

Opus Environmental Ltd.  
Bracken House,  
51 Bracken Road,  
Sandyford Business Park,  
D18 CV48

Phone: 01 908 1976

Email: [info@opusenvironmental.ie](mailto:info@opusenvironmental.ie)



**Site Address:** No 9 Georges Place and Wash House

**Survey Date:** 23/01/2025

**Surveyor:** David Greene

---

## Introduction

Opus Environmental Ltd attended the site to conduct a CCTV survey of the local sewage lines serving the two developments. Upon arrival, it was observed that the drainage lines were in poor condition, with approximately 50% capacity obstruction due to silt and stone accumulation. Additionally, evidence of rodent activity was found within the drainage system, particularly in the chamber referenced BTMH, where droppings and burrows were observed.

To facilitate an accurate CCTV inspection, all stone and debris were removed using a jet vacuum tanker, allowing full access to the pipework.

For reference to node points, please refer to the map within the attached CCTV report.

---

## Findings

### 1. Sewer Network Overview

- Total Sections Surveyed: 6
- Total Length Inspected: 34.75m
- Structural Defects Found: 11
- Service/Operational Defects Found: 10

### 2. Weighbridge Chamber

A manhole chamber located in the courtyard of the development was inspected. It was found to be completely filled with 804 hardcore stone. Based on its location and construction, we believe this is a service chamber for the Weighbridge.

### **3. TR2 – 100mm Trap**

The node point TR2 corresponds to a 100mm trap. However, there is no surface access to inspect this trap. It is suspected that it may be a surface water drain for the Weighbridge or a Buchan trap that was covered in the past.

### **4. MBT – T-Junction**

The MBT node point is located at a T-junction, showing a drainage line running along the right-hand side of the development.

Due to limited access to the drainage system within the development, we had to remove internal toilets to trace the drainage route. It was found that the new toilets are plumbed into the original clay outfall line, which leads to the new domestic development at the rear of the property.

Upon conducting a CCTV inspection from the toilet referenced LWC, a solid obstruction was detected at a T-junction serving an external stack referenced OFS. To inspect this outfall line and remove the obstruction, an external chamber is required. Based on our assessment, we suspect that a chamber is buried in the garden of the new domestic development at the rear.

#### **Actions Required:**

- Access is needed to the rear property to further investigate and resolve the obstruction.
- The suspected chamber must be excavated, as it is not visible from the surface.
- Additional surveys using CCTV and sonde detection will confirm the drainage route.

### **5. BTMH – Defective Chamber & Rodent Activity**

The BTMH node point corresponds to a manhole chamber. Inside this chamber, a deconstructed Buchan trap was found. It appears that the trap was previously broken down to remove a blockage, but its current condition has left it completely defective.


The defective state of the trap allows rodents to bypass the barrier, leading to burrowing within the chamber and contributing to structural instability.

---

## **Recommendations**

### **1. Further Investigation & Cleaning**

To accurately trace the outfall line from OFS, additional work is required:

- Access must be obtained for further CCTV inspection.
  - Excavation within the property boundaries at the rear of the development is necessary.
- 

## 2. BTMH Chamber Excavation & Replacement

Due to its defective condition, we recommend:

- Excavating and removing the existing outfall chamber BTMH.
- Installing a new PVC outfall line fitted with a mechanical rat flap to prevent rodent access.
- Securing the new pipe with fiberglass resin lining for a seamless and structurally sound transition from PVC to clay.

Service	Cost (Ex. VAT)
Excavation & installation of new PVC outfall with mechanical rat flap	€1,850.00

## 3. Drainage Defect Repairs (No-Dig Liners)

If required, minor defects noted in the CCTV report can be addressed using no-dig liners, avoiding full excavation.

Liner Type	Cost per Liner (Ex. VAT)
100mm Fibreglass Resin Liner	€550.00

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## Conclusion

The drainage system at No 9 Georges Place and Wash House is in poor condition, with multiple structural and operational defects. The presence of rodents, solid obstructions, and inaccessible sections necessitates further investigation and corrective works.

### Key actions required:

1. Obtain access to the property at the rear for further investigation.
2. Excavate and replace the defective chamber BTMH, including the installation of a rat flap.

For further clarification on the issues outlined above please do not hesitate to contact our team on [01 908 1976](tel:019081976) or at [info@opusenvironmental.ie](mailto:info@opusenvironmental.ie) .

Kind Regards,  
David Greene  
OPUS Environmental Ltd.

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Bracken House,  
51 Bracken Road,  
Sandyford Business Park,  
D18 CV48

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## **Recommendations**

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Kind Regards,  
David Greene  
OPUS Environmental Ltd.

---

**No 9 Georges Place and Wash House**

Job Ref. **Georges PI and Wash House**

23/01/2025

MSCC5 Drain and Sewer Codes (SRM5 Scoring)

---

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including the video  
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**Opus Environmental Ltd**

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## Report Overview

Client - **No 9 Georges Place and Wash House**

Sewer Network Information	
Number of Sections	<b>6</b>
Total Length	<b>34.75 m</b>
Inspected Length	<b>34.75 m</b>
Not Inspected Length	<b>0 m</b>

Resources Collected	
Inspection Photos	<b>38</b>
Inspection Videos	<b>6</b>
Site Drawings	<b>1</b>
Site Photos	<b>0</b>

Defects Found	
Structural	<b>11</b>
Service	<b>10</b>
Abandoned Survey(s)	<b>0</b>

Work Carried Out	
Pipeline(s) Surveyed	<b>6</b>
Pipeline(s) Pre Cleaned	<b>0</b>
Flow Control(s) Used	<b>0</b>

## Project Information

Client - No 9 Georges Place and Wash House

Notes/Purpose of Survey

Client Details	
<b>Location</b>	No 9 Georges Place and Wash House
<b>Contact Name</b>	
<b>Contact Tel.</b>	
<b>Contact Email</b>	

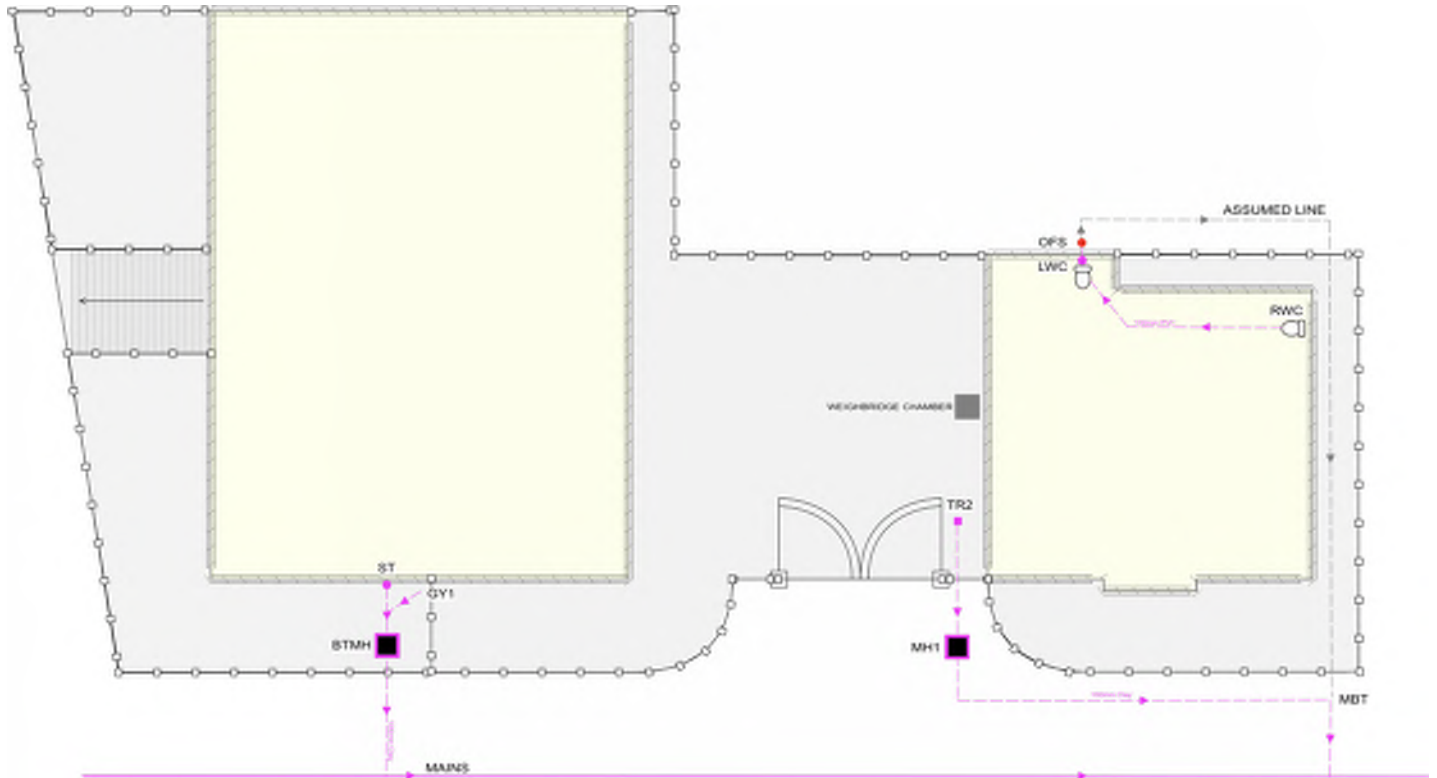
Site Details	
<b>Company</b>	Dun Laoghaire-Rathdown County Council
<b>Site Contact Name</b>	
<b>Site Contact Tel.</b>	

Contractor Details	
<b>Company</b>	Opus Environmental Ltd
<b>Office Contact Name</b>	
<b>Office Contact Tel.</b>	+353 (85) 800 9540
<b>Office Contact Email</b>	Info@opusenvironmental.ie
<b>Surveyor</b>	DAVID GREENE

Job Comments

## Site Images

Client - No 9 Georges Place and Wash House



This sketch is not to scale and does not represent the exact routing of the drainage system

## Scoring Summary

Client - No 9 Georges Place and Wash House

### Structural Defects

Grade 3	Grade 4	Grade 5	Information
Best practice suggests consideration to be given to repair in the medium term.	Best practice suggests consideration to be given to repair to avoid potential collapse.	Best practice suggests this pipe is at risk of collapse at any time; urgent consideration should be given to repair to avoid collapse.	These summaries are based on the SRM grading from the WRC.

