

# Project Profile

## Whiteadder Roadbridge Berwick, UK



Client: Northumberland County Council

Project timescale: Dec 06 - April 07

Structure: Single carriageway river bridge

### CPT Products used

- Duoguard 500
- Duocrete SD Mortar
- MN15 Reference Electrodes
- GAN1 Monitoring System



In addition to the main substructure, specific areas of the underside of the bridge deck which had been contaminated with significant levels of chloride salts were treated. This targeted approach offers a cost effective solution to corrosion control on reinforced concrete structures. The installation was simplified by the absence of a requirement for a long term power supply for the Duoguard 500 system.

Whiteadder bridge carries the B6461 over a tributary flowing into the river Tweed. The bridge deck joints had been leaking for some time depositing chloride contaminated rain water onto the large piers and abutments supporting the structure. On inspection substantial areas of spalling/loose concrete were visible along with salt deposits in certain areas.

With difficult access to the substructure, a long term, low maintenance repair solution was deemed appropriate. Duoguard 500 was therefore applied to the contaminated piers and abutments to counter the effects of the remaining chloride salts.

Northumberland County Council are constantly examining options to reduce travel over there extensive area and as part of the Whiteadder refurbishment Concrete Preservation Technologies designed and supplied monitoring equipment and probes which were installed on the structure to offer the facility to remotely monitor the installed system. With the use of a solar panel and modem communication, data from the Duoguard 500 installation can be downloaded at any time and measurements can be instigated without the need to travel to site.



Duoguard 500



GAN1 System

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