NOTES.
Construction to be in accordance with Lincolnshire County Council's Development Road Specification.
Materials within 450mm finished road surface to be non frost susceptible.
Construction depths are based upon Construction Chart 1 in the Development Road Specification.
Design CBR of 2% to be used following site investigation.
Geotextile to have a grid aperture of a minimum 30mm x 30mm and minimum tensile strength of 40kN x 40 kN.

CONSTRUCTION CHART 1 – NON PERVIOUS

ROADS UP TO 0.25 msa - NORMAL FLEXIBLE CONSTRUCTION

SUB-GRADE Note 1	SUB-BASE (mm)		SURFACING (mm)		TOTAL THICKNESS REQUIRED (mm)	
Design CBR	Without geotextile	With geotextile	Binder Course *Notes 4and 5*	Surface Course	Without geotextile	With geotextile
Below 1½% and soft spots	*Not suitable*	710 Notes 2 and 3	110	40	*Not suitable*	860 Notes 2,3 and 6
1½%	*Not suitable*	440	110	40	*Not suitable*	590 Note 6
2%	400	340	110	40	550 Note 6	490 Note 6
3%	310	300	110	40	460 Note 6	450 Note 6
4% Note 7	300	300 Note 7	110	40	450 Note 6	450 Notes 6 and 7
5% Note 7	300	300 Note 7	110	40	450 Note 6	450 Notes 6 and 7
6-15% Note 7	300	300 Note 7	110	40	450 Note 6	450 Notes 6 and 7
Above 15% Note 7	300	300 Note 7	110	40	450 Note 6	450 Notes 6 and 7

Note 1 See Clause 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 6F5 Capping Layer Granular Fill to clause 6.8 anc 300mm of Type 1 sub-base. The thickness of 710mm can be reduced to 620mm if all Type 1 sub-base is used.

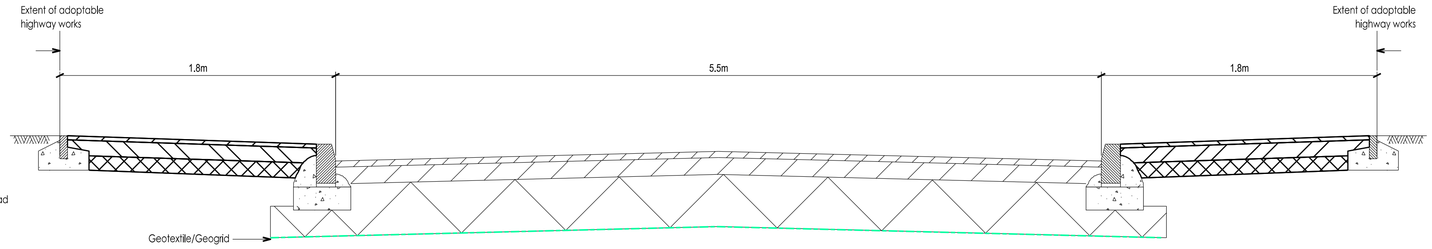
Note 3 For soft spots and sub-grades with a CBR of less than 1½% the geofabric shall be laid with an approved geogrid or shall be an approved geocomposite. Approved specialist design can be used with the agreement of the Authority.

Note 4 May be laid in one layer.

