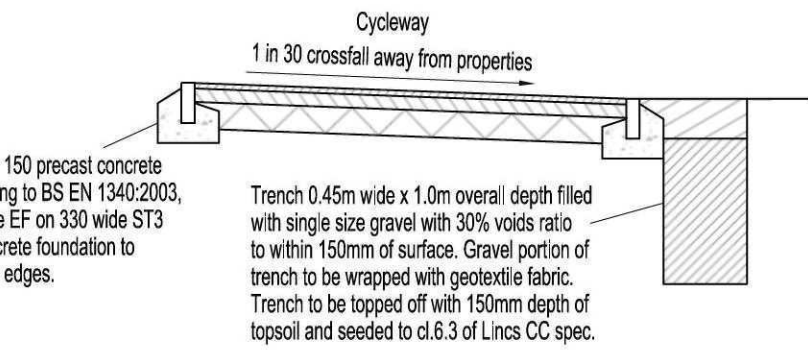


TYPICAL SECTION THROUGH CARRIAGEWAY EDGE AND FOOTWAY EDGE
BLACKTOP CARRIAGEWAY



TYPICAL SECTION THROUGH ADOPTABLE REMOTE CYCLEWAY

ADOPTABLE REMOTE CYCLEWAY AND FOOTWAY CONSTRUCTION

BITUMINOUS SURFACING

SURFACE COURSE
25mm of 8mm size Dense 100/150 Surface Course (AC 6 close surf) to Clause 9.4 compacted to a void content within the range 2%-10%. The Surface Course must be bonded to the Binder Course.

BINDER COURSE
100mm of 20mm size Dense 40/60 or 100/150 Binder Course (AC 20 Dense bin rec) to Clause 9.1 compacted to a void content within the range 2%-10%.

SUB-BASE
100mm of Type 1 sub-base to clause 1.2.

Increase sub-base to 150mm at vehicular crossings - refer to detail on right of drawing.

The Contractor should allow for additional capping due to the designed cycleway levels relative to the existing ground levels on this site.

ROAD CONSTRUCTION

SURFACE COURSE FOR CHART 1 OR 4

For Chart 1 the Surface Course shall be 40mm of 10mm size close Graded Surface Course (AC 10 close surf 100/150) to Clause 7.3. It must be compacted in accordance with Clause 7.2 to a void content within the range 2%-10%. The Surface Course must be bonded to the Binder Course.

For Chart 4 the Surface Course must be 40mm of Hot Rolled Asphalt (HRA 30/14F surf 40/60 des) to Clause 9.5 to a void content within the range 2%-6%. The Surface Course must be bonded to the Binder Course.

BINDER COURSE

For carriageways, Binder Course materials shall be 20mm size recipe mix Dense Binder Course (AC 20 Dense bin 40/60 rec) to Clause 9.1 and shall be laid in a single layer or combination of layers not less than 50mm in thickness nor greater than 110mm in thickness. Compaction must be in accordance with Clause 7.2 to a void content within the range 2%-8% and all layers must be bonded together.

SUB-BASE

Sub-base shall conform with clause 8.1 and shall be Type 1. A minimum in-situ CBR value of 20% will be required on all roads except for Development Roads intended to serve heavier traffic categories (i.e. loading in excess of 0.25 m.s.a.) where the in-situ CBR value should be at least 30%. CBR values shall be determined by Plate Bearing Tests in accordance with Clause 8.2.

CAPPING LAYER GRANULAR FILL

Granular fill material should be used to Clause 6.8, constructed using unbound mixtures, complying with BS EN 13285 and the requirement categories for capping in Table 6'1.

The Contractor should allow for additional capping due to the designed road levels relative to the existing ground levels on this site.

RESIDENTIAL ROADS 2 AND 3, INCLUDING TURNING HEADS TO ROADS 2 AND 4.

CONSTRUCTION CHART 1

NORMAL FLEXIBLE CONSTRUCTION (For roads up to 0.25 m.s.a.)						
SUB-GRADE	SUB-BASE (mm)		SURFACING (mm)		TOTAL THICKNESS REQUIRED (mm)	
Design CBR	Without geosynthetic	With geosynthetic	Bindercourse	Surface Course	Without geosynthetic	With geosynthetic
Below 1.5% & soft spots	Not suitable	710	110	40	Not suitable	860
1.5%	Not suitable	440	110	40	Not suitable	590
2%	400	340	110	40	550	490
3%	310	300	110	40	460	450
4%	300	300	110	40	450	450
5%	300	300	110	40	450	450
6-15%	300	300	110	40	450	450
Above 15%	300	300	110	40	450	450

Note 1 See Clauses 1.1.6, 1.1.7 and 1.1.8

Note 2 See Clause 1.1.6 - Assumes no improvement is possible using either sub-soil drainage or soil strengthening technique. 710mm is 410mm of GF5 Capping Layer Granular Fill to clause 6.8 and 300mm of Type 1 sub-base. The thickness of 710mm can be reduced to 620mm if all Type 1 sub-base is used.

