



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

12TH JULY 2021

OUR REF: PH/MJ [85951]

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

CCTV SURVEY – VAULTS DRAINAGE

Following the recent visit to the above site to CCTV survey the vaults drainage, a vast majority of the surveys show the drainage to be in good condition.

For the foul system we could not complete the survey from MH04 – MH05 – MH06, due to MH6 in unit 2a being full of stone, causing water to hold.

For the surface water system, we were unable to complete a visual survey due to severe bends in the 100mm diameter cast drain from SW06 [located in the plant room]. We did however dye test the system, to find it runs down to the underground car park to SW02 & then out to the river.

SW02 located in unit 7 could not be lifted due to ant-terrorist locks.

A defect [hole] was identified from MH SW04 – SW05 [a hole at 2.2 Metres], however this drain is to be removed & therefore no further action required.

All drainage surveyed are only serving the vaults, not Deansgate.

Recommendations:

If a survey is required of SW02 in unit 7, then it will require unlocking & lifting. We can then jet to clean to enable a survey upstream to SW01. The cost would be:

£290.00 + VAT

Small tanker unit required to attempt to vac out stone & jet to flush through from MH4 – MH5 – MH6 for unit 2a, up & downstream **[this will require improved vehicular access for the tanker]**. We can then complete the survey & attempt to identify where the foul system runs to [this line runs towards the open restaurant]. The cost would be:

CCTV SURVEY:	included above
TANKER:	£360.00

OVERALL TOTAL: £650.00 + VAT

blackfriars st manchester alliance group - CCTV Survey Report : 06/07/21

Name : AQUASPEED
 Contact : PHIL HEYES
 Location : 171 SMALLBROOK LANE
 Town : LEIGH
 Region : ENGLAND
 Postcode : WN75PZ
 Email : PHIL54321@HOTMAIL.CO.UK
 Contact Number : 07969561212
 Surveyor : PHIL HEYES
 Valid Certification No :

Client Information

Name :
 Contact :
 Location :
 Town :
 Region :
 Postcode :
 Tel :
 Mobile :
 Email :
 Fax :

Site Information

Name :
 Contact :
 Location :
 Town :
 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: mh01 To: up	FOUL SYSTEM we was unable to complete survey from mh04 to mh05 to mh06 due to mh06 located in unit 2a full with stone and causing water to hold we recommend small vactor unit to vac out stone and clean up and down stream so we can complete survey and locate were foul system runs too. this line runs towards the open restaurant	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul
Section: 2 From: mh01 To: mh02	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul
Section: 3 From: mh02 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul
Section: 4 From: mh02 To: leg2	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul
Section: 5 From: mh02 To: mh03	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul
Section: 6 From: mh03 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul
Section: 7 From: mh04 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Foul

Total Defects for Project



Total DRB Grades for Project



Section: 8 From: sw01 To: sw01a	SURFACE SYSTEM we was unable to complete a visual survey due to severe bends in 100mm cast line from sw06. located in plantroom, however we dye tested and found surface water runs down to under ground carpark to sw02 and goes to river also sw02 located in unit 7 unable to lift due to being locked. this requires lifting to cctv leg and jet to clean so we can cctv up stream to sw01	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 9 From: sw01 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 10 From: sw03 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 11 From: sw03 To: sw02	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 12 From: sw03 To: sw04	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 13 From: sw04 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 14 From: sw04 To: sw05	Grade C	DRB Grade: C Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 15 From: sw05 To: leg1	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water

Total Defects for Project



Total DRB Grades for Project



Section: 16 From: sw05 To: sw06	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water
Section: 17 From: sw06 To: down	Grade A	DRB Grade: A Pipe Size: 100 Material: Cast Iron Use: Surface Water

Total Defects for Project



Total DRB Grades for Project



Site: ,

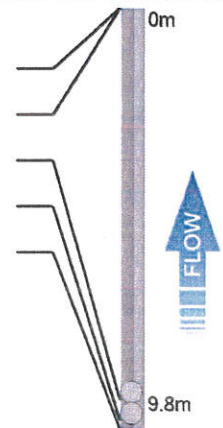
Section 1

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	mh01	Finish Node Ref:	up	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	9.8	manhole located in unit 7

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
09.12m	JN	Junction 12 : 100mm Diameter				
09.60m	JN	Junction 12 : 100mm Diameter				
09.80m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 1

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh01	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
09.12m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.60m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.80m		MHF	Finish node type, manhole start of line	

Total Defects for section

0
0
0
0
0

DRB Grade for Section



Site: ,

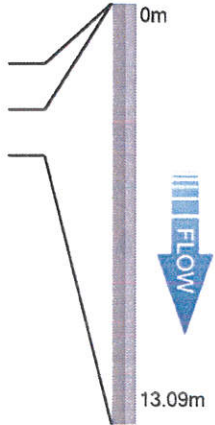
Section 2

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name: PHIL HEYES	Date: 06/07/2021
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Start Node Ref:	mh01	Finish Node Ref:	mh02	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	13.09	manhole located in unit 7

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
13.09m	MHF	Finish node type, manhole			



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 2

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh01	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
13.09m		MHF	Finish node type, manhole mh02	

Total Defects for section



DRB Grade for Section



Site: ,

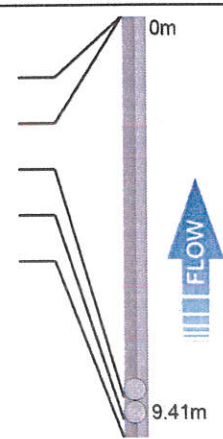
Section 3

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	mh02	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	9.41	manhole located in unit 6

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
08.51m	JN	Junction 12 : 100mm Diameter				
09.01m	JN	Junction 12 : 100mm Diameter				
09.41m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section



Descriptive Report with Remarks and Observation Images

Section 3

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh02	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
08.51m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.01m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.41m		MHF	Finish node type, manhole leg1 start of line	

Total Defects for section



DRB Grade for Section



Site: ,

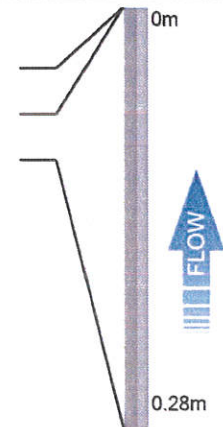
Section 4

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	mh02	Finish Node Ref:	leg2	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	0.28	manhole located in unit 6

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
00.28m	MHF	Finish node type, manhole			



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 4

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh02	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.28m		MHF	Finish node type, manhole svp going above ground taking gents toilets	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

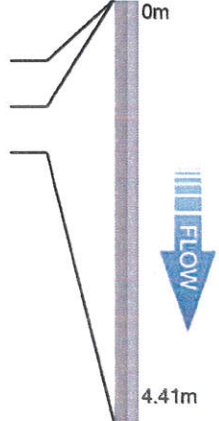
Section 5

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	mh02	Finish Node Ref:	mh03	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	4.41	manhole located in unit 6

