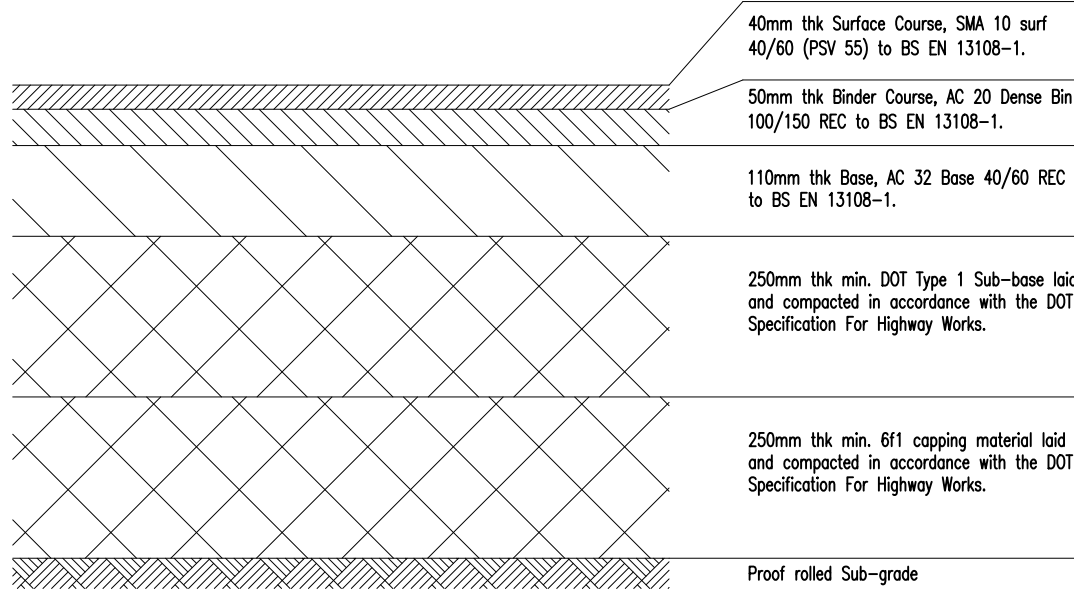


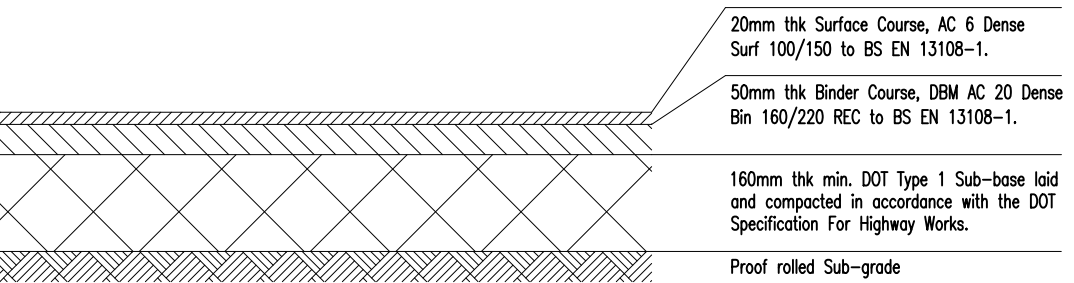


Residential Access Way Construction Detail – NTS

Note:
This detail is to be read in accordance with the Department of Transport's Specification for Highway Works.

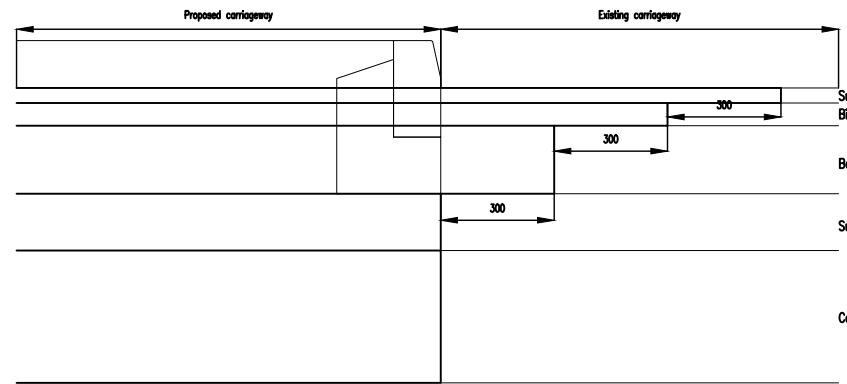
The above construction thicknesses are all subject to onsite CBR tests prior to construction. A CBR Value of 3% has been assumed for the above detail.

