woven steel wire mesh. Every 160mm, a transverse steel bar is woven within the mesh, locking it into position. The steel is heavily galvanised (in accordance with BSEN 10244-2 Class A) to offer an expected design life in excess of 60 years. As it has a very open mesh, Road Mesh™ allows excellent contact between the existing pavement and the new overlay. This means that the bond between the two layers is not compromised by the presence of the Road Mesh™ reinforcement interlayer.

The trial will be monitored over time to determine the performance of these reinforcement solutions.