

DRAINAGE SURVEY REPORT

**142 – 144 FRIAR STREET
1 – 11 QUEEN VICTORIA STREET
READING**

On behalf of

**Thackeray Estates Reading City Ltd
C/o Mr Cameron Mitchell
Queripel House
1 Duke of York Square
London
SW3 4LY**

Date: 20th July 2022

Job No: 220631 / db

Prepared by: Andy Hill

C J Uden & Co.

Drainage Consultants & Surveyors

The Old Builders Yard, 52 – 53 Dene Street, Dorking, Surrey, RH4 2DP

Telephone: 01306 882495 Email: contact@cjuden.co.uk

Dear Mr Moore

Re: 142 – 144 Friar Street & 1 – 11 Queen Victoria Street, Reading

Further to your recent instructions we attended at the above on the 28th June 2022 to carry out a CCTV survey of the drainage as detailed on the enclosed sketch plan.

We would report as follows; all measurements in metric and approximate all materials assumed to be clay unless noted otherwise.

Foul Water Manhole 1 (Interceptor)	Thames Water Manhole Fife Court
	Depth 1900 Silt Level Face Brickwork
	150 Clayware Channel

2 No Inlets

150mm	Upstream – Foul Water Manhole 5 and 4A – Invert Level 1900
100mm	Left Hand Branch High Level – Rainwater Downpipe – Invert Level 300

Trap blocked with silt. Movement to top course brickwork.
Manhole size: 680 x 800. Cover size: 630 x 790.

Run 1 Foul Water Manhole 1 – Downstream (Clayware)

0.00	DEE	Attached deposits, scale starts
0.18		Passes over trap, trap severely blocked
0.46	JDS	Joint displaced small
1.10	JDS	Joint displaced small
1.24	JN	Junction 10 o'clock, use not known
1.70	DEE	Attached deposits, severe scale starts
1.93	LR	Line of drain bends right slight
4.19	JDS	Joint displaced small
4.74	JDS	Joint displaced small
5.43	JDS	Joint displaced small
6.90	JDS	Joint displaced small
9.43	JDS	Joint displaced small
10.12	JDS	Joint displaced small
11.68	OFF	Outfall joins main sewer

Foul Water Manhole 2 (Interceptor)	Thames Water Manhole Queen Street
	Depth 3400 Face Brickwork
	255 Clayware Channel

1 No Inlet

225mm Upstream – Not Inspected – Invert Level 3350

Fitted with chain on rodding eye. Cap rusted in place.
Manhole size: 560 x 560. Cover size: 550 x 550.

**Foul Water
Manhole 3
(Interceptor)**

Depth 100 Face Brickwork
100 Clayware Channel

3 No Inlets

100mm	Upstream – Possibly Capped Off – Invert Level 950
100mm	Left Hand Branch 1 – Presumed Internal Waste Gully – Invert Level 800
100mm	Left Hand Branch 2 – Presumed Internal Soil Stack – Invert Level 800

Blocked on inspection. Cover and frame rusted.
Manhole size: 480 x 600. Cover size: 500 x 660.

Run 2

Foul Water Manhole 3 – Downstream (Clayware)

0.00	DEE	Attached deposits, scale starts
0.18		Passes over trap, trap severely scaled
0.69	LD	Bend down
1.10		Unable to push further discharging onto main sewer run discharging down to foul water manhole 1

Run 3

Foul Water Manhole 3 – Left Hand Branch 1 (Clayware)

0.00	DEE	Attached deposits, scale starts
0.37	FC	Circumferential fracture
0.46	JN	Junction 3 o'clock, use not known, object in outlet
0.64	FC	Circumferential fracture
	JDS	Joint displaced small
0.74	LL	Line of drain bends left
1.15		Presumed internal gully

Run 4

Foul Water Manhole 3 – Left Hand Branch 2 (Clayware)

0.00	JDS	Joint displaced small
0.14	JDS	Joint displaced small
	DEE	Attached deposits, scale starts
1.38	JN	Junction 3 o'clock
1.98	WL	Water level 10%
2.16	JN	Junction 9 o'clock
4.97	LU	Line of drain bends up
5.11		Presumed internal soil stack

Run 5 Foul Water Manhole 3 – Upstream (Clayware)

0.09	JDS	Joint displaced small
0.32	JN	Junction 9 o'clock
	OBX	Other object, waste 40%
1.93	DEE	Attached deposits, severe scale starts
	FC	Circumferential fracture
	JDS	Joint displaced small
2.25	FC	Circumferential fracture open
2.62		Possibly capped off with concrete

Foul Water Manhole 4 (Interceptor) Depth 1000 Fully Rendered
100 Clayware Channel

4 No Inlets

100mm	Upstream – Soil Stack – Invert Level 980
100mm	Left Hand Branch – Internal Manhole – Invert Level 890
100mm	Right Hand Branch – Gully – Invert Level 920
100mm	High Level Branch – Possible Channel Drain – Invert Level 380

Blocked on inspection.

