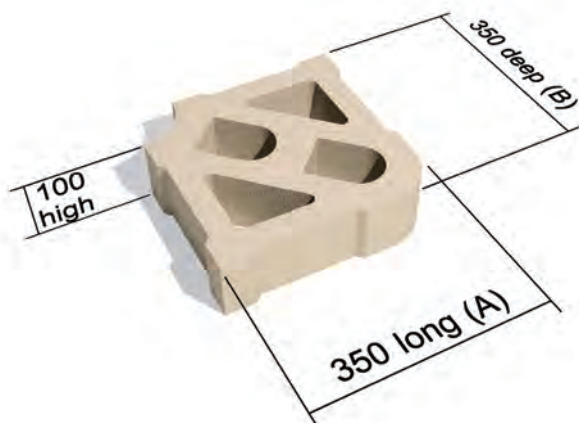




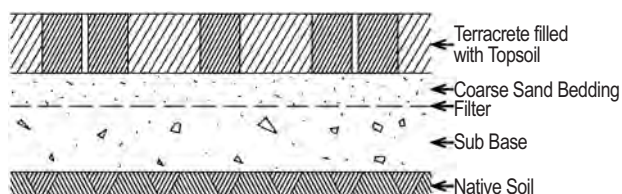
TERRACRETE

PERMEABLE CONCRETE BLOCK PAVING

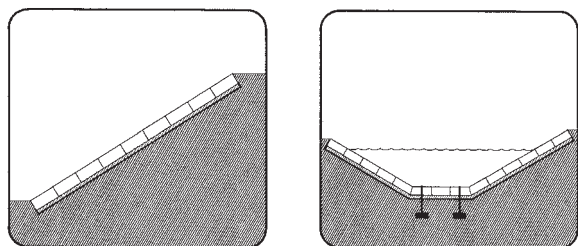


Block	Terracrete
Blocks/m ² (Measured on the face)	6-9
Block mass/kg	16
Earth Infill - m ³ per m ² (40% open)	0.04
Average constructed mass kg per m ² of surface area	200
Block wall thickness mm	40-50

TYPICAL APPLICATIONS

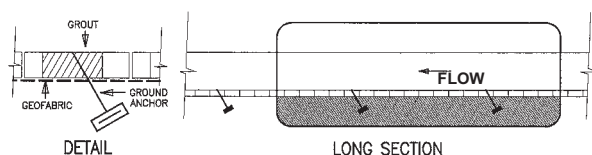


DRIVE OVER HARD LAWN Roads • Parking Areas
Eco-surfaces are capable of infiltrating large amounts of stormwater. The design of bedding layer and sub-base as short term storage reservoir depends on the ability of in-situ native soil to absorb this water.



EMBANKMENTS AND SHORELINES

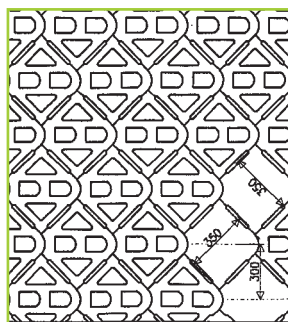
Sand Dunes • Abutments • Spillways • Channels • Streams •
River Banks • Dykes • Dams • Lakeshores



The units can be laid in different patterns and may be used with or without ground anchors for the lining of riverbanks and other areas subject to soil erosion. The paving of grassed roads and parking areas, as well as the stabilising of steep embankments such as bridge abutments can be undertaken with these versatile blocks.

Terracrete, manufactured locally and internationally by Terraforce licensees, is a versatile eco-surface hard lawn paving block that was introduced to the South African market by Terraforce in 2002. From an aesthetic point of view, they are very versatile. A grass driveway, a rustic gravel driveway, or an attractive pattern of pavers can add the finishing touch to a custom home looking to stand out. Permeable grass pavers can add a park-like or pastoral feel to many areas normally needing hard paving.

