



AquaSPEED

DRAIN SERVICES LLP

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**DRAIN CLEANING • EXCAVATION WORK • 24 HOUR CALL OUT • FAST EFFICIENT SERVICE
HIGH PRESSURE CLEANING • COLOUR CCTV SURVEYS • ELECTRONIC SONAR DRAIN TRACING**

PROPERTY ALLIANCE GROUP LTD
ALLIANCE HOUSE
UNIT 14 WESTPOINT ENTERPRISE PARK
CLARENCE AVENUE
TRAFFORD PARK
M17 1QS

11TH JUNE 2021

OUR REF: NH/MJ

RE: RENAISSANCE HOTEL, BLACKFRIARS STREET, MANCHESTER, M3 2EQ

CCTV SURVEY

Following the CCTV survey carried out of the culvert drain on 10.06.21, the findings are as follows:

Survey 1, overflow 1 to river 850mm pipe – on lifting this manhole we did encounter a foul smell. The sound of fast flowing water could be heard from the upstream section [from Deansgate]. This could possibly be from the CSO [**combined sewer overflow**] in Deansgate itself.

This line is in poor condition & appears to have had a repair carried out at some time in the past, as there is evidence of shuttering supports & also plywood on the top of the drain, possibly to support a concrete repair.

Survey 2, overflow 1 to CSO 750mm pipe – we can only assume this drain is coming from the CSO in Deansgate, due to the foul smell & noise of rushing water. We would be unable to high pressure water jet this drain, due to an obstruction of concrete / heavy silt, & the downstream line leads directly into the River Irwell [this could result in major pollution]. We are uncertain where the upstream section of this drain comes from. We can only assume it is from the CSO in Deansgate.

If you require any further information regarding the above, or have any queries, please do not hesitate to contact our office.

Drainage Report



Prepared For
PROPERTY ALLIANCE GROUP

Site
**RENAISSANCE HOTEL
BLACKFRIARS STREET
MANCHESTER**



AQUASPEED DRAIN SERVICES
Surveyor: SHANE HOLMES
INFO@AQUASPEED.CO.UK
01942 886722

Total Defects for Project



Total DRB Grades for Project





RENAISSANCE HOTEL - CCTV Survey Report : 10/06/21

Name :	AQUASPEED DRAIN SERVICES
Contact :	
Location :	171 SMALLBROOKE LANE
Town :	LEIGH
Region :	LANCASHIRE
Postcode :	WN7 5PZ
Email :	INFO@AQUASPEED.CO.UK
Contact Number :	01942 886722
Surveyor :	SHANE HOLMES
Valid Certification No :	EUSR579459

Client Information

Name :	PROPERTY ALLIANCE GROUP
Contact :	EMILY
Location :	
Town :	
Region :	
Postcode :	
Tel :	
Mobile :	
Email :	
Fax :	

Site Information

Name :	RENAISSANCE HOTEL
Contact :	EMILY
Location :	BLACKFRIARS STREET
Town :	MANCHESTER
Region :	
Postcode :	
Tel :	
Mobile :	
Email :	
Fax :	

Total Defects for Project



Total DRB Grades for Project



Report interpretation.

Overview:

Each section of the drainage system is allocated a score indicating areas that require attention. These areas are detailed in the Overview section on the following page and also at the bottom right of the first few pages. We use colour coding as an indicator of severity. Additional information concerning rehabilitation options/recommendations is included in the Overview page, which can also be used as an, "at a glance" indication of system condition. More in depth information for each section, including images can be found later in the report. Grade indicators are as follows:

Grade A: Drain is serviceable no recommendations required

Grade B: There is an issue that might require remedial works

Grade C: There is a defect that requires remedial works, the drain is not serviceable.

Observations:

Each section of drainage reported on (manhole to manhole for example), contains detailed information about that drain and any observations made concerning condition are detailed below the header section. The observations are colour coded and given a severity score, with more significant defects being given a higher score, using a scale from 1 to 5 as detailed below:

Severity 1 to 2: These defects may require remedial monitoring

Severity 3: These defects probably require some form of remedial works

Severity 4 to 5: Defects that will require remedial repair or replacement

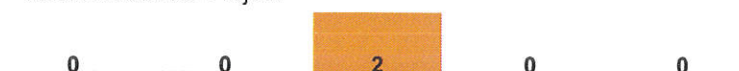
General:

The information provided is relevant at the time of survey. The coding system in this report is based on the Manual of Sewer Condition Classification, 5th edition (MSCC5) domestic codes (BS EN 13508-1:2003). This is the official standard for the water industry.

The severity system is based on significant experience in general practice and the 1-5 grades represent the severity of individual defects: 5 representing a more serious defect.

Please feel free to contact us for further explanation or pricing for remedial works required.

