Major Applications Sustainable Drainage Strategy validation checklist

1 Site details

Site name	
Site location and coordinates	
Site description	
Total site area	
Greenfield/previously developed?	
Existing impermeable area	
Proposed impermeable area	
Type of development	

Level of assessment	Detail required
Outline and Full	Requirement applies at both Outline and Full application stage to an appropriate level of detail.
Full only	Requirement applies at full application stage only

2 Plans and drawings

Plans and drawings will be required appropriate to the level of application (Outline/Full) and the size of the development.

	Evidence Required	**Format**	**Submitted?** ✔ ✘
	Site location (minimum 1:2,500 scale)	Plan	
	Existing drainage layout including surface water drainage	Plan, drawing	
	Proposed sustainable drainage layout	Plan, drawing	
	Plan of conveyance and exceedance routes	Plan, drawing	
	Location of storage areas on the site	Plan, drawing	
	Topographical survey of the site	Plan, drawing	
	Detailed drainage layout (minimum scale 1:500)	Drawing	
	Long sections and cross sections of the designed drainage system, including levels and gradients	Drawing	

3 Design statement

A design statement will be required appropriate to the level of application (Outline/Full) and the size of the development.

Evidence required		Format of evidence	Submitted? ✔ ✘
SuDS principles			
Assessment of natural drainage patterns and existing drainage infrastructure (e.g. capacity, condition).		Report	
Surface water is used as a resource, where appropriate (e.g. rainwater harvesting).		Report	
Design follows the Management Train approach.		Report	
Justification of drainage discharge destination, following the discharge hierarchy. If discharge to a surface water sewer is proposed, details of agreed connection with sewerage undertaker are provided. Where sustainable drainage systems are considered to be inappropriate, provide clear evidence to justify this.		Report	
Management of runoff and volumes			
Acceptable pre-and post-development runoff/volume estimation methodology (in-line with Table 24.1, CIRIA SuDS Manual), including details of any assumptions made.		Calculations	
Peak runoff rate from the development for the following events does not exceed peak greenfield runoff rate for the same event: • 1 in 1 year • 1 in 100-year		Report, calculations	
Allowance of 10% for 'urban creep' in post-development calculations.		Calculations	
Runoff volume from the development for the 1 in 100-year, 6-hour rainfall event does not exceed the greenfield volume for the same event.		Calculations	
Details of method used to restrict discharge rates from the site.		Report, calculations	
Long-term storage is provided to limit the runoff volume for the 1 in 100-year rainfall event, with a 40% allowance for climate change.		Report, calculations	
Safe exceedance routes are provided for rainfall in excess of a 1 in 100-year plus climate change, 6-hour event.		Report, calculations	
Components are designed to drain down within a suitable timescale (e.g. half-empty 24 hours after a storm event).		Report, calculations	
Design of each SuDS element has been undertaken in accordance with good practice.		Report	
Details provided of connections to other drainage systems and between SuDS components, keeping water close to the surface.		Report, drawings, calculations	

Evidence required		Format of evidence	Submitted? ✔ ✘
Infiltration			
Infiltration assessment, groundwater monitoring and ground stability reports (if infiltration is proposed).		Report	
Flood risk			
All significant SuDS components are located outside any areas of significant flood risk.		Report, plan	
SuDS system does not: • flood on any part of the site for a 1 in 30-year rainfall event • flood any building or utility plant within the development during the 1 in 100-year plus climate change rainfall event • increase flood risk to adjacent properties.		Report, calculations	
Treatment of runoff			
An appropriate treatment strategy has been provided for the pollution hazard level of the development.		Report	
Runoff does not occur on-site for the majority of small rainfall events (first 5mm rainfall depth).		Report, calculations	
Runoff is treated to an acceptable standard within the site, in accordance with the SuDS management train approach.		Report, calculations	
Habitat provision			
The system is on the surface, contains visible vegetated components, and will form part of the local green infrastructure.		Report, plans	
The drainage system will support and protect natural local habitats and species.		Report	
Visual impact			
The drainage scheme integrates water into the landscape design, and enhances the visual character of the development.		Report, plans, photographs	
Conservation of landscape and heritage			
The proposed scheme conserves any existing cultural, historical and landscape features.		Report, plans, photographs	
Climate change			
Use of SuDS in moderating of temperatures through evaporative cooling, reflectance and shading has been exploited		Report	
Amenity			
Opportunities have been taken to provide recreation and promote education, health and wellbeing.		Report	
The proposed drainage components are safe for any proposed amenity use.		Report	
Community engagement			
Engagement with existing and new communities and awareness raising within design proposals.		Report	

4 Maintenance and construction

Maintenance plans and construction method statements will be required appropriate to the level of application (Outline/Full) and the size of the development.

Evidence Required		Format of evidence	Submitted? ✔ ✘
Operation and Maintenance			
Maintenance Plan covers the proposed drainage system over its lifetime (125 years)		Report	
The SuDS design is low maintenance. If pumping is required for operation of the system, evidence that all other possible alternatives have been considered.		Report	
Whole life maintenance costs provided for the proposed drainage system (125 years).		Report	
Acceptable operation and maintenance costs for the adopting body (including any pumping requirements)		Report, letter/email correspondence	
Designed drainage system components are robust and resilient.		Report	
Construction			
Suitable construction method statement.		Report	
Record of all necessary consents obtained for on or off-site works.		Certificate or letter/email correspondence	
Proposed materials are of a suitable nature and quality for their intended use.		Report	
The proposed components are safe to construct, maintain and operate.		Report	
Agreed temporary measures are in place to prevent flooding to the site and surrounding area prior to completion of the drainage system.		Report	

5 Adoption arrangements

Evidence Required		Format of evidence	Submitted? ✔ ✘
Adoption			
A suitable organisation or individual will adopt the scheme. Include relevant evidence of commitments.		Report, letter/email correspondence	
Health and Safety			
Health and Safety plan.		Report	
Records			
As-constructed drawings of drainage system.		Detailed drawings	
CCTV Survey Report (for underground features at the end of the maintenance period).		Survey report, photographs	
Record of easement agreements.		Report, letter/email correspondence	
Record of commuted sums.		Report, letter/email correspondence	