RIVER CREST
SURVEYORS

Project Report

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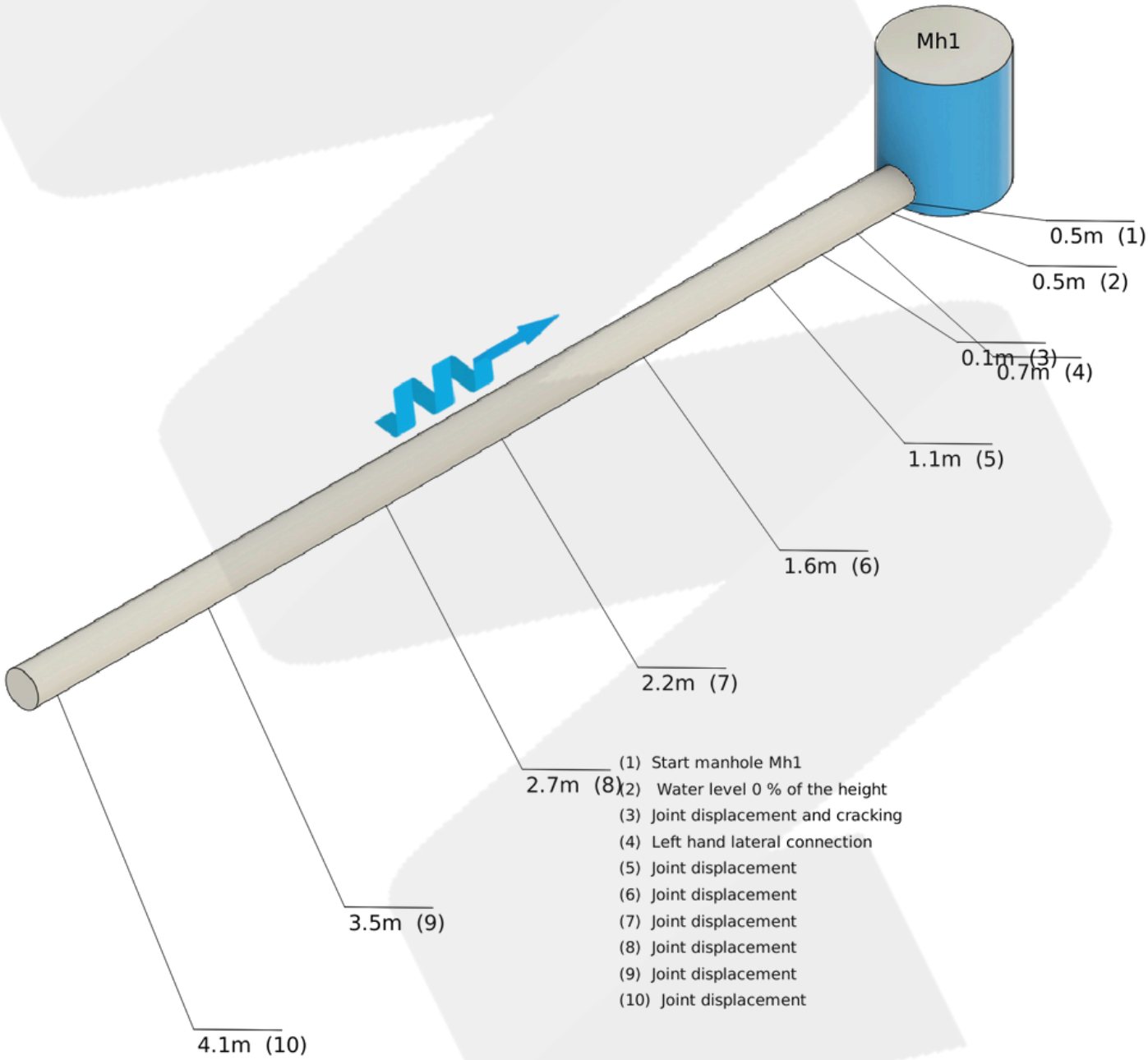
mina®	**Project Information**	
Engineer: River Crest Surveyors	Date:	Reference:

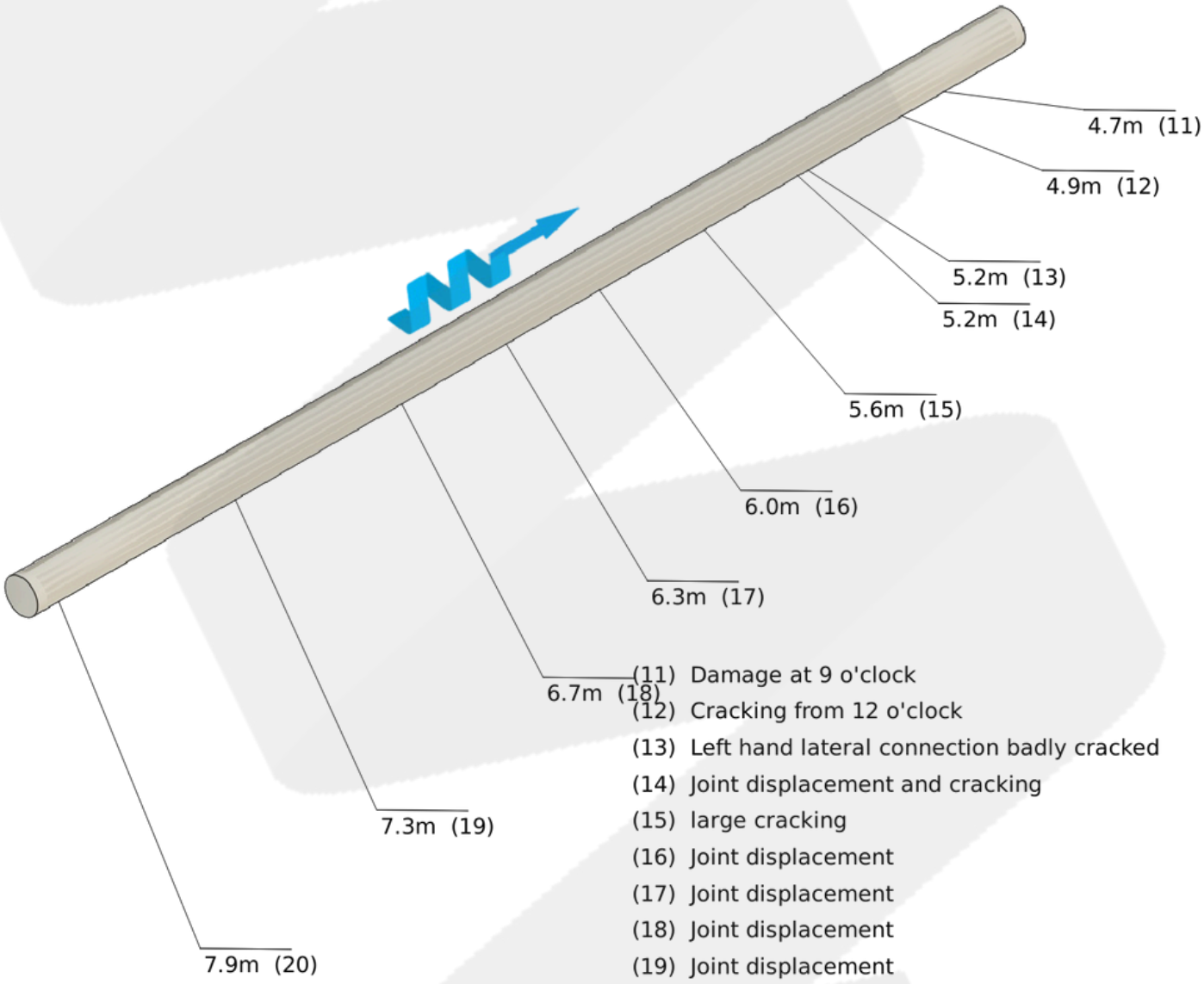
Project Information	
Filename	**Redacted for client confidentiality**
Site Name/Number	
Street	
Town/Village	
Postcode	
Parking Restrictions	
C lie nt	
Reference	
Drawing Number	
Re ason	Home buyers report
Engineer	River Crest Surveyors
Export Date	
Export Time	
Weather	No rain or snow (D)

