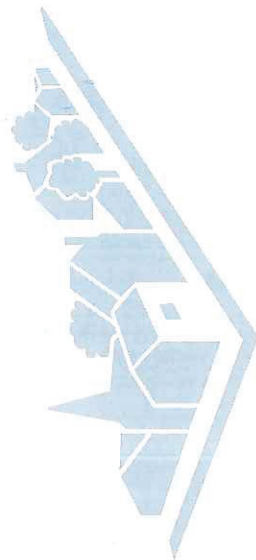


appendix G

HIGHWAY REQUIREMENTS FOR ADOPTION



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APPENDIX G - HIGHWAY REQUIREMENTS FOR ADOPTION

Advance Payment for Street Works Code and Section 38 Agreements

1. The County Council as highway authority recognises that the adoption of properly constructed new development roads serving residential properties is in the best interests of developers in terms of future liability for maintenance. Similarly, purchasers of properties with frontages to such roads need to be satisfied that no further expense will be attributable to them in respect of road maintenance. The County Council will normally adopt development roads and thereafter assume liability for future maintenance where it is satisfied that the roads have been properly constructed and that no expense will be attributable to the County Council prior to formal adoption, subject to the developer complying with certain formal requirements.

2. Part XI of the Highways Act 1980 is in force throughout the County. This means, briefly, that where it is proposed to erect a building which requires approval under the current Building Regulations and that building has frontage onto a private street, (ie development road), no works shall commence on site until an appropriate sum of money has been deposited with, or secured to the satisfaction of, the County Council to cover the full cost of constructing that section of private street. Accordingly, the County Council will serve upon the developer a notice under Section 220 of the Act within 6 weeks of the approval of plans under the Building Regulations. This notice will indicate the sum of money to be paid or secured by the developer to the satisfaction of the County Council and will relate either to individual plots or to the whole development. This sum will be a local land charge on the property(s) pending satisfaction of these requirements, as provided for in Section 224 of the Act.

3. As an alternative to the above requirements the developer may wish to enter into an Agreement with the County Council under Section 38 of the Highways Act 1980 prior to commencement of development of the site. The Agreement must be supported by a monetary Bond arranged with a bank or insurance company acceptable to the County Council in order to secure the due performance of the Agreement. The Bond sum will be examined at the end of two years and amended, up or down, to take account of the outstanding work, inflation, etc. Phasing of development of the site and associated roadworks will be acceptable.
4. A Development Road Fee will be levied by the County Council as a supervision and inspection charge. This Fee is a once and for all payment, and may be apportioned where the development is phased.

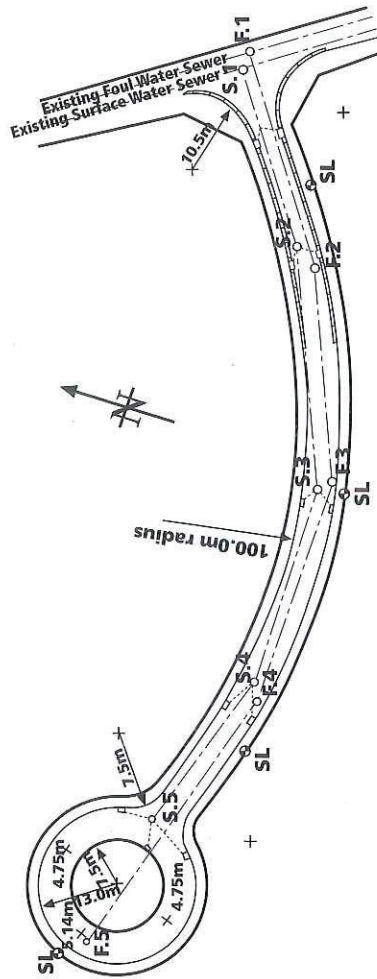
Approval of Construction Specification

5. Planning permission for residential development will normally contain conditions requiring the developer to submit detailed proposals for the construction of the proposed highways. The developer should make written application to the County Council prior to commencing development of the site. This application will enable the County Council to consider the developer's detailed construction proposals for the proposed highways and also to make arrangements for the inspection of the highway works during construction. Only those highways constructed in accordance with the County Council's specifications and requirements will be suitable for adoption.
6. The construction of development roads shall be in accordance with the requirements of the specifications contained in 'Development Road Specification and Construction 1991', published by the County Council

