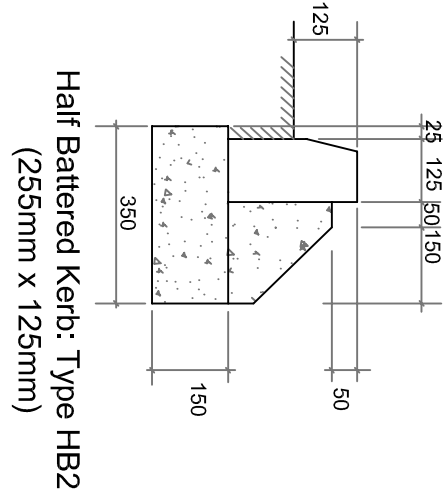
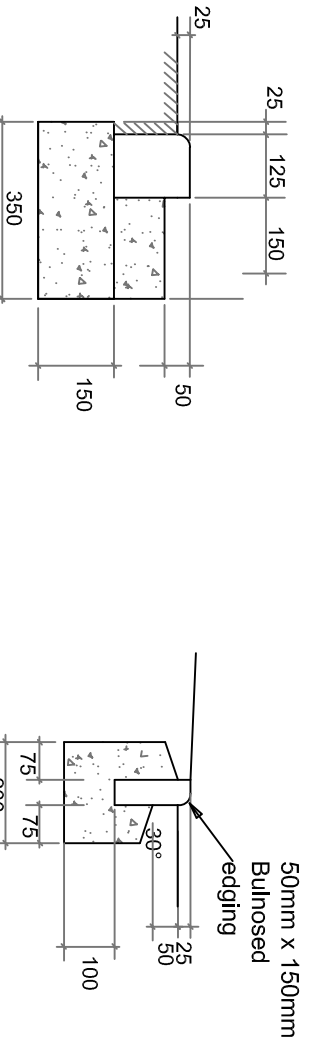


