S104 SuDS Technical Appraisal Form
Ponds & Wetlands

Version 3 (October 22)

Proposed Section 104 Development at
UU Reference –

Section 1 - Information required for SuDS assessment

Note: any item selected as 'not submitted' will need to be provided to support and progress the application to Technical Acceptance.

Section 1 **Information required**	**Submitted**	**Not submitted**	**N/A**	**Designer** Tick to highlight where information noted as 'not submitted' has now been provided
• SuDS component(s) drawing / included on S104 Agreement Plan See UU S104 SuDS guidance document, comment 1 for further information	☐	☐	☐	☐
• Sectional Drawing(s)	☐	☐	☐	☐
• Completed CIRIA SuDS checklist See C753 The SuDS Manual Appendix C: Ponds & Wetlands	☐	☐	☐	☐
• Completed CIRIA SuDS health and safety checklist See C753 The SuDS Manual Appendix B: SuDS health and safety risk assessment checklist	☐	☐	☐	☐
• SuDS Component(s) Management & Maintenance document	☐	☐	☐	☐
• Maintenance inspection plan This must include access details for inspection and all maintenance requirements including machinery.	☐	☐	☐	☐
• 1:20 sectional catch pit manhole details	☐	☐	☐	☐
• Landscape plan and planting schedule See UU S104 SuDS Landscape & Planting guidance document for further information	☐	☐	☐	☐
• SuDS hydraulic assessment information See UU S104 SuDS guidance document, comment 5 for further information	☐	☐	☐	☐
• Flood route plan for any exceedance flows from the SuDS Component	☐	☐	☐	☐
• Simple Index Approach (SIA) Assessment / Mitigation Indices for Water Quality **(applicable for mixed use /commercial sites only)** See chapter 26.7.1 of CIRIA C753 for guidance	☐	☐	☐	☐
• Flood Risk Assessment	☐	☐	☐	☐
• Site Investigation containing geotechnical information	☐	☐	☐	☐
• Topographical survey This drawing must be a full topographical survey of the existing site, with contour to record levels at 500mm intervals as a minimum for large greenfield sites. For small/urban/very flat sites, closer level differences may be required along with spot levels for onsite surface features and changes of level.	☐	☐	☐	☐

Section 2 – High level comments

Comment number	**Engineer General comments**	**Yes**	**No**	**TBC**	**Designers response comments (only applicable where 'NO' or 'TBC' is selected for points 2-5)**
1	The component is adequately distanced from any adjacent structures/features (i.e. existing sewers, pumping station, retaining walls etc.) and does not pose a risk in relation to flooding, pollution or slope stability	☐	☐	☐	
2	The topography, shape & location is suitable for the components proposed See UU S104 SuDS guidance document, comment 2 for further information	☐	☐	☐	
3	Maintenance access is acceptable for the SuDS component(s) and responsibilities detailed in management and maintenance plan (i.e. adopting body / management company) See UU S104 SuDS guidance document, comment 2 for further information	☐	☐	☐	
4	The component is outside any area of significant flood risk See UU S104 SuDS guidance document, comment 3 for further information	☐	☐	☐	

Section 3 – Design requirements

Note: any points marked as 'No' or 'TBC' will require amendments to the design / drawings.