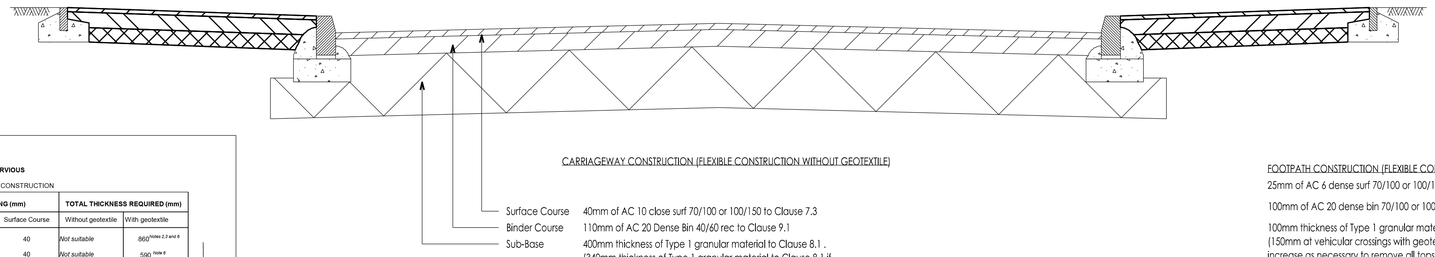
Note 5 Initial Binder Course layer thickness **70mm** if the **alternative kerbing installation method** (two stage construction – kerbing to be laid at a later stage) is used. **Total Binder Course thickness becomes 130mm** in these circumstances. **See Clause 1.1.17.**

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.



CARRIAGEWAY CONSTRUCTION (FLEXIBLE CONSTRUCTION WITH GEOTEXTILE)



CARRIAGEWAY CONSTRUCTION (FLEXIBLE CONSTRUCTION WITHOUT GEOTEXTILE)

Surface Course 40mm of AC 10 close surf 70/100 or 100/150 to Clause 7.3
Binder Course 110mm of AC 20 Dense Bin 40/60 rec to Clause 9.1
Sub-Base 400mm thickness of Type 1 granular material to Clause 8.1 . (340mm thickness of Type 1 granular material to Clause 8.1 if Geotextile used.)

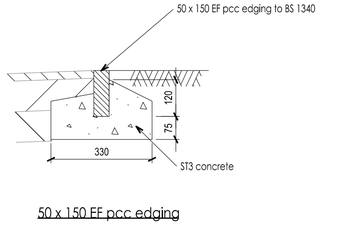
Sub base construction depths to be as per Construction Chart 1.

FOOTPATH CONSTRUCTION (FLEXIBLE CONSTRUCTION)

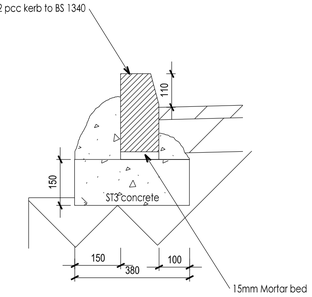
25mm of AC 6 dense surf 70/100 or 100/150 to Clause 9.4

100mm of AC 20 dense bin 70/100 or 100/150 rec to Clause 9.1

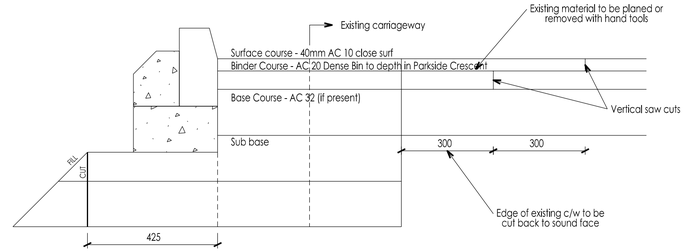
100mm thickness of Type 1 granular material to Clause 1.2 (150mm at vehicular crossings with geotextile, increase as necessary to remove all topsoil)



