



## **CCTV Investigation Report**

**Shinfield Community Church, Fairmead Road, Shinfield, Reading,  
RG2 9DL**

## GEOCORE CONTROL SHEET

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**Claim Number:** N/A

**Client:** Acies

**Client Ref:** PO P7021024

**Policy Holder:** N/A

**Site Address:** Shinfield Community Church, Fairmead Road, Shinfield, Reading, RG2 9DL

**Project No.:** CT 4830093

**Issue Date:** May 25

**Office:** Geocore Site Investigations Ltd, (Part of RSK Environment Limited), Tralee Close, Kirkleatham Business Park, Redcar, TS10 5SG

**Version:** FAC-01

| Author                                                                              | Technical Reviewer                                                                  |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Katie Barker                                                                        | Darren Frank                                                                        |
| Administrator                                                                       | Drainage Manager                                                                    |
|  |  |

### VERSION CONTROL SHEET

| Reference | Date       | Status | Amended by | Approved by |
|-----------|------------|--------|------------|-------------|
| FAC-01    | 23/05/2025 | Final  | n/a        | n/a         |

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This report is not to be used for contractual or engineering purposes unless signed by the approver and designated as 'Final'. This report has been prepared for the sole internal use and reliance of the named Client. This report should not be relied upon or transferred to any other parties without the express written authorisation of Geocore Site Investigations Ltd. If an unauthorised third party comes into possession of the report, they rely on it at their own risk and Geocore Site Investigations Ltd owes them no duty of care and skill.

# 1 INTRODUCTION

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## 1.1 Commissioning

Geocore Site Investigations Ltd (Geocore) was instructed by Acies to undertake a CCTV survey of the drainage. Geocore was commissioned to provide the following for the project:

- Factual report
- Site Plan highlighting location of the drainage
- Drainage recommendations if any repairs deemed appropriate

## 1.2 Scope of works

The scope instructed by Acies included:

- A CCTV survey of the drainage

## 1.3 Limitations

This report presents a description of the site at the time of the investigation.

Unless instructed by the Client, Geocore is not obliged to and disclaims any obligation to update the report for events taking place after the date on which this investigation was undertaken.

## 2 SITE DETAILS

## 2.1 Site location

Figure 1: Section of Foul sewer map provided by Thames Water.

Figure 2: Site plan of drainage.

### Table 1 - Site Location

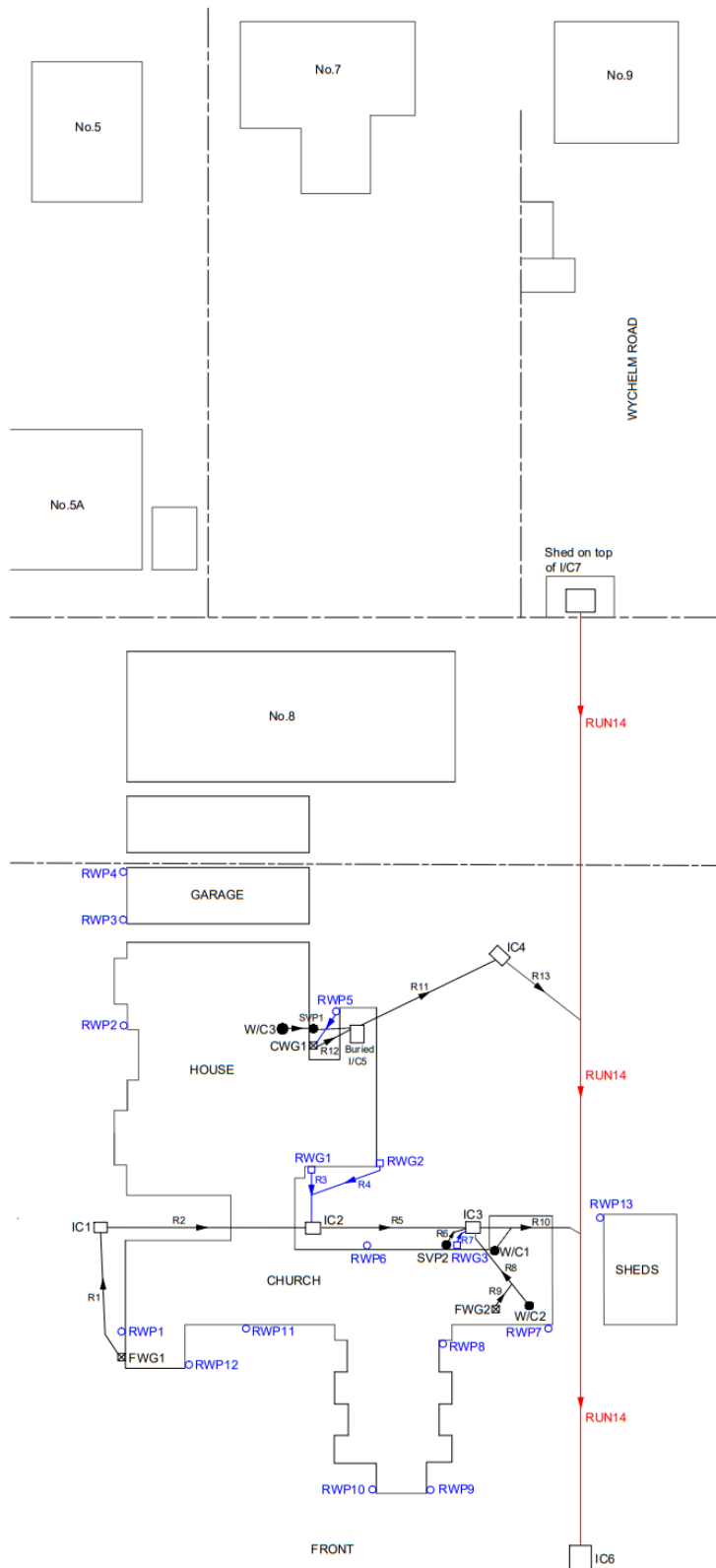
|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| <b>Site name</b>                      | Shinfield Community Church                 |
| <b>Full site address and postcode</b> | Fairmead Road, Shinfield, Reading, RG2 9DL |
| <b>Site Team</b>                      | Peter Beadnall / Paul Dowson               |
| <b>Site Date</b>                      | 6 <sup>th</sup> – 7 <sup>th</sup> May 2025 |

