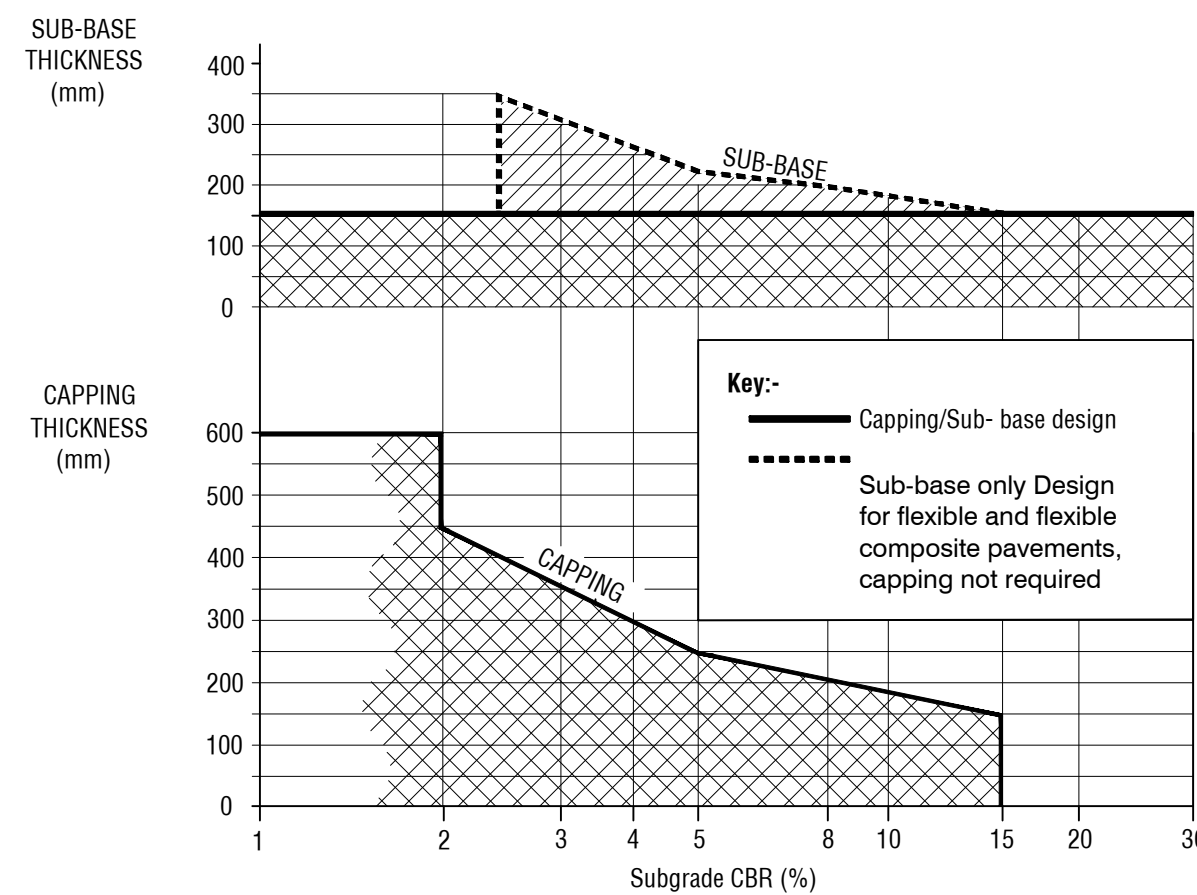


Private Access Road Construction

- NOTES**
1. Soils liable to frost heave should have at least 450 mm of construction cover.
 2. For soils having a CBR values less than 2%, the advice of the engineer must be sought.