Section	PLR	Grade	Fault Description
1	MH1 X	4	Multiple defects, made up of displaced joints , open joints & deformation
2	TR2 X	4	Multiple defects, made up of displaced joints & open joints
5	ST1 X	3	Displaced joints
6	BTMH X	4	Displaced joints

### Service/Operational Defects

Grade 3	Grade 4	Grade 5	Information
Best practice suggests consideration to be given to maintenance activities in the medium term.	Best practice suggests consideration to be given to maintenance to avoid potential blockage.	Best practice suggests this pipe is at risk of backing up / causing flooding.	These summaries are based on the SRM grading from the WRC.

Section	PLR	Grade	Fault Description
1	MH1 X	3	Multiple defects, made up of deformation & displaced joints
2	TR2 X	3	Multiple defects, made up of deposits & displaced joints
4	LWC X	5	Obstacles
5	ST1 X	3	Displaced joints
6	BTMH X	3	Displaced joints

---

## Scoring Summary

Client - **No 9 Georges Place and Wash House**

Abandoned Surveys

Section	PLR	Fault Description
All inspected pipes have been surveyed for their entire length.		

## Site Photographs

Client - No 9 Georges Place and Wash House

Manhole / Access Point



MBT Location

Manhole / Access Point



TR2 Location



## Site Photographs

Client - No 9 Georges Place and Wash House

Manhole / Access Point



OFS Location

Manhole / Access Point



BTMH Internal

## CCTV Inspection - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

Job Info	
Contractor's Job Ref.	<b>Georges PI and Wash House</b>

Location	
Site Address	<b>Dun Laoghaire-Rathdown</b>
	<b>County Council</b>
Ground Surface	<b>Concrete</b>

Factors	
Date	<b>23/01/2025</b>
Time	<b>09:27 - 09:28</b>
Weather	<b>2 - Heavy Rain</b>

Surveyor Details	
Name of Surveyor	Camera System
<b>DAVID GREENE</b>	<b>B6HEH9JDJ2</b>

Survey Details			
Pre Cleaned	Direction	Expected Length	Inspected Length
<b>Not Cleaned</b>	<b>Downstream</b>	<b>11.38</b>	<b>11.38</b>

	Position (m)	Code	Observation	Video Ref	Photo Ref	Score
Start Node	Ref					
	<b>MH1</b>					
	Depth					
	-					
	Invert Level					
	-					
0.00	MH	Start node type, manhole, reference MMH	00:00:00	S1C1	0	
	WL	Water level 0% height/diameter	00:00:00	S1C2	0	
1.26	JD	Joint displaced 10mm	00:00:14	S1C3	40 / 2	
2.98	OJ	Open joint 5mm	00:00:22	S1C4	2	
7.02	JD	Joint displaced 10mm	00:00:35	S1C5	40 / 2	
	DV	Deformed vertically 5% - Remark: line dipped, waste water retention observed	00:00:35	S1C6	20 / 1	
9.93	JD	Joint displaced 10mm	00:00:48	S1C7	40 / 2	
11.05	OJ	Open joint 10mm	00:00:55	S1C8	80	
	OFF	Finish node type, outfall, reference MBT	00:01:00	S1C9	0	

Sewer Use	
	<b>Combined</b>
Material	
	<b>Vitrified clay</b>
Diameter	
	<b>100</b>

Ref	
	<b>MBT</b>
Depth	
	-
Invert Level	
	-

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General Remarks

Defect	Quantity	Peak	Mean	Total	Grade	Key	
Structural	6	80	19.51	222	4	Structural Defects	Construction Observations
Operational	4	3	0.62	7	3	Service/Operational Defects	Miscellaneous Observations



## Pictures - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

S1C1



00:00:00 - 0.00 m  
Start node type, manhole, reference MMH

S1C2



00:00:00 - 0.00 m  
Water level 0% height/diameter

## Pictures - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

S1C3



00:00:14 - 1.26 m  
Joint displaced 10mm

S1C4



00:00:22 - 2.98 m  
Open joint 5mm

## Pictures - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

S1C5



00:00:35 - 7.02 m  
Joint displaced 10mm

S1C6



00:00:35 - 7.02 m  
Deformed vertically 5% - Remark: line dipped, waste water retention observed

## Pictures - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

S1C7



00:00:48 - 9.93 m  
Joint displaced 10mm

S1C8



00:00:55 - 11.05 m  
Open joint 10mm



## Pictures - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

S1C9



00:01:00 - 11.38 m

Finish node type, outfall, reference MBT

S1 Manhole Location



MBT Location

## Overview - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

Section Information	
Total Length	<b>11.38 m</b>
Inspected Length	<b>11.38 m</b>
Not Inspected Length	<b>0 m</b>

Resources Collected	
Inspection Photos	<b>9</b>
Inspection Videos	<b>1</b>
Manhole Photos	<b>4</b>

Defects Found	
Structural	<b>6</b>
Service/Operational	<b>4</b>
Survey Abandoned	<b>No</b>

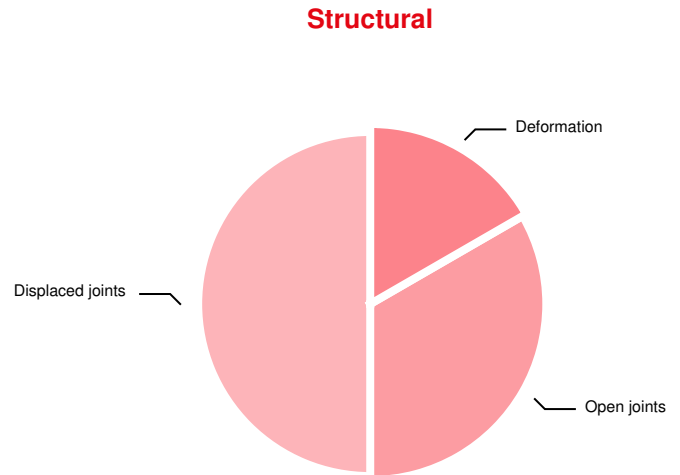
Work Carried Out	
Pipeline Surveyed	<b>Yes</b>
Pipeline Pre Cleaned	<b>No</b>
Flow Control Used	<b>No</b>

Pipeline Length Ref. <b>MH1 X</b>	Direction <b>Downstream</b>	Upstream Node <b>MH1</b>	Downstream Node <b>MBT</b>	Pipe Material <b>Vitrified clay</b>	Dia/Height <b>100 mm</b>
Meas. from MH (m)	Code	Observation			
0	MH	Start node type, manhole, reference MMH			
0	WL	Water level 0% height/diameter			
1.26	JD	Joint displaced 10mm			
2.98	OJ	Open joint 5mm			
7.02	JD	Joint displaced 10mm			
7.02	DV	Deformed vertically 5% - Remark: line dipped, waste water retention observed			
9.93	JD	Joint displaced 10mm			
11.05	OJ	Open joint 10mm			
11.38	OFF	Finish node type, outfall, reference MBT			

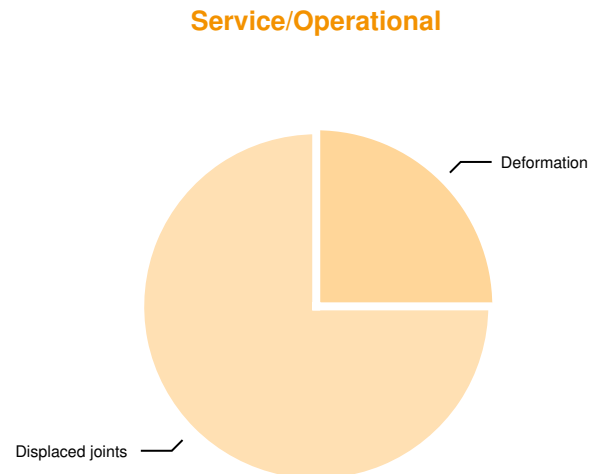
## Damage Overview - Section No. 1 - MH1 to MBT