Min. non frost susceptible pavement construction thickness 450mm.



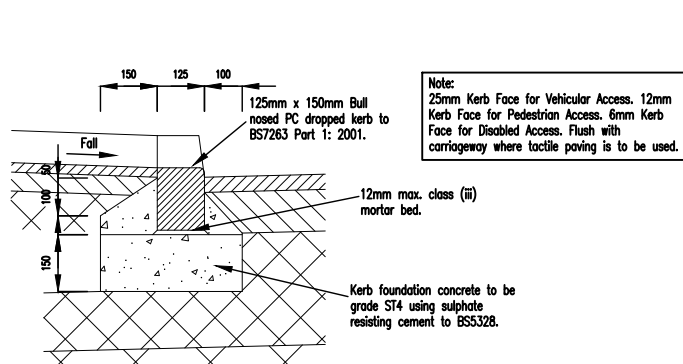
Footway Construction Detail (Pedestrians Only) – NTS

Note:
This detail is to be read in accordance with the Department of Transport's Specification for Highway Works.

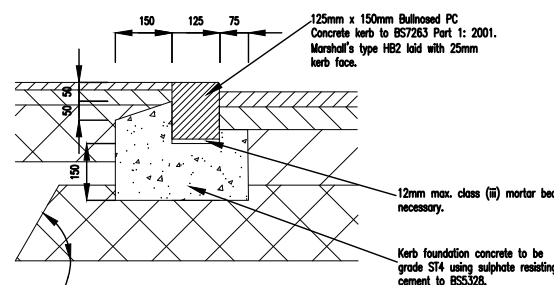


Step Tie-in Detail

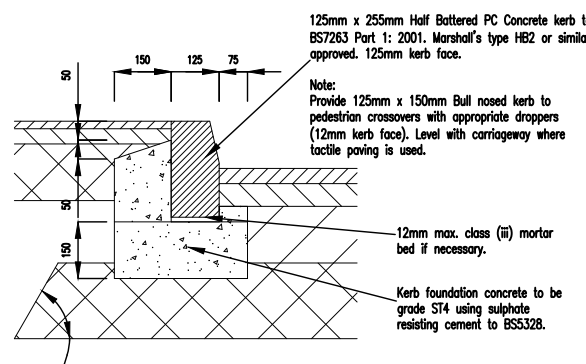
CBR Value	Min 450mm Frost Susceptibility (See Clause 4.68)					
	Access Road (250mm Bituminous Layer Thickness)		Access Way (200mm Bituminous Layer Thickness)		Industrial Road (300mm Bituminous Layer Thickness)	
	Capping	Sub Base	Capping	Sub Base	Capping	Sub Base
Less than 2.0%	550	200	500	250	600	150
2.0%	400	200	350	250	450	150
3.0%	300	200	250	250	350	150
4.0%	250	200	200	250	300	150
5.0 – 15.0%	200	200	200	250	250	150
> 15.0%	–	200	–	250	–	150



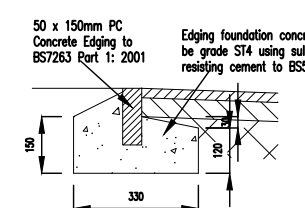
Typical Dropped Kerb (BN+DK) Detail – 1:10