**Figure 1: Foul sewer site plan from Thames Water Buried I/C 7 and I/C 6 added for ref.**



## Site location (Continued)

Figure 2: Site plan of drainage. A copy of the site plan will be sent separate to the report



# Appendix A

## CCTV Survey Notes

Rain Water Pipes 1,2,3,4,6,7,8,9,10,11,12 and 13 are not linked to the existing foul network and believed to be connected to a number of soak-aways around the property.

### **Run 1: I/C 1 upstream to the FWG 1.**

100mm Pitch fibre and V/C pipe.

No defects identified within the drain run. The material of the drain changes from pitch fibre to Vitrified clay at 2.92 metres.

Photo 1 refers to the gully trap for FWG 1.

### **Run 2: I/C 1 downstream to I/C 2.**

100mm V/C and Pitch fibre pipe.

Defects identified within the Vitrified clay section of pipe. The pitch fibre section of the drain run shows signs of deformation.

Please refer to photos 2 to 6 within the report.

### **Run 3: I/C 2 upstream to the RWG 1.**

100mm PVC pipe.

No defects were identified within the drain run. RWG 1 was found to be blocked with silt. Please refer to photo 7 within the report. The gully was cleared and was cleared using the rod and plunger.

### **Run 4: Junction within run 3 upstream to RWG 2.**

100mm PVC pipe.

No defects identified within the drain run.

There is debris gravel within the drain run which could not be cleared due to the access restrictions caused by trying to thread the jetting hose upstream of the junction.

Please refer to photos 8 to 10 within the report.

### **Run 5: I/C 2 downstream to Buried I/C 3. (Buried I/C 3) exposed by excavation.**

100mm Pitch fibre pipe.

The CCTV surveyed identified that the pitch fibre pipe is deformed along the entire length of the drain run. Please refer to photos 11 to 17 within the report.

Permission was provided by the parishioner on site to close the lid for I/C 3 and leave visible.

# **Appendix A**

## **CCTV Survey Notes**

### **Run 6: I/C 3 upstream to Vent pipe 1.**

100mm V/C pipe.

Fine roots were observed at 0.39 metres.

Please refer to photo 18 within the report.

### **Run 7: I/C 3 upstream to buried RWG 3.**

100mm V/C pipe.

No defects were identified within the drain run.

### **Run 8: I/C 3 upstream to W/C 2.**

100mm Pitch fibre and V/C Vitrified clay pipe.

Defect identified within the Vitrified clay section of pipe.

Please refer to photo 19 within the report.

### **Run 9: Junction within run 8 upstream to the internal FWG 2.**

100mm V/C pipe.

Defect identified within the drain run.

Please refer to photo 20 within the report.

### **Run 10: I/C 3 downstream to the main sewer.**

100mm V/C pipe.

No defects were identified within the drain run.

### **Run 11: I/C 4 upstream to the internal I/C 5.**

100mm V/C pipe.

No defects were identified within the drain run.

There is a connection at 3.04 metres which looks to be 50mm diameter. The operatives were unable to locate where the connection is coming from.

Please refer to photo 21 within the report.

At 10.35 metres, there is a junction within the drain run which the operatives suspect is coming from the disused yard gully.

