



402-404 Wilmslow Road

Withington

Manchester M20 3BN

Proposed Residential Rear Extension/Conversion

Flood Risk Assessment

For: Concorde No.1 Ltd.

Integra Consulting
Suite 4
14-32 Hewitt Street
Manchester
M15 4GB

Ref: 3301-FRA
Job: 3301
Rev: D
By: NS

Date: Jun 2022

Environmental

Geotechnical

Highways

Structural

Civil

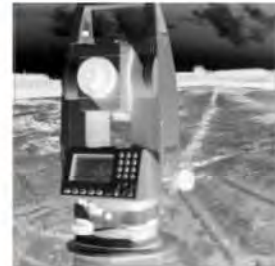
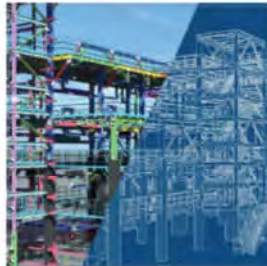
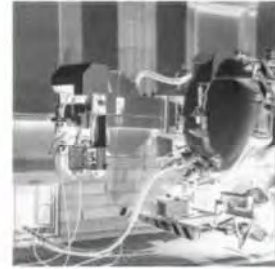
APPENDICES

Appendix 1	Site Location Plan & Aerial View of Building
Appendix 2	Topographical Survey
Appendix 3	Environment Agency Flood Data / Maps / Risk Levels
Appendix 4	United Utilities Sewer Plan
Appendix 5	Existing Plans
Appendix 6	Proposed Site Drawings
Appendix 7	Groundwater Flood Mapping
Appendix 8	Statutory Flood Risk and Drainage Consultee Correspondence
Appendix 9	Site Photographs – Rear of Building
Appendix 10	Defra / Environment Agency: Flood Risks to People – Phase 2
Appendix 11	Schematic Surface Water Drainage Strategy Layout
Appendix 12	Surface Water Attenuation Calculations
Appendix 13	Micro Drainage Simulations
Appendix 14	Existing Drainage Survey

APPENDIX 14

EXISTING DRAINAGE SURVEY





LAYER SURVEYS LTD
SEE THE COMPLETE PICTURE

DRAINAGE SURVEY

Job Number
LAYERSERV0001126Surveyed by (Operator)
CHRIS LUCOCKBase Unit
ELFEIYII63Date
17/01/2022

Client Details:

Integra Consulting
Suite 4,
14-32 Hewitt Street,
Manchester,
M15 4GBClient Contact Name: Neville Shaw
Client Contact Tel: 07740 723 258

Site Details:

402-4040 Wilmslow Road,
Withington
M20 3BNSite Contact Name: Stuart Wall
Site Contact Tel: 07770 382643

Contractor Details:

Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

Office Contact Number: 01772 611634

Purpose of Survey:

Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 17/01/2022
---------------------------------------	---	--------------------------------	---------------------------

Report Contents

Page 1	Cover Page
Page 2	Job Overview
Page 3	Contents Page
Page 4	Survey Run Sheet(Survey 1 - MH 01 to SOURCE)
Page 7	Survey Run Sheet(Survey 2 - MH 01 to MH 02)
Page 11	Survey Run Sheet(Survey 3 - MH 02 to MH 01)
Page 13	Survey Run Sheet(Survey 4 - MH 02 to BRANCH B)
Page 15	Survey Run Sheet(Survey 5 - MH 02 to MH 03)
Page 18	Survey Run Sheet(Survey 6 - MH 03 to MH 04)
Page 22	Survey Run Sheet(Survey 7 - MH 03 to BRANCH B)
Page 24	Survey Run Sheet(Survey 8 - MH 03 to BRANCH C)
Page 26	Survey Run Sheet(Survey 9 - SVP 1 to MAIN CARRIER)
Page 29	Survey Run Sheet(Survey 10 - SVP 2 to MAIN CARRIER)
Page 31	Final Page

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) SOURCE X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 2/1	Base Unit ELFEIYII63	Section Number 1

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH 01 End Node SOURCE Total length 9.93 metres
--	---	--

Scale 1:0.47 Direction Upstream
--

Start Node Ref:MH 01 I/L :mm Depth: 0.70mm					
Position	Code	Description	Photo	Type/Grade	
0.00	MH	Start node type, manhole, reference MH 01	5938161	Comment / 0	
0.00	WL	Water level 5% height/diameter	5938162	Comment / 0	
0.14	JDM	Joint displaced medium	5938163	Structural / 1	
1.33	RF	Roots fine	5938164	Service / 2	
2.05	DEE	Attached deposits, encrustation from 4 to 8 o'clock 5% cross-sectional area loss	5938168	Service / 2	
2.69	DEE	Attached deposits, encrustation from 3 to 8 o'clock 5% cross-sectional area loss	5938178	Service / 2	
7.43	DEX	Other settled deposits 5% cross-sectional area loss - Remark: LEAF	5938184	Service / 2	
9.45	JDM	Joint displaced medium - Remark: SEAL VISABLE	5938214	Structural / 1	
9.93	LU	Line of drain/sewer deviates up	5938222	Comment / 0	
9.93	OCF	Finish node type, other special chamber, reference REST BEND	5938226	Comment / 0	
End Node Ref:SOURCE I/L :mm					