mina®	**Section Information**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:

Section Video: mh1_	Start: Mh1 Pipe line Size : 100mm	Direction: Upstream	End: Stack pipe
Material: Vitrified Clay (VC)		Duty: Combined (C)	Invert Depth: 500mm
Date: 2025-09-05	Time: 10:29	Comments:	

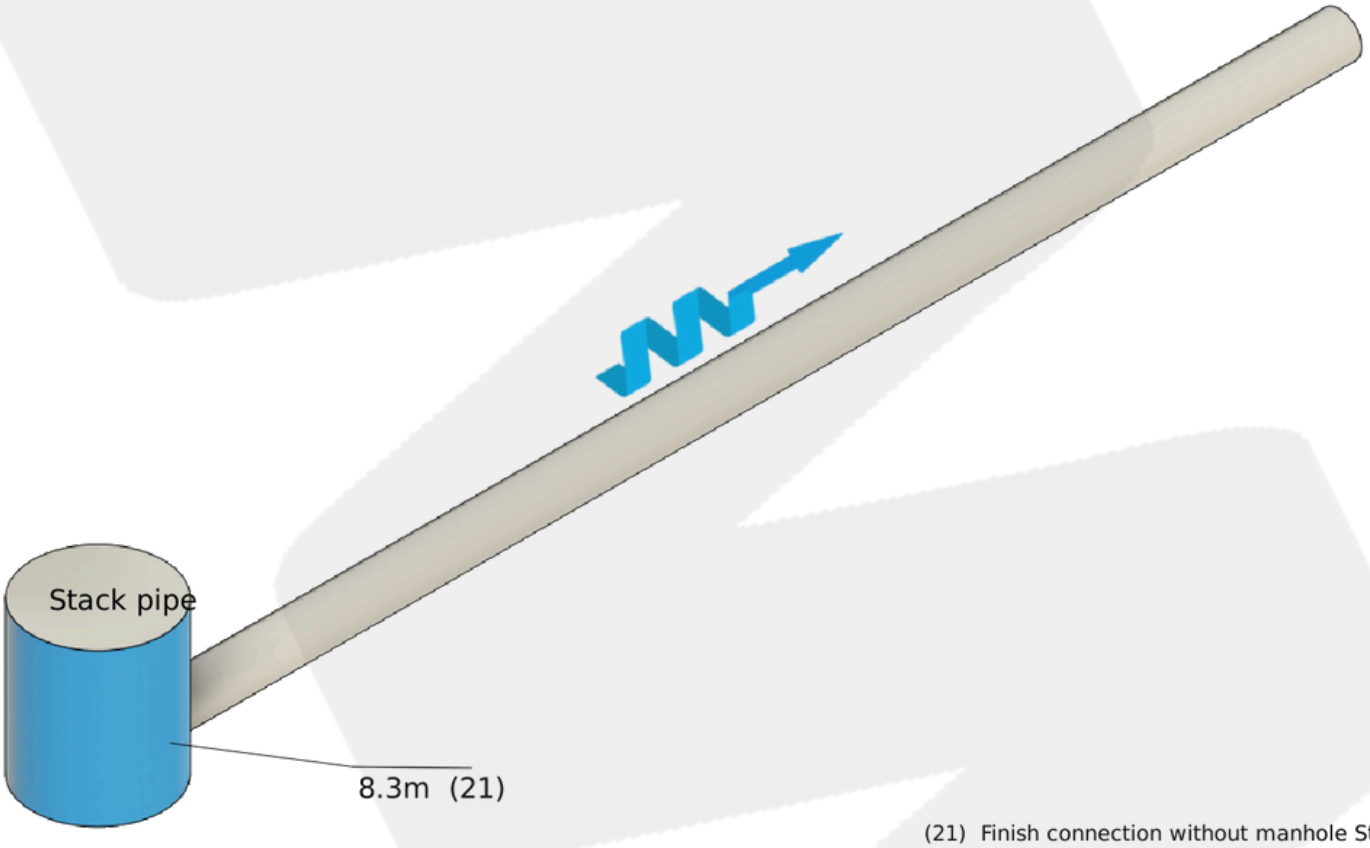


mina	Section Information	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:



(11) Damage at 9 o'clock
(12) Cracking from 12 o'clock
(13) Left hand lateral connection badly cracked
(14) Joint displacement and cracking
(15) large cracking
(16) Joint displacement
(17) Joint displacement
(18) Joint displacement
(19) Joint displacement
(20) Joint displacement

mina®	**Section Information**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:



(21) Finish connection without manhole Stack pipe

mina®	**Section Information**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:

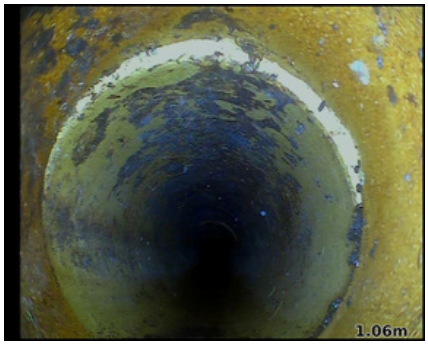
Additional Information	
Invert Depth	500mm
End Depth	.
Method of Inspection	Inspection from Manhole or Inspection Chamber (C)
Pre-Cleaned	No
Pipeline Length Reference	
Pipe Shape	Circular (C)

	Section Images	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:

