

Farringdon Station Water Main

Client: BFK Crossrail

Location: London

Value: £3.9m

Duration: 15 Months

In Brief...

As part of a major upgrade of Farringdon Station, Barhale was contracted by BFK to carry out water main works at Farringdon Road. The upgrade will allow passengers to access Thameslink, Crossrail and London Underground services.

Over 140 trains per hour will flow through the Farringdon interchange and it will become one of Britain's busiest train stations, bringing passengers from outer London to the business hubs in the City and Canary Wharf.

Customer Benefits...

The project was a 24/7 contract, which was completed on time and to budget and all service quality objectives were met.

Reduced pedestrian interface - Riders fitted above each other in bespoke cradles to reduce interaction with pedestrian footpath. Riders buried across Greville Street to reduce interaction with main pedestrian crossing from Farringdon Station to Hatton Garden Office Area.

Barhale professional services - Barhale was employed by BFK on a professional services capacity to provide site advice, temporary works, programming and provision of budgets for the water main diversions at Farringdon Road. Parts of these works included weekend trial holes at North and South Pit locations during the Olympics moratorium.

Technical Features...

Barhale constructed and installed 2 rider mains (400mm & 300mm) to facilitate the re-laying works on Farringdon Road, without a prolonged break in water supply. As the existing water mains could not be switched off for a substantial period of time, line stops had to be used to isolate the 2 existing water mains (14" and 30"). Barhale also installed 200m of 14" Dia & 30" Dia Trunk Main.

There were a number of challenges to overcome:

- Installing riders above each other to minimise pedestrian interference
- Designing and pre-fabbing bespoke rider main cradles
- Shallow Burying rider main's across busy pedestrian crossing at Cowcross Street
- Designing bespoke large line stop pits (3m x 10m in plan)
- Installing large line stop pits (3m x 10m in plan) in areas heavily congested with existing utilities
- Using a "new idea by Thames Water and UTS (line stop company)" of making line stops live on a temporary basis to save 2 weeks on the project



Timber surrounded rider mains



Line stops and rider mains at North pit