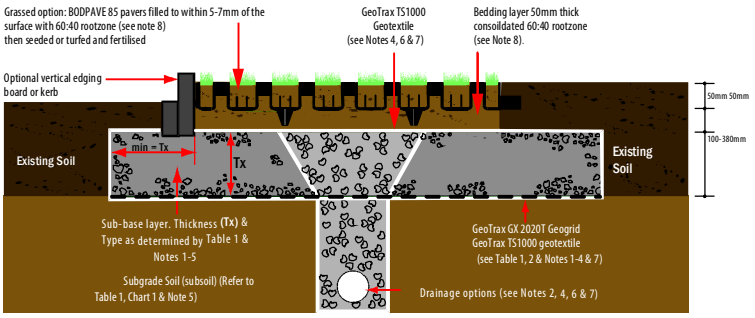
SPECIFICATION, DESIGN & INSTALLATION GUIDANCE FOR **GRASS SURFACES**

Typical Construction Profile



Installation method for BODPAVE 85

1. Install edge retention as specified: either tanalised timber boards, concrete, steel or plastic kerbs as appropriate.
2. Ensure that the sand:soil rootzone bedding layer is the correct & uniform thickness, is level & well compacted.
3. With the two sets of edge-loop connectors facing in the directions of laying, place the pavers firmly onto the screeded bedding layer so that the ground spikes are pressed fully into the bedding and the base of the paver cells sit flat on the surface.
4. Connect adjacent pavers together by slotting the edge cell connectors down into the edge loops (LOOPS ALWAYS LEAD) & progress over the area in rows. Pavers are locked in place by snap-fit clips. If paver separation is required, clips can be dislocated using careful, firm hand or screwdriver pressure or by gently twisting the paver joints. Use protective gloves to avoid abrasions.
5. Pavers can be offset by one cell increments or cut to fit around obstructions & curves using a hand or power saw. The use of cut-pieces which do not have integral snap-fit connectors should be avoided wherever possible.
6. Fill the pavers with the specified propriety rootzone to finished levels: 5-7mm below top of the cells after settlement. A light vibrating plate compactor may be used to compact the pavers and settle the rootzone fill. Do not overfill or over compact.
7. Carry out a normal seeding, fertilising & watering programme. A light top dressing may be applied to just cover the seed and to provide adequate germination conditions. Do not overfill the paver cells. Thin-cut or washed turf may be lightly rolled into the surface as an alternative if required.
8. The surface may be trafficked immediately for critical access purposes, but it is preferable to allow grass to fully establish prior to use.

Design notes for BODPAVE 85

1 If GeoTrax GX 2020T geogrid is omitted, the total Granular Sub-Base (GSB) layer thickness (Tx) must be increased by minimum 50%.

2 A'DoT Type 1' sub-base may be used provided that an adequate drainage system is installed. Alternatively, a permeable/open-graded (reduced fines) sub-base layer (i.e Type 3) may be specified, e.g. as part of a Sustainable Urban Drainage System (SUDS).

3 If construction traffic axle loads will be greater than 60kN (approx' 6 Tonnes), minimum sub-base thickness over GeoTrax GX 2020T geogrid shall be 150mm. Maximum sub-base particle size should match minimum sub-base thickness but not exceed 75mm diameter.
For sub-base thicknesses of around 100mm, a minimum 37.5mm particle size should be adopted to allow effective installation of GeoTrax GX 2020T geogrid.

4 Where drains are omitted and a 'reduced fines' sub-base is specified for SUDS this must be covered with either a geoTrax TS1000 Geotextile and/or a clean, suitably graded gravel blinding to avoid the bedding layer leaching into the sub-base.

5 Specific advice on CBR% strengths, ground conditions and construction over weak ground with a CBR less than 1% is available from TERRAM. CBR% = California Bearing Ratio, a measurement of subgrade soil strength.

6 Typical standard drainage detail: 100mm diameter perforated pipe drains laid at minimum gradient 1:100, bedded on gravel in trench backfilled with 'DoT Type A' drainage aggregate, trench covered &/or wrapped with a GeoTrax TS1000 Geotextile, pipes leading to a suitable outfall or soak away. Drains installed down centre or one edge of areas up to 5m wide. Wider areas may require additional lateral drains at 5m - 10m centres. Drainage design to be determined by the specifier based on specific site conditions.

