



SUNLIGHT INSPECTION SERVICE

(610) 450-6056

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www.sunlightinspections.com

590 Sandra Lane, Phoenixville, PA 19460



123 Great Street Nice Town, Pennsylvania 19000
Sewer Scope # 2206000D

Tuesday, March 7, 2023

Report Prepared For
Jack & Jill Buyers

Clients Representative
Sally Sells

Inspector
Dan Keogh





Tuesday, March 7, 2023
Jack & Jill Buyers
123 Great Street
Nice Town, Pennsylvania 19000

Dear Jack & Jill Buyers,

I have enclosed the report for the sewer line inspection conducted for you at:

123 Great Street
Nice Town, Pennsylvania 19000

My report is designed to be clear, easy to understand, and helpful. Please take the time to review it carefully. If there is anything you would like me to explain, or if there is other information you would like, please feel free to call me at 484-995-9444. I would be happy to answer any questions you may have.

Thank you for the opportunity to be of service to you.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Keogh".

Dan Keogh
SunLight Inspection Services
Scheduling Office: 610-450-6056
Office@SunLightInspections.com
www.SunLightInspections.com



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Introduction

Please Read Carefully:

SunLight Inspection Services, an Authorized SewerScan" Contractor, was retained for a survey of the building's main sewer line in an effort to identify areas of suspect clogs or damage and to document the areas for further review. Further investigations of these areas or destructive testing may reveal additional conditions that were not readily visible at the time of inspection. This report is based on information obtained at the site at the given date and time. We document our findings with videos and visual photographs of the areas. The purpose of any sewer scan service is to document problems in sewer lines. Our inspection is designed to comply with accepted industrial standards when at all possible and will be performed in a non-destructive manner. Our inspection is not meant to be a guarantee of all affected areas; only those that reveal themselves to our sewer camera, visual inspection, and our experience.

Agreement:

The inspection was performed in accordance with and under the terms of the Sewer Scope Inspection Agreement. The agreement was signed and agreed upon before the preparation of this report and a signed copy of the agreement is available upon request.

Sewer Scope Inspection:

The sewer scope inspection is a video camera inspection to inspect the main sewer line from the house to the street or the sewer service point to the property. This is the portion of the waste pipe system that carries the waste from the structure to the city sewer connection or private septic system. This report is based on the video inspection of the sewer line only. Any other parts of the home's waste line system are not included. The line is accessed through a cleanout or access point in or just outside the home. The inspector will determine the best access point, and the report will outline where the line was entered. The camera inspection does not scope every drain line in the home or all the drain lines running underneath the basement slab. The intent is to inspect the line that runs from the house to the final sewer point and to inspect this buried line for defects. The following is a report of our findings. If a video was completed, it will be provided separately from this report.

Orientation:

We will describe the locations of the various features of this property, left or right, etc., as though we were standing in street looking at the front of the building.

SunLight Inspection Services

General Information

DATE OF INSPECTION:

Tuesday, March 7, 2023

REPORT ID:

2206000D

PROPERTY ADDRESS:

123 Great Street
Nice Town, Pennsylvania 19000

REPORT PREPARED FOR:

Jack & Jill Buyers
(000) 000-0000, Noreal@thismail.com

CLIENTS REPRESENTATIVE:

Sally Sells RE/MAC
(000) 000-0000, Notreal@fake.com

APPROXIMATE AGE:

38 Years

STRUCTURE STYLE:

Colonial

WEATHER AT TIME OF INSPECTION:

Sunny
60 Degrees

OCCUPANCY STATUS:

Occupied, Furnished

PRESENT AT INSPECTION:

Buyers
Buyer/s agent

Dan Keogh Owner/Inspector

I represent that I am a full member in good standing of the American Society of Home inspectors (ASHI). I will Conduct a home inspection of the previously mentioned property in accordance with the ASHI code of ethics and the Standards of Practice. I am in compliance with the Pennsylvania Home Inspection Law. I carry all the required insurance.

