

KGX1 PROJECT - GOOGLE HQ KINGS CROSS STATION, LONDON, UNITED KINGDOM

Vertical Walls with Concrete Facing Panels

Problem

The web giant Google is building an HQ in the UK's capital, London. The Google HQ building has been hailed a 'grounds caper' because it will be a long yet low building—it is said to be as long as the Shard is tall.

The £1bn project is set to house over 7,000 staff and boasts sports pitches, a swimming pool, sleep pods and a rooftop running track. To carry out the work successfully a temporary piling platform was needed.

Solution

Maccaferri was asked to facilitate the construction by designing and supplying a temporary piling platform which would stand at 7m high. An MSE wall was then required and working with Lendlease and AKTII, Maccaferri proposed a Parawall system combined with certified BBA Paragrid.

Parawall was set by Expanded (Laing O' Rourke) with a batter of 6 degrees. The Maccaferri Parawall system was chosen due to limited working space.

The maximum rig loading was advised to be from the Bauer BG42 rig with a bearing load of 281kPa over a track length of 5.244m.

Independent CAT 3 design checks were carried out as the structure was classified as high risk due to the Parawall being directly adjacent to Kings Cross station. In addition, the Maccaferri platform was measured using an EDM. The EDMs were set up with shoot targets attached to the outside face of the Maccaferri platform. Before the rig operation commenced, a baseline reading was undertaken. In addition, at the start of the rig operation, live monitoring was undertaken.

The front face of the Parawall was monitored throughout the length of the works from April till the end of May. At the end of the works, a total of 13mm of face movement was measured. The measurement confirmed the great performance of the Parawall system subject to heavy loadings and proved again that the solution is ideal in those types of scenarios.

Client: Lendlease

Designer / Consultant: Aktii

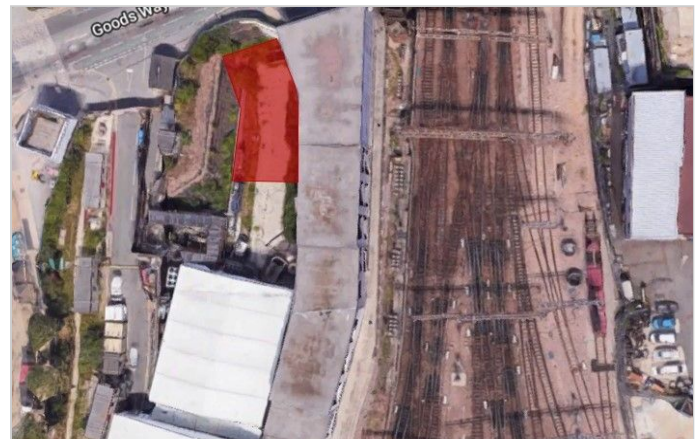
Contractor: Expanded Geotechnical

Products used (Qty.)

Date of construction: 04/2018 - 05/2018

[Google Maps](#)

[Google Earth](#)



The working platform with Parawall was constructed adjacent to the railway.



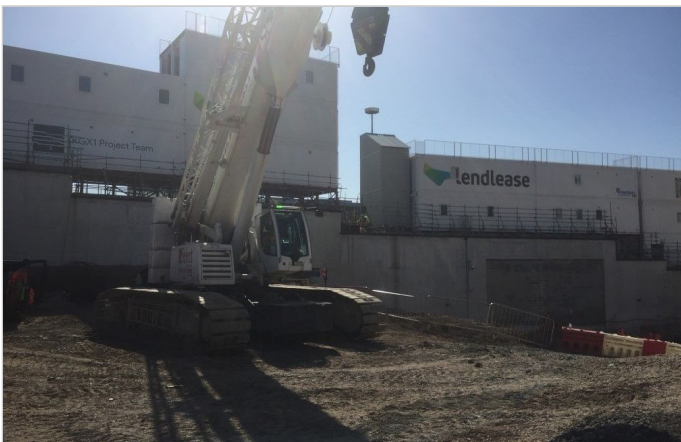
Formation of the working platform



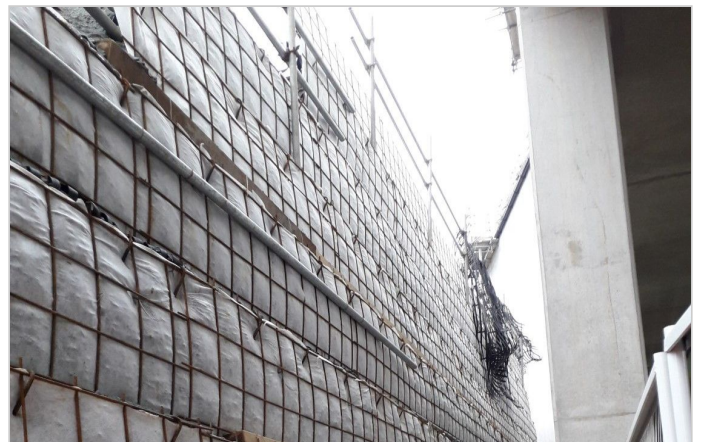
Paragrid laid in layers to form the Parawall System



Paragrid is then wrapped back approx. 1.5m from front face



Crane standing over the 7m high structure



7m high Parawall adjacent to the Network Rail property