Total Defects for Project



Total DRB Grades for Project





Overview

Section: 1 From: OV 1 To: RIVER	ON LIFTING THIS MANHOLE WE DID GET A FOUL SMELL COMING THROUGH IT,AND ALSO YOU CAN HERE THE SOUND OF FAST FLOWING WATER FROM UP STREAM WHICH FROM DEANS_GATE THIS COULD POSSIBLY COME FROM THE CSO IN DEANS_GATE ITSELF.THE LINE IS IN POOR CONDITION AND HAS HAD A REPAIR AT SOME TIME IN ITS LIFE WITH THE EVIDENCE OF THE SHUTTERING SUPPORTS AND THE PLY WOOD ON THE ROOF OF THE DRAIN POSSIBLY TO SUPPORT A CONCRETE REPAIR.	DRB Grade: B Pipe Size: 850 Material: Other (Record in remarks) Use: Other
Section: 2 From: OV1 To: CSO	WE CAN ONLY ASHUME TIS DRAIN IS COMING FROM THE CSO IN DEANS_GATE DUE TO THE FOUL SMELL AND THE NOISE OF RUSHING WATER,WE WOULD NOT BE ABLE TO HIGH PRESSURE WATER JET THIS LINE TO IS THE OBSTRUCTION IS CONCRETE OR HEAVEY SILT DUE TO THE DOWN STREAM LEADING DIRECTLY INTO THE RIVER IRWELL WHICH COULD CAUSE MAJOR POLLUTING AS WE ARE UNSURE WEAR THE UP STREAM OF THIS DRAIN COMES FROM WE CAN ONLY SUMISE IT IS FROM THE CSO (COMBINED SEWER OVERFLOW) IN DEANS_GATE.	DRB Grade: B Pipe Size: 750 Material: Other (Record in remarks) Use: Other

Total Defects for Project



Total DRB Grades for Project





Site: BLACKFRIARS STREET, MANCHESTER

Section 1

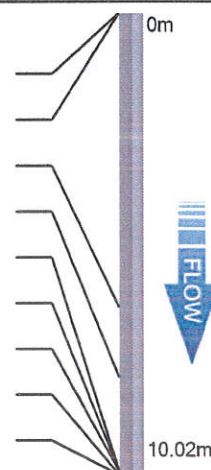
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
EMILY	BLACKFRIARS STREET	MANCHESTER		SHANE HOLMES	10/06/2021

Start Node Ref:	OV 1	Finish Node Ref:	RIVER	Direction:	D	Height/Dia:	850
Start Node Depth:	1.88	Finish Node Depth:	0.00	Use:	Z	Shape:	A
Start Node Coordinate:		Finish Node Coordinate:		Material:	Z	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Inadequate X	Missing X	Missing X	

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	10.02	STONE

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole		0_0		
00.00m	WL	Water level 0%			0:00:00	
06.38m	REM	General remark		0_2	0:00:52	
07.90m	REM	S1 General remark	S1	0_3	0:01:28	
09.95m	MC	Material of drain/sewer changes		0_4	0:01:56	
09.95m	REM	General remark		0_5	0:02:19	
09.95m	OB	Other obstacles 20%			0:03:13	
10.02m	REM	F1 General remark	F1	0_-3	0:01:28	
10.02m	SA	Survey abandoned				



Total Defects for section



DRB Grade for Section





Descriptive Report with Remarks and Observation Images

Section 1

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole OV 1	Image Provided - Ref: 0_0 6.38 00:01:02
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
06.38m	0:00:52	REM	General remark ply wood shuttering on the roof of the drain	Image Provided - Ref: 0_2 7.93 00:01:46
07.90m	0:01:28	S1 REM	General remark 7.9m - 10.02m support for shuttering	Image Provided - Ref: 0_3 9.95 00:02:20

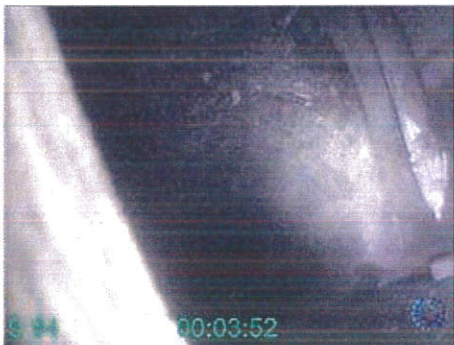
Total Defects for section



DRB Grade for Section

B



Pos	Video Ref	Code	Description	Image
09.95m	0:01:56	MCBR	Material of pipe changes to Brick	Image Provided - Ref: 0_4 
09.95m	0:02:19	REM	General remark bricks missing	Image Provided - Ref: 0_5 
09.95m	0:03:13	OB	Other obstacles: 20% Cross sectional area loss - Severity 3 support for shuttering will not let the camera past the brick drain can be seen in the distance	
10.02m	0:01:28	F1 REM	General remark Defect End support for shuttering	
10.02m		SA	Survey abandoned UNABLE TO PASS SUPPORT BEAM FOR SHUTTERING	

