

Client: Carillion
Name: River Esk Bridge, M6
Period: 2008
Value: £300K
Location: M6 Carlisle to Guards Mill, Cumbria
Works: Bridge Mechanical Joints and Bridge Deck Waterproofing



The Project

With over 42,000 vehicles a day using this north-south route between Scotland, North West England and the West Midlands the upgrade and extension of the A47, the only non-motorway section of this road, to the M6 was key.

This project included the construction of a bridge spanning the River Esk and a viaduct forming part of the West Coast Main Line and would improve motorway access and traffic flow, making journey times more predictable. Most importantly the project would also provide more space for emergency services travelling to accidents, imperative in this rural location.

An Exacting Methodology

Over 14,000m² of spray applied bridge deck waterproofing was installed, ensuring the long term protection of the bridge. Conforming to high Quality Assurance standards **SL Construction Services** carried out a number of tests, such as Tensile Adhesion tests and Electrical Integrity tests.

Once the waterproofing was complete, **SL Construction Services** installed a mechanical expansion joint to accommodate 200mm of movement.



Initial work involved breaking out the Tarmac to form a recess at a length of 15m x 0.9m wide. 124 holes were then drilled into the concrete deck with resin being used to fix the anchor bolts, which were then left for 48hrs to cure fully. The mechanical joint mats were then lowered onto the anchors and secured.



Finally the transition mortar was applied along both lengths of the mats between the road surface and the joint. The bridge was then ready for surfacing to be installed and could then be trafficked.

Quality Finish

SL Construction Services' high standards of application throughout the project, including the intricate installation of the expansion joints ensured a high quality finish was achieved.