

UKDN WATERFLOW

41867

03/12/2013 11:15:49

Site Details

SWAINS LANE LONDON N6 6PJ



CCTV SURVEY REPORT



GRADE 3,4 & 5 Summary

STRUCTURAL DEFECTS

Structu	ral defects		
Section	PLR	Grade	Fault description
1	MH28A X	3	Fracture, longitudinal, at 9 o'clock

Grade 3; Best practice suggests consideration be given to repair in the medium term

Grade 4; Best practice suggests consideration be given to a repair to avoid potential collapse

Grade 5; Best practice suggests this pipe is at risk of collapse at any time; urgent consideration should be given

to a repair to avoid collapse

SERVICE / OPERATIONAL DEFECTS

Service defects							
Section	PLR	Grade	Fault description				
1	MH28A X	3	Multiple defects at 14.3m				
2	MH28A X	3	Debris, 10% cross-sectional area loss				

Grade 3; Best practice suggests consideration be given to maintenance activities in the medium term

Grade 4; Best practice suggests consideration be given to maintenance activity to avoid potential blockage

Grade 5; Best practice suggests this pipe is at immediate risk of backing up / causing flooding

Abandoned Surveys

Camera no access					
Section	PLR	Fault description			
2	MH28A X	Debris, 10% cross-sectional area loss			
4	ACCESS2 X	Scale, light, from 5 to 7 o'clock, End			
5 MH 33 X		General observation			
6	MH 33A X	General observation			

Information

These summaries are based on the SRM grading from the WRC



MAIN DOWN

MH28A

03/12/2013

UK DN WATERFLOW
12-16 David Road
Colnbrook
Tel: 01753 810999
Fax: 01753 681442
Email:

Vitrified clay

20.00

17.80

$\Sigma \emptyset$ / Main sections

Project name :	Contract number :	Contact :	Date :
41867			03/12/2013

	41007						03/12/2013			
No.	U/S MH	D/S MH	Date	Road	Tape No.	Material	m	(m)		
3	MH22A	MAIN	03/12/2013	SWAINS LANE			2.60	2.60		
	Pipe size: 300 = 2.6 m (2.6 m)									
No.	U/S MH	D/S MH	Date	Road	Tape No.	Material	m	(m)		
4	ACCESS2	MAIN DOWN	03/12/2013	SWAINS LANE		Polyvinyl chloride (PVC)	30.00	25.90		
			<u>Pi</u>	pe size: CIRCULAR 150 = 30	<u>) m (25.9 m)</u>					
No.	U/S MH	D/S MH	Date	Road	Tape No.	Material	m	(m)		
5	MH 33	MAIN RUN	26/11/2013	SWAINS LANE		Vitrified clay	0.00	0.00		
6	MH 33A	OVERVIEW	26/11/2013	SWAINS LANE		Vitrified clay	2.00	1.10		
			<u>P</u>	ipe size: CIRCULAR 225 = 2	2 m (1.1 m)					
•							•	•		
No.	U/S MH	D/S MH	Date	Road	Tape No.	Material	m	(m)		
1	MH28A	MAIN DOWN	19/11/2013	SWAINS LANE		Vitrified clay	17.10	17.10		

Pipe size: CIRCULAR 300 = 37.1 m (34.9 m)

SWAINS LANE

All sections = 71.7 m (64.5 m)



Service / Operational Defects (SRM 4)

Project name :	Contract Number :	Contact :	Date :
41867			03/12/2013

No.	PLR	Dir.	Use	Shape / Size	Date	Mat.	Total Length	Insp. Length	Year laid	Peak Score	Grade	Mean Score	Total Score
1	MH28AX	D	S	C 300	19/11/2013	VC	17.10	17.10	Z	2	3	0.12	2
2	MH28AX	D	s	C 300	03/12/2013	VC	20.00	17.80	Z	2	3	0.1	2
3	MH22AX	D	s	300	03/12/2013		2.60	2.60	Z	0	1	0	0
4	ACCESS2X	D	S	C 150	03/12/2013	PVC	30.00	25.90	Z	1	2	0.44	13.1
5	MH 33X	D	С	C 225	26/11/2013	VC	0.00	0.00	Z	0	1	0	0
6	MH 33AX	D	С	C 225	26/11/2013	VC	2.00	1.10	Z	0	1	0	0



