

DAVID SMITH ASSOCIATES LLP
 Consulting Structural & Civil Engineers
 London
 Northampton
 Cheltenham
 Birmingham
 www.dsagroup.co.uk

North Northamptonshire Council 4 Robinson Way Telford Way Industrial Estate Kettering Northamptonshire, NN16 8PP

F A O: Mr Dylan Smith

6th November 2023

Our Ref: JB/23/52720/CS

Dylan.Smith@NorthNorthants.gov.uk

Dear Dylan

RE: RAVEN HOUSE, ROCKINGHAM ROAD, CORBY

Further to our report dated 29th August 2023, with regards to the subsidence movement noted to the above property, we confirm having carried out the further site investigations by way of trial holes and a CCTV Survey on Monday 18th September 2023.

Subsequent to these investigations, soil samples and a root sample were sent off to their respective laboratories for analysis. We confirm having received a copy of these laboratory results and can now report as follows: -

 The existing perimeter wall is constructed on a mass concrete strip footing which is founded at approximately 650mm below ground level. The approximate size of the strip footing is 500mm wide and 180mm to 200mm deep. Typical details of the foundation can be seen in Photographs 1 and 2 in Appendix A.

DSA LLP VAT REG : 443 6613 95

Eur Ing **David Smith** BSc(Hons), C.Eng, MICE, FIStructE, CMaPS, MFPWS, FCABE, ACIArb, **Hitesh Jethwa** BSc Eng (Hons), I.Eng, AMIStructE **Steven Ainge** B.Eng (Hons), I.Eng, AMIStructE **Thomas Garrod** B.Eng (Hons), **Ben Mason** BSc (Hons), IEng, MICE





- (ii) The bearing strata was brown slightly sandy, slightly gravelly CLAY. The laboratory testing revealed that the modified Plasticity Index of the clay samples was 27% and 35% which would classify it as a medium shrinkable clay. The Moisture content was 17%. A copy of the laboratory test results can be found in Appendix B of this report.
- (iii) The root sample obtained from the trial hole revealed it to have originated from the Sycamore trees located approximately 5 metres away from the side (Northeast) elevation of the property. A copy of the laboratory report confirming this can be found in Appendix C of this report.
- (iv) Based on the soil type and the proximity of the trees, the recommended foundation depths along the North East elevation, based on the NHBC Chapter 4.2 "Building near trees" should vary between 1.75 metres at approximately 9.metres from the front corner of the building to 2.15 metres deep at the rear corner. Please refer to the extracts from NHBC Chapter 4.2 "Building Near trees" in Appendix D.
- (v) We can confirm that the CCTV Survey report of the adjacent below ground drainage indicated several defects within the adjacent below ground drainage system. In principle some of these defects are as indicated below: -
 - Root masses in the pipework between Manhole MH1 and MH2.
 - Fine roots along Lateral 1 from Manhole MH1.
 - Settled deposits along Lateral 2 upstream of Manhole MH 1 giving 5% reduction in cross-sectional area.

A copy of the CCTV survey report can be found in Appendix E of this report.

From our previous report, it is our opinion that the subsidence noted to this property has been caused by a combination of the following two mechanisms:

<u>Mechanism 1</u>

Shrinkage of the clay-based bearing stratum which has been exacerbated by the recent hot, dry summer and the adjacent trees. This effectively causes the bearing stratum to shrink away from the underside of the foundation. This causes the foundation to drop onto the new position of the bearing stratum leading to the indicative subsidence cracking noted.

Mechanism 2

Escape of water from the existing drainage system causing an increase in the moisture content of the bearing stratum. This leads to a reduction in its shear strength and hence bearing capacity causing the subsidence noted.

From the above therefore, we would recommend that consideration be given to the removal of the adjacent trees or underpinning the existing foundation to a depth of 1.75 metres. If underpinning is the preferred option, please contact us for advice.

In addition to this, the drainage runs should also be jetted out, de-rooted. The pipes should then be relined. Based on the condition of the pipe between Manholes MH1 and MH2, the pipe may need to be replaced.

Following completion of the above remedial works we would recommend that the property be monitored for approximately 12 months to ensure that no further movement is occurring. At the end of the monitoring period the type and extent of any final remedial works, to the affected part of the structure, would be determined.

Should you wish us to formally monitor the cracking for you, we would respectfully suggest that you allow for the following fees: -

	ITEM	<u>FEE</u>
1.	Carry out initial visit to set up the monitoring locations and take initial readings.	£250.00 + VAT
2.	Carry out subsequent monitoring visits at 3 monthly intervals (4 No. visits @ £150 + VAT per visit)	£600.00 + VAT
3.	Carry out final monitoring visit and prepare a report on our findings and recommendations for remedial works, if required.	£300.00 + VAT
	TOTAL	£1,150.00 + VAT
		===========

We trust the above is satisfactory for your immediate requirements, however, should you have any queries or require any further information, please do not hesitate to contact the Northampton office.

Yours sincerely

Hernaby

JACQUELINE BARNABY David Smith Associates LLP

APPENDIX 'A'

Typical Details



Photograph 1



Photograph 2

APPENDIX 'B'

Laboratory Test Results – Plasticity Index & Moisture Content



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



ST Consult Ltd Client Reference: GN0647 Client: Client Address: Job Number: 23-58622-1 Twigden Barns, Brixworth Road, Date Sampled: Not Given Creaton, Northamptonshire, **NN6 8NN** Date Received: 22/09/2023 Contact: Chris Nolan Date Tested: 03/10/2023 Site Address: GN0647 Raven Sampled By: Not Given Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland **Test Results:** Laboratory Reference: 2823662 Depth Top [m]: Not Given TH2 Depth Base [m]: Not Given Hole No .: Sample Reference: Not Given Sample Type: B

Sample Description:Brown slightly gravelly slightly sandy CLAYSample Preparation:Tested after washing to remove >425 µm

As Received Water
Content [W] %Liquid Limit
[WL] %Plastic Limit
[Wp] %Plasticity Index
[Ip] %% Passing 425µm
BS Test Sieve1655262992



Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks: Sample tested under Red Lab condition

Signed:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Monika Buroside

Monika Janoszek PL Environmental & Geotechnical Lab Production Specialist for and on behalf of i2 Analytical Ltd

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



Client Reference: GN0647 Job Number: 23-58622-1 Date Sampled: Not Given Date Received: 22/09/2023 Date Tested: 03/10/2023 Sampled By: Not Given

 4041

 Client:
 ST Consult Ltd

 Client Address:
 Twigden Barns, Brixworth Road, Creaton, Northamptonshire, NN6 8NN

 Contact:
 Chris Nolan

 Site Address:
 GN0647 Raven

 Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

ac-MF

Test results

JKA TESTING

			Sample	9							
Laboratory Reference	Hole No.	Reference	Тор	Depth Base	Туре	Description	Remarks	wc	Sample preparation / Oven temperature at the time of testing		
			m Not	m Not				%			
2823662	TH2	Not Given	Given	Given	В	Brown slightly gravelly slightly sandy CLAY		16	Sample was quartered, oven dried at 108.8 °C		

