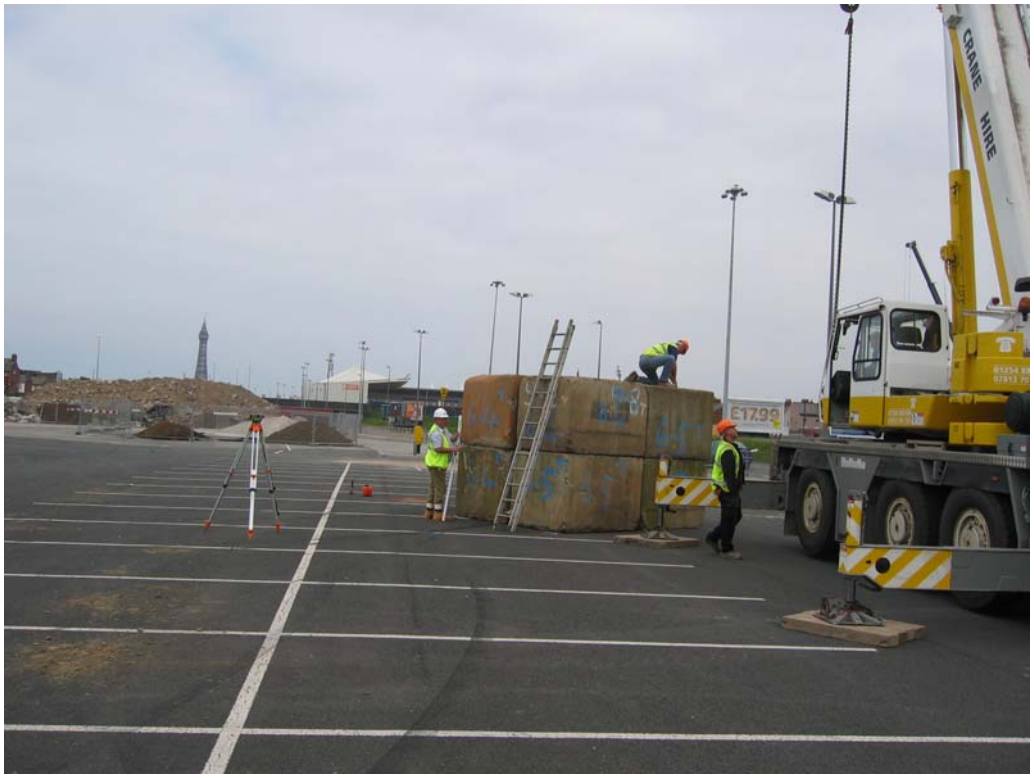
Blackpool Central Corridor Phase 1 Geotechnical Works

Project Description Sheet



Location

Seasiders Way, Blackpool

Client

Blackpool Council

Completed

Ongoing

Key Project Elements

Contamination Assessment
Ground Investigation
Environmental Monitoring
Geotechnical Design
Ground Improvement
Settlement Analysis
Pile Design
Foundation Design
Retaining Wall Design
Sheet Piling
Remediation Design
Waste Disposal
Lightweight Fills
Vibro-stone columns
Volumetric Modelling

PSA Design were commissioned to carry out geotechnical design works for Phase 1 of the regeneration of the Central Corridor into Blackpool.

The site was an existing car park built over old railway sidings. The ground conditions were poor, which include highly compressible peat and very soft alluvial silts and clays, with a high water table, which will lead to excessive total and differential settlement if standard construction methods are used.

Analysis showed that total settlement of between 250 mm and 400 mm due to consolidation of the both the underlying peat and alluvial deposits was envisaged conventional techniques.

Consideration must therefore be given to alternative construction techniques that can both control settlement, and be built quickly.

An extensive investigation was carried out which included conventional boreholes, cone penetration testing, trial pits, plate load tests, large scale load tests, gas and groundwater monitoring and contaminant testing.

Geotechnical design was required for the construction of two 20m climbing walls, several retaining walls, the re-profiling of the highway and car park.

The demolition of Bloomfield Road bridge will lead to an at-grade junction with Seasider's Way being built, which will require the construction of a new embankment between the bridge abutments, and the reconstruction of Seasider's Way to a new raised vertical alignment to meet Bloomfield Road. The new embankment will be about 2 m above current ground level at the intersection.

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