7 Drainage for a Sustainable Urban Drainage System (SUDS) application will vary according to the site but generally omits the requirement for extensive pipe & trench drainage systems within the sub-base layer and may require an additional layer of GeoTrax TS1000 geotextile at base of construction. The type of SUDS design (attenuation or infiltration) will depend upon the underlying ground conditions and not all sites are suitable for infiltration. Weak and low-permeability cohesive sub-grades are generally unsuitable for infiltration SUDS.

8 Rootzone bedding and paver fill must be a free-draining, structurally sound propriety blend of sand:soil or sand:compost such as used in sports/golf construction & normally identified as a 60:40 or 70:30 ratio blend. The use of site-won materials or in-situ self-blending is NOT recommended without taking further advice.

9 Maximum advised gradient for traffic applications: 12% (1:8) 7°. BODPAVE 85 has specific pegging points if required for steep slope applications. Pegging is not necessary for standard access route applications.

10 BODPAVE 85 complies with BS8300:2009 - "Design of buildings and their approaches to meet the needs of disabled people"- Code of Practice. (ISBN 978 0 580 57419).

Specific advise on the use of BODPAVE 85 on steep slopes, drainage suitability and Sustainable Urban Drainage Systems (SuDS) applications, can be obtained from Terram.

TERRAM

BODPAVE 85

PAVING GRIDS

FOR **GRASS SURFACES**

Table 1: Sub-Base Guidance

The following table is for general guidance only. Please contact us for scheme specific advice.

APPLICATION/LOAD	CBR % OF SUBGRADE	SUB-BASE THICKNESS	GEOTEXTILE (A)	GEOGRID (B)
LIGHT DUTY (CARS)	OVER 6 %	150 mm	TS1000	
	4 - 6 %	200 mm	TS1000	
CBR 8%	2 - 4 %	230 mm	TS1000	GX20/20
	1 - 2 %	350 mm	TS1000	GX20/20
	BELOW 1 %	CONTACT US		
MEDIUM DUTY (7.5T)	OVER 6 %	150 mm	TS1000	
	4 - 6 %	200 mm	TS1000	GX20/20
CBR 10%	2 - 4 %	300 mm	TS1000	GX30/30
	1 - 2 %	430 mm	TS1000	GX30/30
	BELOW 1 %	CONTACT US		
HEAVY DUTY (HGV)	OVER 6 %	230 mm	TS1000	GX20/20
	4 - 6 %	310 mm	TS1000	GX30/30
CBR 15%	2 - 4 %	470 mm	TS1000	GX30/30
	1 - 2 %	CONTACT US		
	BELOW 1%	CONTACT US		

Table 2: Paving Grid Specification

DESCRIPTION	DATA
Product	BODPAVE 85
Material	100% recycled polyethylene
Colour	Black & Green
Paver dimensions Installed	500mm x 500mm x 50mm + 35mm ground spike
Paver size Nominal internal	500mm x 500mm (4 grids per m^2)
cell size Structure Type	Castellated 67mm Plaque & 46mm Round Shaped Rigid-
Cell wall thickness	walled, flexible semi-closed cell combination 2.5mm –
Weight (Nominal)	4.4mm
Load bearing capacity (filled)	1.56 kg/paver - (6.24kg/m^2) <
Crush Resistance (unfilled)	400 tonnes/m^2
Basal support & Anti-Shear	< 250 tonnes
Open cell %	Integral 35mm long Cross & T section ground spikes (18 per paver) Top
Connection type	92% / Base 75%
Interlock Mechanism	Overlapping Edge Loop & Cell connection
Chemical resistance	Integral self locking Snap-Fit Clips Excellent
UV resistance Toxicity	High
	Non Toxic

This field guide is provided as an aid to assessing the mechanical stabilisation requirements in commonly encountered site conditions. Groundtrax accepts no responsibility for any loss or damage resulting from the use of this guide. Regular tight turning of

- vehicles and "dry" steering may cause damage to the units and/or displace gravel infill; vehicle manoeuvring should be carefully considered at specification/design stage.
- Please note that some colour/shade variations may occur in recycled HDPE, but these will be minimalised as much as is possible in the manufacturing process. In addition, virgin polymer may be used to manufacture green pavers when recycled green HDPE is in short supply

For more information, contact us today or visit our website:

www.groundtrax.com

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