The operatives found that the disused yard gully has been capped off with concrete.

Please refer to photos 35 and 36 within the report.

# Appendix A

## CCTV Survey Notes

### **Note.**

The operatives were unable to lift the lid of the internal I/C 5 as a work bench has been built over the chamber. The leg of the work bench is above the chamber lid.

The operatives were able to survey run 12 by threading the camera from I/C 4 through internal I/C 5 upstream to the CWG 2. The operatives were able to confirm W/C 3 discharges into SVP 1 and then into the Internal I/C 5 on a side branch. No access to survey the drain run.

### **Run 12: Internal I/C 5 upstream to the CWG 1.**

100mm V/C pipe.

Defect identified within the drain run.

Please refer to photo 22 within the report.

The operatives were able to confirm that RWP 5 discharges into CWG 1 via a black PVC 68mm pipe that runs under the concrete path.

### **Run 13: I/C 4 downstream to the main sewer.**

100mm V/C pipe.

No defects were identified within the drain run.

### **Run 14: I/C 6 main sewer upstream to buried I/C 7 under shed in Number 9 Wychelm Road.**

I/C 6 is manhole ref 4001 on the site plan provided by Thames Water. Buried I/C 7 is manhole ref 4002.

Three attempts were made to survey the drain run.

The first attempt using the crawler camera proved inconclusive due to the constant flow of water/effluent during the survey process.

The CCTV operatives were unable to gain access to I/C 7 as a shed has been built over the lid.

The CCTV operatives made a second attempt with the push rod camera upstream of I/C 6 which again proved inconclusive due to the flow of water.

As the push rod camera is considerably smaller in diameter than the crawler camera, the decision was made to record the pipe backwards as the wave effect caused by the pushing of the camera against the flow would be less when the camera is retrieved. Upon review of the CCTV footage provided during the retrieval of the camera, the sections of the sewer which show partial visibility, no structural defects were identified.

# Appendix B

## CCTV Survey Grading Sheet

|        |                              |               |     |         |       |                            |                  |
|--------|------------------------------|---------------|-----|---------|-------|----------------------------|------------------|
| Run: 1 | Dir: U/S                     | Pipe Dia(mm): | 100 | System: | F/W   | Made Of:                   | Pitch fibre/ V/C |
| From:  | I/C 1                        | Inv(m):       | 0.3 | To:     | FWG 1 | Inv(m):                    | 0.3              |
| Metres | Faults/Defects               |               |     |         |       | Internal Condition Grading | Remarks          |
| 0      | ST:                          |               |     |         |       |                            |                  |
| 0      | WL: 0%                       |               |     |         |       |                            |                  |
| 2.92   | MC: Pitch fibre to V/C       |               |     |         |       |                            |                  |
| 3.61   | LL: 15°                      |               |     |         |       |                            |                  |
| 5.23   | FH:                          |               |     |         |       |                            | FWG 1, Photo 1   |
|        |                              |               |     |         |       |                            |                  |
| Run: 2 | Dir: D/S                     | Pipe Dia(mm): | 100 | System: | F/W   | Made Of:                   | V/C Pitch fibre  |
| From:  | I/C 1                        | Inv(m):       | 0.3 | To:     | I/C 2 | Inv(m):                    | 0.4              |
| Metres | Faults/Defects               |               |     |         |       | Internal Condition Grading | Remarks          |
| 0      | ST:                          |               |     |         |       |                            |                  |
| 0      | WL: 0%                       |               |     |         |       |                            |                  |
| 0.91   | CC: 12 o'clock to 12 o'clock |               |     |         |       | Grade 2                    | Photo 2          |
| 1.6    | JDM:                         |               |     |         |       | Grade 2                    | Photo 3          |
| 1.6    | MC: V/C to Pitch fibre       |               |     |         |       |                            | Photo 3          |
| 5.87   | D: 10% deformation           |               |     |         |       |                            | Photo 4          |
| 6.9    | D: 10% deformation           |               |     |         |       |                            | Photo 5          |
| 7.73   | D: 20% deformation           |               |     |         |       |                            | Photo 6          |
| 8.06   | FH:                          |               |     |         |       |                            | I/C 2            |
|        |                              |               |     |         |       |                            |                  |
| Run: 3 | Dir: U/S                     | Pipe Dia(mm): | 100 | System: | S/W   | Made Of:                   | PVC              |
| From:  | I/C 2                        | Inv(m):       | 0.4 | To:     | RWG 1 | Inv(m):                    | 0.3              |
| Metres | Faults/Defects               |               |     |         |       | Internal Condition Grading | Remarks          |
| 0      | ST:                          |               |     |         |       |                            |                  |
| 0      | WL: 0%                       |               |     |         |       |                            |                  |
| 1.03   | JN: 3 o'clock                |               |     |         |       |                            | RWG 2            |
| 2.83   | FH:                          |               |     |         |       | Grade 1                    | RWG 1, Photo 7   |