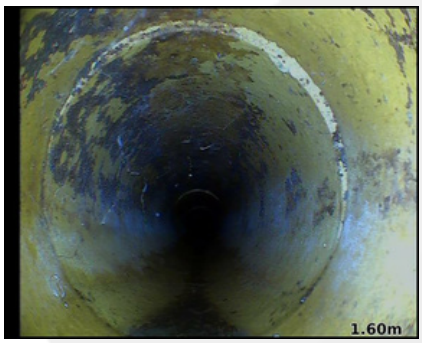
Observation [1]:
Start manhole Mh1

Observation [3]:
Joint displacement and cracking

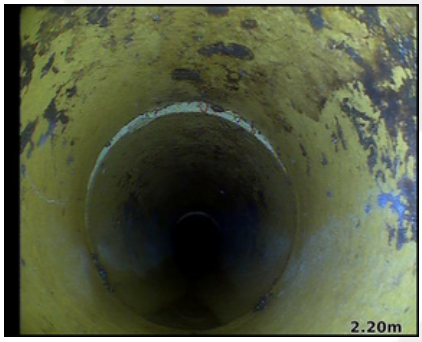
Observation [4]:
Left hand lateral connection



Observation [5]:
Joint displacement



Observation [6]:
Joint displacement

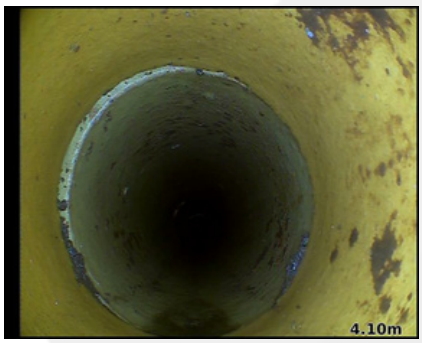


Observation [7]:
Joint displacement

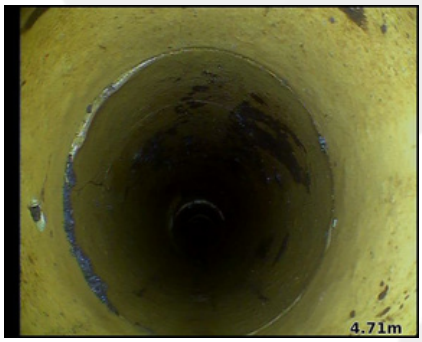
Observation [8]:
Joint displacement

Observation [9]:
Joint displacement

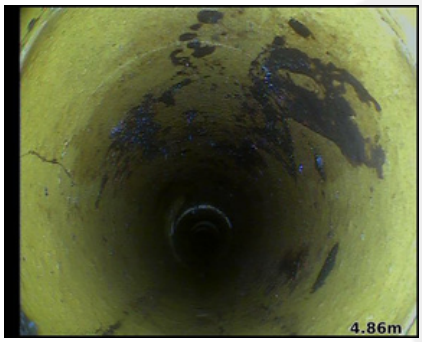
mina®	**Section Images**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:



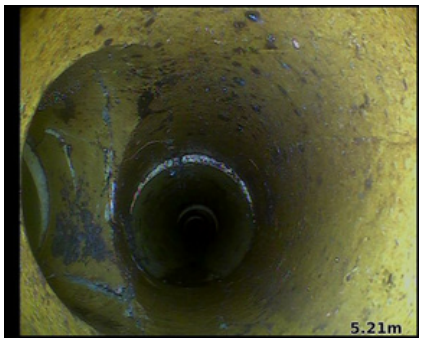
Observation [10]:
Joint displacement



Observation [11]:
Damage at 9 o'clock



Observation [12]:
Cracking from 12 o'clock

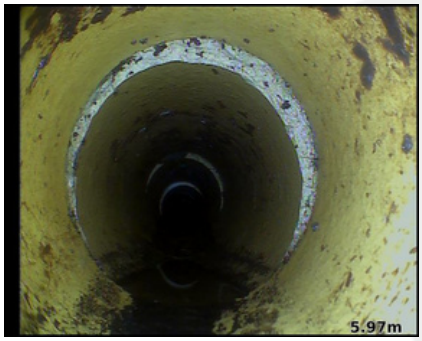


Observation [13]:
Left hand lateral connection badly cracked

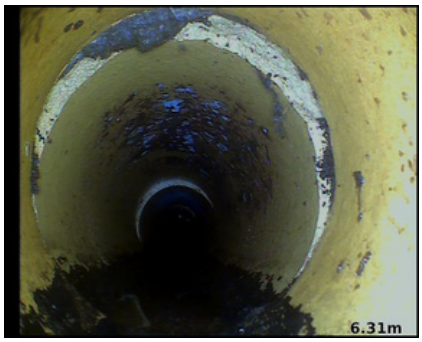
mina®	**Section Images**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:

Observation [14]:
Joint displacement and cracking

Observation [15]:
large cracking



Observation [16]:
Joint displacement

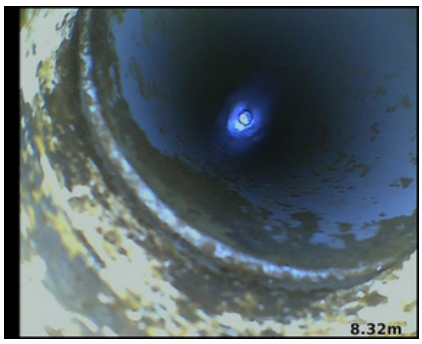


Observation [17]:
Joint displacement

Observation [18]:
Joint displacement

Observation [19]:
Joint displacement

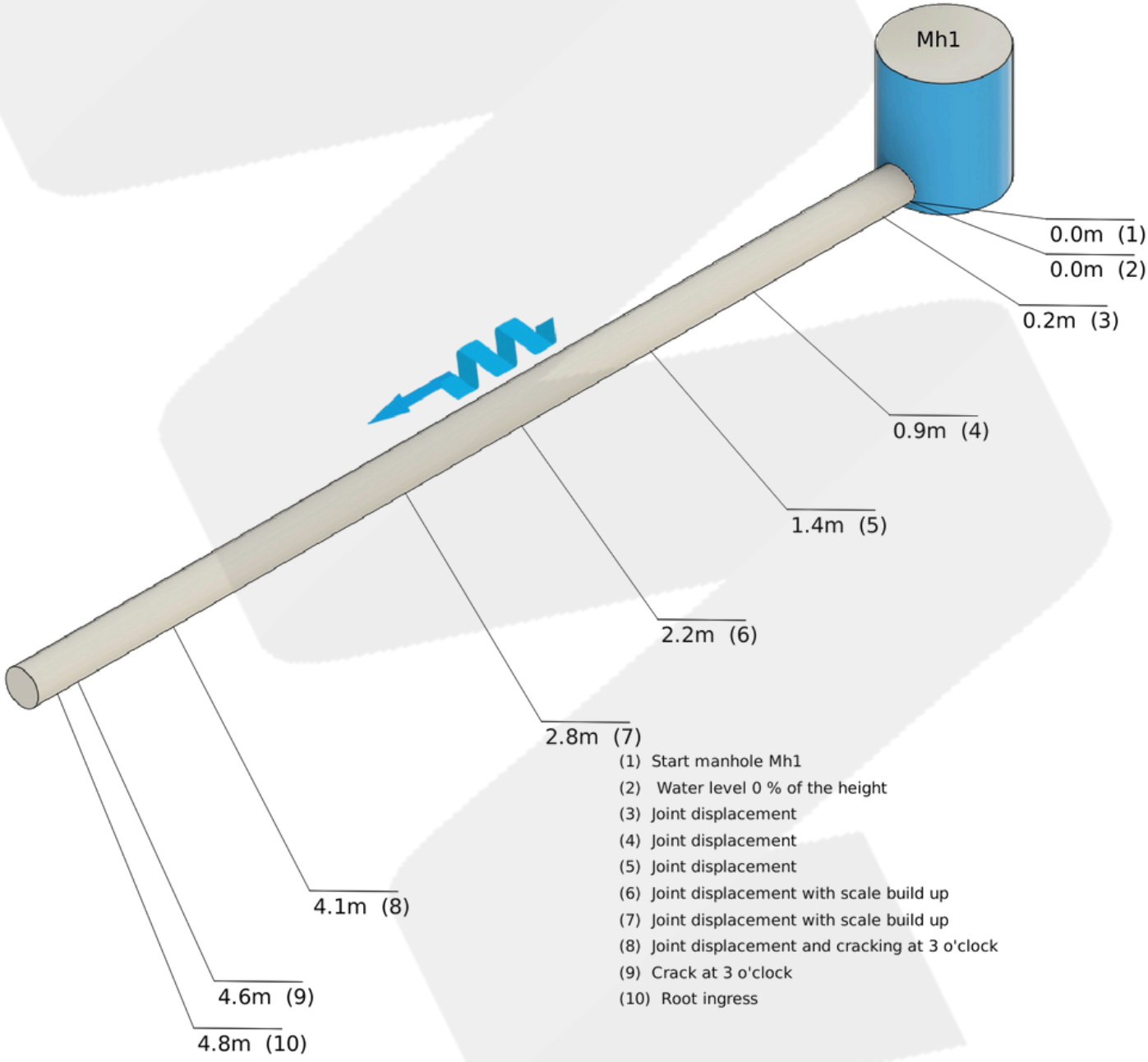
Observation [20]:
Joint displacement



Observation [21]:
Finish connection without manhole Stack pipe

mina	**Section Information**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:

Section Video: mh1_(1)	Start: Mh1 Pipe line Size : 100mm	Direction: Downstream	End: Buchan trap
Material: Vitrified Clay (VC)		Duty: Combined (C)	Invert Depth: 500mm
Date: 2025-09-05	Time: 10:40	Comments:	



