

FLEMINGTON RACECOURSE
MELBOURNE, VICTORIA, AUSTRALIA**Reinforced Soil Walls and Slope Reinforcement****Problem**

As the home of the Melbourne Cup and the headquarters of thoroughbred horse racing in Victoria, Flemington Racecourse is considered to be an asset of State significance. It is the centrepiece of world class racing – especially the Spring Racing Carnival which brings hundreds of millions of dollars to the Victorian economy. The Flemington Racecourse was built on the Maribyrong flood plain and spring race meetings have been held there since 1854. In May 1974, the entire course was under water, and since then the river has broken its banks eight times, most recently in September 1993. Specialists warned that flooding of the river within two months of the first Tuesday in November could mean the cancellation not only of Cup Day, but also Derby Day, Oaks Day and Stakes Day. The result would be a huge loss in revenue to the horse racing fraternity.

Solution

A 1.6km long x 2.5m high bund wall was built along the course's river boundary which will cope with a one-in-100 year flood event. A number of options for the bund wall were considered but ultimately the only system which was able to fulfil all the requirements was a Maccaferri woven mesh Galmac+ PVC coated Terramesh solution. The mandate given for the wall was that it had to be aesthetically pleasing, quick to install, vertical, had to blend into the existing landscape, be cost effective, have the required design life and be impermeable.

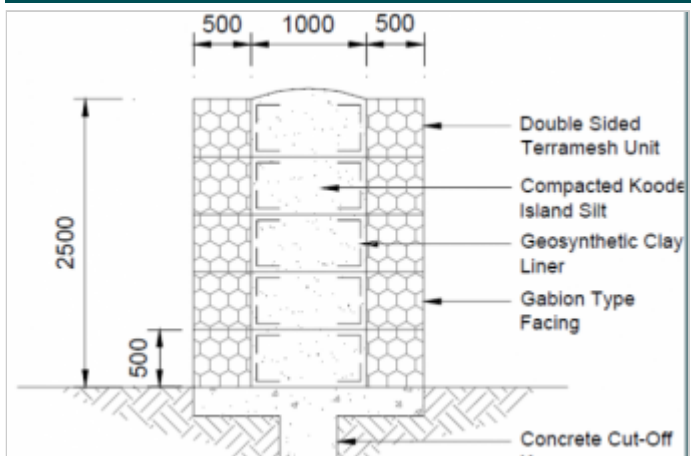
The impermeability issue was achieved by incorporating a Geosynthetic Clay Liner (GCL) within the centre of the bund wall which encapsulated compacted Koode Island silt. The Terramesh solution comprised of a double sided Terramesh unit that was 0.50m high, 2m long and 2m wide. The width of the outer Gabion type facing was 0.50m. These outer Gabion type facings were connected together with continuous woven mesh reinforcement.

Client: VICTORIA RACING CLUB (VRC)**Designer / Consultant:** GHD CONSULTING ENGINEERS (Melbourne Office)**Contractor:** AKRON ROADS**Products used (Qty.)**- Terramesh Average**Date of construction:** 01/2007 - 10/2007

During construction



During construction



Project Typical Section



Complete Structure



Completed Structure