Jacob Gemma

From: Kelly Darren
Sent: 02 June 2020 11:54
To: Storer Richard
Cc: Forrest Jim; Venn Daniel
Subject: Kempton Court CCTV Survey
Attachments: PJ00366135_Socotec UK Limited_51 Durvward Street_New Install (1).pdf; drainage sketch - mark up.pdf

Richard,

See revised drainage survey for Kempton Court.

This can be sent to the residents now.

Regards

Darren

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project

Project Name:	PJ00366135_Socotec UK Limited_51 Durvward Street_New Install
Project Description:	CCTV survey - New Installation
Project Number:	PJ00366135
Project Status:	Complete
Project Date:	20/03/2020

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Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

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Project Information

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

Client

Company: Socotec UK Limited
Department: Socotec House
Street: Ashby Road, Bretby Business Park
Town or City: Burton-On-Trent
County: Staffordshire
Post Code: DE15 0YZ

Site

Company: Socotec UK Limited
Street: 51 Durward Street
Town or City: London
Post Code: E1 5BA
Email: [redacted]socotec.com

Contractor

Company: Lanes Group Plc
Department: Branch Manager
Street: 16 Lamson Road
Town or City: Rainham
County: Essex
Post Code: RM13 9YY
Phone: [redacted]
Email: londonops@lanesgroup.co.uk

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Project Information

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

Project Notes

Client: Socotec UK Limited

Date: 17/03/2020

Job/Ref No: PJ00366135

Site Address: 51 Durward Street, London E1 5BA

Dear Sir / Madam,

As requested, we have recently carried out a drainage CCTV survey at the above site and our full and detailed findings are contained in the attached CCTV report which you can review at your leisure.

We have identified the need for further works for which a quotation will be sent via our sales team which highlights the areas of concern, the most appropriate remedial techniques and associated costings.

We would like to take this opportunity to thank you for using Lanes Group plc and I hope we can be of service to you again soon. Please visit our website for full details of all services we can provide, follow us on social media or even share details of your customer experience with us.

Yours Sincerely,

Lanes Group London
Tel: [redacted]
londonops@lanesgroup.co.uk

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Scoring Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

Structural Defects

Section	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

Service / Operational Condition

Section	PLR	Grade	Description
All inspected pipes are in an acceptable service condition (< grade 3).			

Abandoned Surveys

Section	PLR	Description
All inspections complete, none are abandoned.		

Information

These scoring summaries are based on the SRM grading from the WRc.

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

Pipe Summary

No.	Type	PLR	Upstream Node	Downstream Node	Road	Town	Use	Mat.	Profile	Length
1	SEC	LAT A.MH6X	LAT A.MH6	MH6	51 Durward Street	London	S	VC	Circular 100mm	0.56 m
2	SEC	GY01X	GY01	DS	51 Durward Street	London	S	VC	Circular 150mm	3.60 m
3	SEC	MH6X	MH6	MH8	51 Durward Street	London	S	PVC	Circular 150mm	14.60 m
4	SEC	ACO 01X	ACO 01	DS	51 Durward Street	London	S	PVC	Circular 100mm	1.97 m
5	SEC	GY02X	GY02	DS	51 Durward Street	London	S	PVC	Circular 100mm	2.46 m
									Total:	**23.19 m**

Pipe Levels

No.	PLR	Upstream Node	Upstream C.L.	Upstream I.L.	Upstream I.D.	Downstream Node	Downstream C.L.	Downstream I.L.	Downstream I.D.
1	LAT A.MH6X	LAT A.MH6			1.650 m	MH6			1.750 m
2	GY01X	GY01			0.000 m	DS			0.000 m
3	MH6X	MH6			1.750 m	MH8			2.100 m
4	ACO 01X	ACO 01			0.000 m	DS			0.000 m
5	GY02X	GY02			0.000 m	DS			0.000 m

Pipe Summary by Profile

Profile		Total Length	No. Pipes
Circular 100mm Circular 100mm Circular 100mm		0.56 m 1.97 m 2.46 m	
Circular 100mm	=	4.99 m	3
Circular 150mm Circular 150mm		3.60 m 14.60 m	
Circular 150mm	=	18.20 m	2
Total	**=**	**23.19 m**	**5**

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

Inspection Summary

Pipe No.	Insp. No.	Upstream Node	Downstream Node	Dir.	Operator	Insp. Date	Insp. Time	Str	Ser	Final Observation	Length
1	1	LAT A.MH6	MH6	US	C.Layfield	17/03/2020	0:00	1	1	OCF, REDUNDANT OR CAPPED	0.56 m
2	1	GY01	DS	DS	C.Layfield	17/03/2020	0:00	1	1	OCF, REACHED	3.60 m
3	1	MH6	MH8	DS	C.Layfield	17/03/2020	0:00	1	1	MHF	14.60 m
4	1	ACO 01	DS	DS	C.Layfield	17/03/2020	0:00	1	1	OCF, REACHED	1.97 m
5	1	GY02	DS	DS	C.Layfield	17/03/2020	0:00	1	1	MHF, MH8	2.46 m
										Total:	**23.19 m**

Inspection Summary by Profile

Profile		Total Length	No. Inspections
Circular 100mm Circular 100mm Circular 100mm		0.56 m 1.97 m 2.46 m	
Circular 100mm	=	4.99 m	3
Circular 150mm Circular 150mm		3.60 m 14.60 m	
Circular 150mm	=	18.20 m	2
Total	**=**	**23.19 m**	**5**

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street_New Install	PJ00366135	20/03/2020

Defect Summary

				CCTV Drainage Survey Observation Count																					
				General				Structural Condition									Service Condition								
Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviates
1	1	LAT A.MH6	MH6	0.6																			1	2
2	1	GY01	DS	3.6																			1	1
3	1	MH6	MH8	14.6																			1	
4	1	ACO 01	DS	2.0																			1	3
5	1	GY02	DS	2.5																			1	1
			Total:	**23.2**																			**5**	**7**

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Section Inspection - 17/03/2020 - LAT A.MH6X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	17/03/20	12:02	PJ00366135	No Rain Or Snow	Yes	LAT A.MH6X

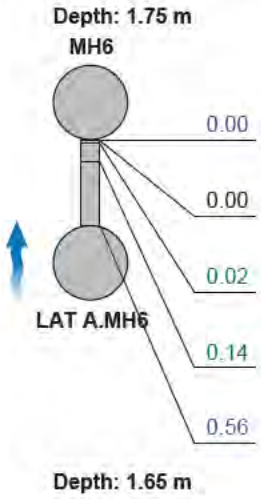
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Upstream	**Upstream Node:**	LAT A.MH6
Road:	51 Durward Street	**Inspected Length:**	0.56 m	**Upstream Pipe Depth:**	1.650 m
Location:	Property with buildings	**Total Length:**	0.56 m	**Downstream Node:**	MH6
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	1.750 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH6	00:00:00	200317_1202C-Survey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:02	200317_1202D-Survey.jpg	
0.02	LL	Line deviates left	00:00:07	200317_1202E-Survey.jpg	
0.14	LU	Line deviates up	00:00:12	200317_1202F-Survey.jpg	
0.56	OCF	Finish node type, other special chamber, reference number: LAT A: REDUNDANT OR CAPPED	00:00:18	200317_1202G-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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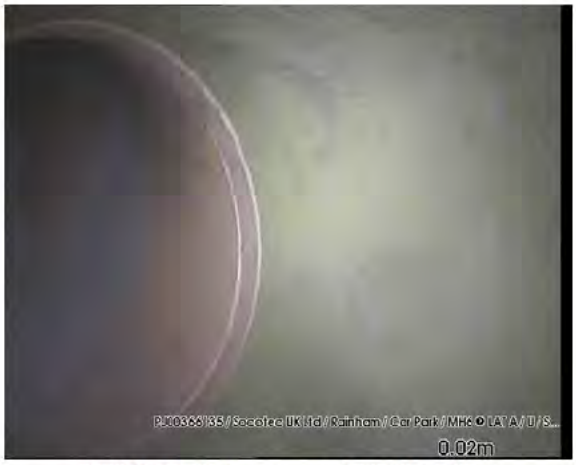
Section Pictures - 17/03/2020 - LAT A.MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	LAT A.MH6X	PJ00366135	PJ00366135

200317_1202C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH6

200317_1202D-Survey.jpg, 00:00:02, 0.00 m
Water level, 0% % of the vertical dimension



200317_1202E-Survey.jpg, 00:00:07, 0.02 m
Line deviates left

200317_1202F-Survey.jpg, 00:00:12, 0.14 m
Line deviates up

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Section Pictures - 17/03/2020 - LAT A.MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	LAT A.MH6X	PJ00366135	PJ00366135

200317_1202G-Survey.jpg, 00:00:18, 0.56 m
Finish node type, other special chamber, reference number:
LAT A, REDUNDANT OR CAPPED

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Section Inspection - 17/03/2020 - GY01X

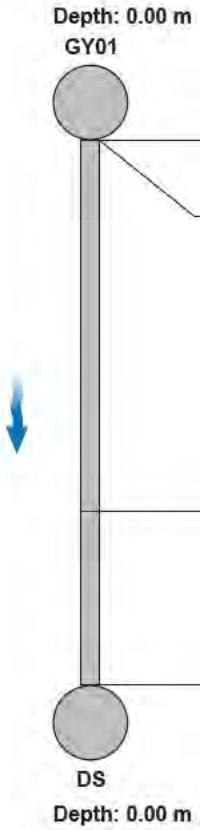
Section	Inspection	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
2	2	17/03/20	12:06	PJ00366135	No Rain Or Snow	Yes	GY01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY01
Road:	51 Durward Street	**Inspected Length:**	3.60 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.60 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY01	00:00:00	200317_1205C-Survey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:03	200317_1205D-Survey.jpg	
2.45	LD	Line deviates down	00:00:11	200317_1205E-Survey.jpg	
3.60	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:21	200317_1205F-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - GY01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
2	Downstream	GY01X	PJ00366135	PJ00366135

200317_1205C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY01

200317_1205D-Survey.jpg, 00:00:03, 0.00 m
Water level, 0% % of the vertical dimension

200317_1205E-Survey.jpg, 00:00:11, 2.45 m
Line deviates down

200317_1205F-Survey.jpg, 00:00:21, 3.60 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 17/03/2020 - MH6X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
3	3	17/03/20	12:33	PJ00366135	No Rain Or Snow	Yes	MH6X

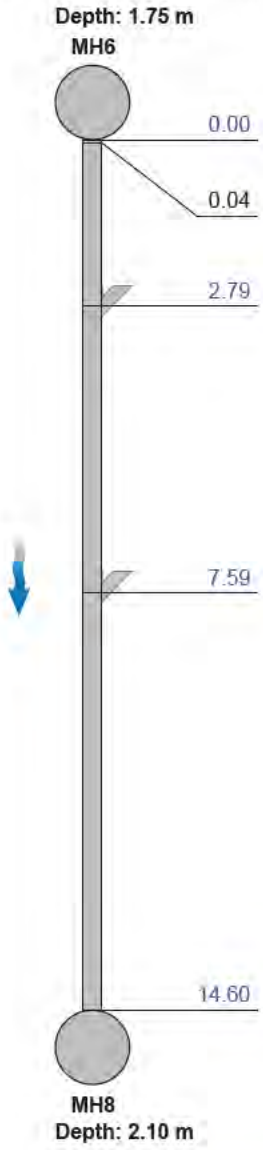
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH6
Road:	51 Durward Street	**Inspected Length:**	14.60 m	**Upstream Pipe Depth:**	1.750 m
Location:	Property with buildings	**Total Length:**	14.60 m	**Downstream Node:**	MH8
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.100 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:127



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH6	00:00:00	200317_1231C-Survey.jpg	
0.04	WL	Water level, 5% % of the vertical dimension	00:00:02	200317_1232A-Survey.jpg	
2.79	JN	Junction, at 11 o'clock, diameter: 150 mm	00:00:11	200317_1232B-Survey.jpg	
7.59	JN	Junction, at 10 o'clock, diameter: 150 mm	00:00:25	200317_1232C-Survey.jpg	
14.60	MHF	Finish node type, manhole, reference number: MH8	00:00:45	200317_1233A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
3	Downstream	MH6X	PJ00366135	PJ00366135

200317_1231C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH6

200317_1232A-Survey.jpg, 00:00:02, 0.04 m
Water level, 5% % of the vertical dimension

200317_1232B-Survey.jpg, 00:00:11, 2.79 m
Junction, at 11 o'clock, diameter: 150 mm

200317_1232C-Survey.jpg, 00:00:25, 7.59 m
Junction, at 10 o'clock, diameter: 150 mm

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Section Pictures - 17/03/2020 - MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
3	Downstream	MH6X	PJ00366135	PJ00366135

200317_1233A-Survey.jpg, 00:00:45, 14.60 m
Finish node type, manhole, reference number: MH8

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Section Inspection - 17/03/2020 - ACO 01X

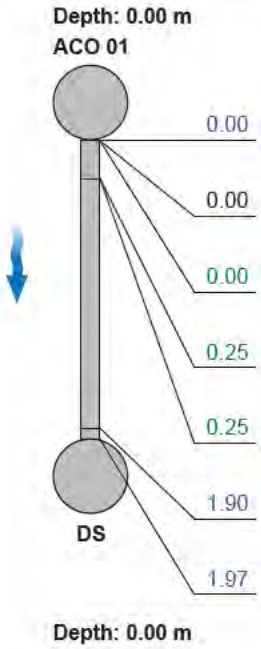
Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	4	17/03/20	12:39	PJ00366135	No Rain Or Snow	Yes	ACO 01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	ACO 01
Road:	51 Durward Street	**Inspected Length:**	1.97 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.97 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: None
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	RE	Start node type, rodding eye, reference number: ACO 01	00:00:00	200317_1237C-Surv ey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:02	200317_1237D-Surv ey.jpg	
0.00	LD	Line deviates down	00:00:04	200317_1237E-Surv ey.jpg	
0.25	LR	Line deviates right	00:00:14	200317_1238A-Surv ey.jpg	
0.25	LD	Line deviates down	00:00:16	200317_1238B-Surv ey.jpg	
1.90	SC	Size changes, new size(s), 150 mm high	00:00:28	200317_1238C-Surv ey.jpg	
1.97	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:33	200317_1238D-Surv ey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - ACO 01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
4	Downstream	ACO 01X	PJ00366135	PJ00366135

200317_1237C-Survey.jpg, 00:00:00, 0.00 m
Start node type, rodding eye, reference number: ACO 01

200317_1237D-Survey.jpg, 00:00:02, 0.00 m
Water level, 0% % of the vertical dimension

200317_1237E-Survey.jpg, 00:00:04, 0.00 m
Line deviates down

200317_1238A-Survey.jpg, 00:00:14, 0.25 m
Line deviates right

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Section Pictures - 17/03/2020 - ACO 01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
4	Downstream	ACO 01X	PJ00366135	PJ00366135

200317_1238B-Survey.jpg, 00:00:16, 0.25 m
Line deviates down

200317_1238C-Survey.jpg, 00:00:28, 1.90 m
Size changes, new size(s), 150 mm high

200317_1238D-Survey.jpg, 00:00:33, 1.97 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 17/03/2020 - GY02X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	5	17/03/20	12:46	PJ00366135	No Rain Or Snow	Yes	GY02X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY02
Road:	51 Durward Street	**Inspected Length:**	2.46 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	2.46 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY02						
	0.00	GY	Start node type, gully, reference number: GY02	00:00:00	200317_1245A-Survey.jpg	
	0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200317_1245B-Survey.jpg	
	0.31	LD	Line deviates down	00:00:18	200317_1245C-Survey.jpg	
	1.96	SC	Size changes, new size(s), 150 mm high	00:00:35	200317_1245D-Survey.jpg	
	2.46	MHF	Finish node type, manhole, reference number: DS: MH8	00:00:46	200317_1246A-Survey.jpg	
DS Depth: 0.00 m						

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Section Pictures - 17/03/2020 - GY02X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
5	Downstream	GY02X	PJ00366135	PJ00366135

200317_1245A-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY02

200317_1245B-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200317_1245C-Survey.jpg, 00:00:18, 0.31 m
Line deviates down

200317_1245D-Survey.jpg, 00:00:35, 1.96 m
Size changes, new size(s), 150 mm high

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londonops@lanesgroup.co.uk

Section Pictures - 17/03/2020 - GY02X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
5	Downstream	GY02X	PJ00366135	PJ00366135

200317_1246A-Survey.jpg, 00:00:46, 2.46 m
Finish node type, manhole, reference number: DS, MH8

Entrance

Building

Buildings

RWP

Unable to Pass bend

GY01

ACO 01

GY02

GY03

GY04

GY05

GY06

GY07

Capped

MH6

Newly Installed

MH8

Existing

MH7

50% Silt + Rubble

Existing

SA

MH9

Existing

SW Interceptors

Existing

MH10

CwMH01

CwMH02

GY08

GY09

Buildings

Buildings

C512 Whitechapel Station Main Works and Fit Out

CCTV Survey - Kempton Court – New Drainage

CRL Document Number: C512-BBM-A-RGN-D061_WS106-50253

Contract MDL reference C09.009

1. Contractor Document Submittal History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
1.0	01-05-20	C. Gilmour	A. Smithson	J. Gaffney	For Information
		[redacted]			

2a. Stakeholder Review Required? YES ☐ NO ☐

Stakeholder submission required: LU ☐ RfL ☐ NR ☐ LO ☐ DLR ☐ Other: _____

Purpose of submission: For no objection ☐ For information ☐

This document has been reviewed by the following individual for coordination, compliance, integration and acceptance and has reached Code 1 standard which is acceptable for transmission to the above stakeholder for the above stated purpose.

