

APPENDIX 2

Section 38 Highway and Drainage Drawing Package General Requirements to Commence Detailed Design Check

This form and checklist must be completed by the Engineering Consultant or Developer for all Section 38 submissions, and the following information is required before the Section 38 can be processed by the Highway and Flood Authority. Any information not provided will increase the time taken to gain technical approval and complete the agreement. **This checklist is not exhaustive and additional information may be required. Please also refer to the Highway and Flood Authority's detailed requirements for Major and Minor developments, provided in the [Appendices to the current Development Roads and Sustainable Development Design Approach](#), and can be accessed via the Lincolnshire County Council website.**

You are advised that your submission should have regard to the good practice contained within the Lincolnshire Development Road and Sustainable Drainage Design Approach, and **you must** ensure that the proposed development layout, design and road construction details etc comply with the [Lincolnshire Development Roads and Sustainable Drainage Specification and Construction](#).

General Information	
Site Name:	Date of Drawing Package and Ground Investigation Report Submission:
Site Location and Address:	Planning Number and Date Granted:
Name and Registered Office Address of Developer:	Developer Lead Contact Details (include email and telephone):
Name and Registered Office Address of Engineering Consultant:	Engineering Consultant Lead Contact Details: (include email and telephone)
Name and Registered Office Address of Solicitor:	Solicitor Lead Contact Details: (include email and telephone)
Name, Registered Office Address and Lead Contact of Management Company: (if applicable - include email and telephone)	Company Name, Registered Office Address and Lead Contact of Bond Guarantor: (include email and telephone)

Type of Drainage scheme (please tick):

SuDS <input type="checkbox"/>	Traditional <input type="checkbox"/>	Combination <input type="checkbox"/>
-------------------------------	--------------------------------------	--------------------------------------

Check list showing information required to commence the detailed design check:

- Please ensure all drawings have a separate drawing number to avoid confusion when issuing technical approval.
- Please provide one hard copy and one electronic copy sent to developmentmanagement@lincolnshire.gov.uk complete copies of the drawings and details as follows: -

Required Documents Checklist		
Information	Tick	Drawing No/ Ref/Notes/NA
1. £2,150 up-front fee to carry out technical review. Please quote the site location, phase and FAO S38 officer name (if known).	<input type="checkbox"/>	
2. Drawing issue sheet (to be provided with every set of revisions).	<input type="checkbox"/>	
3. Full Planning Permission Notice and approved layout drawing.	<input type="checkbox"/>	
4. Site Location Plan (1:2500)	<input type="checkbox"/>	
5. SuDS Construction Management and Maintenance Plan Method Statement to include:	<input type="checkbox"/>	
A SuDS construction method statement phasing plan and maintenance schedule (incorporating temporary site drainage arrangements during construction) is required for all SuDS related construction activities and post adoption maintenance.	<input type="checkbox"/>	
6. General Section 38/Engineering Layout coloured drawing (1:500/1:1250) to include:	<input type="checkbox"/>	
Areas of proposed highway offered for adoption – coloured green with solid red outline.	<input type="checkbox"/>	
Site Boundaries.	<input type="checkbox"/>	
Existing boundaries (on and around site).	<input type="checkbox"/>	
Positions of all carriageways, footways, footpaths, cycle ways, verges, service strips, visibility splays, traffic calming features.	<input type="checkbox"/>	
Existing and proposed Foul and Surface Water drainage including gully positions and gully laterals highway drainage needs to be identified in a different colour.	<input type="checkbox"/>	
Where applicable each dwelling; draining private surface water to the adoptable highway SUD should be clearly identified on the plan and coloured purple.	<input type="checkbox"/>	
Watercourses.	<input type="checkbox"/>	
Finished ground floor levels.	<input type="checkbox"/>	
Storage/attenuation systems.	<input type="checkbox"/>	
Outfalls/headwalls.	<input type="checkbox"/>	
Existing trees and proposed locations.	<input type="checkbox"/>	
Easements to be coloured blue.	<input type="checkbox"/>	
Position of dwellings, garaging and/or parking spaces with vehicular crossings, traffic signs, road markings, structures.	<input type="checkbox"/>	
Chainage every ten metres.	<input type="checkbox"/>	
Falls and cross-falls of footways and carriageways.	<input type="checkbox"/>	
Carriageway gradients where applicable.	<input type="checkbox"/>	
Street Lighting locations.	<input type="checkbox"/>	
7. Longitudinal Section Drawing (1:500 Horizontal/1:100 Vertical) to include:	<input type="checkbox"/>	
Existing and proposed levels for the centre line, channels, gradients and vertical curves.	<input type="checkbox"/>	
Surface and Foul Water Drainage profiles, including positions of chambers, gradients, pipe diameters, cover and invert levels and protection.	<input type="checkbox"/>	
Highway drainage should be identified in a different colour.	<input type="checkbox"/>	
Pipe material.	<input type="checkbox"/>	
Pipe strength.	<input type="checkbox"/>	
Bedding classification and details.	<input type="checkbox"/>	
Ground water/watercourse levels.	<input type="checkbox"/>	
8. Cross Section Drawing (1:100 Horizontal/1:50 Vertical) to include:	<input type="checkbox"/>	
The road intervals of not greater than 30 metres where the adjoining site levels vary ± 0.5 metres from finished footway levels.	<input type="checkbox"/>	
9. Standard Detail Drawing (1:10/1:20) to include:	<input type="checkbox"/>	

