

Plumbing

Description

Water supply Public Private

Waste Public Private

Water service pipe (into building) Plastic Copper Galvanized steel Lead Not visible

Water supply pipes (inside building) Plastic Copper Galvanized steel Lead Brass

Main water shut off valve at _____ **Colour of valve** _____

Water flow pressure Good Functional Poor

Waste pipes Plastic Cast iron Copper Galvanized steel Lead Brass

Water heater Gas Oil Electric Heat pump assisted Rented unit

Likelihood of failure within two years High Medium Low

Vent system visible at roof/attic Yes NO

Limitations

Plumbing inspection limited by Water shut off/winterized - no fixtures tested Water heater not tested

Items not inspected Sink/basin Bathtub Shower Toilet Bidet Whirlpool/air tub Laundry sink
 Septic system Sauna Swimming pool/spa/hot tub & related equipment Well & water treatment systems
 Concealed plumbing Garbage disposal Lawn services and fire or other sprinkler systems
 Adequacy/continuity of water supply not determined Main or other shut off valves not operated

Recommendations and Notes

Water supply piping into building Leaks Seal pipes at wall/floor Condensation (insulate pipes)
 Lead - possible health hazard - replace

Main shut off valve Leaks Rust Missing handle Poor access/location Poor support None found

Water supply pipes inside building Leaks Condensation - insulate pipes Loose/poorly supported Rust
 Damaged Risk of freezing Poor flow/pressure Cross connections Lead - health risk
 Galvanized - insurance may be an issue - expect to replace Noisy (water hammer)

Waste pipes Leak Rust Poor slope Inadequate support Loose Seal pipes at foundation wall
 Risk of freezing Open connections to sewer (possible health hazard) Missing trap(s)/vent(s)
 Auto vents installed Poor discharge configuration (into sump/floor drain etc.) Poor connections

Solid waste tank/pump Leaks Rust Pump not working Pump works today Poor or no venting
 Lid insecure/damaged/rust/missing Pipes poorly supported Possible health hazard Poor seal/cover

Floor drain Not located Blocked/clogged Drain above floor level Trap dry No back flow preventer
 Trap primer not connected/kinked/leaks

Pressure tank/well pump Leaks Rust Condensation Waterlogged Pump cycles Low pressure
 Pump noisy (possible bearing failure) Poor installation

Plumbing (2)

Sump pump Not working Working today Noisy Float set too high Cover sump hole (reduce humidity)
 Column pump poorly secured Hidden discharge Discharge pipes poorly supported/leak Install pump
 Leaks Poor installation (discharge pipes too small/ too close to foundation/uphill etc.)

Water treatment system(s) Backwash into septic system (poor practice)

Kitchen sink/basin at _____ Leaks Chipped/cracked Slow drain Rust/stains
 Loose Clogged Poor/missing caulking

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Bathtub at _____ Leaks Chipped/cracked Slow drain Rust/stains
 Loose Clogged Mold/mildew Damage Window at tub/shower enclosure (leak/rot potential)
 Damaged tiles Possible concealed damage to wall(s)/floor Damaged adjacent drywall Replace enclosure

Bathtub at _____ Leaks Chipped/cracked Slow drain Rust/stains
 Loose Clogged Mold/mildew Damage Window at tub/shower enclosure (leak/rot potential)
 Damaged tiles Possible concealed damage to wall(s)/floor Damaged adjacent drywall Replace enclosure

Whirlpool/air tub Leaks Chipped/cracked Slow drain Rust/stains Loose Clogged Noisy
 Carpet surround Cracked missing tiles Possible concealed damage to wall(s)/floor/surround
 Replace enclosure Ground fault circuit interrupter not found/fault Poor/no access to motor
 Clean pipes before use

Shower stall at _____ Leaks Damaged Slow drain Rust/stains
 Tiles loose/damaged Possible concealed damage to wall(s)/floor Loose/damaged grout Door loose
 Door fits poorly Poor/missing caulking Replace enclosure

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 Tiles loose/damaged Possible concealed damage to wall(s)/floor Loose/damaged grout Door loose
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Toilet at _____ Leaks Damaged Slow flush Seat loose
 Cracked tank/lid/bowl Loose on floor Possible concealed damage/rot to floor

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 Cracked tank/lid/bowl Loose on floor Possible concealed damage/rot to floor

Bidet at _____ Leaks Damage Slow drain No backflow preventer
 Loose on floor Possible concealed damage/rot to floor

Laundry tub Loose Concrete Cracked Leaks Pipes loose/poorly supported Pump not working
 Pump works today Pump noisy/slow/leaks Possible concealed damage/rot to floor

