

# ENVIRONMENTAL HEALTH DEPARTMENT

# SEPTIC SYSTEM TYPES

### **Conventional:**

This system consists of corrugated pipe and gravel. It requires a minimum of 36 inches of suitable or provisionally suitable soil. A conventional system may require a pump depending on the location of the house and the septic system area.

# **Modified Conventional:**

**Shallow conventional:** This system may go in shallower soil but has the same components as a conventional system. It requires a minimum of 24 inches of suitable or provisionally suitable soil. This system may require additional soil to cover the system. A pump may be required depending on the location of the house and the septic system area.

*Saprolite system:* This type of system can only be used where the saprolite (decomposed rock) material is found to be suitable after being evaluated in backhoe pits which must be dug to a depth of 5 feet. It is required that 2 feet of approved saprolite be present under the trench bottom.

#### **Gravelless Trenches:**

*Large Diameter Pipe:* This system consists of 8 or 10 inch corrugated tubing with a nylon/polyester blend filter wrap. It requires 28-30 inches of suitable or provisionally suitable soil.

**Prefabricated, Permeable Block Panel System:** This system consists of concrete blocks that are specially constructed to promote down line and horizontal distribution of the sewage. This system requires a minimum 42 inches of suitable or provisional suitable soil. This system will allow up to a 50% reduction in the nitrification line. These systems require written authorization from respective manufacturers.

# **Alternative:**

**Low-Pressure Pipe Systems:** This system is used where suitable or provisionally suitable soil depth inhibits the use of a conventional system soils. A minimum soil depth of 20 inches is required which will require additional soil cover. This system consist of a series of small diameter pipe that require a pump to pressure dose the system. A certified operator is required for this type of system.

*Fill System:* This system requires 18 inches of naturally occurring suitable or provisional suitable soil. The system requires suitable soil be brought in to the site and extensive site preparation be done.

# Other:

# **Experimental and Innovative systems:**

This summary does not include all innovative and experimental systems. For more complete information on the innovative systems, refer to the Innovative and Alternative Wastewater System Approvals issued by the Division of Environmental Health. Also check the web site at <a href="http://www.deh.enr.state.nc.us/oww/">http://www.deh.enr.state.nc.us/oww/</a>

These systems will allow up to a 25% reduction in linear footage when compared to a conventional system. Installers of these systems must obtain written authorization from the respective manufacturers before they can install these systems.

*Chambered Systems:* These systems consist of plastic black panels that connect together in the nitrification trench. No gravel is used in this system. One must check the manufacturer's requirement for specifics.

**Polystyrene Aggregate:** This system consists of 3 cylindrical bundles of double- E shaped expanded polystyrene in a netting material. The center bundle contains 4 inch corrugated tubing. No gravel is used in this system. One must check the manufacturer's requirement for specifics.

If there are questions about any of these systems, please contact your septic tank contractor or call the manufacturer of the system.