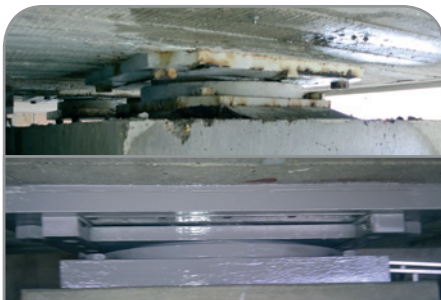




## Bearing Replacement and Concrete Repairs

Itchen Bridge Refurbishment, Southampton

**Client**  
Southampton City Council  
**Principle Contractor**  
Freyssinet Ltd  
**Consultants**  
Capita Symonds  
**Value**  
£800,000  
**Contract Duration**  
24 weeks  
**Works Completed**  
June 2011



Itchen Bridge is a high level concrete, hollow box girder toll bridge which was opened in 1977. It carries vehicular traffic over the River Itchen, between Southampton City Centre and Woolston.

Freyssinet Ltd was selected as the main contractor to complete this routine maintenance contract. The scope of works consisted of jacking and bearing replacement, protective coating, concrete repairs and all associated works, including temporary works and traffic management.

The Itchen Bridge is a busy route into the City and the works had to be undertaken outside of peak hours, with two-way traffic maintained during peak periods.

Bespoke temporary works were designed and manufactured by Freyssinet Ltd incorporating high capacity hydraulic jacks. These were installed to support the deck during bearing replacement works at the suspended span half joints and piers.

A total of 22no mechanical bearings were replaced; 12no mechanical bearings at the free end of the suspended spans, 2no at the East Abutment and 8no at other prioritised piers.

The bearings were designed and manufactured by Freyssinet Ltd's own in-house team.

The existing bearings were removed using high pressure water jetting and the new mechanical bearings were then cast into the structure prior to de-jacking the deck onto its new supports.

Whilst these critical path works were ongoing, other 'off-line' works such as the electrical re-wiring of the internal boxes and the installation of new expansion joints were undertaken. A total of 6no expansion joints were replaced on the bridge deck during one weekend closure of the deck.

Maintenance was also carried out on all other existing bearings within the structure, including the application of a new protective coating system.

Re-profiling works were completed on the East and West revetments to the abutments and high security access doors were installed through the abutment cheek walls into the abutment chambers.

Concrete repair works were also carried out as necessary by Freyssinet Ltd's specialist operatives.

The works were completed on programme and on budget to the satisfaction of Southampton City Council.

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