Note 3 For soft spots and sub-grades with a CBR of less than 1.5% the geosynthetic shall be an approved geogrid, Tensar SS30 or equivalent strength.

Note 4 May be laid in one layer.

Note 5 Initial Binder Course layer thickness 70mm if the alternative kerbing installation method (two stage construction - kerbing to be laid at a later stage) is used. Total Binder Course thickness becomes 130mm in these circumstances. See Clause 1.1.17.

Note 6 Total thickness to be increased by 20mm above these values if the alternative kerbing installation method is used. See Clause 1.1.17.

Note 7 The use of a geosynthetic with a sub-grade with this bearing capacity offers no advantage or economy.

DISTRIBUTOR ROADS 1 AND 4
CONSTRUCTION CHART 4

NORMAL FLEXIBLE CONSTRUCTION (For roads up to 2.0 m.s.a.)						
SUB-GRADE	SUB-BASE (mm)		SURFACING (mm)		TOTAL THICKNESS REQUIRED (mm)	
Design CBR	Without geosynthetic	With geosynthetic	Bindercourse	Surface Course	Without geosynthetic	With geosynthetic
Below 1.5% & soft spots	Not suitable	710	190	40	Not suitable	930
1.5%	Not suitable	440	190	40	Not suitable	660
2%	400	340	190	40	620	560
3%	310	300	190	40	530	520
4%	260	260	190	40	480	480
5%	230	230	190	40	450	450
6-15%	230	230	190	40	450	450
Above 15%	230	230	190	40	450	450

Note 1 See Clauses 1.1.6, 1.1.7 and 1.1.8

Note 2 See Clause 1.1.6 - Assumes no improvement is possible using either sub-soil drainage or soil strengthening technique. 710mm is 410mm of GF5 Capping Layer Granular Fill to clause 6.8 and 300mm of Type 1 sub-base. The thickness of 710mm can be reduced to 620mm if all Type 1 sub-base is used.

Note 3 For soft spots and sub-grades with a CBR of less than 1.5% the geosynthetic shall be an approved geogrid, Tensar SS30 or equivalent strength.

Note 4 Initial Binder Course layer thickness 110mm if the alternative kerbing installation method (two stage construction - kerbing to be laid at a later stage) is used. This may be laid in one layer. Total Binder Course thickness becomes 190mm in these circumstances. See Clause 1.1.17.

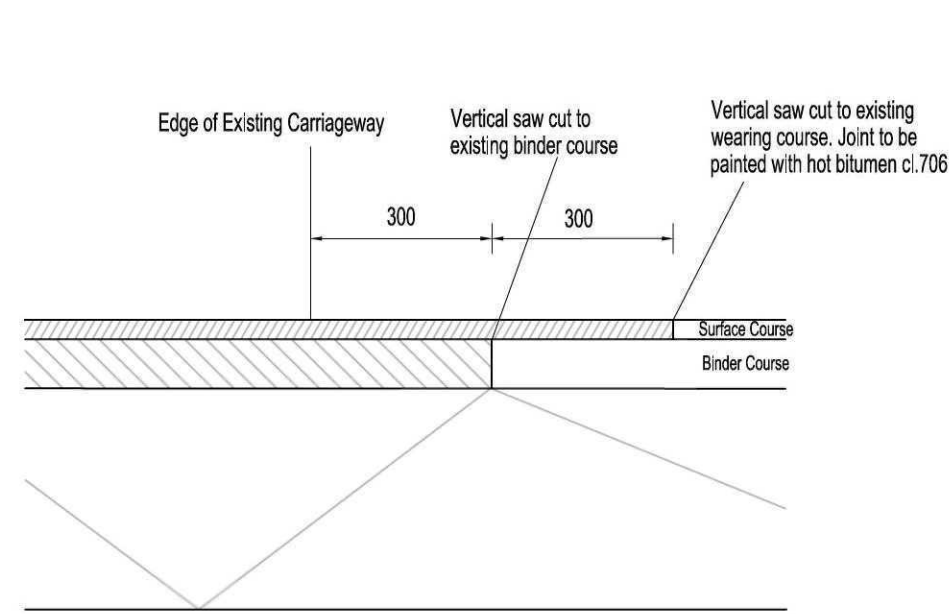
Note 5 Total thickness to be increased by 10mm above these values if the alternative kerbing installation method is used. See Clause 1.1.17.