Client - No 9 Georges Place and Wash House

Structural Defect	Quantity
Displaced joints	3
Open joints	2
Deformation	1



Service/Operational Defects	Quantity
Displaced joints	3
Deformation	1



## CCTV Inspection - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

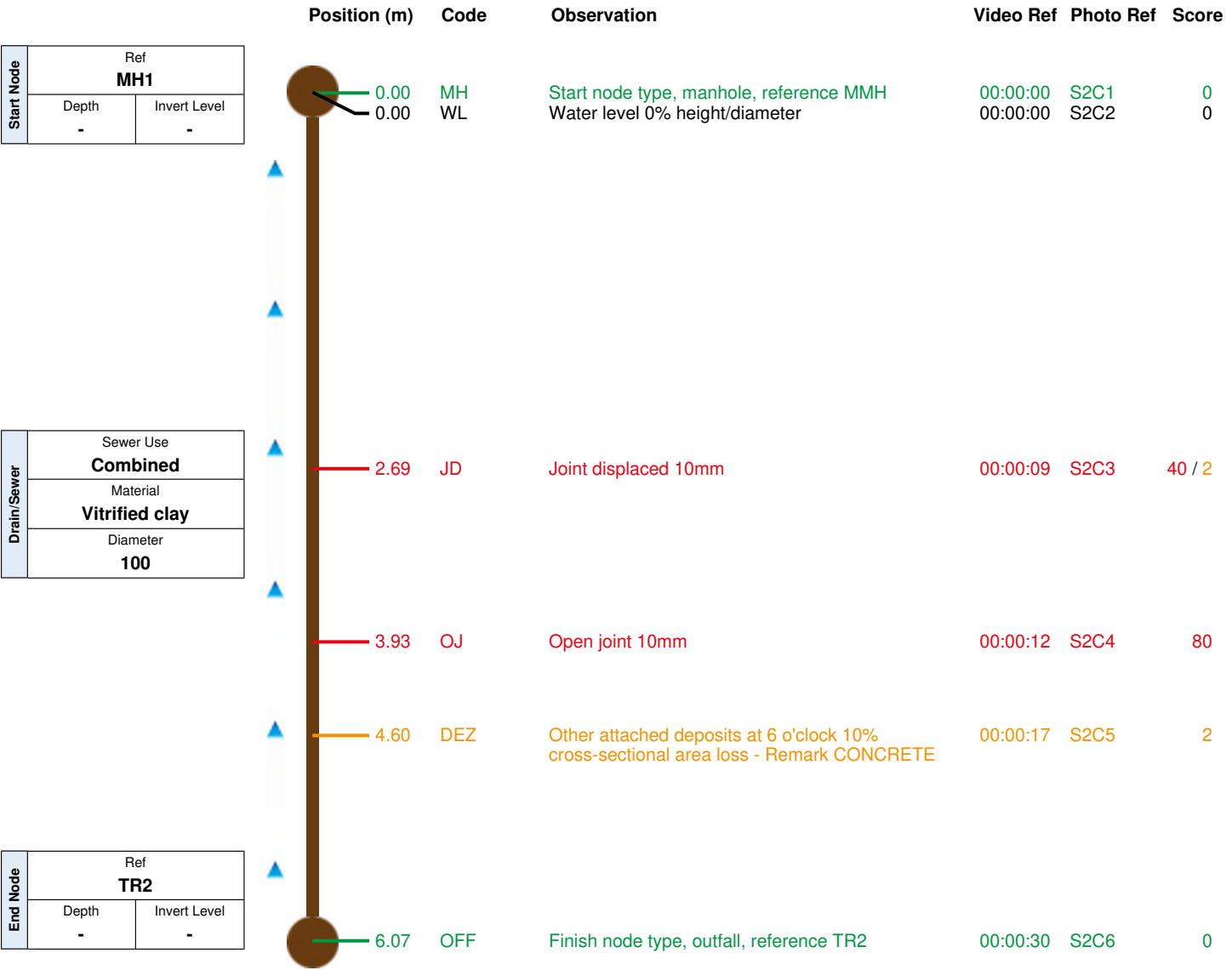
Job Info	
Contractor's Job Ref.	<b>Georges PI and Wash House</b>

Location	
Site Address	<b>Dun Laoghaire-Rathdown</b>
	<b>County Council</b>
Ground Surface	<b>Concrete</b>

Factors	
Date	<b>23/01/2025</b>
Time	<b>09:35 - 09:37</b>
Weather	<b>1 - Dry</b>

Surveyor Details	
Name of Surveyor	Camera System
<b>DAVID GREENE</b>	<b>B6HEH9DJ2</b>

Survey Details			
Pre Cleaned	Direction	Expected Length	Inspected Length
<b>Not Cleaned</b>	<b>Upstream</b>	<b>6.07</b>	<b>6.07</b>



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General Remarks

Defect	Quantity	Peak	Mean	Total	Grade	Key	
Structural	2	80	19.77	120	4	Structural Defects	Construction Observations
Operational	2	2	0.66	4	3	Service/Operational Defects	Miscellaneous Observations



## Pictures - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

S2C1



00:00:00 - 0.00 m  
Start node type, manhole, reference MMH

S2C2



00:00:00 - 0.00 m  
Water level 0% height/diameter

## Pictures - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

S2C3



00:00:09 - 2.69 m  
Joint displaced 10mm

S2C4



00:00:12 - 3.93 m  
Open joint 10mm

## Pictures - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

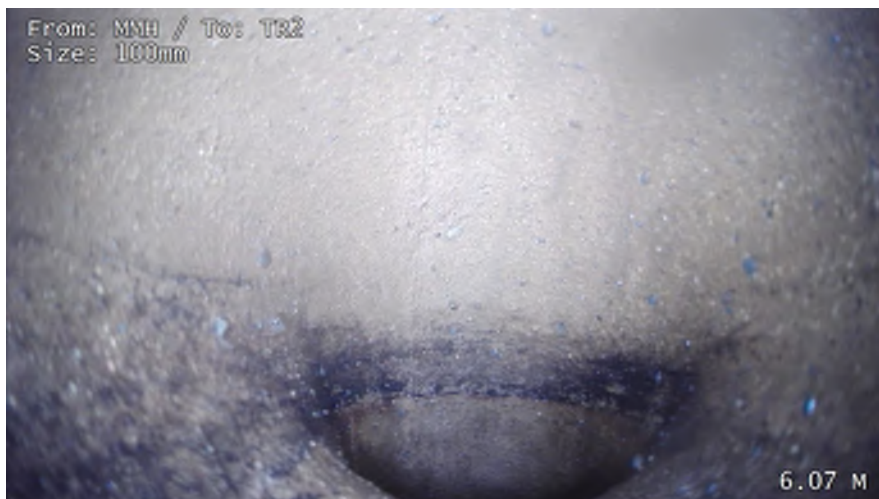
S2C5



00:00:17 - 4.60 m

Other attached deposits at 6 o'clock 10% cross-sectional area loss - Remark CONCRETE

S2C6



00:00:30 - 6.07 m

Finish node type, outfall, reference TR2

## Pictures - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

S2 Manhole Location



TR2 Location

## Overview - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

Section Information	
Total Length	<b>6.07 m</b>
Inspected Length	<b>6.07 m</b>
Not Inspected Length	<b>0 m</b>

Resources Collected
Inspection Photos <b>6</b>
Inspection Videos <b>1</b>
Manhole Photos <b>4</b>

Defects Found	
Structural	<b>2</b>
Service/Operational	<b>2</b>
Survey Abandoned	<b>No</b>

Work Carried Out	
Pipeline Surveyed	<b>Yes</b>
Pipeline Pre Cleaned	<b>No</b>
Flow Control Used	<b>No</b>

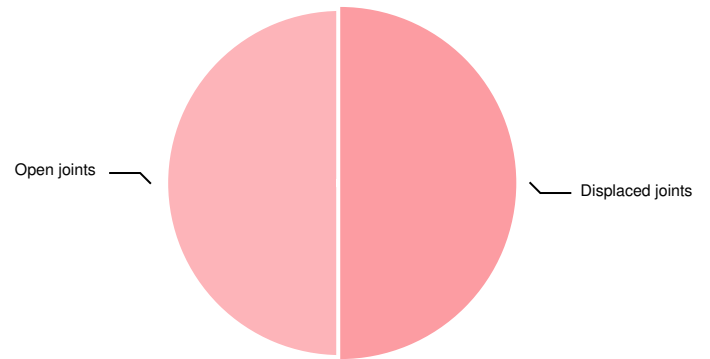
Pipeline Length Ref. <b>TR2 X</b>	Direction <b>Upstream</b>	Upstream Node <b>MH1</b>	Downstream Node <b>TR2</b>	Pipe Material <b>Vitrified clay</b>	Dia/Height <b>100 mm</b>
Meas. from MH (m)	Code	Observation			
0	MH	Start node type, manhole, reference MMH			
0	WL	Water level 0% height/diameter			
2.69	JD	Joint displaced 10mm			
3.93	OJ	Open joint 10mm			
4.6	DEZ	Other attached deposits at 6 o'clock 10% cross-sectional area loss - Remark CONCRETE			
6.07	OFF	Finish node type, outfall, reference TR2			

## Damage Overview - Section No. 2 - MH1 to TR2

Client - No 9 Georges Place and Wash House

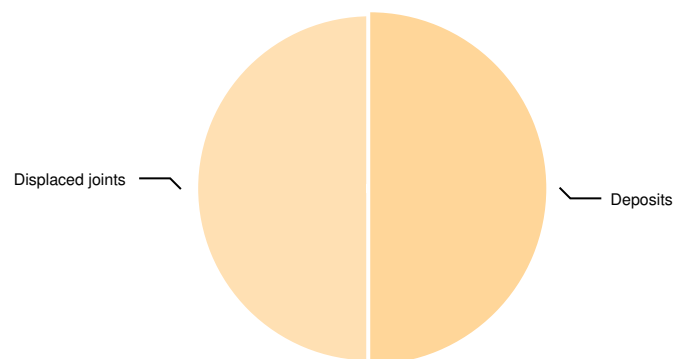
Structural Defect	Quantity
Open joints	1
Displaced joints	1

