# Repairs

## Concrete Repairs & Cathodic Protection

A1089 Tilbury Dock Road

FREYSSINET
SUSTAINABLE TECHNOLOGY

**Client**
Highways Agency

**Principal Contractor**
Jackson Civil Engineering

**Specialist Contractor**
Freyssinet Limited

**Contract Value**
£550,000

**Contract Duration**
20 weeks

Work Commenced
June 2008

The project brief was to carry out concrete repairs and install an impressed current cathodic protection system to various structures supporting the elevated section of the A1089 Dock Road Tilbury.

The Main Contractor, Jackson Civil Engineering Ltd had prepared a contract specification detailing this brief, including the areas of the bridge that required repair and protection and a Bill of Quantities to enable a like for like comparison of the sub-contract prices received.

The specification detailed performance requirements, in terms of life, of the completed scheme. It was specific in certain respects, for example the number of monitoring locations within the completed cathodic protection scheme and the extent of the works to be priced, to be in accordance with the outline brief provided, but design of the protection system was by the contractor.

The contract was let on a JCE sub contract. As the project was to be priced in a competitive environment, subcontractors were to price in accordance with the brief provided, to enable like for like comparisons to be made, which meant that risks were to be identified elsewhere. More specifically the brief required that the contractor assess the extent of concrete to be repaired after the sub contract was let, then remove defective and delaminated concrete, repair the concrete, design and install an impressed current cathodic protection system, commission and operate this system for 12 months.

The project brief in these areas was met, despite a significant increase in the number of concrete repairs and an increase in the scope of the work, which increased the size of the project by 35%, Even with this significant increase in scope, the project was completed within twenty weeks, an increase of only three weeks from the original programme. This was achieved through good communication and teamwork with all parties, both on site and with the design team, and was undoubtedly assisted by the close association of Freyssinet Ltd and our in house cathodic protection design company, Corrosion Control Services Limited, which enabled maximum flexibility whilst minimising response times.

1 Overview of A1089 Dock Road structure

2 Section of pier requiring repair

3 Pier showing initial stages of CP System

4 Pier showing cathodic protection system

Freyssinet Ltd. Innovation House, Euston Way, Town Centre, Telford, Shropshire, TF3 4LT
Phone +44 (0) 1952 201901 Fax +44 (0) 1952 201753 Email info@freyssinet.co.uk