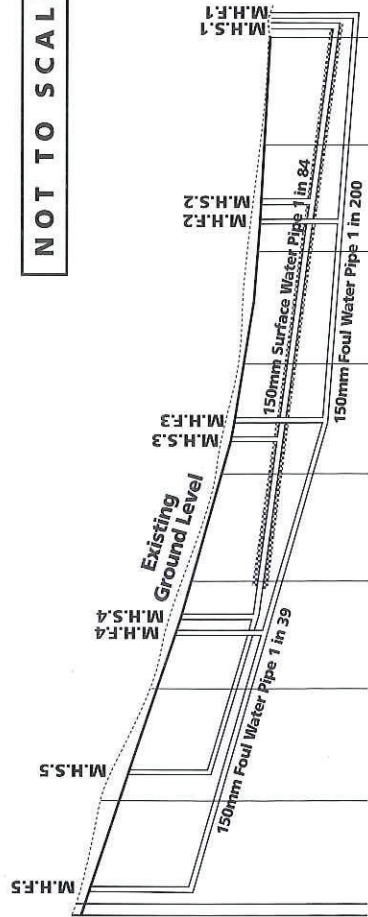
provided always that the final decision regarding all matters of detail, including items such as total thickness of carriageways, rests with the County Council.

7. The developer must provide two complete copies of the drawings and details of the proposed highway layout as follows:-
 - a. a location plan to scale not less than 1/2500;
 - b. the highway, including carriageway, footways and verges as appropriate, to a scale not less than 1/500 including full details of surface and foul water drainage systems, street lighting proposals, carriageway markings and traffic signs and all mains and services to be contained within the limits of the proposed highway;
 - c. longitudinal sections including surface and foul water drainage systems to a horizontal scale not less than 1/500 and to a vertical scale of 1/100;
 - d. typical cross sections showing construction proposals and all other associated details in accordance with the typical detail drawings given in this guide;
 - e. cross sections of the highway at intervals not exceeding 30 metres and to a scale of 1/100 where the adjoining site levels vary, + or - 0.5 metres from finished carriageway levels. The cross sections must show details 3 metres beyond the proposed highway boundaries;
 - f. the following note shall be included on all drawings submitted for approval:- 'The specification shall be in all respects the County Council's 'Development Road Specification and Construction 1991' published by Lincolnshire County Council.

The County Council reserves the right to charge for any design advice input towards elements of the above.



NOT TO SCALE



Chainage	Road Gradient 1 in 32		Vertical Curve		Road Gradient 1 in 200		O.D. 0.00m
	Proposed C.L. Levels	Existing C.L. Levels	Surface Water Manhole Inverts	Foul Water Manhole Inverts	Proposed C.L. Levels	Existing C.L. Levels	
0.00	1.92	1.92	0.70	0.70	2.07	2.07	
20.00	2.02	2.02	0.58	0.58	2.12	2.12	
40.00	2.30	2.30	0.52	0.52	2.40	2.40	
60.00	2.40	2.40	0.80	0.80	2.66	2.66	
80.00	2.78	2.78	1.58	1.58	3.32	3.20	
100.00	3.32	3.20	2.02	2.02	3.93	3.82	
120.00	3.93	3.82	2.78	2.78	4.72	4.44	
140.00	4.72	4.44	3.14	3.14	5.19	5.06	
160.00	5.19	5.06	3.11	3.11	5.25	5.14	
180.00	5.25	5.14	3.11	3.11	5.25	5.14	

TYPICAL ROAD AND DRAINAGE DETAILS

Accuracy of Survey

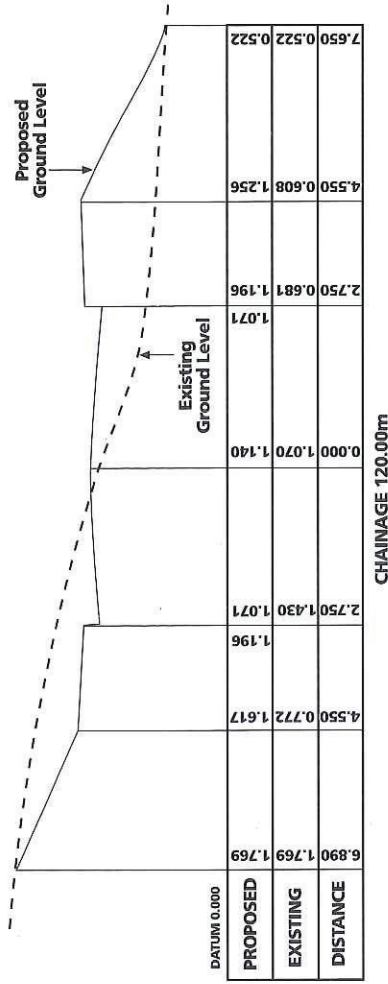
8. The survey of the site and the levels taken thereon shall be subject to the following tolerances:-

- a. *Horizontal* + or - 60mm on paved areas
+ or - 300mm on unpaved areas
- b. *Vertical* + or - 5mm on paved areas
+ or - 100mm on unpaved areas

