

**AGRIPORT, MAYDON WHARF
DURBAN, KWAZULU-NATAL, SOUTH AFRICA**

Reinforced Soil Walls and Slope Reinforcement

Problem

A 12 000m² warehouse for storage of thousands of tons of soya had to be built on of low bearing, silty, fine hydraulic fills which are up to 4m in depth at the Durban Harbour area. These hydraulic fills are underlain by silty sand horizons which are interspersed by sandy clay and sandy clayey silts, which vary from 2m to about 20m in thickness. Calcareous sandstone, soft shale and siltstones were also found at depths of between 25-27m below ground. The water table was at 1.6m below natural ground. The client needed the structure to be finished as quickly as possible. The challenge was to provide a suitable foundation to carry such huge loads, on such poor founding conditions, in the quickest time.

Solution

A raft foundation of Paralink™ basal reinforcement was found to be the most cost-effective solution for this problem. Piled foundations would have served this purpose from a structural view point, but construction was going to take much longer than the client was willing to tolerate. Paralink™ 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
- Reduced founding base direct costs in excess of 50%
 - Reduced construction program by months,enabling client to meet shipping deadline constraints.
 - Reduced overall capital outlay for the client.

Client: TRANSNET PORT TERMINALS
Designer / Consultant: MOORE SPENCE JONES
Contractor: LIVIERO
Products used (Qty.)
 - ParaLink 13000
Date of construction: 05/2009 - 06/2009



The top 1.5m of in situ material was removed in readiness of the contraction of



A Layer of the river sand sandwiched between two layers of AG 400 geotextile pro



A compacted layer of decomposed granite was placed on top of the geotextile foil



The next layer of compacted decomposed granite was laid on top of the first layer



The contractor laid and covered up to 5000sqm of Paralink™ per day and was only



as