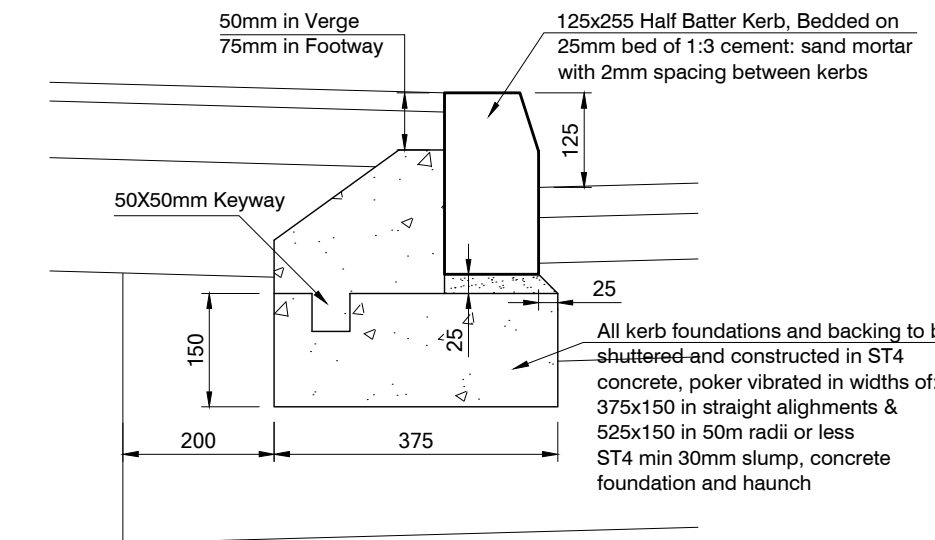


Capping and Sub-base Thickness Design

The thickness of sub-base and capping shall be obtained from Figure 3.1.

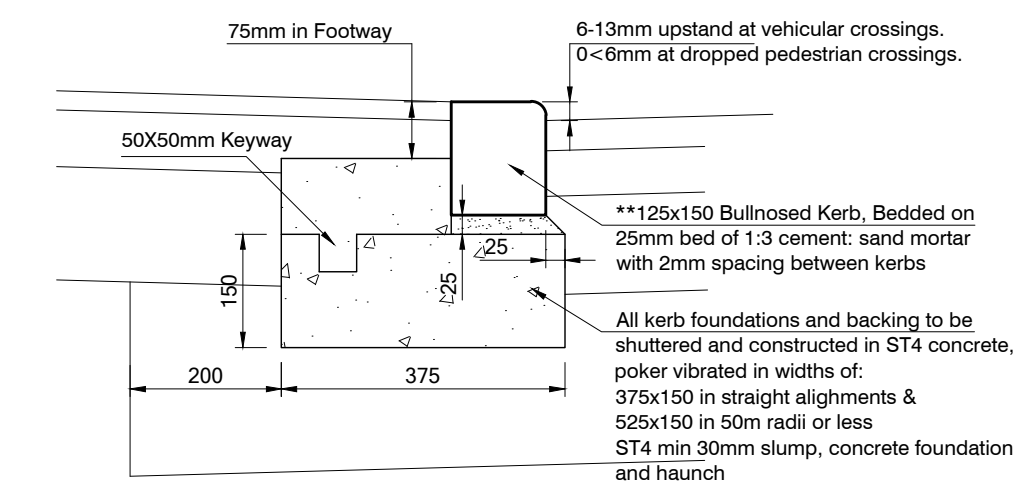
- The sub-base may be omitted where the CBR is above 30%.
 - Where the sub grade CBR is greater than 15%, the thickness of sub-base required is 150mm.
 - When the sub grade CBR is between 2.5% and 15% for flexible and flexible composite construction, there are two options available.
1. 150mm of sub-base can be used over a varying thickness of capping which depends on the CBR value.
 2. An increasing thickness of sub-base shall be used with the decreasing CBR, with no requirement for capping.
- For all pavements and sub grades with CBR values below 2.5%, 150mm of sub-base on the varying thickness of capping must be used.
 - When the sub grade CBR is below 2% even after proof rolling, seek the advice of the engineer.
 - The design should be based on the lowest CBR value and not amended unless there is significant increase in the CBR along the road.

FIGURE 3.1 Capping and Sub-base Thickness Design
Volume 7 section 2 part 2 HD25/94
Pavement design and construction - foundations