Comments: Sample tested under Red Lab condition

Signed:

Burosille

youks

Monika Janoszek

for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Date Reported: 13/10/2023 GF 099.17

PL Environmental & Geotechnical Lab Production Specialist



Southern Testing: Keeble House, Stuart Way, East Grinstead, West Sussex RH19 4QA ST Consult: Twigden Barns, Brixworth Road, Creaton, Northampton NN6 8NN







Southern Testing: Keeble House, Stuart Way, East Grinstead, West Sussex RH19 4QA ST Consult: Twigden Barns, Brixworth Road, Creaton, Northampton NN6 8NN



		Te		•		th BS 1377-2			Sheet 2, 4.3, 5.3 & 5.4
Projec	ct No :	GN0647	7	Chec	ked By :	CN		Date:	28-Sep-2023
Projec	ct Name :	Raven I	House, Roc	kinghan	n Rd, Co	rby			
Client	:	DSA							
Plot No	TH No.	Depth	Moisture Content	Liquid Limit	Plastic Limit	Plasticity Index	Class- ification	% Passing 425µm	Visual Description
		(m)	(%)	(%)	(%)	(%)		(%)	
1	TH1	N/A	17.5	55	16	39	СН	91	Brown mottled grey and orange brown slightly sandy slightly gravelly calcareous CLAY. Gravel consists of fine and medium angula to rounded chalk and flint.



Southern Testing: Keeble House, Stuart Way, East Grinstead, West Sussex RH19 4QA ST Consult: Twigden Barns, Brixworth Road, Creaton, Northampton NN6 8NN





APPENDIX 'C'

Laboratory Test Results – Root Samples



Richardson's Botanical Identifications

Root identification Vegetation surveys Tree/Building investigations Plant taxonomy

David Smith Associates 8 Duncan Close Moulton Park NORTHAMPTON NN3 6WL

05/10/2023

Dr Ian B K Richardson BSc, MSc, PhD, MRSB, FLS James Richardson BSc (Hons. Biology)

Enterprise House 49-51 Whiteknights Road Reading RG6 7BB

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

Your ref:	JB-23-52720-MH
Our ref:	87/4913

Dear Sirs

Raven House, Corby NN17 1AJ

The samples you sent in relation to the above on 20/09/2023 have been examined. Their structures were referable as follows:

Smaller sa	mple										
1 no.	Examined root: ACER (Maples, Sycamores).										
Larger sam	Larger sample										
	Examined root: a conifer - particularly like the family CUPRESSACEAE (cypresses ('macrocarpa', 'Leylandii' etc.), Thuja (Western Red Cedar), Junipers).										

Click here for more information: ACER CUPRESSACEAE

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

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

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

APPENDIX 'D'

NHBC Chapter 4.2 "Building Near Trees"

Table 14: MEDIUM volume change potential soil and HIGH water demand tree

Broad-lea	afed tree	s										Coniferou	us tr	ees										
Foundatio	on depth	า (m))									Foundatio	on d	epth	ı (m)									
Distance	Tree he	iaht	H (n	n)								Distance	Tre	e he	iaht	H (n	า)							
D (m)	8 10	12	14	16	18	20	22	24	26	28	30	D (m)	8	10	12	14	16	18	20	22	24	26	28	30
1		_	_								_	1				_		F	ound	tions g	reater f	han 2.	5m	
2					F	oundat	ions gr	eater t	han 2.	5m		2	2.15	2.30	2.45	2.50	1			be eng				
3	2.40 2.50				d	eep to l	be eng	ineer o	lesigne	ed		3	1.70	1.95	2.15	2.25	2.35	2.45	2.50					_
4	2.20 2.35	2.45										4	1.25	1.60	1.85	2.00	2.15	2.25	2.30	2.40	2.45	2.50	2.50	
5	1.95 2.20	2.30	2.40	2.50								5	0.90	125	1.55	1.75	1.95	2.05	2.15	2.20	2.30	2.35	2.40	2.45
6	1.75 2.00	2.20	2.30	2.40	2.45	2.50						6		0.90	1.25	1.50	1.70	1.85	1.95	2.05	2.15	2.20	2.25	2.30
7	1.55 1.85	2.05	2.20	2.30	2.35	2.45	2.50					7			1.00	1.25	1.50	1.65	1.80	1.90	2.00	2.10	2.15	2.20
8	1.35 1.70	1.90	2.05	2.20	2.25	2.35	2.40	2.45	2.50			8			0.90	1.00	1.25	1.45	1.60	1.75	1.85	1.95	2.00	2.10
9	1.15 1.50	1.75	1.95	2.10	2.20	2.25	2.35	2.40	2.45	2.50	2.50	9				0.90	1.05	1.25	1.45	1.60	1.70	1.80	1.90	1.95
10	0.90 1.35	1.60	1.80	1.95	2.10	2.20	2.25	2.30	2.35	2.40	2.45	10					0.90	1.10	1.25	1.45	1.55	1.65	1.75	1.85
11	0.90 1.15	1.50	1.70	1.85	2.00	2.10	2.20	2.25	2.30	2.35	2.40	11						0.90	1.10	1.25	1.40	1.55	1.65	1.75
12	0.90 1.00	1.35	1.60	1.75	1.90	2.00	2.10	2.20	2.25	2.30	2.35	12							0.90	1.10	1.25	1.40	1.50	1.60
13	0.90	1.20	1.45	1.65	1.80	1.95	2.05	2.10	2.20	2.25	2.30	13							0.90	0.95	1.10	1.25	1.40	1.50
14	0.90	1.05	1.35	1.55	1.70	1.85	1.95	2.05	2.10	2.20	2.25	14								0.90	1.00	1.15	1.25	1.40
15		0.90	1.20	1.45	1.60	1.75	1.85	1.95	2.05	2.10	2.20	15									0.90	1.00	1.15	1.25
16		0.90	1.10	1.35	1.55	1.70	1.80	1.90	2.00	2.05	2.10	16										0.90	1.00	1.15
17	1	0.90	1.00	1.25	1.45	1.60	1.70	1.85	1.90	2.00	2.05	17											0.90	1.05
18]	-	0.90	1.15	1.35	1.50	1.65	1.75	1.85	1.95	2.00	18												0.90
19			0.90	1.05	1.25	1.40	1.55	1.70	1.80	1.90	1.95	19												
20	1			0.90	1.15	1.35	1.50	1.60	1.75	1.80	1.90	20												
21]			0.90	1.05	1.25	1.40	1.55	1.65	1.75	1.85	21												
22				0.90	0.95	1.15	1.35	1.50	1.60	1.70	1.80	22												
23	1				0.90	1.10	1.25	1.40	1.55	1.65	1.75	23												
24					0.90	1.00	1.20	1.35	1.45	1.60	1.70	24]											
25	1					0.90	1.10	1.25	1.40	1.50	1.60	25												
26]					0.90	1.05	1.20	1.35	1.45	1.55	26												
27						0.90	0.95	1.15	1.30	1.40	1.50	27												
28							0.90	1.05	1.20	1.35	1.45	28												
29							0.90	1.00	1.15	1.30	1.40	29												
30								0.90	1.10	1.20	1.35	30												
31								0.90	1.00	1.15	1.30	31												
32								0.90	0.95	1.10	1.25	32												
33									0.90	1.05	1.15	33												
34									0.90	1.00	1.10	34												
35										0.90	1.05	35												
36		0.9m	minim	um fou	ndatior	n depth				0.90	1.00	36			0.9m	minimu	um fou	ndatior	n depth	ı				
37										0.90	0.95	37												
38											0.90	38												