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
04.41m	MHF	Finish node type, manhole			



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 5

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh02	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
04.41m		MHF	Finish node type, manhole mh03	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

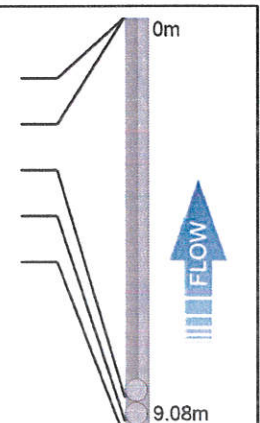
Section 6

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	mh03	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	9.08	manhole located in unit 4

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
08.19m	JN	Junction 12 : 100mm Diameter				
08.70m	JN	Junction 12 : 100mm Diameter				
09.08m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 6

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh03	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
08.19m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
08.70m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.08m		MHF	Finish node type, manhole leg1 start of line	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

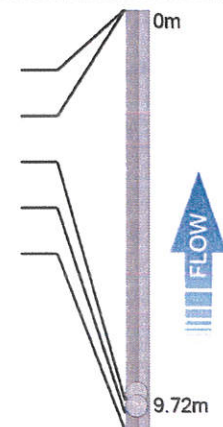
Section 7

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	mh04	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	9.72	manhole located in unit 3

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
09.02m	JN	Junction 12 : 100mm Diameter				
09.32m	JN	Junction 12 : 100mm Diameter				
09.72m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 7

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole mh04	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
09.02m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.32m		JN	Junction at 12 o'clock: 100mm Diameter w.c	
09.72m		MHF	Finish node type, manhole leg1 start of line	

Total Defects for section

0
0
0
0
0

DRB Grade for Section



Site: ,

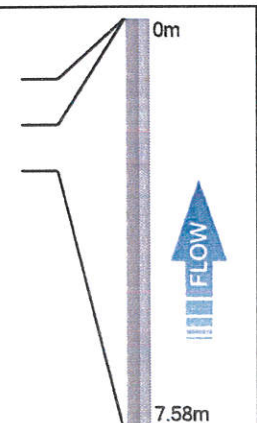
Section 8

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw01	Finish Node Ref:	sw01a	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	7.58	manhole located in unit 2a

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
07.58m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 8

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw01	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
07.58m		MHF	Finish node type, manhole sw01a	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

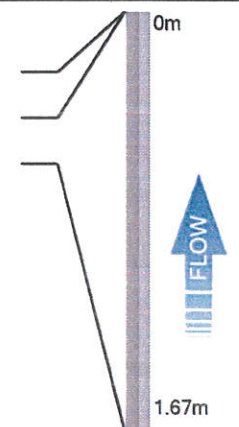
Section 9

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw01	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	1.67	manhole located in unit 2a

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
01.67m	MHF	Finish node type, manhole			



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 9

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw01	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
01.67m		MHF	Finish node type, manhole leg1 rwp	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

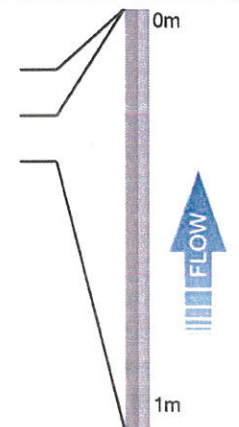
Section 10

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw03	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	1	manhole located in unit 6

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
01.00m	MHF	Finish node type, manhole			



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 10

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw03	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
01.00m		MHF	Finish node type, manhole leg1 rwp	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

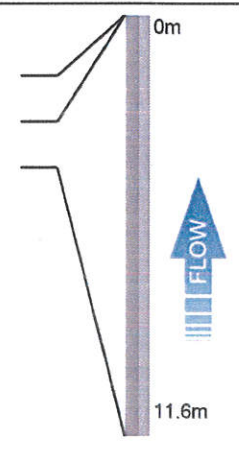
Section 11

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw03	Finish Node Ref:	sw02	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	11.6	manhole located in unit 6

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				0m
00.00m	WL	Water level 0%			0:00:00	
11.60m	MHF	Finish node type, manhole				11.6m



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 11

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw03	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
11.60m		MHF	Finish node type, manhole sw02	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

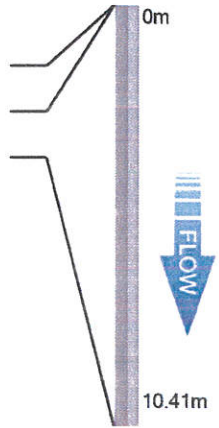
Section 12

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw03	Finish Node Ref:	sw04	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	10.41	manhole located in unit 6

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
10.41m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 12

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw03	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
10.41m		MHF	Finish node type, manhole sw04	

Total Defects for section

0 0 0 0 0

DRB Grade for Section



Site: ,

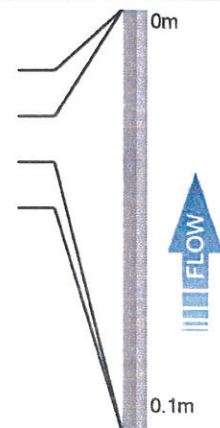
Section 13

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw04	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	0.1	manhole located in unit 7

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
00.10m	LUF	Line of drain/sewer deviates up [full]			
00.10m	SA	Survey abandoned			



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 13

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw04	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.10m		LUF	Line of drain/sewer deviates up [full]	
00.10m		SA	Survey abandoned unable to push rodder due to severe bends, mini cam required	

Total Defects for section

0
0
0
0
0

DRB Grade for Section



Site: ,

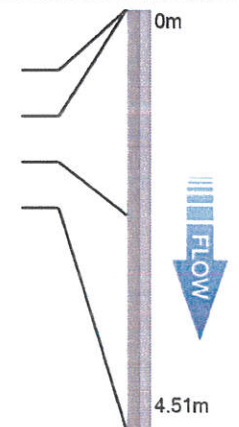
Section 14

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw04	Finish Node Ref:	sw05	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	4.51	manhole located in unit 7

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
02.20m	B	Broken pipe 0				
04.51m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section



Descriptive Report with Remarks and Observation Images

Section 14

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw04	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
02.20m		B	Broken pipe - Severity 4	
04.51m		MHF	Finish node type, manhole sw05	

Total Defects for section



DRB Grade for Section



Site: ,

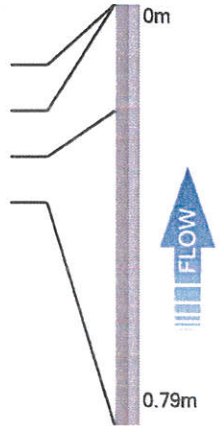
Section 15

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw05	Finish Node Ref:	leg1	Direction:	U	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	0.79	manhole located in plant room

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
00.20m	LUF	Line of drain/sewer deviates up [full]				
00.79m	SA	Survey abandoned				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 15