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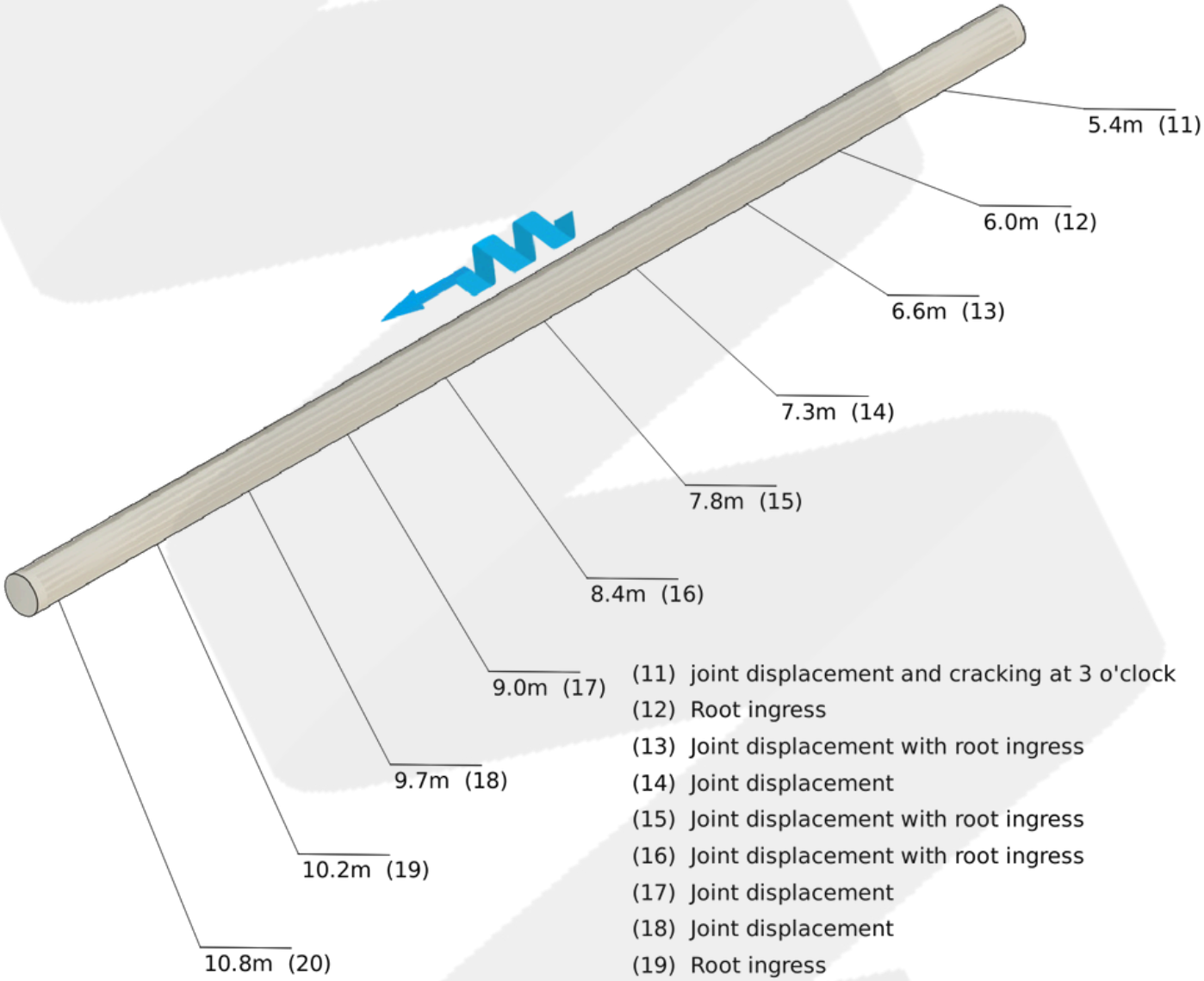
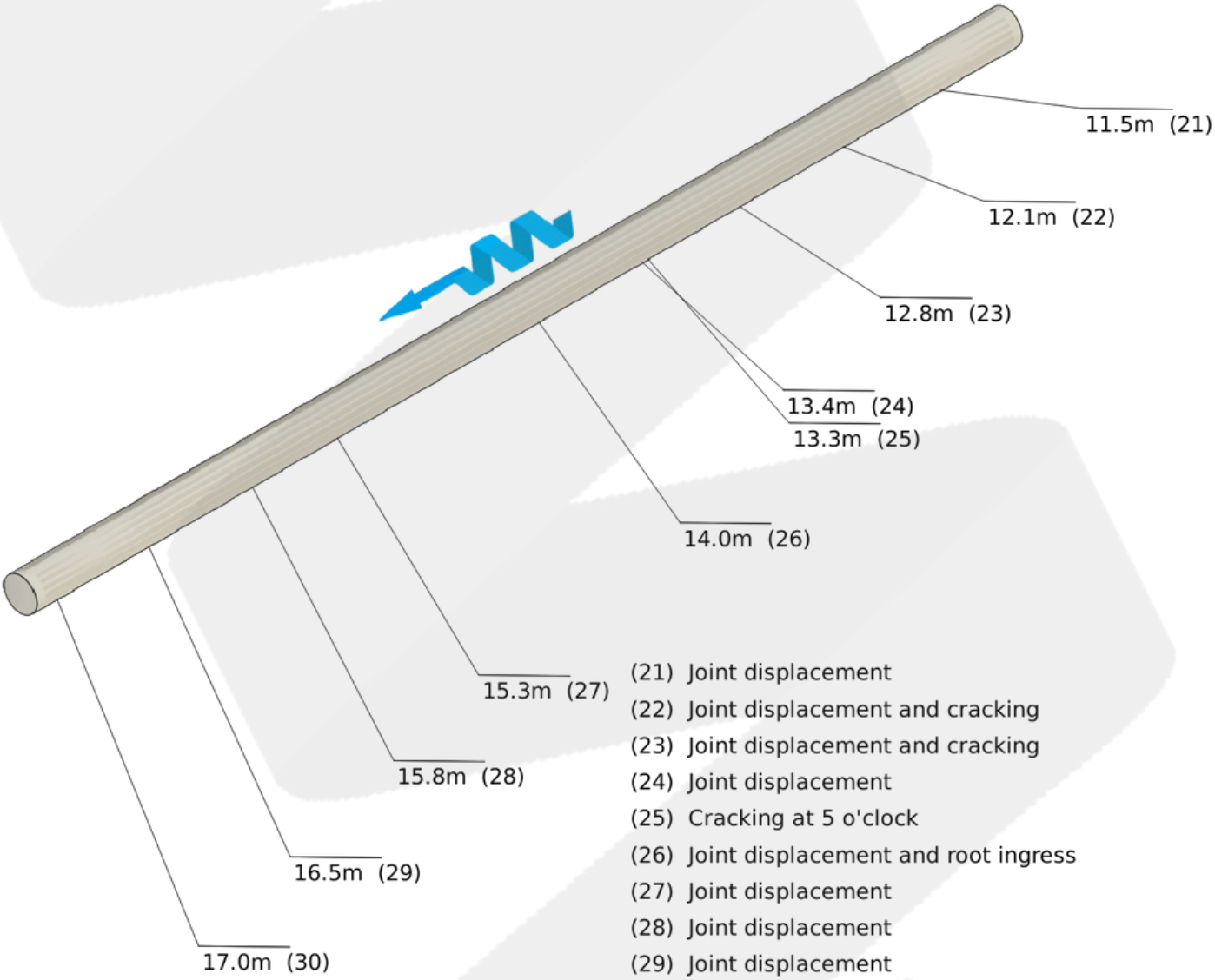


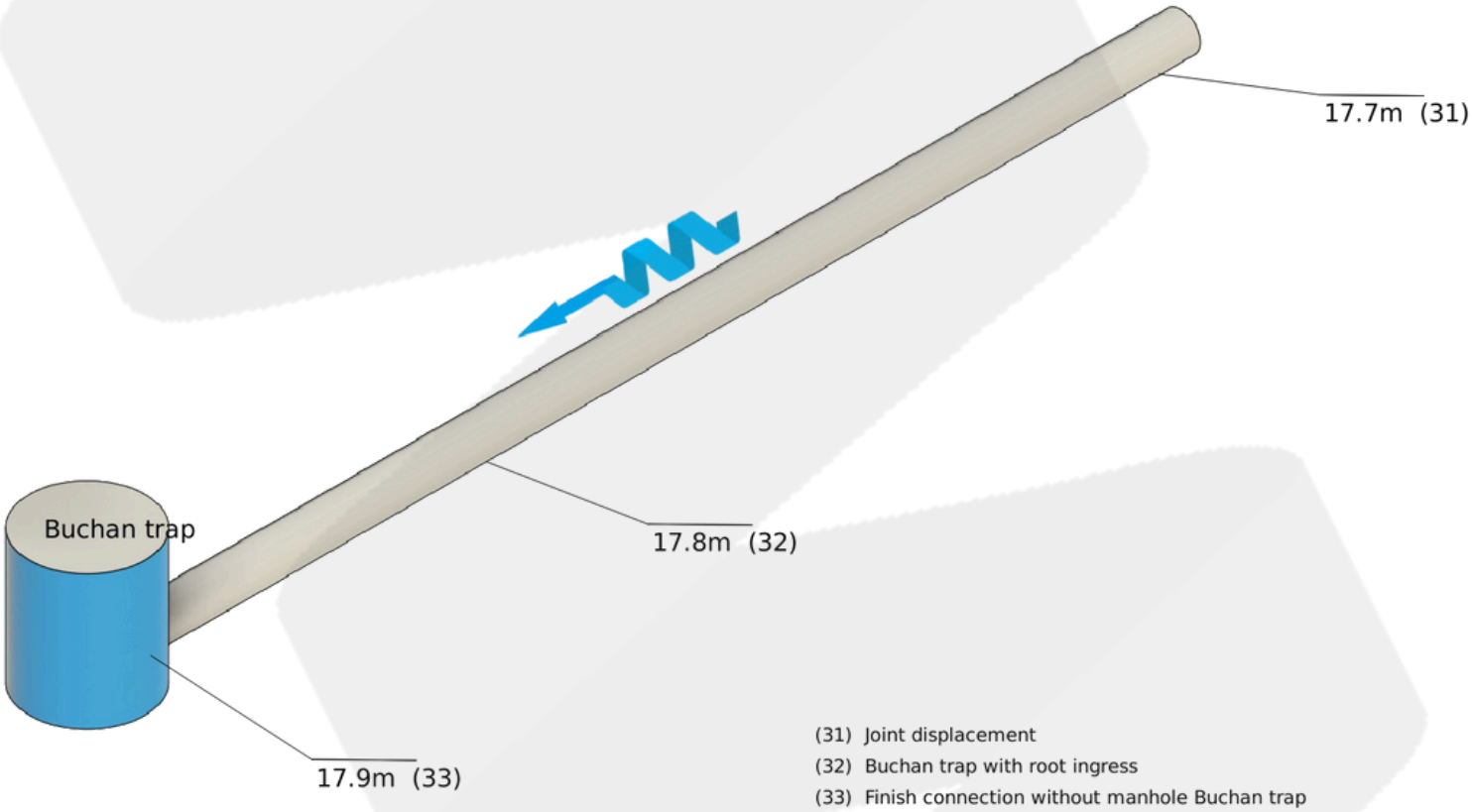
(11) joint displacement and cracking at 3 o'clock
(12) Root ingress
(13) Joint displacement with root ingress
(14) Joint displacement
(15) Joint displacement with root ingress
(16) Joint displacement with root ingress
(17) Joint displacement
(18) Joint displacement
(19) Root ingress
(20) Joint displacement and root ingress