Manhole size: 600 x 450. Cover size: 510 x 660.

Run 6 Foul Water Manhole 4 – Downstream (Clayware)

0.00	LD	Bend down
0.14		Bend pipe levels out
0.41	WL	Water level slight
0.74		Enters foul water manhole 4A, unable to lift cover
1.10		Drops into channel
1.47		Enters discharging pipework
2.12	WL	Water level slight
2.35	JN	Junction 9 o'clock
	DES	Settled deposits, shingle
6.26	JN	Junction 9 o'clock
10.17	DEE	Attached deposits, heavy scale
10.63	JDS	Joint displaced small
11.22	WL	Water level slight
	DES	Settled deposits
11.32	JDS	Joint displaced small
11.32	WL	Water level 20%
	JN	Junction 9 o'clock
11.96	CUW	Loss of vision
13.98	OBX	Other object, waste
	FL	Longitudinal fracture
14.35	FM	Multiple fractures
15.18	FM	Multiple fractures
	WL	Water level slight
15.69	WL	Water level 20%

15.96	JDS	Joint displaced small
	WL	Water level slight
16.65	JDS	Joint displaced small
17.11	CUW	Loss of vision
20.56	MHF	Foul water manhole 1

Run 7 Foul Water Manhole 4 – Left Hand Branch (Clayware)

0.00	DEE	Attached deposits, slight scale starts
0.32	JDS	Joint displaced small
1.20	JDS	Joint displaced small
3.31	FC	Circumferential fracture
3.40	JDS	Joint displaced small
3.73	MHF	Foul water manhole internal of public house

Run 8 Foul Water Manhole 4- Right Hand Branch (Clayware)

0.18	JDS	Joint displaced small
	FC	Circumferential fracture open
0.32	LU	Line of drain bends up
0.92	GYF	Gully

Run 9 Foul Water Manhole 4 – Upstream (Clayware)

0.00	DEE	Attached deposits, scale starts
0.14	FC	Circumferential fracture
0.55	JDS	Joint displaced small
1.24	H	Hole in drain 12 o'clock – 2 o'clock
	JN	Junction 3 o'clock
	FM	Multiple fractures
1.70	LL	Line of drain bends left
	JN	Junction 9 o'clock
3.31	FC	Circumferential fracture
	JDS	Joint displaced small
3.82	JN	Junction 9 o'clock
6.07	JDS	Joint displaced small
6.26	JDS	Joint displaced small
6.44	LU	Line of drain bends up
6.90		Soil stack (internal) public house

Run 10 Foul Water Manhole 4 – High Level Branch (Clayware)

0.05	OBX	Other object, debris 100%, use not known
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Foul Water Manhole 5 Depth 1150 450 uPVC
100 uPVC Channel

3 No Inlets

100mm Upstream – Not Inspected – Invert Level 1150
100mm Left Hand Branch 1 – Not Inspected – Invert Level 1050
100mm Left Hand Branch 2 – Not Inspected – Invert Level 1050

Generally satisfactory.
Manhole size: 450 diameter. Cover size: 500 x 500.

Foul Water Manhole 6 Depth 960 Fully Rendered
150 – 100 Tapered Clayware Channel

3 No Inlets

100mm Upstream – Not Inspected – Invert Level 950
100mm Left Hand Branch – Not Inspected – Invert Level 880
100mm Right Hand Branch – Not Inspected – Invert Level 900

Channel scaled.
Manhole size: 600 x 480. Cover size: 540 x 680.

Foul Water Manhole 4A Unable to Lift

Foul Water Manhole 7 Unable to Lift

Conclusions: The results of the CCTV survey highlight areas where the drainage requires attention. We would therefore recommend the following in accordance with our standard definitions.

