

# **PROJECT**

**Crossrail Bond Street Station** Upgrade, London

# **SUMMARY**

Lift shaft waterproofing, concrete repairs and coving and flooring works

### **PRODUCTS**

Fastfill, Cemprotec EF Primer, Cementitious Coating 851, Cemprotec E-Floor, Monolite, Monomix HD

### **CLIENT**

Crossrail Ltd

# **CONTRACTOR**

**Various** 

### **BACKGROUND** ▶

The £14.8 billion Crossrail project comprises the construction of 10 new stations and the upgrade of 30 more in order to make travelling in the capital easier and quicker, in turn reducing crowding on London's transport network. Bond Street station is in the heart of London's West End, the busiest shopping district in the UK, and the station is undergoing a major redevelopment to increase capacity and improve accessibility, and to create an interchange with the Elizabeth line being constructed by Crossrail Ltd.

More than 185,000 passengers use Bond Street station daily. When the Elizabeth line arrives in 2018, passenger numbers are expected to increase to 225,000. The redevelopment will deliver a new Tube station entrance on Marylebone Lane leading to a new ticket hall, new escalators serving the Jubilee line and lifts to provide step-free access from street to platform.

# THE SOLUTION ▶

A range of Flexcrete products were specified for two separate contracts at Bond Street station. The first involved lift shaft waterproofing and Fastfill rapid setting repair mortar was initially applied at the junction between the wall and floor. Cemprotec EF Primer was applied to floor areas before the application of Cementitious Coating 851 to the walls and vertical areas to provide exceptional waterproofing protection. Impermeable to water under hydrostatic pressure, a 2mm coating of 851 provides the equivalent of 100mm concrete cover. Cemprotec E-Floor was applied to the primed area and over the 150mm wide application of 851 to provide an exceptionally hard-wearing, trafficable surface.

For the second contract, Monolite Class R2 lightweight repair mortar was used for general concrete repairs in various areas, including use as a high build render to reinstate levels prior to fit out along the internal corridors. Able to be rapidly applied up to thicknesses of 100mm in a single application, Monolite is a single component product and simply requires the addition of clean water on-site. The thixotropic nature of the product enables easy high build trowel application for the repair of voids and the rendering and re-profiling of both vertical and horizontal surfaces. Due to its water-based composition, Monolite can be safely applied in enclosed locations. The coving and flooring works involved the application of Monomix HD, a high strength, waterproof, Class R4 structural repair mortar with outstanding abrasion resistance, ensuring a smooth transition from floor to wall.

Flexcrete products have also been used for a number of other Crossrail contracts at other stations. For example, a Flexcrete cementitious mortar was used to enhance the durability of Moorgate Shaft at the new Liverpool Street Station.





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