Table 15: MEDIUM volume change potential soil and MODERATE water demand tree

Broad-le	eafed	tree	s										Coniferou	JS											
Foundat	tion d	eptł	า (m)										Foundatio	on d	epth	(m)									
Distanc	e Tre	e he	ight	H (n	n)								Distance	Tre	e hei	ight	H (m	ו)							
D (m)	8	10	12	14	16	18	20	22	24	26	28	30	D (m)	8	10	12	14	16	18	20	22	24	26	28	30
1	1.85	1.85	1.90	1.90	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1	1.65	1.70	1.75	1.80	1.80	1.85	1.85	1.90	1.90	1.90	1.90	1.90
2	1.65	1.75	1.80	1.80	1.85	1.85	1.85	1.90	1.90	1.90	1.90	1.90	2	1.25	1.40	1.50	1.55	1.65	1.65	1.70	1.75	1.75	1.80	1.80	1.80
3	1.45	1.60	1.65	1.70	1.75	1.80	1.80	1.80	1.85	1.85	1.85	1.85	3	0.90	1.10	1.25	1.35	1.45	1.50	1.55	1.60	1.65	1.65	1.70	1.70
4	1.30	1.45	1.55	1.60	1.65	1.70	1.75	1.75	1.80	1.80	1.80	1.80	4		0.90	0.95	1.10	1.25	1.30	1.40	1.45	1.50	1.55	1.55	1.60
5	1.10	1.30	1.40	1.50	1.55	1.60	1.65	<mark>1.70</mark>	1.70	1.75	1.75	1.80	5			0.90	0.90	1.05	1.15	1.25	1.30	1.35	1.40	1.45	1.50
6	0.90	1.15	1.30	1.40	1.45	1.55	1.60	1.60	1.65	1.70	1.70	1.75	6					0.90	0.95	1.10	1.15	1.25	1.30	1.35	1.40
7	0.90	1.00	1.15	1.30	1.40	1.45	1.50	1.55	1.60	1.65	1.65	1.70	7						0.90	0.90	1.00	1.10	1.15	1.25	1.30
8		0.90	1.05	1.20	1.30	1.35	1.45	1.50	1.55	1.55	1.60	1.65	8								0.90	0.95	1.05	1.10	1.20
9			0.90	1.10	1.20	1.30	1.35	1.40	1.45	1.50	1.55	1.60	9									0.90	0.95	1.00	1.10
10			0.90	0.95	1.10	1.20	1.30	1.35	1.40	1.45	1.50	1.55	10										0.90	0.90	0.95
11				0.90	1.00	1.10	1.20	1.30	1.35	1.40	1.45	1.50	11												0.90
12					0.90	1.05	1.15	1.20	1.30	1.35	1.40	1.45	12												
13					0.90	0.95	1.05	1.15	1.25	1.30	1.35	1.40	13												
14						0.90	1.00	1.10	1.15	1.25	1.30	1.35	14												
15							0.90	1.00	1.10	1.15	1.25	1.30	15												
16							0.90	0.95	1.05	1.10	1.20	1.25	16												
17								0.90	1.00	1.10	1.15	1.20	17												
18									0.90	1.00	1.10	1.15	18												
19									0.90	0.95	1.00	1.10	19												
20										0.90	0.95	1.05	20												
21		0.	9m mir	nimum	founda	tion de	pth				0.90	1.00	21		0.9	9m min	imum f	founda	tion de	pth					
22											0.90	0.95	22												
23												0.90	23												

 Table 16: MEDIUM volume change potential soil and LOW water demand tree

Broad-leafed trees													
Foundation depth (m)													
Distance	tance Tree height H (m)												
D (m)	8	10	12	14	16	18	20	22	24	26	28	30	
1	1.35	1.40	1.40	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.50	1.50	
2	1.20	1.30	1.30	1.35	1.35	1.40	1.40	1.40	1.40	1.45	1.45	1.45	
3	1.05	1.15	1.20	1.25	1.30	1.30	1.35	1.35	1.35	1.40	1.40	1.40	
4	0.90	1.05	1.10	1.20	1.20	1.25	1.30	1.30	1.30	1.35	1.35	1.35	
5		0.90	1.00	1.10	1.15	1.20	1.20	1.25	1.25	1.30	1.30	1.30	
6			0.90	1.00	1.05	1.10	1.15	1.20	1.20	1.25	1.25	1.30	
7]			0.90	1.00	1.05	1.10	1.15	1.15	1.20	1.20	1.25	
8]				0.90	1.00	1.05	1.10	1.10	1.15	1.20	1.20	
9]					0.90	1.00	1.05	1.05	1.10	1.15	1.15	
10							0.90	0.95	1.00	1.05	1.10	1.10	
11								0.90	0.95	1.00	1.05	1.10	
12									0.90	0.95	1.00	1.05	
13		0.9	9m min	imum f	founda	tion de	pth			0.90	0.95	1.00	
14											0.90	0.95	
15												0.90	

2	Λ	
	U	

APPENDIX 'E'

CCTV Survey Report

CLAYDON

254A MAIN ROAD DUSTON NORTHAMPTON NN5 6PP

Tel 01604 580836 email: bob-claydon@btconnect.com

CCTV DRAIN SURVEY REPORT

Client: David Smith Associates LLP

Location: RAVEN HOUSE, ROCKINGHAM ROAD, CORBY

Details: Drain investigation works as requested

Date: 18.9.23

The CCTV recordings are accompanied by a plan and survey report.

CCTV section numbers are referenced on the drawing.

The information contained on these recordings is given without obligation. Every effort is taken to provide accurate data. The exact position of a defect should be verified and established on site before undertaking any excavation or repair work. Claydon cannot be responsible for any misplaced excavation or repair costs.