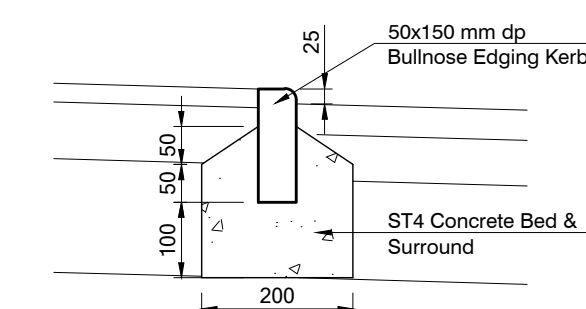
125x255mm Half Battered Kerb Type HB2

Permeable paving load category 2 only to be used for parking bays

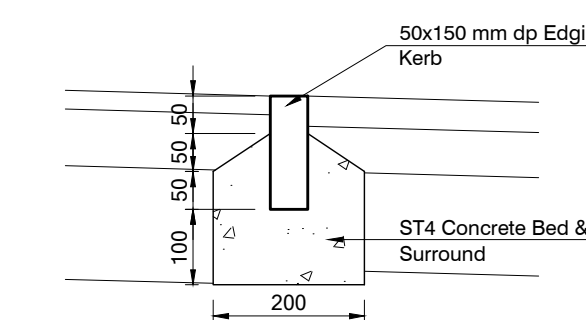


NOTE:
125x150 BN Kerb required for singular vehicular access
125x225 BN Kerb required for multiple vehicular access
** Multiple or shared parking bays require 225x125 Bullnosed Kerb