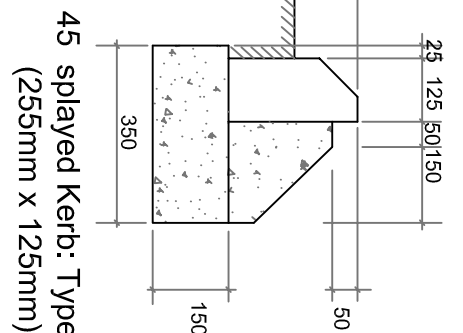
Kerbing



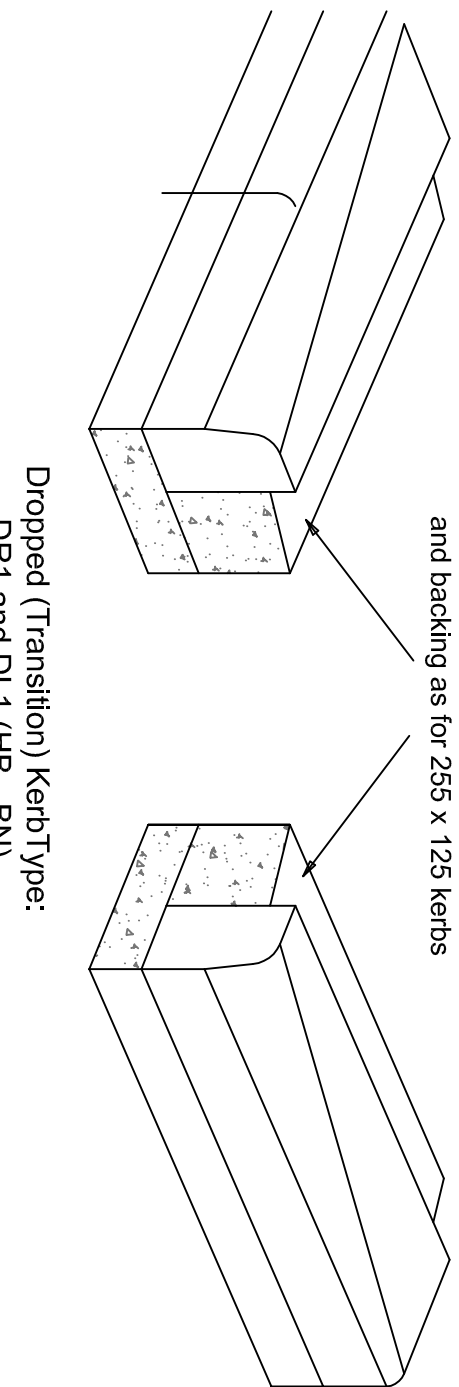
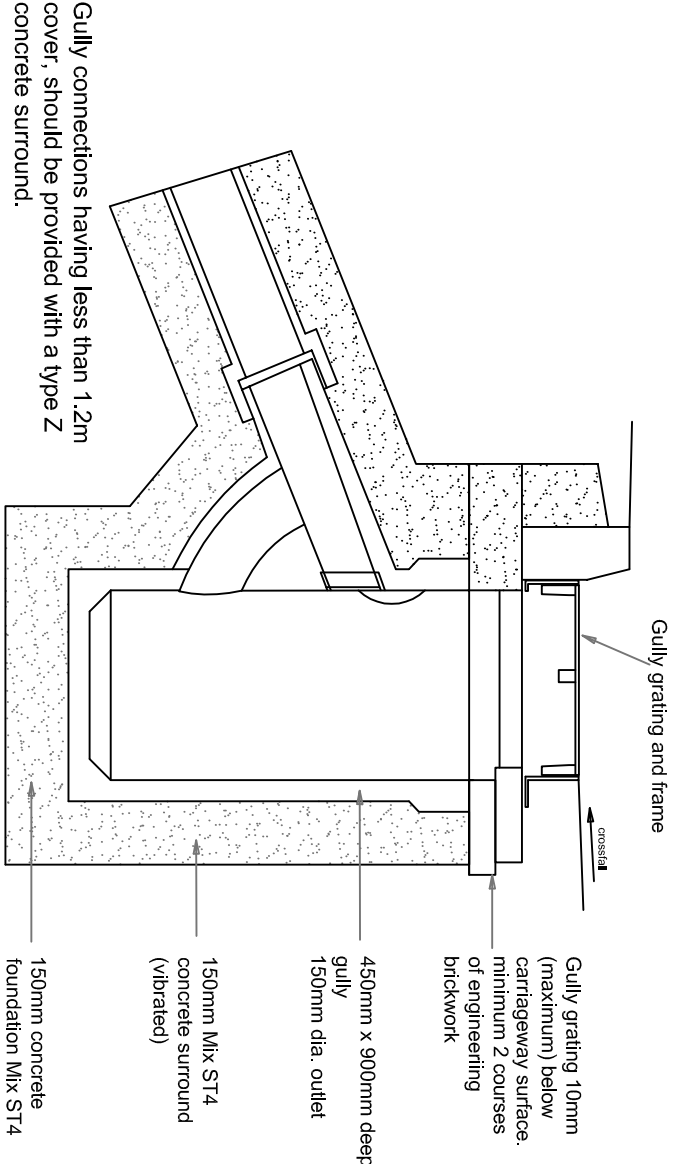
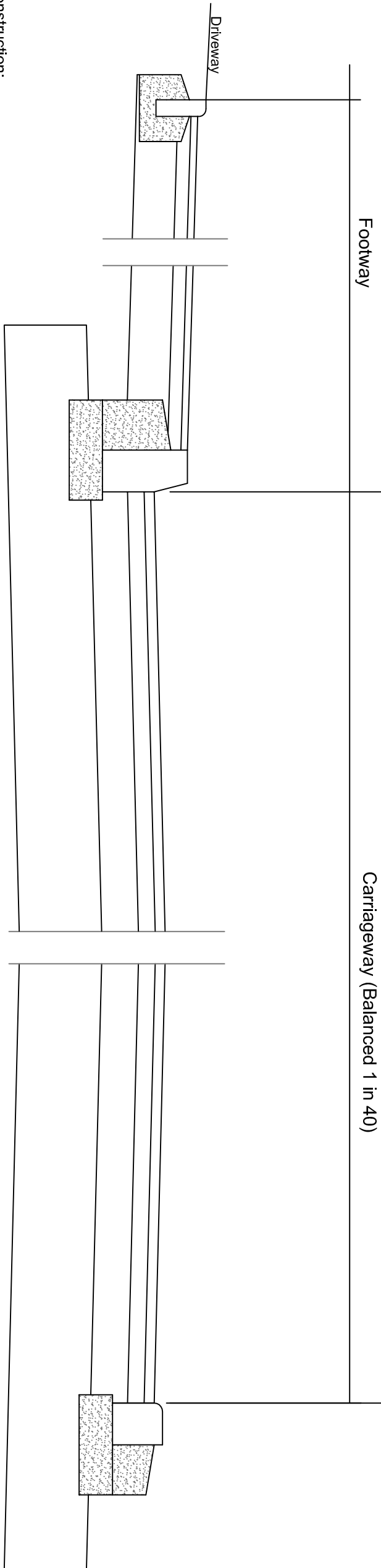
Bullnosed Kerb: Type BN
(150mm x 125mm)



