GUIDE FOR SEPTIC TANK REPLACEMENT

MINOR REPAIR SEPTIC PERMIT – This septic construction permit application type is required to replace a tank and/or distribution box. Applications and documents are submitted through our online permit portal Development Direct. A link to this site and additional information is on our website www.clackamas.us/septic.

Documents to be submitted with your application:

- **Site Plan** (including relative elevations, a detailed layout of the proposed tank and first box location and box locations for any/all boxes being replaced), all existing & proposed structures, surface water like creeks, ponds, driveways, well location (if applicable), etc.)
- **Material Spec sheets** (obtained from distributor or manufacturer) for the tank and/or box you propose to install
- If a pump will be used, include **Pump specs, Pump calculations and the Pump Curve** to show that your proposed pump will work with with your septic design
- **Notice Authorizing Representative Form** (needed if the applicant is *not* the owner of the property)

SEPTIC TANK SELECTION:

- A septic tank that serves a single family dwelling up to 4 bedrooms must have a minimum volume of 1,000 gallons.
- A home with 5-8 bedrooms must use a septic tank having a minimum volume of 1,500 gallons.
- The tank must be on the DEQ list of Approved Tanks and Distribution Units.
- **Be aware that some DEQ approved tanks may not be suitable for your site based on groundwater and soil/site conditions** therefore we require the make and model of the proposed tank to be shown on your application. *Email our Department at septicinfo@clackamas.us if you have questions on what tanks may be suitable for your site.

SEPTIC TANK PLACEMENT FOR SYSTEMS BUILT AFTER JUNE OF 1977:

- INSTALLATION GUIDE: Each tank manufacturer has prepared an installation guide that provides instructions to follow when placing that manufacturer's tank. It is very important that the manufacturer's guide be closely followed to ensure the tank remains structurally sound and water-tight after it is placed in the ground.
- SETTING THE TANK: The tank must be placed level from side-to-side and end-to-end. The depth of excavation must be determined before setting the tank to ensure that the building sewer pipe can maintain the minimum/maximum grade set by the plumbing code once it is connected to the tank inlet fitting.
- GRAVITY OR PUMP: Similarly, the effluent sewer pipe that connects to the tank outlet fitting must have a minimum fall of 2 inches and maintain a minimum grade of 4 inches per 100 feet. Be aware that the tank outlet invert must also be at least 8 inches higher than the invert of the header pipe on the first/highest trench. A pump will be required to lift sewage to the drainfield if the minimum fall and grade requirements for the effluent sewer pipe cannot be met.

SEPTIC TANK PLACEMENT FOR SYSTEMS THAT WERE BUILT BEFORE JULY 0F 1977:

Clackamas County has found that some septic systems built prior to July of 1977 do not have sufficient fall between the septic tank and the drainfield to meet the current DEQ requirement. If it is reasonably possible to do so, the tank placement must meet with same standards for placement as described above for systems built after June of 1977. If this minimum elevation difference cannot be met, it is possible to comply with the DEQ standard by using a pump to lift septic tank effluent to the drainfield, however at additional cost.

Clackamas County may issue a minor repair permit for a septic tank replacement for a system built before July 1977 without requiring a pump if all the following requirements are met:

A. The system must have been installed prior to July of 1977, substantially in compliance with the standards that were in effect at the time of installation;

B. The system serves an owner-occupied single family residence;

C. The septic tank installer must check and verify that the effluent sewer pipe between the septic tank and the drainfield has at least two (2) inches of fall; and

D. The property owner(s) must submit a signed affidavit on a County form stating that the installation of a pump (and other necessary components) to lift septic tank effluent to the drainfield is an unreasonable requirement, and that he/she understands that the useful life of the system may be significantly reduced without the pump. Additionally, the property owner(s) shall hold harmless the county, its employees and agents if the system should fail or otherwise not perform in a satisfactory manner.

MAINTAIN SETBACKS: A replacement septic tank must meet established minimum setbacks from buildings, property lines, wells and other features that may be present on the landform if it is reasonably possible to do so.

SERVICE ACCESS RISER AND COVER REQUIREMENT: The septic tank must have at least one service access riser assembly and cover that extend to finished grade or higher. The riser must be securely attached to the septic tank and be water-tight. It must be at least 20 inches in diameter when the soil cover over the tank does not exceed 36 inches of depth. The minimum diameter of the riser must be at least 30 inches if the backfill depth exceeds 36 inches. Multi-compartment tanks must have the above-described riser above each compartment. The riser cover(s) must have a gasket for odor control, and must be securely fastened to prevent unauthorized access.

SEPTIC TANK ANTI-FLOTATION REQUIREMENT: A septic tank that is placed at a location where a groundwater table is present at any time during the year may be required to have anti-flotation measures installed. The need to use anti-flotation may not be apparent until after the tank has been placed and inspected by the County. The tank manufacturer has prepared instructions to follow if anti-flotation measures are required. Please be aware that some septic tanks cannot be used at locations where the groundwater level rises higher than the bottom of the septic tank.

TESTING THE TANK FOR LEAKAGE:

- THE 24 HOUR WATER TEST**:** After the septic tank has been installed following the manufacturer's guidelines, it must be tested to demonstrate that it is water-tight by the procedure established by DEQ:

1. The excavated tank hole can be backfilled to the bottom of the inlet and outlet
2. The tank must be filled with clean water to a level that is 2 inches higher than the point of connection of the riser to the top of the tank. **CAUTION, THE TANK CAN BE DAMAGED IF IT IS FILLED WITH WATER ANY HIGHER THAN 2 INCHES ABOVE THE RISER/TANK TOP JOINT.**
3. Mark the water level, time, date and your initials using a permanent marker.
4. After 24 hours, check the water level.
5. If it has dropped more than one inch over the test period, the cause of the loss must be determined and fixed.
6. The tank must successfully pass the water test before calling the County for an inspection.
7. Do not remove or add any water to the tank during or after the 24 hour test so that the inspector can verify the water-tight test.

CONNECTION TO EXISTING SYSTEM: The connection point between the tank and the absorption system must be exposed for the inspection. This will require locating and uncovering the first box of a serial system, the distribution box of an equal distribution system, or the connection point to an existing drywell.

TANK DECOMMISSIONING: The old tank being replaced must be decommissioned in accordance with standards established by DEQ. The old tank must be pumped by a licensed sewage disposal service to remove all of the remaining septage. The old tank must be removed from the property and disposed of properly or left in place and filled with reject sand or bar-run gravel. The tank installer must provide the **County** with a completed Tank Decommissioning Certificate and the pumping receipt once the decommissioning work is completed.

PLUMBING PERMIT. Connections between the septic tank and a building require a permit from the Building Codes department. Please contact them directly for further details at BLDSERVICE@CLACKAMAS.US or 503-742-4240.

ELECTRICAL PERMIT. – An electrical permit for two circuits is required for all pump systems. Electrical permits are also pulled through the Building Codes department. Please contact them directly for further details at BLDSERVICE@CLACKAMAS.US or 503-742-4240.