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Start node type, manhole, reference MH 01



Water level 5% height/diameter



Joint displaced medium



Roots fine



Attached deposits, encrustation from 4 to 8 o'clock 5% cross-sectional area loss



Attached deposits, encrustation from 3 to 8 o'clock 5% cross-sectional area loss



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Other settled deposits 5% cross-sectional area loss - Remark: LEAF



Joint displaced medium - Remark: SEAL VISABLE



Line of drain/sewer deviates up



Finish node type, other special chamber, reference REST BEND

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) MH 01 X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 2/1	Base Unit ELFEIYII63	Section Number 2

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH 01 End Node MH 02 Total length 11 metres
--	---	---

Scale 1:0.58 Direction Downstream
--

Start Node Ref:MH 01 | I/L :mm | Depth: 0.70mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 01	5938250	Comment / 0
0.00	WL	Water level 5% height/diameter	5938251	Comment / 0
1.76	LD	Line of drain/sewer deviates down	5938256	Comment / 0
2.43	JDM	Joint displaced medium	5938258	Structural / 1
2.43	JN	Junction at 9 o'clock, diameter 100mm	5938273	Comment / 0
2.71	WL	Water level 10% height/diameter - Remark: DIP IN PIPE	5938274	Comment / 0
3.24	DER	Settled deposits coarse 5% cross-sectional area loss	5938278	Service / 2
3.83	REM	MCPVC - Material of drain/sewer changes to polyvinyl chloride at this point	5938282	Comment / 0
7.12	LD	Line of drain/sewer deviates down	5938286	Comment / 0
8.76	JDM	Joint displaced medium - Remark: SEAL VISABLE	5938290	Structural / 1
9.55	JN	Junction at 10 o'clock, diameter 100mm	5938292	Comment / 0
9.95	JDL	Joint displaced large - Remark: SEAL VISABLE - HOLDING WATER	5938302	Structural / 1
10.05	MCVC	Material of drain/sewer changes to vitrified clay at this point	5938303	Comment / 0
10.21	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO DISPLACED JOINT - ENCRUSTATION - REPAIR NEEDED	5938338	Comment / 0
10.26	DEE	Attached deposits, encrustation at 5 o'clock 5% cross-sectional area loss	5938313	Service / 2

End Node Ref:MH 02 | I/L :mm



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
			
Start node type, manhole, reference MH 01			
			
Water level 5% height/diameter			
			
Line of drain/sewer deviates down			
			
Joint displaced medium			
			
Junction at 9 o'clock, diameter 100mm			
			
Water level 10% height/diameter - Remark: DIP IN PIPE			



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
			
Settled deposits coarse 5% cross-sectional area loss			
			
MCPVC - Material of drain/sewer changes to polyvinyl chloride at this point			
			
Line of drain/sewer deviates down			
			
Joint displaced medium - Remark: SEAL VISABLE			
			
Junction at 10 o'clock, diameter 100mm			
			
Joint displaced large - Remark: SEAL VISABLE - HOLDING WATER			



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Material of drain/sewer changes to vitrified clay at this point



Survey abandoned - Remark: UNABLE TO PASS DUE TO DISPLACED JOINT - ENCRUSTATION - REPAIR NEEDED



Attached deposits, encrustation at 5 o'clock 5% cross-sectional area loss

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) MH 01 X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/5	Base Unit ELFEIYII63	Section Number 3

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH 02 End Node MH 01 Total length 0.31 metres
--	---	---

Scale 1:0.00 Direction Upstream
--

Start Node Ref:MH 02 | I/L :mm | Depth: 1.10mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 02	5938555	Comment / 0
0.00	WL	Water level 5% height/diameter	5938557	Comment / 0
0.14	H	Hole in drain/sewer from 8 to 12 o'clock - Remark: PIPE BROKEN - REPAIR NEEDED	5938574	Structural / 5
0.31	OCF	Finish node type, other special chamber, reference SURVEY OVERLAPPED	5938576	Comment / 0

End Node Ref:MH 01 | I/L :mm | Depth: 0.70mm



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Start node type, manhole, reference MH 02