## Appendix B

### CCTV Survey Grading Sheet

|        |                                |               |     |         |              |                            |                                    |
|--------|--------------------------------|---------------|-----|---------|--------------|----------------------------|------------------------------------|
| Run: 4 | Dir: U/S                       | Pipe Dia(mm): | 100 | System: | S/W          | Made Of:                   | PVC                                |
| From:  | Run 3                          | Inv(m):       | 0.3 | To:     | RWG 2        | Inv(m):                    | 0.3                                |
| Metres | Faults/Defects                 |               |     |         |              | Internal Condition Grading | Remarks                            |
| 0      | ST: From junction within run 3 |               |     |         |              |                            |                                    |
| 0      | WL: 0%                         |               |     |         |              |                            |                                    |
| 0.3    | DES: 10% diameter loss in pipe |               |     |         |              |                            | Photo 8                            |
| 1.09   | DES: 10% diameter loss in pipe |               |     |         |              |                            | Photo 9                            |
| 1.25   | LR: 30°                        |               |     |         |              |                            |                                    |
| 2.12   | DES: 10% diameter loss in pipe |               |     |         |              |                            | Photo 10                           |
| 3.84   | LL: 30°                        |               |     |         |              |                            |                                    |
| 4.01   | FH:                            |               |     |         |              | Refer to notes             | RWG 2                              |
|        |                                |               |     |         |              |                            |                                    |
| Run: 5 | Dir: D/S                       | Pipe Dia(mm): | 100 | System: | C/W          | Made Of:                   | Pitch fibre                        |
| From:  | I/C 2                          | Inv(m):       | 0.4 | To:     | Buried I/C 3 | Inv(m):                    | 0.7                                |
| Metres | Faults/Defects                 |               |     |         |              | Internal Condition Grading | Remarks                            |
| 0      | ST:                            |               |     |         |              |                            |                                    |
| 0      | WL: 0%                         |               |     |         |              |                            |                                    |
| 1.58   | D: 10% deformation             |               |     |         |              |                            | Photo 11                           |
| 2.35   | D: 20% deformation             |               |     |         |              |                            | Photo 12                           |
| 3.75   | D: 10% deformation             |               |     |         |              |                            | Photo 13                           |
| 5.47   | D: 20% deformation             |               |     |         |              |                            | Photo 14                           |
| 7.39   | D: 10% deformation             |               |     |         |              |                            | Photo 15                           |
| 8.46   | D: 25% deformation             |               |     |         |              |                            | Photo 16                           |
| 10.03  | D: 25% deformation             |               |     |         |              |                            | Photo 17                           |
| 11.75  | FH:                            |               |     |         |              | Refer to notes             | Buried I/C 3 exposed by excavation |
|        |                                |               |     |         |              |                            |                                    |
| Run: 6 | Dir: U/S                       | Pipe Dia(mm): | 100 | System: | F/W          | Made Of:                   | V/C                                |
| From:  | Buried I/C 3                   | Inv(m):       | 0.7 | To:     | Vent pipe 1  | Inv(m):                    | 0                                  |
| Metres | Faults/Defects                 |               |     |         |              | Internal Condition Grading | Remarks                            |
| 0      | ST:                            |               |     |         |              |                            |                                    |
| 0      | WL: 0%                         |               |     |         |              |                            |                                    |
| 0.39   | RF:                            |               |     |         |              |                            | Photo 18                           |
| 0.93   | RB:                            |               |     |         |              |                            |                                    |
| 1.24   | FH:                            |               |     |         |              | Grade 1                    | Top of the rest bend               |

