

**B6454 PINKIE ROAD ASPHALT REINFORCEMENT TRIAL  
MUSSELBURGH, SCOTLAND, UNITED KINGDOM**

## Ground Improvement

**Problem**

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

In the Autumn of 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™ 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 (per BSEN 10244-2 Class A) to offer an expected design life over 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.

**Client:** East Lothian Council

**Designer / Consultant:** East Lothian Council

**Contractor:** East Lothian Council

**Products used (Qty.)**

**Date of construction:** 09/2009 - 09/2009

[Google Maps](#)

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The site is located on a busy bus route



Transverse cracking apparent on unreinforced section



The trial site uses both Road Mesh™ and geogrid



Road Mesh was installed in two different overlay thicknesses



Prior to overlay, the pavement required constant maintenance