

University of Exeter Student Accommodation

Devon

The University of Exeter in Devon is a hugely popular destination for students, with numbers of students increasing year on year. To help accommodate these students, Vinci Construction was contracted to build student accommodation for 1,200 students at East park in Exeter.



The project

When Vinci were contracted to design and build student accommodation for 1,200 students at East Park in Exeter, there was a requirement for a substantial soil nailed slope to enable construction. The site topography meant that the slope to the rear need to be excavated into to accommodate some of the building's footprint. As the overall cut slope was to be over 7.0m high, and excavation had to be kept to a minimum, it was decided that soil nailing was the preferred option. Phi Group worked closely with their colleagues at Keller to provide a complete solution for Vinci, with Keller installing the soil nails and Phi Group installing the facing systems.

The challenge

Programme was a key issue on this project, so Keller mobilised multiple rigs to reduce the soil nailing time. There was careful collaboration required as the facing system needs a structural back mesh installed as the soil nailing is carried out. This is one benefit of one company carrying out the complete package.

The solution

The excavation was carried out in sections, with the soil nailing operation being undertaken in a top down method. This minimises temporary earthworks issues as the slope is excavated as it is stabilised with the soil nails. The facing is then installed from the bottom up, and then filled with a clean stone. The slope angle was 70 degrees for the lower 5.0m, with space available for the top 2.0m to be excavated at a shallower angle and faced with a geoweb system. In all nearly 2,000m² of facing was installed.

Project facts

Owner(s)

UPP on behalf of University of Exeter

Keller business unit(s)

Phi Group/Keller

Main contractor(s)

Vinci Constrction

Engineer(s)

Airey & Coles

Solutions

Retaining structures

Markets

Institutional/public

Techniques

Soil Panel

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