



PROJECT CASE STUDY DEVON & SOMERSET SERVICE TRAINING CENTRE & FIRE STATION

Project Value: £100,000.00

Project Client: Devon & Somerset Fire and Rescue Service

Specified products:

Concrete Repair Products: Fosroc Technical repair Mortars including:

- Fosroc Nitoprime Zincrich Plus
- Fosroc Renderoc HB45
- Fosroc Protectosil CIT
- Fosroc Rendoroc ST05

Duration: 6 Weeks

Project Start: March 2021

Project Finish: May 2021

PROJECT OVERVIEW

Following a competitive tender process, StructureCare were appointed as Main Contractor for the concrete repairs and protective coating works to the reinforced concrete frame at Plympton Fire Station and service training centre.

The structure comprises a reinforced concrete frame with masonry infill and glazing panels. The building comprises of three sections; to the West is the appliance garages, to the East is a three storey office block and in between is a two storey accommodation/office block. The facility was constructed in the late 1970's.

A suite of testing was undertaken prior to works commencing and the results showed that carbonation of the concrete was not a major issue, and that the main cause of the corrosion was due to the presence of chlorides. These harmful chloride ions may have been present in the concrete, as result of the use of contaminated mix ingredients such as calcium chloride accelerators at the time of construction. This practice was banned in the UK in 1977. A remediation strategy to arrest and control further corrosion was developed and adopted.

Following our assessment of the site conditions and constraints, StructureCare opted to utilise a series of MEWP's for repairs to approximately 80% of the structure. This method allowed a dynamic approach to areas of repair and returned a significant cost saving to the client. This method was particularly beneficial during emergencies and significantly reduced the programme of works. For areas of repair directly above pedestrian access routes, the project team installed scaffolding to allow continuous uninterrupted operation of the facility.

The project was executed and delivered outstandingly by StructureCare with Jaimi Wallin, Pre-Construction Project Manager, StructureCare stating:

" The project went smoothly and was delivered in line with our proposals set out during the pre-construction phase of the project. The station and training centre is a brilliant facility that is essential for Devon & Somerset Fire and Rescue Service and the local area. I am delighted that StructureCare could help restore and future proof the facility so that operations can safely continue into the future.

PROJECT PHOTOS