Bullnosed Edging Kerb: Type EBN



45 splayed Kerb: Type SP
(255mm x 125mm)



Dropped (Transition) KerbType: DR1 and DL1 (HB - BN) DR2 and DL2 (SP - BN)

Footway Construction:
Pedestrian Only
20mm dense graded surface course (AC6 Dense Surf 160/220)rec in accordance with BSEN 13108-1)
40mm thick dense binder asphalt (recipe mix), shall be AC20 dense bin 160/220 rec in accordance with BSEN 13108-1
100mm MOT Type 1 Sub-base to DTP clause 803
Total Construction Thickness 160mm

Carriageway Construction
40mm Thin Surface Course (DTP Specification Clause 942).
55mm Dense Binder Asphalt Concrete (Recipe Mix) Course to BS EN 13108-1- AC20 dense bin 40/60. (DTP Specification Clause 906)
100mm Dense Binder Asphalt Concrete (Recipe Mix) Road-base to BS EN 13108-1- AC32 dense bin 40/60. (DTP Specification Clause 903) -
200mm MOT Type 1 Sub-base Material to DTP Specification Clause 803.
Total Construction Thickness 395mm

400mm minimum construction depth required on frost susceptible subgrades. All materials within 450mm of the finished road surface shall be non-frost susceptible.

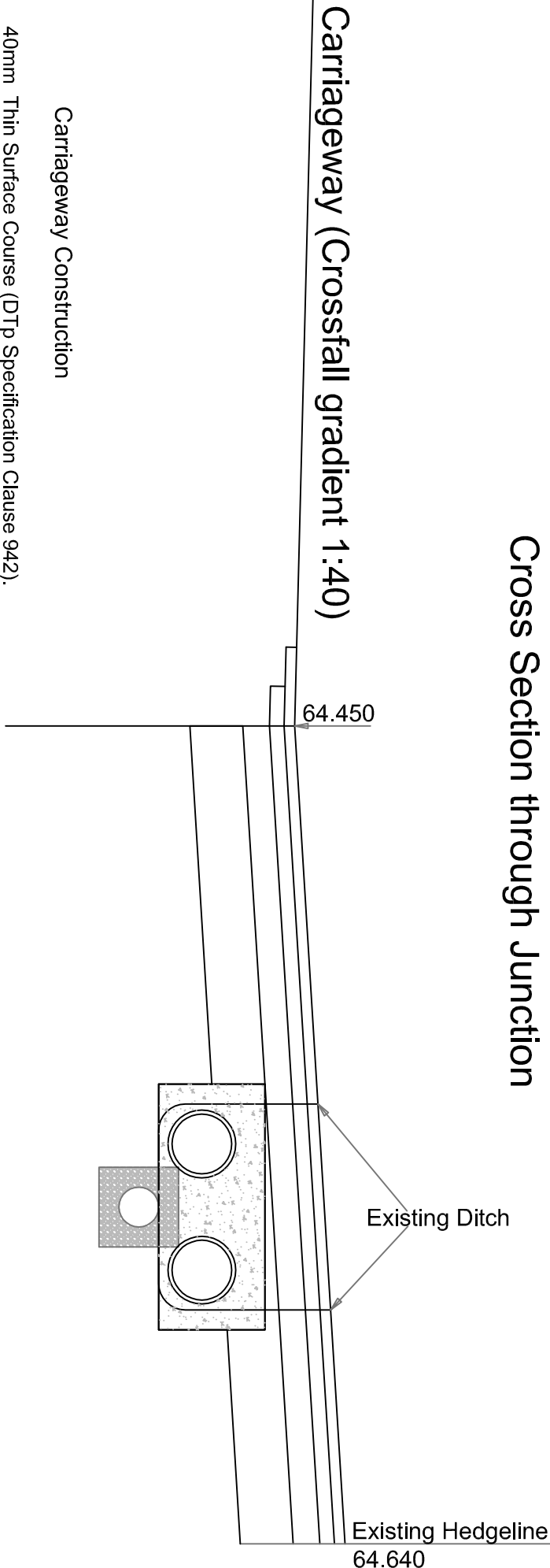
- Notes:
- Method of Construction:
 - Gully pot placed in position with temporary cover
 - All pavement courses laid except surface (wearing course)
 - Pavement excavated no more than 200mm beyond sides of gully grating and frame fixed.
 - Excavation backfilled with ST 4 concrete to underside of wearing course.