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw05	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.20m		LUF	Line of drain/sewer deviates up [full]	
00.79m		SA	Survey abandoned unable to push rodder due to severe bends, dye tested rwp and dye came through to leg1	

Total Defects for section

0
0
0
0
0

DRB Grade for Section



Site: ,

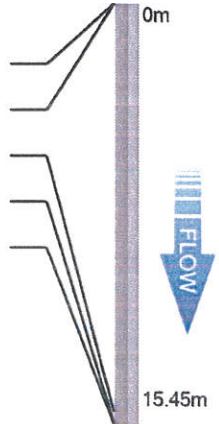
Section 16

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw05	Finish Node Ref:	sw06	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	15.45	manhole located in plant room

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%			0:00:00	
14.98m	LLF	Line of drain/sewer deviates left [full]				
15.39m	LDF	Line of drain/sewer deviates down [full]				
15.45m	MHF	Finish node type, manhole				



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 16

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw05	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
14.98m		LLF	Line of drain/sewer deviates left [full]	
15.39m		LDF	Line of drain/sewer deviates down [full] internal drop shaft in sw06	
15.45m		MHF	Finish node type, manhole sw06	

Total Defects for section

0
0
0
0
0

DRB Grade for Section



Site: ,

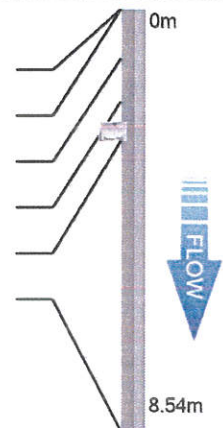
Section 17

Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
				PHIL HEYES	06/07/2021

Start Node Ref:	sw06	Finish Node Ref:	down	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	Remarks
A				D	N	8.54	manhole located in plant room

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole			
00.00m	WL	Water level 0%			0:00:00
01.00m	LRH	Line of drain/sewer deviates right [half]			
01.87m	LDF	Line of drain/sewer deviates down [full]			
02.67m	JN	Junction 03 : 100mm Diameter			
08.54m	SA	Survey abandoned			



