



In recent years, the method of combining low cost seating arrangements with necessary slope stabilisation measures has become more and more popular in all parts of South Africa.

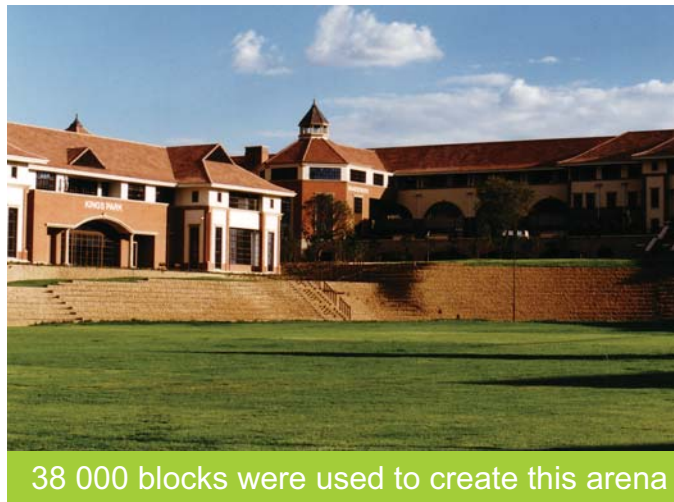
Huge level platforms that have to be created for sports facilities invariably result in cut and fill situations with steep sloping embankments that have to be protected from soil erosion. Fill slopes are usually protected with instant grass cover or depending on site conditions, with Terrafix or similar concrete blocks. Cut slopes lend themselves to be terraced with Terraforce concrete retaining blocks in various configurations, finishes and sizes. Especially in Gauteng and Western Cape a number of storm water detention ponds have been built with such seating to create truly multi purpose facilities.

The seating sections may be planned either as grass roots, i.e. grass cover that is mowed short as required for spectators seating, or with finishes to various levels of sophistication. With the 4x4 accessory block it is possible to incorporate comfortable seating and stairway

arrangements at varying inclinations between 23 and 39. Cost per installed 500mm wide seat can thus vary, at to days prices, between R250,00 and R500,00 each.

Recently completed Dimension Data Campus provides a striking example of effective use of earth retaining blocks for seating. Originally specified by Architects Portal TPC as a vertical wall of Mac blocks (Keystone) fell outside budget restrictions. Gary Campbell of contractors Bullen and Campbell then suggested Terraforce L 18 blocks with rock-face finish in a terraced application to accommodate spectator seating. Engineer Johan Joubert did the necessary stability checks and came up with a viable and cost effective cross-section.

Stability concerns at the section with steep inclination were overcome with 2m long Y16 bars driven into the blocks and sealed with Bentonite. Vertical wing-walls and sections tying in with buildings surrounding this oval were constructed with the normal reinforced earth technique, i.e. woven fabrics stretched into the backfill and clamped between the L 18 block. It took 8 months



38 000 blocks were used to create this arena

### Grass increases comfort and aesthetics



and 38.000 blocks to complete this prestigious installation to the clients satisfaction.

With the finishing touches being applied during March 2003 this water-wise installation is rapidly greening over. Mostly **Ivy** creepers to cascade over vertical walls and fragrant **Penny Royal** ground cover on the seating terraces with edges of various shrubs and grasses will soon be fully established.