Faucet at _____ Leaks Loose Rust Not working/connected
 Diverter jammed/corroded

Faucet at _____ Leaks Loose Rust Not working/connected
 Diverter jammed/corroded

Vegetable spray at kitchen sink Leaks Not connected Clogged Loose Not working

Plumbing (3)

Shower head at _____ Leaks Loose Not working Clogged Low flow

Shower head at _____ Leaks Loose Not working Clogged Low flow

Bathroom fans Noisy Inoperative Slow Install to all bathrooms Insulate discharge pipes in attic
 Discharges inside building/attic Ensure all pipes discharge outside building.

Hot water heater Leaks Discharge tube missing/too short Backdrafting - poor combustion air supply
 Flue pipe insecure/rust/poorly sealed Safety valve missing/corroded Rust Loose/unsafe wiring
 Water too hot (see 'Read this....' below)

No hot water supply to _____

Hot/cold water pipes reversed at/throughout _____

Exterior faucet/hose bib Shut off/winterized Leaks Loose Missing handle Seal pipe at wall
 Interior shut off/frost free valves not tested Risk of freezing None found

Do not install carpets to bathrooms. Use vinyl/ceramic/laminate/wood etc. instead

Additional Notes



Read this.....

Hot water can scald in seconds. Be sure thermostats on water heaters are set to a maximum of 125 degrees Fahrenheit.

Note that some leaks are only revealed under specific circumstances. You may for instance, have to weigh over 175 pounds **and** stand in the shower for ten minutes before the leak condition occurs. Often there are historical clues to previous leakage (stains on drywall for instance), however in their absence, future leaks are almost impossible to predict.

Plumbing (4)

Sump pump discharge pipes are often underground. In winter, in cold climates, it's generally impossible to determine their efficiency.

Smaller pipes may freeze. The small bore flexible pipes supplied with many sump pumps is generally inadequate and we recommend its replacement with rigid ABS.

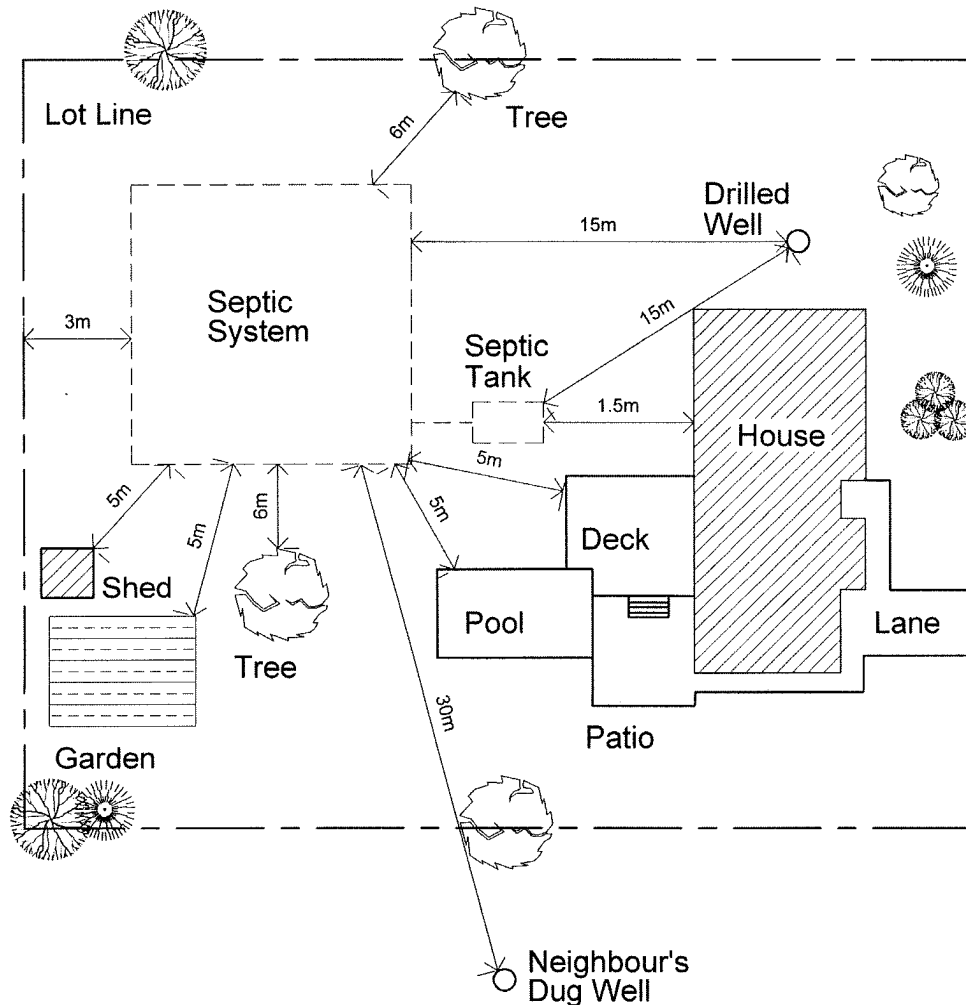
We further recommend that any discharge pipes beyond the building walls are a minimum 3" diameter, rigid pipe. This will help to prevent freezing and allow a uniform slope from the building wall to the discharge point.

