Slope Stabilisation
Woodlands View

CLIENT
Cornwall Housing Limited

CONTRACTOR
Hunter Ground Works

Requirement

At Woodlands View in West Looe, Cornwall, a steep slope rises directly behind a row of residential properties, with a low-height retaining wall at its toe. The wall was first inspected in December 2022, and again in January 2023 once vegetation had been cleared to allow a detailed investigation of the slope above. The wall was found to be in generally poor condition and that the slope was overly steep. The focus was therefore on preventative measures to reduce the risk of future ground movement and protect the properties below.

Reducing the slope to a shallower angle was considered, but limited space and difficult access made this impractical. The inspection report instead recommended a slope stabilisation solution, using ground anchors combined with a double-twist mesh across the face, to deliver permanent slope stability.

Solution

The slope is formed of mudstone and made ground, and the design also had to account for a layer of weathered bedrock identified during the anchor tests, which was factored into the final scheme. The performance requirements for the AS-30 Vulcan® Earth Anchors were a proof load of 29kN and a lock-off load of 19kN. Because the anchors would be retaining a slope directly behind occupied homes, each one was proof loaded individually on site before being locked off at its design load, rather than relying on a sample-based check.

Proving every anchor against the design requirement gave the project team confidence that the ground was mobilising the resistance the scheme relied upon, across variable ground that included both made ground and weathered bedrock.

Access to the site was extremely restricted, with all equipment and products carried by hand from the road to the top of the slope, and very little working space available at the back of the properties. The Vulcan Earth Anchor system suited these constraints, as it can be installed and proof loaded by hand without heavy plant.

In places the slope rises to around 3m, so installer Hunter Ground Works worked from a scaffold platform to make installation safer and easier. In total, 56 anchors were installed and proof loaded by hand over five weeks. The result is a permanent, low-impact slope stabilisation solution that reduces the risk of future instability behind the properties, without the need for regrading or heavy ground works in a confined residential setting.













01342 719 362
www.anchorsystems.co.uk