CASE STUDY
BERMONDSEY DIVE UNDER

The Contract:
The Bermondsey Dive Under project is a major component in the Thameslink project to rebuild London Bridge Station. The Dive Under project will separate conflicting rail line crossings on the eastern approach to London Bridge by the construction of a new grade separated junction.

The Challenge:
To provide a highly technical and varied ground investigation service to the Client in varied and at times challenging working conditions over a number of years. The site was initially overgrown embankments and derelict railway arches, later becoming an active construction site. Ground investigation requirements varied from the coring of the brick arches, investigation of a slope for a new access to Millwall Football Club’s New Den Stadium, investigation for the geotechnical design of new supporting arches and long term groundwater quality monitoring.

The Solution:
By providing an integrated service Geotechnical Engineering Ltd was able to provide for all of the requirements of the investigation using its teams of drillers, engineers, technicians and laboratory staff.
In the early stages of the project GELs award winning P60 slope climbing rig provided quality slope data for the design of Millwall’s new access. Later phases of the investigation involved GELs Pioneer2 rig to provide data for the construction of pre-cast arches along the length of the viaduct. The Pioneer2 boreholes were installed with multiple vibrating-wire piezometers to monitor groundwater level changes in various strata, groundwater monitoring standpipes and vibrating wire extensometers. Long term monitoring of the piezometers and standpipes has been carried out by technicians from GEL, along with comprehensive groundwater sampling.
As the Bermondsey area is at high risk of unexploded ordnance from WWII, the drilling operations were supported by a specialist UXO engineer using detection equipment.

The Result:
GELs flexible approach, being able to adapt to the construction programmes constraints has provided the client with quality data on time and to budget. This has enabled the Client’s programme to remain on target allowing for the delivery of the £6.5bn Thameslink Programme.

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