

## Project Profile - Civil Engineering & Infrastructure

### PROJECT

**Cowden Railway Bridge, Lockerbie,  
Scotland**

### SUMMARY

Repair of West Coast mainline rail  
bridge

### PRODUCTS

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

### CLIENT

Dumfries & Galloway Council

### CONTRACTOR

Frank Carruthers & Son

### BACKGROUND ►

**Dating back to 1830, the West Coast main railway line is one of the United Kingdom's principal routes leading to London and on to Europe.**

A concrete structure that takes the railway line underneath the A74, Cowden railway bridge had been suffering from delamination which had resulted in the damaged concrete exposing the steel reinforcement. The Client demanded a long term, maintenance-free solution.

### THE SOLUTION ►

**Monolite** – a low density, high build, shrinkage compensated, polymer modified mortar – was specified as it is expressly designed for the repair, rendering and profiling of both vertical and horizontal surfaces. It forms a rapid hardening, low-density mortar, with enhanced polymer properties. As some areas of steel had been exposed to the elements, it was necessary to first apply **Steel Reinforcement Protector 841** to provide a corrosion preventative, flexible coating to the steel. **Bonding Bridge 842** was then used to enhance the bond between the high porosity concrete and the **Monolite** repair.



FM 41091  
EMS 597350  
OHS 597351

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Environmental  
Health & Safety

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