Structural Defects (SRM 4)

Project name :	Contract Number :	Contact :	Date :
41867			03/12/2013

No.	PLR	Dir.	Use	Shape / Size	Date	Mat.	Total Length	Insp. Length	Year laid	Peak Score	Grade	Mean Score	Total Score
1	MH28AX	D	S	C 300	19/11/2013	VC	17.10	17.10	Z	40	3	2.34	40
2	MH28AX	D	s	C 300	03/12/2013	VC	20.00	17.80	Z	0	1	0	0
3	MH22AX	D	s	300	03/12/2013		2.60	2.60	Z	0	1	0	0
4	ACCESS2X	D	S	C 150	03/12/2013	PVC	30.00	25.90	Z	20	2	0.67	20
5	MH 33X	D	С	C 225	26/11/2013	VC	0.00	0.00	Z	0	1	0	0
6	MH 33AX	D	С	C 225	26/11/2013	VC	2.00	1.10	Z	0	1	0	0



01753 681 Email:

Project-information

 Project name :
 Contract Number :
 Contact :
 Date :

 41867
 03/12/2013

Client: HURST PIERCE & MALCOLM

Contact Name: MICHAEL CHUNG

Department: CELTIC HOUSE

Road: 33 JOHNS MEWS

Town: HOLBORN

County: LONDON, WC1N 2QL

Telephone: **0207 242 3593** Fax: **0207 405 5274**

Mobile:

E-mail: mchung@hurstpm.co.uk

Site: HURST PEIRCE + MALCOLM

Contact Name:

Department: HIGHGATE CEMETARY

Road: SWAINS LANE

Town: LONDON County: N6 6PJ

Telephone:

Fax: Mobile: E-mail:

Contractor UK DN WATERFLOW

Contact Name:

Department: C.C.T.V

Road: 12-16 David Road

Town: Colnbrook

County: Slough

Telephone: 01753 810999
Fax: 01753 681442

Mobile:

E-mail:



Inspection report

Date : 19/11/2013	Job number : 41867	Weather : Dry	Sewer category:	Section number :	PLR suffix :
Present :	Vehicle : HN62ZHM	Camera :	Preset :	Cleaned : yes	Operator : CARL

Place : HIGHGATE CEMETERY Location details: U/S MH : MH28A
Road : SWAINS LANE Catchment: U/S Depth : 1.61

Location Difficult access Tape number : D/S MH : MAIN DOWN Inspection MH28A (D/S) MAIN DOWN Pipe length : 1.00 m D/S Depth :

Use: Surface water Pipe shape : Circular Year laid : Pipe size : 300 mm

Purpose : Sample survey to determin asset condition
Total length : Pipe material : Vitrified clay
Lining :

Comment :

	1:135 Position	Code	Observation	Grade
	Depth: 1.61 0.00	ST	Start of survey	(Misc) 0
				(, -
	MH28A 0.00	MH	Manhole Remarks: MH28A	(Constr) 0
	0.00	WL	Water level, 5% of sewer height	(Serv) 0
	0.00	GO	General observation Remarks: CAMERA VERTICAL	(Misc) 0
	0.30	FL	Fracture, longitudinal, at 9 o'clock	(Struct) 3
	3.00	GO	General observation Remarks: LINE LEVELS OUT	(Misc) 0
	4.10	JN	Junction, at 9 o'clock, 150mm diameter	(Constr) 0
	5.00	JN	Junction, at 3 o'clock, 150mm diameter	(Constr) 0
((5.50	JN	Junction, at 12 o'clock, 100mm diameter	(Constr) 0
	10.80	LL	Line of sewer deviates left Remarks: SLIGHTLY	(Serv) 0
	13.30	LR	Line of sewer deviates right Remarks: SLIGHTLY	(Serv) 0
	14.30	ELJ	Encrustation, light at joint, from 3 to 5 o'clock	(Serv) 2
	14.30	ELJ	Encrustation, light at joint, from 7 to 8 o'clock	(Serv) 2
	17.10	GO	General observation Remarks: MAIN SEWER REACHED	(Misc) 0
	17.10	FH	Finish survey	(Misc) 0