Water level 5% height/diameter



Hole in drain/sewer from 8 to 12 o'clock - Remark: PIPE BROKEN - REPAIR NEEDED



Finish node type, other special chamber, reference SURVEY OVERLAPPED

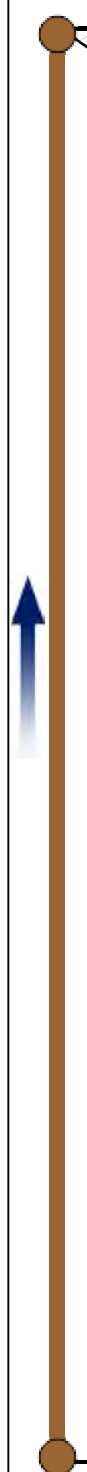
Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) BRANCH B X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit ELFEIYII63	Section Number 4

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH 02 End Node BRANCH B Total length 2.45 metres
--	---	--

Scale 1:0.10 Direction Upstream
--

Start Node Ref:MH 02 | I/L :mm | Depth: 1.10mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 02	5938585	Comment / 0
0.00	WL	Water level 5% height/diameter	5938587	Comment / 0
				
2.45	GYF	Finish node type, gully, reference GULLY	5938599	Comment / 0

End Node Ref:BRANCH B | I/L :mm



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Start node type, manhole, reference MH 02



Water level 5% height/diameter



Finish node type, gully, reference GULLY

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) MH 02 X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/1	Base Unit ELFEIYII63	Section Number 5
Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN			Division District Location Details	
Purpose Duty Combined Catchment	Shape/Size 150mm Material Vitrified clay Category		Start Node MH 02 End Node MH 03 Total length 6.29 metres	
Scale 1:0.31 Direction Downstream				

Start Node Ref:MH 02 | I/L :mm | Depth: 1.10mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 02	5938600	Comment / 0
0.00	WL	Water level 5% height/diameter	5938601	Comment / 0
0.29	OJL	Open joint large - Remark: SEAL VISABLE	5938610	Structural / 1
2.21	JN	Junction at 10 o'clock, diameter 100mm	5938611	Comment / 0
4.45	JN	Junction at 3 o'clock, diameter 150mm	5938616	Comment / 0
4.45	LD	Line of drain/sewer deviates down	5938617	Comment / 0
4.76	LL	Line of drain/sewer deviates left	5938621	Comment / 0
5.64	JN	Junction at 12 o'clock, diameter 100mm	5938631	Comment / 0
6.29	MHF	Finish node type, manhole, reference MH 03	5938632	Comment / 0

End Node Ref:MH 03 | I/L :mm | Depth: 1.80mm



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
 0.00 M Start node type, manhole, reference MH 02			
 0.00 M Water level 5% height/diameter			
 0.29 M Open joint large - Remark: SEAL VISABLE			
 2.21 M Junction at 10 o'clock, diameter 100mm			
 4.45 M Junction at 3 o'clock, diameter 150mm			
 4.45 M Line of drain/sewer deviates down			



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
			
Line of drain/sewer deviates left			
			
Junction at 12 o'clock, diameter 100mm			
			
Finish node type, manhole, reference MH 03			

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) MH 03 X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 4/1	Base Unit ELFEIYII63	Section Number 6

 Road **402-4040 Wilmslow Road,**
 Place **Withington**
 Location **M20 3BN**

 Division
 District
 Location Details

 Purpose
 Duty **Combined**
 Catchment

 Shape/Size **225mm**
 Material **Vitrified clay**
 Category

 Start Node **MH 03**
 End Node **MH 04**
 Total length **40 metres**

 Scale **1:2.10**
 Direction **Downstream**

Start Node Ref:MH 03 | I/L :mm | Depth: 1.80mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 03	5939027	Comment / 0
0.00	WL	Water level 10% height/diameter	5939028	Comment / 0
0.31	CN	Connection other than junction at 10 o'clock, diameter 100mm	5939030	Comment / 0
1.40	LL	Line of drain/sewer deviates left	5939031	Comment / 0
20.17	LR	Line of drain/sewer deviates right	5939040	Comment / 0
22.79	LL	Line of drain/sewer deviates left	5939051	Comment / 0
23.36	LD	Line of drain/sewer deviates down	5939052	Comment / 0
24.62	CUW	Loss of vision, camera under water	5939059	Comment / 0
25.10	JDL	Joint displaced large	5939096	Structural / 1
25.10	DER	Settled deposits coarse 15% cross-sectional area loss	5939097	Service / 3
25.14	LL	Line of drain/sewer deviates left	5939116	Comment / 0
25.14	DES	Settled deposits fine 20% cross-sectional area loss	5939129	Service / 4
25.17	RF	Roots fine	5939114	Service / 2
27.50	DER	Settled deposits coarse 20% cross-sectional area loss	5939158	Service / 4
29.00	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO SILT/ROOTS - CLEANING REQUIRED FOR FURTHER INVESTIGATION	5939263	Comment / 0

End Node Ref:MH 04 | I/L :mm



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Start node type, manhole, reference MH 03