# Appendix B

## CCTV Survey Grading Sheet

|        |                                |               |     |         |                |                            |                      |
|--------|--------------------------------|---------------|-----|---------|----------------|----------------------------|----------------------|
| Run: 7 | Dir: U/S                       | Pipe Dia(mm): | 100 | System: | S/W            | Made Of:                   | V/C                  |
| From:  | Buried I/C 3                   | Inv(m):       | 0.7 | To:     | Buried RWG 3   | Inv(m):                    | 0.3                  |
| Metres | Faults/Defects                 |               |     |         |                | Internal Condition Grading | Remarks              |
| 0      | ST:                            |               |     |         |                |                            |                      |
| 0      | WL: 0                          |               |     |         |                |                            |                      |
| 0      | LU: 90°                        |               |     |         |                |                            |                      |
| 0.61   | LR: 30°                        |               |     |         |                |                            |                      |
| 1.01   | FH:                            |               |     |         |                | Grade 1                    | Buried RWG 3         |
| Run: 8 | Dir: U/S                       | Pipe Dia(mm): | 100 | System: | F/W            | Made Of:                   | Pitch fibre V/C      |
| From:  | Buried I/C 3                   | Inv(m):       | 0.7 | To:     | W/C 2          | Inv(m):                    | Internal             |
| Metres | Faults/Defects                 |               |     |         |                | Internal Condition Grading | Remarks              |
| 0      | ST:                            |               |     |         |                |                            |                      |
| 0      | WL: 0%                         |               |     |         |                |                            |                      |
| 1.87   | MC: Pitch fibre to V/C         |               |     |         |                |                            |                      |
| 2.31   | JN: 3 o'clock                  |               |     |         |                |                            | Internal FWG 2       |
| 3.12   | JDM:                           |               |     |         |                | Grade 2                    | Photo 19             |
| 3.12   | RB:                            |               |     |         |                |                            |                      |
| 3.6    | FH:                            |               |     |         |                |                            | Top of the rest bend |
| Run: 9 | Dir: U/S                       | Pipe Dia(mm): | 100 | System: | F/W            | Made Of:                   | V/C                  |
| From:  | Junction                       | Inv(m):       | 0.6 | To:     | Internal W/C 2 | Inv(m):                    | 0.4                  |
| Metres | Faults/Defects                 |               |     |         |                | Internal Condition Grading | Remarks              |
| 0      | ST: From junction within run 8 |               |     |         |                |                            |                      |
| 0      | WL: 0%                         |               |     |         |                |                            |                      |
| 0.28   | JDL:                           |               |     |         |                | Grade 3                    | Photo 20             |
| 0.34   | FH:                            |               |     |         |                |                            | Internal FWG 2       |

## Appendix B

### CCTV Survey Grading Sheet

|         |                             |               |                   |         |                |                            |                                 |
|---------|-----------------------------|---------------|-------------------|---------|----------------|----------------------------|---------------------------------|
| Run: 10 | Dir: D/S                    | Pipe Dia(mm): | 100               | System: | C/W            | Made Of:                   | V/C                             |
| From:   | Buried I/C 3                | Inv(m):       | 0.7               | To:     | Main sewer     | Inv(m):                    | 1                               |
| Metres  | Faults/Defects              |               |                   |         |                | Internal Condition Grading | Remarks                         |
| 0       | ST:                         |               |                   |         |                |                            |                                 |
| 0       | WL: 0%                      |               |                   |         |                |                            |                                 |
| 0.9     | JN: 12 o'clock              |               |                   |         |                |                            | W/C 1                           |
| 2.27    | LD: 30°                     |               |                   |         |                |                            |                                 |
| 2.27    | LR: 30°                     |               |                   |         |                |                            |                                 |
| 2.87    | FH:                         |               |                   |         |                | Grade 1                    | Main sewer                      |
|         |                             |               |                   |         |                |                            |                                 |
| Run: 11 | Dir: U/S                    | Pipe Dia(mm): | 100               | System: | C/W            | Made Of:                   | V/C                             |
| From:   | I/C 4                       | Inv(m):       | 1.1               | To:     | Internal I/C 5 | Inv(m):                    | Unable to confirm               |
| Metres  | Faults/Defects              |               |                   |         |                | Internal Condition Grading | Remarks                         |
| 0       | ST:                         |               |                   |         |                |                            |                                 |
| 0       | WL: 0%                      |               |                   |         |                |                            |                                 |
| 3.04    | CN: 12 o'clock              |               |                   |         |                |                            | Unable to identify, Photo 21    |
| 10.35   | JN: 12 o'clock              |               |                   |         |                |                            | Suspect from disused yard gully |
| 10.91   | FH:                         |               |                   |         |                | Grade 1                    | Internal I/C 5                  |
|         |                             |               |                   |         |                |                            |                                 |
| Run: 12 | Dir: U/S                    | Pipe Dia(mm): | 100               | System: | C/W            | Made Of:                   | V/C                             |
| From:   | Internal I/C 5              | Inv(m):       | Unable to confirm | To:     | CWG 1          | Inv(m):                    | 0.4                             |
| Metres  | Faults/Defects              |               |                   |         |                | Internal Condition Grading | Remarks                         |
| 0       | ST:                         |               |                   |         |                |                            |                                 |
| 0       | WL: 10% Running water       |               |                   |         |                |                            |                                 |
| 0.02    | FC: 10 o'clock to 5 o'clock |               |                   |         |                | Grade 3                    | Photo 22                        |
| 1.78    | FH:                         |               |                   |         |                |                            | CWG 1                           |

