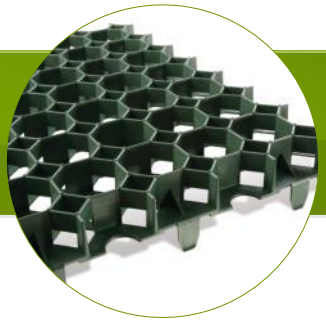
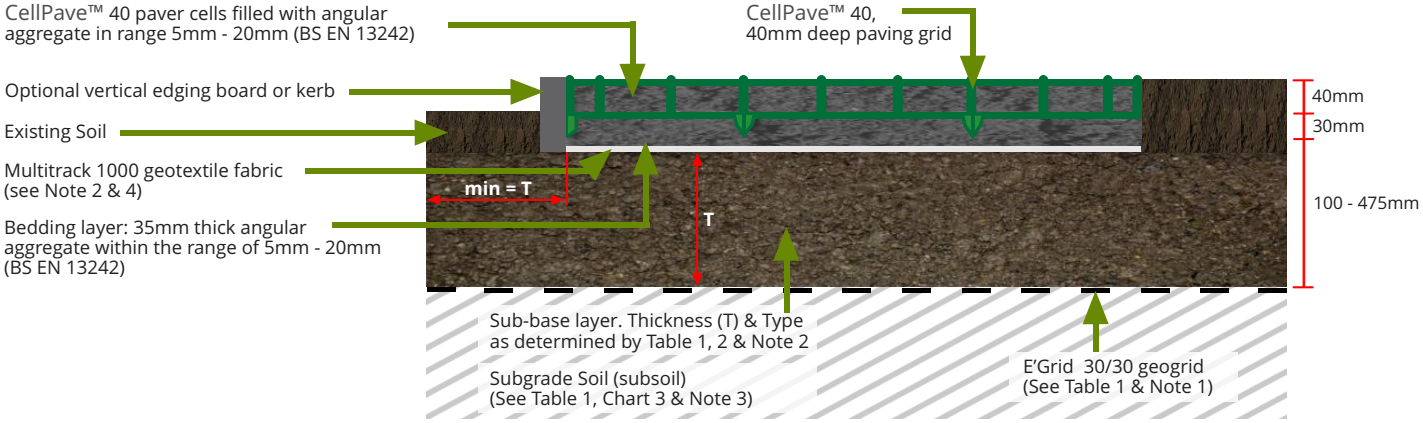
CELLPAVE™ 40

CELLPAVE™ 40 - Interlocking Cellular Paving Grid System

INSTALLATION GUIDE - GRAVEL SURFACES





Installation Method

1. Place paver units with spikes downward onto the prepared well consolidated bedding layer. Edging boards or kerbs can be used where required, according to existing soil conditions.

2. Connect the pavers using the ground spikes and loops, progressing over the area in rows. Use protective gloves to avoid abrasions.

3. Pavers can be cut using a hand or power saw to fit around obstructions and curves. Cut pieces which are less than half the original size should be avoided where possible.

4. Fill the pavers to the top of the cells with the specified angular decorative aggregate. If required, use a light vibrating plate to consolidate the aggregate into the cells. Top up cells with aggregate as necessary. Fully rounded 'pea gravel' is not recommended.

5. If the area is to be used as horse paddock, it is preferable to cover the area with a 50-100mm thick layer of fine sand/mulch.

6. The surface may be trafficked immediately.

Note 1: If the geogrid layer is omitted, then the total sub-base layer thickness (T) must be increased by 50%.

Note 2: A 'DoT Type 1' sub-base may be used, provided that an adequate drainage system is installed (refer to note 4).
Alternatively a porous/open-graded (reduced fines) sub-base layer may be specified, e.g as part of a Sustainable Urban Drainage System (SUDS) application. If a 'reduced fines' sub-base layer is specified, this must be covered with either a geotextile filter membrane and/or a suitable clean gravel blinding layer, to avoid fine particles entering the sub-base layer. Do not use sand for the paver bedding layer.

