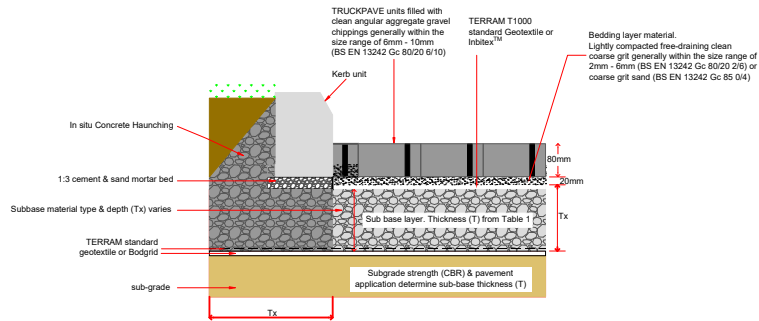


1 TRUCKPAVE : Gravel Surface Paving Grid  
Scale : N.T.S.



2 TRUCKPAVE: Gravel Surface : Typical Construction Profile  
Scale : N.T.S.

**DESIGN NOTES:**

- Note 1:** Note 1: Minimum subbase thickness (Tx) can be selected from table 1 or 2. In the absence of any site specific ground investigation report, refer to the ground strength and permeability estimate on Pg 10 of the specification, design and installation guide.
- Note 2:** If the Terram Bodgrid layer is omitted, then the total sub-base layer thickness (Tx) must be increased by 50%. A Terram standard geotextile separation layer should be specified with lower subgrade strength (CBR value) requiring a more robust grade in accordance with BS8661:2019 (see table 2).
- Note 3:** Truckpave units are an ideal surface for source control porous paving SUDS (Sustainable Drainage Systems) with a permeable sub-base; DoT Type 3 (Type Tx) porous/open graded granular material as described in Specification for Highways Works clause 805. If a higher water storage (attenuation) capacity (void ratio) is required a hard crushed angular "clean stone" such as a coarse graded aggregate (CGA) type 4/20 (4 mm minimum and 20 mm maximum particle size) can be used. The type of SUDS design (attenuation, total or partial 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 (permeability coefficient  $k < 10^{-6}$  m/s). Clays with a low plasticity index ( $< 20\%$ ) will reduce in strength when saturated, a full attenuation system with an impermeable membrane directly on top of the subgrade is recommended. Specific advice on suitable drainage and construction over very weak ground (CBR  $< 1\%$ ) is available from TERRAM.
- Note 4:** Alternatively traditional 'DoT Type 1' well graded granular material may be used for the subbase provided that an adequate drainage system is installed. Typical drainage details: 100mm diameter perforated pipe drain laid at minimum gradient 1:100, bedded on gravel in trench backfilled with SHW Clause 505 Type A drainage aggregate (or CGA type 4/20), covered or wrapped with Terram T1000 standard nonwoven geotextile and leading to a suitable outlet or soakaway. Drains placed down the centre or along the edge of access routes up to 5m wide. Wider areas may require additional drains at 5m - 10m centres.
- Note 5:** The sub-base must be covered with a layer of Terram T1000 standard or Inbitex™ nonwoven geotextile to prevent settlement due to mixing of the bedding & subbase layers and to provide filtration & pollution control.
- Note 6:** Substantial edge restraints such as heavy duty precast concrete kerbs, steel, plastic or treated timber sleepers are required along all perimeters. For very large areas and where there are significant changes in gradient and/or geometry, surface flush flat topped kerbs may be required to provide intermediate lateral restraint.
- Note 7:** Bedding layer material should be lightly compacted free-draining clean coarse grit generally within the size range of 2mm - 6mm (BS EN 13242 Gc 80/20 2/6) or coarse grit sand (BS EN 13242 Gc 85 0/4). Truckpave units should be filled with clean angular aggregate gravel chippings generally within the size range of 6mm - 10mm (BS EN 13242 Gc 80/20 6/10). Rounded pea shingle is not suitable.
- Note 8:** The final pavement and drainage design should be undertaken by a suitably qualified civil engineer and based on specific site conditions.
- Note 9:** Maximum advised gradient for traffic applications is 8% (1:12) 5°.

**TABLE 1 MINIMUM SUBBASE THICKNESS (Tx) WITH BODGRID**

SUBGRADE CBR* %	Coaches/Heavy goods/emergency vehicles (#)		Overlap (mm)
	Thickness (mm)	Bodgrid	
1	400	GC30	600
2	250	GC30	500
3	175	GC30	450
4	150	GC30	400
5+	125	GC30	300

**TABLE 2 MINIMUM SUBBASE THICKNESS (Tx) WITHOUT BODGRID**

SUBGRADE CBR* %	Coaches/Heavy goods/emergency vehicles (#)		Overlap (mm)
	Thickness (mm)	Standard geotextile	
1	600	T2000	600
2	375	T1500	500
3	300	T1000	450
4	225	T1000	400
5+	200	T1000	300

\* California Bearing Ratio test

# Regular tight turning of vehicles and "dry" steering may occasionally cause displacement of the units and the gravel in the vehicle maneuvering should be carefully considered at specification/design stage. Gravel filled units will require some maintenance when subjected to regular channelised and turning traffic loading. If construction traffic axle load exceeds 600kN (6 Tonnes) the minimum subbase thickness over TERRAM Bodgrid should be 200mm (300mm without Bodgrid).