Required Documents Checklist		
Information	Tick	Drawing No/ Ref/Notes/NA
Typical Cross Sections of carriageway, footway, cycle ways surface details, kerb details vehicle accesses, pedestrian crossings with tactile paving, verge, service strips, tie-in, build-outs, shared surfaces, gullies, chambers, pipes and bedding suds features and, and any other highway features. *Note: The above details are for Minor and Major Access Roads, Shared Surface Roads and Local Distributor Roads.	<input type="checkbox"/>	
10. Kerbing Arrangement Drawing (1:500) to include:	<input type="checkbox"/>	
All types and positions of precast concrete kerbs, blocks and edgings across the site.	<input type="checkbox"/>	
11. Drainage Catchment Drawing (1:500) to include:	<input type="checkbox"/>	
Surface water catchment for gullies (maximum 180sqm permitted).	<input type="checkbox"/>	
Surface water catchment for SuDS features adjacent carriageway.	<input type="checkbox"/>	
12. Signs and Lines Drawing (1:500) to include:	<input type="checkbox"/>	
Site layout plan showing signs and lines in accordance with – The Traffic Signs Regulations and General Directions; and Traffic Signs Manual Chapters 3 and 5; and cross sections of bollard and pole foundations.	<input type="checkbox"/>	
13. Street lighting Drawing (1:500) to include:	<input type="checkbox"/>	
Street lighting layout plan and specification in accordance with BS5489.	<input type="checkbox"/>	
14. Landscaping Layout Drawing (1:500) to include:	<input type="checkbox"/>	
Details of planting, trees species /size/positions any existing trees to be retained tree pit details, grassed areas, play grounds and equipment, fencing, walls and confirmation of land dedicated/ownership.	<input type="checkbox"/>	
15. Specialist Drawings (1:1250) to include:	<input type="checkbox"/>	
Bridges, Culvert, any pipework over 600mm diameter, headwalls, retaining walls and any other non-standard features.	<input type="checkbox"/>	
Existing Statutory Services and utility plans showing surrounding location of proposed development.	<input type="checkbox"/>	
16. Statutory Consents and other Permissions to include:	<input type="checkbox"/>	
Discharge consents/licences to watercourses by IDB or others.	<input type="checkbox"/>	
Rights to lay pipes on third party land/easements.	<input type="checkbox"/>	
Easement details to be shown coloured blue.	<input type="checkbox"/>	
Permission of riparian owner for discharge.	<input type="checkbox"/>	
S104 Foul and Surface Water Agreements.	<input type="checkbox"/>	
Land drainage consent management company drainage agreements.	<input type="checkbox"/>	
17. Drainage Strategy, Layout and Construction Details to include:	<input type="checkbox"/>	
Drainage Strategy	<input type="checkbox"/>	
Drainage Master plan showing multiple phases of construction.	<input type="checkbox"/>	
Approved Flood Risk Assessment or Flood Risk Statement.	<input type="checkbox"/>	
Contoured flood routing plan to include site contours.	<input type="checkbox"/>	
Groundwater levels and location of, and impacts on, any Surface Water Safeguard Zones, Groundwater Safeguard Zones and/or Groundwater Nitrate Vulnerable Zones.	<input type="checkbox"/>	
Manholes	<input type="checkbox"/>	
SuDS Scheme Maintenance Plan.	<input type="checkbox"/>	
SuDS Method Statement relating to all phases. (See page 10 in Development Road and Sustainable Drainage Specification and Construction.)	<input type="checkbox"/>	
Attenuation device chambers.	<input type="checkbox"/>	
Storage chambers.	<input type="checkbox"/>	
Headwalls	<input type="checkbox"/>	
Other ancillary structures.	<input type="checkbox"/>	
18. CDM Requirements	<input type="checkbox"/>	
CDM file containing risk assessments for the design, construction, operation and maintenance of the highway and drainage system.	<input type="checkbox"/>	
19. Copies of Hydraulic Design Calculations to include:	<input type="checkbox"/>	
Catchment and sub-catchment plan.	<input type="checkbox"/>	

