



Metro Rod Deeside
Unit 27 Drome Road
Zone 1 Deeside Industrial Park
Deeside
Flintshire
CH5 2NY

2nd November 2016

CCTV SURVEY REPORT

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| Client: | Crawford and Co / NFU Mutual Insurance Society |
| Site Address: | Ash Hill House, Rode Street, Tarporley, CW6 0EF |
| Job Number: | 220108 |
| Date of Survey: | 25 th October 2016 |
| Additional Ref: | |

Summary of Works

The engineers attended site and carried out repair works including:

- Excavation, CCTV investigation and subsequent blanking of x2 redundant drains believed to be partially linked to ground subsidence issues nr. to SW 1 (main complaint)
- Removal of all loose fill aggregates believed from previous drainage alteration/installation works, backfill with compacted MOT and re-surfacing with concrete (main complaint)
- Rechannelling/benching of SW 1 to remove previously disused lines
- Excavation and replacement of approx.. 11mts of drain from SW 1 to SW 3 including reinstatement of ground as original condition (alternative to lining works due to feasibility)
- Investigation of downstairs WC (nr kitchen) and clearance of blockage with further CCTV works establishing that the blockage is likely due to an awkward arrangement of pipe work near to MH 3 where the toilet discharges to

CCTV Survey Findings

Please see our included iTouch Report which details condition of pipe, pipe length, pipe diameters, manhole depths, construction materials and also included Site Plan detailing drainage layout.

We would advise the following works are required:

Section 1/ SW 3 to SW 4 – This line has minor cracks/fractures only which are unlikely to cause any issues at the current time but may deteriorate in the future. Metro Rod would be happy to supply a cost for these works on request if covered by the policy.

Please note, the line ideally requires cleaning to ensure serviceability in the short term (specifically if cottage was to become occupied) however, this would not fall under any form of damage claim.

Section 2/ SW 4 to SW 5 - This line has minor cracks/fractures only which are unlikely to cause any issues at the current time but may deteriorate in the future. Metro Rod would be happy to supply a cost for these works on request if covered by the policy.

Please note, the line ideally requires cleaning to ensure serviceability in the short term (specifically if cottage was to become occupied) however, this would not fall under any form of damage claim.

Section 3/ SW 5 to SW 6 – This line is in good condition. A relatively minor displaced joint does exist however, this is with flow and will not cause any drainage issues.

Section 4/ SW 3 to Branch A – This line appears to be redundant and ideally requires capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

See SW 3 comments.

Section 5/ SW 3 to Branch B – This line appears to be redundant and ideally requires capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

See SW 3 comments.

Section 6/ SW 3 to Branch C – This line appears to be redundant and ideally requires jetting clear to confirm/capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

See SW 3 comments.

Section 7/ SW 3 to Source – This line appears to be redundant and ideally requires capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

See SW 3 comments.

Section 8/ SW 3 to Branch D - This line has minor cracks/fractures only which are unlikely to cause any issues at the current time but may deteriorate in the future. Metro Rod would be happy to supply a cost for these works on request if covered by the policy.

Section 9/ SW 3 to Branch E – This line appears to be redundant and ideally requires capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

See SW 3 comments.

Section 10/ SW 4 to Branch A – This line has a substantial hole within the drain which is located under the barn footprint and is serving the toilets. We would advise that this is repaired utilising a 100mm x 1000mm LSR patch liner to prevent further deterioration/blockages from occurring. The cost of these works would be:

X1 PLIN21.25 – installation of single patch liner 100mm x 1m [REDACTED]

Section 11/ Catch Pit (CP) to Outfall – This line was generally found to be in good condition.

Section 12/ Catch Pit (CP) to Source– This line appears to be redundant and ideally requires capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

Please note, we would not consider this a damage issue and is mainly suggested as an improvement.

Section 13/ SW7 to Source – This line has a substantial break which we believe is where the toilet meets the below ground drainage system beneath the barn. Unfortunately, it is not possible for us to repair from an external position and we would suggest that we inspect the toilet area to establish a suitable scope of works for repairs.

We would be happy to look at this issue in conjunction with any other approved works subject to access being provided into the barns. We will then communicate costs to repair whilst on site (likely removal of WC and install patch) if feasible and seek authorisation to repair whilst on site.

Section 14/ SW 7 to SW 5 - This line has relatively minor displaced/open joints which are unlikely to cause any issues at the current time but may deteriorate in the future. Metro Rod would be happy to supply a cost for these works on request if covered by the policy.

Section 15/ SW 5 to Branch A – This line appears to be redundant and ideally requires jetting clear to confirm/capping off within the manhole chamber to prevent further debris from washing in or facilitating rodent movements.

Please note, we would not consider this a damage issue and is mainly suggested as an improvement.