Water level 10% height/diameter



Connection other than junction at 10 o'clock, diameter 100mm



Line of drain/sewer deviates left



Line of drain/sewer deviates right



Line of drain/sewer deviates left



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYII63

Date
18/01/2022



Line of drain/sewer deviates down



Loss of vision, camera under water



Joint displaced large



Settled deposits coarse 15% cross-sectional area loss



Line of drain/sewer deviates left



Settled deposits fine 20% cross-sectional area loss



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
			
Roots fine			
			
Settled deposits coarse 20% cross-sectional area loss			
			
Survey abandoned - Remark: UNABLE TO PASS DUE TO SILT/ROOTS - CLEANING REQUIRED FOR FURTHER INVESTIGATION			

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) BRANCH B X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 4/0	Base Unit ELFEIYII63	Section Number 7

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH 03 End Node BRANCH B Total length 5 metres
--	---	---

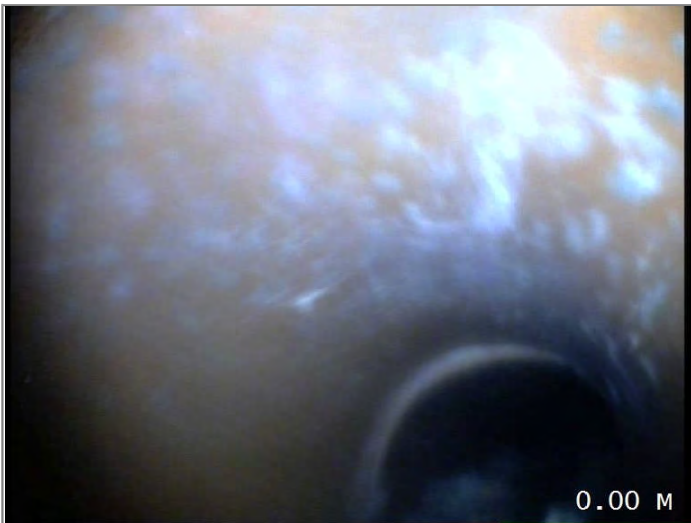
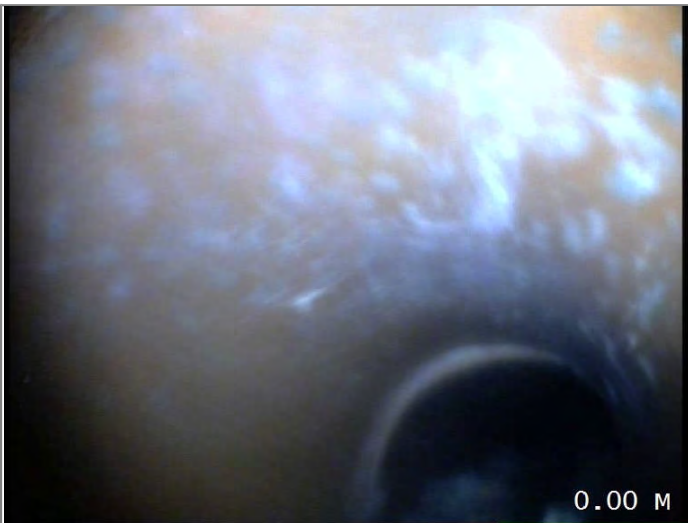
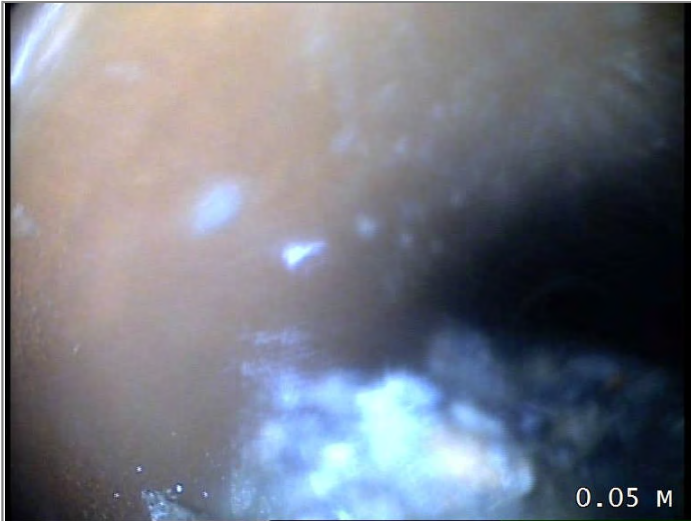
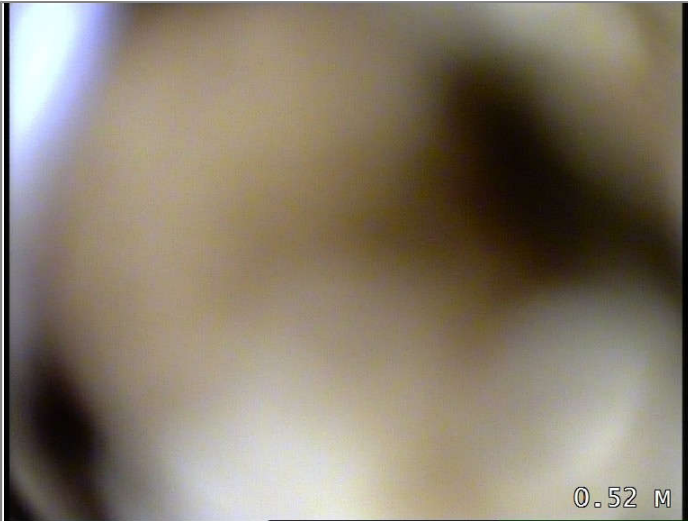
Scale 1:0.26 Direction Upstream
--