Dropped Kerb Type BN



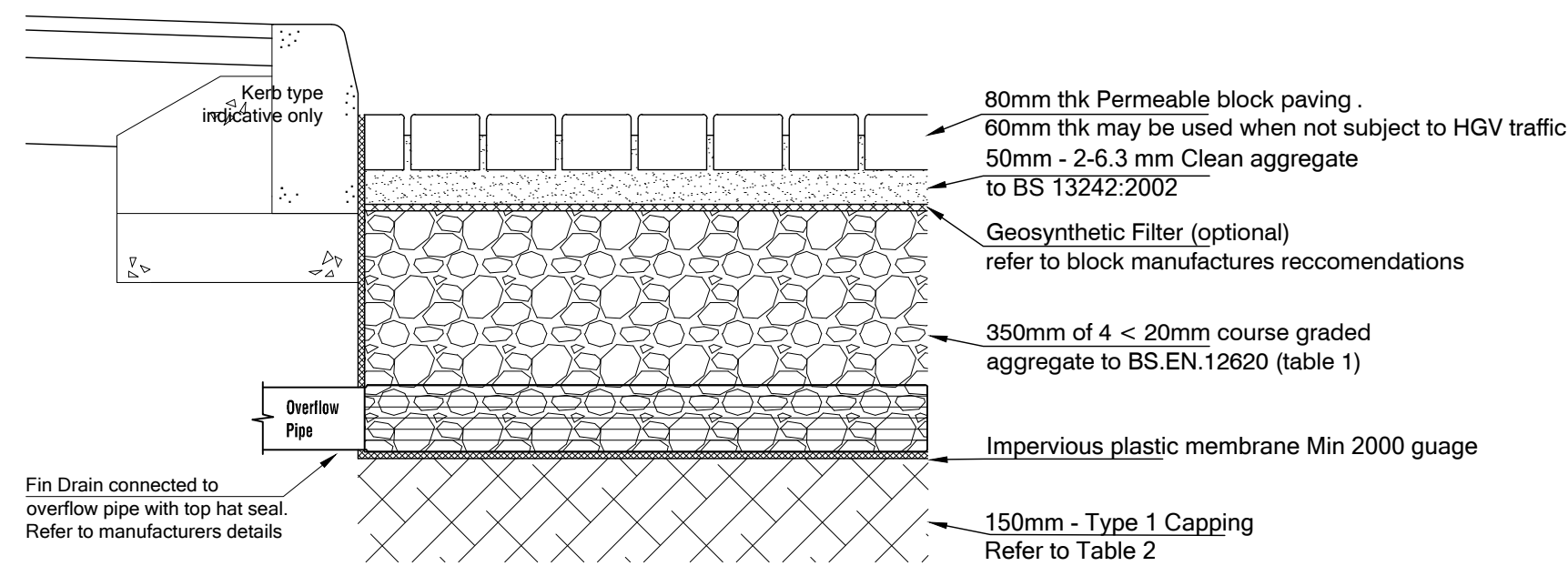
50x150mm Edging Bullnose Kerb Type EBN



Flush 50x150mm Edging Flat Kerb Type EF

Additional Notes for Kerb Details

1. Kerbs are to be precast to BS 7263: 1994.
2. Transition kerbs are to be used at all changes of kerb type.
3. Concrete bed and haunching to be in accordance with Specification Clause 2802 (Mix ST4)
4. Concrete bed is to rest on or within sub-base layer or on additional concrete, measured separately to allow it to rest on sub-base. Sub-base is to protrude 500mm from face of kerb, behind kerb and is to have a minimum thickness of 100mm where sub-base is to be drained or an approved method of drainage provided. (Without an agreement, all existing kerb race to be excavated)
5. Kerbs shall be laid on Class 1 mortar laid on bed in accordance with Clause 2404 and having a minimum thickness of 10mm and a maximum thickness of 40mm. All kerbs to be laid on mortar bed as per drawn kerb details.
6. Dowel bars are specified when small element edging is used. They are to be bedded at 500mm centers.
7. If half battered kerbs are used in conjunction with 'Safeticurb' Type HB2 half battered kerbs, kerb face is to be reduced to 100mm to suit.

