



SIKA AT WORK

HAWLEY BRIDGE M3, SURREY

REFURBISHMENT: Sika® CarboDur®

BUILDING TRUST



HAWLEY BRIDGE M3, SURREY



SIKA HELPS COMPLETE EUROPE'S LARGEST COMPOSITE reinforcement bridge strengthening PROJECT When the M3 Hawley Lane Bridge started to show signs of excessive deflection under heavy traffic, engineers at Enterprise Mouchel devised a repair solution that included the installation of a new central bridge pier to support two existing outer piers. To counteract changes to the deck's dynamics and reinforce the bridge between the three structural piers, [Sika® CarboDur®](#) rods and [Sika® CarboDur®](#) plates were used – marking one of Europe's largest applications of composite reinforcement systems.

Sika Solutions for Flooring Adhesives forces of constant and heavy traffic, a third pier proved the most suitable reinforcement solution to meet the increasing capacity demands.



Pull-off test to test cohesive strength of concrete substrate after surface preparation ↑

Application of Sikadur®-30 adhesive to carbon fibre plates ↗

Installation of Sika® CarboDur® carbon fibre plates →



HAWLEY BRIDGE M3 SURREY



Sika worked closely with the consulting engineers to advise material selection and properties required for a performance based specification –in-line with Highways Agency best practice. To achieve the required performance, carbon fibre plates and rods were specified as part of a complex repair and concrete protection solution. The use of carbon fibre offered an accelerated application process and enhanced performance properties when compared to traditional steel reinforcement. The £5 million project will see a total of 1,000mtr of [Sika® CarboDur®](#) Rods and 5,000mtr of [Sika® CarboDur®](#) Plates installed.

Using the company's extensive experience of [structural strengthening](#) –including in 2011 the UK's largest application of ultra-high modulus composite reinforcement at Embankment Tube Station –Sika will be closely involved at Hawley Bridge from initial specification to project completion. The company's full range of structural strengthening systems are suitable for increased loading, change of use, column wrapping, as well as applications in the nuclear industry for protection against seismic activity.

On track to be delivered within a two month period, the project will be successfully finished to the highest standard thanks to a well organised, detailed application process and with minimal effect on the road's users –above and below the M3 Hawley Lane Bridge.

For further information call 0800 112 3863.