CCTV DRAIN SURVEYS, SEWER CLEANING & TRENCHLESS REPAIR WORKS



to MH 7 outside property



Raven House

		Place :		CLAYDON
				mpton NN5 6PP 1A Main Road
				4A Main Road 01604 580836
			Ter:	Fax:
			Email: bob of	rax: aydon@btconnect.com
			Email: DOD-Ci	ayuun ebicunneci.com
	Inspe	ction picture	es	
Place :	Road :	Date :	Section number :	PLR Suffix :
Corby	53 Rockingham Road	18/09/2023	1	Х
-				



Photo: CCTV 01 pic 1.jpg 10.2m, Finish node type, manhole reference number: MH 3

								Stree T	et : 254A el: 01604 Fax:	NN5 6PP Main Road 580836	com
				In	spectio	on repor	ť				
	Date : 18/09/2023		Job number :		ather : 1 or snow	Operato W Bottr		Section number	er:	PLR	SUFFIX:
r	Weather no rain or sno	w	Vehicle : Unit 1		mera : sh rod	Preset	:	Cleaned :			berator : Bottrill
Use:	d : ation ection	MH 1 (U/S)	yham Road MH 2 bined	Location d Catchmen Tape num Pipe Leng	t: ber :	Pipe shape : Pipe size :	U/\$ D/\$		MH 2 MH 1		
Tota	oose : Il length : nment :	Rout 2.40	ine inspection of a	condition		Pipe material : Lining :	Poly	vinyl chloride			
	1:200 MH 1	Position	Code	Observatio	on			Ν	MPEG	Photo	
	\mathbf{k}	0.0	_			e, reference nu					
		<u>0.0</u> 2.1	_			ertical dimensions:					
		2.2				ameter 100mm				ссту	02 pic 1.jpg
		2.4	<u>0</u> SA	Survey aba	andoned Rem	arks: bunch of	roots			CCTV	02 pic 2.jpg
		2.4	<u>0</u> REM	General re roots remo		s: see downstr	eam survey 1	2 after			
	ctural Defects					Constructional F					
	ice Defects R no def	STR peak	STR mean	STR total	STR grade	Miscellaneous F SER no def	eatures SER peak	SER mean	S	ER total	SER grade
	0	0	0	0	1	0 House	0	0		0	1

		Place :		
				CLAYDON
				nampton NN5 6PP 54A Main Road
				54A Main Road : 01604 580836
			10	Fax:
			Email: bob-	claydon@btconnect.com
	Inspe	ction picture	es	
Place :	Road :	Date :	Section number :	PLR Suffix :
Corby	53 Rockingham Road	18/09/2023	2	X



Photo: CCTV 02 pic 1.jpg 2.25m, Junction, at 2 o'clock, diameter 100mm



Photo: CCTV 02 pic 2.jpg 2.4m, Survey abandoned

								No	CLAYI	NN5 6PP	
								Stre		Main Road	
									Fax:		
				I	nspectio	on repor	t	Email: boi	b-claydon	@btconnect.d	com
Date : 18/09/20			Job number :		Weather : Operator : no rain or snow W Bottrill				er :	PLR	SUFFIX:
Weath			Vehicle :		amera :	Preset	:	Cleaned :			perator :
no rain or	snow		Unit 1	P	ush rod					vv	Bottrill
Place : Road :	Corby		nam Road	Location Catchme				U/S MH : U/S Depth :	Latera	11	
Location	55 KU	ckingi	Idili Kudu	Tape nur				D/S MH :	MH 1		
Inspection	MH 1		_ateral 1	Pipe Len	gth			D/S Depth :			
Use: Year laid :		Comb	ined			Pipe shape : Pipe size :		ircular)0 mm			
Purpose :			ne inspection of o	ondition		Pipe material :		olyvinyl chloride			
Total length :		1.05 n	n			Lining :					
Comment :											
1:200	Posit	tion	Code	Observa	tion			Γ	MPEG	Photo	
(MH 1)	0.00		0							
	/ \	0.00	<u>M</u> H	Start nod	e type, manhole	e, reference nu	Imper : IVIH	1			
🛴 Latera	$\left \right\rangle $	0.00	<u> </u>	Water lev	vel, 0% of the v	ertical dimensio	on				
	$\langle \rangle \rangle$	0.00		Conorol	omorie Domorie	a, reate round	aidaa af ain	•		COTV	02 nio 1 ing
		0.00	REM	General r	emark Remark	s: roots round :	sides of pip	e		CCTV	03 pic 1.jpg
Latera		1.05	MHF	Finish no	de type, manho	ale reference n	umber: Late	aral 1		ССТУ	03 pic 2.jpg
《《	L	1.00		Remarks	RWP gully					0011	00 pic 2.jpg
Structural Defec	ts					Constructional F					
Service Defects	STR pe	ak I	STR mean	STR total	STR grade	Miscellaneous F	eatures SER peak	SER mean	6	ER total	SER grade
0	51R pe 0	an	0	0	STR grade 1	O SER no def	SER peak 0	SER mean		0	SER grade
			I		Raven	House			-		





Photo: CCTV 03 pic 1.jpg 0m, General remark



Photo: CCTV 03 pic 2.jpg 1.05m, Finish node type, manhole reference number: Lateral 1

								Stre T	CLAYD rthampton eet : 254A N Fel: 01604 5 Fax: b-claydon@	NN5 6PP ⁄lain Road	com
				In	spectio	on repor	t				
	Date : 18/09/2023		Job number :		ather : or snow	Operato W Bottr	r:	Section number	er:	PLR	SUFFIX:
nc	Weather rain or sno	ow	Vehicle : Unit 1		nera : h rod	Preset		Cleaned :			berator : Bottrill
Place Road Locati Inspec	: on	Corby 53 Rockingh MH 1 (U/S) L		Location de Catchment: Tape numb Pipe Length	er :		U/ D/	'S MH : 'S Depth : 'S MH : 'S Depth :	Lateral MH 1	2	
Jse: Year I Purpo Fotal I	aid :	Combi	ned e inspection of co			Pipe shape : Pipe size : Pipe material : Lining :	Circ 100	ular mm /vinyl chloride			
	1:200	Position	Code	Observatio	n			M	MPEG	Photo	
	MH 1	0.00	MH	Start node t	ype, manhole	e, reference nu	mber : MH 1				
\$		0.00	WL	Water level, 0% of the vertical dimension							
	Lateral 2	0.00	DES	Settled dep	osits, fine, 5%	6 cross-section	al area loss			CCTV 04 pic 1.jpg	
R			REM	General rer	nark Remark	s: cobwebs in p	oipe				
		1.65	JN	Junction, at	11 o'clock, d	liameter 100mr	n			CCTV	04 pic 2.jp(
		3.15	LU	Line deviate	es up						
		3.75	MHF	Finish node Remarks: s	type, manho oil pipe inside	le reference nu e	umber: Latera	al 2		ССТУ	04 pic 3.jp
	ural Defects					Constructional F					
	e Defects	0770		STR total		Miscellaneous Fe					050
	no def	STR peak	STR mean	STRIDIAL	STR grade	SER no def	SER peak	SER mean	SE	R total	SER grade

		Place :		
			Northa 25- Tel:	CLAYDON Impton NN5 6PP 4A Main Road 01604 580836 Fax: aydon @btconnect.com
	Inspe	ction picture	s	
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 4	PLR Suffix : X



Photo: CCTV 04 pic 1.jpg 0m, Settled deposits, fine, 5% cross-sectional area loss



Photo: CCTV 04 pic 2.jpg 1.65m, Junction, at 11 o'clock, diameter 100mm



Photo: CCTV 04 pic 3.jpg 3.75m, Finish node type, manhole reference number: Lateral 2