### Structural



Service/Operational Defects	Quantity
Displaced joints	1
Deposits	1

### Service/Operational





## CCTV Inspection - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

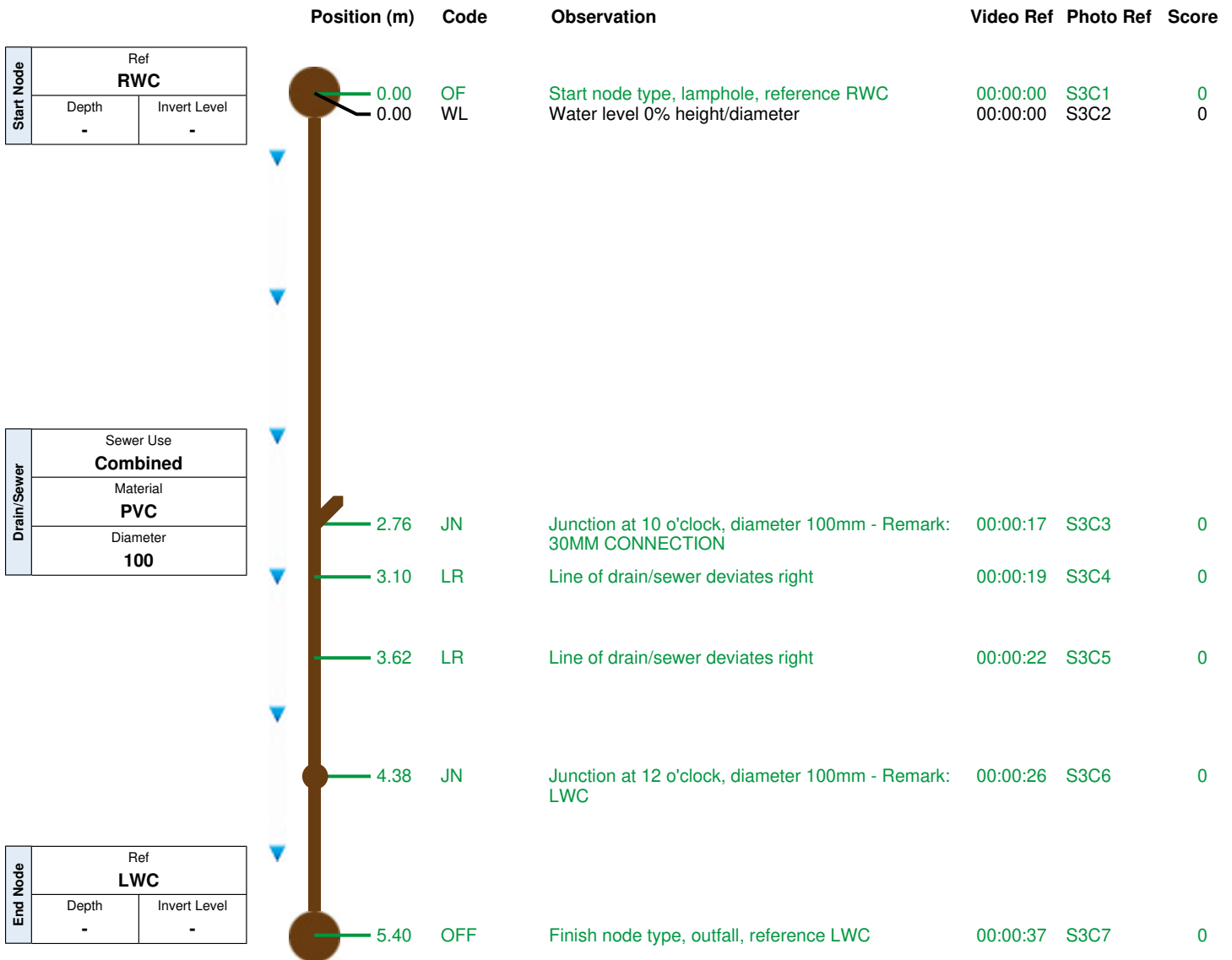
Job Info	
Contractor's Job Ref.	<b>Georges Pl and Wash House</b>

Location	
Site Address	<b>Dun Laoghaire-Rathdown</b>
	<b>County Council</b>
Ground Surface	<b>Concrete</b>

Factors	
Date	<b>23/01/2025</b>
Time	<b>10:50 - 10:52</b>
Weather	<b>1 - Dry</b>

Surveyor Details	
Name of Surveyor	Camera System
<b>DAVID GREENE</b>	<b>B6HEH9JDJ2</b>

Survey Details			
Pre Cleaned	Direction	Expected Length	Inspected Length
<b>Not Cleaned</b>	<b>Downstream</b>	<b>5.40</b>	<b>5.40</b>



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General Remarks

Defect	Quantity	Peak	Mean	Total	Grade	Key	
Structural	0	0	0.00	0	1	Structural Defects	Construction Observations
Operational	0	0	0.00	0	1	Service/Operational Defects	Miscellaneous Observations

## Pictures - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

S3C1



00:00:00 - 0.00 m  
Start node type, lamphole, reference RWC

S3C2



00:00:00 - 0.00 m  
Water level 0% height/diameter



## Pictures - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

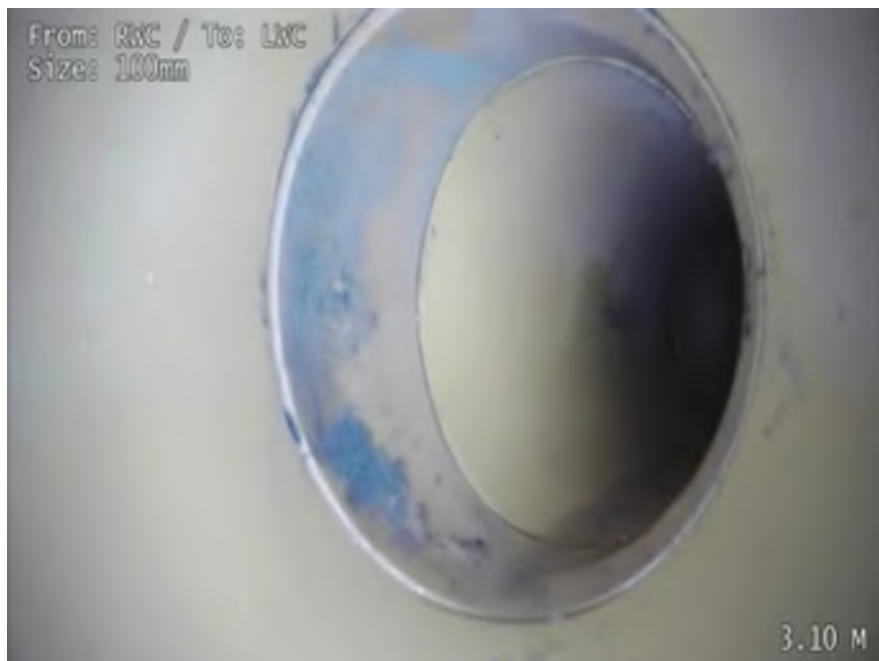
S3C3



00:00:17 - 2.76 m

Junction at 10 o'clock, diameter 100mm - Remark: 30MM CONNECTION

S3C4



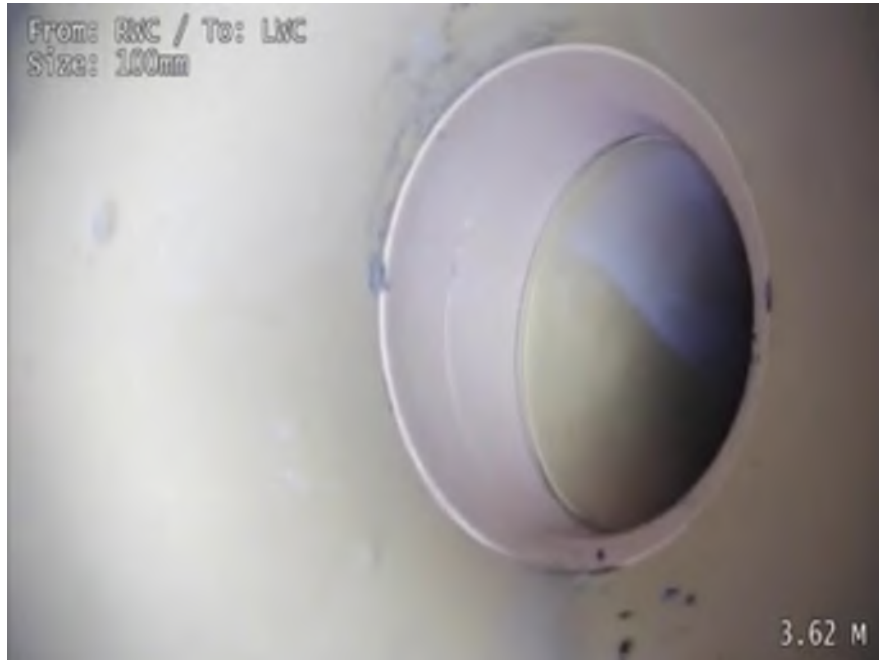
00:00:19 - 3.10 m

Line of drain/sewer deviates right

## Pictures - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

S3C5



00:00:22 - 3.62 m  
Line of drain/sewer deviates right

S3C6

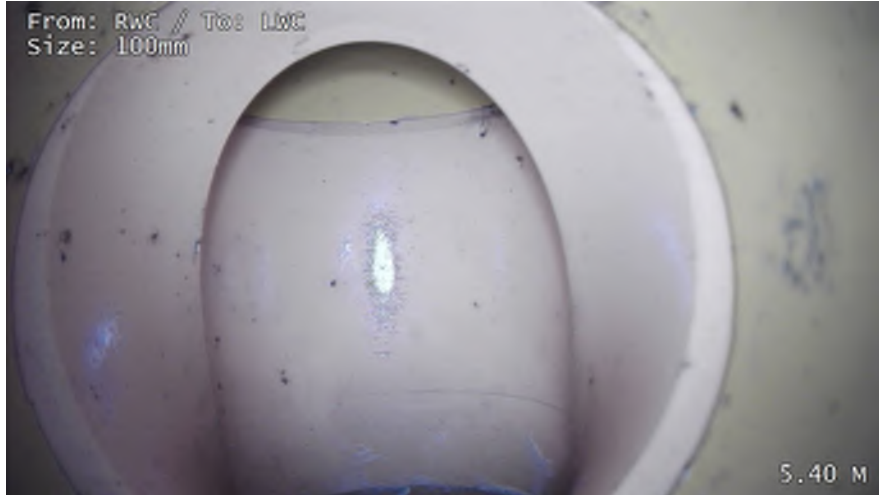


00:00:26 - 4.38 m  
Junction at 12 o'clock, diameter 100mm - Remark: LWC

## Pictures - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

S3C7



00:00:37 - 5.40 m

Finish node type, outfall, reference LWC

## Overview - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

Section Information	
Total Length	<b>5.4 m</b>
Inspected Length	<b>5.4 m</b>
Not Inspected Length	<b>0 m</b>

Resources Collected
Inspection Photos <b>7</b>
Inspection Videos <b>1</b>
Manhole Photos <b>4</b>

Defects Found	
Structural	<b>0</b>
Service/Operational	<b>0</b>
Survey Abandoned	<b>No</b>

Work Carried Out	
Pipeline Surveyed	<b>Yes</b>
Pipeline Pre Cleaned	<b>No</b>
Flow Control Used	<b>No</b>

Pipeline Length Ref. <b>RWC X</b>	Direction <b>Downstream</b>	Upstream Node <b>RWC</b>	Downstream Node <b>LWC</b>	Pipe Material <b>PVC</b>	Dia/Height <b>100 mm</b>
Meas. from MH (m)	Code	Observation			
0	OF	Start node type, lamphole, reference RWC			
0	WL	Water level 0% height/diameter			
2.76	JN	Junction at 10 o'clock, diameter 100mm - Remark: 30MM CONNECTION			
3.1	LR	Line of drain/sewer deviates right			
3.62	LR	Line of drain/sewer deviates right			
4.38	JN	Junction at 12 o'clock, diameter 100mm - Remark: LWC			
5.4	OFF	Finish node type, outfall, reference LWC			