LICENSE & CERTIFICATION



DELAWARE HOME INSPECTION LICENSE

H4-0000167

INTERNATIONAL ASSOCIATION OF CERTIFIED HOME INSPECTORS

InterNACHI #13121612

THE AMERICAN SOCIETY OF HOME INSPECTORS

ASHI #212167

Sewer Line Scope

BASIC INFORMATION

Camera Used for Scope: [Wohler Vis 350](#)

Cleanout Location: [Basement and Front Exterior of House](#)

Camera Access Point: [Basement and Front Exterior of House](#)

Type of Pipe: [PVC and Cast Iron](#)

Length of Pipe Inspected: [Approximately 60 feet](#)

Areas Reviewed: [Basement Cleanout to House Trap](#)

Conditions Found: [Damaged Pipe](#)

LOCATION OF CAMERA ENTRY

The sewer line was access from the clean-out fitting in the basement.

The camera was accessed from the clean-out fitting in the front yard.



Camera access through interior clean out



Camera accessed through the exterior vent

SEWER SCOPE VIDEO

Web Link to view video

A video of your sewer line has been uploaded for viewing and reference. Access your video by visiting the following link: <https://youtu.be/LcCM5cs6KbQ>

SEWER SCOPE FINDINGS

Damaged Line: A section of damaged sewer line was found. There is a crack in the sewer line at approximately 26 ft. from the basement clean-out.



Crack in sewer line 25 ft. from basement clean out.

When the camera is pushed through the trap it shows that the top of the downflow side is dry. It should be filled with water. Coming from the house side the camera shows the sewer lateral starting to hole water as 45 1/2 ft.

The outlet side of the trap is set to high.



Downflow side of the trap

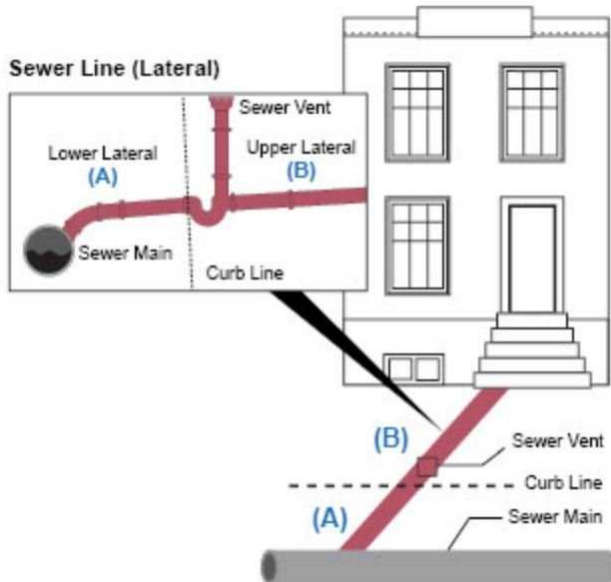


UP flow side of the trap

SUMMARY FINDINGS

The diagram below shows how the trap should be set. The trap for your home is set so that the inlet side (house side) is lower than the outlet side (to the main sewer connection). Water is backing up on the inlet side. This is due to the outlet side being set too high. This condition increases the possibility of clogging the sewer lateral

A qualified plumber should repair the sewer lateral by setting the trap at the correct pitch.



I recommend attention to the items noted in this report. It should be understood that sometimes due to extent of debris or roots found, we are unable to fully access the line. I recommend further review of lines by a qualified plumbing contractor in these cases when cleared and the lines can be better accessed at that time.

I recommend further review and repair as needed by a qualified plumber.

Maintenance tips

The following are maintenance tips to help prevent problems with sewer lines.

AVOID DAMAGING YOUR DRAIN LINE

A clogged or blocked drain can be a major inconvenience to you and your family, as well as damaging your plumbing system and resulting in expensive repair bills. While there are a variety of home remedies that can help to clear some drain problems, attempting to fix a blocked drain yourself can sometimes cause more damage.

