



Steep road leading through dense forest and bush to the beach

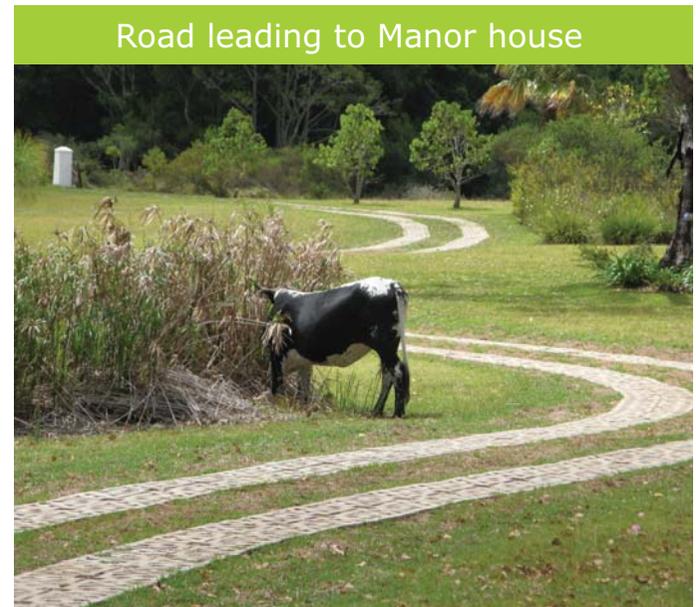
In January 2008, Pieter van Rensburg, Manager at the Forest Hall Private Nature Reserve near the Craggs, Plettenberg Bay, decided that, for reasons of fire, erosion and alien plant control, the roads on the reserve needed urgent upgrading. This would facilitate re-forestation and coastal management. Regular floods were washing out the existing roads and access to the reserve became more and more difficult.

The 500 acre reserve boasts numerous trails through the indigenous forest, being the home of an abundant array of birds and smaller mammals, including bushbuck, monkeys, bush pigs, and baboons that one could encounter. The reserve also boasts its own stretch of private coast-line. The old Manor was built by an English gentleman, William Newdigate, in the early 1860's and has

remained in his family until 1996 when the property was sold to new owners.

For these reasons van Rensburg wanted the upgraded the roads in such a way to disturb the indigenous forest and historical feel of the reserve as little as possible: "We were looking for a green solution to improve access to the reserve, for personal use and with the view of attracting more interest to the area as a venue for events and eco-tourism. This meant finding a product that would not create a bad visual impact on the reserve and blend in with the look and feel of the Manor House."

After seeing an editorial on the Terracrete block, a eco-friendly paving and hard lawn block designed by Terraforce, Cape Town based licensor of precast concrete products, he decided that this product would work perfectly for these circumstances and work commenced in February, with blocks supplied by Mobicast, George.



Road leading to Manor house

Drift crossing with rip-rap downstream



Construction proved to be relatively straightforward and cost-effective. Says van Rensburg: "We used our own team of eight labourers to level the tracks and apply a sub-base topped with crusher dust onto which the blocks were laid. The blocks were then each pinned with at least one 300 mm long, Y12 reinforcement steel peg, to prevent the blocks from shifting in the initial stages. For steeper sections about three pegs of steel where used per block and for level section only one. Finally, the new tracks were covered with gravel on steep sections and top soil on level sections to encourage growth of grass in the blocks. Where streams cross the road, the whole width of road was paved with Terracrete and rip-rap erosion control on the downstream side."

The only problem that arose was that one section of the road that was laid at the start of the project passed through short stretches of soft ground without sub-based foundation. These blocks had to be lifted and re-laid on sub-base foundation as heavy loads tended to press them into the underlying

Pristine indigenous forest, hardly disturbed



soil. In general though, repair and maintenance of the road is kept relatively simple. When subjected to heavy loads, the occasional block may crack and can then be left in place for a while to still function perfectly or it can be replaced with a new block.

In total eight km of road were upgraded in nine months and van Rensburg is very happy with the result: "The products worked perfectly for us. The blocks could be laid by hand and not much of the surrounding forest was disturbed by the construction

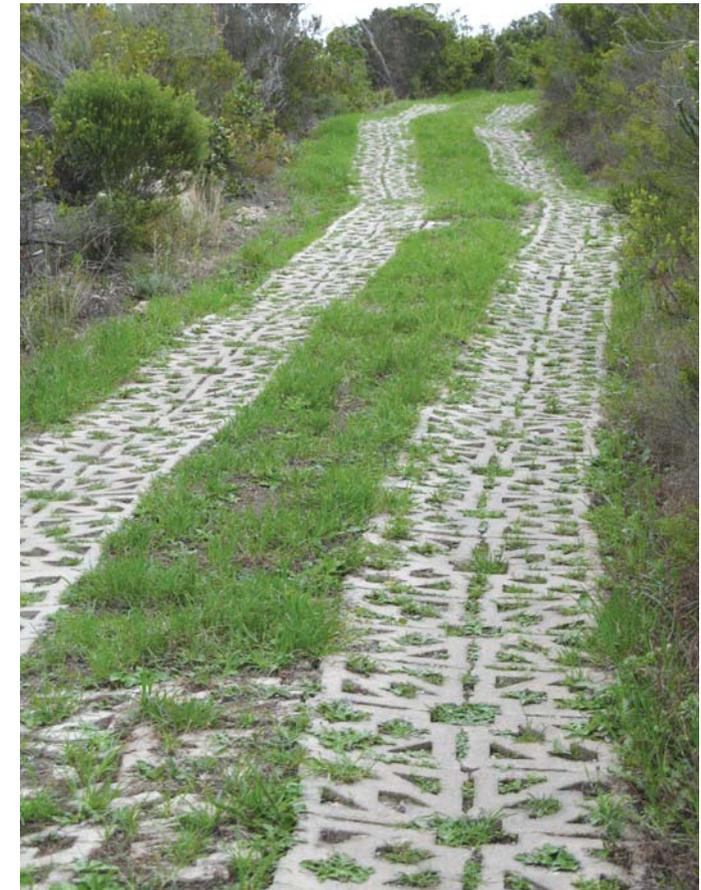
process. The road has been performing very well, even coping with an eight ton concrete truck. Steep sections of the road that were previously only accessible to heavy duty 4x4 vehicles can now be negotiated with normal passenger cars"



Strip road leading to Manor house

For van Rensburg the Terracrete block offered him a solution on all levels: "This block is great for anyone who needs to curb erosion on a road in an ecologically sensitive area. I would like to see more

people use it. It is easy on the eye and does not have a big impact on the environment as compared to gravel and concrete tracks that people often use in similar circumstances. At the moment the blocks are almost covered by grass and all you see is a little concrete now and again."



Good grass growth on the blocks, creating a natural look that blends in