Start Node Ref:MH 03 | I/L :mm | Depth: 1.80mm

Position	Code	Description	Photo	Type/Grade
	MH	Start node type, manhole, reference MH 03	5939313	Comment / 0
0.00	WL	Water level 5% height/diameter	5939314	Comment / 0
0.05	DES	Settled deposits fine 25% cross-sectional area loss	5939315	Service / 4
	CUD	Loss of vision, silt	5939316	Comment / 0
0.52	SA	Survey abandoned - Remark: UNABLE TO PASSDUE TO HIGH SILT DEPOSITS CLEANING REQUIRED	5939327	Comment / 0

End Node Ref:BRANCH B | I/L :mm



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
 0.00 M Start node type, manhole, reference MH 03		 0.00 M Water level 5% height/diameter	
 0.05 M Settled deposits fine 25% cross-sectional area loss		 0.52 M Loss of vision, silt	
 0.52 M Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS CLEANING REQUIRED			

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) BRANCH C X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 3/0	Base Unit ELFEIYII63	Section Number 8

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH 03 End Node BRANCH C Total length 1.24 metres
--	---	--

Scale 1:0.05 Direction Upstream
--

Start Node Ref:MH 03 I/L :mm Depth: 1.80mm					
Position	Code	Description	Photo	Type/Grade	
0.00	MH	Start node type, manhole, reference MH 03	5939366	Comment / 0	
0.00	WL	Water level 5% height/diameter	5939368	Comment / 0	
0.12	DEE	Attached deposits, encrustation from 6 to 5 o'clock 10% cross-sectional area loss	5939370	Service / 3	
1.24	GYF	Finish node type, gully, reference GULLY	5939390	Comment / 0	
End Node Ref:BRANCH C I/L :mm					



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
 Start node type, manhole, reference MH 03	 Water level 5% height/diameter		
 Attached deposits, encrustation from 6 to 5 o'clock 10% cross-sectional area loss	 Finish node type, gully, reference GULLY		

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference(PLR) SVP 1 X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 5/0	Base Unit ELFEIYII63	Section Number 9

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

Purpose Duty Combined Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node SVP 1 End Node MAIN CARRIER Total length 6.98 metres
--	---	--

Scale 1:0.31 Direction Downstream
--

Start Node Ref:SVP 1 I/L :mm						
Position	Code	Description	Photo	Type/Grade		
0.00	SN	Start node type: SVP	5939596	Comment / 0		
0.00	WL	Water level 5% height/diameter	5939597	Comment / 0		
0.38	LR	Line of drain/sewer deviates right	5939599	Comment / 0		
0.88	LL	Line of drain/sewer deviates left	5939609	Comment / 0		
2.36	OFF	Finish node type, outfall, reference MAIN CARRIER	5939625	Comment / 0		
4.19	RM	Roots mass 50% cross-sectional area loss	5939642	Service / 5		
5.52	RM	Roots mass 100% cross-sectional area loss	5939655	Service / 5		
6.93	RM	Roots mass 100% cross-sectional area loss	5939656	Service / 5		
End Node Ref:MAIN CARRIER I/L :mm						



