



## Case Study

### Whipps Cross Hospital link bridge repairs



During the refurbishment and new build extension of Whipps Cross Hospital by Kier London Ltd, it was found that the concrete link bridge above a busy service road to the main hospital block was suffering from carbonation, and the expansion of rust to the reinforcing bars

were causing spalling of the concrete. This was also compounded by areas of impact damage which had been caused by large vehicles passing under the link bridge.

Kier London called in material supplier Fosroc to provide independent technical advice on the suitability of the materials to use and to provide a repair specification. To ensure the works were carried out correctly and in accordance with the specification, Kier London appointed **Cemplas Waterproofing and Concrete Repairs Ltd** as the specialist contractor.

Cemplas carried out a hammer test to determine the extent of repairs followed by the removal of all defective concrete. Where the steel reinforcement had been exposed the concrete was removed to a depth of



25 mm behind the bar and all corrosion was removed from reinforcement bar by mechanical wire brushing to achieve BS7079: Part A1. This was followed by applying two coats of Fosroc Nitoprime Zincrich steel reinforcement protector. The broken out areas of concrete were treated with Fosroc HAR Bonding Primer and reinstated with Fosroc's HB40 lightweight repair mortar. On completion of all remedial concrete repairs a protective/decorative anti-carbonation coating was applied.

Due to the location of the works Cemplas worked out of hours on the project providing their own site set up which included a work compound, tower access, protection, lighting, supervision, together with traffic management and traffic marshalling to allow vehicles to pass through.

Cemplas provides an uncompromising approach to quality of service, and pride themselves with their knowledge and experience gained since they were formed in 1969. Recognising that 'one size fits all' is not the correct approach to providing clients with a premium service, Cemplas will always seek to ensure that the best value and most cost effective solutions are implemented.

For further information on the operational range of services provided by Cemplas, please visit [www.cemplas.co.uk](http://www.cemplas.co.uk).

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