Note 6 The use of a geosynthetic with a sub-grade with this bearing capacity offers no advantage or economy.

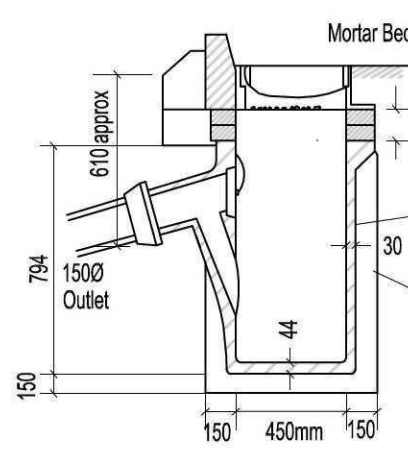
DESIGN CBR:
CBR testing is to be carried out on site prior to any works commencing, and the proposed construction thickness set out in Construction Charts 1 and 4 will apply based upon CBR values taken. For design and tender purposes, assume a CBR value of less than 1.5%.

NOTE FOR ALL WORKS
THE SPECIFICATION IN ALL RESPECTS SHALL BE IN ACCORDANCE WITH THE CURRENT LINCOLNSHIRE DESIGN GUIDE FOR RESIDENTIAL AREAS AND DEVELOPMENT ROAD SPECIFICATION AND CONSTRUCTION PUBLICATIONS IN FORCE IN THE COUNTY AT THE TIME OF CONSTRUCTION.

SITE INVESTIGATION
THE CONTRACTOR IS TO REFER TO SITE INVESTIGATION REPORT TO BE PROVIDED BY TAYLOR WIMPEY



New Construction Adjacent Existing Construction at Tie-In to Existing Roundabout and Roads

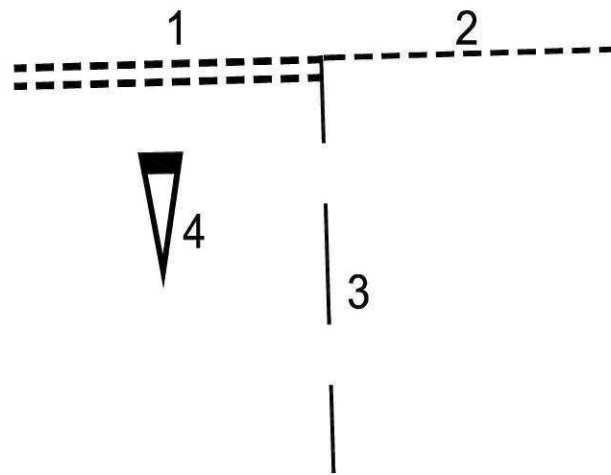


TYPE G5 PRECAST CONCRETE TRAPPED ROAD GULLY
TYPICAL CHANNEL GULLY DETAILS

Notes:-

- 1/ Cover and frame uncanted 'on to clause 5.9.
- 2/ Mortar bed and benching to clause 15.
- 3/ Bricks to be Class B engineering bricks to BS EN 771-1 (single course where necessary to obtain satisfactory fall), Corbelled if required. Frames to be bricked on all four sides.
- 4/ All in situ concrete to be C16/20 with sulphate resisting cement unless agreed otherwise.
- 5/ Position of outlet pipe varies in plan.
- 6/ In situ C16/20 concrete 150mm thick surround to outlet pipe for first one metre under verge or total length if under carriageway.
- 7/ Where grating is to be trafficked or laid against within 24 hours of frame being placed in position, then a suitable Ultra rapid hardening mortar and concrete (Monoset 241 or similar) shall be used to bed cover and frame.

Concrete protection to specification clause 5.13.4 to outlet pipe for first 100mm under verge or total length if under carriageway.



