

**CCTV REPORT FOR: 9 GRAND AVENUE
LONDON
N10 3AY**

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LIMITATION OF REPORT



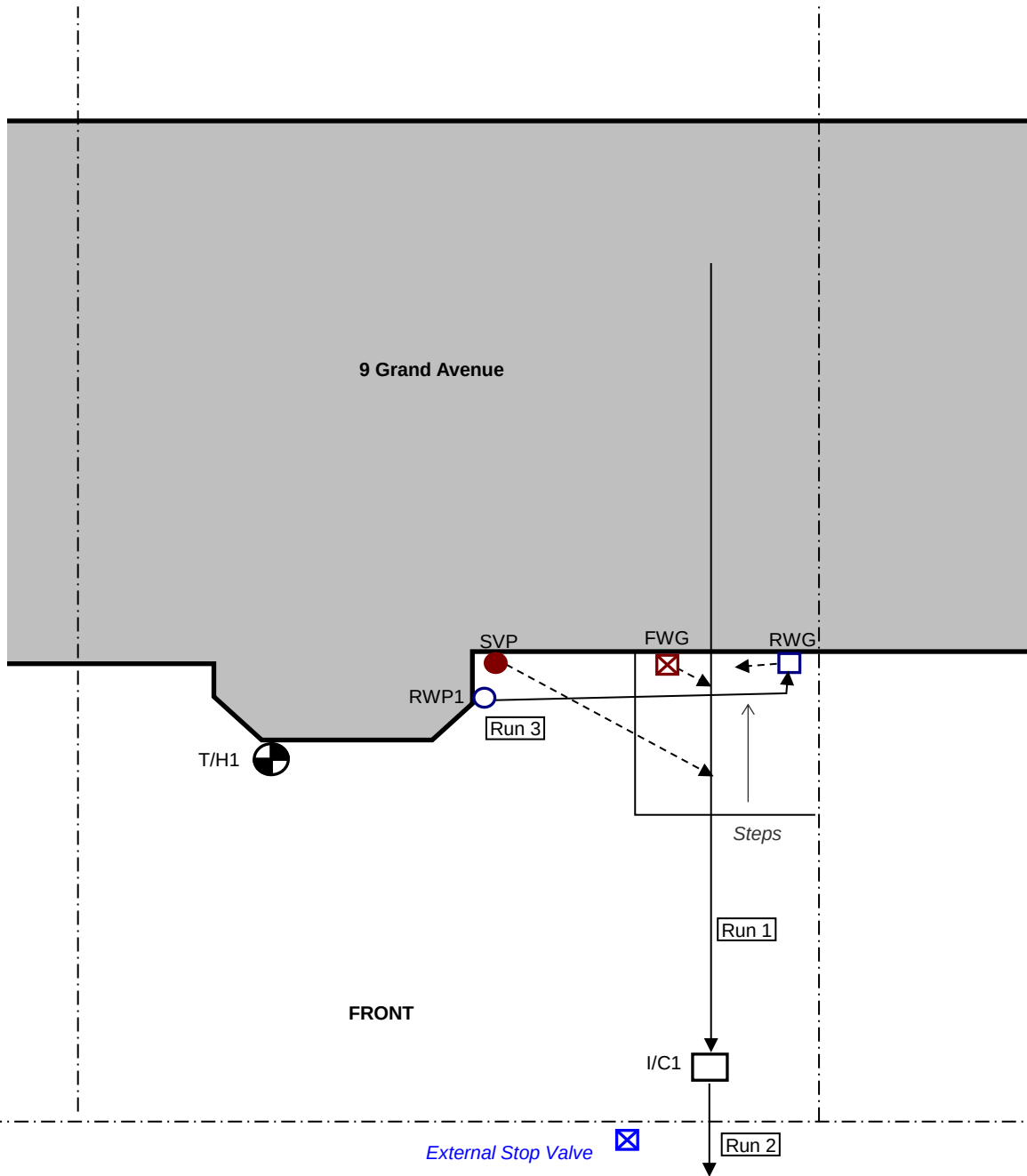
Client: 360GlobalNet
Regus House
Herald Way
Pegasus Business Park
Castle Donington
DE74 2TZ

Insured: Mr. John Illman
Reference: LIV-SN-22-005397

Site Visit: 20-Jan-23
Report Date: 14-Apr-23

Site Crew: SD

Date: 20-Jan-23



(This plan is not to be scaled and is provided to illustrate general layout only)

General Comments:

Note: Runs shown in red have been adopted by the local water authority.

