APPENDIX 2

Section 38 Highway and Drainage Design Submission Requirements to Commence Detailed Design Check

This form and checklist must be completed by the Engineering Consultant /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.

Site Name:	Date of Drawing Package Submission:
Site Location & Address:	Planning Number:
Name & Registered Office Address of Developer:	Developer Lead Contact Details (incl. email & telephone):
Name & Registered Office Address of Engineering Consultant:	Engineering Consultant Lead Contact Details: (incl. email & telephone):
Name & Registered Office Address of Solicitor	Solicitor Lead Contact Details: (incl. email & telephone):
Name, Registered Office Address & Lead Contact of Management Company (if applicable - incl. email & telephone):	Company Name, Registered Office Address & Lead Contact of Bond Guarantor (incl. email & telephone):
Type of Drainage Scheme (please tick): SuDS: ☐ Traditional: ☐ Combination: ☐	

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: -

	Information Required	Scale	Drawing No's	Notes
1	**Drawing issue sheet and £1,500 up-front fee**			
2	**Full Planning Permission Notice and approved layout drawing.**			
3	**Site Location Plan.**	1:2500		
4	**SuDS Method Statement / Construction Management Plan.** • A SuDS construction method statement and phasing plan (incorporating temporary site drainage arrangements during construction) is required for all SuDS related construction activities.			
4	**General Section 38/Engineering Layout coloured drawings:** • Areas of proposed highway offered for adoption – coloured green with solid red outline; • Site Boundaries; • Existing buildings (on and around the site); • Positions of all carriageways, footways, footpaths, cycleways, verges, service strips, visibility splays, traffic calming features; • Existing and proposed Foul and Surface Water drainage including gully positions and gully laterals highway drainage needs to be identified in a different colour; • Where applicable, each dwelling draining private surface water to the adoptable highway SuDS, should be clearly identified on the plan and coloured purple; • Watercourses; • Finished ground floor levels; • Storage/attenuation systems; • Outfalls/headwalls; • Existing trees and proposed locations; • Easements to be coloured blue; • Position of dwellings, garaging and/or parking spaces with vehicular crossings, traffic signs, road markings, structures; • Chainage every ten metres; and • Falls and cross-falls of footways and carriageways.	1:500 & 1:1250		

5	**Longitudinal Section Drawing showing:** • Existing and proposed levels for the centre line, channels, gradients and vertical curves; • Surface and Foul Water Drainage profiles, including positions of chambers, gradients, pipe diameters, cover and invert levels and protection; • Highway drainage should be identified in a different colour; • Pipe material; • Pipe strength; • Bedding classification and details; and • Ground water/watercourse levels.	1:500 Horizontal 1:100 Vertical		
6	**Cross Section Drawing showing:** The road intervals of not greater than 30 metres where the adjoining site levels vary 0.5 metres ± from finished footway levels.	1:100 Horizontal 1:50 Vertical		
7	**Standard Detail Drawing showing:** • Typical Cross Sections of carriageway, footway, cycleways surface details, kerb details vehicle accesses, pedestrian crossings with tactiles, 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.	1:10 1:20		
8	**Signs and Lines Drawing showing:** • Site layout plan showing signs and lines in accordance with – The Traffic Signs Regulations and General Direction 2016 & Minor Amendments in 2017; and. Traffic Signs Manual 2003, Chapter 5; and Cross sections of bollard and pole foundations.	1:500		
9	**Streetlighting Drawing showing:** Streetlighting layout plan and specification in accordance with BS 5489.	1:500		
10	**Landscaping Layout Drawing showing:** 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.	1:500		
11	**Specialist Drawings:** • Bridges, Culvert, any pipework over 600mm diameter, headwalls, retaining walls and any other non-standard features; and • Existing Statutory Services and	1:1250		

	utility plans showing surrounding location of proposed development;			
12	**Statutory Consents and other Permissions:** • Discharge consents/licences to watercourses by IDB or others; • Rights to lay pipes on third party land/easements; • Easement details to be shown coloured blue; • Permission of riparian owner for discharge; • S104 Foul and Surface Water Agreements; and • Land drainage consent management company drainage agreements.			
13	**Drainage Strategy, Layout and Construction Details showing:** • Drainage Strategy; • Drainage Masterplan showing multiple phases of construction; • Approved Flood Risk Assessment or Flood Risk Statement; • Contoured flood routing plan to include site contours; • Groundwater levels and location of, and impacts on, any Surface Water Safeguard Zones, Groundwater Safeguard Zones, Water Protection Zones, and/or Groundwater Nitrate Vulnerable Zones; • Manholes; • SuDS Scheme Maintenance Plan; • SuDS method statement relating to all phases; • Attenuation device chambers; • Storage chambers; • Headwalls; and • Other ancillary structures.			
14	**CDM requirements** CDM file containing risk assessments for the design, construction, operation and maintenance of the highway and drainage system.			
15	**Copies of Hydraulic Design Calculations to include:** • Catchment and sub-catchment plan; • Network details; • Simulation results for design storm RP, 1 in 1 RP, 1 in 2 RP, 1 in 30 RP and 1:100 RP plus 30% for climate change; • Storage and attenuation devices; • Soakaway infiltration design; • Soaked CBRs at formation level; • Subgrade particle size distribution; • Typical groundwater table level; and			

	• Other data as required for design.			
16	**Structural calculations for private retaining wall within 3.66 metres of the highway.**			
17	**Ground Investigations:** • Ground Investigation Report incl; • Site description, site history and site work; • Significant constraints (incl. soluble rocks, landslides, shallow mining, shallow groundwater, made ground); • 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 & surface water storage; • Ground stability; • Areas of contaminated land; • Laboratory work; • Geology & geological maps; • Bore hole/trial pit locations and other information; • Detailed infiltration assessment; • Where possible, detailed evidence of groundwater table levels over recent 12-month period or other validated evidence; • Soaked CBRs for all SuDS elements and un-soaked CBRs for traditional pavements, and particle size distribution if required; and • Proposed Design CBR values and road construction thickness by a UKAS Accredited Laboratory.			
18	**Contaminated Land Reports** **Drawings** **Areas of contaminated land Borehole and trial pit logs**			
19	**Title Documents:** Up-to-date coloured Copy Entries of Title or Epitome of Title to the land in question.			

The *following notes* shall be incorporated on all drawings submitted:

1) *"The specification in all respects shall be in accordance with the current Development Road and Sustainable Drainage Specification and Construction publication 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 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 ofjunctions.

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 Highway and Flood Authority 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 analysed 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.