



GENERAL CONSTRUCTION REQUIREMENTS FOR ONSITE SEWAGE SYSTEMS

These general construction requirements are supplemental to individual permit conditions. Refer to the permit for site specific construction details and call with any questions prior to starting construction. Please note that it is the responsibility of the contractor or owner to call MISS DIG (1-800-482-7171) prior to starting any excavation work!

GENERAL INFORMATION

- Sewage permits are valid for one year from date of issuance (6 months for Time of Sale replacements). If work has not begun before the expiration date, a permit re-write will be required prior to any inspections from this office.
- It is recommended that the contractor phone in inspection requests by 9:30 a.m. of the day the inspection is desired, with an indication of when the job will be ready for inspection.
- Sewage system installation should be avoided during periods of freezing weather, heavy precipitation or when soils are excessively wet.
- An inspection disapproval (Red Tag) will result when: 1) The job is not ready for inspection when requested; or 2) The work performed does not conform to permit specifications/construction requirements; or 3) Any portion of the system is not open / accessible for the requested inspection or is covered without inspection.
- All materials needed for system installation should be ordered or delivered to the site prior to starting the excavation in order to eliminate unnecessary delays during construction.

SEWER LINE

- The sewer line from the house to the septic tank is a plumbing component & is not covered by this permit.
- Minimum sewer line fall from tank to field is 1/8 inch per foot.
- Schedule 40 PVC pipe is required between septic tanks and for the first 10 feet of sewer line from the tank to the drainfield.
- Any sewer pipe installed under a driveway must be sleeved in a larger diameter pipe and be insulated.

SEPTIC TANKS

- Septic tanks are to be installed with the largest tank or compartment closest to the house/dwelling.
- All tanks must be constructed such that each compartment is accessible for maintenance/cleaning.
- If tank burial exceeds 18 inches, then risers to grade are required to facilitate tank access for maintenance. Risers are also required to facilitate maintenance over effluent filters and pumps.
- A constructed "tee" or pre-cast concrete baffle is required on all septic tank outlets. Such baffles or "tees" must extend 24 inches below the liquid level. For inspection purposes, tank lids must be accessible.
- Per Washtenaw County requirement, the inlet and outlet of all septic tanks must be equipped with a rubber boot meeting ASTM 927 specifications.
- If required, tank tightness tests must be done in accordance with ASTM Standard C 1227, Section 9.2.
- For replacement systems, old septic tanks no longer in use must be pumped and crushed.

DRAINFIELD EXCAVATION

- All excavations require inspection. Excavations must be sized, located, and excavated in accordance with the permit conditions and approved plan.
- Any excavation into a wet formation must be de-watered for inspection purposes. Inspections for wet excavations should be scheduled with this office. Have backfill sand stockpiled on site.
- Excavations covered with excessive water, snow or silt will not be approved.
- All excavations must be performed with a toothed bucket so as not to smear soil – the floor of the excavation shall be loose and uncompacted. A bulldozed excavation will not be approved.

- All excavations shall be backfilled as soon as possible upon approval. All backfill sand must meet at least one of the following specifications:
 1. MDSH&T 2NS Sand
 2. MDSH & T Class I Granular Material
 3. Percent passing #4 sieve: 90 - 100%
 Percent passing #60 sieve: 0 - 50%
 Percent passing #100 sieve: 0 - 20%
 Percent passing #200 sieve or less by washing: 0 - 5%

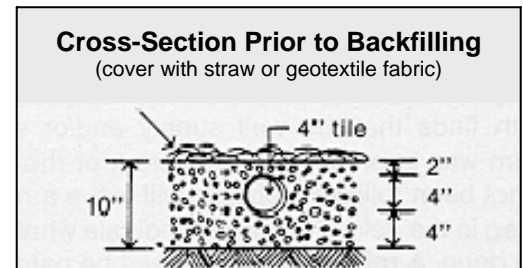
Note: Class II sand is not an approved drainfield backfill material. "Bank run" is not a graded material and may not meet the above standard. If the fill sand is not graded material, a sieve analysis may be required at the contractor's expense.

DRAINFIELD CONSTRUCTION

- All drainfield installations require inspection. Construct according to permit details and these requirements.
- Drainfield pipe must be of approved type. A list of approved pipe is available upon request.
- All drainfield stone must meet the following 6-A stone specifications:
 - Percent passing 1½ inch sieve: 100%
 - Percent passing 1 inch sieve: 95 - 100%
 - Percent passing ½ inch sieve: 30 - 60%
 - Percent passing #4 sieve: 0 - 8%
 - Percent loss by washing: Less than 1%

Note: Crushed limestone is not acceptable as drainfield stone.

- Drainfield pipe shall be constructed on 4-foot centers and laid over a minimum of 4 inches of 6-A stone. Four more inches of 6-A stone must be added around and beside the drainage pipe and continue to a level of 2 inches above the pipe. Thus a total of 10 inches (4 + 4 + 2) is required. (See diagram.)
 - Note: Any drainfield installation for commercial purposes must have a minimum of 6 inches below the pipe, for a total of 12 inches of stone.
- Drainfield stone must be level over the entire bed. Drainfields inspected with stone heaped over the drainfield pipe and less depth of stone between the rows of pipe will not be approved.
- A covering of straw or approved geo-textile fabric shall be placed on top of the stone before the final backfill with soil. A sufficient quantity of these materials must be on-site during the final inspection.
- The drainfield shall be laid so that the amount of soil cover, after final grading is complete, is between 12 and 24 inches.
- Split headers are required for drainfields with 8 or more lines to improve distribution among laterals.
- The header of the drainfield must be constructed of solid pipe, laid level and have solid, watertight joints.
- The perforated pipe (laterals) off the header shall slope not more than 1 inch in 50 feet.
- A "footer" must be installed to connect all laterals at the end of the drainfield and may be solid or perforated.



FINAL COVER AND GRADING

- Sandy loam soils should be used for drainfield cover to increase evaporation rates. Do not cover with clay.
- Vegetative cover over the drainfield should be established as soon as possible after construction in order to prevent soil erosion and promote aerobic conditions within the treatment area.
- Footing drains, downspouts, and water softener discharge are not to be connected to or routed toward any portion of the septic system.
- It is highly recommended that irrigation systems not be installed over drainfield areas.
- Important notes for system start-up:
 - Do not leave tanks or drainfield open for any extended period – silts and clays entering the system can significantly reduce the life of the system.
 - Do not flush oils, solvents or construction materials such as drywall or paint into the septic system.