

## Project Profile - Civil Engineering & Infrastructure

### PROJECT

**Tay Road Bridge, Dundee,  
Scotland**

### SUMMARY

Repair of spalled concrete columns and protection against further chloride attack

### PRODUCTS

**Steel Reinforcement Protector 841**  
**Bonding Bridge 842**  
**Monolite**

### CLIENT

Dundee City Council

### BACKGROUND ►

**2250m in length, the Tay Road Bridge spans the River Tay Estuary from Dundee to Newport. It was completed in 1966 and consist of 42 pairs of concrete columns ranging in height from 5.5m to 30m.**

The problem identified was corrosion of the steel reinforcement within the columns resulting in cracking and spalling of the concrete cover. Contributing factors included the harmful effects of the de-icing salts wash-down from the deck above, together with inadequate cover to reinforcement and exposure to a particularly aggressive climate.

### THE SOLUTION ►

Following removal of damaged concrete, **Steel Reinforcement Protector 841** was applied to the newly exposed and blast-cleaned steel for anti-corrosion protection. The substrate was sealed with **Bonding Bridge 842** to promote adhesion before the columns were reinstated with **Monolite**. This lightweight, fibre reinforced mortar can fill large voids in thicknesses upto 100mm without slump enabling the sharp line profile of the original columns to be retained. It cures to form a highly durable mortar even in harsh, saline environments.



FM 41091  
EMS 597350  
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Quality  
Environmental  
Health & Safety

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