Job Number
LAYERSERV0001126

Surveyed by (Operator)
CHRIS LUCOCK

Base Unit
ELFEIYI163

Date
18/01/2022



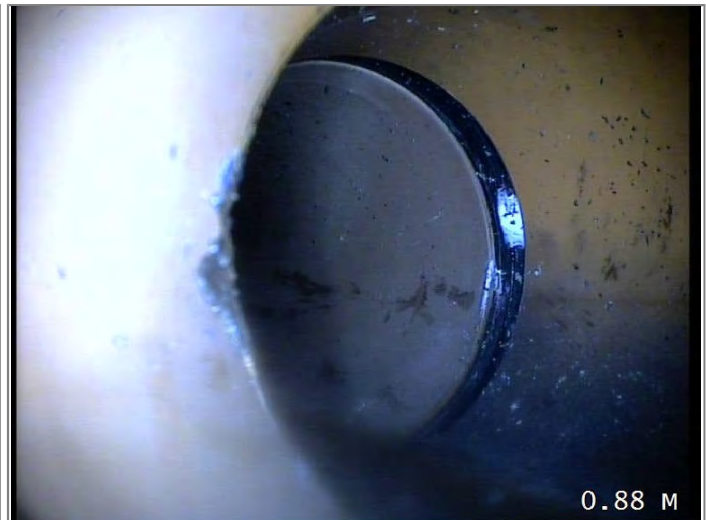
Start node type: SVP



Water level 5% height/diameter



Line of drain/ sewer deviates right



Line of drain/ sewer deviates left



Finish node type, outfall, reference MAIN CARRIER



Roots mass 50% cross-sectional area loss



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
 5.52 M Roots mass 100% cross-sectional area loss			
 6.93 M Roots mass 100% cross-sectional area loss			

Surveyed by (Operator) CHRIS LUCOCK	Job Number LAYERSERV0001126	Pipe Length Reference (PLR) SVP 2 X	Date 18/01/2022	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit ELFEIYII63	Section Number 10

Road 402-4040 Wilmslow Road, Place Withington Location M20 3BN	Division District Location Details
---	--

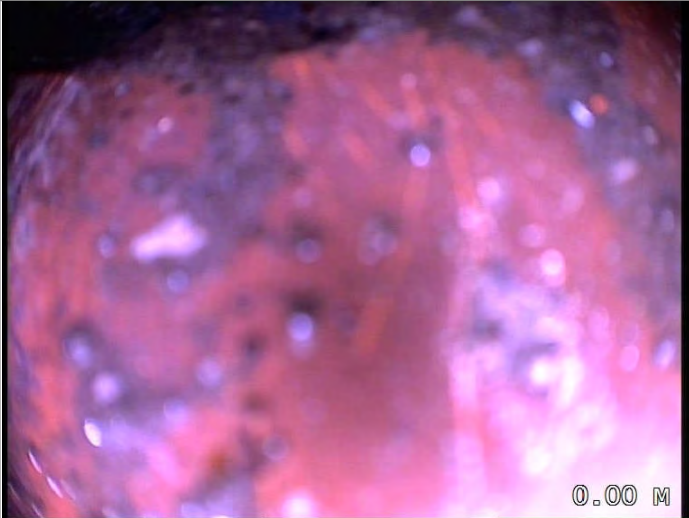
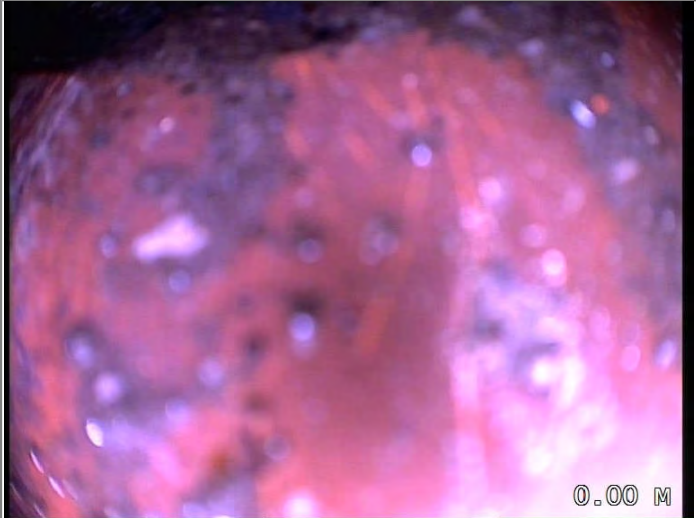
Purpose Duty Combined Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node SVP 2 End Node MAIN CARRIER Total length 9.81 metres
--	---	--

Scale 1:0.47 Direction Downstream
--

Position		Code	Description	Photo	Type/Grade
	0.00	SN	Start node type: SVP	5939798	Comment / 0
	0.00	WL	Water level 5% height/diameter	5939799	Comment / 0
					
	6.29	JN	Junction at 12 o'clock, diameter 100mm	5939800	Comment / 0
	8.29	LD	Line of drain/sewer deviates down	5939811	Comment / 0
	9.31	LL	Line of drain/sewer deviates left	5939812	Comment / 0
	9.81	OCF	Finish node type, other special chamber, reference MAIN CARRIER	5939818	Comment / 0

End Node Ref: MAIN CARRIER | I/L :mm



Job Number LAYERSERV0001126	Surveyed by (Operator) CHRIS LUCOCK	Base Unit ELFEIYII63	Date 18/01/2022
			
Start node type: SVP			
			
Water level 5% height/diameter			
			
Junction at 12 o'clock, diameter 100mm			
			
Line of drain/sewer deviates down			
			
Line of drain/sewer deviates left			
			
Finish node type, other special chamber, reference MAIN CARRIER			



LAYER SURVEYS LTD

SEE THE COMPLETE PICTURE

North West Office:

Francis House, Meadowcroft Business Park,
Pope Lane, Preston, PR4 4BA

Midlands Office:

5A Anchor Road,
Aldridge WS9 8PT

Southern Office:

Grove Park Business Estate Waltham Rd,
White Waltham, Maidenhead SL6 3LW

T: 01772 611634

M: 07341 953636

darren@layersurveys.co.uk

www.layersurveys.co.uk

[f @layersurveys](https://www.facebook.com/layersurveys)

LinkedIn



Constructionline
Client Member

Layer Surveys Ltd

Head Office: Francis House, Meadowcroft Business Park, Pope Lane, Preston, PR4 4BA
T: 01772 611634



LAYER SURVEYS LTD
SEE THE COMPLETE PICTURE

Layer Surveys Ltd Manhole Survey Card

Card No	01	Map No	
Catchment		MH No	MH 01
Location	WILMSLOW ROAD		
Town	WITHINGTON - M20 3BN		

★ PR Status	Syphon	★ C Function	★ MH MH Type	18/01/2022 Date of Survey
---	-----------------------------	--	--	--

COVER DETAILS

☒ Square
 ☐ Rectangle
 ☐ Triangle
 ☐ Dbl Triangle
 ☐ Circular
 ☐ Oval
 ☐ Other
 ☐ Multiple
 ☐ Hinged
 ☐ Lockable

Cover Level		m	H / M / L Cover Duty	★ M	Initials	JP
-------------	----------------------	---	----------------------	-------------------------------------	----------	---------------------------------

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X	Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm)		Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
	A	0.68		C	Height	Width	VC			
	B					X				
	C					X				
	D					X				
	E					X				
	F					X				

Outgoing Pipes

X	0.70		C	150	X		VC			
Y					X					

Cover Opening at narrowest	610 X 610	mm	Chamber Dimension	610 X 610	mm	Evidence of Surcharge	
Shaft at narrowest		mm	Shaft Depth (from CL)		mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☐ Pre Cast Concrete	☐ In Situ Concrete	☒ Brick	☐ GRP	☐ Arch	☐ Corbel	☐ Taper	☐ Side Entry
☐ Reducing Slab	☐ Segments	☐ No. of Landings	☐ No. of Step Irons	☐ No. of Ladders			
☐ No. of Regulating Brick Courses							

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☐	☐	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐
Depth of Flow		mm	Depth of Silt		mm	Height of Surcharge from CL

REMARKS

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet
	24 : Section 24	HD : Highway Drain		
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty	
SHAPE	C : Circular	E : Egg	R : Rectangular	
	S : Square	T : Trapezoidal	A : Arched	
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top	
	X : Other (state in words)			
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick	
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete	
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert	
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic	
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene	
	RPN : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay	
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed	
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)		
LINING	BL : Bitumen	RL : Resin	IS : Insituform	
	CL : Cement	PI : Plastic		

Layer Surveys Ltd

Head Office: Francis House, Meadowcroft Business Park, Pope Lane, Preston, PR4 4BA
T: 01772 611634



LAYER SURVEYS LTD
SEE THE COMPLETE PICTURE

Layer Surveys Ltd Manhole Survey Card

Card No	02	Map No	
Catchment		MH No	MH 02
Location	WILMSLOW ROAD		
Town	WITHINGTON - M20 3BN		

★ PR Status	Syphon	★ C Function	★ MH MH Type	18/01/2022 Date of Survey
---	-----------------------------	--	--	--

COVER DETAILS

☐ Square
 ☒ Rectangle
 ☐ Triangle
 ☐ Dbl Triangle
 ☐ Circular
 ☐ Oval
 ☐ Other
 ☐ Multiple
 ☐ Hinged
 ☐ Lockable

Cover Level m
 H / M / L Cover Duty
 Initials

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X	Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm)		Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
	A	1.09		C	150	X	VC			
	B	1.05		C	100	X	VC			
	C					X				
	D					X				
	E					X				
	F					X				

Outgoing Pipes

X	1.10		C	150	X		VC			
Y					X					

Cover Opening at narrowest	550 X 690 mm	Chamber Dimension	450 X 630 mm	Evidence of Surcharge	
Shaft at narrowest	mm	Shaft Depth (from CL)	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete
 ☐ In Situ Concrete
 ☐ Brick
 ☐ GRP
 ☐ Arch
 ☐ Corbel
 ☐ Taper
 ☐ Side Entry

☐ Reducing Slab
 ☐ Segments
 ☐ No. of Landings
 ☐ No. of Step Irons
 ☐ No. of Ladders

☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☐	☐	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