Inspection report

Date : 03/12/2013	Job number : 41867	Weather : Dry	Sewer category:	Section number : 2	PLR suffix :
Present :	Vehicle : HN62ZHM	Camera :	Preset :	Cleaned : yes	Operator : CARL

 Place :
 HIGHGATE CEMETERY
 Location details:
 U/S MH :
 MH28A

 Road :
 SWAINS LANE
 Catchment:
 U/S Depth :
 1.61

Location Difficult access Tape number : D/S MH : MAIN DOWN Inspection MH28A (D/S) MAIN DOWN Pipe length : 1.00 m D/S Depth :

Use: Surface water Pipe shape : Circular Year laid : Pipe size : 300 mm

Purpose: Sample survey to determin asset condition Pipe material: Vitrified clay
Total length: Lining:

Comment : TOTAL LENGTH ASSUMED

	1:150 Position Depth: 1.61	Code	Observation	Grade
	MH28A			
	0.00	ST	Start of survey	(Misc) 0
	0.00	МН	Manhole Remarks: MH28A	(Constr) 0
	0.00	WL	Water level, 05% of sewer height	(Serv) 0
	0.00	GO	General observation Remarks: ATTEMPT WITH FLEXIPROBE TO CCTV SURVEY INTO MAIN RUN	(Misc) 0
	0.00	GO	General observation Remarks: CAMERA VERTICAL	(Misc) 0
	3.70	GO	General observation Remarks: LINE LEVELS OUT	(Misc) 0
	4.20	DE	Debris, 10% cross-sectional area loss	(Serv) 3
1				
	17.80	SA	Survey abandoned Remarks: LOSS OF VISION	(Misc) 0

Structural Defec	Structural Defects					Constructional Features				
Service Defects	Service Defects					Miscellaneous Features				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade	
0	0	0	0	1	1	2	0.1	2	3	



(Misc) 0

Inspection report

Date : 03/12/2013	Job number : 41867	Weather : Dry	Sewer category:	Section number : 3	PLR suffix : X
Present :	Vehicle : HN62ZHM	Camera :	Preset :	Cleaned : yes	Operator : CARL

HIGHGATE CEMETERY MH22A Place: Location details: U/S MH: **SWAINS LANE** Road: Catchment: U/S Depth: 1.6 Location Difficult access Tape number : D/S MH: MAIN Inspection MH22A (D/S) MAIN Pipe length: 1.00 m D/S Depth:

Use: Surface water Pipe shape :

Year laid : Z Pipe size : 300 mm

Purpose : Sample survey to determin asset condition Pipe material :

Total length: Lining:

Comment:

MAIN

	1:50 Depth: 1	Position 1.6	Code	Observation	Grade
\$	MH22A	0.00	ST MH	Start of survey Manhole Remarks: MH22	(Misc) 0 (Constr) 0
		0.00	GO	General observation Remarks: CAMERA VERTICAL	(Misc) 0
'		2.60	GO	General observation Remarks: BASE OF	(Misc) 0

MANHOLE

Finish survey

FΗ

2.60

Structural Defec	ts				Constructional Features				
Service Defects					Miscellaneous Features				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	0	0	0	1	0	0	0	0	1



Inspection report

Date : 03/12/2013	Job number : 41867	Weather : Dry	Sewer category:	Section number : 4	PLR suffix :
Present :	Vehicle : HN62ZHM	Camera :	Preset :	Cleaned : yes	Operator : CARL

Place : HIGHGATE CEMETERY Location details: U/S MH : ACCESS2

Road: SWAINS LANE Catchment: U/S Depth:
Location Difficult access Tape number: D/S MH: MAIN DOWN

Inspection ACCESS2 (D/S) MAIN DOWN Pipe length: 1.00 m D/S Depth:

Use: Surface water Pipe shape : Circular Year laid : Pipe size : 150 mm

Purpose: Sample survey to determin asset condition Pipe material: Polyvinyl chloride (PVC)

Total length: Lining:

Comment :