Key :
 = Storm Gully
 = Storm Pipe
 = Foul Gully
 = W/C or Soil Pipe
 = Inspection Chamber
 = Rodding Eye
 = Surveyed pipe indicating flow
 = Unsurveyed pipe
 = Exploratory Hole (hand dug pit and/or hand auger)
 = Boundary line
 = Hedges & Shrubs
 = Trees & bushes
 = Area of damage

Address: **9 GRAND AVENUE, LONDON, N10 3AY**

Site Crew: SD Date: 20-Jan-23

RUN: 1 Pipe Dia. (mm): 100 System: Foul Water Made of: Glazed Clay
From: I/C1 Inv (m): 2.60 Upstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C1
2.89		Junction at 7 o'clock
3.50		Junction at 7 o'clock
9.50	Circumferential Crack 12 to 12 o'clock	
10.00		Past area of concern
		End of survey

RUN: 2 Pipe Dia. (mm): 150 System: Foul Water Made of: Glazed Clay
From: I/C1 Inv (m): 2.60 Downstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C1
0.34	Multiple Cracks	
0.50	Multiple Cracks	
0.95	Displaced Joint Large	
	Multiple Cracks	
1.00		Boundary
2.00		Past area of concern
		End of survey

RUN: 3 Pipe Dia. (mm): 100 System: Storm Water Made of: Glazed Clay
From: RWP1 Inv (m): - Downstream To: RWG1 Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At RWP1
0.11	Multiple Cracks	
1.56	Open Joint Medium	
1.60		Pipe bends down
2.05	Open Joint Medium	
2.10		Pipe bends left
2.40	Displaced Joint Medium	
	Circumferential Crack 12 to 12 o'clock	
2.89	Displaced Joint Large	
4.37	Circumferential Crack 12 to 12 o'clock	
4.40		Pipe bends left
4.83		At RWG1
		End of survey

Defects shown in **RED** relate to runs adopted by the Local Water Authority

Address: 9 GRAND AVENUE, LONDON, N10 3AY



Location: Front bay window

T/H No.	1
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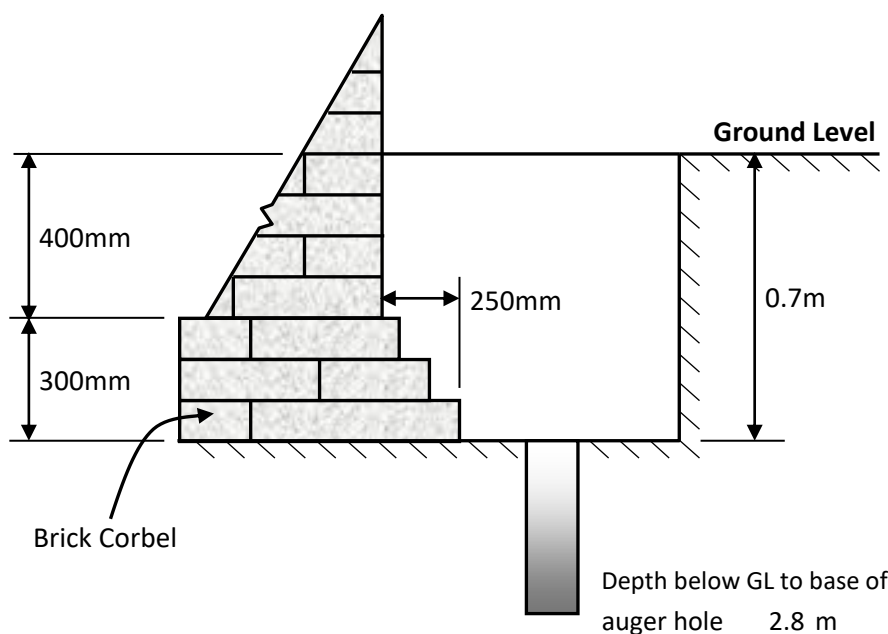
Ground Surface: Dry

Weather: Dry

Date:	20-Jan-23
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Foundation Cross Section

(Not to Scale)



Roots Depth & Diameter:

From 0.8m

Down to 2.3m

Water Depth Hit & Rise:

None observed on site

Reason for Termination :

Hole at instructed depth

[illegible]

General Comments :

Key: Mac=Macintosh Probe, V(n)=Natural Shear Vane, P.P. = Pocket Penetrometer

Address: 9 GRAND AVENUE, LONDON, N10 3AY

EXECUTIVE SUMMARY

Brief:	The Drainage Repair Company Ltd were commissioned to undertake a CCTV survey / inspection of the drainage at the property.
Specific Area of Interest:	Accessible drainage at the property.
System Access:	Inspection chamber at the front
Visual Survey:	N/A
Water Pressure Test:	Yes - PASS

SUMMARY OF FINDINGS

Defects requiring repair:	Yes
Is any damaged section shared:	No
No. of properties sharing:	N/A
Age of property / system:	Unknown
Cause of damage:	N/A

GENERAL SUMMARY

The results of the CCTV / inspection survey to the underground drainage system at the above address are as follows:

Run 1 - Foul - Private:

Cracked section

Run 2 - Foul - Private:

Multiple cracks and large displaced joint

Run 3 - Storm - Private:

Multiple cracks and large displaced joint

SVP, RWG and FWG:

No access to CCTV due to tiles.