Keep your drain in good condition and save yourself the money it can cost to have it repaired down the line. Follow these tips to help keep your household plumbing system clear and healthy.

DON'T USE THE TOILET AS A TRASH CAN

! Never flush diapers, dental floss, Q-Tips, personal sanitary products, newspapers, soiled rags, or paper towels down toilets or drains. These items may cause a stoppage in your drain lines. Don't ever flush sanitary or baby wipes. Even wipes that claim to be "flushable" can clog pipes and cause stoppages. Most wipes are made from material that does not break down.

AVOID POURING GREASE INTO THE SINK

When warm fats, oils and grease are poured down the sink or flushed down the toilet they may not travel very far through your pipes before they begin to form large nasty conglomerations with other debris and stick to the walls of your pipes. These deposits could cause back-ups in your sewer line.

AVOID ACID DRAIN CLEANERS

You can use some drain cleaners sold in supermarkets or other household stores for minor clogs; however, you should not use these often. These drain cleaner may get rid of small blockages in the short term but will cause harm to your plumbing over the long run.

Acid drain cleaner should be avoided at all times. Not only can these cause internal damage to your pipes, but they can also cause painful burns or severe injury if miss handled.

Other substances can have the same effect, including vinegar, disinfectants, paint and solvents. Always be cautious, and when in doubt, call your plumber.

Common Problems in Sewer Systems

The following are common problems found in sewer systems

ROOT INFILTRATION

Tree roots are a very common problem for sewer lines. This is because sewer lines are installed in sections of pipe. When originally installed, plumbers 'sealed' the joints in the sewer line with materials such as concrete, coal tar, oakum, or rubber gaskets. Unfortunately, all these sealed materials can deteriorate over time, allowing water to escape, beginning an underground drip system attracting tree roots. Once tree roots get between the joints, they continue to grow, spreading the joint. If the joint spreads, it leaks more water. If tree roots are allowed to grow large enough, they will eventually break the pipe. Inside the pipe joint, tree roots initially act as a filter, lying water to pass through while straining out other products sent through the line. As soon as the roots have trapped enough material, all the water flow stops resulting in a sewage backup.

MISALIGNED OR OFFSET PIPES

Underground pipes are installed in sections or segments ranging from 2 feet to 20 feet or more. When connected sections do not line up perfectly with one another, they are referred to as being 'off-set'. Over time off-sets can occur in the pipe sections as the joint sealant erodes and/or from ground settlement putting pressure on the joint.

BROKEN OR COLLAPSED PIPE

Though properly installed PVC pipes are supposed to have a life-span of well over 100 years, older pipes are usually made from clay tile, steel, or some other material that may only last 50 or 60 years. It's common for tree roots to wedge their way into pipes. Tree love the moisture! After a while the roots grow so dense and matted that they plug up the pipe completely. Sewer pipes can also get clogged up with an accumulation of grease, muck, and other nasty stuff that gets washed down there day after day. And sometimes sewer lines just plain break, collapse, or rot away. Tree roots have a way of hastening this process.

FOREIGN OBJECT BLOCKAGE

Foreign objects frequently work in conjunction with oily deposits to create a clog. Inside the clean pipe, a foreign object, such as a child's toy, would easily flush out of your home, into the city sewer/septic system. However, unless they have been recently cleaned, few home's sewer pipes are 100% clear of deposits. Once in the sewer pipe, a foreign object will likely become embedded in the oily deposits. The foreign object provides additional surface area for the fatty deposits to build up. In the end the deposits reduce the functional diameter of your sewer line until they become clogged.

