DESIGN GUIDELINES

SUREGREEN TRUCKGRID MAX
- GRASS FINISH

All of our design guidelines are written with best practice in mind. It is strongly advised that any questions raised from the guidelines are directed to our technical team.

When Truckgrid-Max porous pavers are installed correctly to suit site conditions, they should provide source control within a SuDS system (Sustainable Urban Drainage Systems). Drainage must be a consideration when designing a construction profile to ensure that flood alleviation and water run-off is properly considered where natural infiltration may not be capable of withstanding all eventualities.

QUESTIONS TO BE CONSIDERED

a). Does the proposed installation area drain well already?

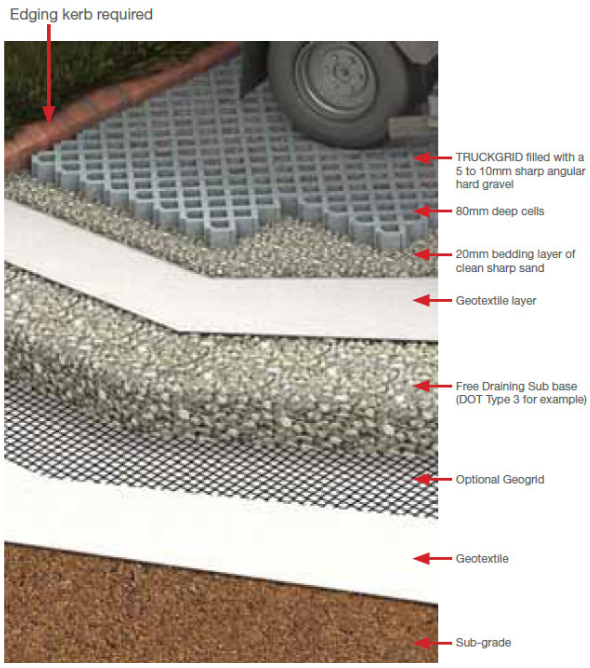
b). Is there planned to be a slight fall to be built into the design to aid drainage, if aid is needed?

c). Is the drainage capability of the soils the same at the surface and at 200 - 500mm below the surface?

d). Have there been previous issues with drainage on site?

e). Has disposal of any excess water been considered?

f). Are there SuDS requirements to be considered?



1). If a geogrid is being considered as part of the construction profile, please ensure that at least 25% of the particle size of the sub-base is bigger than the mesh size to ensure good shearing/locking.

2). Sub-base particle size ideally should not exceed 60mm and should be less than 5% fine material of content of the whole. Please ask for technical guidance if you are unsure.

3). Please refer to tables 1 & 2 for guidelines on the depth of sub-base for specific design profiles to suit different site needs. Please note - if a geogrid is omitted, 50% of the depth of sub-base needs to be added to calculated depth with a geogrid. For example, 100mm with geogrid would become 150mm without. For detailed guidance please contact our technical team.

4). It is always good practice to confine Truckgrid-Max plastic pavers on the site edges. This should be as strong as 150 x 150mm concrete kerbs due to the possible lateral loadings of any heavyweight vehicles. The type of vehicles, frequency of traffic and circulation routes should all be considered when choosing the confinement method for Truckgrid-Max.

5). Truckgrid-Max has been designed to work within stated guidelines to a slope of 5% or less. It can be used on steeper slopes in some cases, but please contact our technical team for specific guidance.

6). Ideally, the sub-base should extend out further than the surface area of Truckgrid-Max. This is so that lateral pressures caused by the traffic loading does not displace the Truckgrid-Max on the edge. The extension of sub-base outwards should be the same as the depth of the sub-base. Please see the schematic for detail.

7). Please refer to the installation guide for the filling of the cells and the best practice to ensure sustainable, healthy grass growth. Experience has shown that the best results are achieved in the longer term using a rootzone-type soil for the fill in the cells and an amenity grass seed mix. Rolling in turf is not recommended.

Note on drainage

Any sub-base used in the construction profile should be permeable - for example, MOT Type 3. It should be predominantly fine material-free and able to compact well without losing integrity, stability and permeability/porosity. MOT type 1 should not be used. Please check with our technical team for guidance if an impermeable layer is already in place. For any detail on specification for design not covered in above, please get in touch with us.