mina	**Section Information**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:



(21) Joint displacement
(22) Joint displacement and cracking
(23) Joint displacement and cracking
(24) Joint displacement
(25) Cracking at 5 o'clock
(26) Joint displacement and root ingress
(27) Joint displacement
(28) Joint displacement
(29) Joint displacement
(30) Joint displacement

mina®	**Section Information**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:



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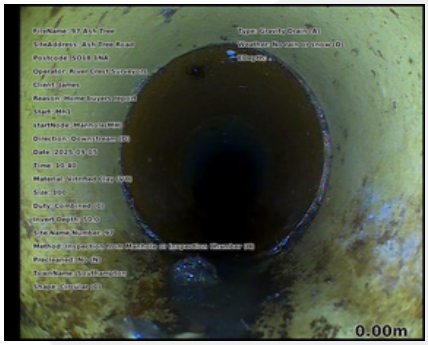
Additional Information	
Invert Depth	500mm
End Depth	.
Method of Inspection	Inspection from Manhole or Inspection Chamber (C)
Pre-Cleaned	No (N)
Pipeline Length Reference	
Pipe Shape	Circular (C)

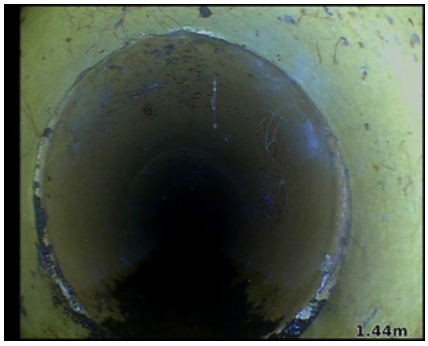
mina	**Section Images**	
Engineer: River Crest Surveyors	Date: 07/09/25	Reference:



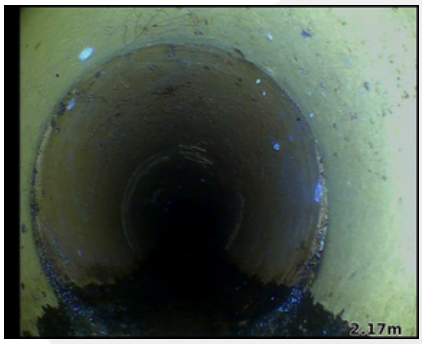
Observation [1]:
Start manhole Mh1

Observation [3]:
Joint displacement

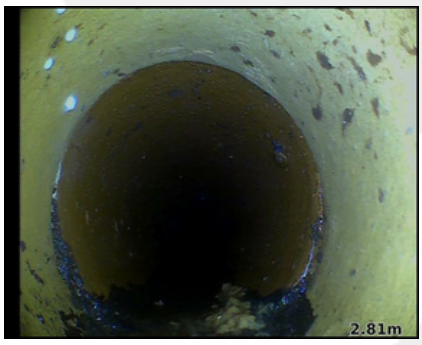
Observation [4]:
Joint displacement



Observation [5]:
Joint displacement

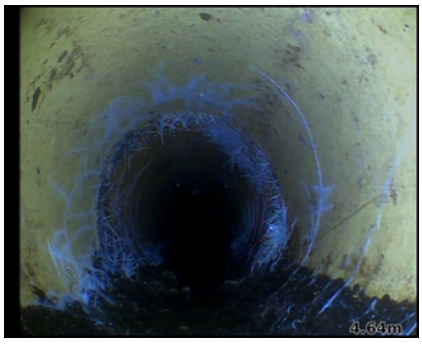


Observation [6]:
Joint displacement with scale build up

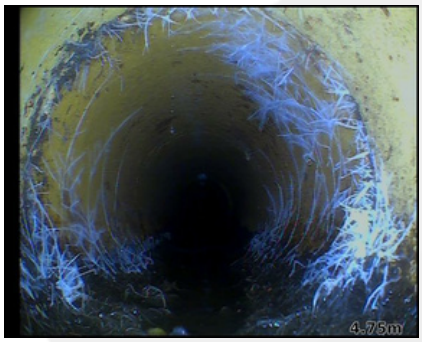


Observation [7]:
Joint displacement with scale build up

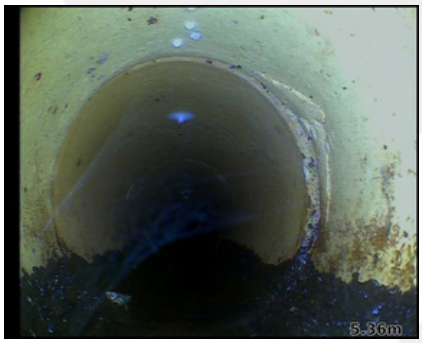
Observation [8]:
Joint displacement and cracking at 3 o'clock



