



# Case Study

## OLD DALBY TEST TRACK

**Client:** Metronet / Serco

**Consultant:** BCS Design Limited (Tadcaster)

**Main Contractor & Installer:** SDL (Mansfield) Limited

### PROJECT SPECIFICATION

After completion of the Pendolino train testing in late 2005 this test line was largely redundant until early 2007 when Metronet took control to carry out tests for London Underground trains with Serco operating it on their behalf. Historically sections of the embankment on which the track sat had begun to slip and fail, this was highlighted by an extensive dilapidation survey citing that £3 million of work would be needed to bring the site up to the required standard. In this case two short sections each about 35m in length were identified as requiring urgent attention as the ballast and cable trough were sliding away from the tracks. A cost effective solution to stabilise this and safeguard the test track was required.

### SOLUTION

Following site testing of anchors to establish the ground conditions and anchor performance a solution was designed that used a series of Grundomat piles installed vertically into the embankment to retain a wall of ballast boards. A line of anchors driven 9m into the embankment were installed on 1850mm centres and linked with twin 150mm PFC walers adding stability to the structure. The ballast level and cable trough were then reinstated before the site was cleared and the track re-opened. The simple installation procedure and immediate load bearing ability of the anchors allowed for the work to be carried out to schedule during the very limited track possession time.

**Anchor System:** B10TC spheroidal graphite cast iron anchor c/w 10m of 16mm Ø galvanised steel threaded rod, 200mm x 200mm galvanised steel dished load plate, hemi ball & load nut.

**Quantity:** 38

**Anchor Design Life:** 60 yrs

**Soil Type:** Track ballast / clay core