Total Defects for section

DRB Grade for Section

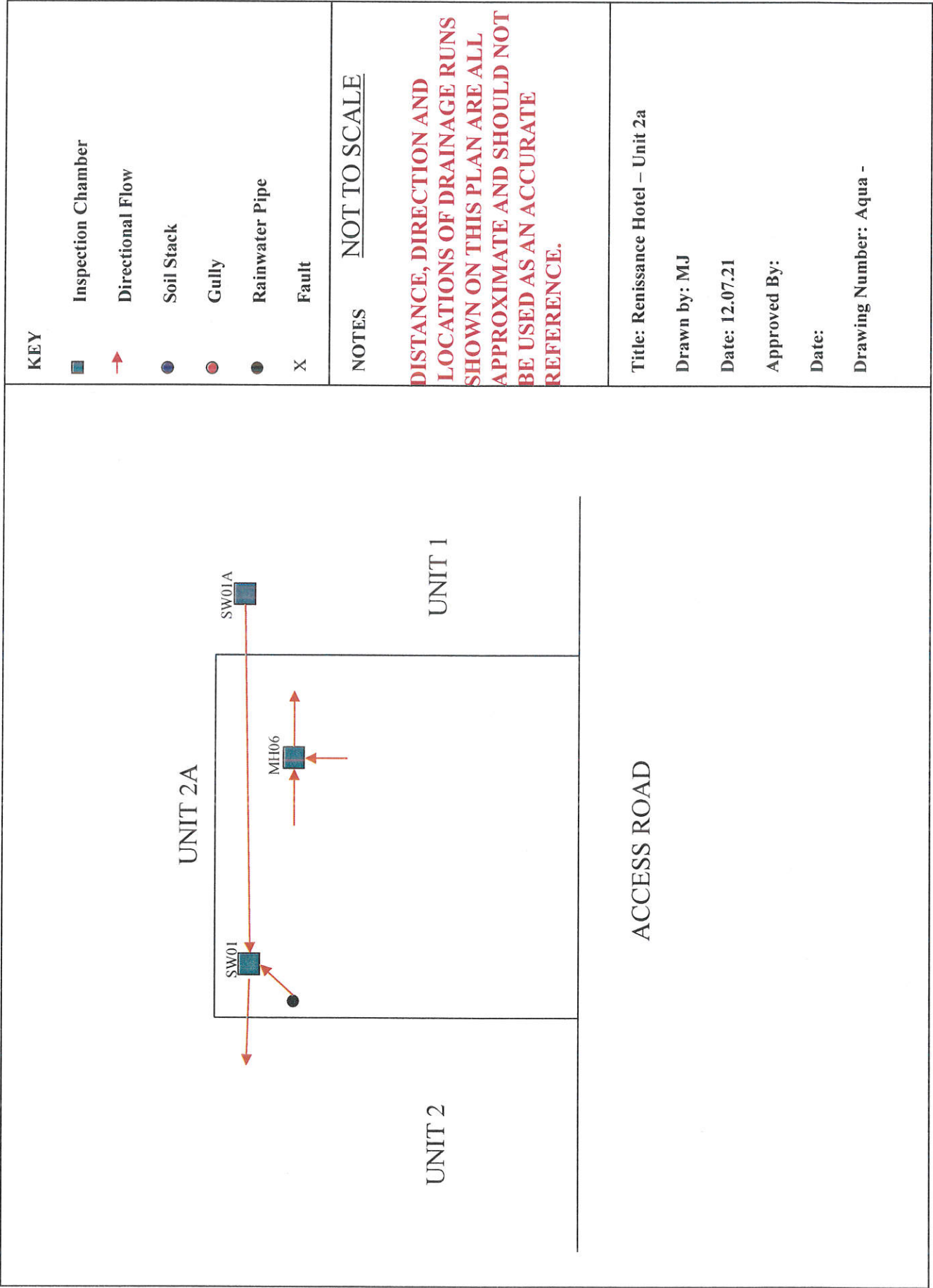
0 0 0 0 0



Descriptive Report with Remarks and Observation Images

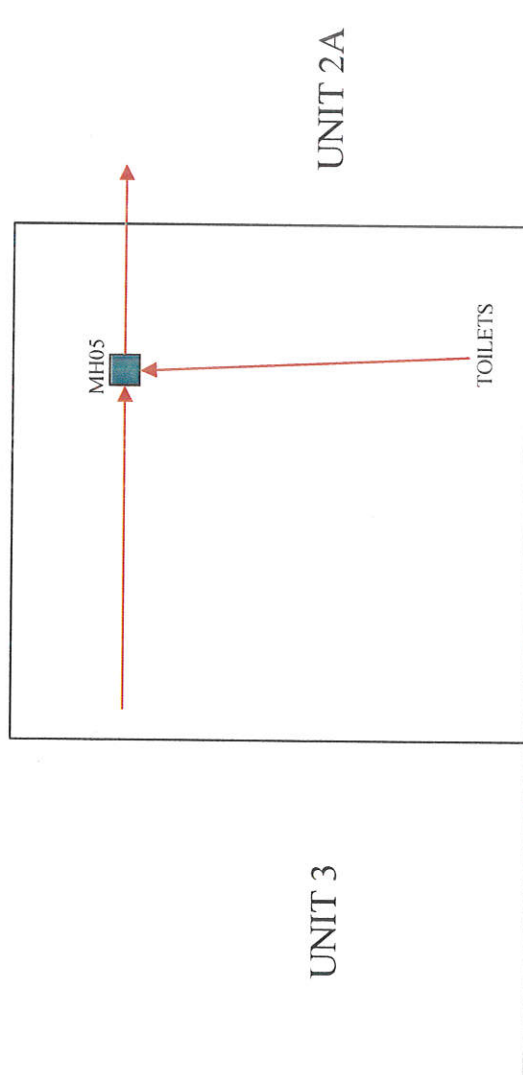
Section 17

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole sw06	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
01.00m		LRH	Line of drain/sewer deviates right [half]	
01.87m		LDF	Line of drain/sewer deviates down [full]	
02.67m		JN	Junction at 03 o'clock: 100mm Diameter	
08.54m		SA	Survey abandoned unable to push rodder due to severe bends, dye tested and found all surface water in units goes to sw02 in under ground car park	



NO SURFACE WATER MH IN THIS UNIT

UNIT 2



KEY

- Inspection Chamber
- Directional Flow
- Soil Stack
- Gully
- Rainwater Pipe
- X Fault

NOTES NOT TO SCALE

DISTANCE, DIRECTION AND LOCATIONS OF DRAINAGE RUNS SHOWN ON THIS PLAN ARE ALL APPROXIMATE AND SHOULD NOT BE USED AS AN ACCURATE REFERENCE.

ACCESS ROAD

Title: Renaissance Hotel – Unit 2

Drawn by: MJ

Date: 12.07.21

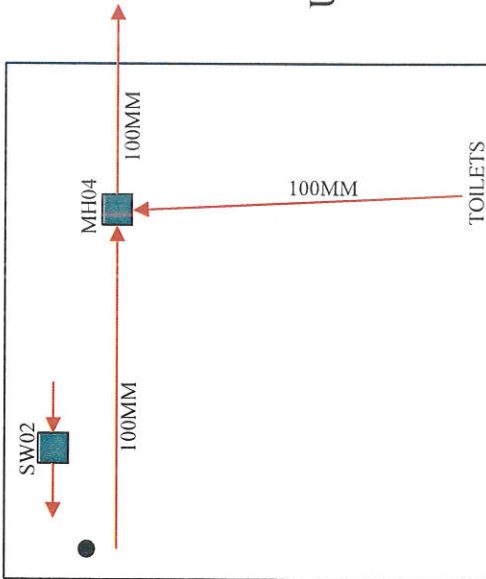
Approved By:

Date:

Drawing Number: Aqua -

UNABLE TO LIFT SW02 [LOCKED]

UNIT 3



UNIT 4

UNIT 2

ACCESS ROAD

KEY

Inspection Chamber

Directional Flow

Soil Stack

Gully

Rainwater Pipe

Fault

NOTES NOT TO SCALE

DISTANCE, DIRECTION AND LOCATIONS OF DRAINAGE RUNS SHOWN ON THIS PLAN ARE ALL APPROXIMATE AND SHOULD NOT BE USED AS AN ACCURATE REFERENCE.

Title: Renaissance Hotel – Unit 3

Drawn by: MJ

Date: 12.07.21

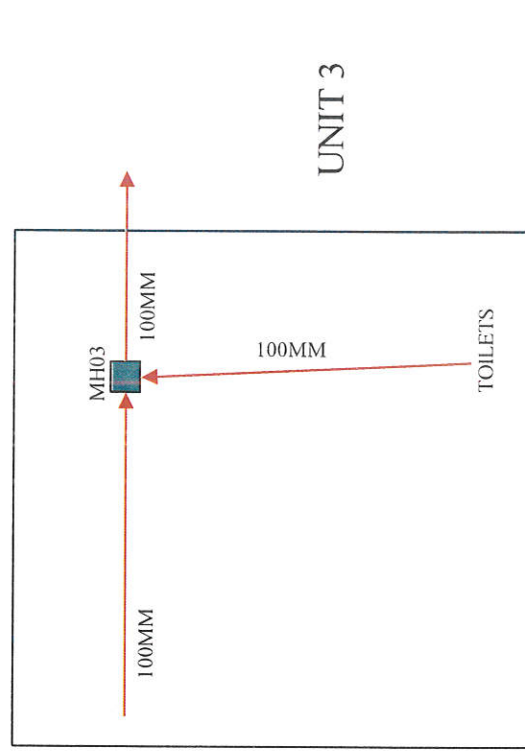
Approved By:

Date:

Drawing Number: Aqua -

NO SURFACE WATER MH IN THIS UNIT

UNIT 4



ACCESS ROAD

KEY

- Inspection Chamber
- Directional Flow
- Soil Stack
- Gully
- Rainwater Pipe
- X Fault

NOTES

NOT TO SCALE

DISTANCE, DIRECTION AND LOCATIONS OF DRAINAGE RUNS SHOWN ON THIS PLAN ARE ALL APPROXIMATE AND SHOULD NOT BE USED AS AN ACCURATE REFERENCE.