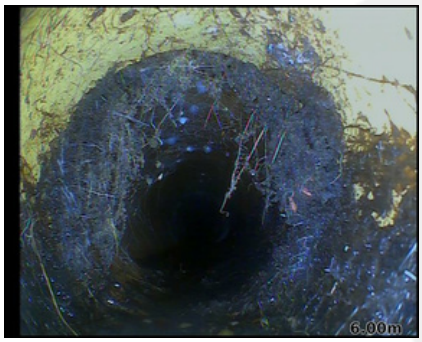
Observation [9]:
Crack at 3 o'clock



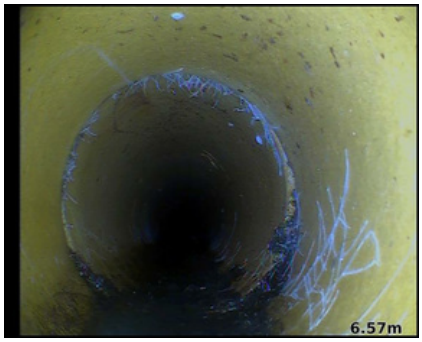
Observation [10]:
Root ingress



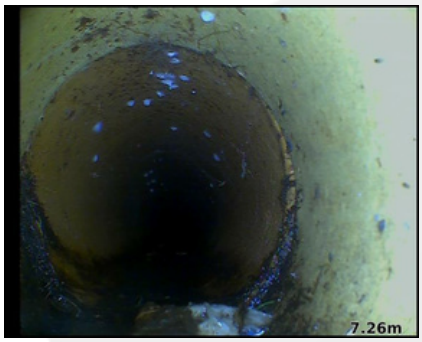
Observation [11]:
joint displacement and cracking at 3 o'clock



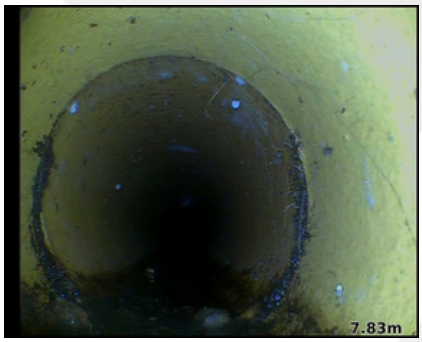
Observation [12]:
Root ingress



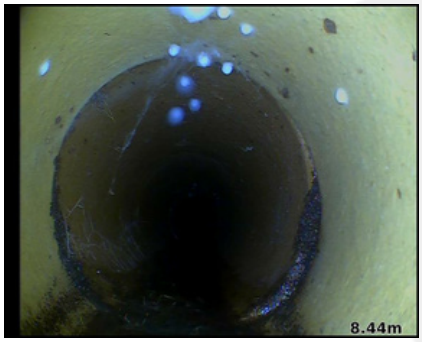
Observation [13]:
Joint displacement with root ingress



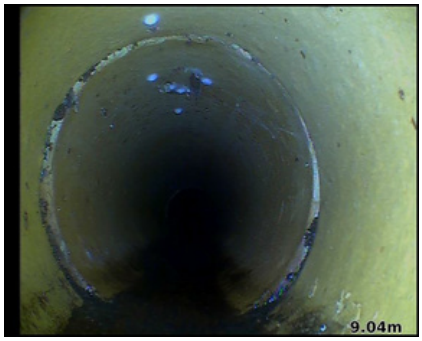
Observation [14]:
Joint displacement



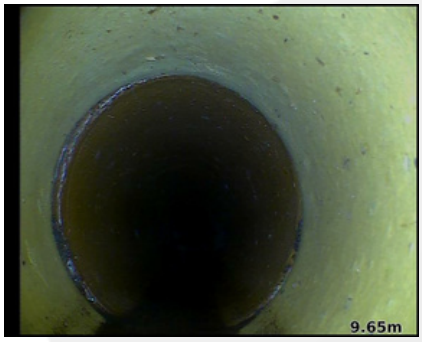
Observation [15]:
Joint displacement with root ingress



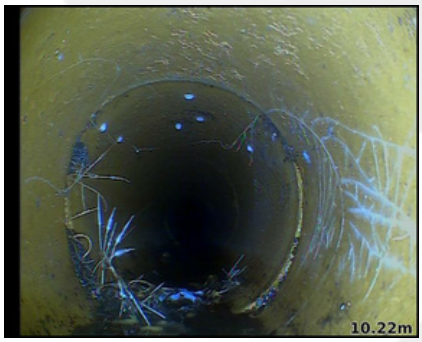
Observation [16]:
Joint displacement with root ingress



Observation [17]:
Joint displacement

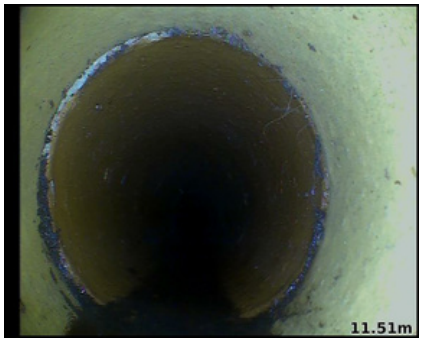


Observation [18]:
Joint displacement

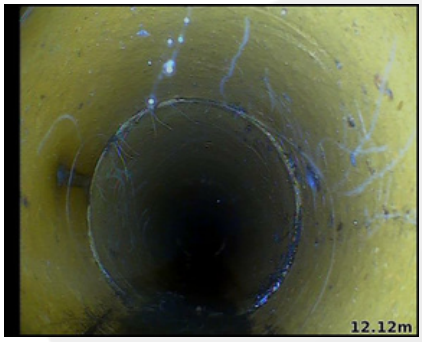


Observation [19]:
Root ingress

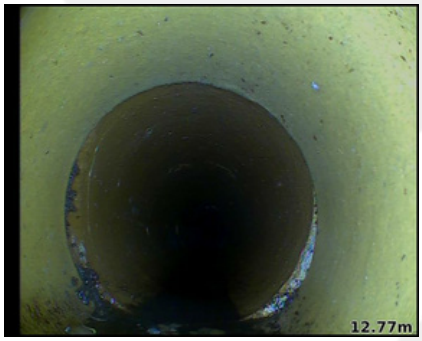
Observation [20]:
Joint displacement and root ingress



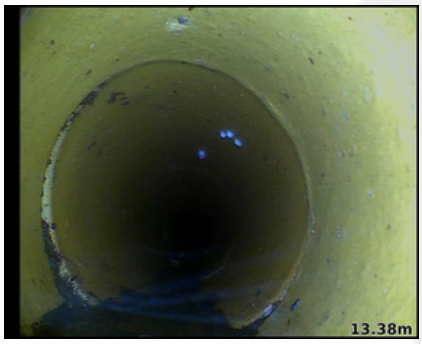
Observation [21]:
Joint displacement



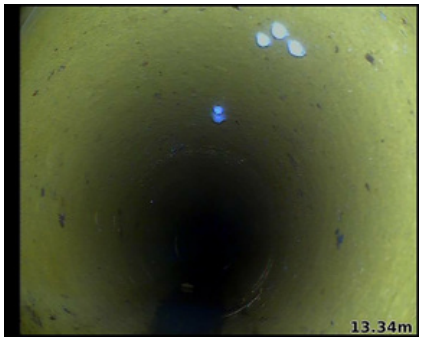
Observation [22]:
Joint displacement and cracking



