

**St. Clair County Health Department
Homeowners Reference Guide
Subsurface Seepage Trenches**

Private Sewage Disposal Systems:

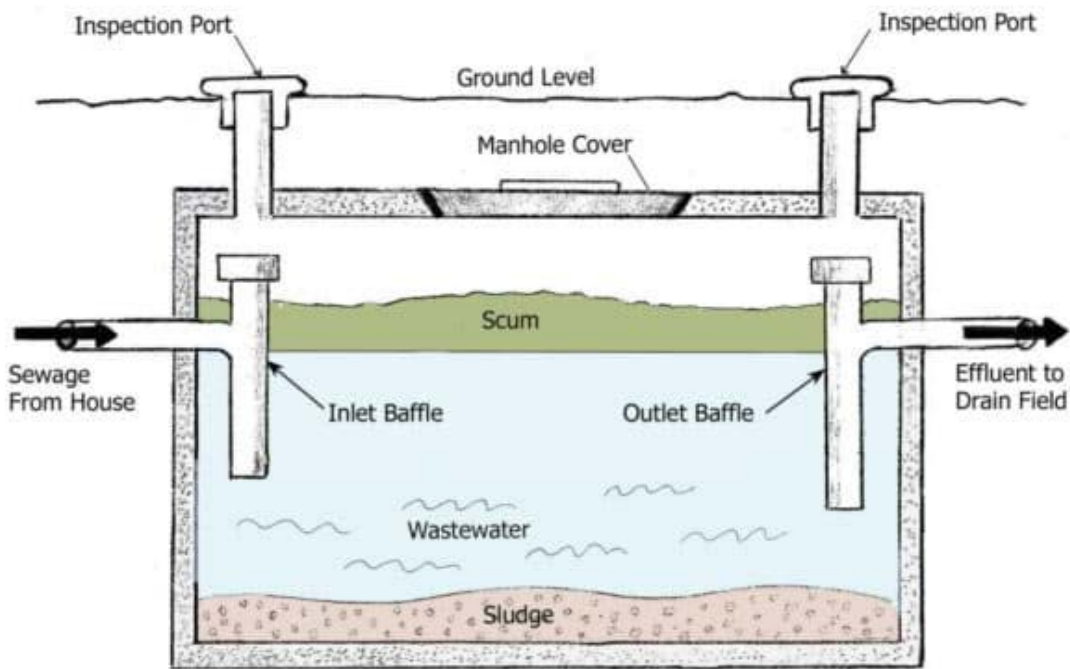
Septic systems are wastewater treatment systems designed to treat wastewater flows from individual homes.

How it works:

Your septic system consists of a septic tank followed by a subsurface seepage system, gravel, gravelless, chamber, or chamber bed. The use of a distribution box is optional for all systems and, if present, will be located at or near the entrance to the seepage trenches/seepage bed.

1. The Septic Tank:

The main purpose of the septic tank is to separate the solids from the liquids. The solids, in the form of sludge, collect on the bottom of the septic tank and the scum, the lighter solids that float on the top of the water, remain in the tank. Every 3 – 5 years the solids and scum should be pumped out to ensure proper operation of your septic system. **Failure to routinely pump the septic tank will contribute to premature failure of the septic system!** Pump more frequently, if you have a garbage disposal.