---

## Damage Overview - Section No. 3 - RWC to LWC

Client - No 9 Georges Place and Wash House

Structural Defect	Quantity
-------------------	----------

There were no structural defects recorded

Service/Operational Defects	Quantity
-----------------------------	----------

There were no service/operational defects recorded

## CCTV Inspection - Section No. 4 - LWC to OFS

Client - No 9 Georges Place and Wash House

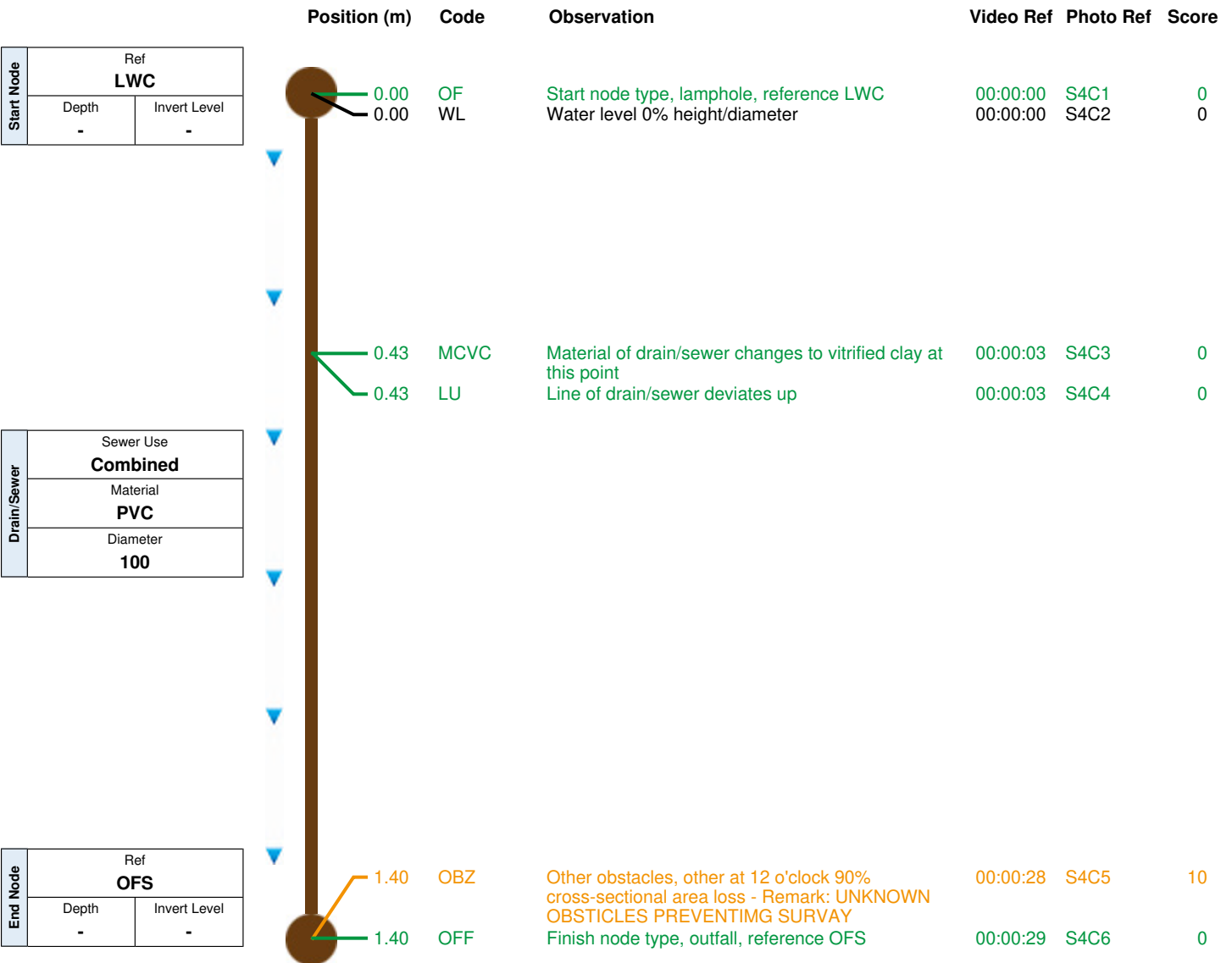
Job Info	
Contractor's Job Ref.	<b>Georges PI and Wash House</b>

Location	
Site Address	<b>Dun Laoghaire-Rathdown</b>
	<b>County Council</b>
Ground Surface	<b>Concrete</b>

Factors	
Date	<b>23/01/2025</b>
Time	<b>10:58 - 10:59</b>
Weather	<b>1 - Dry</b>

Surveyor Details	
Name of Surveyor	Camera System
<b>DAVID GREENE</b>	<b>B6HEH9DJ2</b>

Survey Details			
Pre Cleaned	Direction	Expected Length	Inspected Length
<b>Not Cleaned</b>	<b>Downstream</b>	<b>1.40</b>	<b>1.40</b>



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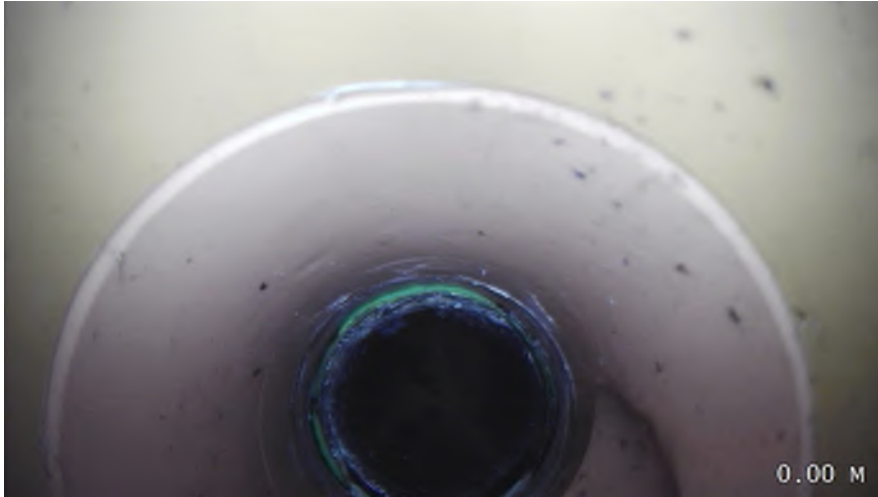
General Remarks

Defect	Quantity	Peak	Mean	Total	Grade	Key	
Structural	0	0	0.00	0	1	Structural Defects	Construction Observations
Operational	1	10	7.14	10	5	Service/Operational Defects	Miscellaneous Observations

## Pictures - Section No. 4 - LWC to OFS

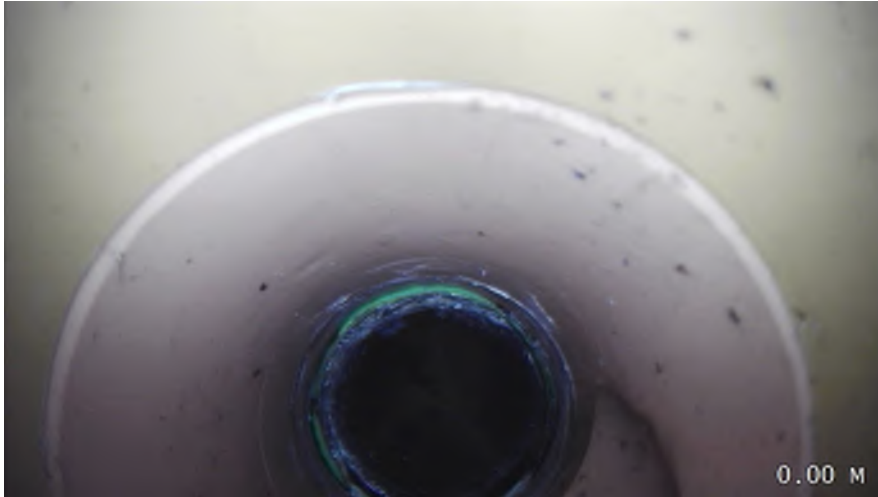
Client - No 9 Georges Place and Wash House

S4C1



00:00:00 - 0.00 m  
Start node type, lamphole, reference LWC

S4C2



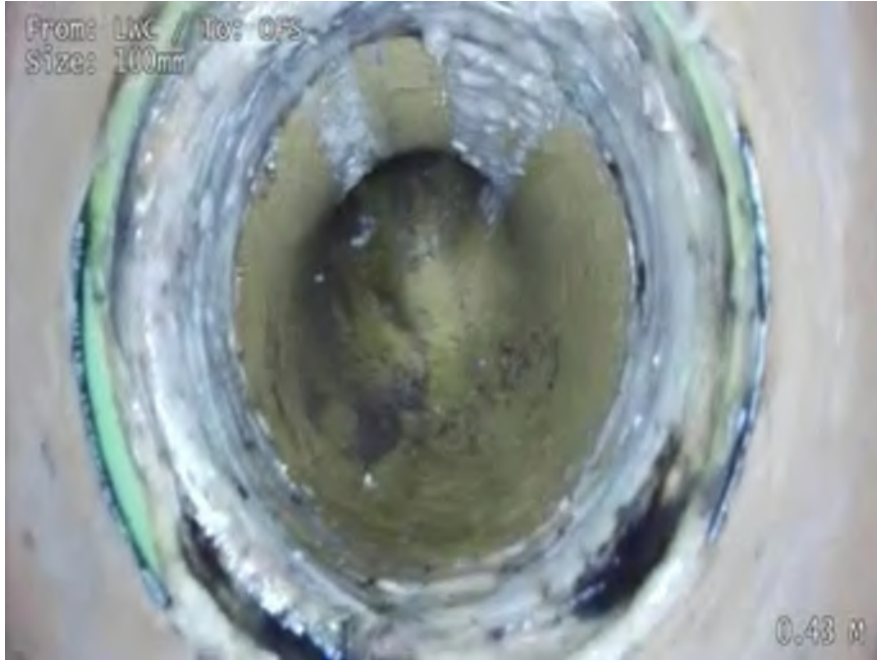
00:00:00 - 0.00 m  
Water level 0% height/diameter



