

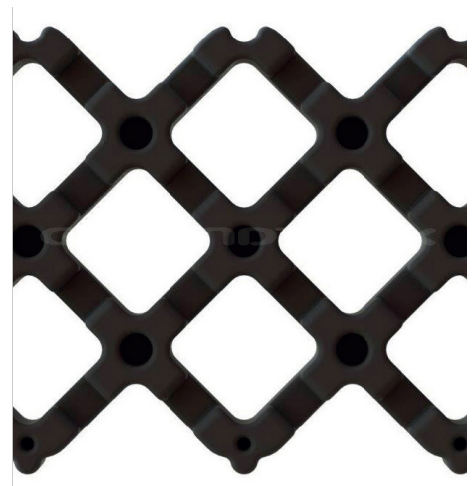
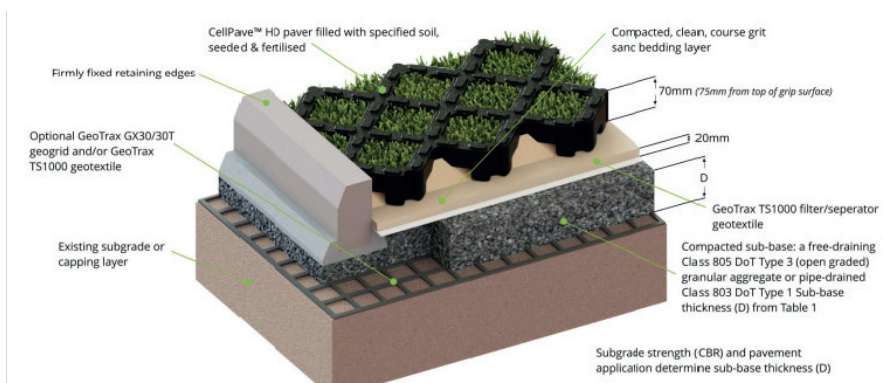
GT CELLPAVE™ HD INSTALLATION GUIDE GRASS SURFACES



Ground, Wind, Weed
& Erosion Control

Design, installation and maintenance guidance for grass surfaces.

CellPave™ HD cellular paving is suitable for a wide range of trafficked applications and landscaped areas where a confined, free-draining grass surface is required and where high vehicle loads are expected. Typical applications include: coach and truck parks, emergency access and maintenance routes.



Technical Specification

Paving Unit Size	600mm x 400mm x 75mm
Coverage Rate	4.17 pavers per m ²
Weight	8kg per paver (33.36kg/m ²)
Wall Thickness	35mm
Internal Cell Dimensions	104mm x 104mm
Colour	Dark Grey
Bedding Layer Material	Clean, Course Grit Sand
Bedding Layer Thickness	20mm
Sub-base Reinforcement (optional)	Geotrax GX/30/30T
Lower Filter/Separator Geotextile (optional)	Geotrax TS1000

Installation Instructions

- 1 Install the optional geogrid, geotextile and/or geomembrane onto the prepared subgrade formation.
- 2 Install the specified sub-base layer and optional drainage.
- 3 Install any edge restraints which may be specified. Timber, plastic or concrete kerbing are all suitable.
- 4 Install the filter/seperator geotextile on top of the sub-base layer.



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5 Install the specified sand bedding layer to a uniform thickness.

6 Ensure an accurate right-angled CellPave™ HD laying pattern by setting-out the site using string lines. Check the lines regularly for accuracy. Start installing the CellPave™ HD pavers. Wherever possible start laying from a right-angled corner and progress across the site in rows. The pavers can be installed in a width or lengthwise orientation. When installing the pavers ensure that the male/female connectors are aligned. However, as the material will expand and contract slightly in heat variations it is advisable to leave a few mm gap between pavers. This will also help ensure that the string line can be followed to keep straight lines. The few mm adjustment does not affect the paver's performance. Use protective gloves to avoid abrasions.

7 CellPave™ HD pavers can be cut to fit around obstructions and curves using a hand or power saw. Wherever possible avoid using small cut-pieces less than one third original size.

