

Jacking and Bearing Replacement

Thornton on Swale, North Yorkshire

Client

North Yorkshire County Council

Principal Contractor

CR Reynolds Limited

Works Commenced

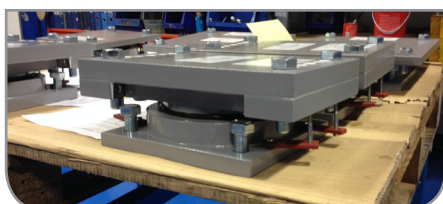
February 2016

Works Completed

March 2016

Contract Value

£68,000



Thornton on Swale Bridge is a single span Grade II listed bridge carrying the C86 road over the River Swale in North Yorkshire. In 1983, the original wrought iron structure was strengthened with a new reinforced concrete deck and steel support beams in between the wrought iron arch girders.

During painting works to the bridge, damage was discovered on the main bridge beams under traffic loading, which the original design had not allowed for. A full structural assessment indicated that the design of the steel beams did not restrict deflection sufficiently and the newer concrete deck was deflecting on the wrought iron beams under vehicle load, which could have resulted in failure of the arch ribs.

Freyssinet was engaged as specialist contractor by CR Reynold Ltd to undertake the bridge jacking and bearing replacement on the Grade II listed structure.

Freyssinet was responsible for the design and installation of temporary works to enable deck jacking to +150mm uplift so the existing bearings could be removed.

Following the installation of hydraulic jacking equipment, the deck was jacked to the new level, the bearings removed and six new pot bearings, designed and manufactured by Freyssinet were installed to both abutments.

Permanent CS grout plinths were cast and cathodic protection installed before the deck was de-jacked and the load transferred to new bearings.

Works were completed on time and to the satisfaction of the client.