	Further to our recent site visit we would note that foul water manhole 1 would be the responsibility of Thames Water to unblock the trap and clear / repair all runs within this section of the drainage system which is a combined drainage system. We were unable to CCYV survey foul water manhole 2 which is the Thames Water sewer manhole in Queen Street which is quite deep and has a rodding eye cap on chains which was found to be severely corroded and due to the cover size would restrict access for a confined spaces entry. Upon inspection to the rear of the Opticians we found the channel drain and yard gully was completely full of silt and debris this discharges to the nearby soakaway. Also the pump chamber from the adjacent shop also discharges over the channel drain which should be emptied and high pressure jetted to clear.

	There were some manhole chambers around the various units that we were unable to lift including foul water manhole 7 and would need to be lifted using hydraulic lifters and a breaker.
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We trust the above meets with your requirements and look forward to receiving your further instructions. If we can be of any further assistance, please do not hesitate to contact us.

Yours sincerely

Andy Hill
For and on behalf of
C J Uden & Co

47110CE

Swomit

Ⓟ Soakaway

Depth 1750 to silt level

Channel drain

0 Y9

P7

Channel ± Y9

Pump chamber
discharging over channel

Ⓟ Soakaway

silt level

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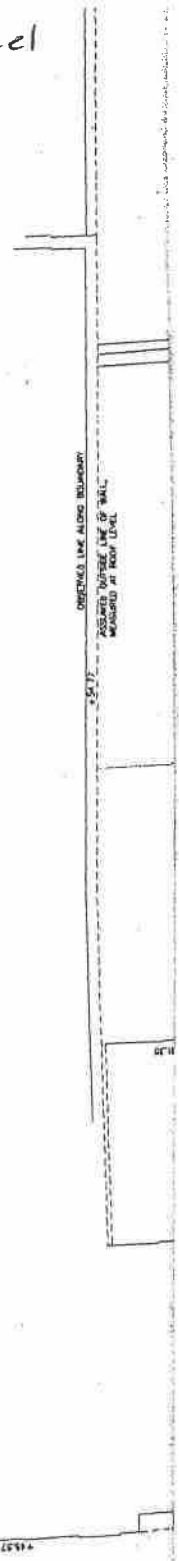
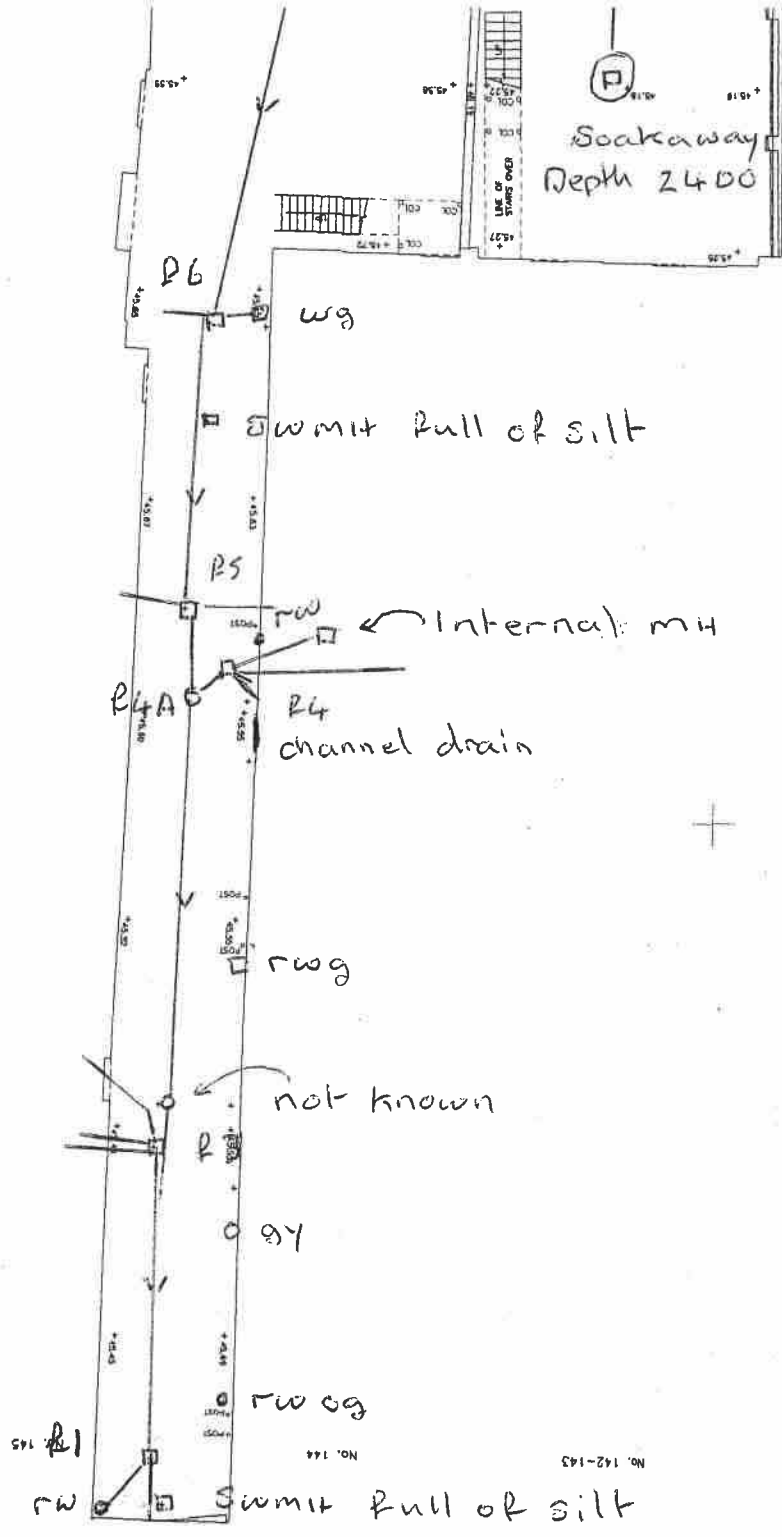
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1 pump channel
discharging over channel