Gully Grating and Frame
Grating & frame to BS EN 124-1994 as amended by BS7903
Class D400, 450mm nominal width, min bedding width of frame 75mm.
Lower order roads - Ductile iron, min frame depth 100mm
single piece, hinged, non-rock.

Brickwork beneath frame:
Class B Engineering bricks to BS3921, mortar to BS5628- part 3, Table 15 designation (I).

Precast concrete gully to BS5911, or gully may be cast in situ using plastic gully as permanent integral shutter with minimum 150mm concrete surround.

Cross Section through Junction



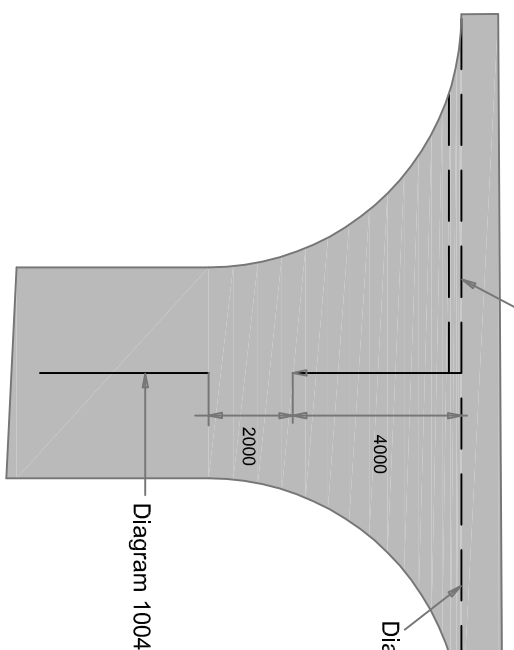
Carriageway Construction

40mm Thin Surface Course (DTP Specification Clause 942).
55mm Dense Binder Asphalt Concrete (Recipe Mix) Course to BS EN 13108-1- AC20 dense bin 40/60. (DTP Specification Clause 906) .
100mm Dense Binder Asphalt Concrete (Recipe Mix) Road-base to BS EN 13108-1- AC32 dense bin 40/60. (DTP Specification Clause 903) .

Notes:

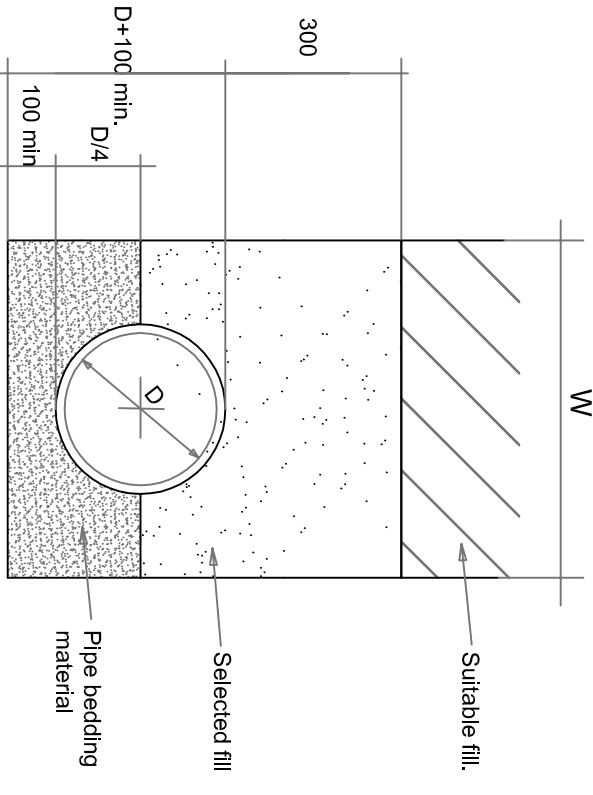
- Reinforced concrete bed and surround ST1 Mix to BS EN 206-1:2002 and BS8500 in accordance with SHWW Clause 2602

