SITE DRAINAGE OPERATION & MAINTENANCE

1. Introduction

This statement provides a general outline of the maintenance regime to be adopted for the SuDS provisions relating to the development at 45-46 Chesham Road, Bovingdon. The maintenance regime covers the operation of such SuDS components on the site for the lifetime of their design. It is to be read in conjunction with The SuDS Manual CIRIA C697, 2015 and all other drawings and documents including:

1) Edge Structure's drawings and documents.
2) Manufacturer's instructions and maintenance manuals.

The SuDS considered for the purposes of this statement include drainage features that will be employed to attenuate and manage surface water runoff for the storm event of critical duration, for return periods up to and including 100 years plus climate change.

Roof runoff will be directed to one of 4No.geocellular systems. These are located below the central car park and below the gardens of Plots 1-4. The geocellular tanks will attenuate surface runoff from the site.
Surface water is to be discharged to the local Thames Water trunk sewer on Chesham Road.

For more detailed information, including location, purpose and maintenance of features, refer to the following sections:

Attenuation storage
Other drainage infrastructure

2. Maintenance Responsibilities

The party or parties responsible for the maintenance of the attenuation storage and other drainage infrastructure is / are to be confirmed.

3. Attenuation storage

Attenuation storage crates are provided below the central car park and below the gardens of Plots 1-4.

The crates are lined in an impermeable membrane, so there will be no infiltration into the surrounding soil.

To minimise the build-up of silt within the tank, a, silt trap is installed to each inlet and outlet Silt traps will be inspected at least once a year and cleared as necessary.

Regular inspection and maintenance will be required to ensure the long-term operation of below ground storage systems.

The tenants and landscape gardeners and who maintain the site are to be informed of the general locality of the tanks to prevent overload and instructed to report any deflections on the surface which may indicate failure of the attenuation crates.

Table 1: Attenuation storage maintenance

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required
Remedial Actions	Repair/rehabilitate inlets, outlets, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build up and remove if necessary	Every 5 years or as required

4. Other drainage infrastructure

The Drainage Network will be inspected annually with all manholes lifted to check for obstructions. Each drain run will tested with the addition of water to check that the flow is satisfactory. Where blockages and obstructions are found, these are to be investigated and cleared as appropriate. The system will be inspected every 3 years by CCTV to check its structural integrity and repairs undertaken as appropriate.

Silt traps will be inspected and cleared annually.

Table 2: Example proprietary treatment system maintenance

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Remove litter and debris and inspect for sediment, oil and grease accumulation	Six monthly
	Change the filter media	As recommended by manufacturer
	Remove sediment, oil, grease and floatables	As necessary- indicated by system inspections or immediately following a significant spill
Remedial Actions	Replace malfunctioning parts or structures	As required
Monitoring	Inspect evidence of poor operation	Six monthly
	Inspect filter media and establish appropriate replacement frequencies	Six monthly
	Inspect sediment accumulation rates and establish appropriate removal frequencies	Monthly during first half year of operation, then every six months

Appendix A

Inspection Checklist

General Information			
Site ID			
Site location and co-ordinates (GIS if appropriate)			
Elements forming the SuDS scheme		Approved drawing reference	
Inspection Frequency		Approved specification reference	
Type of development		Specific purpose of any parts of the scheme	

Inspection Date	Details	Y/N	Action Required	Date Completed	Details	Y/N	Action	Date Completed
General Inspection Items								
Is there any evidence of erosion, channelling, ponding (where not desirable) or other poor hydraulic performance?								
Is there any evidence of accidental spillages, oils, poor water quality, odours or nuisance insects?								
Have health and safety risks been identified to either the public or maintenance operatives?								
Silt/Sediment Accumulation								
Is there any sediment accumulation at inlets (or other defined accumulation zones such as the surface of filter drains or infiltration basins and within proprietary devices)? If yes, state depth (mm) and extent. Is removal required? If yes, state waste disposal requirements and confirm that all waste management requirements have been complied with (consult environmental regulator)								
Is surface clogging visible potentially problematic where water has to soak into the underlying construction or ground (eg. under drained swale or infiltration basin)?								
Does permeable or porous surfacing require sweeping to remove silt?								

Inspection Date	Details	Y/N	Action Required	Date Completed	Details	Y/N	Action	Date Completed
Is there evidence of litter accumulation in the system? If yes, is blockage a risk?								
Is there any evidence of any other clogging or blockage of outlets or drainage paths?								
Is the vegetation condition satisfactory (density, weed growth, coverage, etc.)? (check against approved planning regime)								
Does any part of the system require weeding, pruning or mowing? (check against maintenance frequency state in approved design)								
Is there any evidence of invasive species becoming established? If yes, state action required								
Are any check dams or weirs in good condition?								
Is there any evidence of any accidental damage to the system (eg wheel ruts)?								
Is there any evidence of cross connections or other unauthorised inflows?								
Is there any evidence of tampering with the flow control?								
Are there any other matters that could affect the performance of the system in relation to the design objectives for hydraulic, water quality, biodiversity and visual aspects?								