Structural Defects

STR peak

STR mean

0.67

Service Defects

STR no def

	1:210	Position	Code	Observation	Grade
	ACCESS	0.00	ST	Start of survey	(Misc) 0
		0.00	МН	Manhole Remarks: ACCESS2	(Constr) 0
		0.00	WL	Water level, 05% of sewer height	(Serv) 0
		0.00	LD	Line of sewer deviates down	(Serv) 0
		2.00	GO	General observation Remarks: LINE LEVELS OUT	(Misc) 0
		2.60	JN	Junction, at 12 o'clock, 150mm diameter	(Constr) 0
		12.80	S1 ESL	Scale, light, from 5 to 7 o'clock, Start	(Serv) 2
		13.90	D	Deformed sewer, 05% of original diameter/height	(Struct) 2
		25.00	JN	Junction, at 12 o'clock, 150mm diameter	(Constr) 0
		25.90	F1 ESL	Scale, light, from 5 to 7 o'clock, End	(Serv) 2
		25.90	SA	Survey abandoned Remarks: DUE TO LOSS OF VISION	(Misc) 0

STR grade

STR total

Constructional Features

Miscellaneous Features

SER peak

SER mean

0.44

SER total

13.1

SER grade

SER no def



Grade

Inspection report

Date : 26/11/2013	Job number : 41867	Weather : Dry	Sewer category:	Section number : 5	PLR suffix :
Present :	Vehicle : HX58 AXD	Camera : MAIN LINE	Preset :	Cleaned : no	Operator : KK 3

Place: HIGHGATE CEMETERY Location details: U/S MH: MH 33

 Road :
 SWAINS LANE
 Catchment:
 U/S Depth :

 Location
 Footpath or verge
 Tape number :
 D/S MH :
 MAIN RUN

 Inspection
 MH 33 (D/S) MAIN RUN
 Pipe length :
 1.00 m
 D/S Depth :

Use:CombinedPipe shape :CircularYear laid :ZPipe size :225 mm

Purpose : Sample survey to determin asset condition Pipe material : Vitrified clay

Observation

Total length: Lining:

Code

Comment :

1:50

Position

	MH 33	ST	Start of survey	(Misc) 0
	0.00	МН	Manhole Remarks: MH 33	(Constr) 0
	0.00	WL	Water level, 80% of sewer height	(Serv) 0
٧	0.00	LD	Line of sewer deviates down Remarks: SHARP	(Serv) 0
	0.00	GO	General observation Remarks: VIEW DOWNSTREAM	(Misc) 0
	0.00	SA	Survey abandoned Remarks: UNABLE TO SEE DUE TO HIGH WATER LEVEL	(Misc) 0

Structural Defec	ts				Constructional Features				
Service Defects					Miscellaneous Features				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	0	0	0	1	0	0	0	0	1



Inspection

UK DN WATERFLOW 12-16 David Road Colnbrook Tel: 01753 810999 Fax: 01753 681442 Email:

D/S Depth:

Inspection report

Date : 26/11/2013	Job number : 41867	Weather : Dry	Sewer category:	Section number : 6	PLR suffix :
Present :	Vehicle : HX58 AXD	Camera : MAIN LINE	Preset :	Cleaned : no	Operator : KK 3

1.00 m

HIGHGATE CEMETERY MH 33A Place: Location details: U/S MH:

Road: **SWAINS LANE** Catchment: U/S Depth: Location Footpath or verge Tape number : D/S MH: **OVERVIEW** MH 33A (D/S) OVERVIEW

Use: Combined Pipe shape : Circular 225 mm Year laid: Z Pipe size :

Purpose: Sample survey to determin asset condition Pipe material: Vitrified clay Total length: Lining:

Pipe length:

Comment: **OVERVIEW OF MANHOLE TO CONFIRM CONNECTIONS**

<u> </u>					_
	1:50 Position	Code	Observation	Grade	
/	MH 33A 0.00	ST	Start of survey	(Misc) 0	
 	0.00	МН	Manhole Remarks: MH 33A	(Constr) 0 0.5 m // 00:12:44	-
	0.00	WL	Water level, 0% of sewer height	(Serv) 0	
1	0.00	GO	General observation Remarks: VIEW OF MANHOLE CHAMBER	(Misc) 0	
	0.00	GO	General observation Remarks: POOR CONDITION IN BOTTOM OF CHAMBER	(Misc) 0 1.1 m // 00:20:21	
	\\\\ <u>0.50</u>	GO	General observation Remarks: VIEW OF INLET	(Misc) 0	
	\\\ <u>0.50</u>	GO	General observation Remarks: VIEW OF OUTLET	(Misc) 0	
	1.10	GO	General observation Remarks: WALL	(Misc) 0	
	\ <u>1.10</u>	SA	Survey abandoned Remarks: DUE TO WALL	(Misc) 0	

