



Site Investigation Report

Auger Ref:



Job Information	
Client	Crawford & Co - Axa (Subsidence)
Client ref	
Visit date	17/03/2021
Report date	23/03/2021











lob Information

Overview

Brief

Auger were commissioned by Crawford & Co - Axa (Subsidence) to undertake a site investigation and CCTV inspection of the underground drainage within the area of concern at the property.

Findings

Line 1 - From MH1 upstream to MH2

Our CCTV survey revealed Cracking and joint displacements 6.7m and 8.1m upstream, this will be resulting in an escape of water

Line 2 - From MH1 upstream to WG1

Our CCTV survey revealed Cracking and joint displacements 1.0m upstream form MH1 and directly downstream from WG1, this will be resulting in an escape of water

Drain Survey

Line 3 - From MH1 upstream

There were no defects noted within the line which could be allowing an escape of water. The line was seen to be free flowing and serviceable.

Line 4 - From MH1 downstream

Our CCTV survey revealed Cracking and joint displacements throughout the line downstream to the property boundary, this will be resulting in an escape of water

The above mentioned defects to the below ground drainage system have been caused by ground movement.

Recommendations

It is recommended that the following repairs are carried out to prevent an escape of water from the system:

 $\textbf{Line 1-} \ \text{Auger recommend to install 100mm patches 6.7m and 8.1m upstream from MH2}$

Refer Back to Client

Line 2 - Auger recommend to install 1.5m of 100mm liner from MH1 upstream and then to excavate and replace WG1 and 1.0m of 100mm pipework at a depth no greater than 1.0m through decking over concrete. A specialist will be required to reinstate decking

Line 4 - Auger recommend to excavate and replace 1.0m of 150mm pipework directly downstream from MHI through the manhole wall then install 5.0m of 150mm flexi liner downstream to the boundary

Auger have not allowed or will not be held responsible for any alteration or modification to the above ground drainage following the removal of the existing gully and reinstatement of a new gully. The customer must ensure that the above ground drainage correctly expels into the gully pot and avoids overcrowding the gully with numerous downpipes which could lead to the gully overflowing.

We will now refer the claim back to the client in order to progress.

Once repairs have been undertaken the customer should ensure the drainage system is periodically inspected in the future for any deterioration and kept free flowing / free of blockages. Any damage noted during future inspections should be repaired immediately in accordance with current Building Regulations.

With any repair process, complications and unforeseen circumstances can arise. These scenarios will be reported whilst on-site and could potentially cause an increase in repair costs and inconvenience.

 $Where any excavation \ reinstatement \ of the surface \ is \ required, the \ reinstatement \ will \ always \ attempt \ to \ match \ the \ previous \ surface \ patterns \ and \ colouring, however \ we \ cannot \ guarantee \ an \ exact \ match.$

Caveats

If any of the above lining recommendations fail then excavation and replacement of the pipework would be required. This would severely increase the cost of repairs and would provide greater inconvenience to the residents.

Recommendations have been made to reline or patch reline sections of the drainage system at the property. This process combines a number of chemicals in a resin, which then harden in a fibreglass matting to create a new section of drain within the original. The reaction creates a strong smell which can linger for up to 72 hours once works are completed - this is not harmful. It is recommended that any areas where smells are experienced are kept well ventilated until the odour subsides.

The above recommendations allow for the replacement of gullies & connected underground drainage only. The insured should be made aware that the aesthetic appearance of this gully may be different from what is currently in place.

Photographs

CCTV Stills

Fig 1.1: Line 2, joint displacement



Fig 1.2: Line 4, displaced interceptor tran



Fig 1.3: Line 4, cracking



Fig 1.4: Line 1, cracking



Other Photos

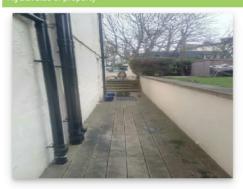
Fig 2.1: Side of property

Fig 2.2: MH1





Fig 2.3: Side of property



CCTV Survey – Inspection Listings (WRc Guidelines Applied)

 Direction
 Upstream
 From Promise
 MH1

 Pipe Size (mm)
 150MM
 Depth (m)
 2M

 Pipe Material
 Cl
 To
 MH2

0.0m Start of Survey Length
6.7m Material Change (VC)
6.7m Dimension of Sewer Changes
6.7m Dimension of Sewer Changes
8.2m Crack - Circumferential
8.6m Finish of Survey Length (MH2)

LINE 2

 Direction
 Upstream
 From Promise
 MH1

 Pipe Size (mm)
 100MM
 Depth (m)
 2M

 Pipe Material
 VC
 To
 WG1

 0.0m
 Start of Survey Length

 0.1m
 Crack - Circumferential

 0.3m
 Joint Displacement - Medium

 0.5m
 Joint Displacement - Medium

2.5m	Joint Displacement - Medium
2.8m	Finish of Survey Length (WG1)

2.5m 2.8m		placement - Medium f Survey Length (WG1	
LINE 3			
Direction	Upstream	From	MH1
Pipe Size (mm)	100MM	Depth (m)	2M
Pipe Material	VC	То	US

0.0m	Start of Survey Length	
0.0m	Start of Survey Length	
0.1m	Crack - Circumferential	
0.2m	Joint Displacement - Medium	
0.6m	Crack - Circumferential	
0.9m	Joint Displacement - Medium	
1.3 m	Finish of Survey Length	

LINE 4			
Direction	Downstream	From	MH1
Pipe Size (mm)	150MM	Depth (m)	2M
Pipe Material	VC	То	LWA

0.0m	Start of Survey Length
0.1m	Fracture - Multiple
0.8m	Crack - Circumferential
1.5m	Crack - Circumferential
2.3m	Open Joint - Medium
3.3m	Fracture - Circumferential
10.5m	Finish of Survey Length (LWA)