Title: Renaissance Hotel – Unit 4

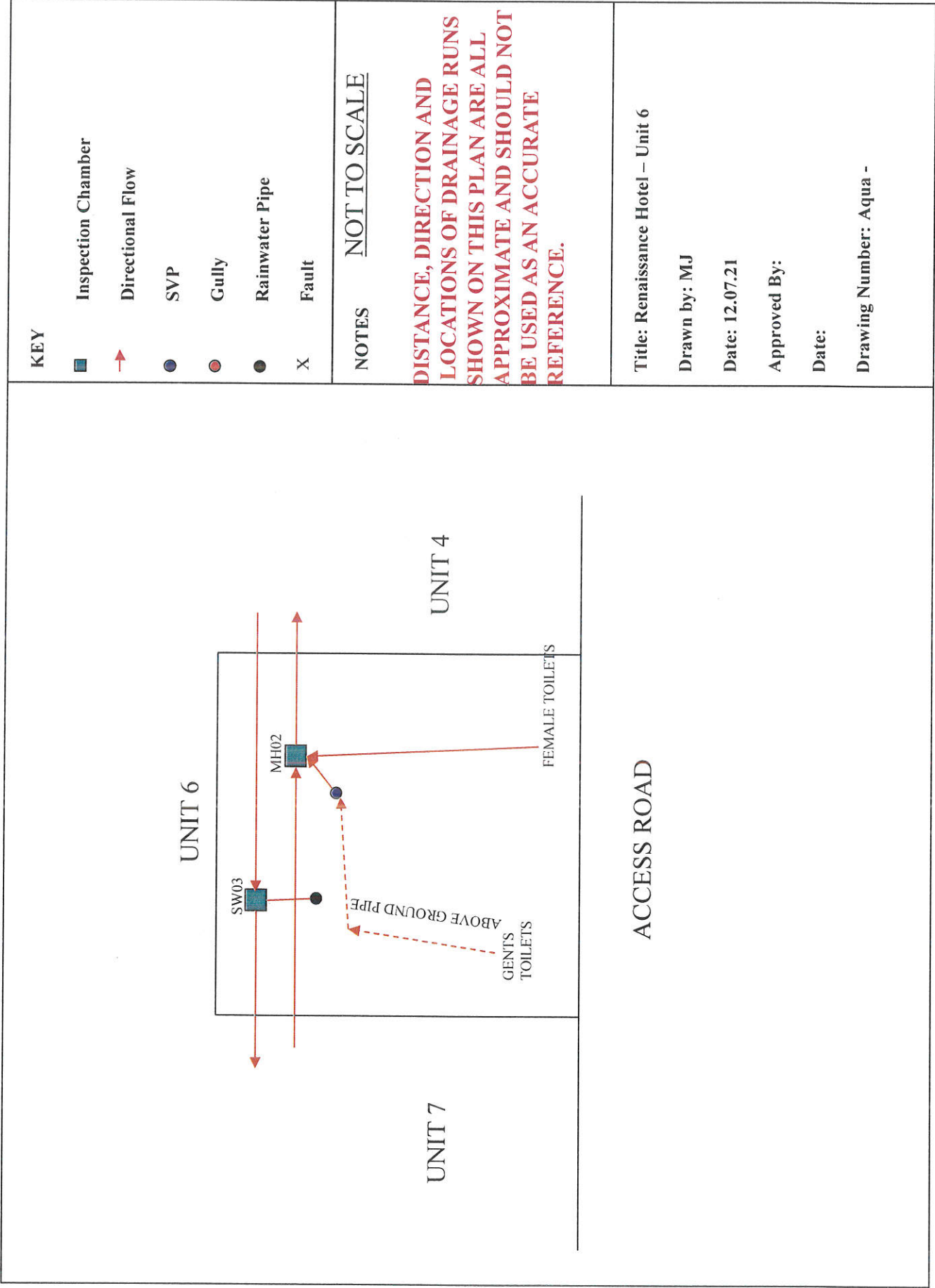
Drawn by: MJ