## Pictures - Section No. 4 - LWC to OFS

Client - No 9 Georges Place and Wash House

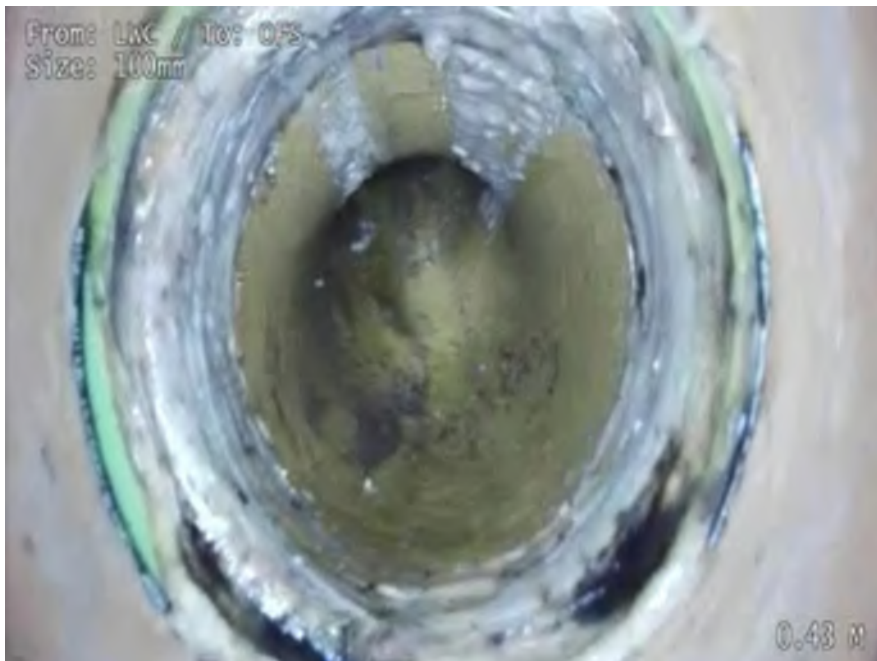
S4C3



00:00:03 - 0.43 m

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

S4C4



00:00:03 - 0.43 m

Line of drain/sewer deviates up



## Pictures - Section No. 4 - LWC to OFS

Client - No 9 Georges Place and Wash House

S4C5



00:00:28 - 1.40 m

Other obstacles, other at 12 o'clock 90% cross-sectional area loss - Remark: UNKNOWN OBSTICLES PREVENTING SURVAY

S4C6



00:00:29 - 1.40 m

Finish node type, outfall, reference OFS

## Pictures - Section No. 4 - LWC to OFS

Client - No 9 Georges Place and Wash House

S4 Manhole Location



OFS Location

## Overview - Section No. 4 - LWC to OFS

Client - No 9 Georges Place and Wash House

Section Information	
Total Length	<b>1.4 m</b>
Inspected Length	<b>1.4 m</b>
Not Inspected Length	<b>0 m</b>

Resources Collected
Inspection Photos <b>6</b>
Inspection Videos <b>1</b>
Manhole Photos <b>4</b>

Defects Found	
Structural	<b>0</b>
Service/Operational	<b>1</b>
Survey Abandoned	<b>No</b>

Work Carried Out	
Pipeline Surveyed	<b>Yes</b>
Pipeline Pre Cleaned	<b>No</b>
Flow Control Used	<b>No</b>

Pipeline Length Ref. <b>LWC X</b>	Direction <b>Downstream</b>	Upstream Node <b>LWC</b>	Downstream Node <b>OFS</b>	Pipe Material <b>PVC</b>	Dia/Height <b>100 mm</b>
Meas. from MH (m)	Code	Observation			
0	OF	Start node type, lamphole, reference LWC			
0	WL	Water level 0% height/diameter			
0.43	MCVC	Material of drain/sewer changes to vitrified clay at this point			
0.43	LU	Line of drain/sewer deviates up			
1.4	OBZ	Other obstacles, other at 12 o'clock 90% cross-sectional area loss - Remark: UNKNOWN OBSTICLES PREVENTING SURVAY			
1.4	OFF	Finish node type, outfall, reference OFS			

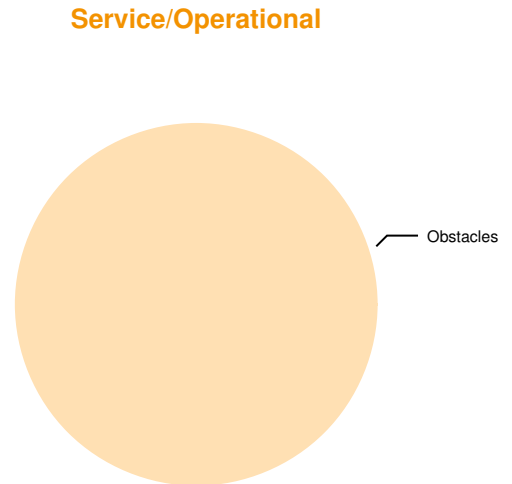
## Damage Overview - Section No. 4 - LWC to OFS

Client - No 9 Georges Place and Wash House

Structural Defect	Quantity
-------------------	----------

There were no structural defects recorded

Service/Operational Defects	Quantity
Obstacles	1



## CCTV Inspection - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

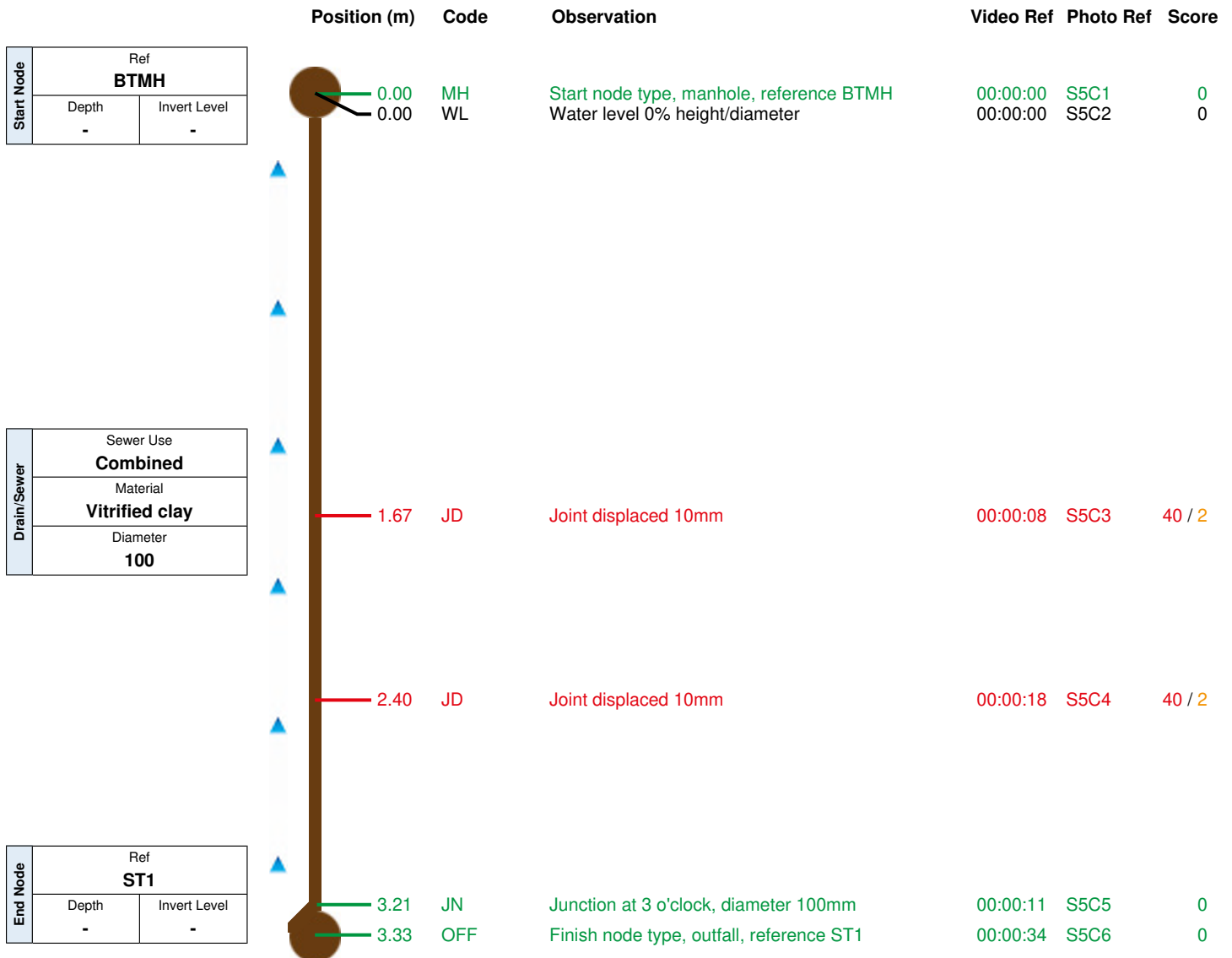
Job Info	
Contractor's Job Ref.	<b>Georges PI and Wash House</b>

Location	
Site Address	<b>Dun Laoghaire-Rathdown</b>
	<b>County Council</b>
Ground Surface	<b>Concrete</b>

Factors	
Date	<b>23/01/2025</b>
Time	<b>11:22 - 11:23</b>
Weather	<b>1 - Dry</b>

Surveyor Details	
Name of Surveyor	Camera System
<b>DAVID GREENE</b>	<b>B6HEH9JDJ2</b>

Survey Details			
Pre Cleaned	Direction	Expected Length	Inspected Length
<b>Not Cleaned</b>	<b>Upstream</b>	<b>3.33</b>	<b>3.33</b>


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General Remarks

Defect	Quantity	Peak	Mean	Total	Grade	Key	
Structural	2	40	24.02	80	3	Structural Defects	Construction Observations
Operational	2	2	1.20	4	3	Service/Operational Defects	Miscellaneous Observations