Total Defects for section



DRB Grade for Section





Site: BLACKFRIARS STREET, MANCHESTER

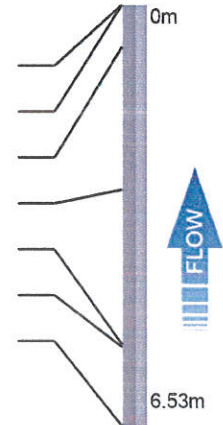
Section 2

Client: EMILY	Location (Street Name): BLACKFRIARS STREET	City/Town/Village MANCHESTER	Cust Job Ref.	Surveyors Name: SHANE HOLMES	Date: 10/06/2021
Start Node Ref: OV1	Finish Node Ref: CSO	Direction: U	Height/Dia: 750		
Start Node Depth: 1.88	Finish Node Depth: 0.00	Use: Z	Shape: R		
Start Node Coordinate:	Finish Node Coordinate:	Material: Z	Cleaned N		

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Inadequate	Missing	Missing	THIS MANHOLE IS OFFSET TO THE DRAIN

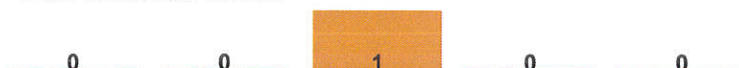
Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	6.53	STONE

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
00.65m	LLQ	Line of drain/sewer deviates left [quarter]			0:00:12
02.86m	REM	General remark	1_3		0:00:33
05.26m	SC	Dimension of drain/sewer changes : 0mm	1_4		0:01:24
05.30m	OB	Other obstacles 20%			0:01:24
06.53m	SA	Survey abandoned			



Total Defects for section

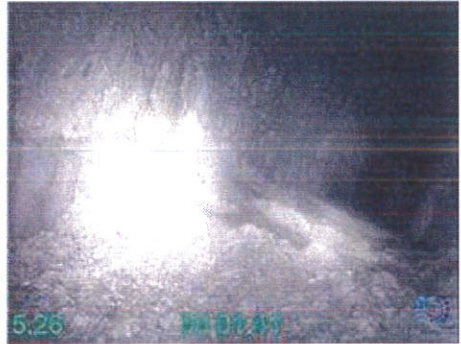
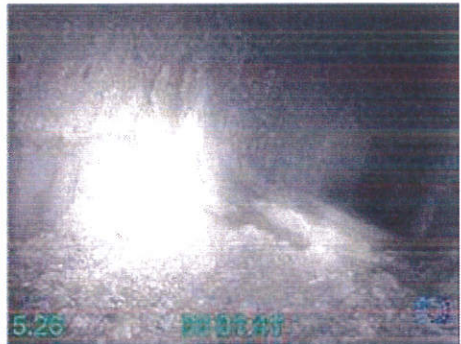
DRB Grade for Section





Descriptive Report with Remarks and Observation Images

Section 2

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole OV1	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.65m	0:00:12	LLQ	Line of drain/sewer deviates left [quarter]	
02.86m	0:00:33	REM	General remark TOP OF DRAIN IS A FLAT TOP AT THIS POIN	Image Provided - Ref: 1_3 
05.26m	0:01:24	SC	Dimension of drain/sewer changes: 0mm Diameter	Image Provided - Ref: 1_4 
05.30m	0:01:24	OB	Other obstacles: 20% Cross sectional area loss - Severity 3 POSSIBLE CONCRETE IN THE INVERT 20%	
06.53m		SA	Survey abandoned UNABLE TO PASS OBSTRUCTION	

Total Defects for section



DRB Grade for Section



A guide to defects and other observations in drainage systems

More detailed information can be found in the National Standard (BS EN 13508-1:2003) and in the Manual of Sewer Condition Classification (MSCC) 5th Edition, written by the Water Research Centre (WRc).