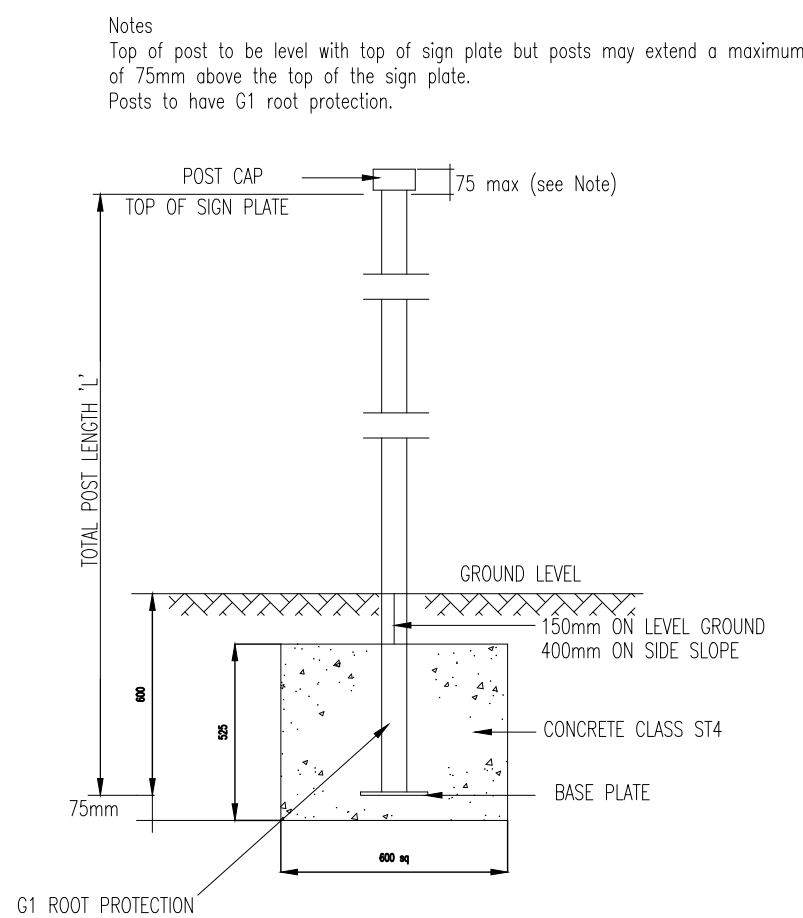
Typical Bull Nosed Kerb Detail – 1:10



Typical Half Battered Kerb (HB2) Detail – 1:10



Typical Footway Edging (E) Detail – 1:10



SIGN POST FOUNDATION DETAIL

IMPORTANT:

All proposed buried drainage works to be installed strictly in accordance with Sewerage Sector Guidance Appendix C, "Design and Construction Guidance for foul and surface water sewers offered for adoption under the Code for adoption agreements for water and sewerage companies operating wholly or mainly in England ("the Code)".

All proposed buried drainage works strictly subject to approval by statutory undertaker, prior to commencement of works.

All proposed buried drainage works to comply with Part H of the building regulations.

NOTES

This drawing is the copyright of the Engineers and may not be reproduced or used except by written permission.

Dimensions must not be scaled from this drawing. The Contractor is to check and verify all building and site dimensions before work is put in hand.

This drawing must be read and checked against any Architects or other specialists drawings.

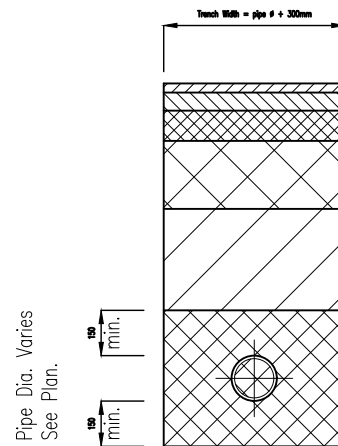
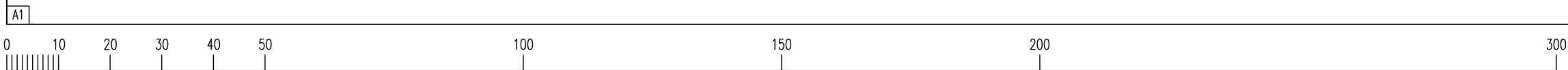
The Contractor is to check and verify with all Statutory Authorities and the Employer the location and condition of any underground or overhead services or confirm that none exist prior to work commencing on site.

The Contractor shall comply with enactments regulations and working rules relating to safety health and welfare of workpeople.

DRAINAGE NOTES:

1. ALL DISCREPANCIES NOTED ON SITE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
2. All dimensions in millimeters and levels in meters unless noted otherwise.
3. All work is to be carried out in accordance with the current British Standards, Codes of Practice and Building Regulations.
4. The exact position, level, size and use of existing sewers to be confirmed on site. Any discrepancies to be reported to the Engineer PRIOR TO COMMENCEMENT OF WORKS.
5. All uncovered and shallow pipework to be protected against construction traffic as part of the Contractors temporary works requirements.
6. Cover levels shown are approximate only, subject to the finalised external works and landscaping scheme.
7. See Architect's details for all setting out dimensions to buildings and boundaries etc.
8. All connections to trapped road gullies and channels shall be 150mm nominal bore pipework min where not noted on the plan. No pipe work to be downsized in the direction of flow.
9. All un-noted buried pipework to be 150mm dia. unless subject to other notes or noted otherwise.
10. All buried pipework to be U-PVC type in accordance with WIs 4–35–01 unless noted otherwise.
11. All pipework entering and exiting manholes to be connected with pipe soffits level unless noted otherwise.
12. Pre-formed channels to be used at all manholes.
13. High strength concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the Specification.
14. Pipe bends to be provided to suit direction of flow.
15. All manhole covers and frames to be Ductile Iron Heavy Duty Grade D400 double triangular to BS EN 124 unless noted otherwise.
16. First flexible joint in pipes adjacent to all manholes and inspection chambers to be 600mm max. from inside face of manhole / inspection chamber, connecting to rocker pipe. For pipe diameters 150mm – 450mm the rocker pipe length shall be 500mm – 750mm and for pipe diameters 451mm – 675mm the rocker pipe length shall be 750mm – 1000mm.
17. All soft spots encountered in the trench formation to be removed and replaced with graded granular material unless instructed otherwise.
18. All Specialist attenuation tanks, soakaways and water treatment units to be installed as per manufacturers installation details and specifications. Contractor to liaise with specialist suppliers for confirmation of bedding and surround requirements.
19. All buried concrete must cater for class DS1 sulphates conditions and AC1 aggressive chemical environment for concrete in accordance with BRE special digest 1.
20. The design of any temporary works required shall be the responsibility of the Contractor.
21. Abandoned buried pipework as a result of the works to be grubbed up, or sealed using ST2 concrete or 1:10 Cement:PFA mix grout. Specification and working method of grouting, strictly in accordance with Clause 506.3 of the Specification for Highway Works.

Do not scale



Pipe Bedding Detail Type S – 1:20

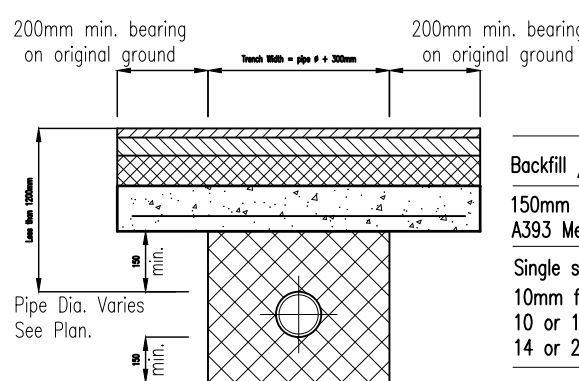
Note:
RIGID PIPEWORK
CLAYWARE 100 – 600mm Dia. & CONCRETE 300 – 600mm Dia.: Applicable where pipework has more than 1200mm cover under trafficked areas or more than 900mm under non-trafficked areas.

FLEXIBLE PIPEWORK
PLASTICS Applicable where pipework has more than 1200mm cover under trafficked areas or more than 900mm under non-trafficked areas. Where depth of cover is less than 1200mm protective concrete slab to be provided

External Works construction
DOT Type 1 granular backfill laid and compacted in 150mm max. layers.
Single size Granular material 10mm for #100 pipes 10 or 14mm for #150 pipes 14 or 20mm for #225 pipes

Note:
No Mechanical compaction techniques to be used within 300mm of the crown of all pipework.

See Structural Engineers details for pipework laid under buildings / through foundations etc.



Concrete Slab Protection For Pipes Laid At Shallow Depths – 1:20

Note:
RIGID PIPEWORK
CLAYWARE 100 – 600mm Dia. & CONCRETE 300 – 600mm Dia.: Applicable where pipework has less than 1200mm cover under trafficked areas or less than 900mm under non-trafficked areas.

FLEXIBLE PIPEWORK
PLASTICS Applicable where pipework has less than 1200mm cover under trafficked areas or less than 900mm under non-trafficked areas.

Note:
No Mechanical compaction techniques to be used within 300mm of the crown of all pipework.

See Structural Engineers details for pipework laid under buildings / through foundations etc.

Backfill / External Works construction
150mm thk Concrete Slab GEN3 with 2No layers A393 Mesh Reinftt 50mm cover to each face
Single size Granular material 10mm for #100 pipes 10 or 14mm for #150 pipes 14 or 20mm for #225 pipes



Barnsley Fire Station

Proposed Civils and Drainage Works
Typical Details

Org Scale 1:100 @ A1	Drawn AD	Checked SJC	CHG job No. H090
Drawing Number H090-CHG-XX-00-DR-C-0102			Revision P1