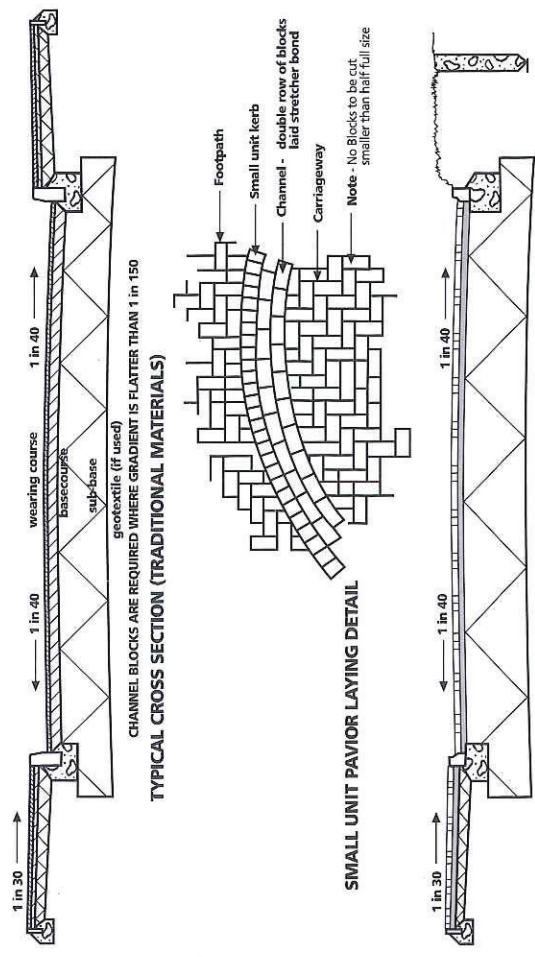
Notice and Inspection

9. Following written acceptance by the County Council of the submitted drawings, fourteen days notice of the commencement of the works must be given in order that arrangements may be made by the County Council for the inspection of the works during construction. In the event of work being suspended for any reason, similar notification shall be given of operations restarting. The County Council's representative shall be given access to the site and the works in progress at all times. However such inspections do not absolve the developer from his responsibility for supervising the works and ensuring that they are carried out in accordance with the approved drawings and specification. Pre-paid postcards are available from the County Council's local divisional offices for notifying commencement of the works. **A list of these offices is given in Appendix I.**

10. The County Council may at any time sample any of the materials specified for use in the works and carry out necessary inspections and testing in order to be satisfied that the materials comply with the requirements both of the specification and of the relevant British Standard specification, including the adequacy of the construction methods used. Where such inspection and testing show that materials used or construction methods



NOT TO SCALE



Note - These are examples of typical cross sections - all permitted road construction options are not illustrated.

TYPICAL CROSS SECTIONS AND BLOCK PAVING DETAILS

employed do not comply with the specification, the costs incurred by the County Council of such inspections and testing will be recharged to the developer.

Maintenance Period and Adoption

11. A maintenance period of twelve months is required commencing from the date of completion of construction of the highway as agreed by the County Council in writing. During this maintenance period the developer will be responsible for all routine maintenance and repair of the highway, following which the County Council will formally consider the adoption of the highway as a highway maintainable at the public expense, provided that:-

a. *the whole of the works (including street lighting, carriageway markings, signs etc) have been completed in accordance with the conditions, specifications and approved plans and also that any repairs, adjustments to level etc which have become necessary during the maintenance period (however arising) have been carried out to the written satisfaction of the County Council;*

b. *building development on the frontage is substantially complete.*

12. Upon adoption of the road the County Council will normally require, for record purposes, five further copies of the layout plan(s) of the road and drainage details as actually built, such plan(s) to a scale of not less than 1/500, together with a location plan.

Road Gradients

13. The roads shall be laid out at such levels as will afford the easiest practicable longitudinal gradients having regard to the intended use of the adjacent land. Channel blocks will be required where the carriageway

longitudinal gradient is less than 1 in 150, and the channel blocks will need to be laid to 'false falls' where the longitudinal gradient is less than 1 in 250. The minimum longitudinal gradient for block paved roads is 1 in 150.

14. Where a new estate road junction is formed with an existing carriageway the gradient of the new estate road carriageway shall not normally be steeper than 1 in 40 for a distance of 20 metres from the nearside edge of the existing carriageway from which the level is taken; not normally steeper than 1 in 20 for a further 30 metres and thereafter not normally steeper than 1 in 15. The gradients must be joined by a suitable vertical curve as in all cases of change in gradient.