JUNCTION ROAD MARKINGS

Construction Design and Management Regulations 2007, notes

1. If you do not fully understand the risks involved during the construction of the items indicated on this drawing ask your manager, health and safety advisor or a member of the design team before proceeding.
2. Existing services may exist on site. The contractor shall liaise with all relevant service companies and arrange for all services to be located, marked and protected.
3. Drainage works may involve deep excavations and/or heavy plant/materials.
4. The contractor shall read and understand the Ground Investigation Report and be aware of and potential variations in soil conditions over the site.
5. The potential for danger to the general public and site personnel exists from works in the public highway. The contractor shall liaise with the highway authority (Lincolnshire County Council) and ensure safe method of working is maintained at all times.
6. Existing drainage pipes may be asbestos cement or fibre reinforced pipes, or concrete pipes containing asbestos fibre. Contractor to ensure that competent staff adequately trained are engaged in the works, and disposal of any affected material is undertaken in line with current legislation and good practice guidelines.
7. The contractor is to be aware that overhead cables may cross the site.
8. The contractor is to be aware that works may involve working adjacent to or in existing watercourses.
9. Works may involve working in close proximity to an existing water main. The contractor is to ensure that this is fully located and protected during the works.

Lincs CC highway notes

* The specification in all respects shall be in accordance with the current Lincolnshire Design Guide for Residential Area's "and " Development Road Specification and Construction " publications in force at the time of construction.

The minimum longitudinal fall for highways, without channel blocks should be 1 in 150, and with channel blocks 1 in 250 (see Clause 10.1 Development Road Specification).

In addition, ensure that the first section of any side road falls away from the road to which it is connecting. If general topography requires it to rise, this change of direction should take place after the first set of gullies. This is to ensure a " false channel " with associated drainage problems is not created in the bellmouth of junctions.

* Reconstruction of existing carriageway and footways that are affected by these development works, are to be specified and agreed by the Senior Highways Officer prior to construction ".

* All signs and line markings are to be agreed with the Senior Highways Officer prior to construction ".

BT chambers and Anglian Water meters are not to be located within pedestrian crossing points or vehicle accesses.