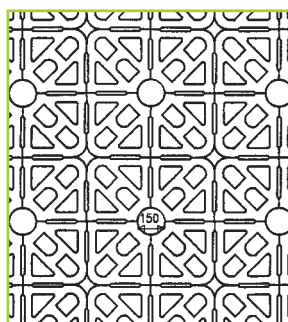
MACHINE MADE VERSION 16 KG (1, 2 & 3)



1. UNIDIRECTIONAL FORMATION 38% OPEN/sq m 9 TERRACRETE/sq m

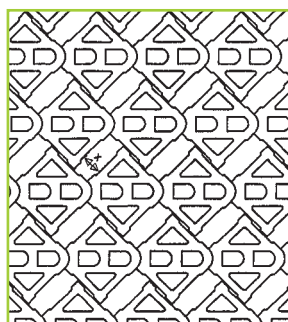
Gross coverage of block = 0.1103 sq m
Area of openings inside blocks = 0.0356 sq m
Area of openings outside block = 0.0065 sq m
9 Blocks/ sq m

Note: Slight dimensional variations may occur



2. CIRCULAR FORMATION ± 40% OPEN/sq m 8.2 TERRACRETE /sq m

Gross coverage of block = 0.1103 sq m
Area of openings inside blocks = 0.0356 sq m
Area of openings outside block = 0.0065 sq m
8.2 Blocks/ sq m

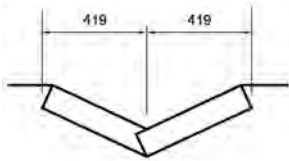


3. UNIDIRECTIONAL FORMATION (EXTENDED)

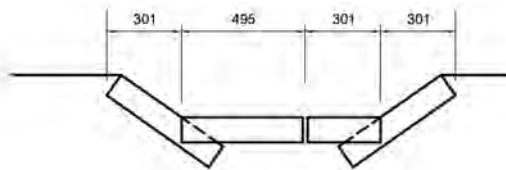
if x = 20mm: ± 8.5 Terracrete /sq m;
41% Open /sq m
if x = 100mm: ± 7.2 Terracrete /sq m;
50% Open sq m
if x = 200mm: ± 6.0 Terracrete /sq m;
58% Open /sq m
Gross coverage of block = 0.1103 sq m
Area of openings inside blocks = 0.0356 sq m
Area of openings outside block = 0.0065 sq m
Area of 100mm GAP = 0.0285 sq m

TERRAFORCE®

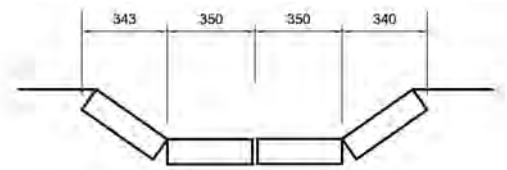
The original, reversible, hollow core retaining block



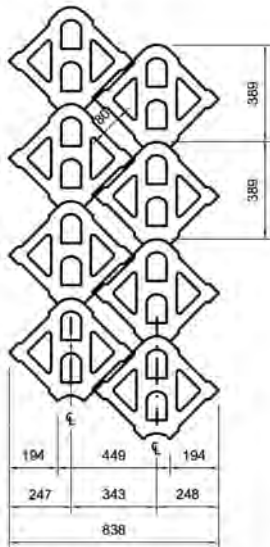
SMALL CHANNEL



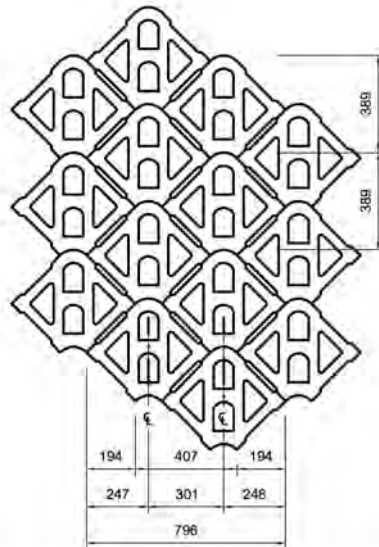
MEDIUM CHANNEL



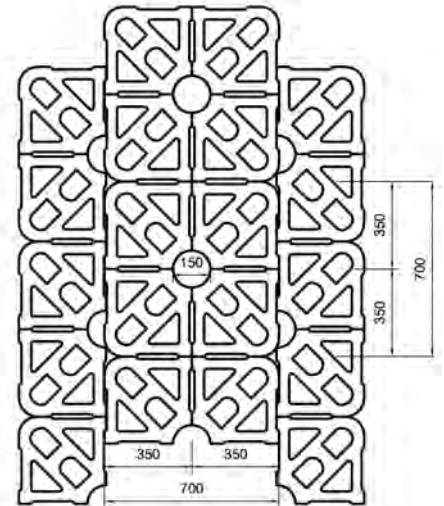
MEDIUM CHANNEL



± 6610 BLOCKS PER KM.