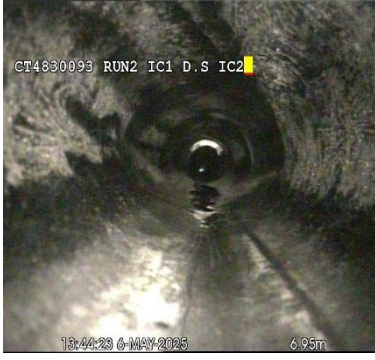
## Appendix B

### CCTV Survey Grading Sheet

|         |                                              |               |     |         |             |                            |                                           |
|---------|----------------------------------------------|---------------|-----|---------|-------------|----------------------------|-------------------------------------------|
| Run: 13 | Dir: D/S                                     | Pipe Dia(mm): | 100 | System: | C/W         | Made Of:                   | V/C                                       |
| From:   | I/C 4                                        | Inv(m):       | 1.1 | To:     | Main sewer  | Inv(m):                    | 1.4                                       |
| Metres  | Faults/Defects                               |               |     |         |             | Internal Condition Grading | Remarks                                   |
| 0       | ST:                                          |               |     |         |             |                            |                                           |
| 0       | WL: 0%                                       |               |     |         |             |                            |                                           |
| 0       | LD: 30°                                      |               |     |         |             |                            |                                           |
| 0.71    | FH:                                          |               |     |         |             | Grade 1                    | Main sewer                                |
|         |                                              |               |     |         |             |                            |                                           |
| Run: 14 | Dir: U/S                                     | Pipe Dia(mm): | 150 | System: | Foul Sewer  | Made Of:                   | V/C                                       |
| From:   | I/C 6                                        | Inv(m):       | 1.2 | To:     | Buried IC 7 | Inv(m):                    | 1.4                                       |
| Metres  | Faults/Defects                               |               |     |         |             | Internal Condition Grading | Remarks                                   |
| 0       | ST: At I/C 6                                 |               |     |         |             |                            |                                           |
| 0       | WL: 50%                                      |               |     |         |             |                            |                                           |
| 0       | CU:                                          |               |     |         |             |                            |                                           |
| 55.18   | SA: Picture inconclusive                     |               |     |         |             | Refer to notes             |                                           |
|         |                                              |               |     |         |             |                            |                                           |
| Run: 14 | Dir: U/S                                     | Pipe Dia(mm): | 150 | System: | Foul Sewer  | Made Of:                   | V/C                                       |
| From:   | Sewer                                        | Inv(m):       | 1.2 | To:     | I/C 6       | Inv(m):                    | 1.4                                       |
| Metres  | Faults/Defects                               |               |     |         |             | Internal Condition Grading | Remarks                                   |
| 55.18   | ST: Recorded back from 55.18 metres to I/C 6 |               |     |         |             |                            |                                           |
| 55.18   | WL: 100%                                     |               |     |         |             |                            |                                           |
| 54.62   | WL: 25%                                      |               |     |         |             |                            |                                           |
| 51.07   | CU:                                          |               |     |         |             |                            |                                           |
| 50.25   | WL: 25%                                      |               |     |         |             |                            |                                           |
| 49.7    | GO: Buried I/C 7                             |               |     |         |             |                            |                                           |
| 46.5    | JN: 10 o'clock                               |               |     |         |             |                            | Unable to confirm (Suspect from number 8) |
| 36.6    | CU:                                          |               |     |         |             |                            |                                           |
| 34.73   | WL: 50%                                      |               |     |         |             |                            |                                           |
| 28.87   | JN: 10 o'clock                               |               |     |         |             |                            | I/C 4                                     |
| 16.28   | JN: 10 o'clock                               |               |     |         |             |                            | I/C 3                                     |
| 14.5    | WL: 75%                                      |               |     |         |             |                            |                                           |
| 0       | FH:                                          |               |     |         |             |                            | I/C 6                                     |

# Appendix C

## Photographs

|                                                                                                                  |                                                                                                                  |                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <p><b>Photo 1: Run 1</b></p>    | <p><b>Photo 2: Run 2</b></p>    | <p><b>Photo 3: Run 2</b></p>    |
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| <p><b>Photo 7: Run 3</b></p>  | <p><b>Photo 8: Run 4</b></p>  | <p><b>Photo 9: Run 4</b></p>  |

# Appendix C

## Photographs

|                                                                                                                   |                                                                                                                   |                                                                                                                     |
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| <p><b>Photo 10: Run 4</b></p>    | <p><b>Photo 11: Run 5</b></p>    | <p><b>Photo 12: Run 5</b></p>    |
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# Appendix C

## Photographs

|                                                                                                                    |                                                                                                                  |                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <p><b>Photo 19: Run 8</b></p>     | <p><b>Photo 20: Run 9</b></p>   | <p><b>Photo 21: Run 11</b></p>  |
| <p><b>Photo 22: Run 12</b></p>  | <p><b>Photo 23: RWG1</b></p>  | <p><b>Photo 24: RWG2</b></p>  |
| <p><b>Photo 25: RWP1</b></p>    | <p><b>Photo 26: RWP2</b></p>  | <p><b>Photo 27: RWP3</b></p>  |

