



Sewer scope inspection report
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Prepared for: John & Jane Smith
Address: 12345 Main St., Anytown, TX 99999
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Introduction

A sewer scope inspection was requested for the property listed/pictured above. This inspection involves sending a camera down the building sewer/lateral line from a readily accessible area (3" or 4" cleanout etc) to the city main or private sewer connection.

Inspection of the building drain and/or branch drains inside/under the house are not included in this inspection. This inspection of the lateral drain is limited to 150 feet in length (length of our cable). If blockages or damage are noted, the inspection may stop at that location due to limited continued access or the possibility of damage to the camera and/or pipe.

All terms and conditions of the Inspection Agreement apply to the sewer scope inspection. If cleaning, excavation and/or repairs are to be made to the drain lines, the company or individual performing those services will be responsible for identifying any and all defects, as well as their own locations; whether or not they are identified in or excluded from this report.

Additional defects may be exposed after cleaning and re-scoping or when repairs are being made, which Gumshoe Property Inspection LLC will not be liable for.

Cleanout locations:

Main Sewer cleanout location (T fitting / non swooped). Northwest corner of building



Secondary underslab cleanout location (not inspected). Southwest corner of building.



Link(s) to sewer line inspection video(s): [Video 1](#), [Video 2](#), [Video 3](#)

*These are private links and will not be returned in internet or YouTube search results. The provided links are required to view these videos.

Attendees: Buyer, Buyer's spouse

The observed sewer line is composed of: PVC (for additional information on PVC and other sewer line materials see the Appendix at the end of this report).

Length of line examined: Approximately 129 ft.

A note about distances mentioned and displayed:

The distances noted in the videos and accompanying photos are obtained via the software in the inspection camera and are subject to the inherent errors that exist in such systems. These cannot be calibrated and while generally accurate should be regarded as approximations only. **As noted in the Introduction – if repairs are to be made to the sewer line based on the findings in this report, then the person or company performing these repairs is responsible for determining the exact location of the defects identified.**

Condition:

A buildup of fatty sludge was observed at various points of the line (reference video links above and photos below). A significant build exists at the transition point from the residential main sewer line to the city line. This can be seen at the end of Video 3 and also the photos below. This is likely due to the disposal of cooking grease through the kitchen drain. Even if large amounts (such as disposing of bacon grease after cooking) are not disposed, the act of washing greasy pans, dishes and utensils will contribute to a slow build up over time. Oils from human skin shed during showers/baths can also slowly accumulate.

A piece of what appears to be cellophane wrapping from a consumer product is stranded in the line at around the 69 ft mark and can be seen in Video 2, the camera head dragging it along for some time afterwards.

Corrective actions:

None recommended at this time.

Preventive actions:

To treat the sludge build up in the line you should consider using a bio-microbial agent such as BioOne (<https://bioonesolutions.com/>). These are products that “feed” on the sludge buildup in sewer lines and essentially slowly eat it away. Application instructions typically call for one, two or three treatments a year. For BioOne you can simply flush it down a toilet for example.

BioOne is just one example of this type of product, there are others available and you are encouraged to research them before making a decision.

Products of this type typically cost from \$30 - \$50 for a supply that if used according to directions will last years. An alternative to using a bio-microbial agent to treat the sludge would be to use a hydrojet service that many plumbing companies can provide. This entails using a high pressure stream of water to clear the sludge away and move it downstream to the city sewer connection.

However hydrojetting is considerably more expensive than the bio-microbial agents mentioned above. Prices vary but you should expect to pay several hundred dollars at a minimum to low thousands.

For the piece of cellophane, while not really retrievable there is a possibility, while remote, that it could get stuck permanently in the sludge buildup and impair the overall functional flow of the sewer line. It may be possible to move it downstream to the city sewer connection by introducing a higher than normal water flow to

the sewer line. This could be done by running multiple faucets/fixtures in the house simultaneously while also dropping a hose running full open into the main sewer cleanout. This volume of water may serve to “float” the cellophane downstream towards the city sewer connection. Since the sewer line makes many turns on it’s way to the city connection, it may be necessary to maintain this higher flow condition for up to 20-30 minutes to move the cellophane to the city connection.

Clean out condition:

There were no adverse conditions or deficiencies noted with the cleanout(s).

Photos:

Sludge build up – transition to city sewer line – approximately 129 ft.



Sludge buildup – approximately 16ft. (This is just one example. In the videos there are several locations where this type of buildup is visible.)



Plastic wrapper – approximately 69ft.



Signed: *Bryce A. Kibbey*

Date: 6/30/2025

Appendix

Important general information about sewer lines:

Each material used in sewer lines is different and there are some important things to know about the materials in your sewer. Below you can find important general information regarding the types of sewer pipes which are addressed in this report.