8 When installed, fill the paver cells loosely to the finished level (top of cells) with the specified free draining soil. Remove excess soil from the surface of the pavers and do not overfill the cells. A single pass with a light vibrating plate machine or roller may be used to firmly bed the pavers and settle the soil, but do not compact the soil. It is preferable that the soil is left just below the top of the cells to aid quality grass growth and reduce its abrasion by traffic. The surface may be trafficked by slow moving plant during the cell-filling process, but care must be taken not to displace the open-celled grids with heavy-treaded or tracked machinery, nor compact the soil during this operation.

9 Apply the grass seed and fertiliser at the recommended rates.

10 The surface may be trafficked immediately after the cells are filled but should be avoided if at all possible. It is strongly advised that the grass is allowed to establish fully then mown 2 or 3 times prior to regular use.

11 A routine management and maintenance programme to keep the surface in good condition and free of debris and weed growth, will help to sustain the porosity, quality and longevity of the system.

Design Notes

Note 1: If the optional geogrid is omitted, the total sub-base layer thickness is typically increased by a minimum of 50%. Selecting an alternative geogrid will require a redesign of the sub-base thickness.

Note 2: Use of Geo Trax GX30/30T geogrid. If construction traffic axle loads will be greater than 60kN (approximately 6 tonnes), minimum sub-base thickness over the geogrid shall be 150mm. Maximum sub-base particle size should match minimum sub-base thickness but must 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 the geogrid.

Note 3: Sub-base attenuation utilising a geomembrane and optional geotextile



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Note 4: A permeable open-graded (reduced-fines) Sustainable Drainage System (SuDS) sub-base layer such as Dot Type 1 x, Type 3 or Type 4/40, is preferred. However, where a conventional DoT Type 1 sub-base is to be installed, it is essential that a drainage system is incorporated to assist in the mitigation of issues associated with saturation. This drainage system would typically comprise of a network of perforated pipes or drainage geocomposite.

Note 5: CBR_{o/o} = California Bearing Ratio: an indicative measurement of subgrade soil strength. Specialist advice should be sought from a suitably qualified person for high load or critical applications.

Note 6: The Su OS permeable sub-base must be overlaid with a Geo Trax TS1000 geotextile to provide separation, enhanced water treatment function and prevent migration of the sand bedding layer. The sand bedding must be a clean, coarsegrained sand free from silts & clays: it must not be soft building sand or silver sand.

Note 7: The paver fill material should be good quality, free draining friable topsoil suitable for grass growth and with no contaminants or oversized debris. Amenity grass seed mixture should contain hard wearing, low fertility and/or drought tolerant species with option of a low percentage of clover content if acceptable.

Note 8: The maximum advised gradient for vehicular trafficked applications is 8% (1 :12) 5°.

Note 9: When designed in accordance with the recommendations, CellPave™ HD complies with BS8300:2009: "Design of buildings and their approaches to meet the needs of disabled people" - Code of Practice (ISBN 9780 580 57419) & Building Regulations Document 'M' Sec. 6.

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

Application / Load	CBR % of Subgrade	Sub-base Thickness	Geotextile (A)	Geogrid (B)
Light Duty (cars) CBR 8%	Over 6%	150mm	TS1000	
	4 - 6%	200mm	TS1000	
	2 - 4%	230mm	TS1000	GX20/20
	1 - 2%	350mm	TS1000	GX20/20
	Below 1%	Contact us		
Medium Duty (7.5T) CBR 10%	Over 6%	150mm	TS1000	
	4 - 6%	200mm	TS1000	GX20/20
	2 - 4%	300mm	TS1000	GX30/30
	1 - 2%	430mm	TS1000	GX30/30
	Below 1%	Contact us		
Heavy Duty (HGV) CBR 15%	Over 6%	230mm	TS1000	GX20/20
	4 - 6%	310mm	TS1000	GX30/30
	2 - 4%	470mm	TS1000	GX30/30
	1 - 2%	Contact us		
	Below 1%	Contact us		