RECOMMENDATIONS

We would recommend returning the system to a watertight condition by repairing the defects as follows:

Run 1:

Carry out high pressure water jetting to prepare pipework for lining. Install a patch liner from I/C1 upstream at 9.5m

Run 2:

Carry out high pressure water jetting to prepare pipework for lining. Install a patch liner from I/C1 downstream to the boundary. 150mm patch liner.

Run 3:

Excavate and replace rest bend to RWP allowing for up to 1.0m of pipework downstream
Carry out high pressure water jetting to prepare pipework for lining. Install a structural liner from excavation downstream for 5m. Flexible liner required.

RWG & FWG:

Excavate and replace gullies allowing for 1m pipework downstream on both.
Carry out high pressure water jetting and complete CCTV downstream. Report on condition and end point of the pipe.

Note: tight access at the base of the steps for RWG

SVP:

Carry out above ground cut in to the stack pipe and complete CCTV downstream to Run 1.

QUOTATION

Run 1:

- Carry out high pressure water jetting
- Install a structural patch liner from I/C1 at 9.5m

Run 2:

- Carry out high pressure water jetting
- Install a structural 150mm patch liner from I/C1 to the boundary

Run 3:

- Excavate and replace rest bend to RWP allowing for up to 1.0m of pipework downstream
- Carry out high pressure water jetting
- Install a structural liner from excavation downstream to RWG
- Backfill excavation
- Reinststate surface
- Remove excavated spoil from site

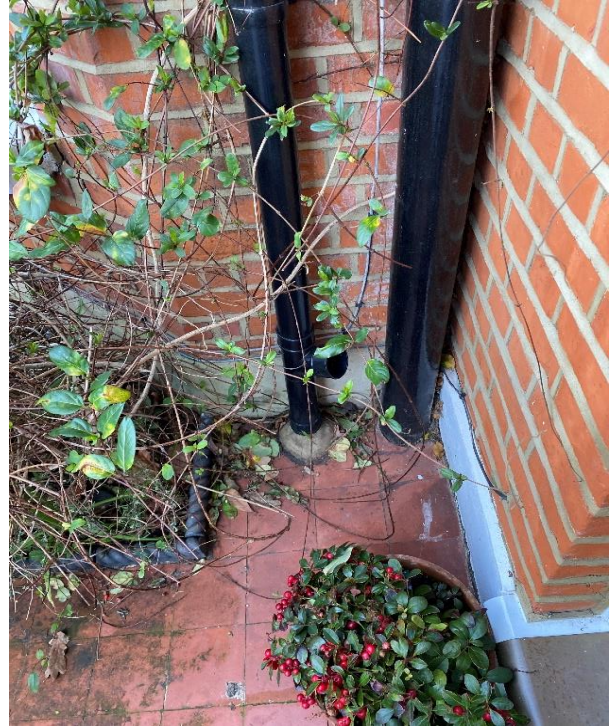
RWG & FWG

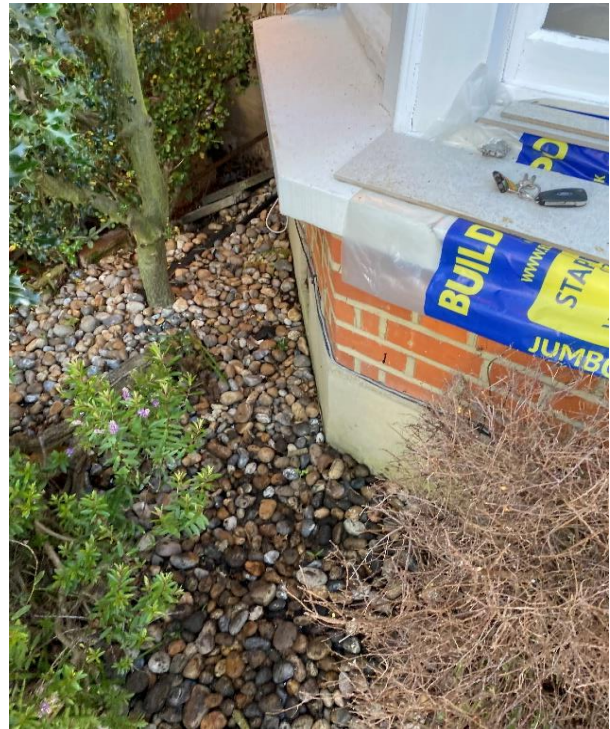
- Excavate and replace gullies
- Excavate and replace up to 1.0m of pipework downstream on each
- Carry out high pressure water jetting
- Complete CCTV
- Report on condition and end point of pipes
- Backfill excavation, reinststate surface, remove spoil from site

