

Trowbridge Town Bridge, Wiltshire, U.K.



The Structure

Trowbridge Town Bridge is a listed 18th century three span limestone masonry structure carrying the two lanes of the A366 over the River Bies. Prior to strengthening the live load rating was 12.5 tones.

The Problem

Analysis of the structure revealed that although the two side spans had sufficient restrengthened capacity, the deformed profits and flattened crown of the central span was found incapable of achieving the 40/44 ton HA loading requirements without first some form of strengthening intervention. The bridge contained numerous services and carried a high volume of traffic through the town centre.

The Solution

So as not to disrupt traffic and to avoid internal services, contractors TST of the Isle of White carried out the drilling and instalment from below. In total 32 6 x S10 multibar anchors of 2.7 and 2.8 meters in length were installed by diamond drilling the 65mm cores from the adjacent arches. Upon completion, Wiltshire County Council commented upon the financial savings made and also upon the short time undertaken to strengthen the structure over the original proposal for saddling. Traffic flow remained uninterrupted throughout the process.