A working pump is not necessarily an indicator of a clear and efficient discharge.

Septic systems do not form part of this inspection. Any comments in the report (good or bad) are not intended to be an indicator of any septic system's viability, life span or even current condition.

It is recommended that all septic and other non-municipal drainage systems are professionally inspected before you proceed with your transaction.

The drawing shows approximate and most common clearances required and is **intended only as a guide**. Consult your septic engineer before proceeding.



Plumbing (5)

The home plumbing system has two main purposes: to bring in a water supply, and then dispose of it along with other domestic waste.

Supply

Water is supplied to the building by the Municipality or via a private well, lake or collection system.

Municipal water is generally trouble free, chemically treated and at a reasonable pressure but you have to pay for it. Generally speaking, you can't increase the pressure. If the pressure appears to be low, check to see that the main valve's fully open and that shower heads or faucet filters are not clogged.

There is also no guarantee with Municipal water that you'll get what you pay for or expect. Residents in Walkerton, Ontario, found that out when inadequate treatment caused several deaths and much sickness.

Private wells, collection systems or supplies from lakes are free but rely on electric pumps, pressure systems or other mechanical supply methods to get the water to the faucet's. The question of whether the water is clean, drinkable and free from bacteria and coliform (we call it "potable") is firmly in your court. We recommend that you always take your own sample for testing before proceeding. You can use it to compare with results from other sources - owners, Realtors, previous tests and so on.

Regular testing (once you get occupation) of private water supplies is also highly recommended.

Unlike Municipal water supplies, the water pressure can be increased typically to a maximum of about 60 pounds per square inch.

The adequacy or continuity of any private water supply does not form part of this report. Your inspector may have information about local conditions.

Insulation on cold water lines is often omitted. Installation of insulation on these lines may prevent ceiling and wall damage from wet/condensation pipes

Waste

Waste systems are also public (sewers) or private (septic systems and holding tanks). You pay for Municipal waste disposal (usually in your taxes). Water and other wastes always flow by gravity.

Pipes that join your home to the sewers will almost always be the homeowners responsibility from the house to the lot line. Beyond that, the Municipality may pick up the bill if there's a blockage or other problem. The sewer line leading away from the house needs to be accessible at the cleanout opening.

You also pay for waste disposal though your septic system (because you have to have it pumped out every few years), or you have to pay to have a holding tank emptied every month or so.

The entire septic system is installed below the ground. The frequency with which you should have a septic tank emptied is a matter for a large scale discussion in another forum. The views are as diverse as the styles of system available. Most knowledgeable commentators involved in the field, will suggest that once every two or three years is adequate. Much depends on use though - so if you have a family that likes to party and you have fifty guests every weekend - expect to pump it much more often.

We strongly recommend that all private waste systems are professionally examined before you proceed with your transaction.

Plumbing (6)

Vents

The waste side of all plumbing fixtures (sinks, basins, showers and so on) must be properly vented. The vent is an additional pipe that allows air back into the system as water/waste is discharged.

Without adequate venting, the traps can be siphoned clean of water, resulting in sewer smells and gasses entering the building. Vents must exit outside above the roof.

Auto vents are small lengths of pipe with a valve and a low tension spring inside. They replace the need for a normal vent pipe which may be difficult to configure, especially in kitchen island units or basement bar sinks.

Auto vents are not permitted in many jurisdictions.

Pumps

Water pumps for private water systems are either jet pumps or submersible. The test is easy - if you can see the pump beside the pressure tank - it's a jet pump.

The old days of having to prime pumps after a power out, by pouring water into a hole in the top, have largely gone. New style pumps are self priming and only require connection to a power source.

Pressure tanks

These provide the pressure at the outlets (faucet's, shower heads and so on).