QUOTATION - Continued

SVP:

- Carry out above ground cut in
- Complete CCTV of SVP

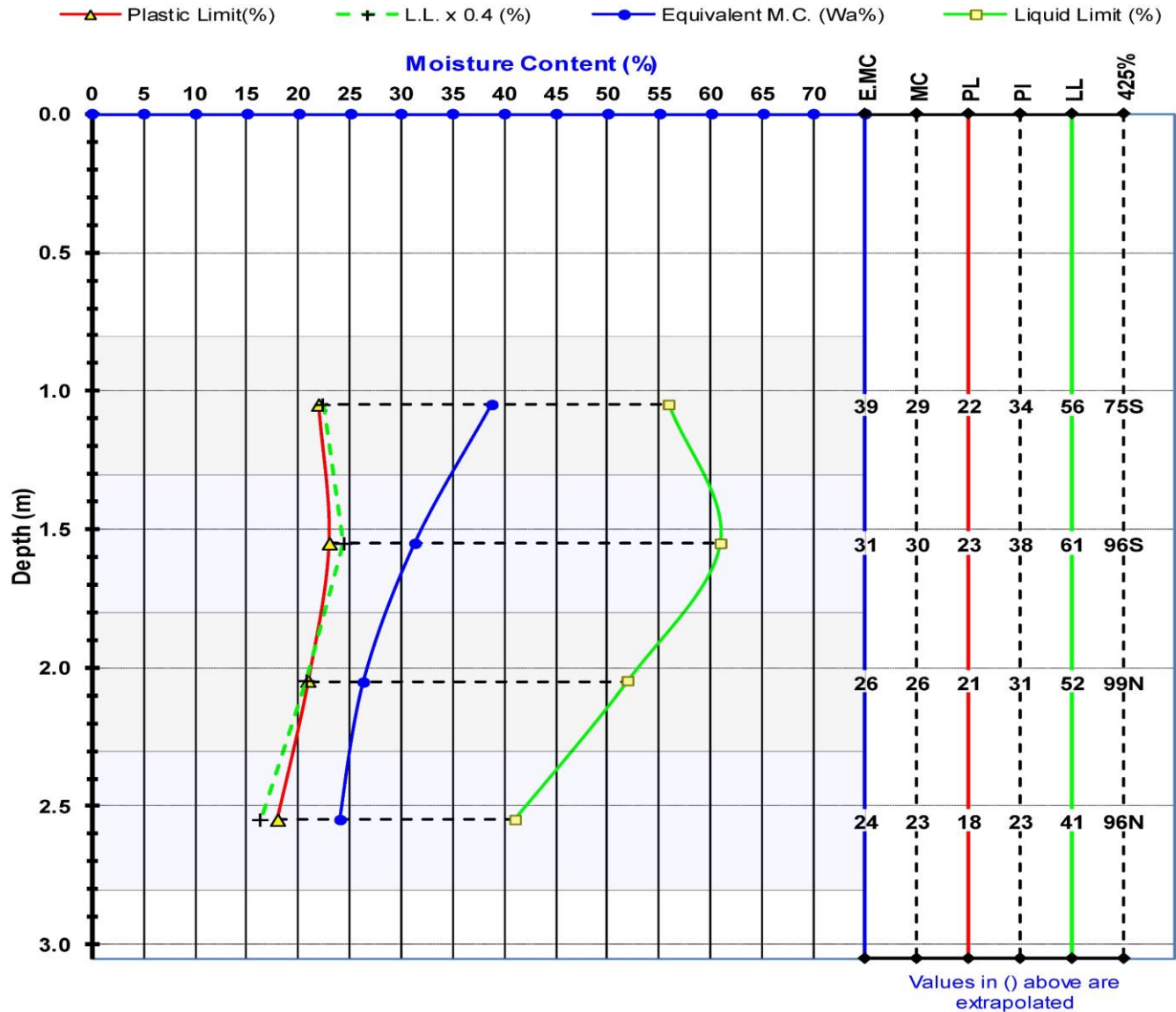






LABORATORY TESTING RESULTS

Depth T (m)	Depth B (m)	1 - Front bay window	Plasticity (BS 5930)	Volume Change	
		Brief Soil Description		M.PI	(BRE 240)
0.8	1.3	Soft brown slightly sandy CLAY with some medium gravel (inc. (mainly fill)	High CH	26%	Medium
1.3	1.8	Soft/firm brown CLAY with occasional medium gravel (inc. fill)	High CH	36%	Medium
1.8	2.3	Soft/firm brown CLAY with rare medium gravel	High CH	31%	Medium
2.3	2.8	Soft/firm brown CLAY with rare medium gravel	Intmd. CI	22%	Medium



Opinions and interpretations expressed in the chart above are outside the scope of UKAS accreditation.

Key:

MC = Natural Moisture Content (%)

E.MC = Equivalent Moisture Content (%) = $MC \times 100 / 425\%$

M.PI = Modified Plasticity Index (%) = $PI \times 425\% / 100$

425% = Material passing the 425µm sieve (%) + (N = Natural or S = Sieved)

Notes: All samples received as Disturbed unless noted below in the comments.

Samples prepared in accordance to BS1377:Part 1:1990 Section 7 & described in general accordance with BS5930:1999.

Samples tested in accordance to BS1377:Part 2:1990 Section 3.2, 4.4 & 5.

Comments:

PL = Plastic Limit (%)

PI = Plasticity Index (%) = $LL - PL$

LL = Liquid Limit (%)

LL x 0.4 = 40% of the LL (%)

NP = Non Plastic



Root identification
Vegetation surveys
Tree/Building investigations
Plant taxonomy

Richardson's Botanical Identifications

The Drainage Repair Company
Suite 15, Leatherline House
71 Narrow Lane
AYLESTONE
Leicester LE2 8NA

15/03/2023

Dr Ian B K Richardson
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James Richardson
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RG6 7BB

Tel: (0118) 986 9552 (Direct line)
E-mail: richardsons@botanical.net
Web: www.botanical.net

Your ref: **Root ID**

Our ref: **85/7812**

Dear Sirs

9 Grand Avenue, London N10 3AY

The samples you sent in relation to the above on 06/02/2023 have been examined. Their structures were referable as follows:

TP/BH1, 0.8-1.3m		