Raven House





Photo: CCTV 05 pic 1.jpg 2.85m, Junction, at 2 o'clock, diameter 100mm



Photo: CCTV 05 pic 2.jpg 12.75m, Finish node type, manhole reference number: MH 5

								Northe Street : Tel:	CLAYDON ampton NN5 6PP 254A Main Road 01604 580836 Fax: laydon@btconnect.	20 m
				l	nspectio	on repor	t	Linaii. bob-ci	ayuun enconnect.	Lom
1	Date : 8/09/2023	8	Job number :	W	eather : in or snow	Operato W Bott	or :	Section number	: PLF	R SUFFIX:
	Weather rain or sn	ow	Vehicle : Unit 1		amera : u sh rod	Preset	:	Cleaned :		perator : Bottrill
Place : Road : Locatio	n	Corby 53 Rocking MH 4 (D/S)		Location Catchme Tape nur Pipe Len	nt: nber :		U/S D/S	Depth :	MH 4 Main	
Use: Year lai Purpose Total le	e : ngth :	Foul Routi 1.50 i	ine inspection of m	condition		Pipe shape : Pipe size : Pipe material : Lining :	Circu 100 r Vitrif			
Comme	ent :									
	1:200	Position	Code	e Observat	ion			MP	EG Photo	
	MH 4	0.00	<u>)</u> MH	Start node	e type, manhol	e, reference nu	umber : MH 4			
	Main	0.00	<u>o</u> WL	Water lev	el, 0% of the v	ertical dimensi	on			
»		0.00	<u>)</u> DES	Settled de	eposits, fine, 59	% cross-section	nal area loss			
		1.50	<u>0</u> MHF		de type, manho joins line from				CCTV	06 pic 1.jpg
Structur Service	al Defects Defects					Constructional I Miscellaneous F				
STR no 0		STR peak 0	STR mean 0	STR total 0	STR grade 1	SER no def 1	SER peak 1	SER mean 0.67	SER total 1	SER grade 2

Raven House

		Place :		
			Northa 254 Tel: (CLAYDON mpton NN5 6PP 14 Main Road 01604 580836 Fax: aydon @btconnect.com
	Inspe	ction picture	es	
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 6	PLR Suffix : X
	3			



Photo: CCTV 06 pic 1.jpg 1.5m, Finish node type, manhole reference number: Main

							Northamp Street : 254 Tel: 016 F	AYDON ton NN5 6PP IA Main Road 04 580836 jax: on @btconnect.com	
				Inspect	ion report	t			
Date : 18/09/202	23	Job	number :	Weather : no rain or snow	Operator W Bottri	1	Section number : 7	PLR SUFFIX:	
Weather no rain or s			/ehicle : Unit 1	Camera : Push rod	Preset :		Cleaned :	Operator : W Bottrill	
Place : Road : Location Inspection		/ ckingham (U/S) Upst		Location details: Catchment: Tape number : Pipe Length		U/S D/S	6 MH : Ups 6 Depth : 6 MH : MH 6 Depth :	tream 4	
Use: Year laid : Purpose : Total length : Comment :		Foul Routine in 3.00 m	spection of co	ndition	Pipe shape : Pipe size : Pipe material : Lining :	Circu 100 r Vitrif			
1:200	Posit	ion	Code	Observation			MPEG	B Photo	
MH 4)	0.00	МН	Start node type, manh	ole, reference nur	nber : MH 4			
	$\langle \rangle$	0.00	WL	Water level, 0% of the vertical dimension					
	$\left \right $	0.00	DES	Settled deposits, fine, 5% cross-sectional area loss					
2		0.00	REM	General remark Rema	arks: cobwbs in pip	De			
		2.40	JN	Junction, at 12 o'clock	a, diameter 100mm	ו		CCTV 07 pic 1.	
	/	3.00	SA	Survey abandoned Re blocked off	emarks: unable to	push further -	line		
Structural Defects	6				Constructional Fe				
STR no def 0	STR pe 0	ak S	TR mean	STR total STR grade	Miscellaneous Fe	SER peak	SER mean 0.42	SER total SER gra	
•	U	I	~		en House		V.74		

		Place :		
			Northai 254 Tel: (ELAYDON mpton NN5 6PP A Main Road 01604 580836 Fax: ydon@btconnect.com
	Inspe	ction picture	es	
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 7	PLR Suffix : X



Photo: CCTV 07 pic 1.jpg 2.4m, Junction, at 12 o'clock, diameter 100mm

								S	CLAYI Northamptor Street : 254A Tel: 01604 Fax bob-claydon	n NN5 6PP Main Road 580836	com
				li	nspectio	on repor	ť				
	Date : 18/09/2023		Job number :		eather : in or snow	Operato W Bottr	r: ill	Section nun 8	nber :	PLF	SUFFIX:
n	Weather o rain or sn	ow	Vehicle : Unit 1		amera : Ish rod	Preset	:	Cleaned	1:		perator : Bottrill
Place Road Locat Inspe	l : tion	Corby 53 Rockin MH 6 (D/S	gham Road) MH 7	Location Catchmei Tape nun Pipe Leng	nt: nber :	-	U/ D/	S MH : S Depth : S MH : S Depth :	MH 6 MH 7		
Use: Year Purpo Total	laid :	Sur	face water tine inspection of 5 m			Pipe shape : Pipe size : Pipe material : Lining :	Circ 100	ular			
	1:200	Position	Code	e Observat	ion				MPEG	Photo	
	MH 6	0.(<u>00</u> MH	Start node	e type, manhol	e, reference nu	imber : MH 6				
		0.0			Water level, 0% of the vertical dimension						
\$					Line deviates left Water level, 0% of the vertical dimension						
						ertical dimensi					
«		2.	<u>10</u> JN	Junction,	at 9 o'clock, di	ameter 100mm	I			сст∨	′ 08 pic 1.jpg
I		4.5	<u>50</u> WL	Water lev	el, 5% of the v	ertical dimensi	n				
		16.9	5 <u>0</u> LR	Line devia	ates right						
	(MH 7)	16.9	9 <u>5</u> MHF	Finish noo Remarks:	le type, manho outside front b	ble reference n boundary of pre	umber: MH 7 emises				
	tural Defects					Constructional F					
	t no def	STR peak	STR mean	STR total	STR grade	Miscellaneous F SER no def	eatures SER peak	SER mea	an S	ER total	SER grade
	0	0	0	0	1	0	0 0	0		0	1

		Place :		
			Northa 25- Tel:	CLAYDON ampton NN5 6PP 4A Main Road 01604 580836 Fax: aydon @btconnect.com
	Inspe	ction picture	es	
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 8	PLR Suffix : X



