
Subject Drainage Maintenance Plan

Date 7 May 2021

Job No/Ref REP-CD-002 - RevA

1 Introduction

The drainage system proposed is shown on 63048-ARP-XX-XX-DR-D-5001.

All works should be undertaken by suitably qualified personnel and waste should be treated and removed by an appropriately registered company.

2 Drains

The main objective of this document is to establish procedures to ensure the drainage system functions appropriately in the long term within an environment of fiscal control.

Maintenance includes:

- Local repair or local replacement of damaged pipes or other structures in order to maintain the functioning of the drain.
- Cleaning and removal of sediments, obstructions, etc. to restore the hydraulic capacity.
- Jetting/vacuum of drains to be undertaken as often as necessary to remove silts and/or ordinary debris.
- In the event that any extraordinary issues are encountered during an inspection, further information may be required such as a CCTV survey report.
- Maintenance to be undertaken on a six-month schedule.

To avoid damaging the pipe, PSI pressures need to be verified before jetting of plastic twin wall drain. Cleaning of drainage systems may require the temporary sealing of the system and careful collection of the effluent for disposal off site.

3 Channel Drainage

Channel drainage should be inspected regularly to ensure that the system maintains the original hydraulic capacity, the aesthetic appearance and ensures safety issues for pedestrians and vehicle traffic are identified.

Channel drainage should be inspected at least once a year, and incorporated into a planned maintenance schedule. The frequency of inspection and maintenance depends on the local environment and conditions.

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The grating should be kept clear at all times to ensure uninterrupted flow of surface runoff into the channel drain. Any debris should be removed.

The seating areas for the grate should be cleaned before they are replaced. The covers and grates should be locked into position to prevent these being removed, stolen or dislodged by traffic.

4 Cellular Attenuation Tank

Regular inspection and maintenance is important for the effective operation of the attenuation tank. CIRIA's SUDS manual C753 Table 21.3 recommends the following regime for attenuation tank.

TABLE 21.3 Operation and maintenance requirements for attenuation storage tanks			
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	
	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 required	
Remedial actions	Repair/rehabilitate inlets, outlet, 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	

Maintenance specific to the site should include regular inspection and maintenance of the catch pit manholes.

Additional maintenance requirements specific to the attenuation tank will be confirmed by the supplier as part of the Operation and Maintenance Manuals as these tend to be product specific requirements.

5 Flow Control Chambers

The surface water drainage network has a discharge restriction, which is controlled by a flow control device.

Regular inspections of the flow control chamber should be carried out to ensure that debris that may obstruct the inlet to the flow control is not present. The frequency of inspection will depend on the location of the unit. Is recommended initial inspections should be on a 3 months basis for the first year followed by a 6 months basis thereafter.

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In the event that the inlet to the control unit becomes blocked, the pivoting bypass door may be operated by pulling the wire rope attached upwards to drain down the chamber and provide access for maintenance.

6 Manholes / Access Chambers

All manhole covers should be lifted, and the manholes visually inspected for silt, debris and signs of blockages within the drainage system. Check manhole covers and frames for damage and ensure correctly bolted together. This should be undertaken on a six months basis.

Should any debris or blockages be detected, the manholes should be cleaned along with associated pipe runs which should be high pressure jetted and CCTV surveyed to verify/identify that no further remedial works are required.

7 Health and Safety

Employers shall, so far as is reasonably practical, provide and maintain systems of work that are safe and without risks to health. The systems of work shall cover all aspects of the works including above-ground operations (for example manhole location), access to the drainage system and all operations in the confined space of the drainage system.

8 Record History

The site/maintenance manager shall be responsible for recording and updating details of prior maintenance and operations, which can be made available for future reference.

The site/maintenance manager shall also be responsible for scheduling future maintenance in accordance with the necessary requirements of each component, create a fixed timetable of routine checks and ensure that the maintenance is undertaken appropriately.