Structural Defects					Constructional Features				
Service Defects				Miscellaneous Features					
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	0	0	0	1	0	0	0	0	1



Inspection pictures

Place :	Road :	Date :	Section number :	PLR suffix :
HIGHGATE CEMETERY	SWAINS LANE	03/12/2013	6	l x



Photo: 3_3_11_A.JPG, 00:12:44 0.5m, General observation Remarks: VIEW OF INLET



Photo: 3_3_13_A.JPG, 00:20:21 1.1m, General observation Remarks: WALL



TERMS AND CONDITIONS

1 DEFINITIONS AND INTERPRETATION

The following definitions apply in these terms and conditions:

- "Conditions" these terms and conditions. "Confirmation" our confirmation of your order attached to these Conditions.
- "Contract" the Confirmation together with the Conditions. "Customer" the person, firm or company who purchases Work from the Supplier.
- "Supplier" UKDN Limited. "Work" the work and services to be provided by the Supplier under the Contract as set out

in the Supplier's Confirmation or, (where a Confirmation has not been provided)the quotation.

2 LIMITATIONS OF THE REPORT

- 2.1 It should be noted that the exact layout of the system cannot be confirmed without the
 - exposure of inaccessible branches, connections and all other inaccessible sections.
- 2.2 A CCTV survey alone should not be a guarantee of water tightness.2.3 The Report is not a structural survey and must not be construed as such.
- 2.4 The views expressed in this report are based entirely upon a visual examination of
 - the drainage, supported by information obtained from a drainage CCTV inspection and or a water pressure test.
- 2.5 The drawing contained within or accompanying the report is not a scaled drawing and is for reference purposes only.

3 RIGHTS OF ORIGINATOR

- 3.1 This report is for the sole use of the customer.
 - 3.1.1 It must not be reproduced or transferred to any other third party without the express written consent of supplier.
- 3.2 This is a condition report of the drain/sewer at the time and date of the survey being carried out only.
- 3.3 We reserve the right to amend our opinions in the event of additional information being made available at some future date.

4 CUSTOMER'S OBLIGATIONS

- 4.1 It is the Customer's responsibility to provide the Supplier, in sufficient time, with any information and instructions relating to the Work that is, or are, necessary to enable the Supplier to provide the Work in accordance with the Contract.
- 4.2 The Customer shall inform the Supplier in writing in good time of any dangerous materials or hazards that may be present on the premises and which could constitute a danger to any person.
- 4.3 If the Customer fails to provide the information required in clause 4.2 above, or provides the Supplier with incomplete, incorrect or inaccurate information or instructions, the Supplier may:
 - 4.3.1 make an additional charge of a reasonable sum to cover any extra work that is required; or
 - 4.3.2 cancel the Contract by giving written notice to the Customer.

5 ACCESS

- 5.1 The Customer shall provide clear access to all drains, sewers, inspection covers and manholes to enable the Supplier to carry out the Work.
- 5.2 Where the Customer's drains are shared with third parties, the Supplier will request written permission from the relevant third party(ies). In the event that permission cannot be obtained, the Supplier will have the right to cancel the Contract and shall have no
 - liability to the Customer in respect of any such cancellation.
- 5.3 The Customer shall obtain permission for the Supplier to proceed over property belonging to third parties and/or to carry out work on property belonging to third parties where this is necessary for the proper execution of the Work.

6 WATER AND POWER

- 6.1 The Customer shall provide all necessary power and a clean water supply from the mains or fire hydrant.
- 6.2 Where it is necessary for the Supplier to use a metered hydrant and supply controlled by the water authorities, the Supplier will invoice all charges made by that authority to the Customer and the Customer shall pay such charges within 7 days of receipt of the Supplier's invoice.

