



Case Study: Borders Rail, Galashiels, Scotland

The Borders Railway is the longest new domestic railway to be constructed in Britain for over 100 years. It will see four new stations built in Midlothian and three in the Scottish Borders and cut journey times between Tweedbank and Edinburgh to less than one hour from nearly two and a half hours currently.

The area approaching the new Galashiels station at Fountainhall was found to have particularly wet and marshy peat ground requiring additional stabilisation beyond the geosynthetics routinely used in track bed construction.



Geoweb® Geocell has been successfully used in the rail industry for over 30 years solving challenging soil stability problems. Geoweb carries Network rail approval for use under track.

Greenfix worked with the main contractor to establish the most appropriate grade and depth of Geoweb to suit the exceptionally soft ground conditions. This was supported by test results from the Transportation Technology Center in Colorado demonstrating Geoweb's suitability for this application.



Design work was carried out by Greenfix in conjunction with local track engineers. The use of Geoweb stiffened the ground and reduced the additional depth of ballast by confining the aggregate. Two layers of the 150mm deep mid-cell Geoweb was selected as the most suitable depth. The Geoweb® panels were expanded to their maximum size, and laid 2 panels wide across the track bed, providing a width of 5.2 metres.



Product

Geoweb for under track stabilisation



Contractor

Bam Nuttall