Website - www.sure-green.com
Telephone - 01376 503869
Email - sales@sure-green.com

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Please use the following charts to confirm the sub-base thickness that is required. This is based on vehicle load, the frequency of use and Soil Strength (CBR %).

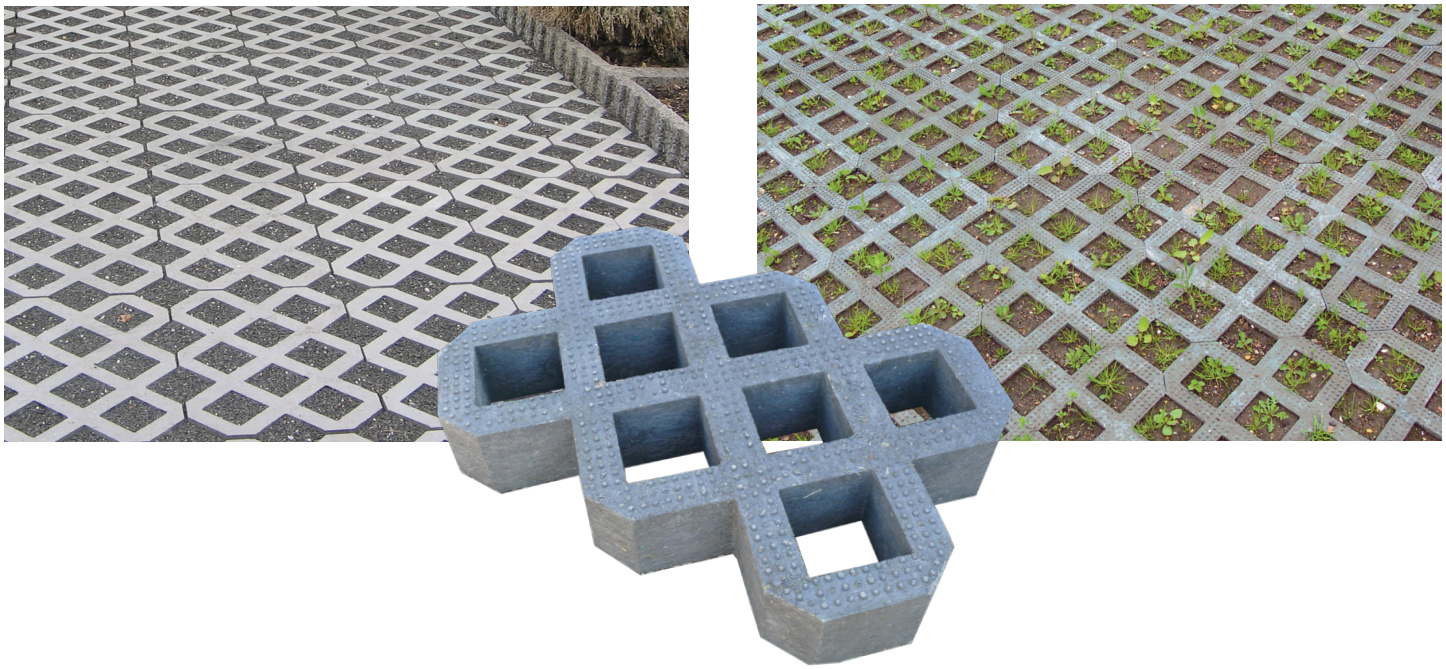
Table 1 - Typical Sub-Base Thickness using a Geogrid*

Consistency	CBR % (Strength of Subgrade Soil)	Sub-Base Thickness
Light Vehicles, Cars, Vans and overflow parking	= 1 < 2	260mm
	= 2 < 4	135mm
	= 4 < 6	100mm
	≥ 6	100mm
Coaches, Lorries, Fire Trucks and Occasional HGV areas	= 1 < 2	380mm
	= 2 < 4	190mm
	= 4 < 6	120mm
	≥ 6	100mm

*If a geogrid is not used, sub-base thickness should be increased by 50%

Table 2 - Guidance for estimating sub-grade strengths

Consistency	Indicator			Product	
	Tactile (feel)	Visual (observation)	Mechanical (test)	CBR	CU
			SPT	%	kN/sqm
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	Utility truck ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented by thumb	Loading construction vehicle ruts by 25mm	15-30	4-6	75-150



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