Required Documents Checklist		
Information	Tick	Drawing No/ Ref/Notes/NA
Network details.	<input type="checkbox"/>	
Simulation results for design storm RP, 1:1 RP, 1:2 RP, 1:30 RP, and 1:100 RP plus 40% for climate change.	<input type="checkbox"/>	
Storage and attenuation devices.	<input type="checkbox"/>	
Soakaway infiltration designs.	<input type="checkbox"/>	
Soaked CBRs at formation level.	<input type="checkbox"/>	
Subgrade particle size distribution.	<input type="checkbox"/>	
Typical groundwater table level.	<input type="checkbox"/>	
Other data as required for design.	<input type="checkbox"/>	
20. Structures affecting the highway	<input type="checkbox"/>	
Any non-adoptable structure that is within 3.66m of the highway boundary and/or 1.37m or higher, as measured from the finished level of the highway will require submission of structural calculations to demonstrate its suitability.	<input type="checkbox"/>	
Appendix 3 must be completed and submitted where: <ul style="list-style-type: none"> any bridge, box culvert, pipe (regardless of shape), arch, span, deck, cantilever, foot bridge or similar of width 600mm or higher. any retaining wall, headwall, wing-wall, gabion wall, training wall, reinforced embankment, piled wall, or similar with a retained fill height of 600mm or higher. 	<input type="checkbox"/>	
21. Ground Investigation Report to include:	<input type="checkbox"/>	
Site description, site history and site work.	<input type="checkbox"/>	
Significant constraints (incl. soluble rocks, landslides, shallow mining, shallow groundwater, made ground).	<input type="checkbox"/>	
Drainage potential (incl. depth to water table, permeability of superficial deposits, thickness of superficial deposits, permeability of bedrock, presence of floodplains). Critical to consider infiltration, groundwater table, greenfield run-off and surface water storage.	<input type="checkbox"/>	
Ground stability.	<input type="checkbox"/>	
Areas of contaminated land.	<input type="checkbox"/>	
Laboratory work.	<input type="checkbox"/>	
Geology and geological maps.	<input type="checkbox"/>	
Bore hole/trial pit locations and other information.	<input type="checkbox"/>	
Detailed infiltration assessment.	<input type="checkbox"/>	
Where possible, detailed evidence of groundwater table levels over recent 12 month period or validated evidence.	<input type="checkbox"/>	
Soaked CBR's where SuDS features are proposed and un-soaked CBR's where traditional drainage is proposed and particle size distribution if required.	<input type="checkbox"/>	
Proposed Design CBR values and road construction thickness by a UKAS Accredited Laboratory.	<input type="checkbox"/>	
22. Contaminated Land Reports Drawings to include:	<input type="checkbox"/>	
Areas of contaminated land	<input type="checkbox"/>	
Borehole and trial pit logs	<input type="checkbox"/>	
23. Title Documents	<input type="checkbox"/>	
Up-to-date coloured Copy Entries of Title or Epitome of Title to the land in question.	<input type="checkbox"/>	

The following notes 1 to 6 shall be incorporated on all drawings submitted:

- 1) *"The specification in all respects shall be in accordance with the Lincolnshire County Council Development Road and Sustainable Drainage Specification and Construction."*
- 2) *"Within the catchment of traditional drainage design, 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 of the Development Road and Sustainable Drainage Specification and Construction. In addition, ensure that the first section of any side road falls away from the road 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.

- 3) *"General deterioration of the existing highway/footway/verges created through construction of the new Section 38 Development will be reinstated to the Development Road and Sustainable Drainage Specification and Construction at the developers' own cost at the agreement of the inspecting Development Management Officer."*
- 4) *"No Private surface water shall discharge onto the adoptable highway."*
- 5) *"No private structural features shall overhang the adoptable highway."*
- 6) *"No private retaining walls exceeding 1.37 metres shall be within 3.66 metres of the highway boundary."*

It should be noted that:

Where the system has been designed on Microdrainage, the developer may wish to submit electronic files from Microdrainage for checking. This will assist in accelerating the check as the design can be analyzed by Microdrainage CasDef/APT.

Should the developer wish to submit AutoCAD files, he should attach the relevant pen setting files (ctb). Plans should be folded to A4 size.