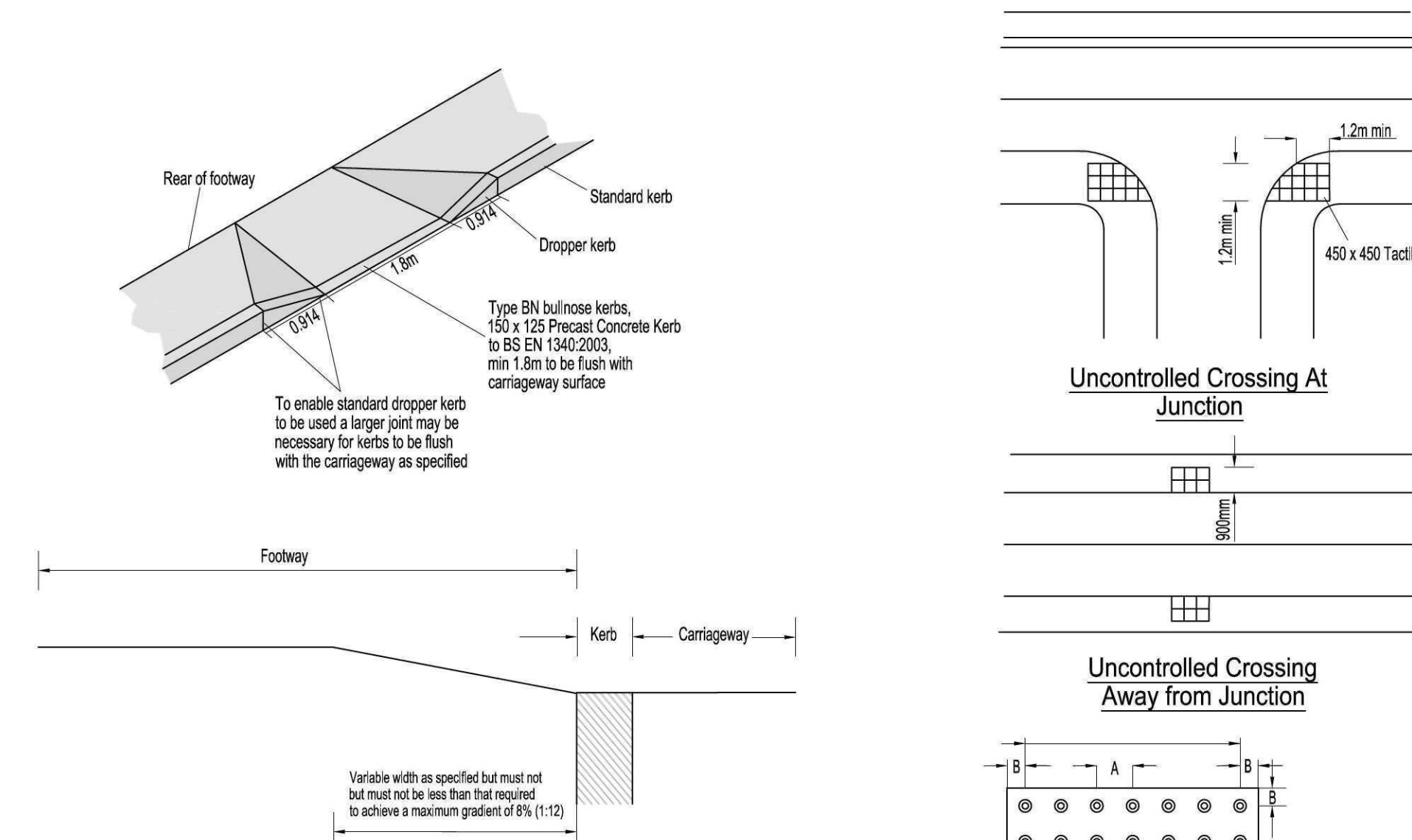
TENDER

1.1.14 TRAFFICKING OF BINDER COURSE

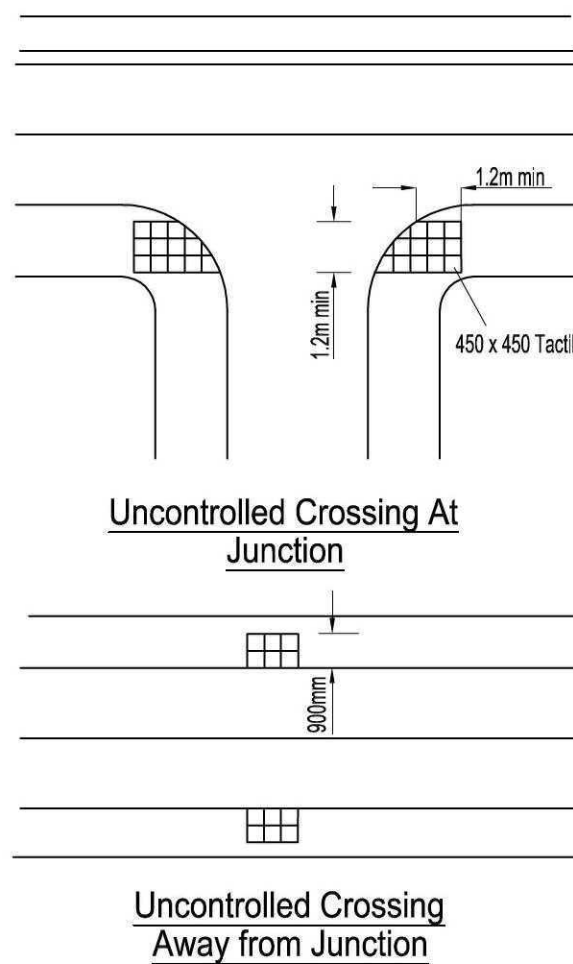
The Developer's attention is specifically drawn to the effect of trafficking exposed binder course materials prior to the application of the final surface course. The binder course shall be thoroughly cleaned and a tack coat to Clause 9.2 applied prior to the laying of the surface course. It may be necessary to use high pressure washing equipment if heavy contamination has occurred. Prolonged exposure to trafficking may result in the binder course becoming so adversely affected that its replacement will be necessary prior to laying the surface course. The use of sealing grit to BS EN 13108-1 and Annex B of the LCC Specification to protect the binder course, if it is likely to be significantly trafficked, is permissible. All traces of sealing grit shall be removed prior to the application of the surface course.