Sign: _____ Role:_____ Name: _____ Date: _____

Sign: _____ Role:_____ Name: _____ Date: _____

2b. Review by Stakeholder (if required):

Stakeholder Organisation	Job Title	Name	Signature	Date	Acceptance
					☐
					☐
					☐

3. Acceptance by *Crossrail*:

	***Crossrail* Review and Acceptance Decal** This decal is to be used for submitted documents requiring acceptance by *Crossrail*.			
☐	Code 1.	Accepted. Work May Proceed	Reviewed / Accepted by:	
☐	Code 2.	Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated	Name:	
☐	Code 3.	Not Accepted. Revise and resubmit. Work may not proceed	Position:	
☐	Code 4.	Received for information only. Receipt is confirmed	Date:	
Acceptance by *Crossrail* does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute *Crossrail* approval of design, details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.			Signature:	

Contractor Document Submittal History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
1.0	01/05/20	C. Gilmour	A. Smithson	J. Gaffney	For Information

Contents

1. Introduction

This report is issued as part of C512-BBM-A-ITP-D061_WS106-50227, inspection number 5.9, showing conditions of the existing drainage within BBMV construction site boundaries in Kempton Court private car park on the completion.

2. CCTV survey

CCTV survey has been carried out by Lanes Drains LTD on 17-03-2020. Refer to *Appendix 1 – Site Plan* for location and extent of the survey.

At the time of the survey, the section of the surface water drainage located under former RC crane base has been already replaced by BBMV, including road gully no. RG2. Refer to *Appendix 2 – CCTV report* for details.

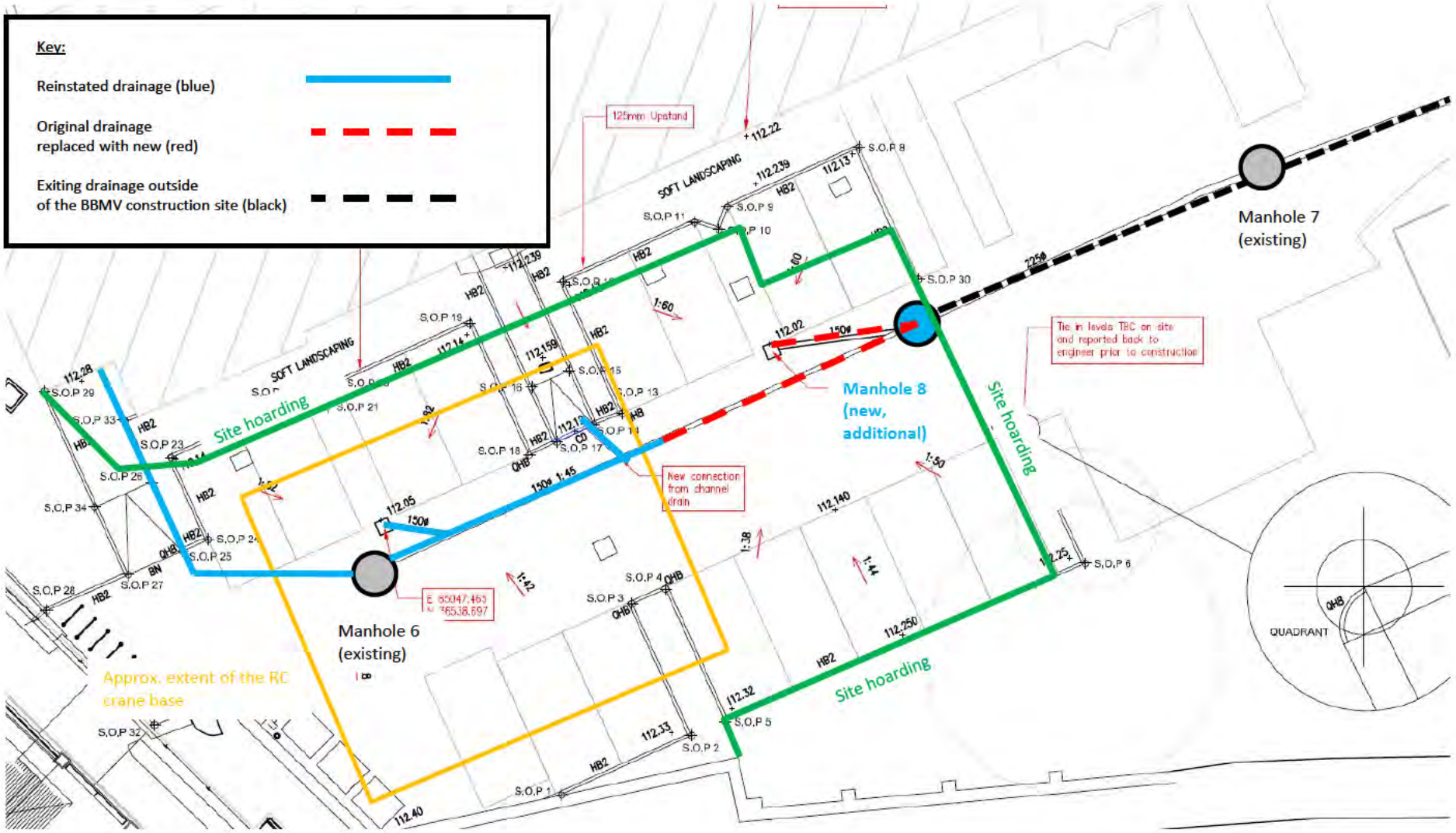
It is to be noted that the survey attached includes sections outside of the Kempton Court Package of works. Where appropriate, this has been highlighted in red-text at the top of the page, with items of note highlighted.

Section 1 to 5 are within BBMV scope of works for the Kempton Court Package.

Sections 6 to 16 are not relevant for this submission and outside the BBMV area of work.

Appendix 1 – Site Plan

Kempton Court drainage reinstatement sketch



Entrance

Building

Buildings

RWP

Unable to Pass bend

GY01

ACO 01

GY02

GY03

GY04

GY05

GY06

GY07

Capped

MH6

Newly Installed

MH8

Existing

MH7

50% Silt + Rubble

Existing

SA

MH9

Existing

SW Interceptors

Existing

MH10

CwMH01

CwMH02

GY08

GY09

Buildings

Buildings

Appendix 2 – CCTV report

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project

Project Name:	PJ00366135_Socotec UK Limited_51 Durvward Street
Project Description:	CCTV survey
Project Number:	PJ00366135
Project Status:	Complete
Project Date:	20/03/2020

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Table of Contents

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project Information

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Client

Company: Socotec UK Limited
Department: Socotec House
Street: Ashby Road, Bretby Business Park
Town or City: Burton-On-Trent
County: Staffordshire
Post Code: DE15 0YZ

Site

Company: Socotec UK Limited
Street: 51 Durward Street
Town or City: London
Post Code: E1 5BA
Email: [redacted]socotec.com

Contractor

Company: Lanes Group Plc
Department: Branch Manager
Street: 16 Lamson Road
Town or City: Rainham
County: Essex
Post Code: RM13 9YY
Phone: [redacted]
Email: londonops@lanesgroup.co.uk

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project Information

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Project Notes

Client: Socotec UK Limited

Date: 17/03/2020

Job/Ref No: PJ00366135

Site Address: 51 Durward Street, London E1 5BA

Dear Sir / Madam,

As requested, we have recently carried out a drainage CCTV survey at the above site and our full and detailed findings are contained in the attached CCTV report which you can review at your leisure.

We have identified the need for further works for which a quotation will be sent via our sales team which highlights the areas of concern, the most appropriate remedial techniques and associated costings.

We would like to take this opportunity to thank you for using Lanes Group plc and I hope we can be of service to you again soon. Please visit our website for full details of all services we can provide, follow us on social media or even share details of your customer experience with us.

Yours Sincerely,

Lanes Group London
Tel: [redacted]
londonops@lanesgroup.co.uk

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Scoring Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Structural Defects

Grade 3: Best practice suggests consideration should be given to repairs in the medium term.

Grade 4: Best practice suggests consideration should be given to repairs to avoid a potential collapse.

Grade 5: Best practice suggests that this pipe is at risk of collapse at any time. Urgent consideration should be given to repairs to avoid total failure.

Section	PLR	Grade	Description
6	MH8X	5	Deformed drain or sewer, 40% %
8	MH9X	5	Deformed drain or sewer, 20% %

Service / Operational Condition

Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.

Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.

Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Section	PLR	Grade	Description
7	MH7X	4	Settled deposits, fine, 40% % cross-sectional area loss
8	MH9X	3	Multiple defects
13	GY06X	3	Settled deposits, fine, 10% % cross-sectional area loss
14	GY08X	3	Settled deposits, fine, 10% % cross-sectional area loss
16	GY07X	3	Settled deposits, fine, 10% % cross-sectional area loss

Abandoned Surveys

Section	PLR	Description
7	MH7X	Survey abandoned

Information

These scoring summaries are based on the SRM grading from the WRc.

Lanes Group Plc
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Project Pictures

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

200317_1203A-Survey

200317_1206A-Survey

200317_1207A-Survey

200317_1234A-Survey

200317_1236A-Survey

200317_1240A-Survey

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Project Pictures

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

200317_1339A-Survey

200317_1447A-Survey

200317_1501A-Survey

Lanes Group Plc
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londonops@lanesgroup.co.uk

Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Pipe Summary

No.	Type	PLR	Upstream Node	Downstream Node	Road	Town	Use	Mat.	Profile	Length
1	SEC	LAT A.MH6X	LAT A.MH6	MH6	51 Durward Street	London	S	VC	Circular 100mm	0.56 m
2	SEC	GY01X	GY01	DS	51 Durward Street	London	S	VC	Circular 150mm	3.60 m
3	SEC	MH6X	MH6	MH8	51 Durward Street	London	S	PVC	Circular 150mm	14.60 m
4	SEC	ACO 01X	ACO 01	DS	51 Durward Street	London	S	PVC	Circular 100mm	1.97 m
5	SEC	GY02X	GY02	DS	51 Durward Street	London	S	PVC	Circular 100mm	2.46 m
6	SEC	MH8X	MH8	MH7	51 Durward Street	London	S	PVC	Circular 150mm	11.19 m
7	SEC	MH7X	MH7	MH9	51 Durward Street	London	S	VC	Circular 225mm	1.13 m
8	SEC	MH9X	MH9	MH10	51 Durward Street	London	S	VC	Circular 300mm	13.69 m
9	SEC	CWMH01X	CWMH01	CWMH02	51 Durward Street	London	C	VC	Circular 350mm	13.56 m
10	SEC	GY03X	GY03	DS	51 Durward Street	London	S	PP	Circular 100mm	1.68 m
11	SEC	GY04X	GY04	DS	51 Durward Street	London	S	PP	Circular 100mm	5.75 m
12	SEC	GY05X	GY05	DS	51 Durward Street	London	S	PP	Circular 100mm	4.90 m
13	SEC	GY06X	GY06	DS	51 Durward Street	London	S	VC	Circular 100mm	14.29 m
14	SEC	GY08X	GY08	DS	51 Durward Street	London	S	VC	Circular 100mm	1.83 m
15	SEC	GY09X	GY09	DS	51 Durward Street	London	S	VC	Circular 100mm	3.49 m
16	SEC	GY07X	GY07	DS	51 Durward Street	London	S	VC	Circular 100mm	3.87 m
									Total:	**98.57 m**

Pipe Levels

No.	PLR	Upstream Node	Upstream C.L.	Upstream I.L.	Upstream I.D.	Downstream Node	Downstream C.L.	Downstream I.L.	Downstream I.D.
1	LAT A.MH6X	LAT A.MH6			1.650 m	MH6			1.750 m
2	GY01X	GY01			0.000 m	DS			0.000 m
3	MH6X	MH6			1.750 m	MH8			2.100 m
4	ACO 01X	ACO 01			0.000 m	DS			0.000 m
5	GY02X	GY02			0.000 m	DS			0.000 m
6	MH8X	MH8			2.100 m	MH7			2.330 m
7	MH7X	MH7			2.330 m	MH9			2.920 m

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

No.	PLR	Upstream Node	Upstream C.L.	Upstream I.L.	Upstream I.D.	Downstream Node	Downstream C.L.	Downstream I.L.	Downstream I.D.
8	MH9X	MH9			2.920 m	MH10			0.000 m
9	CWMH01X	CWMH01			3.310 m	CWMH02			0.000 m
10	GY03X	GY03			0.000 m	DS			0.000 m
11	GY04X	GY04			0.000 m	DS			0.000 m
12	GY05X	GY05			0.000 m	DS			0.000 m
13	GY06X	GY06			0.000 m	DS			0.000 m
14	GY08X	GY08			0.000 m	DS			0.000 m
15	GY09X	GY09			0.000 m	DS			0.000 m
16	GY07X	GY07			0.000 m	DS			0.000 m

Pipe Summary by Profile

Profile		Total Length	No. Pipes
Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm		0.56 m 1.97 m 2.46 m 1.68 m 5.75 m 4.90 m 14 29 m 1.83 m 3.49 m 3.87 m	
Circular 100mm	=	40.80 m	10
Circular 150mm Circular 150mm Circular 150mm		3.60 m 14 60 m 11.19 m	
Circular 150mm	=	29.39 m	3
Circular 225mm		1.13 m	
Circular 225mm	=	1.13 m	1
Circular 300mm		13 69 m	
Circular 300mm	=	13.69 m	1
Circular 350mm		13 56 m	
Circular 350mm	=	13.56 m	1

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Profile		Total Length	No. Pipes
Total	=	**98.57 m**	**16**

Inspection Summary

Pipe No.	Insp. No.	Upstream Node	Downstream Node	Dir.	Operator	Insp. Date	Insp. Time	Str	Ser	Final Observation	Length
1	1	LAT A.MH6	MH6	US	C.Layfield	17/03/2020	0:00	1	1	OCF, REDUNDANT OR CAPPED	0.56 m
2	1	GY01	DS	DS	C.Layfield	17/03/2020	0:00	1	1	OCF, REACHED	3.60 m
3	1	MH6	MH8	DS	C.Layfield	17/03/2020	0:00	1	1	MHF	14.60 m
4	1	ACO 01	DS	DS	C.Layfield	17/03/2020	0:00	1	1	OCF, REACHED	1.97 m
5	1	GY02	DS	DS	C.Layfield	17/03/2020	0:00	1	1	MHF, MH8	2.46 m
6	1	MH8	MH7	DS	C.Layfield	17/03/2020	0:00	1	5	MHF	11.19 m
7	**1**	**MH7**	**MH9**	**US**	**C.Layfield**	**17/03/2020**	**0:00**	**4**	**1**	**SA, unable to pass**	**1.13 m**
8	1	MH9	MH10	DS	C.Layfield	17/03/2020	0:00	3	5	MHF	13.69 m
9	1	CWMH01	CWMH02	DS	C.Layfield	17/03/2020	0:00	1	1	MHF	13.56 m
10	1	GY03	DS	DS	C.Layfield	18/03/2020	0:00	1	1	OCF, REACHED	1.68 m
11	1	GY04	DS	DS	C.Layfield	18/03/2020	0:00	1	1	OCF, reached	5.75 m
12	1	GY05	DS	DS	C.Layfield	18/03/2020	0:00	1	2	OCF, reached	4.90 m
13	1	GY06	DS	DS	C.Layfield	18/03/2020	0:00	3	1	OCF, intercptor	14.29 m
14	1	GY08	DS	DS	C.Layfield	18/03/2020	0:00	3	1	OCF, reached	1.83 m
15	1	GY09	DS	DS	C.Layfield	18/03/2020	0:00	1	1	OCF, reached	3.49 m
16	1	GY07	DS	DS	C.Layfield	18/03/2020	0:00	3	1	OCF, reached	3.87 m
										Total:	**98.57 m**

