

## Project Profile - Civil Engineering & Infrastructure



### PROJECT

**Millingford Brook Culvert,  
Lancashire**

### SUMMARY

Refurbishment of culvert

### PRODUCTS

**Steel Reinforcement Protector 841**  
**Monomix**  
**Monolevel FC**  
**Monodex Ultra**  
**MCI 2020**

### CLIENT

Wigan Borough Council

### CONTRACTOR

Dale Structural Repairs Ltd on behalf  
of A E Yates Ltd

### BACKGROUND ►

**Leigh and Wigan in Lancashire are at high risk of localised flooding when heavy rainfall, land drainage or sewer problems occur.**

To reduce this risk, Wigan Borough Council commenced a £12.6 million Flood Alleviation Scheme, part of which involved the repair and protection of Millingford Brook Culvert which runs beneath the busy A580 East Lancashire Road in Lowton. Constructed in 1930 from reinforced concrete, the double culvert had deteriorated over the years, resulting in exposed rusting steel reinforcement and spalled and missing concrete. Remedial works were required to resolve the issues and reduce the risk of flooding in heavy rain. In order to meet the requirements of the Environment Agency, it was essential the chosen products were all low hazard.

### THE SOLUTION ►

Engineers at Wigan Borough Council specified Flexcrete products as a complete repair and protection system as the products are compliant with EN1504 - the pan European standard for concrete repair. Firstly, **Steel Reinforcement Protector 841** was applied to exposed steel to provide corrosion protection, and **Monomix** repair mortar was used to reinstate spalled and missing areas of concrete. **Monolevel FC** was applied to provide a fair-faced finish prior to the application of **Monodex Ultra** - a high performance, elastomeric, decorative anti-carbonation coating with a lifespan of at least 10 years. In areas which were not exhibiting signs of spalling, **Cemprotect MCI® 2020**, a water-based migratory corrosion inhibitor, was applied to surrounding concrete to protect the steel reinforcement and provide an additional defence against carbonation and chloride attack.



FM 41091  
EMS 597350  
OHS 597351

Quality  
Environmental  
Health & Safety

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