## Pictures - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

S5 Manhole Internal



BTMH Internal

S5C1



00:00:00 - 0.00 m  
Start node type, manhole, reference BTMH



## Pictures - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

S5C2



00:00:00 - 0.00 m  
Water level 0% height/diameter

S5C3



00:00:08 - 1.67 m  
Joint displaced 10mm

## Pictures - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

S5C4



00:00:18 - 2.40 m  
Joint displaced 10mm

S5C5



00:00:11 - 3.21 m  
Junction at 3 o'clock, diameter 100mm

## Pictures - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

S5C6



00:00:34 - 3.33 m

Finish node type, outfall, reference ST1

## Overview - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

Section Information	
Total Length	<b>3.33 m</b>
Inspected Length	<b>3.33 m</b>
Not Inspected Length	<b>0 m</b>

Resources Collected
Inspection Photos <b>6</b>
Inspection Videos <b>1</b>
Manhole Photos <b>4</b>

Defects Found	
Structural	<b>2</b>
Service/Operational	<b>2</b>
Survey Abandoned	<b>No</b>

Work Carried Out	
Pipeline Surveyed	<b>Yes</b>
Pipeline Pre Cleaned	<b>No</b>
Flow Control Used	<b>No</b>

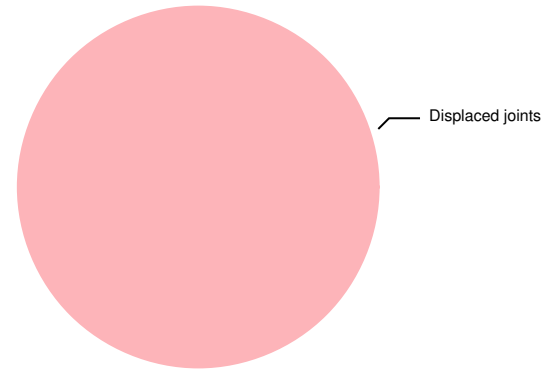
Pipeline Length Ref. <b>ST1 X</b>	Direction <b>Upstream</b>	Upstream Node <b>BTMH</b>	Downstream Node <b>ST1</b>	Pipe Material <b>Vitrified clay</b>	Dia/Height <b>100 mm</b>
Meas. from MH (m)	Code	Observation			
0	MH	Start node type, manhole, reference BTMH			
0	WL	Water level 0% height/diameter			
1.67	JD	Joint displaced 10mm			
2.4	JD	Joint displaced 10mm			
3.21	JN	Junction at 3 o'clock, diameter 100mm			
3.33	OFF	Finish node type, outfall, reference ST1			

## Damage Overview - Section No. 5 - BTMH to ST1

Client - No 9 Georges Place and Wash House

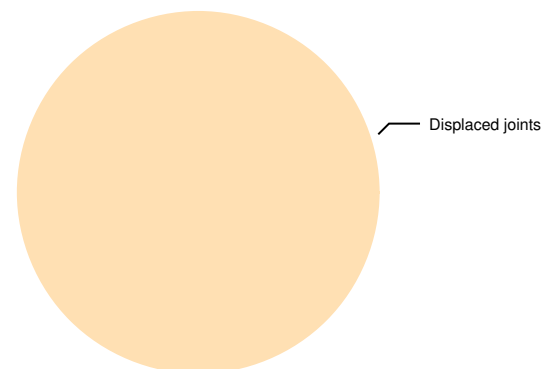
Structural Defect	Quantity
Displaced joints	2

### Structural



Service/Operational Defects	Quantity
Displaced joints	2

### Service/Operational



## CCTV Inspection - Section No. 6 - BTMH to MAINS

Client - No 9 Georges Place and Wash House

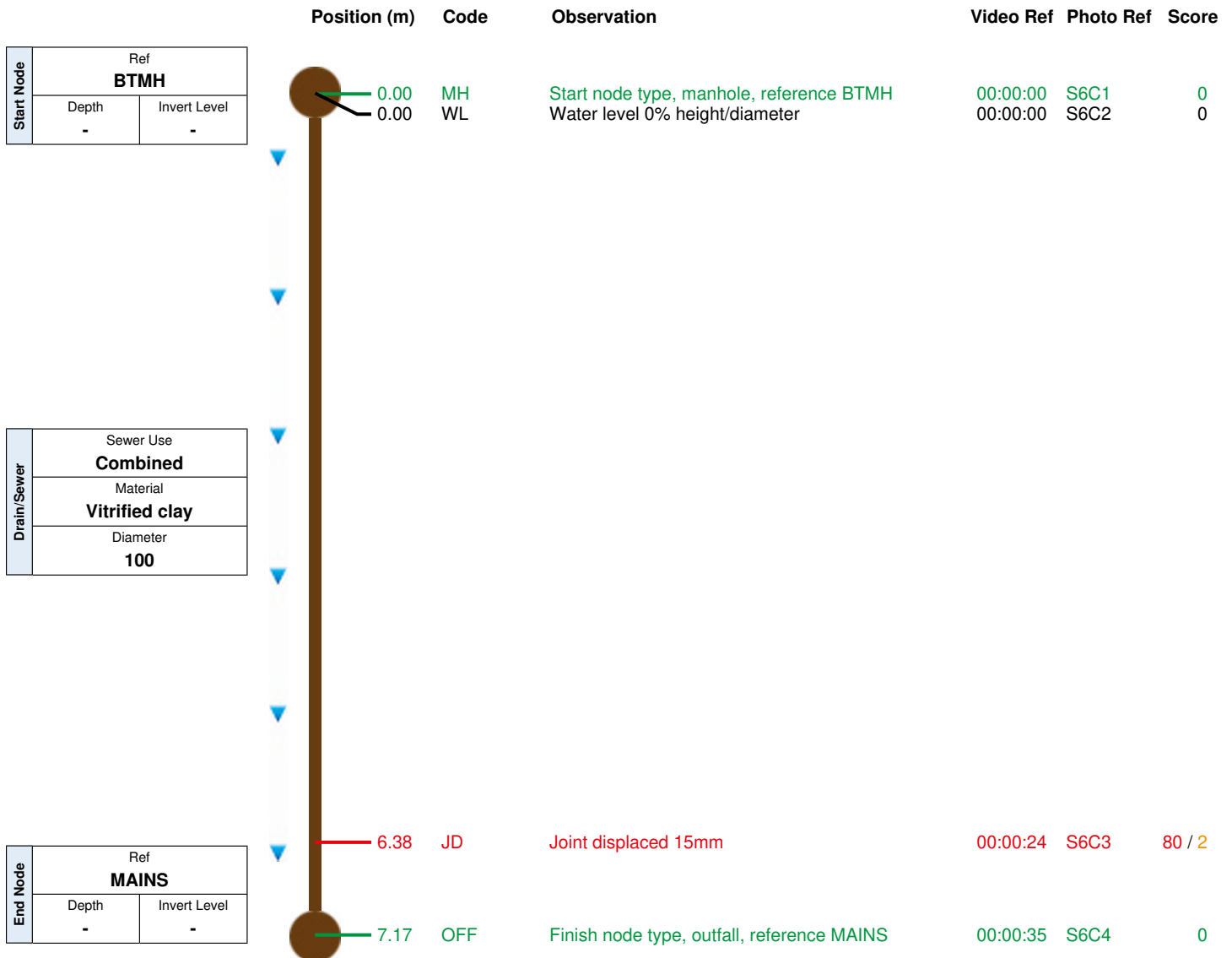
Job Info	
Contractor's Job Ref.	<b>Georges PI and Wash House</b>

Location	
Site Address	<b>Dun Laoghaire-Rathdown</b>
	<b>County Council</b>
Ground Surface	<b>Concrete</b>

Factors	
Date	<b>23/01/2025</b>
Time	<b>11:24 - 11:28</b>
Weather	<b>1 - Dry</b>

Surveyor Details	
Name of Surveyor	Camera System
<b>DAVID GREENE</b>	<b>B6HEH9JDJ2</b>

Survey Details			
Pre Cleaned	Direction	Expected Length	Inspected Length
<b>Not Cleaned</b>	<b>Downstream</b>	<b>7.17</b>	<b>7.17</b>



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General Remarks

Defect	Quantity	Peak	Mean	Total	Grade	Key	
Structural	1	80	11.16	80	4	Structural Defects	Construction Observations
Operational	1	2	0.28	2	3	Service/Operational Defects	Miscellaneous Observations



## Pictures - Section No. 6 - BTMH to MAINS

Client - No 9 Georges Place and Wash House

S6 Manhole Internal



BTMH Internal

S6C1



00:00:00 - 0.00 m

Start node type, manhole, reference BTMH

## Pictures - Section No. 6 - BTMH to MAINS

Client - No 9 Georges Place and Wash House

S6C2



00:00:00 - 0.00 m  
Water level 0% height/diameter

S6C3



00:00:24 - 6.38 m  
Joint displaced 15mm

## Pictures - Section No. 6 - BTMH to MAINS

Client - No 9 Georges Place and Wash House

S6C4



00:00:35 - 7.17 m

Finish node type, outfall, reference MAINS

## Overview - Section No. 6 - BTMH to MAINS

Client - No 9 Georges Place and Wash House

Section Information	
Total Length	7.17 m
Inspected Length	7.17 m
Not Inspected Length	0 m

Resources Collected
Inspection Photos <b>4</b>
Inspection Videos <b>1</b>
Manhole Photos <b>4</b>

Defects Found	
Structural	1
Service/Operational	1
Survey Abandoned	No

Work Carried Out	
Pipeline Surveyed	Yes
Pipeline Pre Cleaned	No
Flow Control Used	No

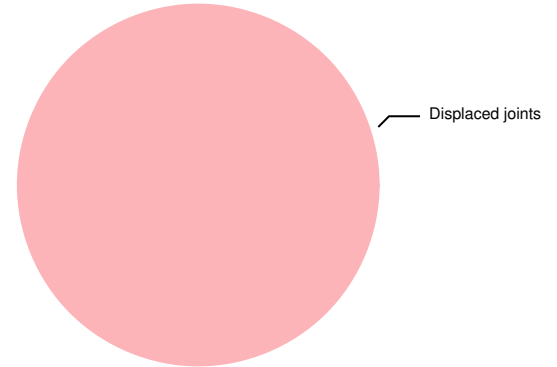
Pipeline Length Ref. <b>BTMH X</b>	Direction <b>Downstream</b>	Upstream Node <b>BTMH</b>	Downstream Node <b>MAINS</b>	Pipe Material <b>Vitrified clay</b>	Dia/Height <b>100 mm</b>
Meas. from MH (m)	Code	Observation			
0	MH	Start node type, manhole, reference BTMH			
0	WL	Water level 0% height/diameter			
6.38	JD	Joint displaced 15mm			
7.17	OFF	Finish node type, outfall, reference MAINS			