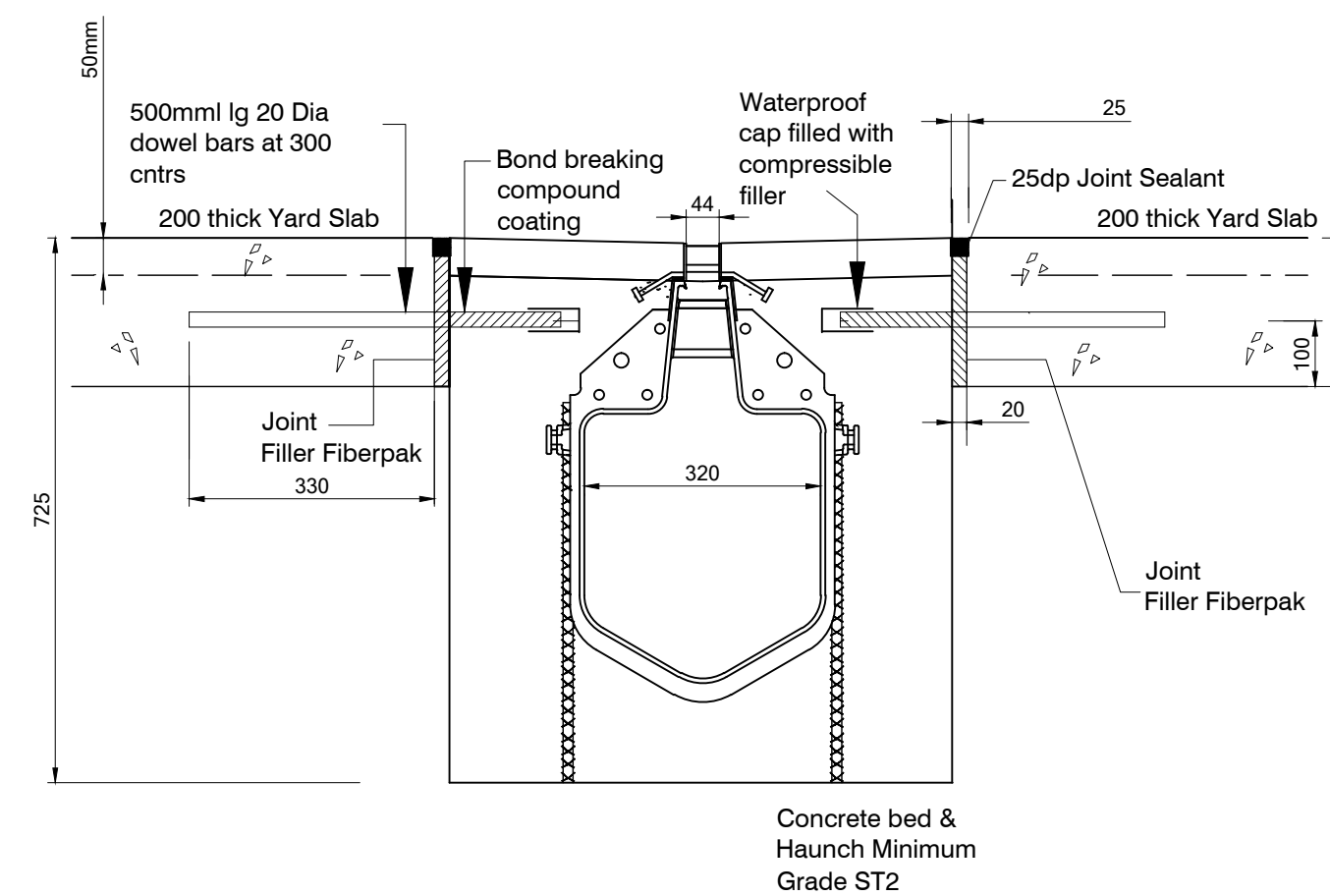


Permeable Paving Load Category 2

- Category 2 - Car Loadings
Emergence Large Goods vehicles only (100 standard axes)
- Car Parking Bays & Isles
 - Rail Station Platforms
 - Footway with occasional over-run
 - Private drive / footway crossover

Designed for subgrade CBR Value of 5%
POROUS PAVING DESIGN IS SUBJECT TO DETAILED DESIGN BY MANUFACTURER

NOTE:
If permeable paving is to be trafficked during construction, a 75mm DBM course may be laid below binder course, with holes punched on a 750mm sq grid



Drainage Channel Detail

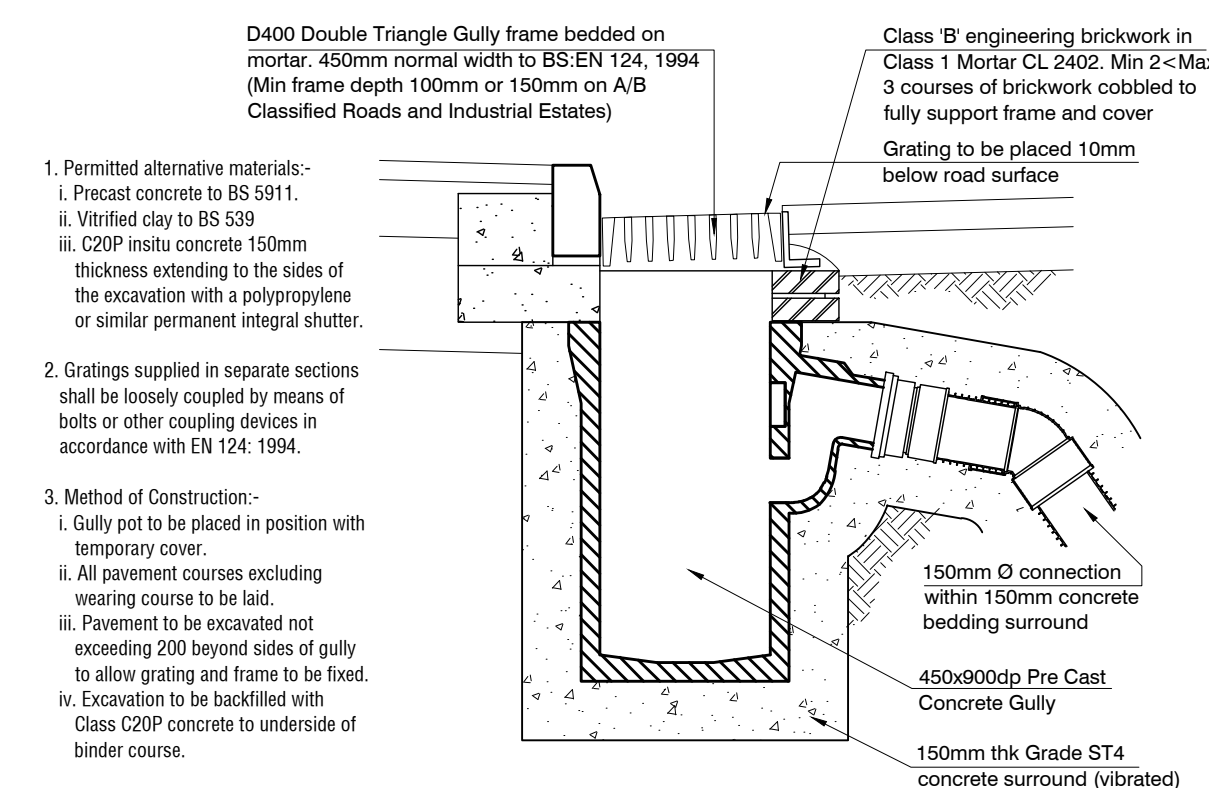
NOTES:

1. Laying Course - must be sufficiently coarse to allow the free vertical flow of water, yet sufficiently fine to permit the accurate installation of the paving blocks. Typically particle size is predominantly within the range of 2mm to 6.3mm.
2. Course Graded Aggregate - Typically the particle size should be between 4mm to 20mm.
3. Hydraulically Bound Course Graded Aggregate - Particle size to remain as above, with the additional of a minimum cement content of 3%, to BS.EN.14227-1:2004
4. Geotextile - where a permeable membrane is not used between laying course and sub base, the two layers must meet conventional soil filter laying course criteria to prevent migration of the finer laying course into the sub base.
5. Capping - 6F1 / 6F2 capable of achieving a CBR of 15%
6. Running Course - DBM 50 according to Clause 4.7 of BS4987-1:2005. Prior to laying block paving, all debris to be removed and punched holes to be filled with course graded aggregate.

Table 2 Porous Paving Capping Layer Thickness

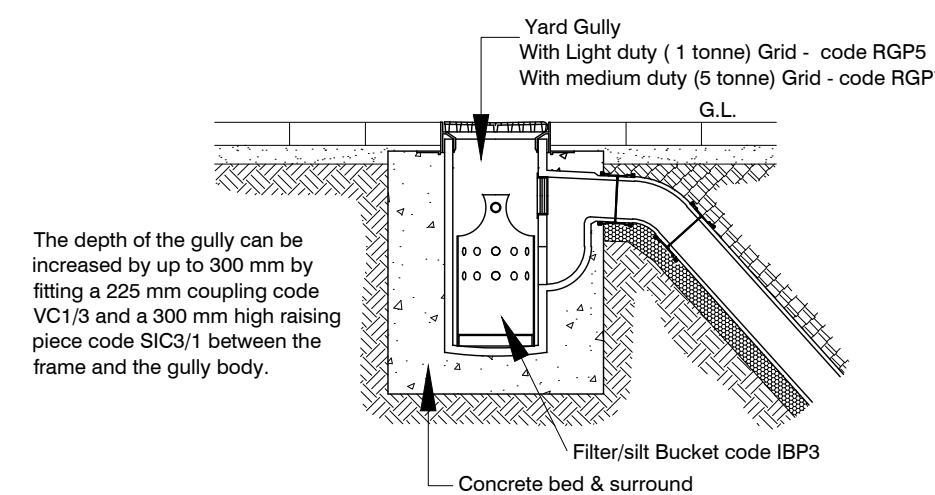
CBR of formation	Adjustment to aggregate thickness	Capping
>5% - <15%	as per detail	150mm
4%	+100mm	200mm
3%	+125mm	250mm
2%	+175mm	350mm
1%	+300mm	600mm

CBR as determined by In-situ or Laboratory test at presumed formation level when construction commences



Road Gully

1. Permitted alternative materials:-
i. Precast concrete to BS 5911.
ii. Vitrified clay to BS 539
iii. C20P in situ concrete 150mm thickness extending to the sides of the excavation with a polypropylene or similar permanent integral shutter.
2. Gratings supplied in separate sections shall be loosely coupled by means of bolts or other coupling devices in accordance with EN 124: 1994.
3. Method of Construction:-
i. Gully not to be placed in position with temporary cover.
ii. All pavement courses excluding wearing course to be laid.
iii. Pavement to be excavated not exceeding 200 beyond sides of gully to allow grating and frame to be fixed.
iv. Excavation to be backfilled with Class C20P concrete to underside of binder course.



Yard Gully Connection Detail

To be offset min 100mm from back of footway edging kerb where applicable (Drive ways falling towards adoptable highway)

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 2. LOCATIONS OF ALL EXISTING SERVICES ON-SITE TO BE CONFIRMED & PROVIDED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT PATRICK PARSONS LTD DRAWINGS & SPECIFICATIONS.

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Revisions



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Project
**Portland Mills
Buxton Road
Leek**

Drawing
**External Works
Road Construction Details**

Scales 1:10 At original size A1

Drawn DGW Checked GV
Date 03.02.17

Status **Co-ordinated Design**

Drawing No. **B16332-204** Rev. -

McCarthy & Stone MI-2416-03-DE-004 -
Drawing No.