Most can be adjusted to provide water pressure at the outlet up to 60 pounds per square inch. At a shower, this will be significant and may remove skin!! Unless you have an understanding of the process and a compressor - it's a job for a plumber.

A pump that continually cycles - that is - as soon as you turn on a faucet or flush - it starts or where the shower gives you the water in short spurts, is an indicator that the pressure tank has become waterlogged.

The air that should be in the pressure tank has leaked out and the tank must now be emptied and re-pressurized.

Water heater

Many water heaters are rental units - often it depends on your location. Water heaters are classified according to the capacity of the water tank. If you have a rental unit, the supplier takes responsibility for any repairs or replacement that may be required. Generally, if you intend to occupy the home for five years or more - it's more cost effective to buy one.

Many hot water heaters have the temperature set too high. Hot water at 140 degrees Fahrenheit (a common setting) will scald a child in seconds. Most pediatric commentators recommend a maximum temperature of 125 degrees Fahrenheit.

It's a common misconception that you need the water really hot for a dishwasher to be efficient. All modern dishwasher have an internal heater that will bring the incoming water temperature up to the required level.

Plumbing (7)

Reduce the water temperature on all hot water heaters to a maximum of 125 degrees Fahrenheit.

Whirlpool tubs

Whirlpool tubs either have series of air jets all over the base or water jets at the sides and ends that circulate the water in the tub. Most of the jets are self draining although not completely so and therein lies the problem. Some water gets left behind and it grows bacteria. Legionaries disease may spread through stagnant water.

The solution is to clean the tub and pipes. You can get special cleaners or just use a weak solution of bleach. Fill the tub and run it for a few minutes - drain it and you ready to go again in a clean tub. A weak solution, used about once a month, won't hurt septic systems either.

The power that feeds the spa or whirlpool tub has to go through some type of groundfault protection. Access to the motor and controls is also important.

Sump pumps

Sump pumps are used mainly in rural housing, although some older parts of cities still have them. They pump water collected by the footing level perimeter drains - out to a ditch, French drain or other drainway. There are two basic styles of pump - column or submersible. Column pumps are susceptible to falling over and jam easily. Submersible pumps are better and are generally more powerful.

The flexible sump pump hoses supplied with many pumps are useless and should be replaced with ABS rigid pipes. Ensure that in cold climates - any pipes that extend outside are a minimum three inch diameter and have a continuous slope to the discharge point.

Discharge points must be kept clear. Many are not visible during the inspection and a working pump does not necessarily indicate a clear discharge.

Be sure your house insurance covers sump pump failure both as a result of a mechanical defect and a power failure. Most policies don't include it as a matter of course - you have to ask for it.

Perimeter drains (a.k.a. "tiles")

These are the continuous, perforated pipes at the footing level, that surround most homes, it collects water from ground sources, window wells and some downspouts. The pipe either delivers the water to the sump, where a pump delivers it to a drainage area (a ditch for instance) or by gravity to a ditch or lower drainage area.

In city homes - the pipe may deliver the water by gravity to a storm sewer.

Blocked perimeter drains can be a major factor in causing leaking basements. The white efflorescence at the bottom of foundation walls in basements and crawl spaces is often an indicator of this problem. In some cases it may be possible to clean out the pipes, however if replacement is required excavation can be costly.

Plumbing (8)

Many older homes have terra cotta or clay perimeter drains. Most of these have collapsed or failed, at least in part and will need repair or replacement. A home inspection will not determine the condition of the pipes although interior dampness and efflorescence at the base of foundation walls may be a visual indicator of a problem.

Bathroom fans

We recommend exhaust fans for all bathrooms. Discharge pipes must be insulated in attics and must discharge outside the building. Do not allow discharges into garages or attics. We further recommend timers. These allow you to turn on the fan for (say) 30 minutes even though you're leaving the room.

Simple switches mean that you either don't turn the fan on at all or only for a short period, in which case the condensation will still be in the room. Alternatively, you leave the fan on, in which case it will gradually empty all the heated (or air conditioned) air from the building while you're out.

Some new fans are available with a humidistat. These run only when the humidity is above a pre-determined level.

Lead pipes

Lead pipes are installed in many Municipal water systems, so although there may be no sign of lead piping in your home, it may be supplied through lead pipes under the street.

Even small amounts of lead can seriously damage your health and in particular the development of fetuses and small children. If you are or intend to become pregnant or have any other health concerns, you must have the water tested for contamination and contact your health professional for advice, before proceeding with your purchase.

The matter of lead piping in the street is beyond the scope of the home inspection.