White Line Junction Markings

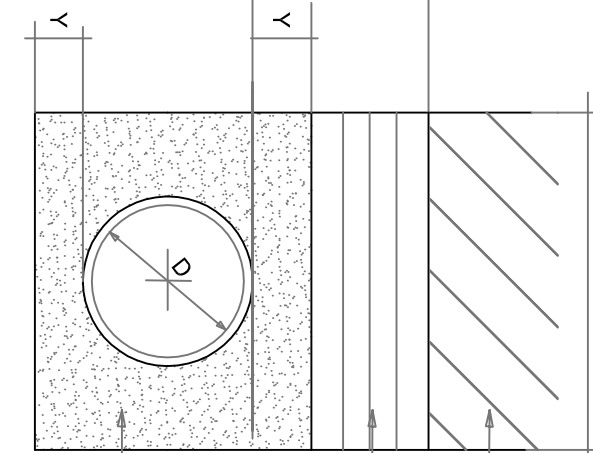


Notes:
All markings to comply with Traffic Signs Maunual Chapter 5- Road Markings 2003

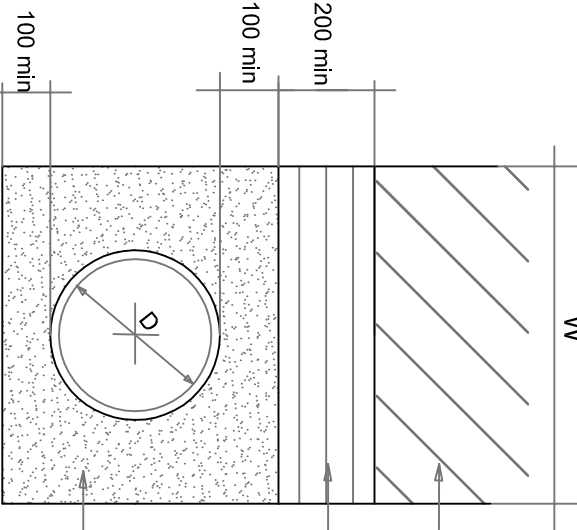
- The prescribed marking (diagram 1003) consist of two broken lines each comprising 600mm marks and 300mm gaps. The lines are 200mm wide and spaced 300mm apart.
- The prescribed marking (diagram 1009) consist of a broken line comprising 600mm marks and 300 gaps. The lines are 100mm wide
- The prescribed marking (diagram 1004) consist of a line 400mm long. The lines are 100mm wide.



