

#### **CASE HISTORY**

Construction of retaining walls for access ways and landscaping on a sloping residential development located in Balmain overlooking Sydney Harbour

PRODUCT	TENAX TT045/060 with Keystone
LOCATION	Balmain (Sydney), Australia, 2000
OWNER	Australand
PROJECT	ARUP Engineers
CONTRACTOR	UCBC Pty. Ltd.



#### **PROBLEM**

The sloping terrain has been benched out to accommodate the residential apartments and townhouse leaving 4 to 5 metre drops from one platform to another sloping down towards the waters edge. The owner required a flexible, attractive, durable retaining wall system which could utilise the existing site fill and provide access ramps throughout the residential complex.



#### **SOLUTION**

Use an attractive cost-effective segmental block system together with TENAX geogrids to reinforce the on-site backfill. This style of retaining wall system allows maximum flexibility with wall design and geometry. Using TENAX TT geogrids permitted the use of poor quality on-site fill which had to be utilised. This type of retaining wall construction suited this sloping terrain which forced the contractor to work under difficult conditions.

#### **CONCLUSIONS**

The use of segmental blocks with TENAX TT045/060 geogrids, instead of the other traditional rigid retaining wall systems provided the following benefits:

- The use of poor on-site backfill to be used
- Superior construction damage factors versus other geogrids
- Substantial cost savings versus other rigid methods
- Quick and simple staged construction: normal machinery and equipment and unskilled labour were utilised
- Addressed the concerns of the corrosive site conditions
- A free draining reinforced soil structure
- Ability to create any combination of wall profiles to satisfy the overall design concept
- A retaining wall structure which can withstand ground movements and adjust to new condition