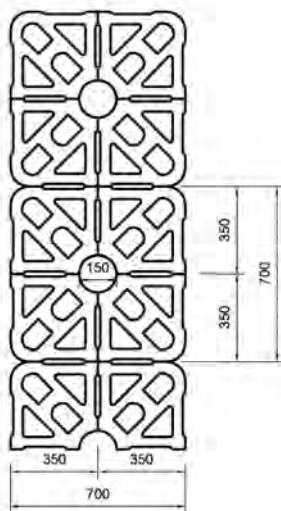
± 12668 BLOCKS PER KM.



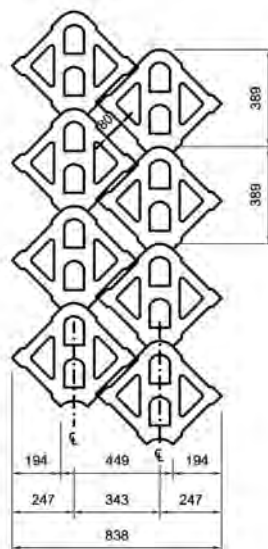
± 12541 BLOCKS PER KM.

VARIATIONS FOR SMALL STORM WATER CHANNELS WITH TERRACRETE EROSION CONTROL BLOCKS

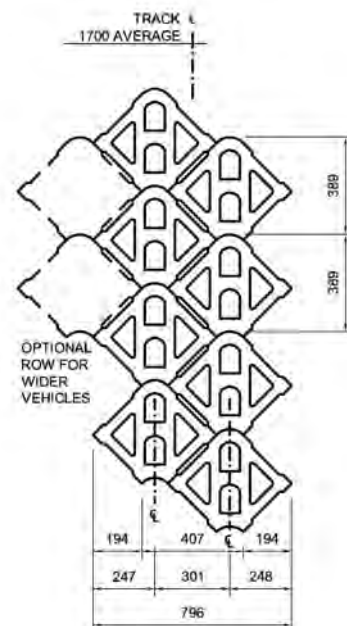
ALL DIMENSIONS APPROXIMATE



± 12695 BLOCKS PER 2 TRACK KM.



± 13220 BLOCKS PER 2 TRACK KM.



