

University of Hertfordshire - Social Hub

Sustainable Drainage Maintenance Plan

• London

1 – 5 Offord Street
London N1 1DH
Telephone 020 7700 6666

Norwich

6 Upper King Street
Norwich NR3 1HA
Telephone 01603 628 074

Cambridge

16 Signet Court Swann Road
Cambridge CB5 8LA
Telephone 01223 656 058

design@conisbee.co.uk
www.conisbee.co.uk

Ref: 180149/J Courtney

Approved By: T Gavaza

Date: 8 Oct 2018

Version: P1

Directors

Tim Attwood BSc CEng MStructE
Bob Stagg BSc (Hons) CEng FStructE MICE
Tom Beaven BEng (Hons) CEng MStructE
Allan Dunsmore BEng (Hons) CEng MStructE MICE
Richard Dobson MEng CEng MStructE
Paul Hartfree IEng MICE MCIHT FGS

Associates

David Richards BEng (Hons) ACGI CEng MStructE
Gary Johns
Terry Girdler BSc (Hons) Eng MSc CEng FICE MStructE
Conservation accredited engineer (CARE)
Ben Heath BEng CEng MStructE
Tom Lefever BEng (Hons) CEng C.WEM MICE MCIWEM
Nigel Nicholls IEng AMStructE
Denis Kealy BEng (Hons) CEng MIEI MStructE
Tapiwa Gavaza BSc (Civils Hons) MSc CEng CEnv MICE MIEMA
Kevin Clark BSc (Hons) PhD DIC CEng MICE

Consultant

Alan Conisbee BA BAI CEng MStructE
Conservation accredited engineer (CARE)
Chris Boydell BSc CEng MStructE MICE

Conisbee is a trading name of
Alan Conisbee and Associates Limited
Registered in England No. 3958459



2010/586 London branch



Table of Contents

1.0 Introduction 3

2.0 Organisation Responsible 3

3.0 Conventional Drainage Systems 3

4.0 SuDS Features 4

5.0 SuDS Programme 5

6.0 Operation and Maintenance Manual Records 5

1.0 INTRODUCTION

The purpose of this document is to outline the proposed maintenance schedule for the drainage system and all SuDS features for the proposed Social Hub at the University of Hertfordshire Social Hub.

The maintenance schedule set out here complies with the CIRIA SuDS Manual (C753), which is identified as providing current best practice in the industry. The report does not replace manufacturers' requirements and these should be followed for each product in addition to the information in this document.

For the proposed extents of SuDS features on a plan drawing, please refer to the separate drainage layout plans and drainage strategy report.

2.0 ORGANISATION RESPONSIBLE

The University of Hertfordshire, will be responsible for undertaking maintenance of the proposed drainage for the whole life of the site.

3.0 CONVENTIONAL DRAINAGE SYSTEMS

3.1 Gullies, Silt Traps, Manholes, Catchpits & Pipework

On completion of construction, the internal surfaces of the sewers and manholes shall be thoroughly cleansed to remove all deleterious matter, without such matter being passed forward into the existing sewers.

All trapped gullies, silt traps, manholes and catchpits are to be regularly inspected every three months and cleared out on a regular frequency for the first nine months. After this period, the frequency can be reduced to every six months.

All drainage runs will be inspected once a year. The system is to be jetted clear if/when necessary.

3.2 Flow controls (including Hydrobrakes)

The manhole containing the flow control is to be regularly inspected once a year and any debris and silt are to be removed from the sump and manhole.

Hydrobrakes / vortex flow controls should be maintained in accordance with the manufacturer's requirements.

4.0 SUDS FEATURES

4.1 Introduction

The following SuDS measure is proposed for the Social Hub:-

- Below Ground Attenuation Tank

During the first year of the operation of all types of SuDS should be inspected at least monthly and after significant storm events to ensure that the system is functioning as designed and that no damage or faults are evident.

It is recommended that a report on the condition of the SuDS is undertaken further to an inspection at least once annually.

4.2 Below ground attenuation tank

Regular maintenance and inspection of below ground attenuation tanks are required to ensure the effective long term operation of attenuation tanks. The main activity is associated with dealing with debris and silt.

Before connecting a newly constructed upstream drainage system to an attenuation tank, the new drainage system should be jetted and cleaned thoroughly.

Table 1 provides the proposed operation and maintenance regime for the attenuation tanks. This is adapted from The SuDS Manual (C753).

Table 1: Operation and maintenance requirements for below ground attenuation tank

Maintenance Schedule	Required Action	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
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter, remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays.	Annually, or as requested
Remedial	Repair/rehabilitate inlets, outlet, overflows and vents.	As required

actions		
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 the tank for sediment build –up and remove if necessary	Every 5 years or as required

5.0 SUDS PROGRAMME

The proposed SuDS for the site will come on line approximately Summer 2020.

The contractor should ensure that during the construction phase the SuDS are not damaged by construction works.

6.0 OPERATION AND MAINTENANCE MANUAL RECORDS

6.1 Documents to be handed over

Conisbee will provide this document to Willmott Dixon, who will provide the document to the construction contractor, Willmott Dixon will also include it in the Operation and Maintenance Manual to be handed over to the University of Hertfordshire.

The University of Hertfordshire will have copies of the drainage design drawings which show locations of the proposed SuDS and any ‘as-builts’ provided by the contractor.

6.2 Maintenance Records

The University of Hertfordshire will be provided with the standard proforma in Appendix B of The SuDS Manual to enable them to record the outcomes of inspections.