Photo: CCTV 08 pic 1.jpg 2.1m, Junction, at 9 o'clock, diameter 100mm
						Stre 1	CLAYDON orthampton NN5 6PF pet : 254A Main Roa Fel: 01604 580836 Fax: b-claydon@btconne	d			
				Inspecti	on report						
	Date : 18/09/2023		lob number :	Weather : no rain or snow	Operator : W Bottrill	Section numb	er: F	LR SUFFIX:			
r	Weather no rain or sno	ow	Vehicle : Unit 1	Camera : Push rod	Preset :	Cleaned :		Operator : W Bottrill			
		Corby 53 Rockingha MH 6 (U/S) La		Location details: Catchment: Tape number : Pipe Length		U/S MH : U/S Depth : D/S MH : D/S Depth :	Lateral 1 MH 6				
Purp Fota	: r laid : pose : al length : nment :	Surface Routine 6.90 m	e water e inspection of co	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 100 mm Vitrified clay					
	1:200	Position	Code	Observation		r	MPEG Photo)			
	MH 6	0.00	МН	Start node type, manho	ole, reference numbe	er : MH 6					
5		0.00	WL	Water level, 0% of the vertical dimension							
		0.00	S01 DES	Settled deposits, fine, 2	20% cross-sectional	area loss, Start					
		1.20	REM	General remark Remai	rks: camera pushing	debris					
	Lateral 1	1.95	JN	Junction, at 2 o'clock, o	Junction, at 2 o'clock, diameter 100mm CCTV 09 pic 1.jpg						
	\	6.00	F01 DES	Settled deposits, fine, 2	20% cross-sectional	area loss, End					
		6.00	CUD	Loss of vision, silt							
		6.90	MHF	Finish node type, man Remarks: RWP - came	nole reference numb era heard in pipe	er: Lateral 1					
	ctural Defects				Constructional Featur						
serv	R no def	STR peak	STR mean	STR total STR grade	Miscellaneous Featur		SER total	SER grade			
STI		Unipeak	STICILICALI	STR grade		SER peak SER mean		JERgrade			

		Place :									
CLAYDON Northampton NN5 6PP 254A Main Road Tel: 01604 580836 Fax: Email: bob-claydon@btconnect.com											
	Inspection pictures										
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 9	PLR Suffix : X							



Photo: CCTV 09 pic 1.jpg 1.95m, Junction, at 2 o'clock, diameter 100mm

						Str	CLAYI lorthampton reet : 254A Tel: 01604 Fax. ob-claydon	n NN5 6PP Main Road 580836	om		
				Inspect	ion report						
	Date : 18/09/2023		Job number :	Weather : no rain or snow	Operator : W Bottrill	Section num 10	ber :	PLR	SUFFIX:		
I	Weather no rain or sn	ow	Vehicle : Unit 1	Camera : Push rod	Preset :	Cleaned	:		erator : Bottrill		
		Corby 53 Rocking MH 6 (U/S)		Location details: Catchment: Tape number : Pipe Length		U/S MH : U/S Depth : D/S MH : D/S Depth :	Upstre MH 6	eam			
Purp Tota	e: ir laid : pose : al length : nment :		ace water ine inspection of c i m	condition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 100 mm Vitrified clay					
	1:200	Position	Code	Observation			MPEG	Photo			
	MH 6	0.0	<u>0</u> MH	Start node type, manh	ole, reference numbe	er : MH 6					
1		0.0	<u>0</u> WL	Water level, 0% of the	Water level, 0% of the vertical dimension						
		0.00	<u>0</u> LR	Line deviates right							
		1.5	0 DES	Settled deposits, fine,	Settled deposits, fine, 5% cross-sectional area loss						
		1.80	<u>0</u> JN	Junction, at 3 o'clock,	Junction, at 3 o'clock, diameter 100mm CCTV 10 pic 1						
		6.1	<u>5</u> WL	Water level, 5% of the	e vertical dimension						
		11.5	<u>0</u> WL	Water level, 0% of the							
	Upstream	11.5	<u>0</u> LL	Line deviates left	Line deviates left						
		12.1	<u>5</u> LU	Line deviates up	Line deviates up						
		12.7	<u>5</u> MHF	Finish node type, mar Remarks: RWP	hole reference numb	er: Upstream					
Stru	ctural Defects				Constructional Featur	res					
Serv	vice Defects				Miscellaneous Featur	es	. 1 -				
SI	R no def	STR peak 0	STR mean 0	STR total STR grade	SER no def S	SER peak SER mean 1 0.08		ER total	SER grade 2		

		Place :									
CLAYDON Northampton NN5 6PP 254A Main Road Tei: 01604 580836 Fax: Email: bob-claydon@btconnect.com											
	Inspection pictures										
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 10	PLR Suffix : X							



