



Structural Drainage The Glen Shopping Centre Gauteng

Case Study

Project: The Glen Shopping Centre

Client: Hi Prop

Consultant: Ture Consultants (Civil)

Contractor: W B H O

Date: early 2004 to December 2004

Product: **bidim A2**
DN3 Flownet
S120 Kaytape
M100 Geopipe

Quantity: Approx 4 100 m²

The Glen Shopping Centre is located in a natural valley. Due to the geological formation and an old streambed pertaining to the site, the presence of ground water was a concern. A comprehensive, under-floor drainage system was therefore required.

Kaytech's "Block 6" design was used in the main due to its ease of installation and the time and cost savings incurred as a result thereof. The overall thickness of this blanket drainage layer is approximately 7 mm, significantly less than a conventional stone/sand drainage layer. On top of the drainage layer the floor/foundation slab was cast.

The "Block 6" design is comprised of the following products from the prepared base up:

- **bidim A2** – separation layer between in-situ material and drainage system.
- **DN3 Flownet** – drainage core.
- **Kaytape S120** – reinforcement layer to ensure that the DPC sheeting does not intrude into the openings of the drainage core under the load of the concrete.
- **DPC** – plastic sheeting to prevent the wet concrete from clogging the drainage system while being cast.
- **Geopipes** – collector pipes placed at defined locations to direct the water to the sumps.