SAGGING OR BELLIED PIPES

Under normal conditions, sewers are installed with the fall of 1/4 inch for every 1 foot of length. Under difficult circumstances a bare minimum of 1/8 inch fall per foot is acceptable, although not preferred. A low area can be identified by seeing the sewer continue to hold water after the flow has stopped. Problems begin when incoming water is flushed down the sewer line, and it hits a 'blockage' of standing water. Severe low areas cause the water (along with the debris it is transporting) to lose speed and settle in the low area, eventually causing a clog. Low areas can be caused by a number of factors, such as shifting soil, poor soil compaction, poor installation, or broken pipe usually at the joint which has settled. Unfortunately, the only way to correct the low area is to excavate the affected area and re-install the pipe at the proper grade. Since corrective action is so extreme and often costly, it should only be corrected if it is truly causing an actual problem, not just lacking perfection for short distance.

CORRODED CAST-IRON PIPES

Cast-iron pipe is subject to corrosion when the pH level inside the pipe drops to below 4.3 for an extended length of time. When cast-iron waste pipes fail, it's usually due to corrosion from within. As a result of what runs through waste lines, hydrogen sulfide gas can form. This can oxidize and produce sulfuric acid, which corrodes cast-iron. Some drain cleaners also contains sulfuric acid and, if used continuously, can accelerate the corrosive action and shorten the life of the cast-iron piping system.

CRACKED PIPE OR LEAKING PIPE JOINTS

Sewer pipes can leak or crack as they deteriorate with age and also by earth movement and tree root infiltration. Cast-iron pipe cracks are most likely due to the hydrogen sulfate gas collecting in concentration and the resulting acidic attack weakening the pipe wall.



Methods for Clearing and Rehabilitation of Sewer Pipes

The following are common methods of sewer pipe rehabilitation.

SNAKING

Snaking has been used for a number of years for ridding clogs from blocked drains. It is still a reliable tool used by homeowners and plumbers. Snakes have a long metal tube encasing an inner cable with blades or corkscrew auger attached to one end. The other end has a crank. The terminal end with the auger is inserted in the drain. The crank is turned to extend the cable until it reaches the clog. Turning the crank with a bit of force will either open up a hole through the clog, or the clog gets twisted around the auger and the metal coil so it could be pulled out. A straight plumbing snake is used for sink drains while a plumbing snake with a J-bend is used for toilet bowls. There is a larger, motorized version of a plumbing snake, which is typically used by an experienced plumbers.

HYDO JETTING

A hydro jet is a sophisticated plumbing tool for clearing drains. It consists of a high-pressure hose with special nozzles that can be attached to the terminal end. It connects to a machine that pressurizes the water, whose force is what makes the drain free from clogs. The force of the water plus the action of the terminal end nozzle attachment cause hair, mineral build up, grease, oil and other debris clogging the drain to be forced down the pipe. Even tree roots could be broken into small pieces by the force of the water. It is typical to have the drain inspected with a camera first to determine if the pipe is damaged before using a hydro jet.

CHEMICAL GROUTING

A soil sealing process which employs a two-part liquid chemical grout that solidifies after curing. Grout is remotely applied under pressure to leaking joints or laterals and small cracks in sewers and manholes to seal the voids within the soil surrounding the exterior of the pipe at the point of leakage.

CURED-IN-PLACE LINING

An internal liners formed by inserting a resin impregnated felt to through the sew line. The liners is then expanded against the inner wall of the existing pipe and allowed to cure.

FOLD AND FORM LINER

A folded thermoplastic pipe is pulled into place through the sewer line and then rounded, using heat steam and air pressure to conform to the internal diameter of the existing pipe.

SLIP LINING

An access pit is excavated adjacent to an existing sewer line and a liner pipe of slightly smaller diameter is slid into the existing pipe to contrary continuous watertight liner.

PIPE BURSTING

An excess pit is excavated adjacent to an existing sewer line in the pipe is broken outward by means of an expansion tool. A flexible liner pipe of equal or larger diameter is polled through with a bursting device as a replacement sewer line.