# Appendix C

## Photographs

|                                                                                                                                |                                                                                                                                |                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Photo 28: RWP4</b></p>                  | <p><b>Photo 29: Vent Pipe 1</b></p>           | <p><b>Photo 30: Buried RWG3</b></p>                       |
| <p><b>Photo 31: Exposed Buried IC3</b></p>  | <p><b>Photo 32: FWG1</b></p>                | <p><b>Photo 33: IC2</b></p>                             |
| <p><b>Photo 34: I/C 1</b></p>               | <p><b>Photo 35: disused yard gully</b></p>  | <p><b>Photo 36: Location of disused yard gully</b></p>  |

## Appendix C

### Photographs

**Photo 37: IC 4**



**Photo 38: Internal IC 5**



**Photo 39: IC 6 Main sewer**



**Photo 40 W/C2 & Internal FWG 2**



## **Appendix D**

### **Recommendations**

The following recommendations have been provided based on the CCTV findings.

Geocore would advise that all the pitch fibre pipe identified from the CCTV should be excavated and replaced. The drain runs affected are runs 1, 2 and 5.

No recommendations have been provided for the drainage to the house.

Recommendations for drainage serving the church.

#### **Run 8: I/C 3 upstream to W/C 2 & Run 9: Junction within run 8 and FWG 2.**

Remove W/C 2 for access to install a specialist pencil patch repair. Excavate and replace FWG 2, pipe and junction that links run 9 to run 8.

The RWP's around the church should be checked to ascertain if the pipes are connected to soak-aways. Geocore would advise that this should be checked during the proposed design element of the buildings due to be demolished behind the church. It is highly likely that the surface water drainage from the new buildings would not be allowed to discharge into the existing Foul sewer network. A separate surface water drainage designed under SUDS may be required which could also utilise the existing RWP's.

## Appendix E

### Drain Repair Caveats

-  With any repair process, there is often complications and unforeseen circumstances that may arise. These scenarios will be reported by the drainage technicians whilst on site and could potentially cause an increase in repair costs. The client will always be made aware of any unforeseen circumstances, and no additional costs will be added without authorisation.
-  Where any excavation and reinstatement of the surface is required the drainage technicians will always attempt to match the previous surface patterns and colouring, however this cannot always be achieved due to the age of the existing ground materials. This would refer to concrete, tarmac, grass and flagstones. The weather can also be a contributing factor both during the excavation and the time of the reinstatement. Geocore cannot guarantee an exact match. Geocore do not provide reinstatement for patterned concrete or resin drives as this requires a specialist contractor, and should be agreed with both the policy holder for insurance work, and the client prior to commencement of drain repairs or the CCTV investigation.
-  The installation of a standard soak-away, that is included within the Geocore schedule of rates, is constructed to dimensions specified within the NHBC guidelines for small soak-aways. The soak-away is generally located 5 metres from any foundation built building (should site constraints permit), and is constructed to provide adequate short term surface water storage and percolation into the surrounding ground. A small soak-away is built to 1m3 and is usually of sufficient capacity to accommodate average rainfall from an average surface area of roof space. Geocore would always recommend that the ground in which either the existing soak-away or proposed location of a new soak-away, has had a percolation test prior to the installation of any new drainage.
-  It is the responsibility of the local water authority to attend site and clear any blockages that have been identified on a shared system and deemed a water authority asset. Additional costs for any loss of time on site will be charged to the client if Geocore have attended site to undertake either drain repairs or a CCTV investigation.
-  If a drainage repair or CCTV investigation visit has been confirmed with a client or policy holder which has resulted in Geocore attending site but not able to undertake the schedule of works, then an aborted visit charge will be added to the final invoice and the client made aware.
-  The relining of a drain is often used within the recommendation section of the report as structural method of repair. This process combines a number of chemicals that are impregnated into the felt lining and then inserted into the drain. The lining is then inverted using an air machine which is set to the correct pressure to allow the lining to bond to the existing pipe. This method of repair is the most cost effective currently on the market. Due to the use of the chemicals during the installation of the lining repair, the chemicals will emit a strong odour that can last up to 72 hours in worse cases. Every effort is made by Geocore to minimise the smell by venting the drainage after the drain repair. The smell is not harmful and any internal areas in which the lining has been installed should be ventilated until the odour subsides.
-  Geocore cannot be held accountable for adverse weather conditions that may cause surcharging.

## **Appendix F**

### **Guarantee**

Upon completion of drainage repairs a standard 12 month guarantee is provided. If drainage becomes surcharged within the twelve months Geocore will attend site to investigate. If the cause of the blockage is not as a result of any previous repair work undertaken by Geocore then the work will be chargeable under the company schedule of rates.

