

HOW TO PERFORM A PERCOLATION TESTS

- ❖ The percolation test must be taken in the area where the absorption system will be constructed

PREPARATION OF TEST HOLES

1. Dig a minimum of 3 test holes, 4" to 12" in diameter and the same depth as the proposed absorption trenches (not to exceed 36" in depth). The test holes should be distributed evenly over the proposed absorption area.
2. Scratch or roughen sides and bottom of each test hole. Remove all loose dirt from each hole.
3. Place 2" of rock in the bottom of each test hole.

PRESOAK

1. Pour 12" of clean water into each test hole and maintain in the 12" of water for at least 4 hrs, preferably overnight if clay soils are present.
2. If after filling the hole twice with 12" of water, all 12" of water seeps away in less than 10 minutes, no further presoaking is needed and you can proceed with the percolation test immediately.
3. **WAIT AT LEAST 4 HOURS, NOT MORE THAN 24 HOURS, FROM THE TIME YOU START THE PRESOAK TO START THE PERCOLATION TEST.**

PERCOLATION TEST

1. Remove soils that may have sloughed into the hole during the presoak.
2. Begin the test for each test hole at five (5) minute intervals.
3. Fill or adjust the depth of the water level in each test hole to approximately 6" above the gravel.
4. Record the time that the water is poured into the test hole.
5. Wait 30 seconds. Record the time and height of water left in hole, to within 1/8th of an inch.
6. Refill the test hole to the previous 6" mark, record the time, wait 30 minutes, record the time and amount of water left in the hole. ****Repeat step #6 until all water levels on 2 successive intervals are within 1/2th of an inch of each other. At least 3 measurements shall be made.**

IF ALL OF THE FIRST 6" OF WATER IS GONE IN LESS THAN 30 MINUTES, the procedure listed above in #6 is followed, with the exception that you only need to wait 10 minutes in-between readings for a 1 hour period (entire test time – 1 ½ hours).

CALCULATION OF PERCOLATION RATE

1. Divide the time interval by the drop in water level to determine the percolation rate in minutes per inch (MPI).
2. Average the last percolation rate for each of the test holes to obtain the site percolation rate. **IF THE PERCOLATION RATES VARY MORE THAN 20 MPI, THEN THE PERCOLATION RATE IS NOT AVERAGED AND THE HIGHEST PERCOLATION RATE IS USED TO DESIGN THE SYSTEM.**

BORE HOLE

1. Dig a test hole 6' in depth or to rock or water, whichever occurs first. This hole shall be dug in the center of the area where the system is to be constructed. This test hole may be augured or may be made with a soil probe.