

WESTERN ACCESS ROAD LONDON, SOUTH EAST, UNITED KINGDOM

Construction over Soft Soils

Problem

The Southall Waterside development will create a new neighbourhood alongside the Grand Union Canal in West London. The 45 hectare site, which housed the Southall Gasworks until 1973, will be accessed partly via the Western Access which comprises a road over three new embankments and two integrated bridges, constructed within a 0.75 hectare area of brownfield land adjacent to the main site.

The earthworks will support a new carriageway with designated cycle lane and footways spanning the Yeading Brook and Grand Union Canal.

Solution

A basal reinforced embankment with a single horizontal layer of Paralink placed at existing ground level was required at this location due to poorer than anticipated ground conditions. The ground investigation identified a stratum of Made Ground in an old canal arm, which was removed as part of the ground remediation works. The area was excavated to a depth of between 1-1.5m below original ground level and backfilled with lime and cement stabilised Class 9E material. A layer of crushed concrete was placed over the Class 9E material to create a solid platform. The typical height of the embankment through this section is in the order of 4.0m but with a maximum height of up to 6.1m. The majority of the earthworks in this section were supported by concrete retaining walls along the extremities of the embankments. Paralink was laid for the Approach Embankment located to the east of the Grand Union Canal. Earthworks design were managed by CGL while FN Conway was installing Paralink. The embankment above the Paralink was constructed from a combination of Class 6N-IBAA at the core and Class 6N/6I immediately behind the retaining walls along the extremity of the embankment.

Client: BERKELEY GROUP

Designer / Consultant: CGL (LONDON/GODALMING OFFICE)

Contractor: FN CONWAY

Products used (Qty.)

- ParaLink 4000 sqm

Date of construction: 05/2017 - 05/2018



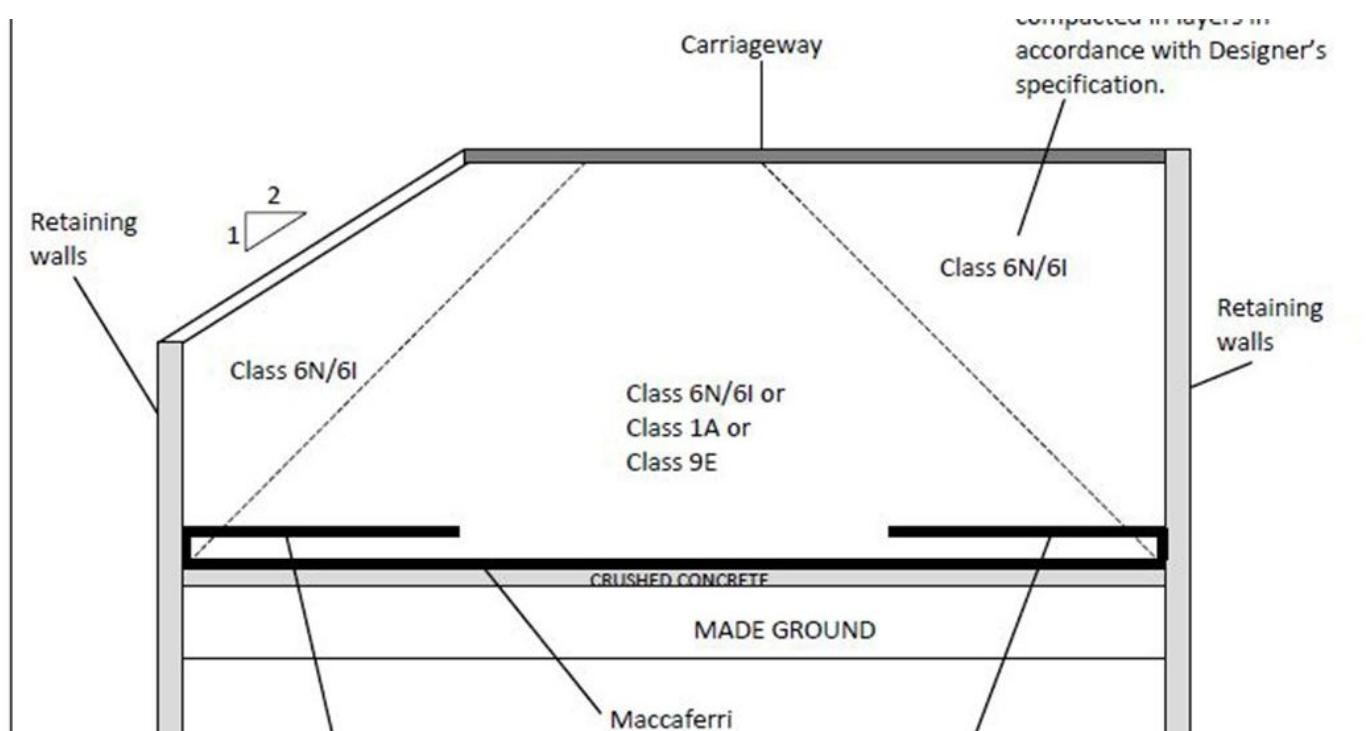
View of the new Southall Waterside Access Road



FGVSGSEG



Paralink being laid flat and wrapped back as per design



Schematic view of the design