Inspection Summary by Profile

Profile	Total Length	No. Inspections
Circular 100mm	0.56 m	
Circular 100mm	1.97 m	
Circular 100mm	2.46 m	
Circular 100mm	1.68 m	
Circular 100mm	5.75 m	
Circular 100mm	4.90 m	
Circular 100mm	14.29 m	

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Profile		Total Length	No. Inspections
Circular 100mm Circular 100mm Circular 100mm		1.83 m 3.49 m 3.87 m	
Circular 100mm	=	40.80 m	10
Circular 150mm Circular 150mm Circular 150mm		3.60 m 14.60 m 11.19 m	
Circular 150mm	=	29.39 m	3
Circular 225mm		1.13 m	
Circular 225mm	=	1.13 m	1
Circular 300mm		13.69 m	
Circular 300mm	=	13.69 m	1
Circular 350mm		13.56 m	
Circular 350mm	=	13.56 m	1
Total	**=**	**98.57 m**	**16**

Defect Summary

				CCTV Drainage Survey Observation Count																				
				General				Structural Condition									Service Condition							
Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviates
1	1	LAT A.MH6	MH6	0.6																			1	2
2	1	GY01	DS	3.6																			1	1
3	1	MH6	MH8	14.6																			1	
4	1	ACO 01	DS	2.0																			1	3
5	1	GY02	DS	2.5																			1	1
6	1	MH8	MH7	11.2	2						3												1	1
7	**1**	**MH7**	**MH9**	**1.1**	**1**	**1**														**1**			**1**	
8	1	MH9	MH10	13.7	2						2									1			1	4
9	1	CWMH01	CWMH02	13.6																			1	2

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviates
10	1	GY03	DS	1.7																			1	2
11	1	GY04	DS	5.8																			1	3
12	1	GY05	DS	4.9							1												1	3
13	1	GY06	DS	14.3			2													1			2	1
14	1	GY08	DS	1.8																1			1	
15	1	GY09	DS	3.5																			1	2
16	1	GY07	DS	3.9																1			1	
			Total:	**98.6**	**5**	**1**	**2**													**5**			**17**	**25**

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londonops@lanesgroup.co.uk

Section Inspection - 17/03/2020 - LAT A.MH6X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	17/03/20	12:02	PJ00366135	No Rain Or Snow	Yes	LAT A.MH6X

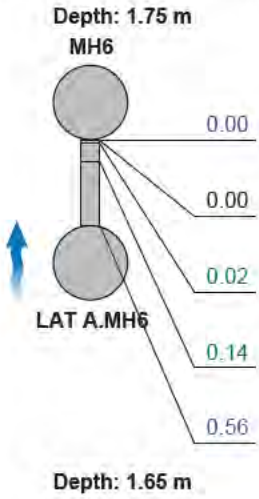
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Upstream	**Upstream Node:**	LAT A.MH6
Road:	51 Durward Street	**Inspected Length:**	0.56 m	**Upstream Pipe Depth:**	1.650 m
Location:	Property with buildings	**Total Length:**	0.56 m	**Downstream Node:**	MH6
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	1.750 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH6	00:00:00	200317_1202C-Survey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:02	200317_1202D-Survey.jpg	
0.02	LL	Line deviates left	00:00:07	200317_1202E-Survey.jpg	
0.14	LU	Line deviates up	00:00:12	200317_1202F-Survey.jpg	
0.56	OCF	Finish node type, other special chamber, reference number: LAT A: REDUNDANT OR CAPPED	00:00:18	200317_1202G-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - LAT A.MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	LAT A.MH6X	PJ00366135	PJ00366135

200317_1202C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH6

200317_1202D-Survey.jpg, 00:00:02, 0.00 m
Water level, 0% % of the vertical dimension

200317_1202E-Survey.jpg, 00:00:07, 0.02 m
Line deviates left

200317_1202F-Survey.jpg, 00:00:12, 0.14 m
Line deviates up

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Section Pictures - 17/03/2020 - LAT A.MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	LAT A.MH6X	PJ00366135	PJ00366135

200317_1202G-Survey.jpg, 00:00:18, 0.56 m
Finish node type, other special chamber, reference number: LAT A, REDUNDANT OR CAPPED

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Section Inspection - 17/03/2020 - GY01X

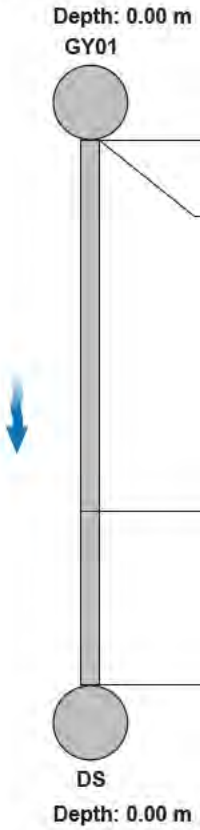
Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
2	2	17/03/20	12:06	PJ00366135	No Rain Or Snow	Yes	GY01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY01
Road:	51 Durward Street	**Inspected Length:**	3.60 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.60 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY01	00:00:00	200317_1205C-Survey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:03	200317_1205D-Survey.jpg	
2.45	LD	Line deviates down	00:00:11	200317_1205E-Survey.jpg	
3.60	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:21	200317_1205F-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - GY01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
2	Downstream	GY01X	PJ00366135	PJ00366135

200317_1205C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY01

200317_1205D-Survey.jpg, 00:00:03, 0.00 m
Water level, 0% % of the vertical dimension

200317_1205E-Survey.jpg, 00:00:11, 2.45 m
Line deviates down

200317_1205F-Survey.jpg, 00:00:21, 3.60 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 17/03/2020 - MH6X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
3	3	17/03/20	12:33	PJ00366135	No Rain Or Snow	Yes	MH6X

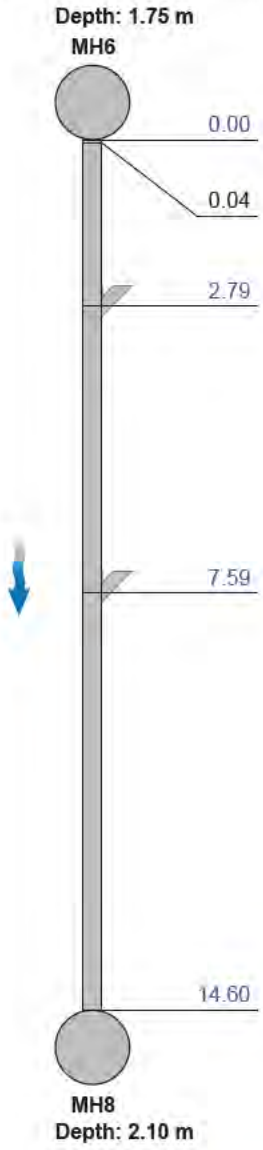
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH6
Road:	51 Durward Street	**Inspected Length:**	14.60 m	**Upstream Pipe Depth:**	1.750 m
Location:	Property with buildings	**Total Length:**	14.60 m	**Downstream Node:**	MH8
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.100 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:127



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH6	00:00:00	200317_1231C-Survey.jpg	
0.04	WL	Water level, 5% % of the vertical dimension	00:00:02	200317_1232A-Survey.jpg	
2.79	JN	Junction, at 11 o'clock, diameter: 150 mm	00:00:11	200317_1232B-Survey.jpg	
7.59	JN	Junction, at 10 o'clock, diameter: 150 mm	00:00:25	200317_1232C-Survey.jpg	
14.60	MHF	Finish node type, manhole, reference number: MH8	00:00:45	200317_1233A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
3	Downstream	MH6X	PJ00366135	PJ00366135

200317_1231C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH6

200317_1232A-Survey.jpg, 00:00:02, 0.04 m
Water level, 5% % of the vertical dimension

200317_1232B-Survey.jpg, 00:00:11, 2.79 m
Junction, at 11 o'clock, diameter: 150 mm

200317_1232C-Survey.jpg, 00:00:25, 7.59 m
Junction, at 10 o'clock, diameter: 150 mm

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Section Pictures - 17/03/2020 - MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
3	Downstream	MH6X	PJ00366135	PJ00366135

200317_1233A-Survey.jpg, 00:00:45, 14.60 m
Finish node type, manhole, reference number: MH8

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Section Inspection - 17/03/2020 - ACO 01X

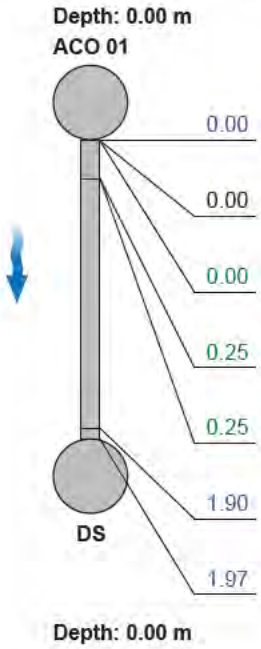
Section	Inspection	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
4	4	17/03/20	12:39	PJ00366135	No Rain Or Snow	Yes	ACO 01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	ACO 01
Road:	51 Durward Street	**Inspected Length:**	1.97 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.97 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: None
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	RE	Start node type, rodding eye, reference number: ACO 01	00:00:00	200317_1237C-Surv ey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:02	200317_1237D-Surv ey.jpg	
0.00	LD	Line deviates down	00:00:04	200317_1237E-Surv ey.jpg	
0.25	LR	Line deviates right	00:00:14	200317_1238A-Surv ey.jpg	
0.25	LD	Line deviates down	00:00:16	200317_1238B-Surv ey.jpg	
1.90	SC	Size changes, new size(s), 150 mm high	00:00:28	200317_1238C-Surv ey.jpg	
1.97	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:33	200317_1238D-Surv ey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - ACO 01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
4	Downstream	ACO 01X	PJ00366135	PJ00366135

200317_1237C-Survey.jpg, 00:00:00, 0.00 m
Start node type, rodding eye, reference number: ACO 01

200317_1237D-Survey.jpg, 00:00:02, 0.00 m
Water level, 0% % of the vertical dimension

200317_1237E-Survey.jpg, 00:00:04, 0.00 m
Line deviates down

200317_1238A-Survey.jpg, 00:00:14, 0.25 m
Line deviates right

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Section Pictures - 17/03/2020 - ACO 01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
4	Downstream	ACO 01X	PJ00366135	PJ00366135

200317_1238B-Survey.jpg, 00:00:16, 0.25 m
Line deviates down

200317_1238C-Survey.jpg, 00:00:28, 1.90 m
Size changes, new size(s), 150 mm high

200317_1238D-Survey.jpg, 00:00:33, 1.97 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 17/03/2020 - GY02X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	5	17/03/20	12:46	PJ00366135	No Rain Or Snow	Yes	GY02X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY02
Road:	51 Durward Street	**Inspected Length:**	2.46 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	2.46 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY02						
	0.00	GY	Start node type, gully, reference number: GY02	00:00:00	200317_1245A-Survey.jpg	
	0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200317_1245B-Survey.jpg	
	0.31	LD	Line deviates down	00:00:18	200317_1245C-Survey.jpg	
	1.96	SC	Size changes, new size(s), 150 mm high	00:00:35	200317_1245D-Survey.jpg	
	2.46	MHF	Finish node type, manhole, reference number: DS: MH8	00:00:46	200317_1246A-Survey.jpg	
DS Depth: 0.00 m						

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - GY02X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
5	Downstream	GY02X	PJ00366135	PJ00366135

200317_1245A-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY02

200317_1245B-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200317_1245C-Survey.jpg, 00:00:18, 0.31 m
Line deviates down

200317_1245D-Survey.jpg, 00:00:35, 1.96 m
Size changes, new size(s), 150 mm high

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Section Pictures - 17/03/2020 - GY02X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
5	Downstream	GY02X	PJ00366135	PJ00366135

200317_1246A-Survey.jpg, 00:00:46, 2.46 m
Finish node type, manhole, reference number: DS, MH8

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Section Inspection - 17/03/2020 - MH8X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
6	6	17/03/20	13:38	PJ00366135	No Rain Or Snow	Yes	MH8X

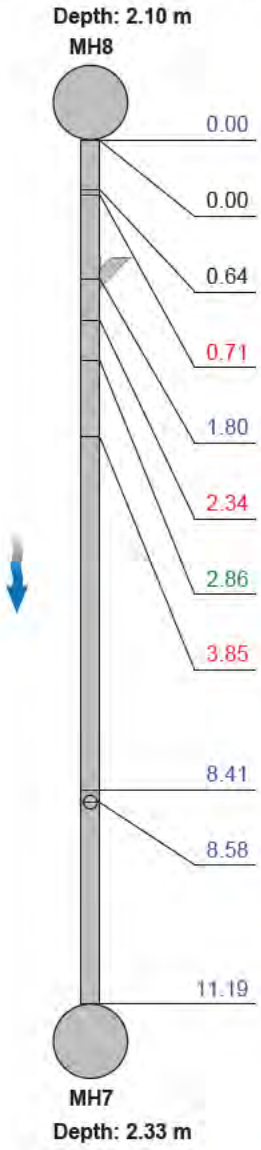
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH8
Road:	51 Durward Street	**Inspected Length:**	11.19 m	**Upstream Pipe Depth:**	2.100 m
Location:	Property with buildings	**Total Length:**	11.19 m	**Downstream Node:**	MH7
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.330 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:98



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH8	00:00:00	200317_1335C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200317_1336A-Survey.jpg	
0.64	MC	Material changes Polypropylene @REM	00:00:10	200317_1336B-Survey.jpg	
0.71	D	Deformed drain or sewer, 10% %	00:00:20	200317_1336C-Survey.jpg	2
1.80	JN	Junction, at 10 o'clock, diameter: 150 mm	00:00:25	200317_1336D-Survey.jpg	
2.34	D	Deformed drain or sewer, 40% %	00:00:30	200317_1337A-Survey.jpg	5
2.86	LD	Line deviates down	00:00:34	200317_1337B-Survey.jpg	
3.85	D	Deformed drain or sewer, 30% %	00:00:38	200317_1337C-Survey.jpg	4
8.41	SC	Size changes, new size(s), 225 mm high	00:00:51	200317_1337D-Survey.jpg	
8.58	JN	Junction, at 12 o'clock, diameter: 100 mm	00:00:54	200317_1338A-Survey.jpg	
11.19	MHF	Finish node type, manhole, reference number: MH7	00:01:07	200317_1338B-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
3	165.0	23.7	265.0	5.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - MH8X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
6	Downstream	MH8X	PJ00366135	PJ00366135

200317_1335C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH8

200317_1336A-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200317_1336B-Survey.jpg, 00:00:10, 0.64 m
Material changes Polypropylene @REM

200317_1336C-Survey.jpg, 00:00:20, 0.71 m
Deformed drain or sewer, 10% %

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Section Pictures - 17/03/2020 - MH8X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
6	Downstream	MH8X	PJ00366135	PJ00366135

200317_1336D-Survey.jpg, 00:00:25, 1.80 m
Junction, at 10 o'clock, diameter: 150 mm

200317_1337A-Survey.jpg, 00:00:30, 2.34 m
Deformed drain or sewer, 40% %

200317_1337B-Survey.jpg, 00:00:34, 2.86 m
Line deviates down

200317_1337C-Survey.jpg, 00:00:38, 3.85 m
Deformed drain or sewer, 30% %

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Section Pictures - 17/03/2020 - MH8X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
6	Downstream	MH8X	PJ00366135	PJ00366135

200317_1337D-Survey.jpg, 00:00:51, 8.41 m
Size changes, new size(s), 225 mm high

200317_1338A-Survey.jpg, 00:00:54, 8.58 m
Junction, at 12 o'clock, diameter: 100 mm

200317_1338B-Survey.jpg, 00:01:07, 11.19 m
Finish node type, manhole, reference number: MH7

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Section Inspection - 17/03/2020 - MH7X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
7	7	17/03/20	14:38	PJ00366135	No Rain Or Snow	No	MH7X