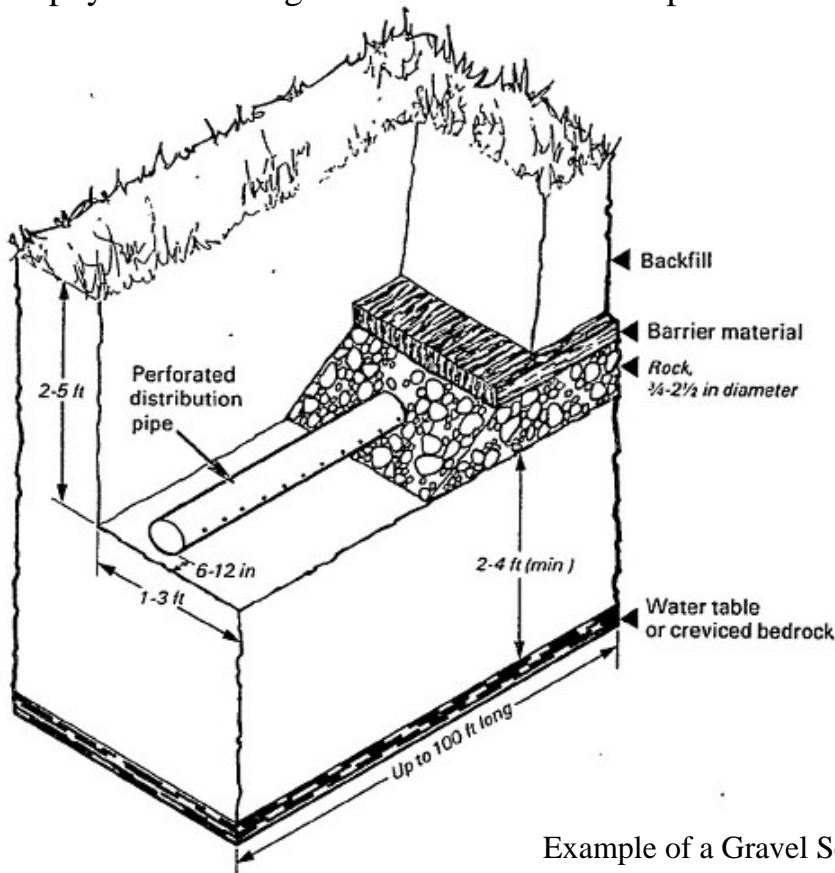
Septic Tank Cross-Section

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2. Gravel/Gravelless/Chamber Seepage Trenches:

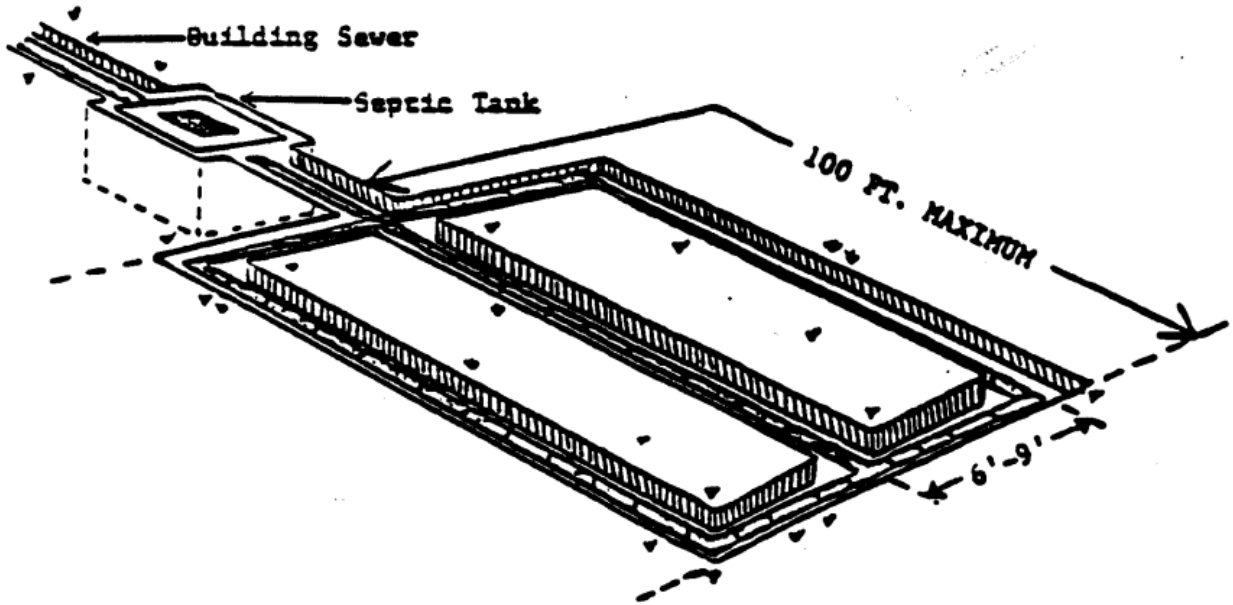
The wastewater is directed out of your septic tank and into the seepage trenches. Gravel seepage trenches are 18 inches to 36 inches deep, typically 24 inches to 36 inches wide, and can be no longer than 100 feet. The gravel seepage trenches contain a minimum of 6 inches of gravel below the distribution lines and a minimum of 2 inches of gravel leveled over the top of the distribution lines, for a minimum depth of 12 inches of gravel. In addition, all trenches must be looped so that all the trenches are connected.