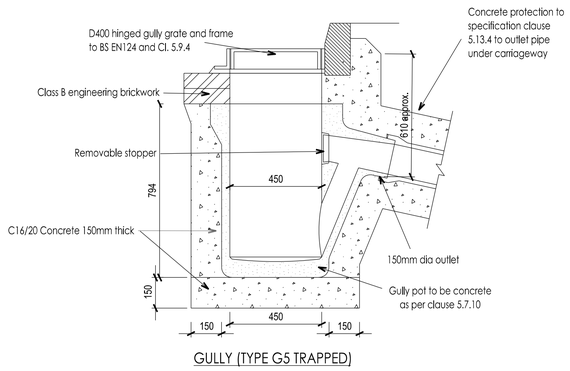
50 x 150 EF pcc edging



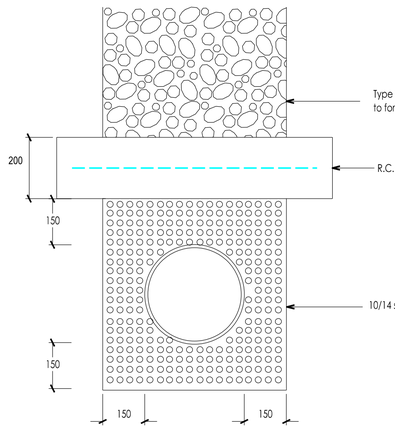
125 x 255 HB2 pcc kerb



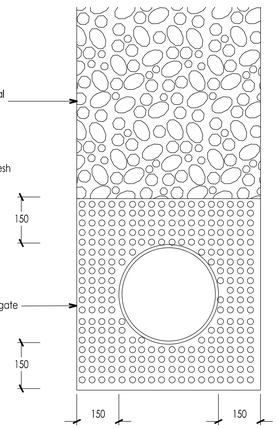
CONSTRUCTION ADJACENT EXISTING CARRIAGEWAY



GULLY (TYPE G5 TRAPPED)



CLASS S CONCRETE SLAB PROTECTION WHERE COVER IS LESS THAN 1.2m



CLASS S GRANULAR BED AND SURROUND WHERE COVER IS GREATER THAN 1.2m

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Contractors must verify all dimensions, levels and co-ordinates at the site before commencing any work or making any shop drawings; no dimensions to be taken from drawing.

Notes:

1- 'The specification in all respects shall be in accordance with the current Lincolnshire Development Road and Sustainable Drainage Design Guide' and 'Development Road and Sustainable Drainage Specification and Construction' publications in force in the county at the time of construction.

2- The minimum longitudinal fall for highways, without channel blocks shall be 1 in 150, and with channel blocks 1 in 250 (see Clause 10.1).

3- 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.

4- 'General deterioration of the existing highway/footway/verges created through construction of the new Section 38 Development will be reinstated to the current Development Road Specification at developer's own cost at the agreement of the inspecting Highways Officer'.

5- 'All signs and line markings are to be agreed with the Senior Highways Officer prior to construction'.

6- 'No Private surface water shall discharge onto the adoptable highway'

7- BT Chambers and Anglian Water Meters are not to be located within Pedestrian Crossing Points or Vehicle Access Crossings.

ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF LINCOLNSHIRE COUNTY COUNCILS DESIGN GUIDE FOR RESIDENTIAL AREAS AND DEVELOPMENT ROAD SPECIFICATION.

Rev	Description	Drn	Vf'd	Date
-	Issued for S38 Approval	CM	AG	04/18

As outlined in section 2.3 of the CITB Industry Guidance to Designers, insignificant risks can usually be ignored, as can risks arising from routine construction activities, unless the design compounds or significantly alters these risks. In accordance with CDM Regulations 8, 9 and 11, any significant risks relating to the design features shown on this drawing have been identified and are annotated thus: D

☒ No significant risks have been identified.

☐ Significant risks have been identified - refer to notes on drawing for information on residual risks and any control measures to be employed.

Refer to the current Designer's Risk Assessment sheets for further details.

Designer's Signature CM Date 04/18

Drawing Status
APPROVAL

williamsaunders
architecture: engineering: building consultancy
Sheppard Lockton House
Cafferata Way
Newark-on-Trent
Nottinghamshire, NG24 2TN
Tel: 01636 704361
Fax: 01636 702809
W: wm-saunders.co.uk
Also at Leeds, Cardiff, Wirksworth

Project
Residential Development
Parkside Crescent
Spalding
Lincolnshire

Client
D. Brown Building Contractors Ltd on behalf of Welland Homes

Title
S38 Construction Details

Drawn	Date	Scale	
CM	April 2018	nts	@ A1
Discipline	Project Number	Drawing Number	Revision
Civils	11482	(9)02	-