General data about cast iron pipe:

Cast iron pipe is a reliable option for sewer lines. It is a high strength material however it does rust over time. Cast iron can last as long as 50 to 80 years before replacement is required. Cast iron pipe can clog at any time in its service period, even long before it requires replacement. The interior surface texture of cast iron pipe is not smooth and can catch and hold onto materials that do not disintegrate easily. This is one reason why paper towels or wet wipes are not recommended to be disposed of through the main sewer line. Anything which does not disintegrate easily can catch inside a cast iron pipe and eventually cause a temporary clog. This is not a true failure of the material but caused by using the pipe in a way it was not intended. When cast iron pipe is under a structure it can sometimes begin to leak without giving an obvious indication of this to a video inspection. This is perhaps the main reason why our inspection focuses on pipe exterior to the structure.

General data about clay pipe:

Clay pipe has been used for sewer lines for well over 100 years. The best benefit of a clay pipe is that it does not rust or erode over time. This allows it to have a longer potential service period than any other pipe material. However clay is not flexible and earthquakes or heavy root intrusions can break a clay system if the stress placed on the pipe is greater than its ability to resist. In most clay sewer lines we see defects of some kind. Often this will consist of some cracking, root intrusion, poorly sloped section or misaligned/offset pipe. We hope to help determine how well the pipe is functioning in order to determine if a repair is recommended. If the clay pipe doesn't look close to backing up and isn't allowing sewage to flow out of the system into the surrounding soil it is considered functional for the purposes of this report. Inspections of clay pipe sewer lines rarely return "perfect" results, however perfection is not the standard for determining if a repair is recommended for sewer lines.

General data about PVC and ABS pipe:

PVC and ABS are excellent materials for sewer line applications and is now very common in new construction. It does not rust and it allows for more flexibility than other sewer pipe materials. The most common types of plastic sewer pipe are PolyVinyl Chloride (PVC) and Acrylonitrile Butadiene Styrene (ABS). The joints of the pipe are highly resistant to root intrusion *when it is properly installed*. This provides a trouble free use from plastic for a very long expected service period. This material has the potential to last a hundred years before wearing out. However, the biggest problem we see with either PVC or ABS pipe is insufficient wall thickness being used, which leads to eventual root intrusion. Wall thickness of plastic sewer pipe is classified according to "schedule" of the pipe.

Schedule 20 pipe has a wall thickness of 0.154", Schedule 40 pipe has a wall thickness of 0.237", and Schedule 80 pipe has a wall thickness of 0.337".

From a functional standpoint any of these is fine, however tree and shrub roots can exert tremendous pressure on sewer pipe so when thinner Schedule 20 is used it is much more susceptible to root intrusion than Schedule 40 or Schedule 80. Many builders will use Schedule 20 to save money and the

homeowner will be none the wiser as it will function without issue for many years. But when that 6ft tree located 10ft from the sewer line when the home was new in 2005 has grown to 25ft tall in 2025, the root structure will have reached this Schedule 20 pipe and begin causing root intrusions.

General data about fiberglass liners:

Fiber glass lining systems are a relatively new way to repair an aging sewer system. These are known as a trenchless repair as they require less digging to install. A liner can be installed into a damaged pipe only so long as the pipe is not collapsed. The liner is installed down into the existing damaged line. Once the liner hardens in place it forms a new pipe inside of the previous material.

Liners can be great upgrades or repairs for a sewer system. If installed correctly they often prevent heavy root intrusion, stop leaks and reinforce the structure of the existing pipe.

Liners must be installed so that they do not obstruct the city sewer line. If they are pushed too far into the main sewer line they will enter deeply into the city sewer which is a significant issue requiring repair. If you consider using fiberglass liners to repair a damaged sewer line, be sure to check your local codes regarding how close a liner is allowed to be to the city sewer line. This can vary based on jurisdiction.

General data about bituminized fiber (Orangeburg) pipe:

Orangeburg pipe is a type of bituminized fiber pipe made from wood pulp and coal tar pitch. While uses of this type of pipe date to the 19th century, it was most popular in the U.S. from the 1940's up until the early 1970's, gaining popularity originally due to wartime material shortages.

Originally rated to last 50 years, in practice failures of Orangeburg pipe became common after only 30 years. Common failures and problems with Orangeburg pipe include collapse and deformation, root intrusion, and sewer odors and backups.

While Orangeburg pipe is rarely encountered anymore, when we do see it we recommend replacement of the entire line.

General data about fiber-cement (Transite) pipe:

Fiber-cement is a type of pipe which is made out of a cement based material which uses fibers, some of which can be asbestos, for much of its strength. Fiber cement pipe is often referred to as Transite. Fiber-cement pipe was commonly used up to the mid-20th century and is no longer used for new construction. Fiber cement pipe has a limited lifespan of around 50 years. Over time the cement/fiber bonding in the pipe can weaken, causing it to degrade, crack and leak. If we encounter fiber cement pipe during an inspection our general advice is to replace it as soon as practicable regardless of whether it shows any signs of failure.

When replacing fiber cement pipe be sure to use a contractor with experience working with it, since when it is disturbed there is potential to release asbestos fibers to the air which are hazardous if inhaled.