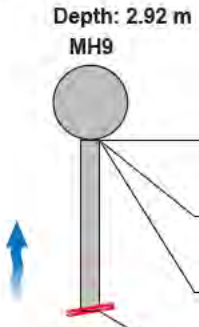
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Upstream	**Upstream Node:**	MH7
Road:	51 Durward Street	**Inspected Length:**	1.13 m	**Upstream Pipe Depth:**	2.330 m
Location:	Property with buildings	**Total Length:**	1.13 m	**Downstream Node:**	MH9
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.920 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH9	00:00:00	200317_1435C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:04	200317_1435D-Survey.jpg	
0.00	DES	Settled deposits, fine, 40% % cross-sectional area loss	00:00:09	200317_1436A-Survey.jpg	4
1.13	SA	Survey abandoned: unable to pass	00:02:08	200317_1438A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	1	5.0	4.4	5.0	4.0

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Section Pictures - 17/03/2020 - MH7X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
7	Upstream	MH7X	PJ00366135	PJ00366135

200317_1435C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH9

200317_1435D-Survey.jpg, 00:00:04, 0.00 m
Water level, 5% % of the vertical dimension

200317_1436A-Survey.jpg, 00:00:09, 0.00 m
Settled deposits, fine, 40% % cross-sectional area loss

200317_1438A-Survey.jpg, 00:02:08, 1.13 m
Survey abandoned, unable to pass

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Section Inspection - 17/03/2020 - MH9X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
8	8	17/03/20	14:45	PJ00366135	No Rain Or Snow	No	MH9X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH9
Road:	51 Durward Street	**Inspected Length:**	13.69 m	**Upstream Pipe Depth:**	2.920 m
Location:	Property with buildings	**Total Length:**	13.69 m	**Downstream Node:**	MH10
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	300 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:120

Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 2.92 m **MH9**					
0.00	MH	Start node type, manhole, reference number: MH9	00:00:00	200317_1439C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:02	200317_1439D-Survey.jpg	
0.00	LR	Line deviates right	00:00:04	200317_1440A-Survey.jpg	
1.44	LL	Line deviates left	00:00:15	200317_1440B-Survey.jpg	
1.49	MC	Material changes Polyvinyl chloride @REM	00:00:19	200317_1440C-Survey.jpg	
2.86	LD	Line deviates down	00:00:26	200317_1440D-Survey.jpg	
3.94	DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:32	200317_1440E-Survey.jpg	3
5.44	LD	Line deviates down	00:00:41	200317_1441A-Survey.jpg	
6.72	DER	Settled deposits, coarse, 10% % cross-sectional area loss	00:00:52	200317_1441B-Survey.jpg	3
7.91	D	Deformed drain or sewer, 20% %	00:01:29	200317_1442A-Survey.jpg	5
9.46	D	Deformed drain or sewer, 10% %	00:02:05	200317_1442B-Survey.jpg	4
13.69	MHF	Finish node type, manhole, reference number: MH10	00:02:27	200317_1445A-Survey.jpg	
MH10 **Depth: 0.00 m**					

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
STR No. Def	**STR Peak**	**STR Mean**	**STR Total**	**STR Grade**	**SER No. Def**	**SER Peak**	**SER Mean**	**SER Total**	**SER Grade**
2	165.0	17.9	245.0	5.0	2	2.0	0.3	4.0	3.0

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Section Pictures - 17/03/2020 - MH9X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
8	Downstream	MH9X	PJ00366135	PJ00366135

200317_1439C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH9

200317_1439D-Survey.jpg, 00:00:02, 0.00 m
Water level, 5% % of the vertical dimension

200317_1440A-Survey.jpg, 00:00:04, 0.00 m
Line deviates right

200317_1440B-Survey.jpg, 00:00:15, 1.44 m
Line deviates left

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Section Pictures - 17/03/2020 - MH9X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
8	Downstream	MH9X	PJ00366135	PJ00366135

200317_1440C-Survey.jpg, 00:00:19, 1.49 m
Material changes Polyvinyl chloride @REM

200317_1440D-Survey.jpg, 00:00:26, 2.86 m
Line deviates down

200317_1440E-Survey.jpg, 00:00:32, 3.94 m
Settled deposits, fine, 10% % cross-sectional area loss

200317_1441A-Survey.jpg, 00:00:41, 5.44 m
Line deviates down

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Section Pictures - 17/03/2020 - MH9X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
8	Downstream	MH9X	PJ00366135	PJ00366135

200317_1441B-Survey.jpg, 00:00:52, 6.72 m
Settled deposits, coarse, 10% % cross-sectional area loss

200317_1442A-Survey.jpg, 00:01:29, 7.91 m
Deformed drain or sewer, 20% %

200317_1442B-Survey.jpg, 00:02:05, 9.46 m
Deformed drain or sewer, 10% %

200317_1445A-Survey.jpg, 00:02:27, 13.69 m
Finish node type, manhole, reference number: MH10

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Section Inspection - 17/03/2020 - CWMH01X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
9	9	17/03/20	14:58	PJ00366135	No Rain Or Snow	No	CWMH01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	CWMH01
Road:	51 Durward Street	**Inspected Length:**	13.56 m	**Upstream Pipe Depth:**	3.310 m
Location:	Property with buildings	**Total Length:**	13.56 m	**Downstream Node:**	CWMH02
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Combined	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	350 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:118	Position [m]	Code	Observation	MPEG	Photo
Depth: 3.31 m CWMH01					
	0.00	MH	Start node type, manhole, reference number: CWMH01	00:00:00	200317_1456C-Survey.jpg
	0.00	WL	Water level, 5% % of the vertical dimension: Strong flow	00:00:02	200317_1456D-Survey.jpg
	6.97	LD	Line deviates down	00:00:35	200317_1457A-Survey.jpg
	10.78	LD	Line deviates down	00:00:51	200317_1457B-Survey.jpg
	13.56	MHF	Finish node type, manhole, reference number: CWMH02	00:01:18	200317_1458A-Survey.jpg
CWMH02 Depth: 0.00 m					

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - CWMH01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
9	Downstream	CWMH01X	PJ00366135	PJ00366135

200317_1456C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: CWMH01

200317_1456D-Survey.jpg, 00:00:02, 0.00 m
Water level, 5% % of the vertical dimension, Strong flow

200317_1457A-Survey.jpg, 00:00:35, 6.97 m
Line deviates down

200317_1457B-Survey.jpg, 00:00:51, 10.78 m
Line deviates down

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Section Pictures - 17/03/2020 - CWMH01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
9	Downstream	CWMH01X	PJ00366135	PJ00366135

200317_1458A-Survey.jpg, 00:01:18, 13.56 m
Finish node type, manhole, reference number: CWMH02

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Section Inspection - 18/03/2020 - GY03X

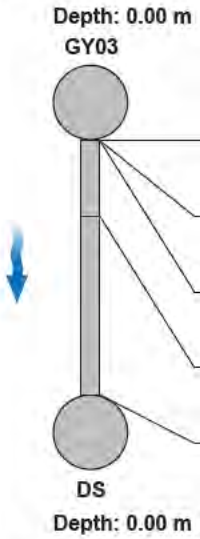
Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
10	10	18/03/20	11:36	PJ00366135	No Rain Or Snow	Yes	GY03X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY03
Road:	51 Durward Street	**Inspected Length:**	1.68 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.68 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polypropylene
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY03	00:00:00	200318_1135C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:02	200318_1135D-Survey.jpg	
0.00	LD	Line deviates down	00:00:04	200318_1135E-Survey.jpg	
0.50	LR	Line deviates right	00:00:11	200318_1135F-Survey.jpg	
1.68	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:21	200318_1136A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 18/03/2020 - GY03X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
10	Downstream	GY03X	PJ00366135	PJ00366135

200318_1135C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY03

200318_1135D-Survey.jpg, 00:00:02, 0.00 m
Water level, 5% % of the vertical dimension

200318_1135E-Survey.jpg, 00:00:04, 0.00 m
Line deviates down

200318_1135F-Survey.jpg, 00:00:11, 0.50 m
Line deviates right

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Section Pictures - 18/03/2020 - GY03X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
10	Downstream	GY03X	PJ00366135	PJ00366135

200318_1136A-Survey.jpg, 00:00:21, 1.68 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 18/03/2020 - GY04X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
11	11	18/03/20	11:46	PJ00366135	No Rain Or Snow	Yes	GY04X

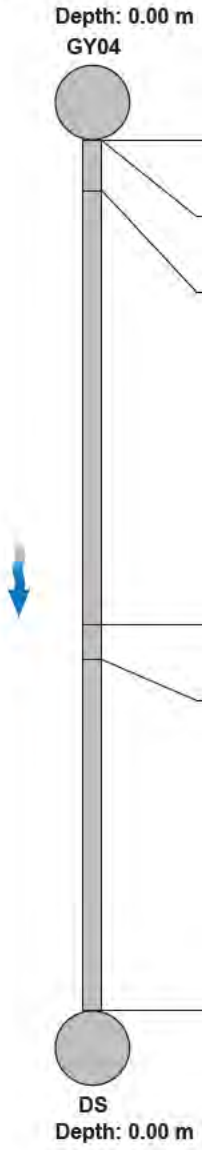
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY04
Road:	51 Durward Street	**Inspected Length:**	5.75 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	5.75 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polypropylene
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo
0.00	GY	Start node type, gully, reference number: GY04	00:00:00	200318_1144C-Survey.jpg
0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200318_1144D-Survey.jpg
0.33	LL	Line deviates left	00:00:10	200318_1145A-Survey.jpg
3.20	LL	Line deviates left	00:00:24	200318_1145B-Survey.jpg
3.43	LD	Line deviates down	00:00:27	200318_1145C-Survey.jpg
5.75	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:41	200318_1146A-Survey.jpg

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 18/03/2020 - GY04X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
11	Downstream	GY04X	PJ00366135	PJ00366135

200318_1144C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY04

200318_1144D-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200318_1145A-Survey.jpg, 00:00:10, 0.33 m
Line deviates left

200318_1145B-Survey.jpg, 00:00:24, 3.20 m
Line deviates left

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Section Pictures - 18/03/2020 - GY04X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
11	Downstream	GY04X	PJ00366135	PJ00366135

200318_1145C-Survey.jpg, 00:00:27, 3.43 m
Line deviates down

200318_1146A-Survey.jpg, 00:00:41, 5.75 m
Finish node type, other special chamber, reference number:
DS, reached

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Section Inspection - 18/03/2020 - GY05X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
12	12	18/03/20	12:04	PJ00366135	No Rain Or Snow	Yes	GY05X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	Not Specified	Not Specified	Not Specified	Not Specified	1

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY05
Road:	51 Durward Street	**Inspected Length:**	4.90 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	4.90 m	**Downstream Node:**	DS
Surface Type:		**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polypropylene
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:50

Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m **GY05**					
0.00	GY	Start node type, gully, reference number: GY05	00:00:00	200318_1 202C-Survey.jpg	
0.00	WL	Water level, 10% % of the vertical dimension	00:00:02	200318_1 202D-Survey.jpg	
0.00	REM	General remark: belly in pipe	00:00:04	200318_1 202E-Survey.jpg	
1.59	D	Deformed drain or sewer, 10% %	00:00:20	200318_1 202F-Survey.jpg	2
1.78	LD	Line deviates down	00:00:22	200318_1 202G-Survey.jpg	
2.42	LD	Line deviates down	00:00:27	200318_1 203A-Survey.jpg	
3.27	MC	Material changes Vitrified clay pipe @REM	00:00:33	200318_1 203B-Survey.jpg	
3.85	LD	Line deviates down	00:00:39	200318_1 203C-Survey.jpg	
4.90	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:51	200318_1 203D-Survey.jpg	
DS **Depth: 0.00 m**					

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
STR No. Def	**STR Peak**	**STR Mean**	**STR Total**	**STR Grade**	**SER No. Def**	**SER Peak**	**SER Mean**	**SER Total**	**SER Grade**
1	20.0	4.1	20.0	2.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 18/03/2020 - GY05X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
12	Downstream	GY05X	PJ00366135	Socotec UK Ltd

200318_1202C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY05

200318_1202D-Survey.jpg, 00:00:02, 0.00 m
Water level, 10% % of the vertical dimension

200318_1202E-Survey.jpg, 00:00:04, 0.00 m
General remark, belly in pipe

200318_1202F-Survey.jpg, 00:00:20, 1.59 m
Deformed drain or sewer, 10% %

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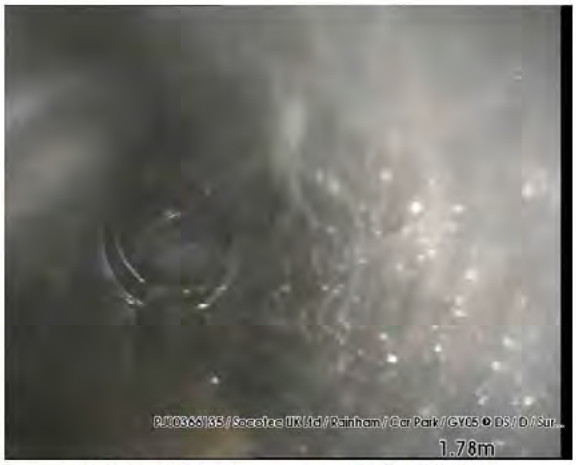
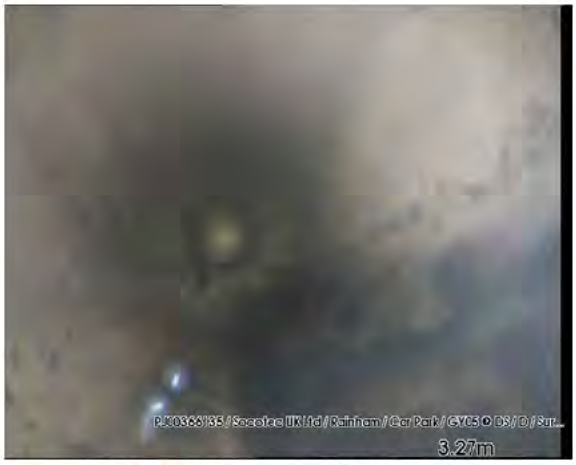
Section Pictures - 18/03/2020 - GY05X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
12	Downstream	GY05X	PJ00366135	Socotec UK Ltd



200318_1202G-Survey.jpg, 00:00:22, 1.78 m
Line deviates down

200318_1203A-Survey.jpg, 00:00:27, 2.42 m
Line deviates down



200318_1203B-Survey.jpg, 00:00:33, 3.27 m
Material changes Vitrified clay pipe @REM

200318_1203C-Survey.jpg, 00:00:39, 3.85 m
Line deviates down

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Section Pictures - 18/03/2020 - GY05X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
12	Downstream	GY05X	PJ00366135	Socotec UK Ltd

200318_1203D-Survey.jpg, 00:00:51, 4.90 m
Finish node type, other special chamber, reference number: DS, reached

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Section Inspection - 18/03/2020 - GY06X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
13	13	18/03/20	13:57	PJ00366135	No Rain Or Snow	Yes	GY06X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY06
Road:	51 Durward Street	**Inspected Length:**	14.29 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	14.29 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:125

Position [m]		Code	Observation	MPEG	Photo	Grade
0.00		GY	Start node type, gully, reference number: GY06	00:00:00	200318_1 354C-Survey.jpg	
0.02		WL	Water level, 5% % of the vertical dimension	00:00:02	200318_1 354D-Survey.jpg	
5.58		LR	Line deviates right	00:00:28	200318_1 354E-Survey.jpg	
7.11		WL	Water level, 10% % of the vertical dimension	00:00:40	200318_1 355A-Survey.jpg	
7.13		DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:42	200318_1 355B-Survey.jpg	3
9.98		JN	Junction, at 09 o'clock, diameter: 100 mm	00:00:59	200318_1 355C-Survey.jpg	
11.76	S01	CUW	Loss of vision, camera under water, S01	00:01:10	200318_1 356A-Survey.jpg	
13.61	F01	CUW	Loss of vision, camera under water, F01	00:01:28		
14.29		OCF	Finish node type, other special chamber, reference number: DS: interceptor	00:01:44	200318_1 357A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	0.1	2.0	3.0

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Section Pictures - 18/03/2020 - GY06X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
13	Downstream	GY06X	PJ00366135	PJ00366135

200318_1354C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY06

200318_1354D-Survey.jpg, 00:00:02, 0.02 m
Water level, 5% % of the vertical dimension