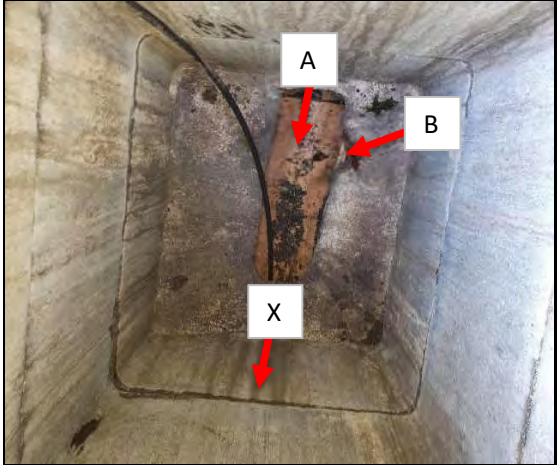
Depth of Flow mm
 Depth of Silt mm
 Height of Surcharge from CL mm

REMARKS

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet
	24 : Section 24	HD : Highway Drain		
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty	
SHAPE	C : Circular	E : Egg	R : Rectangular	
	S : Square	T : Trapezoidal	A : Arched	
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top	
	X : Other (state in words)			
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick	
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete	
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert	
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic	
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene	
	RPN : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay	
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed	
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)		
LINING	BL : Bitumen	RL : Resin	IS : Insituform	
	CL : Cement	PI : Plastic		

Layer Surveys Ltd

Head Office: Francis House, Meadowcroft Business Park, Pope Lane, Preston, PR4 4BA
T: 01772 611634



LAYER SURVEYS LTD
SEE THE COMPLETE PICTURE

Layer Surveys Ltd Manhole Survey Card

Card No	03	Map No	
Catchment		MH No	MH 03
Location	WILMSLOW ROAD		
Town	WITHINGTON - M20 3BN		

★ PR	Status		Syphon	★ C	Function	★ MH	MH Type	18/01/2022	Date of Survey
---------	--------	--	--------	--------	----------	---------	---------	------------	----------------

COVER DETAILS

☐ Square	☒ Rectangle	☐ Triangle	☐ Dbl Triangle	☐ Circular	☐ Oval	☐ Other	☐ Multiple	☐ Hinged	☐ Lockable
Cover Level		m	H / M / L Cover Duty	★ H	Initials	JP			

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X	Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm)		Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
	A	1.79		C	225	X	VC			
	B	1.49		C	100	X	VC		100	0.69
	C	1.64		C	100	X	VC		100.00	1.20
	D					X				
	E					X				
	F					X				

Outgoing Pipes

X	1.80		C	225	X	VC			
Y					X				

Cover Opening at narrowest	720 X 860	mm	Chamber Dimension	700 X 650	mm	Evidence of Surcharge	
Shaft at narrowest		mm	Shaft Depth (from CL)		mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☐ Pre Cast Concrete	☐ In Situ Concrete	☒ Brick	☐ GRP	☐ Arch	☐ Corbel	☐ Taper	☐ Side Entry
☐ Reducing Slab	☐ Segments	☐ No. of Landings	☐ No. of Step Irons	☐ No. of Ladders			
☐ No. of Regulating Brick Courses							

CONDITION INFORMATION (specific in remark)

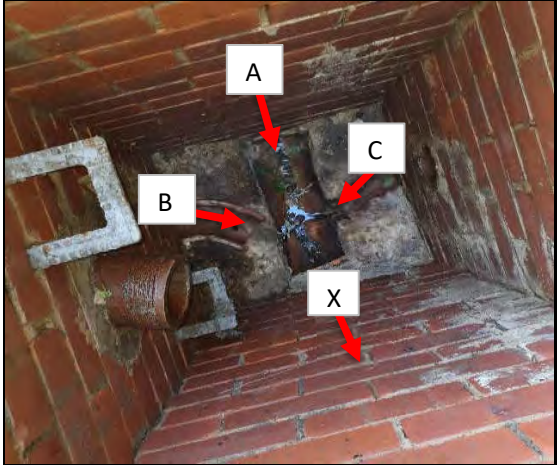
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel	
OK	☒	☐	☒	☒	☒	☒	
Needs attention	☐	☐	☐	☐	☐	☐	
Urgent attention	☐	☐	☐	☐	☐	☐	
Depth of Flow		mm	Depth of Silt		mm	Height of Surcharge from CL	

REMARKS

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet
	24 : Section 24	HD : Highway Drain		
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty	
SHAPE	C : Circular	E : Egg	R : Rectangular	
	S : Square	T : Trapezoidal	A : Arched	
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top	
	X : Other (state in words)			
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick	
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete	
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert	
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic	
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene	
	RPN : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay	
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed	
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)		
LINING	BL : Bitumen	RL : Resin	IS : Insituform	
	CL : Cement	PI : Plastic		