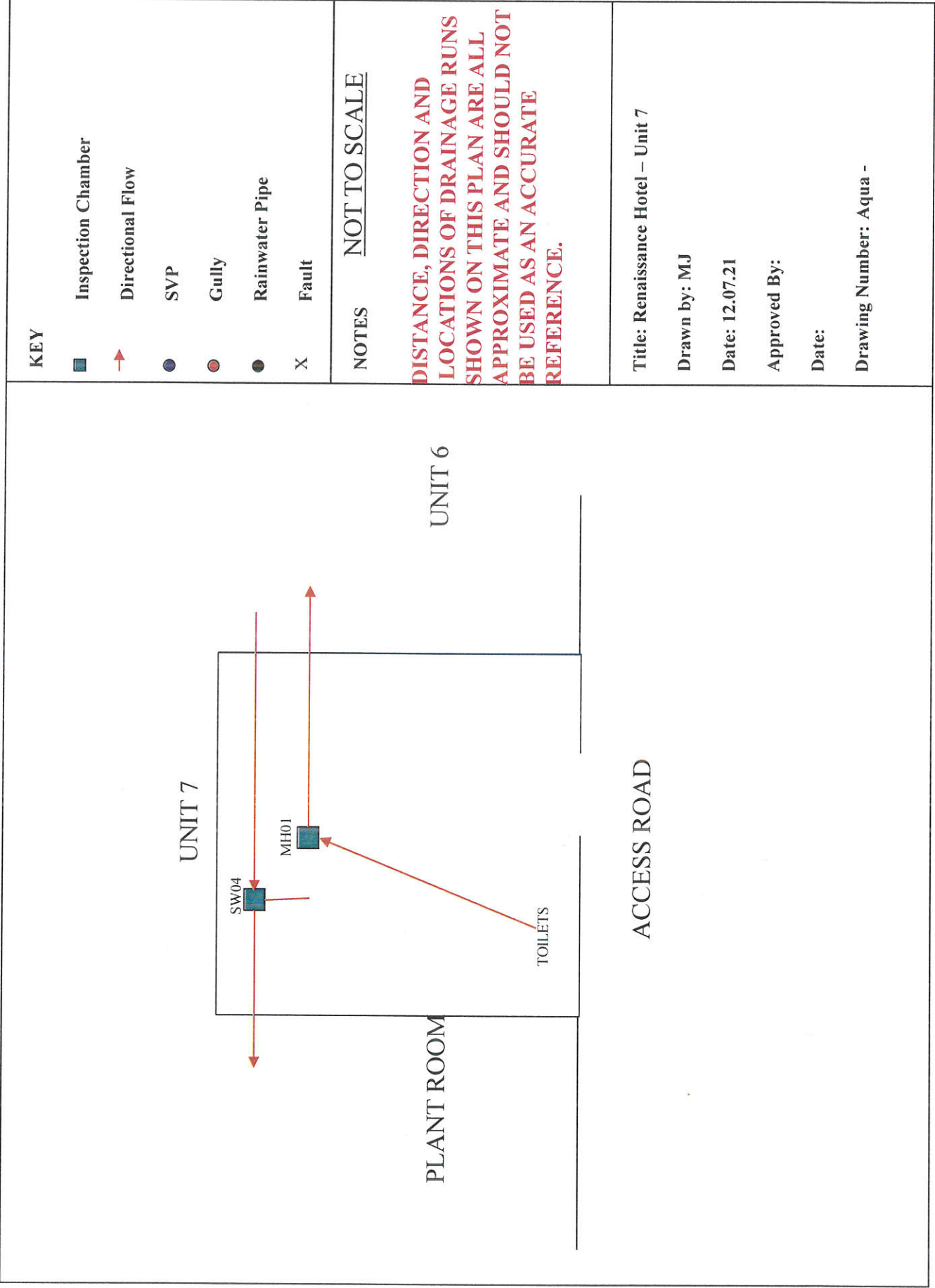
Date: 12.07.21

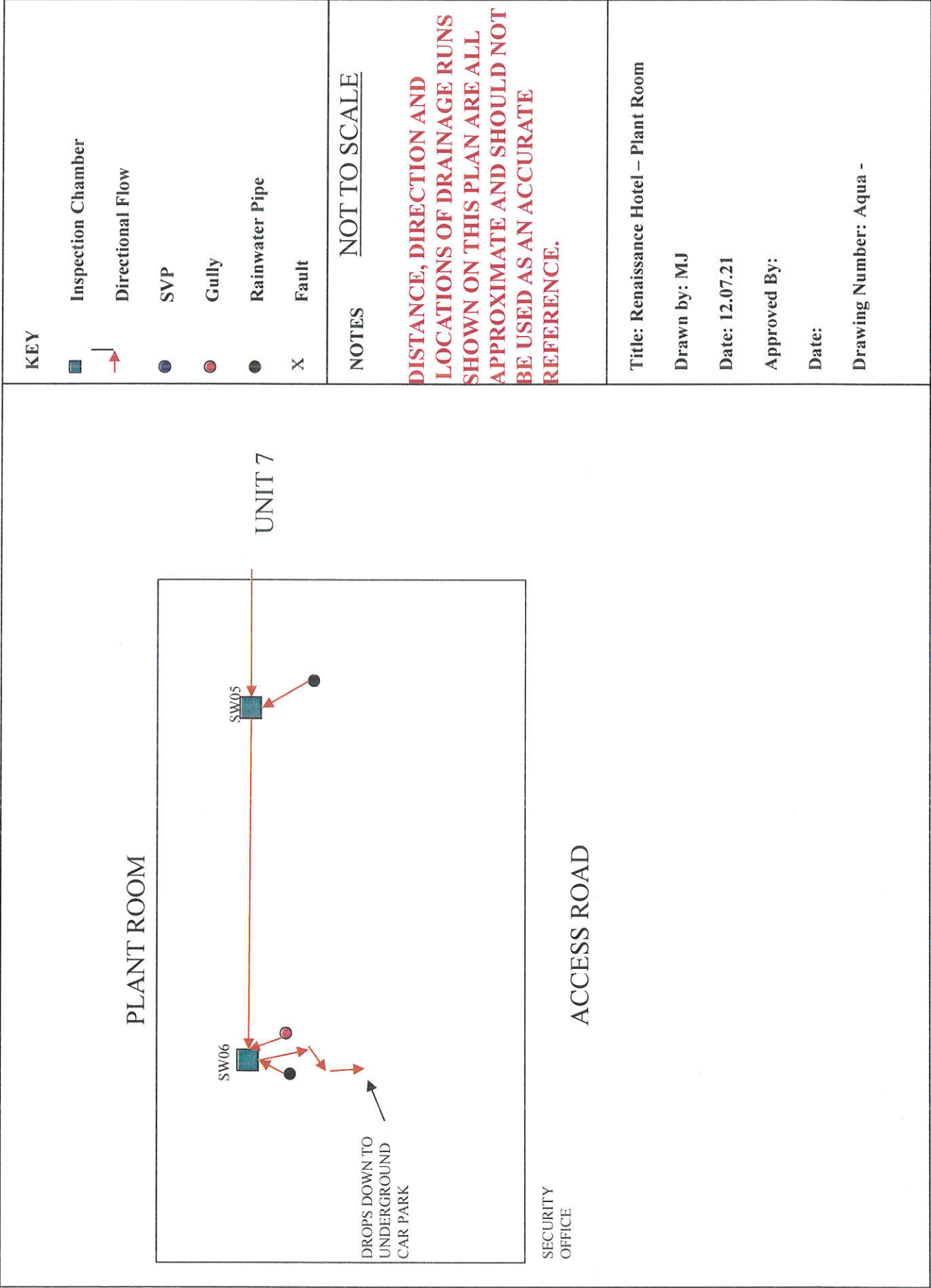
Approved By:

Date:

Drawing Number: Aqua -









AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

SW06

Site Address

Renaissance Vaults

Outlet

2.1

Depth to Invert

1.54

Cover

Heavy Duty

Other Comments

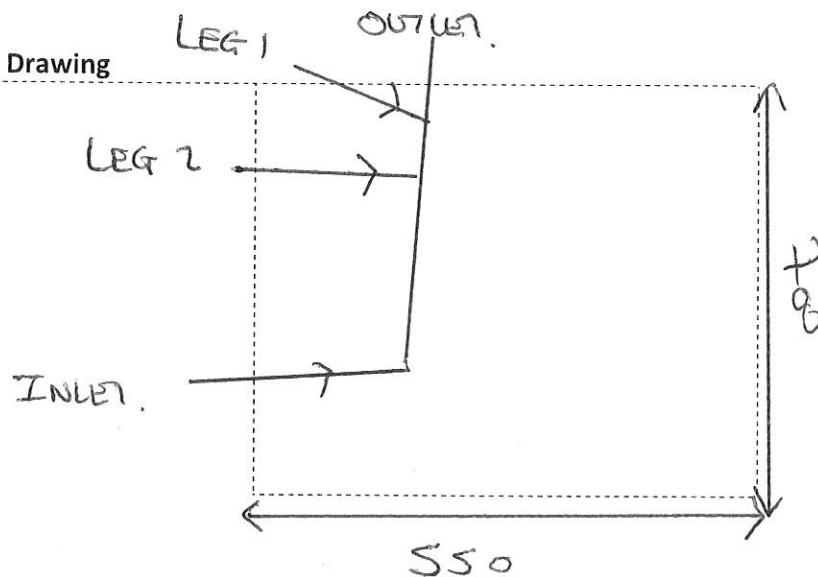
Brick construction

3 Steps

Leg 1 = 1.33

Leg 2 = 1.54

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

SW05

Site Address

Renaissance Vaults

Outlet

1.21

Depth to Invert

1.1

Cover

Heavy Duty

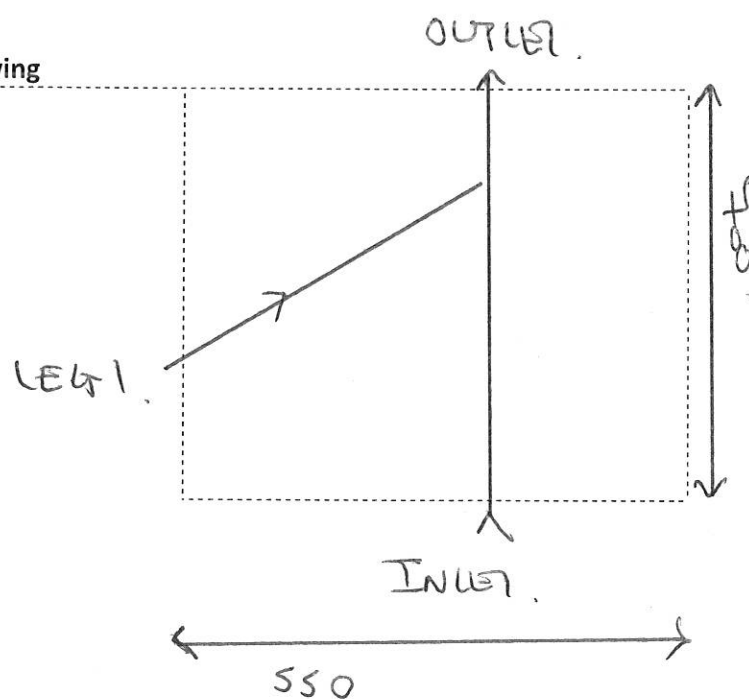
Other Comments

Brick construction

1 Step

Leg 1 = 1.1

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

SW04

Site Address

Renaissance Vaults

Outlet

1.17

Depth to Invert

1.15

Cover

Heavy Duty

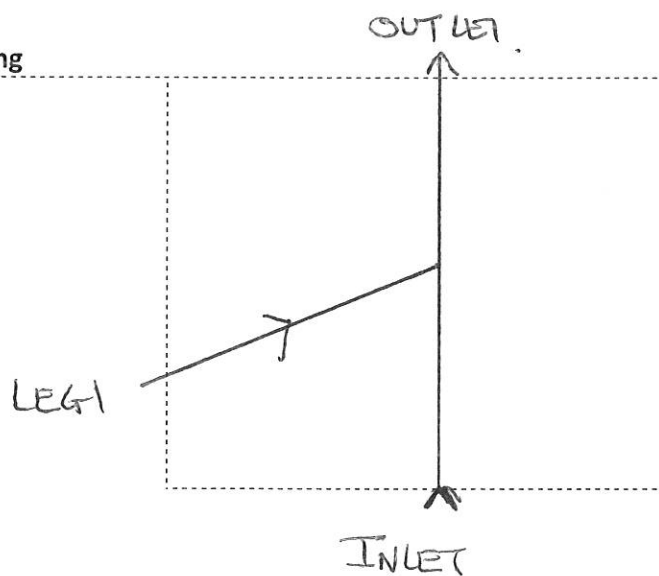
Other Comments

Brick construction

1 Step

Leg 1 = 1.05

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

SW03

Site Address

Renaissance Vaults

Outlet

0.96

Depth to Invert

0.93

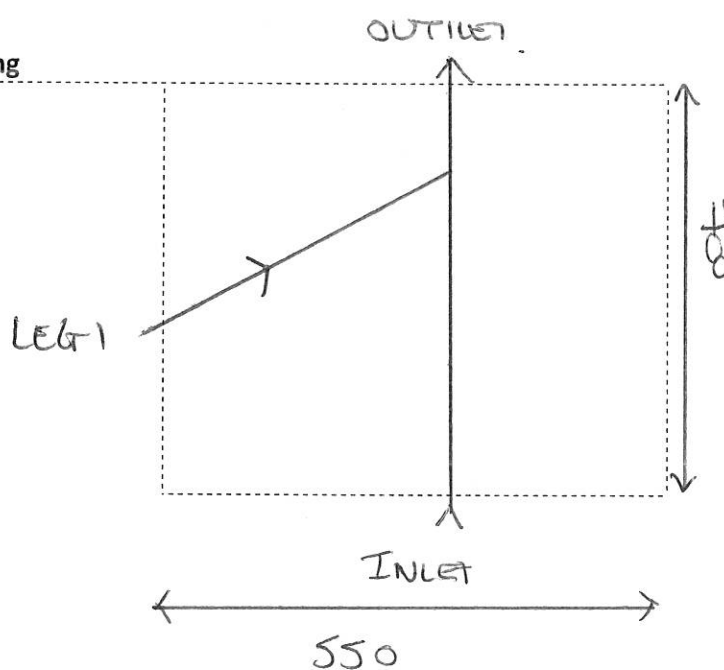
Cover

Heavy Duty

Other Comments

Brick construction
No Steps
Leg 1 = 0.85

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

SW01

Site Address

Renaissance Vaults

Outlet

0.66

Depth to Invert

0.65

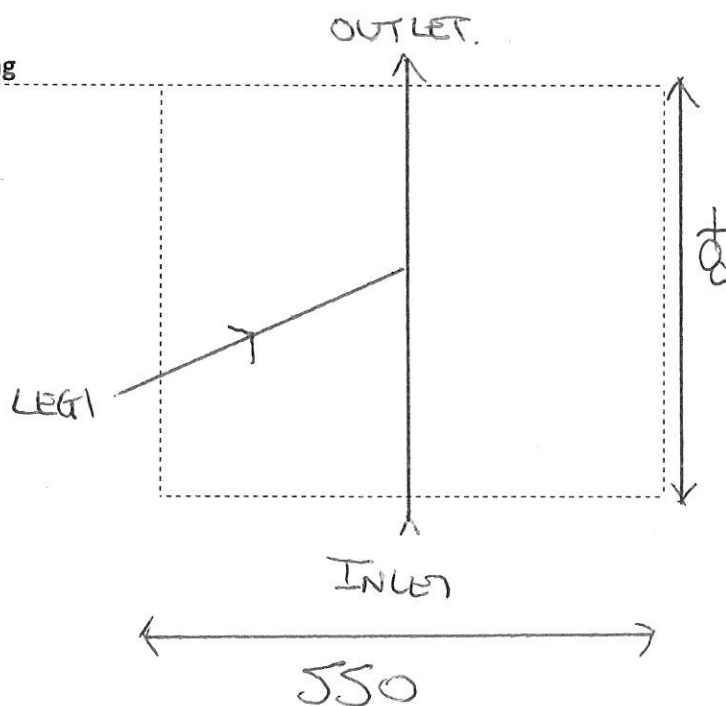
Cover

Heavy Duty

Other Comments

Brick construction
No Steps