200318_1354E-Survey.jpg, 00:00:28, 5.58 m
Line deviates right

200318_1355A-Survey.jpg, 00:00:40, 7.11 m
Water level, 10% % of the vertical dimension

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Section Pictures - 18/03/2020 - GY06X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
13	Downstream	GY06X	PJ00366135	PJ00366135

200318_1355B-Survey.jpg, 00:00:42, 7.13 m
Settled deposits, fine, 10% % cross-sectional area loss

200318_1355C-Survey.jpg, 00:00:59, 9.98 m
Junction, at 09 o'clock, diameter: 100 mm

200318_1356A-Survey.jpg, 00:01:10, 11.76 m
Loss of vision, camera under water, S01

200318_1357A-Survey.jpg, 00:01:44, 14.29 m
Finish node type, other special chamber, reference number: DS, intercptor

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Section Inspection - 18/03/2020 - GY08X

Section	Inspection	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
14	14	18/03/20	14:11	PJ00366135	No Rain Or Snow	Yes	GY08X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY08
Road:	51 Durward Street	**Inspected Length:**	1.83 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.83 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY08						
	0.00	GY	Start node type, gully, reference number: GY08	00:00:00	200318_1410C-Survey.jpg	
	0.00	WL	Water level, 10% % of the vertical dimension	00:00:02	200318_1410D-Survey.jpg	
	0.00	DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:04	200318_1411A-Survey.jpg	3
	1.83	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:23	200318_1411B-Survey.jpg	
DS Depth: 0.00 m						

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	1.1	2.0	3.0

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY08X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
14	Downstream	GY08X	PJ00366135	PJ00366135

200318_1410C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY08

200318_1410D-Survey.jpg, 00:00:02, 0.00 m
Water level, 10% % of the vertical dimension

200318_1411A-Survey.jpg, 00:00:04, 0.00 m
Settled deposits, fine, 10% % cross-sectional area loss

200318_1411B-Survey.jpg, 00:00:23, 1.83 m
Finish node type, other special chamber, reference number: DS, reached

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Section Inspection - 18/03/2020 - GY09X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
15	15	18/03/20	14:19	PJ00366135	No Rain Or Snow	Yes	GY09X

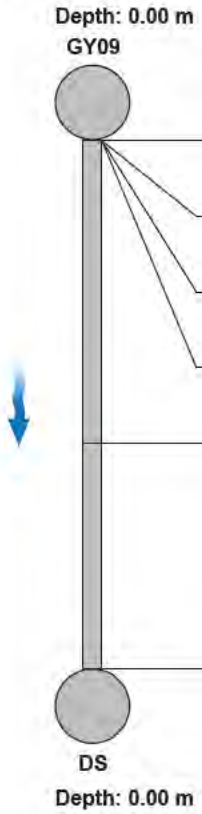
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY09
Road:	51 Durward Street	**Inspected Length:**	3.49 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.49 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY09	00:00:00	200318_1418A-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200318_1418B-Survey.jpg	
0.00	MC	Material changes Polyvinyl chloride @REM	00:00:05	200318_1418C-Survey.jpg	
0.00	LD	Line deviates down	00:00:08	200318_1418D-Survey.jpg	
2.00	LR	Line deviates right	00:00:22	200318_1418E-Survey.jpg	
3.49	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:33	200318_1419A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Lanes Group Plc
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londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY09X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
15	Downstream	GY09X	PJ00366135	PJ00366135

200318_1418A-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY09

200318_1418B-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200318_1418C-Survey.jpg, 00:00:05, 0.00 m
Material changes Polyvinyl chloride @REM

200318_1418D-Survey.jpg, 00:00:08, 0.00 m
Line deviates down

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londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY09X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
15	Downstream	GY09X	PJ00366135	PJ00366135

200318_1418E-Survey.jpg, 00:00:22, 2.00 m
Line deviates right

200318_1419A-Survey.jpg, 00:00:33, 3.49 m
Finish node type, other special chamber, reference number: DS, reached

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londonops@lanesgroup.co.uk

Section Inspection - 18/03/2020 - GY07X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
16	16	18/03/20	14:33	PJ00366135	No Rain Or Snow	Yes	GY07X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY07
Road:	51 Durward Street	**Inspected Length:**	3.87 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.87 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY07						
	0.00	GY	Start node type, gully, reference number: GY07	00:00:00	200318_1432C-Survey.jpg	
	0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200318_1432D-Survey.jpg	
	0.92	DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:14	200318_1432E-Survey.jpg	3
	3.87	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:39	200318_1433A-Survey.jpg	
DS Depth: 0.00 m						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	0.5	2.0	3.0

Lanes Group Plc
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londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY07X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
16	Downstream	GY07X	PJ00366135	PJ00366135

200318_1432C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY07

200318_1432D-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200318_1432E-Survey.jpg, 00:00:14, 0.92 m
Settled deposits, fine, 10% % cross-sectional area loss

200318_1433A-Survey.jpg, 00:00:39, 3.87 m
Finish node type, other special chamber, reference number: DS, reached

Jacob Gemma

From: Kelly Darren
Sent: 12 May 2020 15:55
To: Storer Richard; Venn Daniel
Subject: RE: Kempton Court - Bucks Row
Attachments: C512-BBM-A-RGN-D061_WS106-50253_Rev.1.0.pdf

BBMV have updated the report but have just caveated the section outside the works as not part of the works but kept the damage details in question the report.
Not what I asked for – shall we submit as is ? Otherwise it could take time to try and do this again
Regards
Darren

From: Storer Richard
Sent: 12 May 2020 10:17
To: Venn Daniel; Kelly Darren
Subject: Kempton Court - Bucks Row

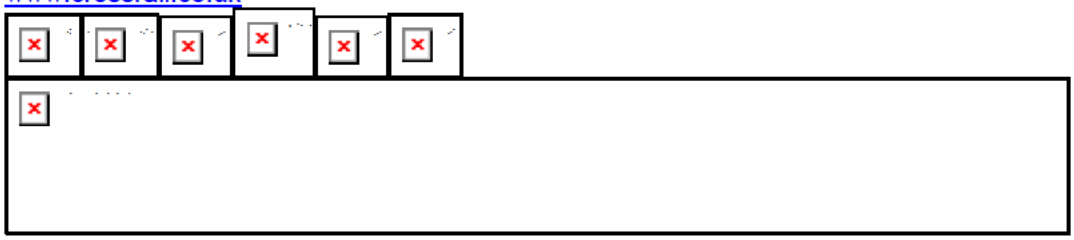
Dan/Darren,

Any idea how much longer you will need? Is it possible that some of the work could restart soon as 'niche' works?

BucBucks Row agreed to allow continued occupation of the small landscape area at no charge until end March on the basis that we would jet wash the whole of the rest of the car park (done),provide a 'barrier' between the play area and the car park until the shrubs matured (done), replace the lighting bollards (in hand) and provide a drainage survey (not yet done). On the basis that the licence fee for the extended use of the car park was £1500/month and that the residents now have full use of the car park I will suggest a fee of £500/month back dated to the beginning of January for 6 months and remind them of the above. Of course it would help if we could issue the drainage survey!!

RiRRichard.

Richard Storer
Community Relations Manager
M: [redacted]
E: [redacted] crossrail.tfl.gov.uk
Crossrail, 6R5, 5 Endeavour Square, London, E20 1JN
www.crossrail.co.uk



Jacob Gemma

From: Alex Smithson
Sent: 01 April 2020 11:01
To: Kelly Darren
Cc: Neal Egan; [redacted]bbmv.co.uk; [redacted]bbmv.co.uk; Forrest Jim
Subject: RE: Kempton Court CCTV Survey
Attachments: PJ00366135_Socotec UK Limited_51 Durvward Street.pdf; 1241_001.pdf

Hi Darren,

Spoke to Socotec on the phone and I've they've sent through the report and reference sketch (attached).

Believe this is what you were looking for!

Kind Regards,

Alex Smithson
Section Engineer – Demobilisation
BBMV – C512 Whitechapel
M: [redacted]

From: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Sent: 27 March 2020 10:45
To: Smithson, Alex (BBMV) <[redacted]BBMV.co.uk>
Cc: Egan, Neal (BBMV) <[redacted]BBMV.co.uk>; Gaffney, Jack (BBMV) <[redacted]bbmv.co.uk>; Gilmour, Cooper (BBMV) <[redacted]bbmv.co.uk>; Forrest Jim <[redacted]crossrail.tfl.gov.uk>
Subject: Re: Kempton Court CCTV Survey

Alex,

Its a bit unclear what is on the website and what it means. The objective of the survey is to demonstrate the drainage system has not been damaged or blocked by our works especially after our cleaning exercise and is in no worse a condition when we took it over

I would expect some sort of report with the CCTV survey that summarises and demonstrates all is good unless I am missing something?

Regards

Darren Kelly
Project Construction Manager
C512 Whitechapel Station Works
Essex Wharf, Durward St. London E1 5BA
M[redacted] | [redacted]crossrail.tfl.gov.uk

From: [redacted]BBMV.co.uk <[redacted]BBMV.co.uk>
Sent: 26 March 2020 13:24
To: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Cc: Neal Egan <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>
Subject: Kempton Court CCTV Survey

Darren,

Neal's requested I forward through our results for the drainage surveys. Given the files are approximately 200mb total, I've forwarded the Lanes Drains website, where you can stream/download the videos below:

https://web.wincan.com/Project/PJ00366135SocotecUKLimited51DurvwardStreet-jmslc7

(GY runs are the existing Kempton Court Drainage east of our working area).

Also attached is the previous report, including the drawing showing the node names.

Kind Regards,

Alex Smithson
Section Engineer – Demobilisation
BBMV – C512 Whitechapel
M: [redacted]

****

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Cedex, France; and, Bachy Soletanche Limited (company no 752082) whose registered office is at Henderson house,

Langley Place, Higgins Lane, Burscough, Lancashire L40 8JS

++

Entrance

Building

Buildings

RWP

Unable to Pass bend

GY01

ACO 01

GY02

GY03

GY04

GY05

GY06

GY07

Capped

MH6

Newly Installed

MH8

Existing

MH7

50% Silt + Rubble

Existing

SA

MH9

Existing

SW Interceptors

Existing

MH10

CwMH01

CwMH02

GY08

GY09

Buildings

Buildings

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project

Project Name:	PJ00366135_Socotec UK Limited_51 Durvward Street
Project Description:	CCTV survey
Project Number:	PJ00366135
Project Status:	Complete
Project Date:	20/03/2020

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Table of Contents

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project Information

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Client

Company: Socotec UK Limited
Department: Socotec House
Street: Ashby Road, Bretby Business Park
Town or City: Burton-On-Trent
County: Staffordshire
Post Code: DE15 0YZ

Site

Company: Socotec UK Limited
Street: 51 Durward Street
Town or City: London
Post Code: E1 5BA
Email: [redacted]socotec.com

Contractor

Company: Lanes Group Plc
Department: Branch Manager
Street: 16 Lamson Road
Town or City: Rainham
County: Essex
Post Code: RM13 9YY
Phone: [redacted]
Email: londonops@lanesgroup.co.uk

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Project Information

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Project Notes

Client: Socotec UK Limited

Date: 17/03/2020

Job/Ref No: PJ00366135

Site Address: 51 Durward Street, London E1 5BA

Dear Sir / Madam,

As requested, we have recently carried out a drainage CCTV survey at the above site and our full and detailed findings are contained in the attached CCTV report which you can review at your leisure.

We have identified the need for further works for which a quotation will be sent via our sales team which highlights the areas of concern, the most appropriate remedial techniques and associated costings.

We would like to take this opportunity to thank you for using Lanes Group plc and I hope we can be of service to you again soon. Please visit our website for full details of all services we can provide, follow us on social media or even share details of your customer experience with us.

Yours Sincerely,

Lanes Group London
Tel: [redacted]
londonops@lanesgroup.co.uk

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Scoring Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Structural Defects

Grade 3: Best practice suggests consideration should be given to repairs in the medium term.

Grade 4: Best practice suggests consideration should be given to repairs to avoid a potential collapse.

Grade 5: Best practice suggests that this pipe is at risk of collapse at any time. Urgent consideration should be given to repairs to avoid total failure.

Section	PLR	Grade	Description
6	MH8X	5	Deformed drain or sewer, 40% %
8	MH9X	5	Deformed drain or sewer, 20% %

Service / Operational Condition

Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.

Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.

Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Section	PLR	Grade	Description
7	MH7X	4	Settled deposits, fine, 40% % cross-sectional area loss
8	MH9X	3	Multiple defects
13	GY06X	3	Settled deposits, fine, 10% % cross-sectional area loss
14	GY08X	3	Settled deposits, fine, 10% % cross-sectional area loss
16	GY07X	3	Settled deposits, fine, 10% % cross-sectional area loss

Abandoned Surveys

Section	PLR	Description
7	MH7X	Survey abandoned

Information

These scoring summaries are based on the SRM grading from the WRc.

Lanes Group Plc
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Tel. [redacted]
londonops@lanesgroup.co.uk

Project Pictures

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

200317_1203A-Survey

200317_1206A-Survey

200317_1207A-Survey

200317_1234A-Survey

200317_1236A-Survey

200317_1240A-Survey

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Project Pictures

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

200317_1339A-Survey

200317_1447A-Survey

200317_1501A-Survey

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Pipe Summary

No.	Type	PLR	Upstream Node	Downstream Node	Road	Town	Use	Mat.	Profile	Length
1	SEC	LAT A.MH6X	LAT A.MH6	MH6	51 Durward Street	London	S	VC	Circular 100mm	0.56 m
2	SEC	GY01X	GY01	DS	51 Durward Street	London	S	VC	Circular 150mm	3.60 m
3	SEC	MH6X	MH6	MH8	51 Durward Street	London	S	PVC	Circular 150mm	14.60 m
4	SEC	ACO 01X	ACO 01	DS	51 Durward Street	London	S	PVC	Circular 100mm	1.97 m
5	SEC	GY02X	GY02	DS	51 Durward Street	London	S	PVC	Circular 100mm	2.46 m
6	SEC	MH8X	MH8	MH7	51 Durward Street	London	S	PVC	Circular 150mm	11.19 m
7	SEC	MH7X	MH7	MH9	51 Durward Street	London	S	VC	Circular 225mm	1.13 m
8	SEC	MH9X	MH9	MH10	51 Durward Street	London	S	VC	Circular 300mm	13.69 m
9	SEC	CWMH01X	CWMH01	CWMH02	51 Durward Street	London	C	VC	Circular 350mm	13.56 m
10	SEC	GY03X	GY03	DS	51 Durward Street	London	S	PP	Circular 100mm	1.68 m
11	SEC	GY04X	GY04	DS	51 Durward Street	London	S	PP	Circular 100mm	5.75 m
12	SEC	GY05X	GY05	DS	51 Durward Street	London	S	PP	Circular 100mm	4.90 m
13	SEC	GY06X	GY06	DS	51 Durward Street	London	S	VC	Circular 100mm	14.29 m
14	SEC	GY08X	GY08	DS	51 Durward Street	London	S	VC	Circular 100mm	1.83 m
15	SEC	GY09X	GY09	DS	51 Durward Street	London	S	VC	Circular 100mm	3.49 m
16	SEC	GY07X	GY07	DS	51 Durward Street	London	S	VC	Circular 100mm	3.87 m
									Total:	**98.57 m**

Pipe Levels

No.	PLR	Upstream Node	Upstream C.L.	Upstream I.L.	Upstream I.D.	Downstream Node	Downstream C.L.	Downstream I.L.	Downstream I.D.
1	LAT A.MH6X	LAT A.MH6			1.650 m	MH6			1.750 m
2	GY01X	GY01			0.000 m	DS			0.000 m
3	MH6X	MH6			1.750 m	MH8			2.100 m
4	ACO 01X	ACO 01			0.000 m	DS			0.000 m
5	GY02X	GY02			0.000 m	DS			0.000 m
6	MH8X	MH8			2.100 m	MH7			2.330 m
7	MH7X	MH7			2.330 m	MH9			2.920 m

Lanes Group Plc
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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

No.	PLR	Upstream Node	Upstream C.L.	Upstream I.L.	Upstream I.D.	Downstream Node	Downstream C.L.	Downstream I.L.	Downstream I.D.
8	MH9X	MH9			2.920 m	MH10			0.000 m
9	CWMH01X	CWMH01			3.310 m	CWMH02			0.000 m
10	GY03X	GY03			0.000 m	DS			0.000 m
11	GY04X	GY04			0.000 m	DS			0.000 m
12	GY05X	GY05			0.000 m	DS			0.000 m
13	GY06X	GY06			0.000 m	DS			0.000 m
14	GY08X	GY08			0.000 m	DS			0.000 m
15	GY09X	GY09			0.000 m	DS			0.000 m
16	GY07X	GY07			0.000 m	DS			0.000 m