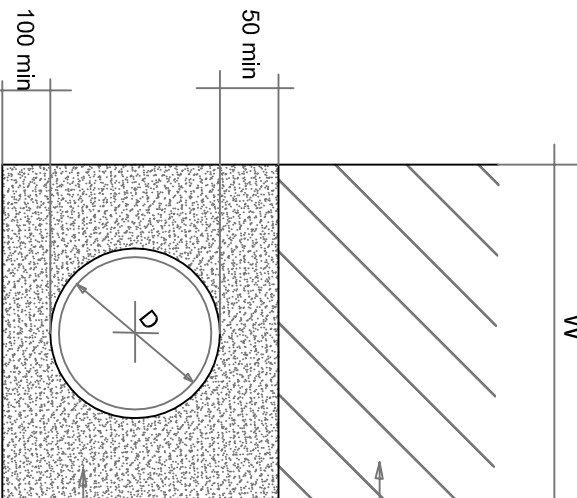
RIGID PIPE BEDDING - CLASS B



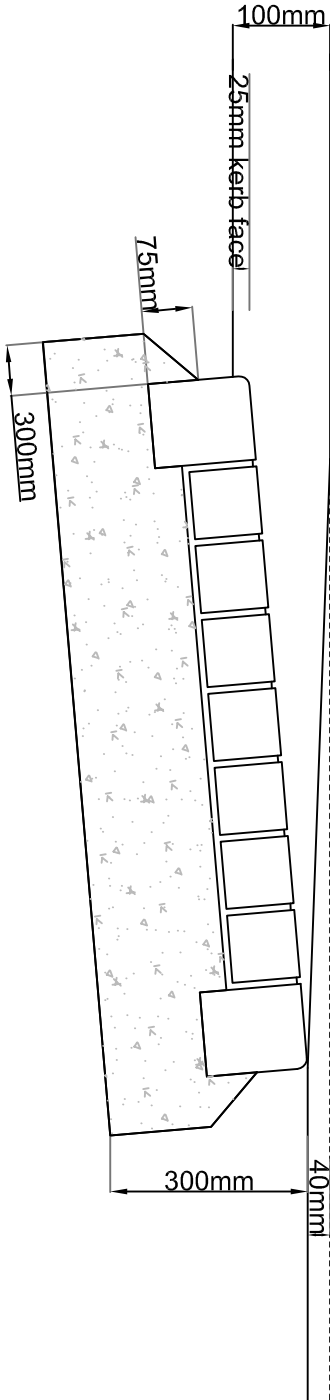
RIGID PIPE BEDDING - CLASS S



FLEXIBLE PIPE BEDDING - CLASS S



FLEXIBLE PIPE BEDDING - CLASS B



Notes:

- Edge restraint to be 125x150 BN kerbs type BN2
- Concrete base to be C10 or ST2 laid on 150mm min. thickness of granular sub-base type 1
- Remainder of slip to be 100x100 nominal size granite sets bedded in designation mortar with 15 recessed joints or 65 thick brick/concrete pavers laid in herringbone pattern on 35 naturally occurring silica sand complying with Table 2 BS 6717 Part 3, but with no more than 2% by mass passing a 75 sieve. The gap filling sand shall be naturally occurring silica sand complying with the above.

PIPE BEDDING NOTES - RIGID PIPES

Bc = External pipe diameter
W = French width (Bc + 300mm min. Bc + 600 max)
Y= dimension - For pipes upto 600 mm diameter, Y = 100mm over and under pipe increases to 1/6 Bc- or 100mm under barrels & 50mm min. under sockets whichever is greater (400mm max.)
In rock etc use 1/4 Bc & 150mm min. under sockets. (400mm Max.)
Bedding and sidefill material shall be placed and compacted in layers not exceeding 150mm before compaction, to a finished thickness of 300mm above the crown of the pipe.
Subsequent backfilling shall be deposited in layers not exceeding 225mm and fully compacted.

Selected fill should be readily compatible, and should not contain stones larger than 40mm, lumps of clay over 75mm, timber, frozen material, vegetable matter or foreign matter.

Refer to table for specification for granular material.

BEDDING AND SIDEFILL MATERIAL FOR RIGID PIPES

Nominal Size of Pipe (mm)	Nominal Max. Particle Size (mm)	Class of Bedding	Maximum CF Value	Materials Specified in British Standard
Over 300 to 550	20	S B F	0.15 0.20 0.15	14 - 20mm nominal single-size or 14 - 5mm graded or 20 - 5mm graded
Over 550	40	S B F	0.15 0.30 0.15	14, 20 or 40mm nominal single-size crushed rock or 14 - 5mm graded or 20-5mm graded or 10 - 5mm graded

The Table (A1 from WIS 4+06-02) shows specification for processed granular material.