15. The crossfall of the carriageway shall normally be 1 in 40 on all adoptable types of road in the hierarchy up to and including Major Access Roads. Local Distributor Roads and above will normally incorporate super-elevation in appropriate circumstances in accordance with details to be submitted to and approved by the County Council.

Disposal of Highway Surface Water

16. Prospective developers must establish that highway surface water can be disposed of by means of drainage systems and outfalls acceptable to the County Council. Private systems and outfalls will not be acceptable. Where it is intended that surface water be disposed of by means of a highway drainage system which will ultimately be adopted by the County Council (ie a system carrying water only from the public highway) the developer must satisfy the County Council that he has the legal capacity to enable the construction of such disposal system and also to secure any necessary easement, normally of 6 metres width, for the disposal system, and the outfall.



17. Where highway gullies are to be connected to a surface water system, the said system shall be constructed to the requirements of the appropriate local water authority who will be responsible for its future maintenance.

Verges within the Highway

18. The County Council will be responsible for the maintenance of verges within the adopted highway. Tree planting in verges will be considered in appropriate locations provided that detailed proposals are submitted at the earliest stage in the planning of the layout. The County Council will need to be satisfied that such planting will not in due course affect the services and equipment of the various statutory undertakers, which may be located in the adjacent footway and/or carriageway, nor interfere with visibility splays or other highway safety features. Developers contemplating planting within verges are therefore requested to contact the appropriate local Divisional Office (see Appendix I) when planning permission is applied for.

19. The County Council may agree to ground cover planting in verges in place of grass, subject to specific scheme approval. In such approved instances, appropriate combinations of the following plant types will normally be acceptable:-

- Cotoneaster conspicuous (Decorus)*
- Cotoneaster horizontalis*
- Erica in Variety*
- Gaultheria procumbens*
- Genista hispanica*
- Genista sagittalis*
- Hedera helix*
- Hypericum calycinum*
- Hypericum polyphyllum*

- Viburnum davidii*
- Vinca minor*
- Vinca major*

Other plant types may be approved in specific circumstances.

All trees, shrubs and ground cover planting located with the proposed highway boundaries with the written consent of the County Council will normally be accepted for maintenance.

Final Surfacing

20. Carriageway and footway surfacings comprising dense bitumen macadam or hot rolled asphalt wearing courses shall not be laid until building development is complete or is at such an advanced stage that the County Council agrees that damage to such surfacing will not occur. With regard to surfacings comprising small unit paviers, unless the developer proposes the use of an interim surfacing layer acceptable to the County Council in lieu of paviers during the development of the site, such paviers shall be laid prior to building development being commenced.

Street Name Plates

21. Before a road is formally adopted, name plates of an approved design shall be erected on both sides of the junction in positions to be agreed with the County Council. The street naming authority, however, is the local District Council.

Structures

22. Where the design of a proposed residential highway incorporates structures such as bridges, culverts and retaining walls which are to be put



forward for adoption, the structures shall comply with the requirements contained in the County Council 'Guidance Notes and Technical Approvals for Small Highway Structures.' This document gives guidance on the following:-

- a. *Design and technical approval requirements*
- b. *Specification*
- c. *Basic design considerations*
- d. *Guide to codes of practice and design documents*
- e. *Procedural requirements for technical approval*

Street Lighting

23. Street lighting shall be provided by the developer on all adoptable residential developments. The design and specification of street lighting installations shall comply with the County Council 'Street Lighting Development Road Design Guide'. Lighting columns shall normally be located at the rear of the footway or service margin. Where a verge is provided between the carriageway and footway the columns shall be located in the verge.

24. Where the existing public highway onto which the new road connects is unlit the developer will be required to provide street lighting for the new junction. This may involve the provision of one or more new street lightings units on the existing highway opposite the new junction. Lighting will be required along the frontage of the development site where it abuts an existing public highway and where that frontage is directly accessed by the new dwellings.

25. Where existing street lighting is required to be removed or repositioned to enable the construction of a new road this work will be the responsibility of the developer. The County Council reserves the right to

require the upgrading of any street lighting unit so affected.

Traffic Signs and Road Markings

26. Appropriate traffic signs and road markings will be required at all locations where new development roads connect with Primary, District or Local Distributor roads. Signs and markings will not normally be required at junctions between lower category roads within developments - however the County Council will assess the needs in respect of individual locations as appropriate.

27. The design of all traffic signs and road marking schemes shall comply with the requirements of the 'Traffic Signs Regulations and General Direction 1994', published by HMSO, together with further guidance as may be issued by the County Council.

Traffic Regulation Orders

28. The cost of any work undertaken by the County Council in connection with any new orders or alterations to existing orders relating to development proposals will be charged to the Developer.