1 no.	Examined sample: despite our best efforts with this sample, it was essentially too immature for a confident identification. Possibly only a section of TWIG - rather than a root. NOT coniferous. Could be the family Rosaceae, subfamily POMOIDEAE (a group of closely related trees: Malus (Apple), Pyrus (Pear), Crataegus (Hawthorn), Sorbus (Rowan, Whitebeam, Service tree), Mespilus (Medlar), and some shrubs (Pyracantha (Firethorn), Chaenomeles (Japonica), Cydonia (Quince), Amelanchier, Cotoneaster)).	Dead*.
2 no.	Both samples revealed too few cells for microscopic identification.	
TP/BH1, 1.8-2.3m		
3 no.	Examined sample: as above, possibly a piece of TWIG rather than a root, again in some ways like the POMOIDEAE group.	Alive, recently*.
1 no.	Microscopic examination showed insufficient cells for recognition.	

Click here for more information: [POMOIDEAE](#)

I trust this is of help. Please call us if you have any queries; our Invoice is enclosed.

Yours faithfully



Dr Ian B K Richardson

* Based mainly on the Iodine test for starch. Starch is present in some cells of a living woody root, but is more or less rapidly broken down by soil micro-organisms on death of the root, sometimes before decay is evident. This result need not reflect the state of the parent tree.

** Try out our web site on www.botanical.net **

Identified with no information on vegetation, on or off site.

Report commissioned by



Address: 9 GRAND AVENUE, LONDON, N10 3AY

We were commissioned to carry out an inspection of the accessible areas of the drainage to the property, identifying any major defects and recommending any repair works that may be necessary. It should be appreciated that the exact layout of the system cannot be confirmed without the exposure of inaccessible branches and connections etc.

The lack of any significant defects within the main drainage line should not be regarded as a guarantee of water tightness. Defects may be encountered upon exposure of inaccessible branches and gullies etc.

The contents of this report are strictly confined to comments concerning those terms outlined above. It is not a structural survey and must not be construed as such.

The views expressed in this report are based entirely upon a visual examination of the drainage, supported by information obtained from a CCTV inspection / water pressure test.