Photo: CCTV 10 pic 1.jpg 1.8m, Junction, at 3 o'clock, diameter 100mm

Inspection reports: Date : Job number: Weather: Operator: Section number: PLR SUF Weather no rain or snow W Bottrill 11 X X Weather Operator: Preset: Cleaned: Operator: Vestice: Operator: Vestice: Cleaned: Operator: W Bottrill 11 X X Prece: Corby Location details: U/S MH: Lateral 2 U/S Depth: Dressing: MH 6 cation S3 Rockingham Road Catchment: Tape number: D'S Depth: D'S Depth: MH 6 sec: Surface water Pipe Length D'S Depth: MH 6 D'S Depth: D'S	
1809/2023 no rain or snow W Bottrill 11 X Weather no rain or snow Unit 1 Push rod Preset: Cleaned : Operato W Bottrill Nacci or snow Unit 1 Push rod Preset: Cleaned : Operato W Bottrill Nacci or snow Unit 1 Push rod Preset: U/S MH : Lateral 2 Vacation S3 Rockingham Road Catchment: U/S Depth : D/S MH : MH 6 Coation MH 6 (U/S) Lateral 2 Pipe Length D/S Depth : D/S Depth : Jaces: Surface water Pipe size : 100 mm Pipe size : 100 mm Varpose : Routine inspection of condition Pipe material : Pipe size : 100 mm Varpose : Routine inspection of condition Pipe material : Polyvinyl chloride Lining : Comment : 2.85 m MH 6 O.00 MH Start node type, manhole, reference number : MH 6 MH 6 0.00 WL Water level, 0% of the vertical dimension MEG Photo MH 6 0.00 WL Water level, 5% of the vertical dimension 2.40 0.1.65 WL Water level, 5% of the vertical dimension 2.40 NHF Finish node type, manhole reference number: Lateral 2 <t< th=""><th></th></t<>	
no rain or snow Unit 1 Push rod W Bottr Place : Corby Location details: U/S MH : Lateral 2 toatin S3 Rockingham Road Catchment: D/S Depth : D/S Depth : mspection MH 6 (U/S) Lateral 2 Pipe Length D/S Depth : D/S Depth : Jss: Surface water Pipe length Pipe stape : Circular Pipe size : 100 mm Virpose : Routine inspection of condition Pipe material : Polymixy chloride Polymixy chloride total length : 2.85 m Ining : 000 mm Pipe size : 100 mm Torment : 1:200 Position Code Observation MPEG Photo MH 6 0.00 MH Start node type, manhole, reference number : MH 6 Ining : Ining : <th>FIX:</th>	FIX:
toad : 53 Rockingham Road Catchment: Tape number : U/S Depth : D/S MH : U/S Depth : D/S MH : MH 6 D/S Depth : spection MH 6 (U/S) Lateral 2 Pipe Length D/S Depth : D/S Depth : spection Routine inspection of condition Pipe shape : Circular Pipe size : 100 mm Pupose : Routine inspection of condition Pipe material : Polyvinyl chloride Image: Circular Numment : 2.85 m U/S Depth : Note the province in the provinc	
Comment : 1:200 Position Code Observation MPEG Photo MH 6 0.00 MH Start node type, manhole, reference number : MH 6 MU Water level, 0% of the vertical dimension Lateral 2 1.05 DES Settled deposits, fine, 5% cross-sectional area loss MH 6 0.00 WL Water level, 5% of the vertical dimension Lateral 2 1.65 WL Water level, 5% of the vertical dimension JN Junction, at 3 o'clock, diameter 100mm CCTV 11 p	
MH 6 0.00 MH Start node type, manhole, reference number : MH 6 0.00 WL Water level, 0% of the vertical dimension tateral 2 1.05 DES Settled deposits, fine, 5% cross-sectional area loss 1.65 WL Water level, 5% of the vertical dimension 2.40 JN Junction, at 3 o'clock, diameter 100mm 2.85 MHF	
0.00 MH Start node type, manhole, reference number : MH 6 0.00 WL Water level, 0% of the vertical dimension Lateral 2 1.05 DES Settled deposits, fine, 5% cross-sectional area loss 1.65 WL Water level, 5% of the vertical dimension 2.40 JN Junction, at 3 o'clock, diameter 100mm 2.85 MHF Finish node type, manhole reference number: Lateral 2 CCTV 11 p	
Lateral 2 1.05 DES Settled deposits, fine, 5% cross-sectional area loss 1.65 WL Water level, 5% of the vertical dimension 2.40 JN Junction, at 3 o'clock, diameter 100mm 2.85 MHF Finish node type, manhole reference number: Lateral 2 CCTV 11 p	
Lateral 2 1.05 DES Settled deposits, fine, 5% cross-sectional area loss 1.65 WL Water level, 5% of the vertical dimension 2.40 JN Junction, at 3 o'clock, diameter 100mm 2.85 MHF Finish node type, manhole reference number: Lateral 2 CCTV 11 p	
2.40 JN Junction, at 3 o'clock, diameter 100mm 2.85 MHF Finish node type, manhole reference number: Lateral 2 CCTV 11 p	
2.85 MHF Finish node type, manhole reference number: Lateral 2 CCTV 11 p	
2.85 MHF Finish node type, manhole reference number: Lateral 2 CCTV 11 p Remarks: gully	
	bic 1.jpg
itructural Defects Constructional Features service Defects Miscellaneous Features	
	ER grade 2

			Northa	CLAYDON mpton NN5 6PP IA Main Road			
Tel: 01604 580836 Fax:							
			Email: bob-cl	aydon@btconnect.com			
	Inspe	ction picture	S				
Place :	Road :	Date :	Section number :	PLR Suffix :			
Corby	53 Rockingham Road	18/09/2023	11	х			



Photo: CCTV 11 pic 1.jpg 2.85m, Finish node type, manhole reference number: Lateral 2

18/09/2023 no rain or snow W Bottrill 12 X Weather no rain or snow Uhit 1 Camera : Push rod Preset : Cleaned : Operate W Bottrill Place : corby Corby Location details: Catchment: Location U/S MH : MH 2 U/S Depth : D/S MH : D/S Depth : D/S MH : D/S Depth : D/S MH : D/S Depth : D/S De							Stre T	el: 01604 Fax:	NN5 6PP Main Road 580836	com
18/09/2023 no rain or snow W Bottrill 12 X Weather no rain or snow Vehicle : Unit 1 Camera : Push rod Preset : Cleaned : Operation W Bottrill Place : Location Corty Location Location details: Catchment: Toge number : US MH : U/S MH : MH 2 MH 2 Use : Pupose : Portal length : Total length : Comment : Combined Pipe length D/S Depth : D/S Depth : MH 1 Pipes is : Pupose : Total length : Comment : Routine inspection of condition Pipe shape : Pipe shape : Dis Not : Pipe material : Polyvinyl chloride Offer material : Dis Depth : Pipe shape : Pipe shape : Dis Not : Pipe material : Polyvinyl chloride Comment : after bunch of roots removed NH 2 NH 2 NH 2 Val I alignth : 4.95 m Code Observation MPEG Photo Int 2 Water level, 0% of the vertical dimension MPEG Photo NH 2 N Int 2 JN Junction, at 9 o'clock, diameter 100mm CCTV 12 g				Inspec	tion repo	rt				
Weather no rain or snow Vehicle : Unit 1 Camera : Push rod Preset : Cleaned : Operative W Bott Place : Road : Location 53 Rockingham Road Cathment: Tape number : D/S MH 1 Location details: U/S MH : D/S Depth : D/S MH 1 MH 2 U/S MH 1 MH 2 MH 2 Use: Year laid : Pupose : Total length : Combined Combined Pipe shape : Pipe shape : Pipe size : 100 mm Circular Pipe size : 100 mm Pupose : Total length : Comment : after bunch of roots removed Pipe material : Location Polyvinyl chloride 1:200 Position Code Observation MPEG Photo MH 2 0.00 WL Water level, 0% of the vertical dimension MPEG Photo MH 2 0.00 WL Water level, 5% of the vertical dimension CCTV 12 p MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 p 2.55 REM General remark Remarks: joint slightly open CCTV 12 p			Job number :					er:	PLR SUFFIX:	
Road : Location 53 Rockingham Road Location Catchment: Tape number : Pipe Length US Depth : D/S Depth : D/S Depth : D/S Depth : Use: Combined Pipe Length D/S Depth : D/S Depth : MH 1 Use: Combined Pipe shape : Pipe size : 100 mm Circular Pipe size : 100 mm Circular Pipe material : Pipe material : Polyvinyl chloride MH 2 Comment : after bunch of roots removed MPEG Photo MPE 2 MPE 2 MPE 2 MPE 2 1:200 Position Code Observation MPEG Photo MPE 2 MH 2 0.00 WL Vater level, 0% of the vertical dimension MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 g MH 1 2.40 JN Junction, at 9 o'clock, diameter 100mm CCTV 12 g		w					Cleaned :			perator :
Use: Combined Pipe shape : Circular Year laid : Purpose : Routine inspection of condition Pipe size : 100 mm Purpose : As5 m Pipe material : Polyvinyl chloride Comment : after bunch of roots removed Lining : Polyvinyl chloride 1:200 Position Code Observation MPEG Photo MH 2 0.00 MH Start node type, manhole, reference number : MH 2 MPEG Photo MH 2 0.00 WL Water level, 0% of the vertical dimension MEG CCTV 12 g MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 g Quid JN Junction, at 9 o'clock, diameter 100mm CCTV 12 g	load : ocation	53 Rocking		Catchment: Tape number :		U/\$ D/\$	S Depth : S MH :			
MH 2 0.00 MH Start node type, manhole, reference number : MH 2 0.00 WL Water level, 0% of the vertical dimension 1.35 WL Water level, 5% of the vertical dimension MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 p 2.40 JN Junction, at 9 o'clock, diameter 100mm CCTV 12 p 2.55 REM General remark Remarks: joint slightly open CCTV 12 p	lse: ear laid : urpose : otal length :	Comt Routi 4.95 r	bined ne inspection of o n	condition	Pipe size : Pipe material :	Circ 100	ular mm			
0.00 MH Start node type, manhole, reference number : MH 2 0.00 WL Water level, 0% of the vertical dimension 1.35 WL Water level, 5% of the vertical dimension MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 p 2.40 JN Junction, at 9 o'clock, diameter 100mm CCTV 12 p 2.55 REM General remark Remarks: joint slightly open CCTV 12 p	1:200	Position	Code	Observation			Μ	MPEG	Photo	
1.35 WL Water level, 5% of the vertical dimension MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 p 2.40 JN Junction, at 9 o'clock, diameter 100mm CCTV 12 p 2.55 REM General remark Remarks: joint slightly open CCTV 12 p	MH 2									
MH 1 2.25 REM General remark Remarks: roots poking through joint CCTV 12 p 2.40 JN Junction, at 9 o'clock, diameter 100mm CCTV 12 p 2.55 REM General remark Remarks: joint slightly open CCTV 12 p		\setminus	_							
2.55 REM General remark Remarks: joint slightly open CCTV 12 p	(MH 1)	$\langle \rangle$							CCTV	12 pic 1.jpg
		2.40	<u>)</u> JN	Junction, at 9 o'clock	، diameter 100mn	n			ссту	12 pic 2.jpg
4.95 MHF Finish node type, manhole reference number: MH 1		2.55	5 REM	General remark Ren	narks: joint slightly	open			CCTV	12 pic 3.jpg
		4.95	<u>5</u> MHF	Finish node type, ma	anhole reference n	umber: MH 1				
Structural Defects Constructional Features	tructural Defects				Constructional	Features				
Service Defects Miscellaneous Features	ervice Defects	0TD			Miscellaneous F	eatures	050			055
STR no def STR peak STR mean STR total STR grade SER no def SER peak SER mean SER total SI 0 0 0 0 1 0							-	SI		SER grade 1