1.1.16 KERBING

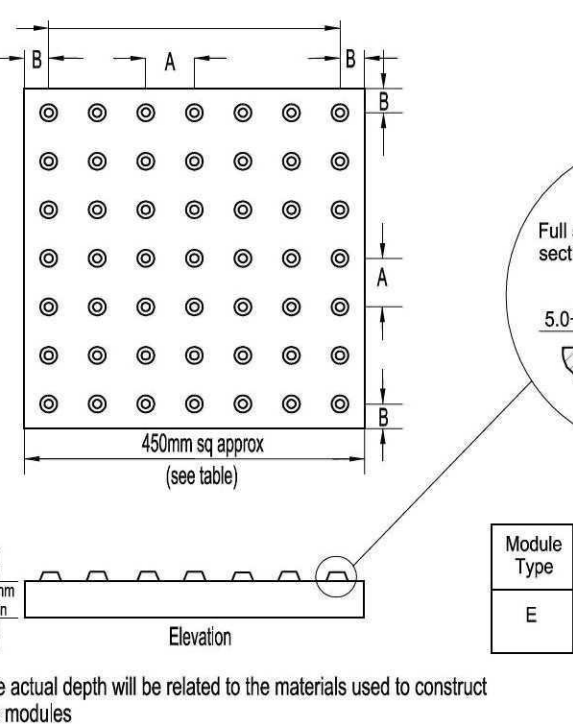
Kerbs shall be installed prior to the full depth of the carriageway binder course being placed, unless the alternative method of kerb installation (two stage construction - kerbing laid at a later stage) is employed following agreement, in advance, with the Highway Authority.



DROPPED KERB DETAIL PRIOR TO INSTALLATION OF BLISTER SURFACE



Uncontrolled Crossing Away from Junction



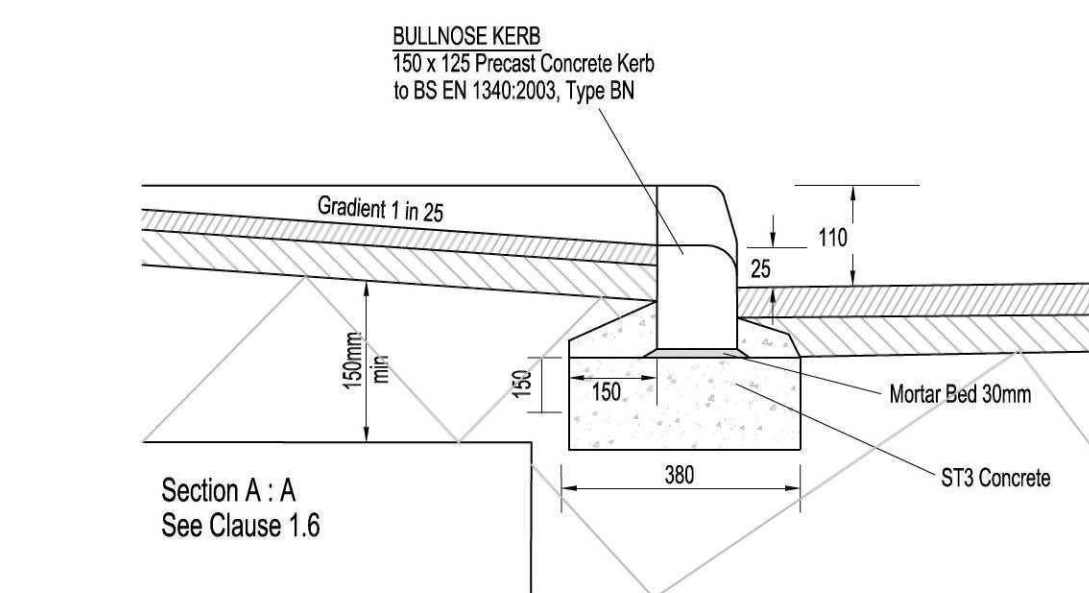
1.8 TACTILE PAVING CROSSING FOR PEDESTRIANS

Blister tactile paving crossing points shall be provided at all junctions, crossing at link footways and at kerb flat top road crossings.

Tactile paving to be 'Dimple' blocks either 450mm x 450mm x 50mm, 400mm x 400mm x 50mm or dimpled 100mm x 200mm x 50mm paving blocks. The surface colour shall be buff.

Tactile paving shall be installed in the line of travel, along the full length of a minimum of 1.8m flush dropped kerb blocks. Flush kerbs to comprise 150mm x 150mm precast concrete channel blocks. The depth of the paving will be 1.8m or 450mm depending on its location (see drawing to the left). The back edge of the tactile paving surface shall be at right angles to the direction of crossing. Developers shall take care not to locate service boxes (e.g. BT) where tactile paving is required.

PRAM CROSSING DETAILS



DOMESTIC VEHICLE CROSSING AND BULLNOSE KERB DETAIL (REF. CLAUSE 1.6 (A))