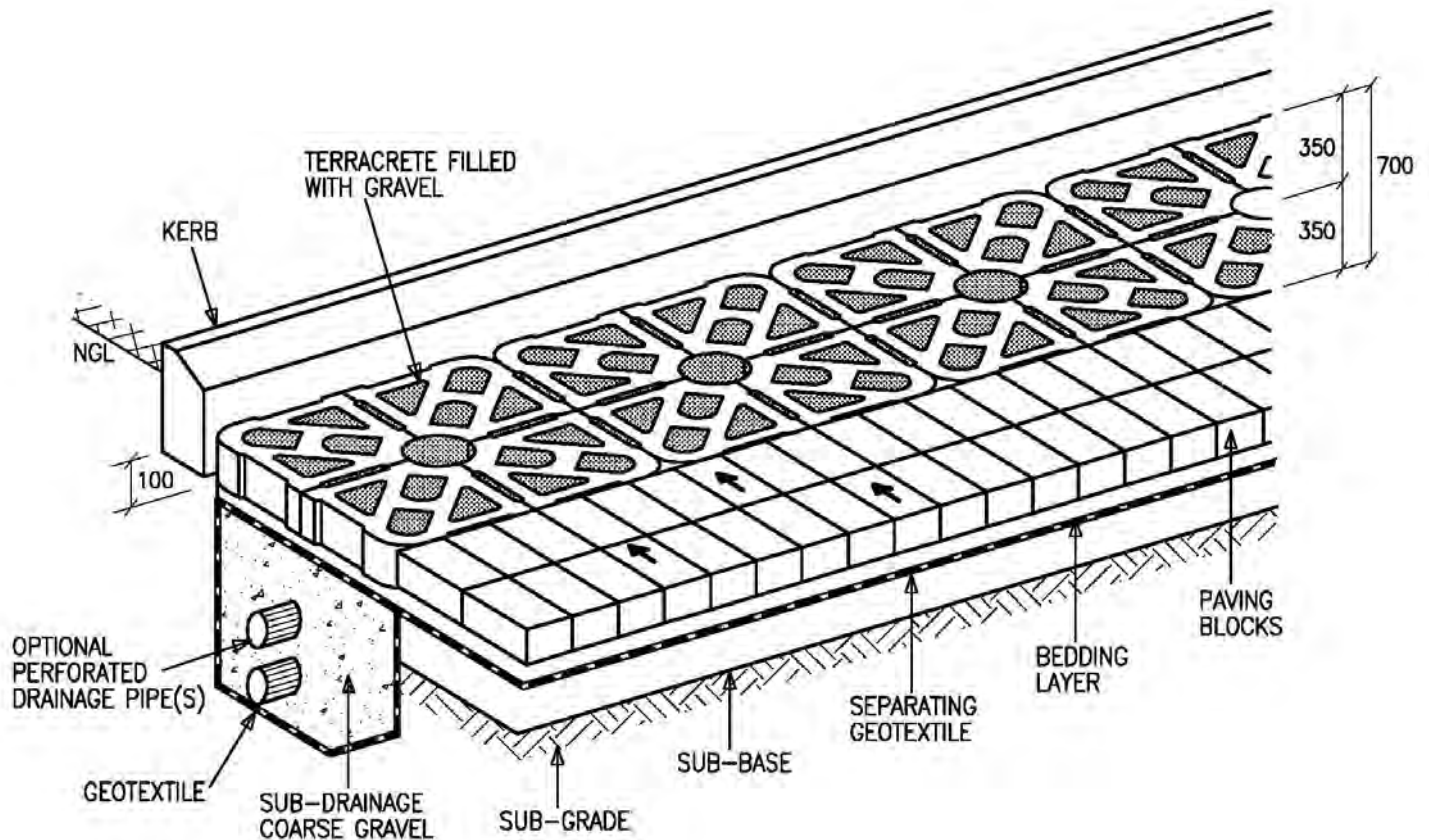
± 14436 BLOCKS PER 2 TRACK KM.

