

Drainfields

Whether it is a trench or a bed, the drainfield should not be constructed when the soil is near or wetter than its optimum moisture (IDAPA 58.01.03.008.06). At optimum moisture, a soil will compact to its maximum ability and thus reduce its capability to transmit water. This ability to compact and restrict flow is particularly true of finer soils, such as silt loams and clay loams. It is not as critical in sands or sandy loams.

If it is entirely unavoidable to excavate the drainfield when the soil is wetter than its optimum moisture, then the sides and bottom should be raked to relieve any compaction. Backhoe buckets and teeth can effectively smear both trench sidewalls and trench bottoms. Therefore, raking should be done manually with a strong iron garden rake after all excavation with a backhoe is complete and before the drainrock is put in place.

Drainrock should be checked for cleanliness before it is placed in the trenches. Long transportation time may generate additional fines. If drainrock is found to be unsuitably dirty when it arrives at the site, it can often be cleaned in the truck by tipping the truck bed slightly and washing the rock with a strong stream of water.

Trenches do not have to be constructed straight. It is always preferable to follow the contour of the land. The drainfield must not be installed in floodways, at slope bases, in concave slopes, or depressions. Drainfield areas shall be constructed to allow for surface drainage and to prevent ponding of water over the drainfield.

Table 3-1 gives the lengths of trenches in the seven soil subgroups (A-2 has two application rates; see section 2.3, Table 2-10).

Drainfields larger than 1,500 ft² trench area bottom are prohibited from being constructed as a standard (gravity) drainfield (IDAPA 58.01.03.008.04). Drainfields exceeding 1,500 ft² in total trench bottom area must be pressure-dosed (section 4.20).