Leg 1 = 0.60

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

05

Site Address

Renaissance Vaults

Outlet

1.24

Depth to Invert

1.18

Cover

Heavy Duty

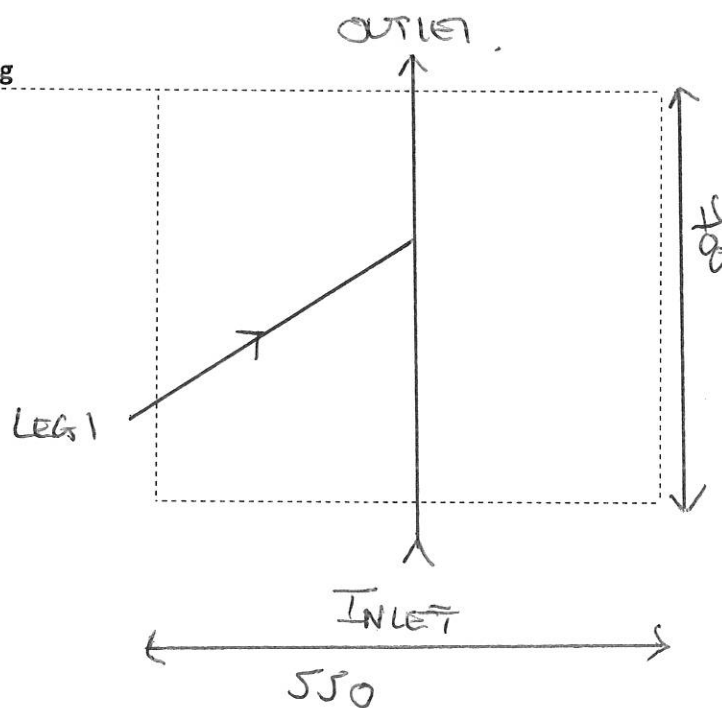
Other Comments

Brick construction

1 Step

Leg 1 = 0.63

Manhole Drawing





AquaSPEED
DRAIN SERVICES LLP

Chamber Report

Chamber Number 04

Site Address

Renaissance Vaults

Outlet

1.18

Depth to Invert

1.12

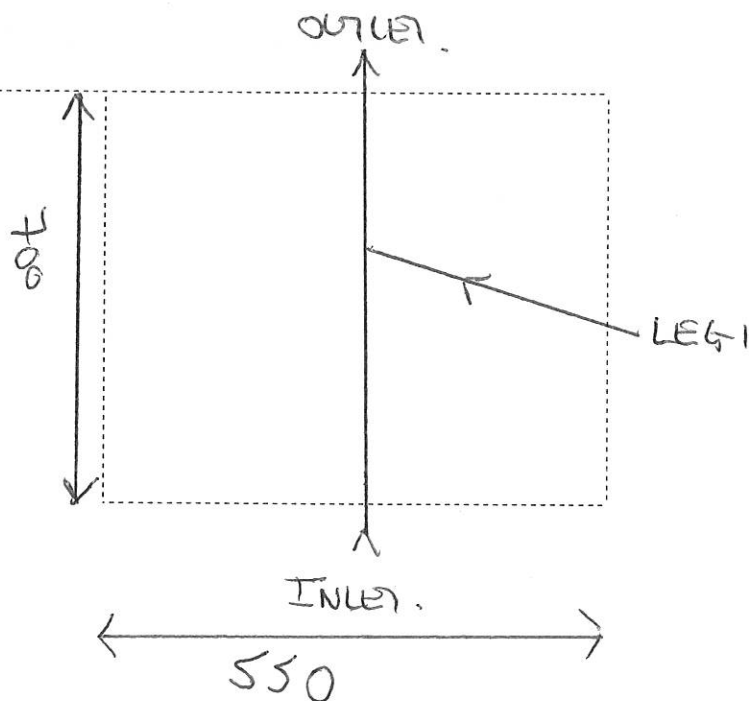
Cover

Heavy Duty

Other Comments

Brick construction
1 Step
Leg 1 = 0.63

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

03

Site Address

Renaissance Vaults

Outlet

0.87

Depth to Invert

0.92

Cover

Heavy Duty

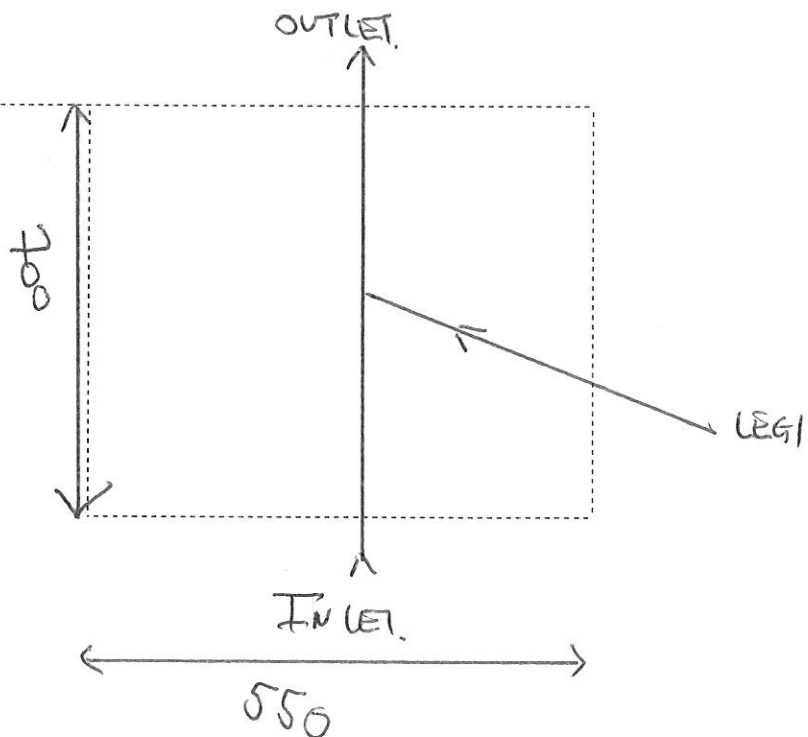
Other Comments

Brick construction

No steps

Leg 1 = 0.61

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number

02

Site Address

Renaissance Vaults

Outlet

0.69

Depth to Invert

0.67

Cover

Heavy Duty

Other Comments

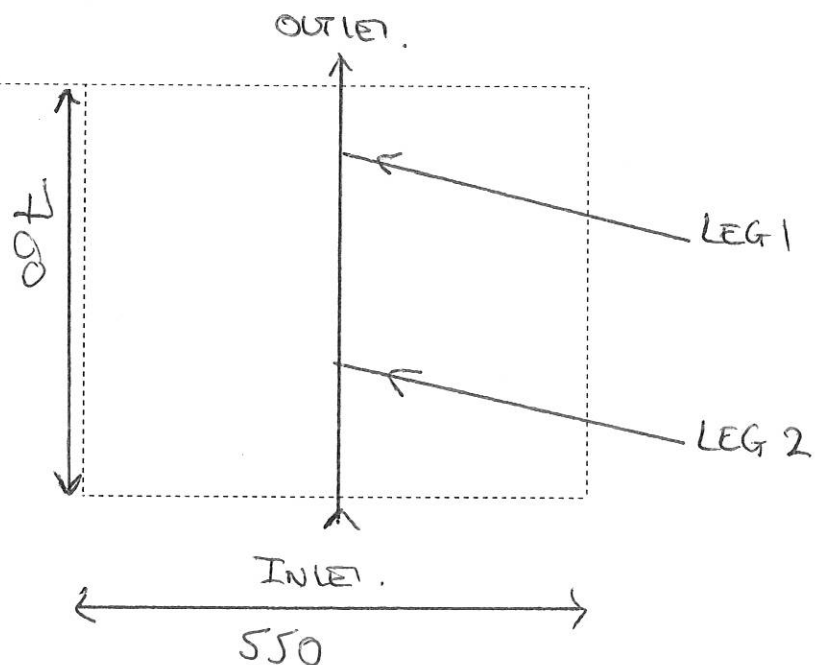
Brick construction

No steps

Leg 1 = 0.62

Leg 2 = 0.62

Manhole Drawing





AquaSPEED

DRAIN SERVICES LLP

Chamber Report

Chamber Number 01

Site Address

Renaissance Vaults

Outlet

0.64

Depth to Invert

0.62

Cover

Heavy Duty

Other Comments

Brick construction
No steps

Manhole Drawing