Ponds & wetlands

For full design requirements, please refer to Chapter 23 of CIRIA C753

Hydraulics (Chapter 23.4), Maintenance (Chapter 32) & Health and safety (Chapter 36)	**Yes**	**No**	**TBC**	**N/A**	**(Designer)** Tick to confirm addressed with resubmission
SuDS assessment acceptable	☐	☐			
Is the component appropriately dimensioned See UU S104 SuDS guidance document, comment 2 for further information	☐	☐	☐	☐	☐
Length / width ratio for online ponds/wetlands confirmed to be between 3:1 and 5:1	☐	☐	☐	☐	☐
The component is represented correctly in the hydraulic model See UU S104 SuDS guidance document, comment 4 for further information	☐	☐	☐	☐	☐
Inflow velocities acceptable See UU S104 SuDS guidance document, comment 4 for further information	☐	☐	☐	☐	☐
Suitable head loss' applied in the model See UU S104 SuDS guidance document, comment 4 for further information	☐	☐	☐	☐	☐
Water depths acceptable See UU S104 SuDS guidance document, comment 4 for further information	☐	☐	☐	☐	☐
Flow control outlet diameter acceptable See UU S104 SuDS guidance document, comment 4 for further information	☐	☐	☐	☐	☐
Inlet discharge level acceptable Must freely in 2yr event, or the surcharge risks justified	☐	☐	☐	☐	☐
The flood routing and velocities for exceedance flow is acceptable See UU S104 SuDS guidance document, comment 4 for further information	☐	☐	☐	☐	☐
Slope gradients acceptable See UU S104 SuDS guidance document, comment 5 for further information	☐	☐	☐	☐	☐
Effective pre-treatment has been provided See UU S104 SuDS guidance document, comment 6 for further information	☐	☐	☐	☐	☐
Erosion protection measures acceptable See UU S104 SuDS guidance document, comment 7 for further information	☐	☐	☐	☐	☐
Aquatic bench should be a maximum depth of 400mm below the permanent water level (**applicable to planted ponds only**)	☐	☐	☐	☐	☐
Inlet and outlet connection details acceptable See UU S104 SuDS guidance document, comment 8 for further information	☐	☐	☐	☐	☐
Positioning of structures (including headwalls) do not result in any vertical drops higher than 1.2m	☐	☐	☐	☐	☐
Lining specification is acceptable See UU S104 SuDS guidance document, comment 9 for further information	☐	☐	☐	☐	☐
Planting and vegetation proposals are acceptable See UU S104 SuDS Landscape & Planting guidance document for further information	☐	☐	☐	☐	☐

Section 4 – Drawing requirements

S104 Agreement Plan and Land Registry Plan requirements	**Yes**	**No**	**TBC**	**N/A**	**(Designer)** Tick to confirm addressed with resubmission
Both drawings contain all relevant component information?	☐	☐			
Component offered for adoption is coloured purple	☐	☐	☐	☐	☐
A 2m easement is be applied around the full perimeter of the component, coloured in yellow and dimensioned	☐	☐	☐	☐	☐
The following requirements are relevant to the S104 Agreement Plan only;					
Component type noted correctly (i.e. pond/wetland)	☐	☐	☐	☐	☐
Dimensions shown (length at longest point in addition to the width at widest point, both at the bottom and top of the component)	☐	☐	☐	☐	☐
The area of the pond/wetland in m^2 noted on the drawing	☐	☐	☐	☐	☐
The inlet level and outlet level are to be clearly noted, in addition to the top of bank level, bed level and permanent water level	☐	☐	☐	☐	☐
Temporary storage volume is noted in m^3 and matches the hydraulic model	☐	☐	☐	☐	☐
Gradient of the side slopes labelled	☐	☐	☐	☐	☐
Borehole locations shown	☐	☐	☐	☐	☐
Full design detail shown See UU S104 SuDS guidance document, comment 10 for further information	☐	☐	☐	☐	☐
Erosion protection measures detailed at inlet points	☐	☐	☐	☐	☐
Ancillaries are clearly identified (i.e. catch pit manholes and flow control manholes)	☐	☐	☐	☐	☐
Sectional Drawing	☐	☐			
Maximum water levels for the following storm events; 2, 30, 100 & 100+cc year events For sites with Pumping Stations, the 200 year water level also needs to be noted to confirm compliance with Design & Construction Guidance (D5.1.2)	☐	☐	☐	☐	☐
3.5m bench, permanent pool, attenuation storage volume & aquatic bench have been noted See UU S104 SuDS guidance document, figures 23.4, 23.5 & 23.6 for further information	☐	☐	☐	☐	☐
The inlet level and outlet level are to be clearly noted, in addition to the top of bank level, bed level & permanent water level	☐	☐	☐	☐	☐
Slope gradients shown	☐	☐	☐	☐	☐
Erosion protection measures detailed at inlet points	☐	☐	☐	☐	☐
Full design detail shown including materials See UU S104 SuDS guidance document, comment 10 for further information	☐	☐	☐	☐	☐