## Damage Overview - Section No. 6 - BTMH to MAINS

Client - No 9 Georges Place and Wash House

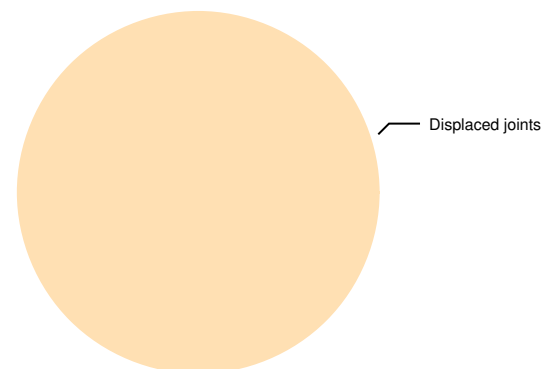
Structural Defect	Quantity
Displaced joints	1

### Structural



Service/Operational Defects	Quantity
Displaced joints	1

### Service/Operational



## Summary - All Sections

Client - **No 9 Georges Place and Wash House**

Sewer Network Information	
Number of Sections	6
Total Length	34.75 m
Inspected Length	34.75 m
Not Inspected Length	0 m

Resources Collected
Inspection Photos <b>38</b>
Inspection Videos <b>6</b>
Manhole Photos <b>4</b>
Abandoned Surveys <b>0</b>

### Section Breakdowns / Data Collections

1 - 2 / 6

Pipeline Length Ref.	Direction	Upstream Node	Downstream Node	Pipe Material	Dia/Height	Inspected Length	Total Length
<b>MH1 X</b>	<b>Downstream</b>	<b>MH1</b>	<b>MBT</b>	<b>Vitrified clay</b>	<b>100 mm</b>		<b>11.38m</b> <b>11.38m</b>
Meas. from MH (m)	Code	Observation					
0	MH	Start node type, manhole, reference MMH					
0	WL	Water level 0% height/diameter					
1.26	JD	Joint displaced 10mm					
2.98	OJ	Open joint 5mm					
7.02	JD	Joint displaced 10mm					
7.02	DV	Deformed vertically 5% - Remark: line dipped, waste water retention observed					
9.93	JD	Joint displaced 10mm					
11.05	OJ	Open joint 10mm					
11.38	OFF	Finish node type, outfall, reference MBT					

Pipeline Length Ref.	Direction	Upstream Node	Downstream Node	Pipe Material	Dia/Height	Inspected Length	Total Length
<b>TR2 X</b>	<b>Upstream</b>	<b>MH1</b>	<b>TR2</b>	<b>Vitrified clay</b>	<b>100 mm</b>		<b>6.07m</b> <b>6.07m</b>
Meas. from MH (m)	Code	Observation					
0	MH	Start node type, manhole, reference MMH					
0	WL	Water level 0% height/diameter					
2.69	JD	Joint displaced 10mm					
3.93	OJ	Open joint 10mm					
4.6	DEZ	Other attached deposits at 6 o'clock 10% cross-sectional area loss - Remark CONCRETE					
6.07	OFF	Finish node type, outfall, reference TR2					



## Summary - All Sections

Client - No 9 Georges Place and Wash House

### Section Breakdowns / Data Collections

3 - 5 / 6

Pipeline Length Ref.	Direction	Upstream Node	Downstream Node	Pipe Material	Dia/Height	Inspected Length	5.4m
<b>RWC X</b>	<b>Downstream</b>	<b>RWC</b>	<b>LWC</b>	<b>PVC</b>	<b>100 mm</b>	Total Length	<b>5.4m</b>
<b>Meas. from MH (m)</b>		<b>Code</b>	<b>Observation</b>				
0		OF	Start node type, lamphole, reference RWC				
0		WL	Water level 0% height/diameter				
2.76		JN	Junction at 10 o'clock, diameter 100mm - Remark: 30MM CONNECTION				
3.1		LR	Line of drain/sewer deviates right				
3.62		LR	Line of drain/sewer deviates right				
4.38		JN	Junction at 12 o'clock, diameter 100mm - Remark: LWC				
5.4		OFF	Finish node type, outfall, reference LWC				

Pipeline Length Ref.	Direction	Upstream Node	Downstream Node	Pipe Material	Dia/Height	Inspected Length	1.4m
<b>LWC X</b>	<b>Downstream</b>	<b>LWC</b>	<b>OFS</b>	<b>PVC</b>	<b>100 mm</b>	Total Length	<b>1.4m</b>
<b>Meas. from MH (m)</b>		<b>Code</b>	<b>Observation</b>				
0		OF	Start node type, lamphole, reference LWC				
0		WL	Water level 0% height/diameter				
0.43		MCVC	Material of drain/sewer changes to vitrified clay at this point				
0.43		LU	Line of drain/sewer deviates up				
1.4		OBZ	Other obstacles, other at 12 o'clock 90% cross-sectional area loss - Remark: UNKNOWN OBSTICLES PREVENTING SURVAY				
1.4		OFF	Finish node type, outfall, reference OFS				

Pipeline Length Ref.	Direction	Upstream Node	Downstream Node	Pipe Material	Dia/Height	Inspected Length	3.33m
<b>ST1 X</b>	<b>Upstream</b>	<b>BTMH</b>	<b>ST1</b>	<b>Vitrified clay</b>	<b>100 mm</b>	Total Length	<b>3.33m</b>
<b>Meas. from MH (m)</b>		<b>Code</b>	<b>Observation</b>				
0		MH	Start node type, manhole, reference BTMH				
0		WL	Water level 0% height/diameter				
1.67		JD	Joint displaced 10mm				
2.4		JD	Joint displaced 10mm				
3.21		JN	Junction at 3 o'clock, diameter 100mm				
3.33		OFF	Finish node type, outfall, reference ST1				

## Summary - All Sections

Client - No 9 Georges Place and Wash House

### Section Breakdowns / Data Collections

...5 - 6 / 6

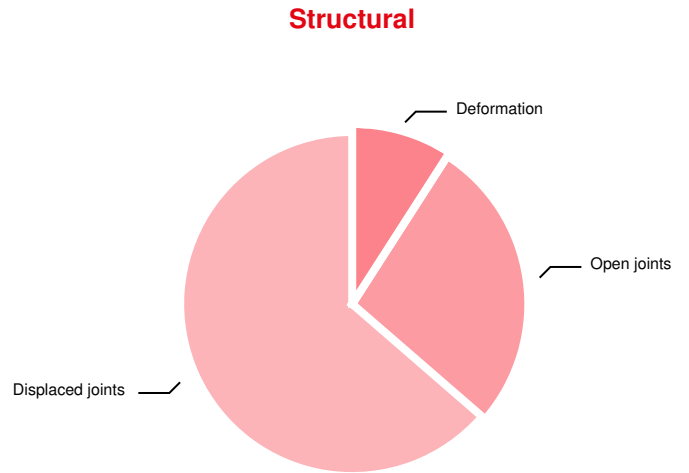
Meas. from MH (m)	Code	Observation
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Pipeline Length Ref.	Direction	Upstream Node	Downstream Node	Pipe Material	Dia/Height	Inspected Length	7.17m
<b>BTMH X</b>	<b>Downstream</b>	<b>BTMH</b>	<b>MAINS</b>	<b>Vitrified clay</b>	<b>100 mm</b>	Total Length	<b>7.17m</b>
Meas. from MH (m)	Code	Observation					
0	MH	Start node type, manhole, reference BTMH					
0	WL	Water level 0% height/diameter					
6.38	JD	Joint displaced 15mm					
7.17	OFF	Finish node type, outfall, reference MAINS					

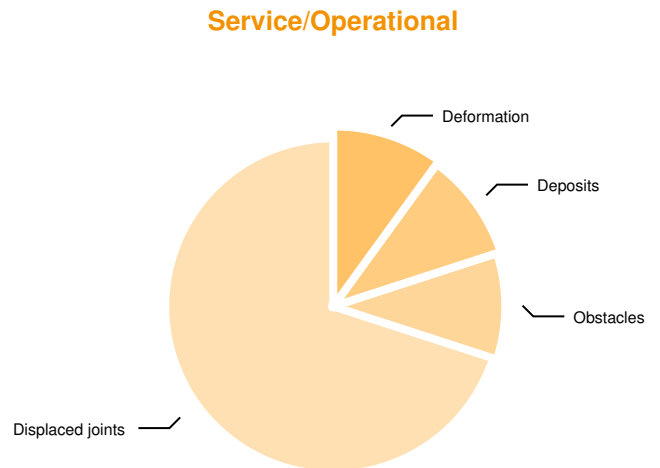
## Damage Overview - All Sections

Client - No 9 Georges Place and Wash House

Structural Defect	Quantity
Displaced joints	7
Open joints	3
Deformation	1



Service/Operational Defects	Quantity
Displaced joints	7
Obstacles	1
Deposits	1
Deformation	1



## Inspection Summary

Client - No 9 Georges Place and Wash House

Node		Section		Expected	Defects					Total
From	To	Height (mm)	Length (m)	Length (m)	JD	OJ	D	DE	OB	
MH1	MBT	100	11.38	11.38	3	2	1	0	0	6
MH1	TR2	100	6.07	6.07	1	1	0	1	0	3
RWC	LWC	100	5.40	5.40	0	0	0	0	0	0
LWC	OFS	100	1.40	1.40	0	0	0	0	1	1
BTMH	ST1	100	3.33	3.33	2	0	0	0	0	2
BTMH	MAINS	100	7.17	7.17	1	0	0	0	0	1
<b>Total</b>			<b>34.75</b>	<b>34.75</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>13</b>