4.2 At-Grade Soil Absorption System

Revision: July 22, 2015
Installer registration permit: Complex
Licensed professional engineer required: Yes

4.2.1 Description

An at-grade soil absorption system is installed with the distribution aggregate placed at the original soil surface. Wastewater is distributed through the aggregate using a pressurized small-diameter pipe distribution system to ensure equal distribution across the infiltrative surface. The aggregate is covered with geotextile fabric and capped with at least 12 inches of soil cover. Figure 4-1 provides a diagram of an at-grade soil absorption system.

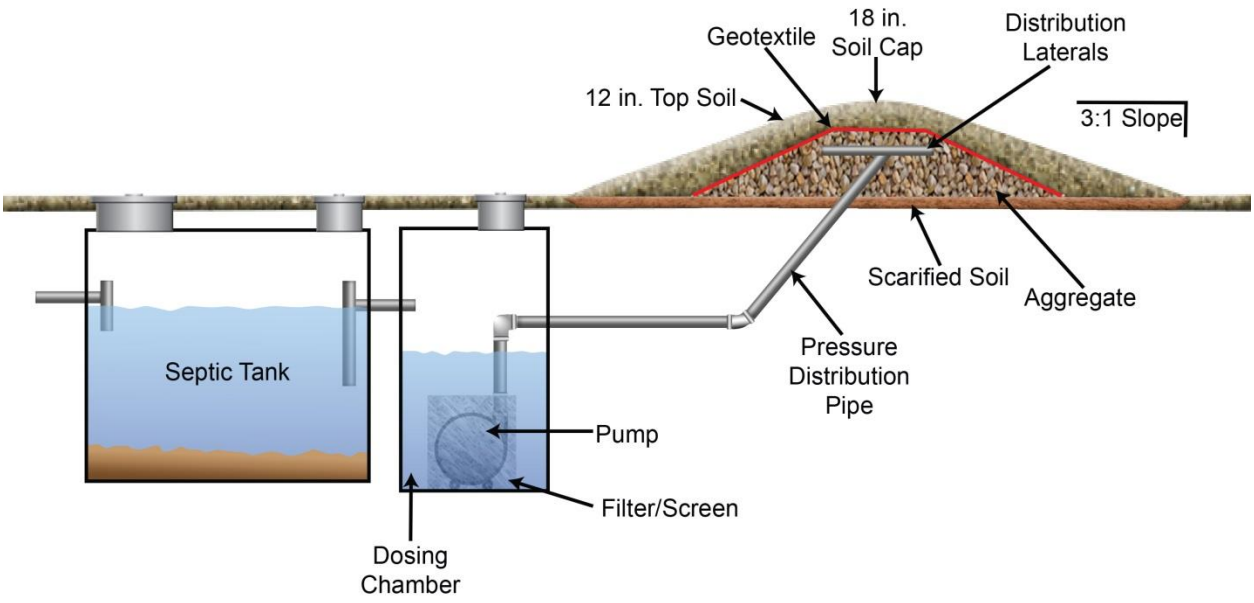

Figure 4-1. Cross-sectional view of an at-grade soil absorption system.

4.2.2 Approval Conditions

1. The system must be designed by a PE licensed in Idaho.
2. Effective soil depth to limiting layers shall meet the requirements of IDAPA 58.01.03.008.02.c. If a secondary treatment system is incorporated into the system design before discharge to the at-grade soil absorption system, the effective soil depth to any limiting layer shall not be reduced to less than 36 inches.
3. The soil application rate used in the at-grade soil absorption system design is based on the most restrictive soil layer within the soil profile's effective soil depth as determined by approval condition 2 except that the application rate shall not be increased for the incorporation of secondary effluent treatment before discharge to the at-grade soil absorption system.
4. Table 4-2 shows the maximum slope of natural ground, listed by soil design group.