Soakaway
Depth 2400 to silt level



TERMS AND CONDITIONS

This estimate / report and any subsequent estimate / report is subject to:

1. Your written acceptance within 14 days, after which time it is subject to our final confirmation. Admission of the company's employees, materials or plant on to site will constitute unconditional acceptance of this estimate in accordance with our General Notes/Conditions & Assumptions/Terms & Conditions of Business/Contract & Specifications, copies of which are available on request. Due to the volatility of material prices if there are significant increases between the time of tender and the materials being purchased we reserve the right to pass these increase on to the client.
2. Any additional items of work undertaken which are not mentioned in the preceding estimate to be charged as extra.
3. When drain lining works are being carried out, it is assumed that the lining operation can be carried out using normal practises, without obstructions, problems with inflating of inversion tubes, twisting of the liner or other unusual occurrences.
4. **Unforeseen Circumstances**
 - a. In the unlikely event that damage is caused to underground cables or services or where these require moving or repairing to allow work to be carried out, any works required would be charged as an extra.
 - b. No asbestos or other contaminated materials will be found and no allowance has been made for dealing with the same.
 - c. Any excavations will be free from any encumbrances (ie drain, pipes, cables, ducts, voids, tanks, soakaways, water-courses, old foundations etc) unless previously informed in writing.
5. In the unlikely event that damage is caused to underground cables or services or where these require moving or repairing to allow work to be carried out, any works required would be charged as an extra.
6. Free access to electricity, water supplies and wc as necessary.
7. Payment terms as our standard Terms & Conditions unless otherwise agreed in writing. All invoices will be raised on completion of the site works and full payment will be required before issuing the report.
8. All works unless otherwise stated are covered by our standard one year guarantee. For a one off payment a ten-year insurance backed guarantee scheme can be offered on most works.
9. All prices are subject to VAT at the current rate.
10. **Customer Cancellation Rights**

Having instructed us to undertake the works you have a legal right to cancel the contract, within 14-calendar days starting on the day of instruction. Cancellation should be communicated in writing, by email or delivered in person. If posting a certificate of posting or record delivery slip should be obtained. We would recommend that you take a copy of the cancellation notice before returning it to us and get a confirmation of receipt from us. The notice of cancellation should confirm your name, address, contract reference / job reference / order number a description of the contract and amount of the contract. If you have agreed that work will commence before the 14-day cancellation period expires and you subsequent cancel in accordance with your rights, you are advised that reasonable payment may be due for any work carried out. Instructing us to carry out works prior to the end of the 14-day cancellation period will be deemed as confirmation that you are happy for these works to be carried out before expiry of the cancellation period.

STANDARD DEFINITIONS

CCTV INSPECTION

Detailed drainage inspection recorded on video, using remote CCTV technology, accurately plots defects and locates hidden branch connections, chambers etc providing information to assess necessary remedial works.

DRAIN TRACING

Using electronic radio detection equipment to locate pipes and determine route of runs, where possible.