Section 16/ SW 5 to Branch B – This line was generally found to be in good condition.

Section 17/ SW 6 to SW8 – This line was generally found to be in working order however, we have found that the drain initially begins as 150mm before reducing to 100mm nearer to SW8 causing a bottle neck which is not ideal. This would be classed as installation error and would not be covered under the policy.

Section 18/ SW 8 to Outfall – This line was generally found to be in working order however, we have found that the drain initially begins as 100mm before opening up to 150mm and then reducing back to 100mm nearer to the next downstream manhole causing a bottle neck which is not ideal. This would be classed as installation error and would not be covered under the policy.

SW 3 – The investigations have revealed that the manhole chamber is in poor structural condition likely due to vehicle movements where the brickwork is partially collapsing and manhole cover/frame is defective. We have left this temporarily cordoned off utilising barriers to prevent person/vehicles from falling through. We would advise that the manhole is partially demolished before rebuilding/pointing with all live connections plumbed in (redundants blanked off) before installing a new cover/frame. The cost of these works would be:

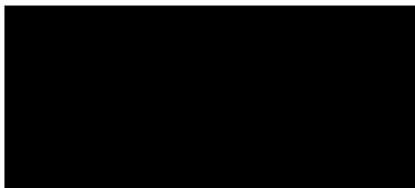
- X1 Exc3.10 – excavation to assist with manhole rebuilding works - [REDACTED]
- X1 Sun8.30 – break out defective benching/channelling and replace - [REDACTED]
- X1 Sun8.35 – install new cover/frame - [REDACTED]
- X1 Sun8.25 – repointing to manhole - [REDACTED]
- X1 WD9.10 – disposal of waste arising from works - [REDACTED]

Total - [REDACTED]

Catch Pit 1 – We have also found that this manhole only has a metal plate installed over the top rather than a dedicated cover/frame which may pose a safety hazard. We would advise that this is replaced with a suitable sized dedicated cover/frame however, believe this would be classed as improvement rather than a claim relating to damage.

We trust that the above meets with your approval; should you wish to discuss any of the above comments, please do not hesitate to contact us.

Yours Sincerely,



Technical Manager

Special Notes

- a) The prices offered are for the work described only and do not include for any work which becomes apparent or necessary once work commences. If this situation arises, we reserve the right to re-negotiate our quotation.
- b) The prices are based on the assumption that our engineers can commence work upon arrival to site, that continuity of work can be achieved and that the work is to take place on a non-emergency basis, unless otherwise stated. If downtime is experienced due to circumstances beyond our control, a charge pro-rata of the agreed rate will be made for that period.
- c) All manholes must be accessible with vehicular access being available where appropriate and access points being available to all blind connections.
- d) Should we be required to enter any confined space as defined by the Health & Safety at Work Act or any manhole chamber deeper than 1.2 metres, we reserve the right to amend our quotation to include for the required safety equipment to satisfy Health & Safety legislation.
- e) Jetting included within the proposal is based on the removal of silt (maximum 5-10%), loose scale and encrustation within the pipe work. Should we encounter any extraordinary object(s) requiring special equipment, we will advise you immediately and we reserve the right to re-negotiate a further charge for the extra work.
- f) Should during the course of the proposed work, we locate any problem area(s) of drainage requiring further investigation which prevents us from completing the work to any particular area, a separate report will be submitted. This will detail our findings together with recommendations for remedial action plus associated costs.
- g) Should any manhole cover(s) or access point(s) prove difficult to remove, removal of which would result in damage to the cover/frame or access point. Each will be recorded and a report submitted detailing the extra work required to enable the necessary work to be conducted from the particular location(s).
- h) Our quotation is based on the ground being firm and continuous and suitable for economical working and the method specified. No allowance has been made for rock, buried debris and clay stones, running silt or running ballast being encountered. Should obstructions be encountered during our works we reserve the right to re-negotiate our quotation.
- i) Metro Rod do not accept any financial liabilities that may arise due to failed re-lining works. The lining process always has an element of risk due to numerous factors and by acceptance of our quotation an agreement has been reached that the client has accepted/acknowledged the risks involved. Metro Rod will be happy to work with the client to carry out necessary works to resolve failed liners however; this may be subject to additional costs (upon review for each individual case).
- j) Our quotation does not include for any major dewatering systems or tanking systems to prevent major water ingress from entering any excavations which may be undertaken.
- k) The prices offered are based on normal working hours which equate to weekdays, Monday to Friday between the hours of 9am to 5pm, unless otherwise stated.
- l) Our quotation is subject to adequate access.
- m) The price quoted is valid for 90 days from the date of quotation.
- n) All prices are subject to VAT at the current rate.
- m) This quotation is subject to Metrorod's Terms and Conditions which are available upon request.