

## Case

# STUDY

## STRATAWEB

Birmingham Health & Innovation Campus  
Commercial Lab and Office Space

## The BACKGROUND

A 657,00 sq ft former refuse tip (brownfield site) in Selly Oak Birmingham was being developed by Birmingham University to create commercial lab and office space as a catalyst for growth of the regions life science sector.

The completed scheme will create approximately 10,000 jobs and generate around £400M GVA to the regions economy.

## Our Client's REQUIREMENTS

As part of the overall project, a 65m length of the toe of a Network Rail embankment, dating back to around 1890, had to be cut back to generate space for a new electricity sub station and generator.

The initial proposal was to generate the space required by cutting into the embankment toe with a combination of regrading part of the slope with Platipus Earth Anchors, and also building a new contiguous bored pile wall at the base of the slope.

Any solution required the approval of not just the client, but also Network Rail, as it was their embankment that was being significantly modified.

### SIGNIFICANT COST SAVING

& PROGRAMME IMPROVEMENT PROVIDED  
OVER THE ORIGINAL PROPOSAL.

### REDUCTION IN 'CARBON FOOTPRINT'

BY NEGATING THE NEED FOR A  
CONTIGUOUS BORED PILE WALL.

### ENVIRONMENTALLY FRIENDLY

SOLUTION WITH AN AESTHETICALLY  
PLEASING APPEARANCE.



### MARKET SECTOR:

Commercial



### LOCATION:

Aston Webb Boulevard, Selly Oak,  
Birmingham B29 6SQ



### PRINCIPAL CONTRACTOR:

Professional Remediation Ltd



### CONTRACTOR:

Vertical Access Ltd



### CONSULTANT/ ENGINEER:

Geo Environmental Services Ltd



## Our Value Engineered SOLUTION

**By fully assessing the brief and working collaboratively, Platipus and Geosynthetics proposed a modified solution that was more sustainable.**

It used 'Percussion Driven Earth Anchors' in conjunction with a bespoke facing solution to retain topsoil to create a steep, 60 degree, vegetated slope for the full 4.75m height.

This negated the need for the contiguous bored pile wall which provided a significant reduction in the cost of the solution, and additionally created an aesthetically pleasing and environmentally friendly steep grassed slope.

The revised solution was approved and comprised 6 rows of Platipus anchors at 1m spacing and driven 4.75m into the slope to stabilise the steep face. Geosynthetics 3D cellular confinement system, Strataweb, was then placed on the face, filled with topsoil and then hydro-seeded.

Due to the steepness of the angle the topsoil was encapsulated in the Strataweb by a layer of Pyramat 25 turf reinforcement matting. Furthermore, with the slope being directly adjacent to a sub station and generator there was a potential for electrical arcing, consequently no metallic elements were allowed at the surface of the solution.

To overcome this, rather than fixing the Strataweb with the usual metal stakes, it was simply draped on the slope and the required reinforcement to the Strataweb was achieved by threading polyester tendons through the web and securing at the slopes crest and toe.

For the same reason the Pyramat 25 could not be fixed over the filled with the normal metal J-pin, instead small plastic Platipus anchors were used.

The success of the solution was greatly assisted by the meticulous and skilled installation by Platipus approved installer Vertical Access. Design indemnification of the solution was provided by specialist designer, Geo Environmental Services Limited.

