
Job Title

Lower Campfield Market

Prepared for

Manchester City Council

Report Type

Drainage Strategy - Maintenance

Date

29 July 2024



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Drainage Strategy - Maintenance

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Civic Job No. 2302-01

Issued 29 July 2024

Revised --

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1. Maintenance

The following document outlines the maintenance requirements for the project site. The responsibility of the required maintenance falls to multiple authorities, the below schedules set out which organisations are responsible for the various maintenance regimes.

1.1 General

This section is intended to give an overview of the operation and maintenance for the drainage features included with the drainage strategy and in relation to typical details. Where propriety products are specified, the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints.

The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

The existing surface water network has been retained. Remedial works are to be carried out to bring the existing network into serviceable condition. This includes the clearing of deposits and the remediation of cracking, holes and joint misalignments that have been discovered onsite to date, as well as any defects discovered during construction. Extents and methodology of remediation works to be scoped by Contractor and approved by Civic Engineers.

1.2 Components

The following components have been included within the drainage design for the proposed development:

- Inspection and manhole chambers, rodding eyes
- Pipes
- Trapped Floor gullies

The proposed locations of the components are indicated on Civic Engineers drawings:

- 2302-01-CIV-XX-01-D-C-10006

Table 1 below shows the maintenance responsibilities of the various components.

Table 1 - Maintenance Responsibility

Component	Maintenance responsibility
Private inspection chambers, manholes and Rodding eyes (Internal)	Maintenance company
Private inspection chambers and manholes (public domain)	Maintenance company
Pipes (Internal)	Maintenance company
Pipes (External)	Maintenance company
Trapped Floor gullies	Maintenance company
Rodding Eyes	Maintenance company

A suitable maintenance strategy should be adopted to ensure the drainage network is cleaned regularly and the routine maintenance and cleansing regime should be documented.

A copy of the final construction drainage layout should be provided in the final operations and maintenance manual.

It is recommended that the drainage system is inspected as a minimum twice a year, with the system also being inspected after any major storm event.

Long-term management practices include regular sweeping of areas served by trapped gullies. The sweeping program will remove sediment and contaminants directly from surfaces before they become mobilised and transported to the drainage system. Sand and silt must not be disposed of into the drainage network.

1.3 Inspection and Manhole Chambers, and Rodding eyes

Access points have been located at the head of each run, at a change in direction and at a change of pipe size in accordance with building Regulations Part H.

The appropriate health and safety equipment must be used when accessing manholes. Confined space certificates must be held by any personnel entering a manhole and the appropriate permits should be obtained from the maintenance manager prior to any access. Double locked and sealed manholes must be sealed and locked correctly post maintenance operation.

1.4 Pipes

Pipes are proprietary products, and the materials can vary across the site and as such where used the manufacture's recommendations should be followed. Regardless of the product used the pipes will be fully compliant with Civic Engineers drainage specification.

Existing surface water drainage network has been proposed to be remediated and retained. Inspection required 12 after the completion of remedial works to ensure no issues have arisen with the repair work that was carried out.

Pipes are intended to be the main conveyance across the development. Pipes indicated for surface water are intended to be dry except for during rainfall events. All pipes which are proposed around the site have been designed such that they are considered to be self-cleansing.

Access for maintenance is provided through rodding eyes, access chambers and manholes. Proposed foul stub stacks to be fitted with access points to allow use of cleaning equipment or the insertion of testing apparatus.

Regular inspection and maintenance are important to identify areas which may have been obstructed/clogged and may not drain correctly thus exposing the development to a flood risk.

Table 2 overleaf shows the maintenance schedule for pipes, the actions required and the frequency of which these actions need to be undertaken.

Table 2 - Maintenance Schedule for Pipes

Maintenance schedule	Required action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Initial inspection should be provided as post construction CCTV survey.	N/A
Regular maintenance/inspection	Inspect for evidence of poor operation via water level in chambers. If required, take remedial action.	Quarter-Annually, 48 hours after large storms.
Remedial action	Rod through poorly performing runs as initial remediation.	As required
	If continued poor performance jet and CCTV survey poorly performing runs.	As required
	Seek advice as to remediation techniques suitable for the type of performance issue and location.	As required if above does not improve performance.

1.5 Trapped Floor Gullies

Floor gullies should be inspected and cleaned in accordance with the manufacturer's details.

Locking bolts should be replaced and sufficiently tightened, taking care that the bolt heads do not stand above the top surface of the cover or grate. If covers can move within their frame, this may cause damage to the frame or seating.

Sediment/material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas.

Below, Table 3 shows the maintenance schedule for gullies, the actions required and the frequency of which these actions need to be undertaken.

Table 3 - Maintenance Schedule for Gullies

Maintenance schedule	Required action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Initial inspection including inner gulley trap.	Half yearly.
Regular maintenance/inspection	Litter and debris removal	Monthly or as required.
	Inspect for evidence of poor operation and. If required, take remedial action.	Quarter Annually.
Remedial action	Inspect inner gulley trap as initial remediation.	As required.