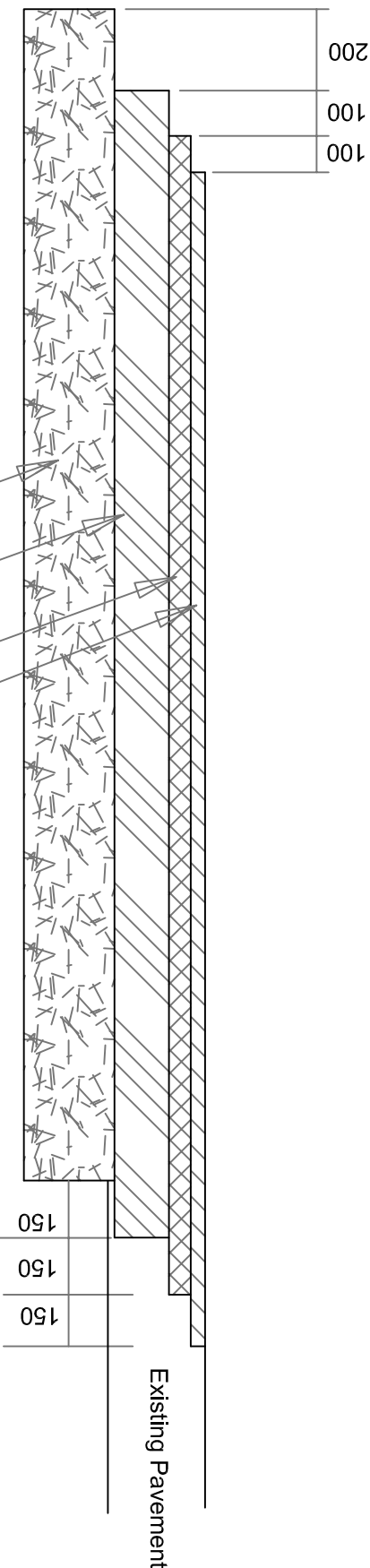
Maximum particle size and compaction fraction must also apply to as-dry material.

Processed granular material may include aggregates to BS 882, air cooled blast furnace slag to BS 1047 and sifted pulverised fuel ash to BS 3797

As-dry material is excavated material which is suitable for use as bedding and sidefill without processing. It shall not be contaminated with domestic building or industrial waste and shall be free of organic matter or combustible material.

Ramp Detail

Proposed Carriageway Widening/Passing Area Construction



40mm SMA Surface Course with 50 pen binder to BS EN 13108-5:2006 (DTP Specification Clause 942).
60mm Dense Binder Asphalt Concrete (Recipe Mix) Course to BS EN 13108-1- AC20 dense bin 40/60. (DTP Specification Clause 906) .
100mm Dense Base Asphalt Concrete (Recipe Mix) Road-base to BS EN 13108-1- AC32 dense bin 40/60. (DTP Specification Clause 906) .
200mm MOT Type 1 Sub-base Material to DTP Specification Clause 803.

PIPE BEDDING NOTES - FLEXIBLE PIPES

Bc = External pipe diameter
W = French width (Bc + 300mm min. Bc + 600 max)
Bedding and sidefill material shall be placed and compacted in layers not exceeding 100mm. Hand tamp the material fully at the sides of the pipe while tamping lightly over the crown.
Continue hand tamping until a finished layer of 300mm has been placed over the pipe.
Subsequent backfilling shall be deposited in layers not exceeding 225mm and fully compacted.

Selected fill should be readily compatible, and should not contain stones larger than 40mm, lumps of clay over 75mm, timber, frozen material, vegetable matter or foreign matter.

Refer to table for specification for granular material.

BEDDING AND SIDEFILL MATERIAL FOR FLEXIBLE PIPES

Nominal Size of Pipe (mm)	Nominal Max. Particle Size (mm)	Maximum CF Value	Materials Specified in British Standard
100	10	0.15	10mm nominal single-size
Over 100 to 150	15	0.15	10 or 14mm nominal single size or 14 - 5mm grade
Over 150 to 300	20	0.15	10, 14 or 20mm nominal single-size or 14 - 5mm graded or 20-5mm graded.

The Table (A2 from WIS 4+06-02) shows specification for processed granular material.

Processed granular materials may be included aggregates to BS8922, air-cooled blast furnace slag to BS 1047 and lightweight aggregates to BS 3797.

Woodsyde Developments Limited

Project:
Proposed Development on Land off Ellesmere Lane, Penley, Wrexham

Client:
Primesave Ltd

Drawing Title:
Road and Drainage Construction Details

Scale:
NTS @ A1
PN-RC-603

Date:
September 2016

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