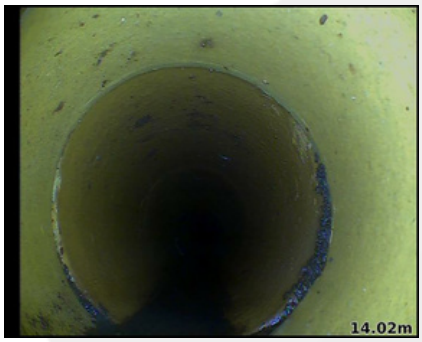
Observation [23]:
Joint displacement and cracking



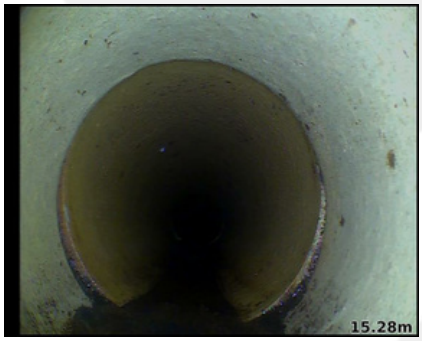
Observation [24]:
Joint displacement



Observation [25]:
Cracking at 5 o'clock

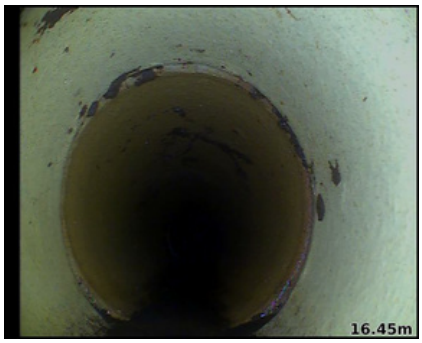


Observation [26]:
Joint displacement and root ingress

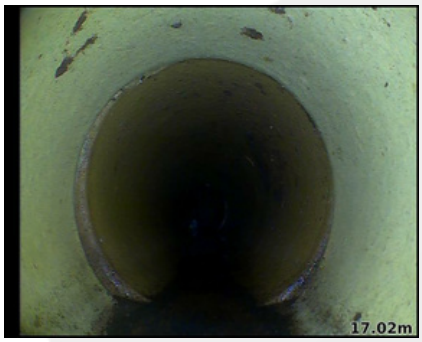


Observation [27]:
Joint displacement

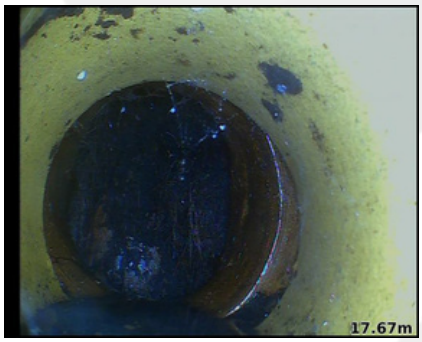
Observation [28]:
Joint displacement



Observation [29]:
Joint displacement

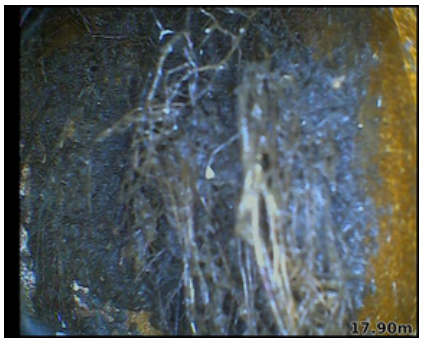


Observation [30]:
Joint displacement



Observation [31]:
Joint displacement

Observation [32]:
Buchan trap with root ingress



Observation [33]:
Finish connection without manhole Buchan trap

Survey Findings

During the CCTV drain survey, it was identified that the drainage system has several structural defects, including cracks in multiple locations, joint displacements (open and misaligned joints), and root ingress (roots growing into the pipework). These types of defects are commonly associated with clay pipe systems due to their age and material properties. If left untreated, such issues can lead to frequent blockages caused by roots, displaced joints, or debris catching. Open joints can also result in water leakage, leading to ground erosion and further pipe instability. In severe cases, these defects may cause partial or full collapse of the affected drain sections.

Specific Defects Located

Base of the Soil Vent Pipe

Asignificant jointdisplacement was found at the base of the soil vent pipe. This defect would require a local excavation to expose the pipe and carry out a repair, as trenchless methods (such as lining) cannot reposition displaced joints effectively. Left-Hand Lateral Connection (towards gully) Severe cracking and damage were noted at a lateral "Y" connection. This section requires excavation and replacement of the damaged junction with a new, structurally sound connection. Buchan Trap (rear garden) The trap is heavily infiltrated by roots, and there is no long-term solution other than excavation and removal. Replacing the trap with a straight through pipe section would prevent roots from regrowing. The extent of root ingress and any trapped debris at the base of the trap cannot be fully confirmed until excavation is carried out. Rear Garden Gullies Both gullies appear to be blocked with silt and debris. These require manual clearance and high pressure water jetting to remove obstructions from the gully pots and u-bends. Once cleaned, further inspection should be undertaken to check for any hidden structural damage. Front Downpipes (at the property frontage) Two gutter downpipes currently discharge directly at the base of the property, with no proper drainage system in place. This can cause water to accumulate against the building, leading to damp issues and, in the worst cases, long-term foundation damage. It is strongly recommended to redirect these into a suitable drainage system or a newly installed soakaway.

Recommended Remedial Works

Drain Relining Multiple sectionsof the claypipework can be rehabilitated by installing a resin drain liner. This will seal open joints and cracks, prevent water leakage and root ingress, reinforce structural integrity, and improve flow efficiency, thereby extending the system's lifespan. High Pressure Water Jetting & Mechanical Root Cutting Jetting and chain flails should be used to clear root ingress and hardened debris before relining. This ensures correct adhesion of the liner and restores the internal bore of the pipe to full flow capacity. Targeted Excavations (Spot Repairs) Excavation is required at the soil vent pipe base and the damaged lateral connection to replace failed pipework. Additional excavation is required at the Buchan trap to remove and replace it with a straight through section, permanently solving the root ingress problem. Gully Clearance Manual clearance and jetting of the rear garden gullies are required to restore function. Once cleared, further inspection should be carried out to check the structural condition of the gully pots. Front Drainage Improvements A suitable soakaway system should be installed in the front garden to take both gutter downpipe connections. This will prevent water from pooling at the property base and protect against damp and subsidence risks.

Condition Summary

Overall, thedrainagesystem is in poor condition with multiple structural failures. Immediate remedial action is recommended to prevent further deterioration and costly emergency repairs.

Disclaimer

Please note: - Not all defects may have been visible during this survey due to silt, debris, or root mass within the system. - The distance readings (meterage) on the camera should be treated as approximate, not precise. - Unable to survey lateral connections due to no access.