It is the responsibility of the client or homeowner to ensure the drainage system is periodically inspected and free flowing. Geocore would advise wet wipes or similar cleaning materials are not flushed into the system. If evidence of any wet wipes or similar is found within the system and causing an obstruction, the work would be chargeable under the company schedule of rates and this may potentially deem the guarantee void.

# Appendix G

## Key Codes

### Site Plan Key

- Red – Shared or Main Sewer    Blue – Surface Water    Black – Foul Water or Combined
-  RWG / SWG / YG - Rain Water Gully / Surface Water Gully / Yard Gully
-  FWG / CWG – Foul Water Gully / Combined Water Gully
-  R/E - Rodding Eye                       Surveyed Drain Run                       Unsurveyed Drain Run
-  Interceptor                       SVP, VP, FWP, WC – Soil Vent Pipe, Vent Pipe, Foul Water Pipe
-  RWP – Rain Water Pipe                       TP - Trial Pit                       TPBH – Trial Pit Bore Hole
-  Boundary Line

### Drainage Key (1)

| Condition Grades for Clayware, Concrete and Plastic Sewer Pipes                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5                                                                                                                                   | Already collapsed<br>Deformation >10% and broken<br>Extensive areas of fabric missing<br>Fracture with deformation >10%                                                                                                                                                                                                                                                                         |
| 4                                                                                                                                   | Broken<br>Deformation >10% and broken<br>Fracture with deformation 6-10%<br>Multiple fracture<br>Serious loss of level<br>Serious joint defects with voids or soil visible (open joint with >50mm soil of void visible or joint displacement >25% diameter)<br>Surface damage- spalling large (entire surface of brick missing)<br>Surface damage- wear large (entire surface of brick missing) |
| 3                                                                                                                                   | Fracture with no deformation or deformation <5%<br>Longitudinal cracking with or multiple cracking<br>Minor loss of level<br>Severe joint defects, i.e. open joint (large) or displaced joint (large)<br>Surface damage- spalling medium (large areas of chipped brick)                                                                                                                         |
| 2                                                                                                                                   | Circumferential crack<br>Moderate joint defects, i.e. open joint (medium) or displace joint (medium)<br>Surface damage- spalling slight (small fragments breaking away)                                                                                                                                                                                                                         |
| 1                                                                                                                                   | No or slight structural defects                                                                                                                                                                                                                                                                                                                                                                 |
| Note: Deformed sewers that have subsequently been relined with structural lining can normally be considered to have no deformation. |                                                                                                                                                                                                                                                                                                                                                                                                 |

## Key (2)

| Code | Description                                                     |
|------|-----------------------------------------------------------------|
| B    | Broken pipe at/from __ to __ o'clock                            |
| CC   | Crack circumferential from __ to __ o'clock                     |
| CL   | Crack longitudinal at __ o'clock                                |
| CM   | Cracks multiple from __ to __ o'clock                           |
| CN   | Connection at __ o'clock, diameter is __ mm                     |
| CNI  | Connection as __ o'clock, diameter is __ mm, intrusion at __ mm |
| CU   | Camera underwater                                               |
| CX   | Connection defective at __ o'clock                              |
| D    | Deformed sewer __%                                              |
| DC   | Dimension of sewer changes at this point                        |
| DE   | Debris (non-silt/grease) __% cross-sectional loss               |
| DEG  | Debris grease __% cross sectional area loss                     |
| DES  | Debris silt __% cross-sectional area loss                       |
| FC   | Fracture circumferential from __ to __ o'clock                  |
| FL   | Fracture longitudinal at __ o'clock                             |
| FM   | Fractures longitudinal at __ o'clock                            |
| GO   | General observations at this point                              |
| H    | Hole in sewer at __ o'clock                                     |
| JDM  | Joint displaced medium                                          |
| JDL  | Joint displaced large                                           |
| JN   | Junction at __ o'clock, diameter __ mm                          |
| JX   | Junction defective as __ o'clock, diameter __ mm                |
| LC   | Lining of sewer changes/starts/finishes at this point           |
| LD   | Line of sewer deviates down                                     |
| LL   | Line of sewer deviates left                                     |
| LR   | Line of sewer deviates right                                    |
| LU   | Line of sewers deviates up                                      |
| MC   | Material of sewer changes at this point                         |
| MH   | Manhole/node                                                    |
| OB   | Obstruction __% height/diameter loss                            |
| OJL  | Open joint large                                                |
| OJM  | Open joint medium                                               |
| RFJ  | Roots fine (at joint)                                           |
| RMJ  | Roots mass __% cross-sectional area loss (at joint)             |
| RTJ  | Roots tap (at joint)                                            |
| SA   | Survey abandoned                                                |
| WL   | Water level % height/diameter                                   |
| X    | Sewer collapsed __% cross sectional area loss                   |
| FH   | End of survey                                                   |