Use	
Code	Description
C	Combined
F	Foul
S	Surface Water
T	Trade Effluent
W	Culverted Watercourse
Z	Other

Common Materials	
Code	Description
VC	Vitrified Clay
PVC	Polyvinyl Chloride
CO	Concrete
CI	Cast Iron
PF	Pitch Fibre
PE	Polyethylene
DI	Ductile Iron

Start Node	Description	Finish Node
MH	Manhole	MHF
IC	Inspection Chamber	ICF
GY	Gulley	GYF
RE	Rodding Eye	REF
SK	Soakaway	SKF
BN	Buchan Trap	BNF
BR	Major Connection without Ref	BRF
CP	Catch Pit	CPF
OC	Other Special Chamber	OCF
OF	Outfall	OFF
OS	Oil Separator	OSF
WR	Major Connection without mh	WRF
LH	Lamphole	LHF

Code	Observation	Description	Attributes
B	Broken	Pieces pipe have visibly moved	Defined by clock references. Associated with deformity in rigid pipe 
CC CL CM CR	Cracks	Cracks are break lines that are not visibly open	Defined by clock reference position/s. Longitudinal and radiating cracks attract only one clock reference 
CN	Connection	Lateral pipe has been connected after original construction	Described by clock reference position and diameter 

Total Defects for section



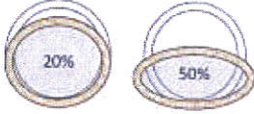
DRB Grade for Section





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CX(I)	Defective Connection (Intruding)	Defective by intrusion or damage due to factors including: cracks, fractures, obstruction, position etc	Described by clock reference position and diameter (+ % intrusion)	
CU	Loss of Vision	Lens of camera is obscured by debris, water etc. Operator is unable to see drain clearly	"W" can be added if loss of vision is due to water	
D	Deformed	Pipe has lost its structure	Described by percentage loss of height or width. Recorded in 5% increments	
DEE	Deposits Encrustation	Eg. Attached scale deposits evident	Described by clock referenced position and percentage loss of cross-sectional area (5% increments)	
DEG	Deposits Grease	Attached grease deposits evident	Described by clock referenced position and percentage loss of cross-sectional area (5% increments)	
DER DES	Deposits Coarse/Fine	Settled deposits on the invert of the pipe.	Described by percentage loss of height or diameter. Recorded in 5% increments.	
FC FL FM FR	Fractures	Fractures are visibly open. Pieces of pipe have not moved	Defined by clock reference position/s. Longitudinal and radiating fractures attract only one clock reference	
H	Holes	Section of pipe fabric is missing	Defined by clock reference location. Normally two clock references	
I	Infiltration	Water is infiltrating the pipe, normally via a joint but could be via another defect	Can be described in Remarks using terms such as Seeper, Driper and Runner	
JDL	Joint Displaced Large	Pipe has moved at joint, perpendicular to axis of pipe	More than 1.5 times the pipe wall thickness must be visible	

Total Defects for section



DRB Grade for Section





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JDM	Joint Displaced Medium	Pipe has moved at joint, perpendicular to axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
JN	Junction	Lateral pipe was installed at construction	Described by clock reference position and diameter	
JX	Defective Junction	Lateral pipe was installed at construction but is defective in some way	Joint can be defective due to factors including: cracks, fractures, obstruction, position etc	
LD LU LL LR	Line Deviation	LD = Line Down, LU = Line Up, LL = Line Left, LR = Line Right. Not related to CIPP lining.	Additional modifiers are added: Q = Quarter (22.5), H = Half (45), F = Full (90). In degrees.	
LC	Lining Changes	If the drain is lined, the lining material has changed	Position of lining material change	
MC	Material Change	The pipe material has changed	Position of change is noted. Type of material change can be defined	
OB	Obstruction/Obstacle	An obstruction or obstacle is affecting the flow through the pipe	Described in percentage loss of cross-sectional area	
OJL	Open Joint Large	Pipe has moved at joint, along the axis of pipe	More than 1.5 times the pipe wall thickness must be visible	
OJM	Open Joint Medium	Pipe has moved at joint, along the axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
PC	Pipe Length Changes	Length of individual pipe changes	New length described at this position	

Total Defects for section



DRB Grade for Section





R	Roots	Evidence of root ingress	Roots will normally infiltrate via bad joints, cracks, fractures, breaks etc	
REM	Remark	General remark	Used for additional information	
S	Surface Damage	This might include corrosion, spalling and chemical attack	Position only. Additional information can be added in Remarks	
SA	Survey Abandoned	Used when a survey cannot continue for any reason	The reason for abandoning a survey should be noted in the remarks area	
SC	Shape Changes	Dimension of drain changes	Diameter dimension change recorded. Second dimension is recorded for no circular pipe changes	
SR	Sealing Ring	Sealing ring intrudes into pipe at joint	Described by clock reference position	
V	Vermin	Evidence of Vermin in pipe	Can also be used for evidence within manhole etc	
WL	Water Level	Used to record changes in water level. Always shown at the beginning of every survey, if dry noted as 00.	Described by percentage of height or diameter. Recorded in 5% increments	
XP	Collapsed	Drain is suffering from complete loss of structural integrity. Always followed by SA - Survey Abandoned	Percentage loss of cross-sectional area is recorded. Other related structural defects are not recorded	