VARIATIONS OF SINGLE WHEELTRACKS WITH TERRACRETE HARD LAWN BLOCKS

ALL DIMENSIONS APPROXIMATE

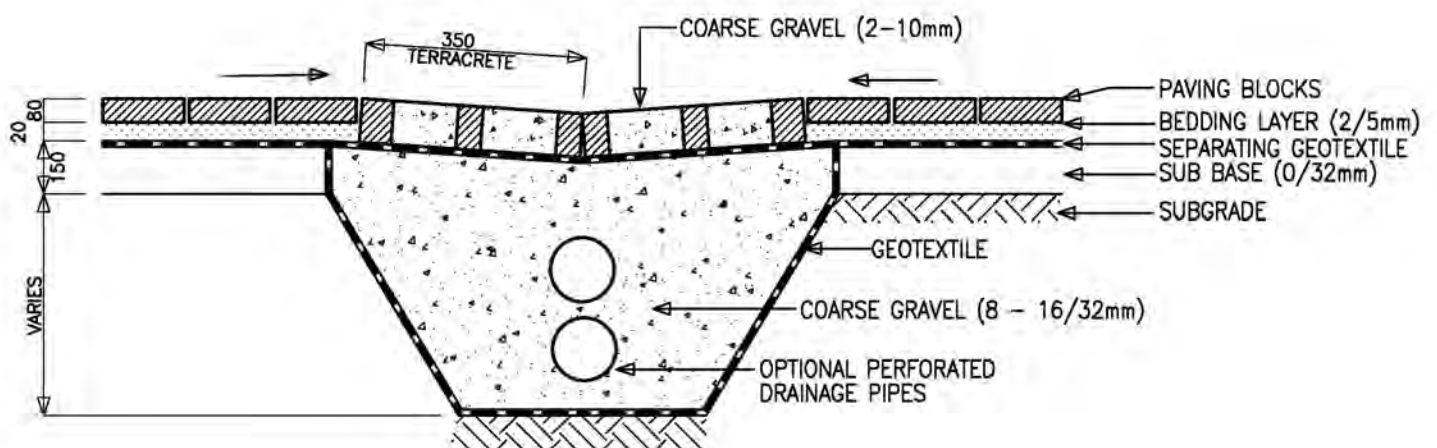


Perimeter drainage channel



Intermediate drainage channel

The incorporation of drainage lines along edges, around perimeters and at predetermined centers across parking/storage areas or roadways makes it possible to up-grade existing ones or enhance drainage/infiltration of new installations.





Installation of Terracrete Hard Lawn/Erosion Control Blocks for Storm Water Control Channels and Permeable Pavements.

- It is suggested that the Contractor carefully plan and identify the drop-off or delivery areas along the construction route prior to delivery. Double handling of blocks may result in blocks being damaged unnecessary. Blocks should be carefully off-loaded from the delivery vehicle and be stored on a level area. (on pallets where applicable)
- Prevailing site conditions and intended applications (driveways, hard lawn parking, roads and parking areas intended for storm water attenuation) must be evaluated for compatibility with one another by a qualified professional. (3/2007) (2/2008)
- Prepare canal profile in G7 gravel/soil base course to line and level or as specified by the designer, before placing A1 geo membrane with at least 200mm overlap. Placing and compaction of the sand bedding layer shall be spread evenly over the membrane, in order to achieve a “compacted” thickness of approximately 20mm thick. The sand bed shall be laid in advance of placement of the embankment blocks, but only to the extent that the particular section can be completed on the same day.
- Blocks shall be pressed into its bed in the unidirectional formation, (or as otherwise specified) close fitting to present a flat surface without protrusions and as directed by the designer.
- All blocks shall be filled with a permeable coarse, sandy material, lightly tamped as specified by the designer. Suitable grass seeds should be mixed into this fill before placement.
- Cutting of blocks should preferably be avoided, but where cutting of blocks is required, (bends and junctions) blocks must be neatly cut with an angle grinder.
- Blocks shall be laid in a uninterrupted (unidirectional or as specified) pattern if the conditions on site permit it, except where curves or junctions occur. Here it may be necessary to insert triangular shaped panels of blocks neatly cut at the edges with an angle grinder. The line of the units shall both be visually straight and parallel with the edge of the channel or the edge restraint of the roadway/parking area.
- To protect against undermining of the edges during times of high flood, at least one row of blocks shall be packed horizontally along all edges of the canal as erosion checks, filled and seeded as before.

Optional Notes.

The above guidelines are intended for the person supervising the installation. Prior professional design input cannot be waived.

The designer will consider gradient, soil conditions, expected storm water flow velocity and volume, velocity reducing measures. (drop structures, weirs and stilling basins) For roads and parking areas, he will analyse natural soil, designated loading and possible storm water attenuation/detention/infiltration, to design the required layer work.

The resulting design will describe cross section, gradient, laying pattern, base course/filter /bedding/drainage layer, weirs or buffers, attenuation ponds or ground anchors where required.

When in doubt, contact Terrasafe at www.terraforce.com

TERRAFORCE®

The original, reversible, hollow core retaining block



PERMEABLE PAVING FOR 300 TON BOAT LIFTER OPERATION



PERMEABLE PAVING FOR SPILL-OVER PARKING AREAS



ECO-FRIENDLY ROAD EROSION CONTROL - TERRACRETE



COST EFFECTIVE STRIP ROAD - TERRACRETE



GRASSED DAM SPILLWAY



TERRACRETE HARDLAWN PARKING AREA IN A NATURE RESERVE

TERRAFORCE®

The original, reversible, hollow core retaining block



PERMEABLE DETENTION POND LINING WITH TERRACRETE



STORM WATER CHANNEL ADJOINING A PARKING AREA



ECO-FRIENDLY STORM WATER CONTROL



ECO-FRIENDLY STORM WATER CONTROL



TERRACRETE GRASSED ROAD IN A NATURE RESERVE



DRAINAGE STRIP FOR WATER RUNOFF AT PARKING AREA