		Place :									
		CLAYDON Northampton NN5 6PP									
	254A Main Road										
Tel: 01604 580836 Fax:											
	Email: bob-claydon@btconnect.com										
	Inspection pictures										
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 12	PLR Suffix : X							



Photo: CCTV 12 pic 1.jpg 2.25m, General remark



Photo: CCTV 12 pic 2.jpg 2.4m, Junction, at 9 o'clock, diameter 100mm



Photo: CCTV 12 pic 3.jpg 2.55m, General remark

								Stree	CLAYDC hampton N t : 254A Ma l: 01604 58	IN5 6PP ain Road	
								Email: bob-	Fax: claydon@l	btconnect.c	om
				I	nspecti	on repor	t				
Date 18/09/20		Job nu	mber :		/eather : iin or snow	Operato W Bottr		Section number 13	r:	PLR	SUFFIX: X
Weath no rain or		Vehi Un i			amera : ush rod	Preset	:	Cleaned :			erator : Bottrill
Place : Road : Location Inspection		:kingham Ro D/S) MH 2	ad	Location Catchme Tape nur Pipe Len	nt: nber :		U/ D/	'S MH : 'S Depth : 'S MH : 'S Depth :	MH 8 MH 2		
Use:		Combined		1 100 2011	9	Pipe shape :	Circ	ular			
Year laid : Purpose : Total length :		Routine inspo 5.10 m	ection of co	ndition		Pipe size : Pipe material : Lining :		mm yvinyl chloride			
Comment :											
1:200) Positi	on	Code	Observat	tion			М	PEG	Photo	
		<u>0.00</u>	МН	Start node	e type, manho	le, reference nu	mber : MH 8				
		<u>0.00</u>	WL	Water lev	rel, 5% of the v	vertical dimension	n				
MH 2		<u>5.10</u>	MHF	Finish no	de type, manh	ole reference n	umber: MH 2			ССТV	13 pic 1.jpg
Structural Defect	ts					Constructional F Miscellaneous F					
Service Defects STR no def	STR pea			STR total	STR grade	SER no def	SER peak	SER mean	_	R total	SER grade
0	0)	0	1 Raver	0 n House	0	0		0	1

		Place :									
CLAYDON Northampton NN5 6PP 254A Main Road Tel: 01604 580836 Fax: Email: bob-claydon@btconnect.ccc											
	Inspection pictures										
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 13	PLR Suffix : X							



Photo: CCTV 13 pic 1.jpg 5.1m, Finish node type, manhole reference number: MH 2

									Stree T	et : 254A i el: 01604 Fax:	NN5 6PP Main Road 580836	com
					l	nspectio	on repor	t				
1	Date : 18/09/2023			umber :		'eather : in or snow	Operator W Bottr		Section numbe	er :		SUFFIX:
no	Weather rain or sno	w		hicle : nit 1		amera : u sh rod	Preset	:	Cleaned :			berator : Bottrill
Place : Road : Locatio Inspect Use: Year la	on tion	MH 8 (U	ingham R /S) Upstre ombined		Catchme Tape nur	Location details: U/S MH : Catchment: U/S Depth : Tape number : D/S MH : Pipe Length D/S Depth : Pipe shape : Circular Pipe size : 100 mm				Upstre	eam	
Purpos Total le Comm	ength :		outine ins 95 m	pection of co	ondition		Pipe material : Lining :	Poly	vinyl chloride			
	1:200	Positio	'n	Code	Observat	lion			Ν	IPEG	Photo	
	MH 8		<u>0.00</u> 0.00	MH WL			e, reference nu rertical dimensio					
		;	<u>3.90</u>	LR	Line devia	ates right						
ι 🖁	Jpstream		<u>3.90</u>	RF	Roots, fin	е					CCTV	14 pic 1.jpg
			<u>4.95</u>	MHF	Finish noo Remarks:	de type, manho at RWP gully,	ole reference nu , full of roots	umber: Upstre	am		ссти	14 pic 2.jpg
	ral Defects						Constructional F					
· ·	Defects					-	Miscellaneous Fe	eatures				
Service STR n 0		STR peak	STF	R mean	STR total	STR grade 1	SER no def 1	SER peak	SER mean 0.2	S	ER total	SER grade 2

		Place :									
	CLAYDON Northampton NN5 6PP 254A Main Road Tel: 01604 580836 Fax:										
	Fax: Email: bob-claydon@btconnect.com										
	Inspection pictures										
Place : Corby	Road : 53 Rockingham Road	Date : 18/09/2023	Section number : 14	PLR Suffix : X							



Photo: CCTV 14 pic 1.jpg 3.9m, Roots, fine



Photo: CCTV 14 pic 2.jpg 4.95m, Finish node type, manhole reference number: Upstream