HYDRAULIC/AIR PRESSURE TESTING

Carried out either in conjunction with CCTV inspection, or separately if required and indicates whether pipe runs are watertight.

HIGH PRESSURE WATER JETTING

Removes silt, debris etc from pipe runs and manhole chambers to assist free flow of waste. Clears most blockages effectively and thoroughly.

DRAIN SCOURING

Pipe runs cleared by electric scouring machine, removing root growth, scale, fat deposits etc improving flow rate/capacity and reducing the risk of blockages.

PROGRAMMED MAINTENANCE

Regular high pressure cleaning, at agreed intervals, of pipe runs, gullies, channel drains and manhole chambers. Emptying of large gullies, petrol interceptors, grease traps etc by tanker including duty of care disposal of collected waste.

DRAIN RELAYING/REPAIRING

Replacing defective drainage with new uPVC pipework surrounded and bedded in pea shingle with all necessary gullies, rest bends etc. Excavations backfilled and surface finishes reinstated to match the existing as near as possible.

IN-SITU RELINING

Sleeving existing defective drain runs with resin impregnated liners to make watertight and reduce the risk of root damage.

Notes and Assumptions / Terms & Conditions of Engagement

Maximum pipe diameter of 200mm with access at 40m intervals, should this not be the case then a remote tractor CCTV unit may be required at an extra cost. This will be brought to the attention of the client and any additional costs involved will be agreed before proceeding further.

No allowance has been made for confined space working and if necessary/required at an extra costs. This will be brought to the attention of the client and any additional costs involved will be agreed before proceeding further.

Accessible sections of drains only to be surveyed.

High pressure jetting to be carried out prior to CCTV surveying to facilitate surveying only but not to remove scale, debris or roots etc and all runs assumed to be clear and free flowing.

Allowance to hand mark-up drawings provided by client for the client to add to CAD drawings or to produce sketch layout drawings as appropriate.

All works to be carried out during normal working hours with unhindered/unrestricted access. Should works be required out of normal working hours or should work be required on the Highway or other areas that necessitate traffic management, bandsman etc then further charges will be raised. This will be brought to the attention of the client and any additional costs involved will be agreed before proceeding further.

It is assumed that no areas of contamination are present and no liability howsoever arising in connection with contamination will be accepted.

Private drains only are to be surveyed down to the assumed main connections / outfall.

It is assumed that all working areas will be free and safe from unreasonable hazards, if this is not the case then these areas will not be entered into. The senior operative on site's decision will be final.

It is assumed that acceptable water supplies are available, i.e. mains connected taps and no allowance has been made for water bowzers.

The service provided will be/was based on an inspection as described below and the operative carrying out the inspection will provide/has provided:-

A report on the general condition of the accessible drainage, attempting to identify any significant defects and repairs essential at the time of the inspection and where appropriate providing costings/budgets for the remedial works.

The report will not purport to express an opinion about or to advise upon the condition of un-inspected sections and should not be taken as making any implied representation or statement about such parts, minor defects which the surveyor considers do not affect the condition of the drains may not be detailed. If the report does refer to some minor defects this does not imply that the drains are free from other such defects.

The report is provided for the sole use of the named clients and is confidential to them and their professional advisors to assist them in any decision that they have to make with regard to maintenance or repair and no responsibility/liability howsoever arising is accepted as a result of the production of this report and due to the difficulties and restrictions in carrying out drain surveys E & O.E.

It cannot be guaranteed that all sections of below ground drains can be accessed/inspected or that depending on the condition of the drains further works will not be necessary (i.e. scouring, jet vac unit attendance, pumping etc, the use of standard van pack/trailer jetting units only has been allowed for) to enable a full inspection to be carried out. Such extra works will be brought to the attention of the client and any additional costs involved will be agreed before proceeding further.

The above is based on the assumption that all grills, grids, chambers, slabs etc can be lifted / accessed, set aside and replaced without the necessity for repair, replacement or specialist equipment.

Although every effort will be made to provide the inspection and a meaningful report, should this not prove possible due to circumstances outside of our control (no access, aborted call, abandoning of survey etc) then charges will be raised for the time incurred at the standard hourly rate.

Cancellation of the survey will need to be in writing, fax/e-mail and acknowledged at least 48 hours prior to the appointment date failing which we reserve the right to raise a cancellation charge.

All invoices will be raised on completion of the site works and full payment will be required before issuing the report.