Pipe Summary by Profile

Profile		Total Length	No. Pipes
Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm Circular 100mm		0.56 m 1.97 m 2.46 m 1.68 m 5.75 m 4.90 m 14 29 m 1.83 m 3.49 m 3.87 m	
Circular 100mm	=	40.80 m	10
Circular 150mm Circular 150mm Circular 150mm		3.60 m 14 60 m 11.19 m	
Circular 150mm	=	29.39 m	3
Circular 225mm		1.13 m	
Circular 225mm	=	1.13 m	1
Circular 300mm		13 69 m	
Circular 300mm	=	13.69 m	1
Circular 350mm		13 56 m	
Circular 350mm	=	13.56 m	1

Lanes Group Plc
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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Profile		Total Length	No. Pipes
Total	=	**98.57 m**	**16**

Inspection Summary

Pipe No.	Insp. No.	Upstream Node	Downstream Node	Dir.	Operator	Insp. Date	Insp. Time	Str	Ser	Final Observation	Length
1	1	LAT A.MH6	MH6	US	C.Layfield	17/03/2020	0:00	1	1	OCF, REDUNDANT OR CAPPED	0.56 m
2	1	GY01	DS	DS	C.Layfield	17/03/2020	0:00	1	1	OCF, REACHED	3.60 m
3	1	MH6	MH8	DS	C.Layfield	17/03/2020	0:00	1	1	MHF	14.60 m
4	1	ACO 01	DS	DS	C.Layfield	17/03/2020	0:00	1	1	OCF, REACHED	1.97 m
5	1	GY02	DS	DS	C.Layfield	17/03/2020	0:00	1	1	MHF, MH8	2.46 m
6	1	MH8	MH7	DS	C.Layfield	17/03/2020	0:00	1	5	MHF	11.19 m
7	**1**	**MH7**	**MH9**	**US**	**C.Layfield**	**17/03/2020**	**0:00**	**4**	**1**	**SA, unable to pass**	**1.13 m**
8	1	MH9	MH10	DS	C.Layfield	17/03/2020	0:00	3	5	MHF	13.69 m
9	1	CWMH01	CWMH02	DS	C.Layfield	17/03/2020	0:00	1	1	MHF	13.56 m
10	1	GY03	DS	DS	C.Layfield	18/03/2020	0:00	1	1	OCF, REACHED	1.68 m
11	1	GY04	DS	DS	C.Layfield	18/03/2020	0:00	1	1	OCF, reached	5.75 m
12	1	GY05	DS	DS	C.Layfield	18/03/2020	0:00	1	2	OCF, reached	4.90 m
13	1	GY06	DS	DS	C.Layfield	18/03/2020	0:00	3	1	OCF, intercptor	14.29 m
14	1	GY08	DS	DS	C.Layfield	18/03/2020	0:00	3	1	OCF, reached	1.83 m
15	1	GY09	DS	DS	C.Layfield	18/03/2020	0:00	1	1	OCF, reached	3.49 m
16	1	GY07	DS	DS	C.Layfield	18/03/2020	0:00	3	1	OCF, reached	3.87 m
										Total:	**98.57 m**

Inspection Summary by Profile

Profile	Total Length	No. Inspections
Circular 100mm	0.56 m	
Circular 100mm	1.97 m	
Circular 100mm	2.46 m	
Circular 100mm	1.68 m	
Circular 100mm	5.75 m	
Circular 100mm	4.90 m	
Circular 100mm	14.29 m	

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Profile		Total Length	No. Inspections
Circular 100mm Circular 100mm Circular 100mm		1.83 m 3.49 m 3.87 m	
Circular 100mm	=	40.80 m	10
Circular 150mm Circular 150mm Circular 150mm		3.60 m 14.60 m 11.19 m	
Circular 150mm	=	29.39 m	3
Circular 225mm		1.13 m	
Circular 225mm	=	1.13 m	1
Circular 300mm		13.69 m	
Circular 300mm	=	13.69 m	1
Circular 350mm		13.56 m	
Circular 350mm	=	13.56 m	1
Total	**=**	**98.57 m**	**16**

Defect Summary

				CCTV Drainage Survey Observation Count																				
				General				Structural Condition									Service Condition							
Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviates
1	1	LAT A.MH6	MH6	0.6																			1	2
2	1	GY01	DS	3.6																			1	1
3	1	MH6	MH8	14.6																			1	
4	1	ACO 01	DS	2.0																			1	3
5	1	GY02	DS	2.5																			1	1
6	1	MH8	MH7	11.2	2						3												1	1
7	**1**	**MH7**	**MH9**	**1.1**	**1**	**1**														**1**			**1**	
8	1	MH9	MH10	13.7	2						2									1			1	4
9	1	CWMH01	CWMH02	13.6																			1	2

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Project Summary

Project Name	Project Number	Project Date
PJ00366135_Socotec UK Limited_51 Durvward Street	PJ00366135	20/03/2020

Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviates
10	1	GY03	DS	1.7																			1	2
11	1	GY04	DS	5.8																			1	3
12	1	GY05	DS	4.9							1												1	3
13	1	GY06	DS	14.3			2													1			2	1
14	1	GY08	DS	1.8																1			1	
15	1	GY09	DS	3.5																			1	2
16	1	GY07	DS	3.9																1			1	
			Total:	**98.6**	**5**	**1**	**2**													**5**			**17**	**25**

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Section Inspection - 17/03/2020 - LAT A.MH6X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	17/03/20	12:02	PJ00366135	No Rain Or Snow	Yes	LAT A.MH6X

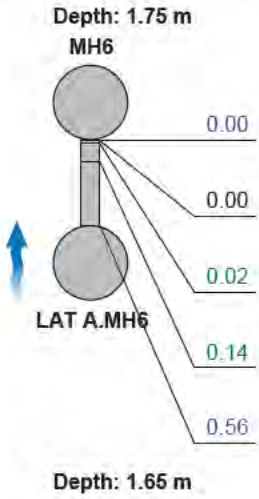
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Upstream	**Upstream Node:**	LAT A.MH6
Road:	51 Durward Street	**Inspected Length:**	0.56 m	**Upstream Pipe Depth:**	1.650 m
Location:	Property with buildings	**Total Length:**	0.56 m	**Downstream Node:**	MH6
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	1.750 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH6	00:00:00	200317_1202C-Survey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:02	200317_1202D-Survey.jpg	
0.02	LL	Line deviates left	00:00:07	200317_1202E-Survey.jpg	
0.14	LU	Line deviates up	00:00:12	200317_1202F-Survey.jpg	
0.56	OCF	Finish node type, other special chamber, reference number: LAT A: REDUNDANT OR CAPPED	00:00:18	200317_1202G-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - LAT A.MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	LAT A.MH6X	PJ00366135	PJ00366135

200317_1202C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH6

200317_1202D-Survey.jpg, 00:00:02, 0.00 m
Water level, 0% % of the vertical dimension

200317_1202E-Survey.jpg, 00:00:07, 0.02 m
Line deviates left

200317_1202F-Survey.jpg, 00:00:12, 0.14 m
Line deviates up

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Section Pictures - 17/03/2020 - LAT A.MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	LAT A.MH6X	PJ00366135	PJ00366135

200317_1202G-Survey.jpg, 00:00:18, 0.56 m
Finish node type, other special chamber, reference number: LAT A, REDUNDANT OR CAPPED

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Section Inspection - 17/03/2020 - GY01X

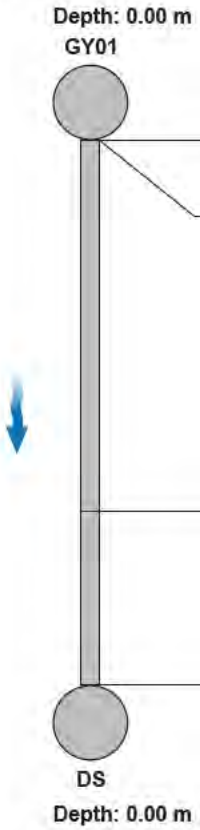
Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
2	2	17/03/20	12:06	PJ00366135	No Rain Or Snow	Yes	GY01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY01
Road:	51 Durward Street	**Inspected Length:**	3.60 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.60 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY01	00:00:00	200317_1205C-Survey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:03	200317_1205D-Survey.jpg	
2.45	LD	Line deviates down	00:00:11	200317_1205E-Survey.jpg	
3.60	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:21	200317_1205F-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - GY01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
2	Downstream	GY01X	PJ00366135	PJ00366135

200317_1205C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY01

200317_1205D-Survey.jpg, 00:00:03, 0.00 m
Water level, 0% % of the vertical dimension

200317_1205E-Survey.jpg, 00:00:11, 2.45 m
Line deviates down

200317_1205F-Survey.jpg, 00:00:21, 3.60 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 17/03/2020 - MH6X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
3	3	17/03/20	12:33	PJ00366135	No Rain Or Snow	Yes	MH6X

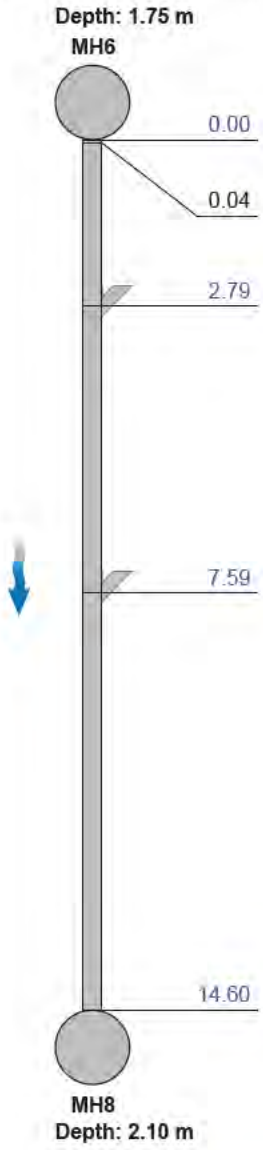
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH6
Road:	51 Durward Street	**Inspected Length:**	14.60 m	**Upstream Pipe Depth:**	1.750 m
Location:	Property with buildings	**Total Length:**	14.60 m	**Downstream Node:**	MH8
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.100 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:127



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH6	00:00:00	200317_1231C-Survey.jpg	
0.04	WL	Water level, 5% % of the vertical dimension	00:00:02	200317_1232A-Survey.jpg	
2.79	JN	Junction, at 11 o'clock, diameter: 150 mm	00:00:11	200317_1232B-Survey.jpg	
7.59	JN	Junction, at 10 o'clock, diameter: 150 mm	00:00:25	200317_1232C-Survey.jpg	
14.60	MHF	Finish node type, manhole, reference number: MH8	00:00:45	200317_1233A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
3	Downstream	MH6X	PJ00366135	PJ00366135

200317_1231C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH6

200317_1232A-Survey.jpg, 00:00:02, 0.04 m
Water level, 5% % of the vertical dimension

200317_1232B-Survey.jpg, 00:00:11, 2.79 m
Junction, at 11 o'clock, diameter: 150 mm

200317_1232C-Survey.jpg, 00:00:25, 7.59 m
Junction, at 10 o'clock, diameter: 150 mm

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Section Pictures - 17/03/2020 - MH6X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
3	Downstream	MH6X	PJ00366135	PJ00366135

200317_1233A-Survey.jpg, 00:00:45, 14.60 m
Finish node type, manhole, reference number: MH8

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Section Inspection - 17/03/2020 - ACO 01X

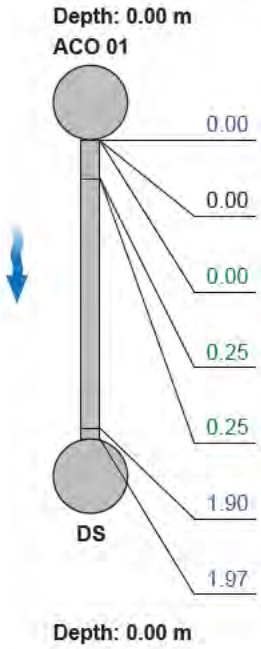
Section	Inspection	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
4	4	17/03/20	12:39	PJ00366135	No Rain Or Snow	Yes	ACO 01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	ACO 01
Road:	51 Durward Street	**Inspected Length:**	1.97 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.97 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: None
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	RE	Start node type, rodding eye, reference number: ACO 01	00:00:00	200317_1237C-Surv ey.jpg	
0.00	WL	Water level, 0% % of the vertical dimension	00:00:02	200317_1237D-Surv ey.jpg	
0.00	LD	Line deviates down	00:00:04	200317_1237E-Surv ey.jpg	
0.25	LR	Line deviates right	00:00:14	200317_1238A-Surv ey.jpg	
0.25	LD	Line deviates down	00:00:16	200317_1238B-Surv ey.jpg	
1.90	SC	Size changes, new size(s), 150 mm high	00:00:28	200317_1238C-Surv ey.jpg	
1.97	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:33	200317_1238D-Surv ey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - ACO 01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
4	Downstream	ACO 01X	PJ00366135	PJ00366135

200317_1237C-Survey.jpg, 00:00:00, 0.00 m
Start node type, rodding eye, reference number: ACO 01

200317_1237D-Survey.jpg, 00:00:02, 0.00 m
Water level, 0% % of the vertical dimension

200317_1237E-Survey.jpg, 00:00:04, 0.00 m
Line deviates down

200317_1238A-Survey.jpg, 00:00:14, 0.25 m
Line deviates right

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Section Pictures - 17/03/2020 - ACO 01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
4	Downstream	ACO 01X	PJ00366135	PJ00366135

200317_1238B-Survey.jpg, 00:00:16, 0.25 m
Line deviates down

200317_1238C-Survey.jpg, 00:00:28, 1.90 m
Size changes, new size(s), 150 mm high

200317_1238D-Survey.jpg, 00:00:33, 1.97 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 17/03/2020 - GY02X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	5	17/03/20	12:46	PJ00366135	No Rain Or Snow	Yes	GY02X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY02
Road:	51 Durward Street	**Inspected Length:**	2.46 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	2.46 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY02						
	0.00	GY	Start node type, gully, reference number: GY02	00:00:00	200317_1245A-Survey.jpg	
	0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200317_1245B-Survey.jpg	
	0.31	LD	Line deviates down	00:00:18	200317_1245C-Survey.jpg	
	1.96	SC	Size changes, new size(s), 150 mm high	00:00:35	200317_1245D-Survey.jpg	
	2.46	MHF	Finish node type, manhole, reference number: DS: MH8	00:00:46	200317_1246A-Survey.jpg	
DS Depth: 0.00 m						

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - GY02X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
5	Downstream	GY02X	PJ00366135	PJ00366135

200317_1245A-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY02

200317_1245B-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200317_1245C-Survey.jpg, 00:00:18, 0.31 m
Line deviates down

200317_1245D-Survey.jpg, 00:00:35, 1.96 m
Size changes, new size(s), 150 mm high

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Section Pictures - 17/03/2020 - GY02X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
5	Downstream	GY02X	PJ00366135	PJ00366135

200317_1246A-Survey.jpg, 00:00:46, 2.46 m
Finish node type, manhole, reference number: DS, MH8

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Section Inspection - 17/03/2020 - MH8X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
6	6	17/03/20	13:38	PJ00366135	No Rain Or Snow	Yes	MH8X

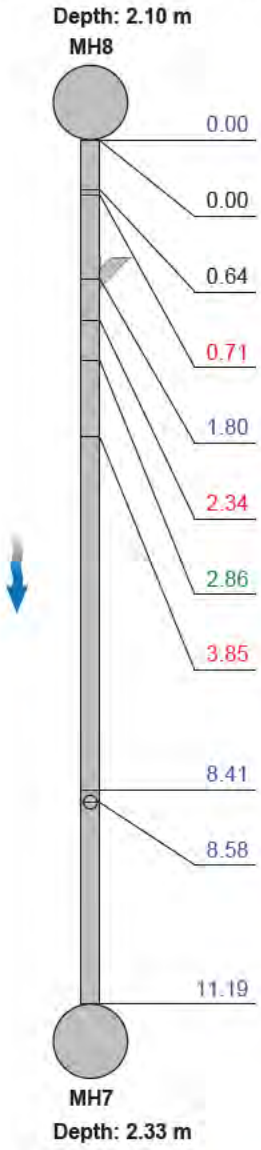
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH8
Road:	51 Durward Street	**Inspected Length:**	11.19 m	**Upstream Pipe Depth:**	2.100 m
Location:	Property with buildings	**Total Length:**	11.19 m	**Downstream Node:**	MH7
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.330 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Year Constructed:		**Pipe Material:**	Polyvinyl chloride
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:98