7 WORK GUARANTEE

- 7.1 Subject to the following provisions of this Condition 7, the Supplier guarantees completed unblock and survey Work for a period of 28 days from the date of completion.
- 7.2 The Customer shall inspect the Work as far as it is reasonably possible immediately on completion of it and shall as far as reasonably practicable notify the Supplier of any reason for believing that the work carried out by the Supplier is not in accordance with the Contract within seven days of completion.7.3 If the Customer fails to give such notice the Work shall conclusively be presumed free from any defects which would be apparent on reasonable examination of the
- Work. 7.4 The Supplier reserves the right not to carry out work requested under the guarantee until the Supplier has been paid. The Supplier also reserves the right to delay
- or withhold performance of the guarantee where the Supplier has advised the Customer that, although clear, the drains need further work or have a possible fault. 8 LIMITATION OF LIABILITY - THE CUSTOMER'S ATTENTION IS PARTICULARLY DRAWN TO THE PROVISIONS OF THIS CONDITION 8.1 The Supplier warrants to the Customer that the Work will be provided using reasonable care and skill and, unless the Supplier is prevented by circumstances
- beyond its reasonable control, in accordance with the Confirmation.
- 8.2 The Supplier shall have no liability to the Customer for any loss, damage, costs, expenses or other claims for compensation arising from: 8.2.1 any information or instructions supplied by the Customer which is or are incomplete, incorrect or inaccurate; or
 - 8.2.2 any failure by the Customer to obtain proper access over any property of any third party required in accordance with clause 5; or
- 8.2.3 any damage or defect caused by any third party.
 8.3 The Supplier shall have no liability to the Customer for any loss, damage, costs, expenses or other claims for compensation arising from any indirect or consequential loss, damage or expenses.
- 8.4 The Supplier's liability in respect of any other loss or damage shall be limited to the price paid by the Customer.
- 8.5 The Supplier shall not be liable to the Customer by reason of any delay in performing, or any failure to perform, any of its obligations in relation to the Work, if the delay or failure was due to:
 - 8.5.1 any act of God, war, terrorism, power failure, or any other cause beyond the Supplier's reasonable control; or
 - 8.5.2 any risk to health and safety or the environment, however, the Supplier will try to minimise any such problems where reasonably practicable.
- 8.6 The Supplier will not be liable for any fractured or frozen pipes and cannot guarantee to clear blockages occurring in a frozen pipe or drain.
- 8.7 Nothing in these Conditions affects any liability for death or personal injury caused by the Supplier's negligence or for fraudulent misrepresentation, or the Customer's statutory rights as a consumer. 9 **DATA PROTECTION**

- 9.1 The Supplier will use personal information provided by the Customer for the purposes of:
 - 9.1.1 providing the Work;
 - 9.1.2 carrying out marketing and statistical analysis and we may disclose your information to our service providers for these purposes;
 - 9.1.3 informing the Customer by post or telephone about similar products and services provided by the Supplier and/or its related companies.
- 9.2 The Customer acknowledges and agrees that details of the Customer's name, address and payment record may be submitted to a credit reference agency. 9.3 The Customer can correct any information, or ask for information about the Customer to be deleted, or opt-out of receiving any marketing information by post or by telephone by giving written notice to the Supplier at the address, fax number or email address shown on the Confirmation and/or any customer satisfaction

questionnaire provided. 10 GENERAL

- 10.1 If any provision (or part of a provision) of this Contract is found by any court or administrative body of competent jurisdiction to be invalid, unenforceable or illegal, the other provisions will remain in force.
- 10.2 If any invalid, unenforceable or illegal provision of this Contract would be valid, enforceable or legal if some part of it were changed deleted, that provision will apply with whatever changes are necessary to make the relevant provision valid, enforceable and legal.
- 10.3 A delay by either party in acting on a breach of this Contract will not prevent the other party from taking action in respect of that breach or any subsequent breach of this contract.
- 10.4 Nothing in the Contract gives any right to any third party to enforce any provision under the Contract (Rights of Third Parties) Act 1999 or otherwise.
- 10.5 These Conditions and the Contract will be subject to English law, and the English courts will have jurisdiction in respect of any dispute arising from the Contract.















