

**VALLEY TERMINAL**  
**RICHARDS BAY, KWAZULU-NATAL, SOUTH AFRICA****Reinforced Soil Walls and Slope Reinforcement****Problem**

Two 5000 m<sup>2</sup> warehouses for storage of thousands of tons of sulphate had to be built on of low bearing, silty, estuarine area. The ground was unable to carry the high loads and engineering solution was needed to provide a suitable foundation to carry the large loads as economically and possible and with the fast construction program.

**Solution**

A piling solution to meet the loading requirements was ruled out as too slow and too expensive. A raft foundation of ParaLink™ 300 basal reinforcement laid on a pre-consolidated base using the dynamic compaction and replacement method was found to be the best solution for this problem. ParaLink™ 300 reinforcement did not only offer a fast and sound engineering solution, but a cost analysis showed that this alternative provided a huge cost saving as well.

**Benefits** The laying of ParaLink™ 300 is easy and simply entails unrolling the roll of ParaLink™ 300 onto well prepared ground and then cover with a selected granular fill, compacted as per specification. The rate of construction was therefore very quick, the contractor was able to lay an average of 1000m<sup>2</sup> of ParaLink™ 300 per day and completed the 11 000 sq metres raft foundation in six weeks on time and on budget.

A traditional piled foundation would have not made the project feasible, both in terms of cost and time.

**Client:** RICHARDS BAY MINERALS VALLEY TERMINALS

**Designer / Consultant:** GEOTECH MOORE SPENCE JONES

**Contractor:** LEO MAT

**Products used (Qty.)**

|            |        |
|------------|--------|
| - ParaLink | 11,000 |
| - ParaWeb  | 999    |

**Date of construction:** 11/2007 - 12/2007



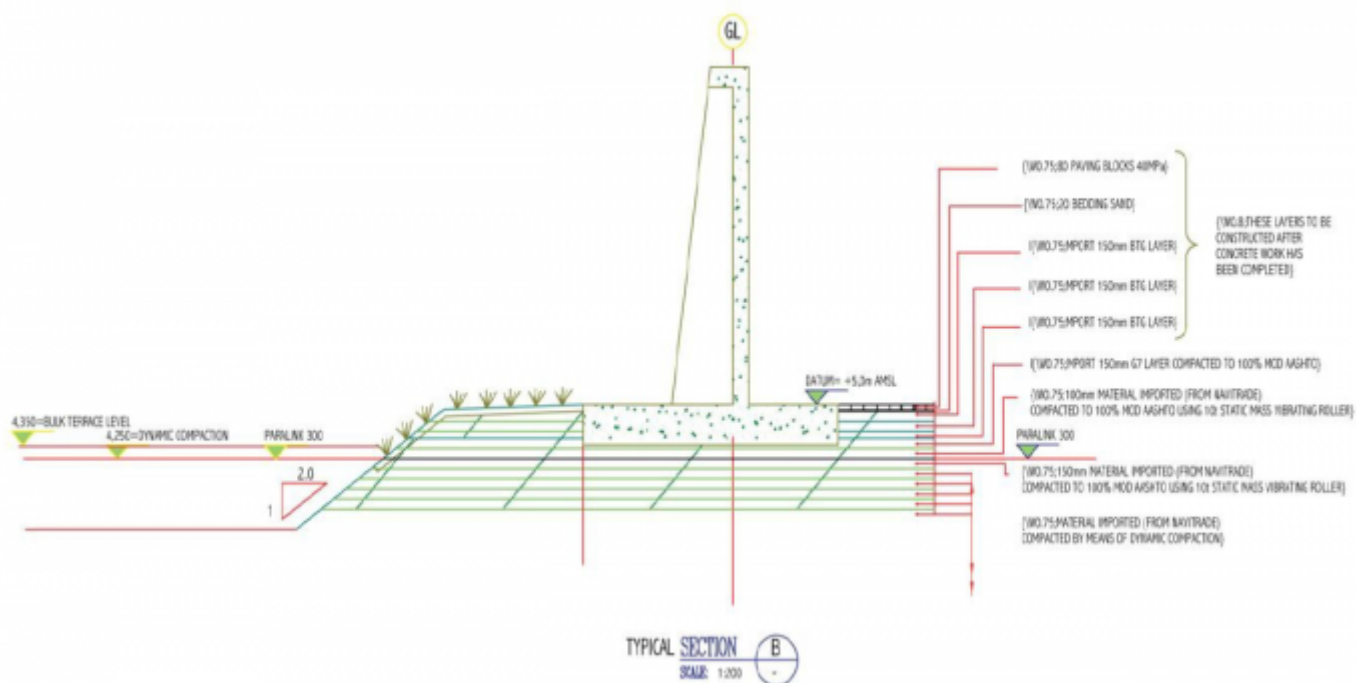
The ground was too wet and too soft even for pedestrian access



The rolls of ParaLink™ 300 were unrolled into position and then covered with str



The limiting factor was the availability to provide a structural cover at the sa



Typical cross section