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH8	00:00:00	200317_1335C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200317_1336A-Survey.jpg	
0.64	MC	Material changes Polypropylene @REM	00:00:10	200317_1336B-Survey.jpg	
0.71	D	Deformed drain or sewer, 10% %	00:00:20	200317_1336C-Survey.jpg	2
1.80	JN	Junction, at 10 o'clock, diameter: 150 mm	00:00:25	200317_1336D-Survey.jpg	
2.34	D	Deformed drain or sewer, 40% %	00:00:30	200317_1337A-Survey.jpg	5
2.86	LD	Line deviates down	00:00:34	200317_1337B-Survey.jpg	
3.85	D	Deformed drain or sewer, 30% %	00:00:38	200317_1337C-Survey.jpg	4
8.41	SC	Size changes, new size(s), 225 mm high	00:00:51	200317_1337D-Survey.jpg	
8.58	JN	Junction, at 12 o'clock, diameter: 100 mm	00:00:54	200317_1338A-Survey.jpg	
11.19	MHF	Finish node type, manhole, reference number: MH7	00:01:07	200317_1338B-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
3	165.0	23.7	265.0	5.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - MH8X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
6	Downstream	MH8X	PJ00366135	PJ00366135

200317_1335C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH8

200317_1336A-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200317_1336B-Survey.jpg, 00:00:10, 0.64 m
Material changes Polypropylene @REM

200317_1336C-Survey.jpg, 00:00:20, 0.71 m
Deformed drain or sewer, 10% %

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Section Pictures - 17/03/2020 - MH8X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
6	Downstream	MH8X	PJ00366135	PJ00366135

200317_1336D-Survey.jpg, 00:00:25, 1.80 m
Junction, at 10 o'clock, diameter: 150 mm

200317_1337A-Survey.jpg, 00:00:30, 2.34 m
Deformed drain or sewer, 40% %

200317_1337B-Survey.jpg, 00:00:34, 2.86 m
Line deviates down

200317_1337C-Survey.jpg, 00:00:38, 3.85 m
Deformed drain or sewer, 30% %

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Section Pictures - 17/03/2020 - MH8X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
6	Downstream	MH8X	PJ00366135	PJ00366135

200317_1337D-Survey.jpg, 00:00:51, 8.41 m
Size changes, new size(s), 225 mm high

200317_1338A-Survey.jpg, 00:00:54, 8.58 m
Junction, at 12 o'clock, diameter: 100 mm

200317_1338B-Survey.jpg, 00:01:07, 11.19 m
Finish node type, manhole, reference number: MH7

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Section Inspection - 17/03/2020 - MH7X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
7	7	17/03/20	14:38	PJ00366135	No Rain Or Snow	No	MH7X

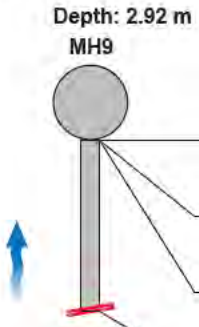
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Upstream	**Upstream Node:**	MH7
Road:	51 Durward Street	**Inspected Length:**	1.13 m	**Upstream Pipe Depth:**	2.330 m
Location:	Property with buildings	**Total Length:**	1.13 m	**Downstream Node:**	MH9
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	2.920 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number: MH9	00:00:00	200317_1435C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:04	200317_1435D-Survey.jpg	
0.00	DES	Settled deposits, fine, 40% % cross-sectional area loss	00:00:09	200317_1436A-Survey.jpg	4
1.13	SA	Survey abandoned: unable to pass	00:02:08	200317_1438A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	1	5.0	4.4	5.0	4.0

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Section Pictures - 17/03/2020 - MH7X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
7	Upstream	MH7X	PJ00366135	PJ00366135

200317_1435C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH9

200317_1435D-Survey.jpg, 00:00:04, 0.00 m
Water level, 5% % of the vertical dimension

200317_1436A-Survey.jpg, 00:00:09, 0.00 m
Settled deposits, fine, 40% % cross-sectional area loss

200317_1438A-Survey.jpg, 00:02:08, 1.13 m
Survey abandoned, unable to pass

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Section Inspection - 17/03/2020 - MH9X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
8	8	17/03/20	14:45	PJ00366135	No Rain Or Snow	No	MH9X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	MH9
Road:	51 Durward Street	**Inspected Length:**	13.69 m	**Upstream Pipe Depth:**	2.920 m
Location:	Property with buildings	**Total Length:**	13.69 m	**Downstream Node:**	MH10
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	300 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:120

Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 2.92 m **MH9**					
0.00	MH	Start node type, manhole, reference number: MH9	00:00:00	200317_1439C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:02	200317_1439D-Survey.jpg	
0.00	LR	Line deviates right	00:00:04	200317_1440A-Survey.jpg	
1.44	LL	Line deviates left	00:00:15	200317_1440B-Survey.jpg	
1.49	MC	Material changes Polyvinyl chloride @REM	00:00:19	200317_1440C-Survey.jpg	
2.86	LD	Line deviates down	00:00:26	200317_1440D-Survey.jpg	
3.94	DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:32	200317_1440E-Survey.jpg	3
5.44	LD	Line deviates down	00:00:41	200317_1441A-Survey.jpg	
6.72	DER	Settled deposits, coarse, 10% % cross-sectional area loss	00:00:52	200317_1441B-Survey.jpg	3
7.91	D	Deformed drain or sewer, 20% %	00:01:29	200317_1442A-Survey.jpg	5
9.46	D	Deformed drain or sewer, 10% %	00:02:05	200317_1442B-Survey.jpg	4
13.69	MHF	Finish node type, manhole, reference number: MH10	00:02:27	200317_1445A-Survey.jpg	
MH10 **Depth: 0.00 m**					

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
STR No. Def	**STR Peak**	**STR Mean**	**STR Total**	**STR Grade**	**SER No. Def**	**SER Peak**	**SER Mean**	**SER Total**	**SER Grade**
2	165.0	17.9	245.0	5.0	2	2.0	0.3	4.0	3.0

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Section Pictures - 17/03/2020 - MH9X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
8	Downstream	MH9X	PJ00366135	PJ00366135

200317_1439C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: MH9

200317_1439D-Survey.jpg, 00:00:02, 0.00 m
Water level, 5% % of the vertical dimension

200317_1440A-Survey.jpg, 00:00:04, 0.00 m
Line deviates right

200317_1440B-Survey.jpg, 00:00:15, 1.44 m
Line deviates left

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Section Pictures - 17/03/2020 - MH9X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
8	Downstream	MH9X	PJ00366135	PJ00366135

200317_1440C-Survey.jpg, 00:00:19, 1.49 m
Material changes Polyvinyl chloride @REM

200317_1440D-Survey.jpg, 00:00:26, 2.86 m
Line deviates down

200317_1440E-Survey.jpg, 00:00:32, 3.94 m
Settled deposits, fine, 10% % cross-sectional area loss

200317_1441A-Survey.jpg, 00:00:41, 5.44 m
Line deviates down

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Section Pictures - 17/03/2020 - MH9X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
8	Downstream	MH9X	PJ00366135	PJ00366135

200317_1441B-Survey.jpg, 00:00:52, 6.72 m
Settled deposits, coarse, 10% % cross-sectional area loss

200317_1442A-Survey.jpg, 00:01:29, 7.91 m
Deformed drain or sewer, 20% %

200317_1442B-Survey.jpg, 00:02:05, 9.46 m
Deformed drain or sewer, 10% %

200317_1445A-Survey.jpg, 00:02:27, 13.69 m
Finish node type, manhole, reference number: MH10

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Section Inspection - 17/03/2020 - CWMH01X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
9	9	17/03/20	14:58	PJ00366135	No Rain Or Snow	No	CWMH01X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	CWMH01
Road:	51 Durward Street	**Inspected Length:**	13.56 m	**Upstream Pipe Depth:**	3.310 m
Location:	Property with buildings	**Total Length:**	13.56 m	**Downstream Node:**	CWMH02
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Combined	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	350 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:118	Position [m]	Code	Observation	MPEG	Photo
Depth: 3.31 m CWMH01					
	0.00	MH	Start node type, manhole, reference number: CWMH01	00:00:00	200317_1456C-Survey.jpg
	0.00	WL	Water level, 5% % of the vertical dimension: Strong flow	00:00:02	200317_1456D-Survey.jpg
	6.97	LD	Line deviates down	00:00:35	200317_1457A-Survey.jpg
	10.78	LD	Line deviates down	00:00:51	200317_1457B-Survey.jpg
	13.56	MHF	Finish node type, manhole, reference number: CWMH02	00:01:18	200317_1458A-Survey.jpg
CWMH02 Depth: 0.00 m					

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/03/2020 - CWMH01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
9	Downstream	CWMH01X	PJ00366135	PJ00366135

200317_1456C-Survey.jpg, 00:00:00, 0.00 m
Start node type, manhole, reference number: CWMH01

200317_1456D-Survey.jpg, 00:00:02, 0.00 m
Water level, 5% % of the vertical dimension, Strong flow

200317_1457A-Survey.jpg, 00:00:35, 6.97 m
Line deviates down

200317_1457B-Survey.jpg, 00:00:51, 10.78 m
Line deviates down

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Section Pictures - 17/03/2020 - CWMH01X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
9	Downstream	CWMH01X	PJ00366135	PJ00366135

200317_1458A-Survey.jpg, 00:01:18, 13.56 m
Finish node type, manhole, reference number: CWMH02

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Section Inspection - 18/03/2020 - GY03X

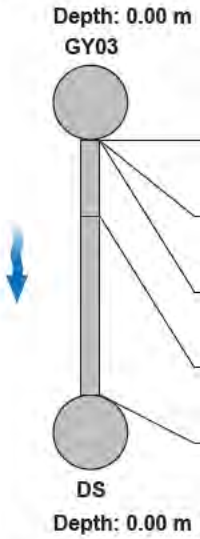
Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
10	10	18/03/20	11:36	PJ00366135	No Rain Or Snow	Yes	GY03X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY03
Road:	51 Durward Street	**Inspected Length:**	1.68 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.68 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polypropylene
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:



Scale: 1:50 Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY03	00:00:00	200318_1135C-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:02	200318_1135D-Survey.jpg	
0.00	LD	Line deviates down	00:00:04	200318_1135E-Survey.jpg	
0.50	LR	Line deviates right	00:00:11	200318_1135F-Survey.jpg	
1.68	OCF	Finish node type, other special chamber, reference number: DS: REACHED	00:00:21	200318_1136A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 18/03/2020 - GY03X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
10	Downstream	GY03X	PJ00366135	PJ00366135

200318_1135C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY03

200318_1135D-Survey.jpg, 00:00:02, 0.00 m
Water level, 5% % of the vertical dimension

200318_1135E-Survey.jpg, 00:00:04, 0.00 m
Line deviates down

200318_1135F-Survey.jpg, 00:00:11, 0.50 m
Line deviates right

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Section Pictures - 18/03/2020 - GY03X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
10	Downstream	GY03X	PJ00366135	PJ00366135

200318_1136A-Survey.jpg, 00:00:21, 1.68 m
Finish node type, other special chamber, reference number: DS, REACHED

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Section Inspection - 18/03/2020 - GY04X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
11	11	18/03/20	11:46	PJ00366135	No Rain Or Snow	Yes	GY04X

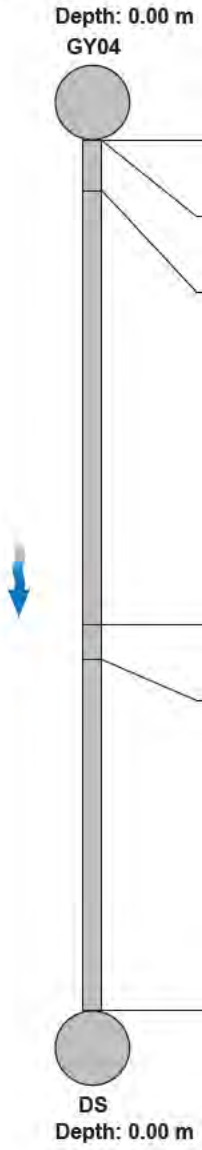
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY04
Road:	51 Durward Street	**Inspected Length:**	5.75 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	5.75 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polypropylene
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo
0.00	GY	Start node type, gully, reference number: GY04	00:00:00	200318_1144C-Survey.jpg
0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200318_1144D-Survey.jpg
0.33	LL	Line deviates left	00:00:10	200318_1145A-Survey.jpg
3.20	LL	Line deviates left	00:00:24	200318_1145B-Survey.jpg
3.43	LD	Line deviates down	00:00:27	200318_1145C-Survey.jpg
5.75	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:41	200318_1146A-Survey.jpg

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 18/03/2020 - GY04X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
11	Downstream	GY04X	PJ00366135	PJ00366135

200318_1144C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY04

200318_1144D-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200318_1145A-Survey.jpg, 00:00:10, 0.33 m
Line deviates left

200318_1145B-Survey.jpg, 00:00:24, 3.20 m
Line deviates left

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Section Pictures - 18/03/2020 - GY04X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
11	Downstream	GY04X	PJ00366135	PJ00366135

200318_1145C-Survey.jpg, 00:00:27, 3.43 m
Line deviates down

200318_1146A-Survey.jpg, 00:00:41, 5.75 m
Finish node type, other special chamber, reference number:
DS, reached

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Section Inspection - 18/03/2020 - GY05X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
12	12	18/03/20	12:04	PJ00366135	No Rain Or Snow	Yes	GY05X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	Not Specified	Not Specified	Not Specified	Not Specified	1

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY05
Road:	51 Durward Street	**Inspected Length:**	4.90 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	4.90 m	**Downstream Node:**	DS
Surface Type:		**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Polypropylene
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:50

Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m **GY05**					
0.00	GY	Start node type, gully, reference number: GY05	00:00:00	200318_1 202C-Survey.jpg	
0.00	WL	Water level, 10% % of the vertical dimension	00:00:02	200318_1 202D-Survey.jpg	
0.00	REM	General remark: belly in pipe	00:00:04	200318_1 202E-Survey.jpg	
1.59	D	Deformed drain or sewer, 10% %	00:00:20	200318_1 202F-Survey.jpg	2
1.78	LD	Line deviates down	00:00:22	200318_1 202G-Survey.jpg	
2.42	LD	Line deviates down	00:00:27	200318_1 203A-Survey.jpg	
3.27	MC	Material changes Vitrified clay pipe @REM	00:00:33	200318_1 203B-Survey.jpg	
3.85	LD	Line deviates down	00:00:39	200318_1 203C-Survey.jpg	
4.90	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:51	200318_1 203D-Survey.jpg	
DS **Depth: 0.00 m**					

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
STR No. Def	**STR Peak**	**STR Mean**	**STR Total**	**STR Grade**	**SER No. Def**	**SER Peak**	**SER Mean**	**SER Total**	**SER Grade**
1	20.0	4.1	20.0	2.0	0	0.0	0.0	0.0	1.0

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY05X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
12	Downstream	GY05X	PJ00366135	Socotec UK Ltd

200318_1202C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY05

200318_1202D-Survey.jpg, 00:00:02, 0.00 m
Water level, 10% % of the vertical dimension

200318_1202E-Survey.jpg, 00:00:04, 0.00 m
General remark, belly in pipe

200318_1202F-Survey.jpg, 00:00:20, 1.59 m
Deformed drain or sewer, 10% %

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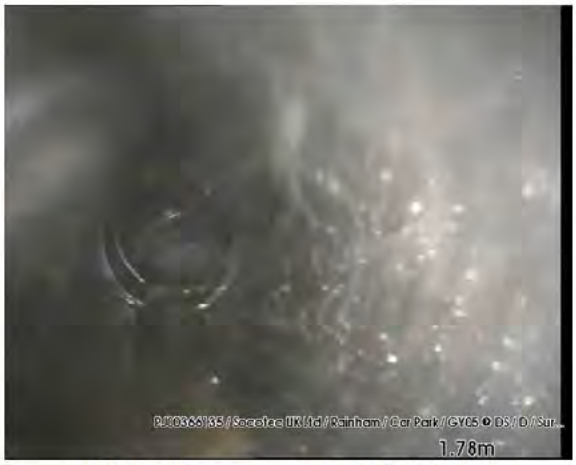
Tel. [redacted]
londonops@lanesgroup.co.uk

