

Appendix A

Surface Water Drainage Proforma

The table below sets out the evidence required within the SuDS submission to demonstrate that both the National Standards and Local Standards have been complied with. The developer should complete the highlighted text boxes in the proforma. (* dependent on options for surface water disposal, ** at outline stage it should be demonstrated that consideration has been given to how the SuDS scheme will be maintained throughout its lifetime, ***at outline stage it should be demonstrated that access is feasible)

Applicant Name	Planning Application Name			
	Application Type (please circle)	Outline	Full	
1. Site Context				
Evidence Required	Outline	Full	Complied With?	Evidence Supplied
1.1 Site location plan	Y	Y		
1.2 Detailed site layout plan at an identified scale with a north arrow		Y		
1.3 Topographical survey of the site, including cross sections of any adjacent watercourses for an appropriate distance upstream and downstream of the proposed discharge point		Y		
1.4 Survey and assessment of Environmental Constraints (identified historic (designated and undesignated), ecological (designated sites, habitats and species) and tree constraints and landscape context.		Y		

2. Site Context

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
2.1 Concept drainage strategy and masterplan demonstrating how SuDS have been incorporated into the site design and how the SuDS system complies with the SuDS Management Train	Y	Y		
2.2 Demonstration that a suitable route for disposal of surface water is feasible and that relevant 'in principle' permissions have been granted.	Y			
2.3 Plan of the proposed drainage system showing catchment areas including impermeable areas and phasing		Y		
2.4 Review of multiple benefits provided by the SuDS scheme using the BeST Tool or another method as appropriate	Y	Y		
2.5 Development phasing plan demonstrating how the SuDS scheme will be implemented		Y		
2.6 Plan showing any existing drainage pathways on the site (including surface water flow paths, ditches, depressions and watercourses and historic drainage features such as drains, leats, water meadows, culverts etc.) and information as to how these are to be incorporated / managed within the wider SuDS scheme.	Y	Y		
2.7 Long sections and cross sections for the proposed SuDS system		Y		

2.8 Details of connections (including flow control devices) to watercourses, sewers, public surface water sewers and highway drains	Y	Y		
2.9 Results of ground investigations or desk top studies / permeability assessment, including infiltration testing where appropriate	Y*	Y		
2.10 Assessment of SuDS system water quality performance	Y	Y		
2.11 Landscape planting scheme where a vegetated SuDS scheme is proposed		Y		

3. Peak Flow Control

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
3.1 Details of pre and post development runoff rates for 100% and 1% Annual Exceedance Probability rainfall events sufficient to demonstrate that the proposed SuDS system should operate as designed	Y	Y		
3.2 Full design calculations to demonstrate conformity with the national non-statutory technical standards for SuDS and Local Standards		Y		

4. Volume Control

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
<p>4.1 Details of pre and post development runoff volumes for 1% Annual Exceedance Probability rainfall events plus an appropriate allowance* for climate change and up to a 10% increase in impermeable area to account for urban creep.</p> <p>* - climate change guidance can be found on the EA's website: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances).</p>	Y	Y		
<p>4.2 Drawings showing location, dimensions and levels of emergency overflows provided for piped and storage features.</p>		Y		

5. Flood Risk Within the Development

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
5.1 Details showing that the drainage is sufficient to accommodate a 3.3% Annual Exceedance Probability rainfall event		Y		
5.2 Details showing that flooding does not occur in a building or susceptible utility plant in a 1% Annual Exceedance Probability rainfall event including appropriate allowances for climate change and urban creep.		Y		
5.3 Details of exceedance flow routes designed to minimise flood risk to people and property. Flow routes should also account for any potential blockage of structures.		Y		
5.4 Drawings identifying sources of water entering the site pre development	Y	Y		
5.5 Drawings demonstrating how surface water flows are routed through the site pre development i.e. existing channels and culverts	Y	Y		
5.6 Drawings demonstrating how surface water flows are routed through the site post development including opportunities for daylighting existing culverts	Y	Y		
5.7 Drawings identifying where surface water flows leave the site pre development	Y	Y		
5.8 Drawings identifying where surface water flows leave the site post development	Y	Y		

5.9 Plan demonstrating flooded areas for the 1% annual exceedance probability (1 in 100 annual chance) storm, including the appropriate allowance for climate change and urban creep, when the system is at capacity and illustrating flow paths for design for exceedance		Y		
5.10 Plans showing the location of the Flood Zones associated with ordinary watercourses on the site	Y	Y		
5.11 Assessment of the impacts of high water levels in receiving watercourses on the operation of SuDS scheme		Y		
5.12 Copy of your Flood Risk Assessment (where required by the National Planning Policy Framework (NPPF)) <i>(Please note that for those sites not requiring a FRA, the developer will be required to submit the other supporting information in this table to enable the LLFA to consider the proposed SuDS system in line with the National Standards and Local Standards.)</i>	Y	Y		

6. Structural Integrity

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
6.1 Technical specifications of drainage design components including design life		Y		
6.2 Loading calculations for drainage system components		Y		
6.3 Category 0 Approval for structures with a diameter greater than 900mm		Y		

7. Designing for Maintenance Considerations

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
7.1 Justification for use of pumps within a SuDS scheme where applicable	Y	Y		
7.2 Maintenance and Operation Manual for the SuDS Scheme at an appropriate level of detail. To include as a minimum responsible party and funding method	Y	Y		
7.3 Management plan and proposed contractual arrangements for the management of the drainage scheme over its lifetime	Y**	Y		
7.4 Maintenance access arrangements for all proposed drainage systems	Y***	Y		
7.5 Operational characteristics of any mechanical features including maintenance and energy requirements		Y		
7.6 Risk assessment demonstrating how the risk of blockages has been minimised		Y		
7.7 Assessment of residual flood risk in the event of pump failure based on parameters above.		Y		

8. Construction

Evidence Required	Outline	Full	Complied With?	Evidence Supplied
8.1 Construction drawings prepared by a suitably competent Engineer giving details of proposed elevations, dimensions, materials to be used and detailing how the proposed SuDS scheme will connect to an existing drainage system.		Y		
8.2 Plan for the management of construction impacts including any diversions, erosion control, phasing and maintenance period (pre adoption)		Y		
8.3 Construction Health and Safety Plan where appropriate. This should be in proportion to the risks involved in the project. Reference may be made to the HSE considering in particular open water, confined spaces and underground services		Y		
8.4 Details of any offsite works required, together with any necessary consents		Y		
8.4 Risk assessment which demonstrates how the construction methodology will minimise damage to existing assets.		Y		
8.6 Contingency plan which demonstrates how any damage to existing assets will be resolved.		Y		