Note 3: Specific advice on ground conditions, CBR% and construction over ground with a CBR less than 1% is available from Groundtrax Systems Ltd. CBR% = California Bearing Ratio, a measurement of subgrade soil strength.

Note 4: Typical drainage details; 100mm diameter perforated pipe drain laid at minimum gradient 1:100, bedded on gravel in trench backfilled with 'DoT Type A' drainage aggregate, covered or wrapped with Multitrack 1000 geotextile fabric and leading to a suitable outfall or soakaway. Drains placed down centre or one edge of access routes up to 5m wide. Wider areas may require additional drains at 5m - 10m centres. Drainage design to be determined by the specifier based on specific conditions on site. Specific advice on Drainage and Sustainable Urban Drainage Systems (SUDS) is available from Groundtrax Systems Ltd.

Note 5: Maximum advised gradient for traffic applications is 12% (1:8) 7°. Pegging may be required. Specific advice for the use of CellPave™ 40 on slopes can be obtained from Groundtrax Systems Ltd.

Note 7: CellPave™ 40 complies with BS8300:2001 - "Design of buildings and their approaches to meet the needs of disabled people" - Code of Practice. (ISBN 0580384381)

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Table 1: Typical Sub-base Thickness (T) Requirements - refer to construction profile

Application / Load	CBR (%) strength of subgrade soil *(see Chart 1)*	(T) DoT sub-base thickness (mm) *(see Note 2)*	Geogrid *(see Note 1)*
Fire engine and occasional HGV access	≥ 6	100	E'Grid 30/30
	= 4 < 6	120	E'Grid 30/30
	= 2 < 4	190	E'Grid 30/30
	= 1 < 2	380	E'Grid 30/30
Light vehicle access and overflow car parking	≥ 6	100	E'Grid 30/30
	= 4 < 6	100	E'Grid 30/30
	= 2 < 4	135	E'Grid 30/30
	= 1 < 2	260	E'Grid 30/30

Table 2: Paving Grid Specification

Product	CellPave™ 40
Material	Rigid 100% recycled polyethylene
Colour	Black
Paver Dimensions	500mm x 500mm x 40mm
Paver Size	500mm x 500mm (4 grids per m2)
Nominal Cell Size	60mm Octagonal
Cell Wall Thickness	2.7mm - 3.2mm
Weight	1.2kg/paver - (4.80kg/m2)
Load Bearing Capacity	150 tonnes/m2 (Crush resistance)
Central Base Support	25mm long pegs on underside (4 per paver)
Open Cell %	Top 95% / Base 75%
Connection Type	Spike and loop edge connection
Chemical Resistance	Excellent
UV Resistance	High
Toxicity	Non Toxic
Bedding Layer	30mm thick of 5-20mm angular aggregate (BS EN 13242)
Paver fill	To top of pavers using 5-20mm crushed aggregate (BS EN 13242)
Sub-Base Type	DoT Type 3 or a modified porous sub-base *(Table 1 & Note 2).* DoT Type 1 with drains
Base Reinforcement	E'Grid 30/30 geogrid *(Table 1 & Note 1)* - Specifications available on request.

NOTE:
This field guide is provided as an aid to assessing the mechanical stabilisation requirements in commonly encountered site conditions. Groundtrax Systems Ltd accepts no responsibility for any loss or damgae resulting from the use of this guide.

Chart 1: Field guidance for estimating sub-grade strengths

Consistancy	Indicator			Strength	
	Tactile (feel)	Visual (observation)	Mechanical (test) SPT	CBR %	CU kN/m²
Very Soft	Hand sample squeezes through fingers	Man standing will sink >75mm	<2	<1	<25
Soft	Easily moulded by finger pressure	Man walking sinks 50-70mm	2-4	Around 1	Around 25
Medium	Moulded by moderate finger pressure	Man walking sinks 25mm	4-8	1-2	25-40
Firm	Moulded by strong finger pressure	Unloaded construction vehicle ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented with thumb	Loaded construction vehicle ruts by 25mm	15-30	4-6	75-150

For more information, contact us today or visit our website:
www.cellpave.com

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