

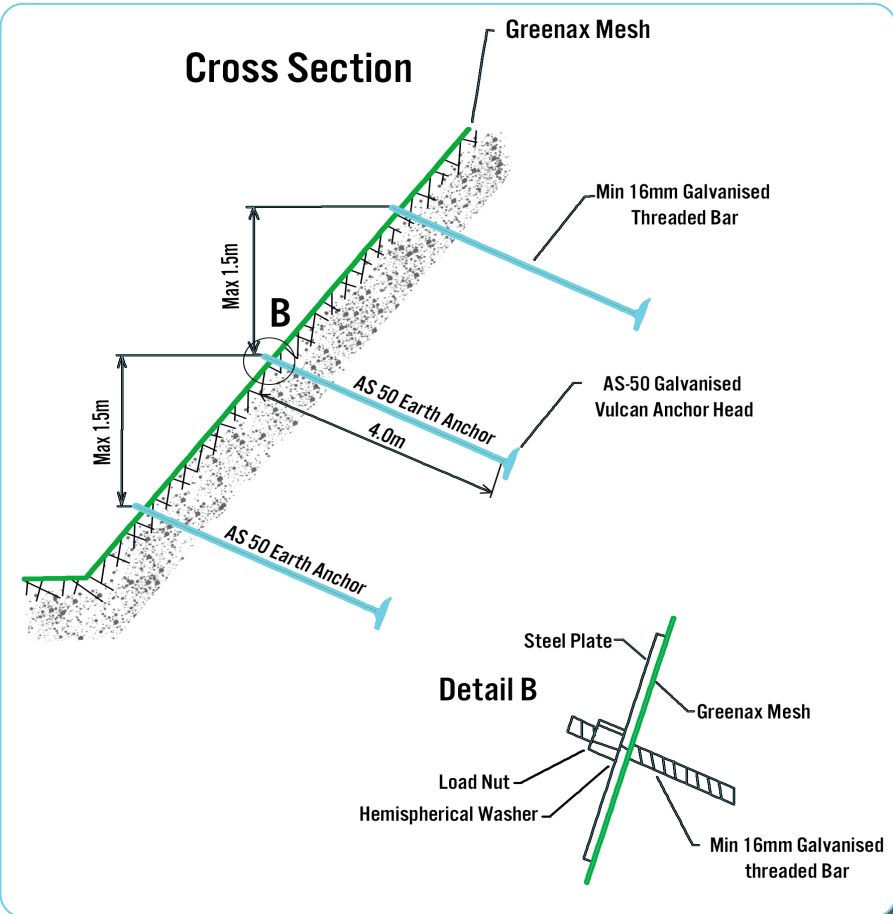
Forterra engaged Anchor Systems (International) Ltd to address slope instability and reprofiling requirements at their Tamworth, Staffordshire site, as part of a £27 million investment to modernize the facility. The upgrade scheme included the installation of a box feeder adjacent to an existing bund, spanning approximately 150m, which had experienced historical slope instability.

SOLUTION

To address the slope instability and prevent further erosion, Key GS were commissioned by Forterra to undertake slope stabilisation/remediation design for the eastern slope of the bund. The global stability analysis carried out by Key GS recommended the installation of either an AS-30 or AS-50 (subject to site validation test) Vulcan Earth Anchor System at 1.5m centres across the slope face section to a minimum depth of 4m. Anchors were to be installed at a 20° angle from the horizontal and achieve a minimum hold capacity of 35kN. Greenax meshing was also specified to prevent localised erosion.

Hartmann Construction were selected to carry out the reprofiling works, ensuring the slope had a maximum slope height of 5.8m with a slope angle of 34° (1v:1.5h). The installation works were carried out over a three-week period with a team of four operatives. 330no. AS-50 Vulcan Earth Anchors were installed across the 150m x 11m bund at 1.5m centres through the pre-laid Greenax meshing. All anchors were loaded and tested to confirm a 35kN hold capacity. The plant required to carry out the installation works consisted of a 12T excavator with breaker attachment, T38 x 5m drive rod kit, and handheld hydraulic loading equipment.

The installation of the Vulcan Earth Anchor and Greenax meshing successfully stabilised the reprofiled bund, preventing any further erosion or slope instability. The use of Key GS's recommended solution provided a cost-effective and efficient approach to meet Forterra's modernisation and sustainability goals. The project was completed on time and within budget, demonstrating the successful collaboration between Forterra, Anchor Systems, Key GS, and Hartmann Construction.



VULCAN ANCHOR SYSTEM AND GREENAX MESHING

CLIENT
Forterra

DESIGNER
Key GS

ANCHOR SYSTEM
330no. AS-50 Vulcan Earth Anchors

INSTALLER
Hartmann Construction Ltd