Two types of pipes do not require the use of gravel, this being “gravelless pipe” or “chamber”. 8-inch diameter gravelless pipe is equivalent to a 24-inch gravel trench; 10-inch gravelless is equivalent to a 36-inch gravel trench. Chamber pipe is equivalent to a 36-inch gravel trench. Gravelless and chamber trenches do not need to be looped. The soil surrounding the seepage trenches is utilized as a source of natural treatment for the effluent (wastewater). The soil enables the effluent to receive a combination of physical filtering and biochemical decomposition.

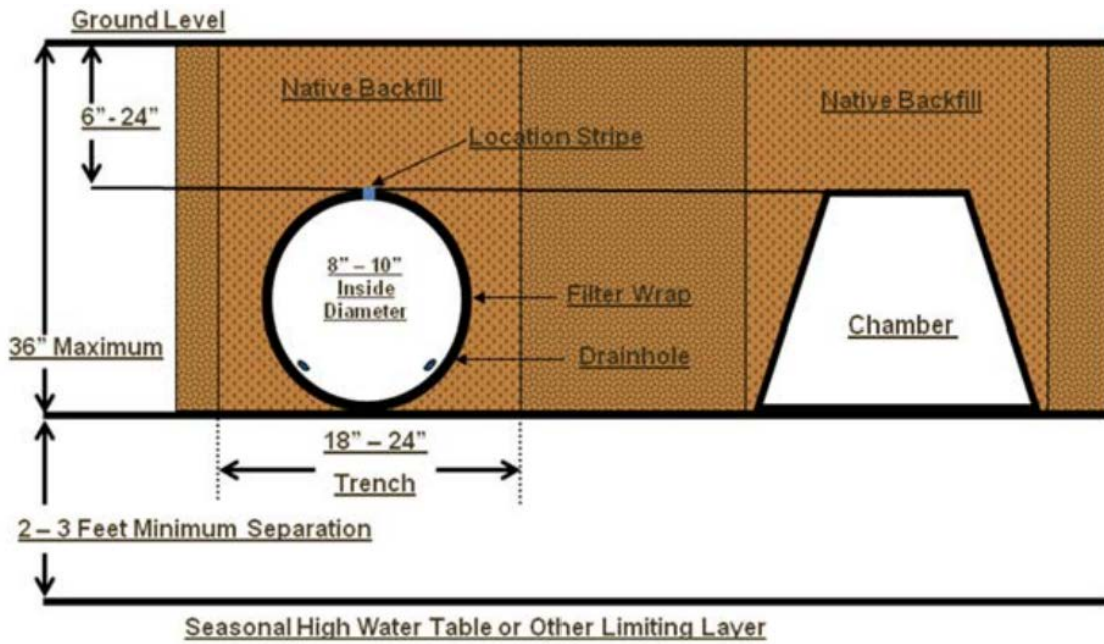


Example of a Gravel Seepage Trench

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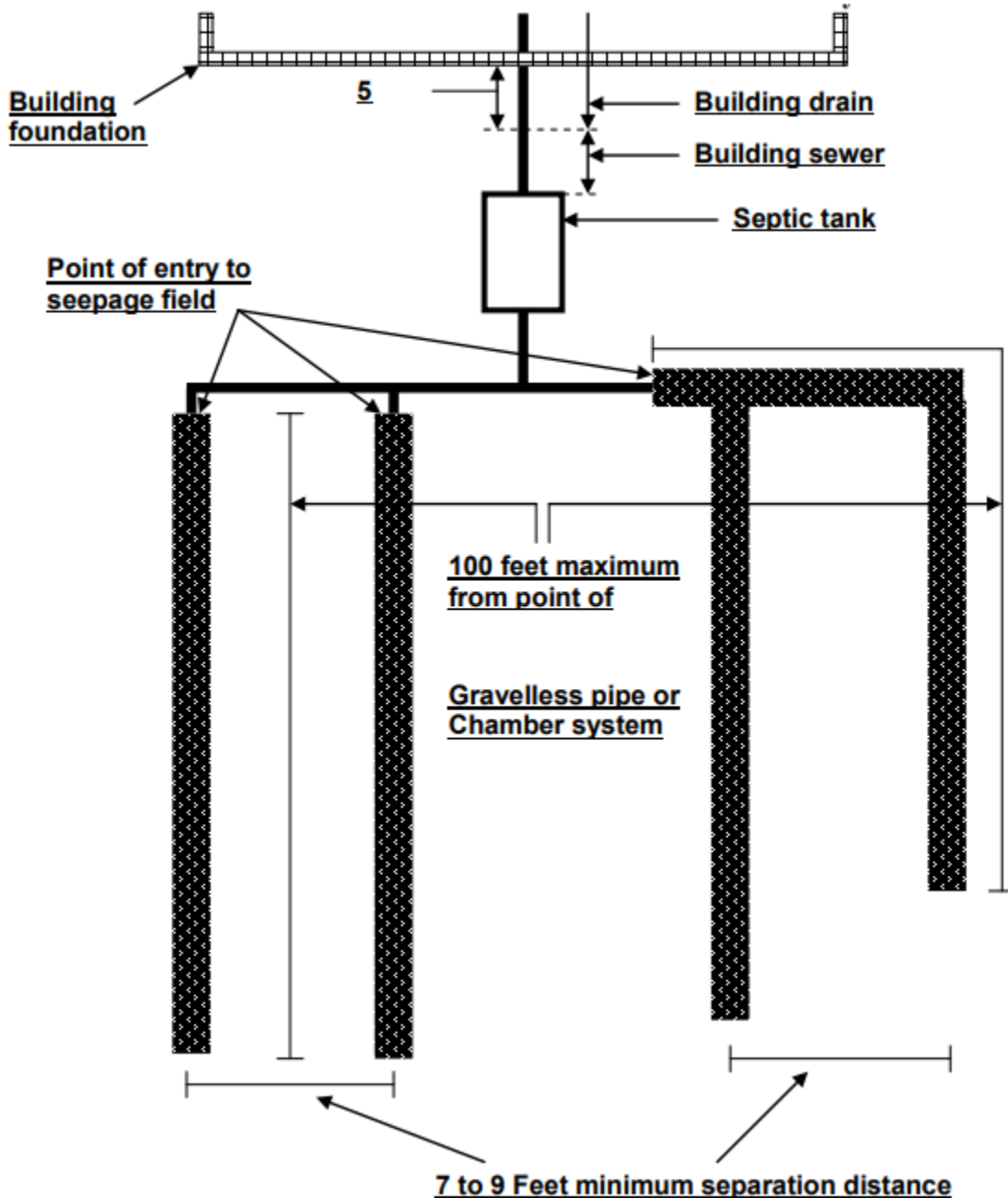


Example Seepage Field, Gravel System



Example Gravelless and Chamber System

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Septic System Failure:

A septic system fails over time because suspended solids are carried out of the septic tank with the effluent. These small particles plus up the spaces between the filtering media (soil) and cause eruption to the ground surface. Failure to routinely pump the septic tank will contribute to this! Therefore, it is very important to properly maintain and pump the septic system to ensure the septic system lasts the usual 15 to 20 years.

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Tips to Avoid Trouble:

- Pump the septic tank every 3-5 years to prevent problems. Note: Pump tank annually if system has a garbage disposal.
- Avoid additives, unless recommended by a licensed pumper or contractor.
- Learn about the type of system you have and the location of the septic system.
