Creepers and shrubs taking hold

Retaining useful space with Terraforce

Kanonberg Lifestyle Estate, developed by Atterbury, a national property development group, is Cape Town's first fully integrated lifestyle residential estate and modeled on Atterbury's successful Woodlands Lifestyle Estate in Pretoria. It consists of 31 hectares situated at the foothills of Cape Town's Tygerberg, flanked by the exclusive Welgedacht Estate to the south and the Tygerberg Nature Reserve to the west.

Eager to preserve the rural atmosphere of the original Kanonberg farm, Lize Roffey, the owner of one of the homes located in Kanonier Crescent, was faced with tough choices when confronted with a steep and unusable embankment to the rear and sides of her property.

"If I had gone for the option of erecting a solid concrete wall, I would have ended up with a 12m concrete slope, which is comparable to living in a pit," says Roffey.

"The one of the other options was to install a concrete block retaining wall, with the idea of breaking up the wall and creating a more soft and natural look. I also wanted to utilise the space at the back of the house for landscaping and Terraforce blocks offered the best solution for value of money in this regard," adds Roffey.

This massive cut and fill site is representative of a situation that is becoming more and more prevalent as level building land is on the endangered list. The adaptability and versatility of Terraforce products was developed to their full advantage on this site, with walls ranging from composite "reinforced earth" types to mass gravity retaining, as well as light landscaping and comfortable stairways.

Terraforce is a national and international pre-cast concrete manufacturer of hollow, reversible units that represent the most energy efficient system anywhere, starting with low hardware input for the manufacturing of blocks to low transport costs and low inventory requirements at the sales outlets.

Being hollow, yet strong enough, they require less concrete to do the job when compared to solid block systems. Furthermore, Terraforce's licensees in some

Terraces connected by steps

locations have been using recycled materials for the past 25 years. It is therefore safe to say that Terraforce blocks are eco-friendly, energy-friendly and wallet-friendly.

S.P. van Blerk of Decorton, Cape Town based retaining wall contractor, was appointed to install the retaining wall with Terraforce L11 blocks. He proceeded to create a set of walls that skillfully break up the embankment behind and to the sides of the house by incorporating undulating terraces of varying shapes and sizes, small outcrops with grassed platforms, as well as numerous steps that allow access to any part of the installation, even the very top of the wall.

Van Blerk agrees that the objective of creating usable space has been met: "The wall next to the driveway had a slight level drop so we created a low wall next to the driveway for a formal look. On the left hand side of the property we were presented with a bad slope which could not be used. To be able to take advantage of this ground, a terrace wall with various levels was built to create platforms."

He adds: "At the front of the house a terrace wall was build to allow easy access to the driveway and

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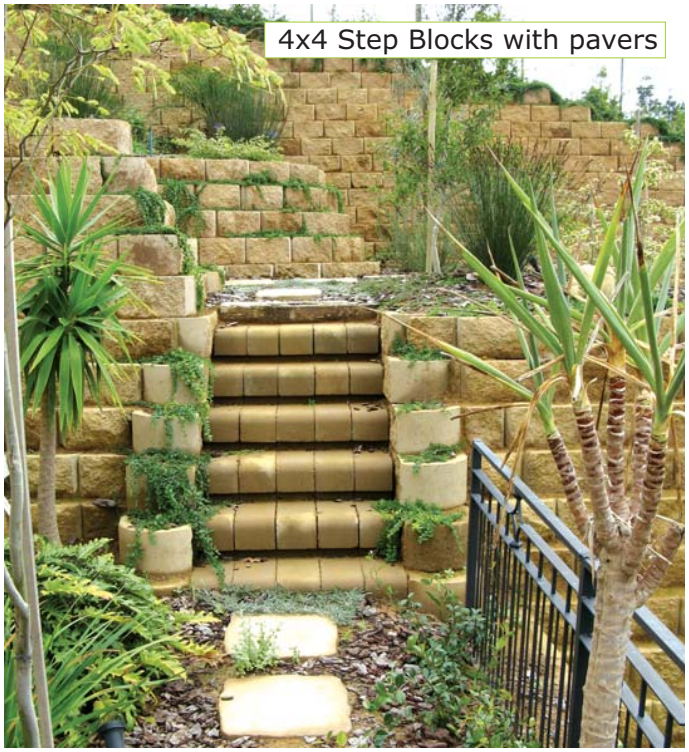
4x4 Step Blocks with pavers

to make it possible to turn a vehicle in front of the driveway. Every terrace wall has its own foundation (founded in cut/ 5%cement stabilised soil), drainage system, cement stabilised sand infill & geofabric reinforcing, seeing that the earth is not very stable and to prevent slippage. Reinforced steel was used inside blocks for the bottom terraces."

A particular challenge was presented at the back of the house where a particularly high embankment could threaten the pool and backyard with slippage and collapse in during heavy rains.

The slope had to cut back with an excavator to avoid creating one huge compact structure but rather various terraces that would fulfill retaining purposes and yet remain visually acceptable to the owner of the house. The terraces are linked to each other by a 4x4 multi step system that creates effective access and seating opportunities.

Van Blerk explains that as it was an in-situ embankment reinforcing fabric could not be used in this instance, instead steel reinforcing and cement stabilised sand infill where put in place to ensure overall stability, whereas the bottom terraces were built with a double skin of blocks as well as concrete infill and steel reinforcement.

To add the final touches, Roffey hired Helmut Henstock from Gardening Adventures to landscape the completed installation. Says Helmut: "The client was looking to create lush, less formal Moroccan style garden. She also wanted to create the visual effect of looking and walking up into a flourishing, abundant crevice, with different textures and angles opening up the space away from the house."

To achieve this effect Henstock planted lots of perennial trailers and creepers such as Convolvulus (a climbing or creeping herbaceous perennial plant) on the retaining wall to soften the concrete and to create a more natural look and filled out the terraces with larger plants, such as pony tails (old World tropical plants with branches ending in tufts of sword-shaped leaves), tree aloes and indigenous hollies, amongst others.

Some of the platforms are enhanced with paths created by pavers and bordered by Arcotis, a bushy perennial of South Africa with white or violet flowers.

Henstock adds: "Once all the plants become more established and start flowering, this wall will look beautiful, covered in colour and lush green tones. Overall a bushy, yet tropical and rich effect was created, and the design of the retaining wall really helped with creating this effect. The alternative is unthinkable, a stark grey concrete wall…"

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