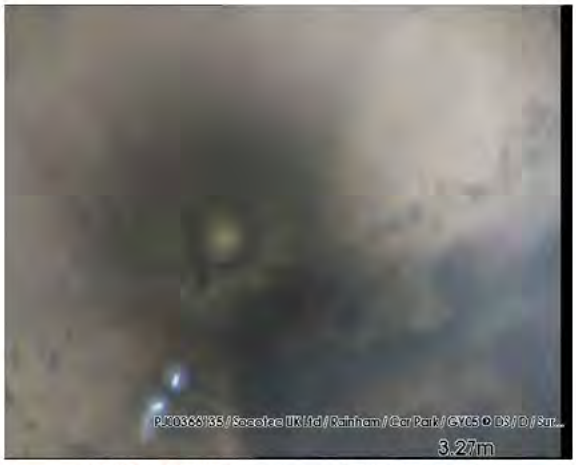
Section Pictures - 18/03/2020 - GY05X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
12	Downstream	GY05X	PJ00366135	Socotec UK Ltd



200318_1202G-Survey.jpg, 00:00:22, 1.78 m
Line deviates down

200318_1203A-Survey.jpg, 00:00:27, 2.42 m
Line deviates down



200318_1203B-Survey.jpg, 00:00:33, 3.27 m
Material changes Vitrified clay pipe @REM

200318_1203C-Survey.jpg, 00:00:39, 3.85 m
Line deviates down

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londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY05X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
12	Downstream	GY05X	PJ00366135	Socotec UK Ltd

200318_1203D-Survey.jpg, 00:00:51, 4.90 m
Finish node type, other special chamber, reference number: DS, reached

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Section Inspection - 18/03/2020 - GY06X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
13	13	18/03/20	13:57	PJ00366135	No Rain Or Snow	Yes	GY06X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY06
Road:	51 Durward Street	**Inspected Length:**	14.29 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	14.29 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:125

Position [m]		Code	Observation	MPEG	Photo	Grade
0.00		GY	Start node type, gully, reference number: GY06	00:00:00	200318_1 354C-Survey.jpg	
0.02		WL	Water level, 5% % of the vertical dimension	00:00:02	200318_1 354D-Survey.jpg	
5.58		LR	Line deviates right	00:00:28	200318_1 354E-Survey.jpg	
7.11		WL	Water level, 10% % of the vertical dimension	00:00:40	200318_1 355A-Survey.jpg	
7.13		DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:42	200318_1 355B-Survey.jpg	3
9.98		JN	Junction, at 09 o'clock, diameter: 100 mm	00:00:59	200318_1 355C-Survey.jpg	
11.76	S01	CUW	Loss of vision, camera under water, S01	00:01:10	200318_1 356A-Survey.jpg	
13.61	F01	CUW	Loss of vision, camera under water, F01	00:01:28		
14.29		OCF	Finish node type, other special chamber, reference number: DS: interceptor	00:01:44	200318_1 357A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	0.1	2.0	3.0

Lanes Group Plc
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londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY06X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
13	Downstream	GY06X	PJ00366135	PJ00366135

200318_1354C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY06

200318_1354D-Survey.jpg, 00:00:02, 0.02 m
Water level, 5% % of the vertical dimension

200318_1354E-Survey.jpg, 00:00:28, 5.58 m
Line deviates right

200318_1355A-Survey.jpg, 00:00:40, 7.11 m
Water level, 10% % of the vertical dimension

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Tel. [redacted]
londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY06X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
13	Downstream	GY06X	PJ00366135	PJ00366135

200318_1355B-Survey.jpg, 00:00:42, 7.13 m
Settled deposits, fine, 10% % cross-sectional area loss

200318_1355C-Survey.jpg, 00:00:59, 9.98 m
Junction, at 09 o'clock, diameter: 100 mm

200318_1356A-Survey.jpg, 00:01:10, 11.76 m
Loss of vision, camera under water, S01

200318_1357A-Survey.jpg, 00:01:44, 14.29 m
Finish node type, other special chamber, reference number: DS, intercptor

Lanes Group Plc
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londonops@lanesgroup.co.uk

Section Inspection - 18/03/2020 - GY08X

Section	Inspection	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
14	14	18/03/20	14:11	PJ00366135	No Rain Or Snow	Yes	GY08X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY08
Road:	51 Durward Street	**Inspected Length:**	1.83 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	1.83 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY08						
	0.00	GY	Start node type, gully, reference number: GY08	00:00:00	200318_1410C-Survey.jpg	
	0.00	WL	Water level, 10% % of the vertical dimension	00:00:02	200318_1410D-Survey.jpg	
	0.00	DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:04	200318_1411A-Survey.jpg	3
	1.83	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:23	200318_1411B-Survey.jpg	
DS Depth: 0.00 m						

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	1.1	2.0	3.0

Lanes Group Plc
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londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY08X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
14	Downstream	GY08X	PJ00366135	PJ00366135

200318_1410C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY08

200318_1410D-Survey.jpg, 00:00:02, 0.00 m
Water level, 10% % of the vertical dimension

200318_1411A-Survey.jpg, 00:00:04, 0.00 m
Settled deposits, fine, 10% % cross-sectional area loss

200318_1411B-Survey.jpg, 00:00:23, 1.83 m
Finish node type, other special chamber, reference number: DS, reached

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londonops@lanesgroup.co.uk

Section Inspection - 18/03/2020 - GY09X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
15	15	18/03/20	14:19	PJ00366135	No Rain Or Snow	Yes	GY09X

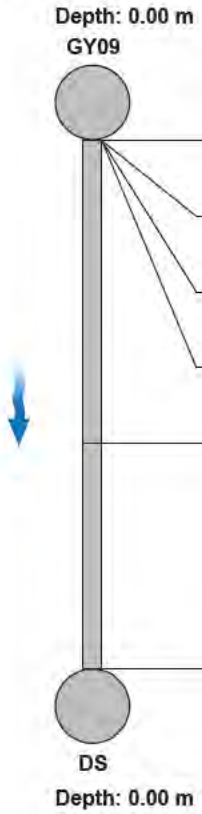
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY09
Road:	51 Durward Street	**Inspected Length:**	3.49 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.49 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	GY	Start node type, gully, reference number: GY09	00:00:00	200318_1418A-Survey.jpg	
0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200318_1418B-Survey.jpg	
0.00	MC	Material changes Polyvinyl chloride @REM	00:00:05	200318_1418C-Survey.jpg	
0.00	LD	Line deviates down	00:00:08	200318_1418D-Survey.jpg	
2.00	LR	Line deviates right	00:00:22	200318_1418E-Survey.jpg	
3.49	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:33	200318_1419A-Survey.jpg	

Construction Features / Structural Defects					Miscellaneous Features / Service & Operational Observations				
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	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 18/03/2020 - GY09X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
15	Downstream	GY09X	PJ00366135	PJ00366135

200318_1418A-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY09

200318_1418B-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200318_1418C-Survey.jpg, 00:00:05, 0.00 m
Material changes Polyvinyl chloride @REM

200318_1418D-Survey.jpg, 00:00:08, 0.00 m
Line deviates down

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Tel. [redacted]
londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY09X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
15	Downstream	GY09X	PJ00366135	PJ00366135

200318_1418E-Survey.jpg, 00:00:22, 2.00 m
Line deviates right

200318_1419A-Survey.jpg, 00:00:33, 3.49 m
Finish node type, other special chamber, reference number: DS, reached

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Section Inspection - 18/03/2020 - GY07X

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
16	16	18/03/20	14:33	PJ00366135	No Rain Or Snow	Yes	GY07X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
C.Layfield	PF65 JEO	Proteus Crawler	0.00 m	Private Drain	-

Town or Village:	London	**Inspection Direction:**	Downstream	**Upstream Node:**	GY07
Road:	51 Durward Street	**Inspected Length:**	3.87 m	**Upstream Pipe Depth:**	0.000 m
Location:	Property with buildings	**Total Length:**	3.87 m	**Downstream Node:**	DS
Surface Type:	Asphalt Footway	**Joint Length:**	0.00 m	**Downstream Pipe Depth:**	0.000 m

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Year Constructed:		**Pipe Material:**	Vitrified clay pipe (i.e. all clayware)
Flow Control:	No flow control	**Lining Type:**	No Lining
Inspection Purpose:	Investigation of known defects	**Lining Material:**	No Lining

Comments: -
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY07						
	0.00	GY	Start node type, gully, reference number: GY07	00:00:00	200318_1432C-Survey.jpg	
	0.00	WL	Water level, 5% % of the vertical dimension	00:00:03	200318_1432D-Survey.jpg	
	0.92	DES	Settled deposits, fine, 10% % cross-sectional area loss	00:00:14	200318_1432E-Survey.jpg	3
	3.87	OCF	Finish node type, other special chamber, reference number: DS: reached	00:00:39	200318_1433A-Survey.jpg	
DS Depth: 0.00 m						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
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	0.0	0.0	1.0	1	2.0	0.5	2.0	3.0

Lanes Group Plc
16 Lamson Road, Rainham
Tel. [redacted]
londonops@lanesgroup.co.uk

Section Pictures - 18/03/2020 - GY07X

Section	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
16	Downstream	GY07X	PJ00366135	PJ00366135

200318_1432C-Survey.jpg, 00:00:00, 0.00 m
Start node type, gully, reference number: GY07

200318_1432D-Survey.jpg, 00:00:03, 0.00 m
Water level, 5% % of the vertical dimension

200318_1432E-Survey.jpg, 00:00:14, 0.92 m
Settled deposits, fine, 10% % cross-sectional area loss

200318_1433A-Survey.jpg, 00:00:39, 3.87 m
Finish node type, other special chamber, reference number: DS, reached

Jacob Gemma

From: Kelly Darren
Sent: 15 April 2020 13:59
To: Alex Smithson
Cc: Neal Egan; [redacted]bbmv.co.uk; [redacted]bbmv.co.uk; Storer Richard; Forrest Jim
Subject: RE: Kempton Court CCTV Survey

Alex,

The red items in the report indicate areas that should be outside the remit of the survey area.

Is it possible to remove this red items in the report to avoid concern from the residents?

Regards

Darren

From: [redacted]BBMV.co.uk [mailto:[redacted]BBMV.co.uk]
Sent: 07 April 2020 12:44
To: Kelly Darren; Forrest Jim
Cc: Neal Egan; [redacted]bbmv.co.uk; [redacted]bbmv.co.uk
Subject: RE: Kempton Court CCTV Survey

Hi Darren, Jim,

Apologies on the delay on replying to you both, I've been looking into this to provide a comprehensive answer, given that I wasn't involved in any of the groundwork or installation in this area.

From my interpretation of the report, the sections installed by BBMV are acceptable, and the two 'red' items fall outside the previous site boundary (the orange items are also in the far eastern area of Kempton court). To give a general idea of location for the red items, it's the drainage pipes opposite the main Kempton Court gate, and a short distance to the west. Both issues are pipe deformities, which to me indicates either installation error, or settlement & compression over time from resident loading. As BBMV would have had no access to this area, I don't believe it would have been caused by us.

As for the Western Kempton Court bend that couldn't be passed - I have spoken to our foreman, who says that this is due to the presence of a U bend prior to entering the flats rainwater run-off. Further to this, the pipe also Y splits and heads around to Durward Street (Jim, Tony said that this is the orange pipe that runs along the Kempton Court Wall, and we believe feeds the North side rainwater outlets – to be determined when the road is dug up) – all these are pre-existing, and not installed by BBMV. The Westernmost end was capped by BBMV, as we removed the redundant pipes under the grassed area (south of the dividing wall, grass outstanding due to the upcoming V Mesh scaffold).

I've been looking for an initial survey of the drainage in these areas, but have been unable to locate anything in our records or on eB so far. If you are aware of where these are, please forward through and I'll do an exercise comparing the two. I will keep searching in the meantime, and get in touch with the previous team members where possible.

Hope this suffices for now and alleviates some concerns; I'll see what further information I can acquire.

Kind Regards,

Alex Smithson
Section Engineer – Demobilisation
BBMV – C512 Whitechapel
M: [redacted]

From: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Sent: 06 April 2020 16:45
To: Smithson, Alex (BBMV) <[redacted]BBMV.co.uk>
Cc: Egan, Neal (BBMV) <[redacted]BBMV.co.uk>; Gaffney, Jack (BBMV) <[redacted]bbmv.co.uk>; Gilmour, Cooper (BBMV) <[redacted]bbmv.co.uk>; Forrest Jim <[redacted]crossrail.tfl.gov.uk>
Subject: Re: Kempton Court CCTV Survey

Alex

The report highlights some red items that they recommend work for - can you confirm where these are as this will set alarm bells ringing

The survey has a missing section where the camera cant get round a bend - is this a back drop ?

The aim of the report is to prove that our works have not made the Kempton Court drainage any worse through our works so ideally we should bench mark and compare to the original drainage survey before the land was handed over to you. I need some comparison and commentary assuming we have pre - drainage survey

Regards

Darren Kelly
Project Construction Manager
C512 Whitechapel Station Works
Essex Wharf, Durward St. London E1 5BA
M[redacted] | [redacted]crossrail.tfl.gov.uk

MOVING LONDON FORWARD

From: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Sent: 02 April 2020 07:54
To: Alex Smithson <[redacted]BBMV.co.uk>; Forrest Jim <[redacted]crossrail.tfl.gov.uk>
Cc: Neal Egan <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>
Subject: Re: Kempton Court CCTV Survey

Alex

Thanks it makes sense now.

Jim - can you just have a quick look at it before we send it to Kempton court

Regards

Darren Kelly
Project Construction Manager
C512 Whitechapel Station Works
Essex Wharf, Durward St. London E1 5BA
M[redacted] | [redacted]crossrail.tfl.gov.uk

MOVING LONDON FORWARD

From: [redacted]BBMV.co.uk <[redacted]BBMV.co.uk>
Sent: 01 April 2020 10:01
To: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Cc: Neal Egan <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>; Forrest Jim <[redacted]crossrail.tfl.gov.uk>
Subject: RE: Kempton Court CCTV Survey

Hi Darren,

Spoke to Socotec on the phone and I've they've sent through the report and reference sketch (attached).

Believe this is what you were looking for!

Kind Regards,

Alex Smithson
Section Engineer – Demobilisation
BBMV – C512 Whitechapel
M: [redacted]

From: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Sent: 27 March 2020 10:45
To: Smithson, Alex (BBMV) <[redacted]BBMV.co.uk>
Cc: Egan, Neal (BBMV) <[redacted]BBMV.co.uk>; Gaffney, Jack (BBMV) <[redacted]bbmv.co.uk>; Gilmour, Cooper (BBMV) <[redacted]bbmv.co.uk>; Forrest Jim <[redacted]crossrail.tfl.gov.uk>
Subject: Re: Kempton Court CCTV Survey

Alex,

Its a bit unclear what is on the website and what it means. The objective of the survey is to demonstrate the drainage system has not been damaged or blocked by our works especially after our cleaning exercise and is in no worse a condition when we took it over

I would expect some sort of report with the CCTV survey that summarises and demonstrates all is good unless I am missing something?

Regards

Darren Kelly
Project Construction Manager
C512 Whitechapel Station Works
Essex Wharf, Durward St. London E1 5BA
M[redacted] | [redacted]crossrail.tfl.gov.uk

MOVING LONDON FORWARD

From: [redacted]BBMV.co.uk <[redacted]BBMV.co.uk>
Sent: 26 March 2020 13:24
To: Kelly Darren <[redacted]crossrail.tfl.gov.uk>
Cc: Neal Egan <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>; [redacted]bbmv.co.uk <[redacted]bbmv.co.uk>
Subject: Kempton Court CCTV Survey

Darren,

Neal's requested I forward through our results for the drainage surveys. Given the files are approximately 200mb total, I've forwarded the Lanes Drains website, where you can stream/download the videos below:

https://web.wincan.com/Project/PJ00366135SocotecUKLimited51DurvwardStreet-jmslc7

(GY runs are the existing Kempton Court Drainage east of our working area).

Also attached is the previous report, including the drawing showing the node names.

Kind Regards,

Alex Smithson
Section Engineer – Demobilisation
BBMV – C512 Whitechapel
M: [redacted]

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