- Divert roof drains and surface water away from the septic system. Keep sump pumps and foot drains away from the septic system as well.
- DO NOT use excessive quantities of bleach, disinfectants, drain, or toilet bowl cleaners.
- DO NOT make repairs or allow repairs to your septic system without obtaining the required permit from the Monroe County Health Department. Contact the Monroe County Health Department for a list of licensed septic system contractors and pumpers.
- DO NOT dispose of hazardous chemicals, grease, disposable diapers, plastics, latex, paints, pesticides, solvents, oven cleans, degreasers, tobacco products, coffee grounds, wet strength, paper towels, or sanitary item into your system.
- DO NOT build, drive, plant trees, or locate a swimming pool over components of the septic system.
- DO NOT direct clearwater discharges (i.e., any footing tile drainage, air conditioner condensate, etc.) to the septic system. In addition, the Monroe County Health Department strongly recommends that water softener backwash not be discharged into a private sewage disposal system.
- DO NOT install a garbage disposal or grinder to an existing septic system.
- Practice water conservation. Repair leaking water fixtures, operate washing machines and dishwashers only when full, avoid taking long showers, and install water saving fixtures designed for toilets, faucets, and shower heads.

DO NOT DO ALL LAUNDRY AT ONCE (THIS WILL OVERLOAD THE SYSTEM). SPACE THE LOADS EVENLY THROUGHOUT THE WEEK.

Signs of Problems with your Septic System:

- 1) Slow drainage toilets, showers, and sinks.
- 2) Sewage back-ups in the house.
- 3) Sewage surfacing over the septic system.
- 4) Sewage odors.