Project Profile - **Civil Engineering & Infrastructure**

PROJECT

Egginton Bridge, Derbyshire

SUMMARY

Repair and protection from chloride ingress and carbonation on a major trunk road bridge

PRODUCTS

Marine Mortar S
Cementitious Coating 851

CLIENT

Derbyshire County Council

BACKGROUND ▶

Egginton Bridge carries the A38 trunk road 200 metres above a flood plain.

A number of damaging factors - including carbonation, chloride attack and water ingress - had caused a series of defects on the main beams, cross beams and supporting pillars. This ultimately resulted in severe corrosion of the reinforcement, creating the need for refurbishment in the Winter of 1989-1990.

THE SOLUTION ▶

Marine Mortar S was the high strength, waterproof repair mortar used. Its low sag characteristics allowed for easy application overhead in restricted spaces. The bridge was then protected from further chloride ingress with **Cementitious Coating 851**, restoring the original appearance and producing a waterproof, anti-carbonation finish. In January 2003, Mott MacDonald, in a full assessment, found that the coating *"has performed well and there is evidence that chloride ingress and carbonation have been prevented with a re-distribution of both chloride and alkalinity … [it] continues to provide an effective barrier to moisture, chloride ions and carbon dioxide."*

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