



Standard Practice for Surface Site Characterization for On-Site Septic Systems¹

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1. Scope

1.1 This practice covers procedures for the characterization of surface conditions at a site for evaluating suitability for an on-site septic system for disposal and treatment of wastewater. This practice provides a method for identifying potentially suitable areas for soil absorption of septic tank wastewater.

1.2 This practice can be used at any site where on-site treatment of residential and nonhazardous commercial wastewaters using septic tanks and natural soils or constructed filter beds is required or an option under consideration. This practice may also be useful when constructed wetlands are used as an alternative wastewater treatment method.

1.3 This practice should be used in conjunction with Practices D 5921 and D 5925.

1.4 *This practice offers a set of instructions for performing one or more specific operations. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.*

2. Referenced Documents

2.1 ASTM Standards:²

D 5921 Practice for Subsurface Characterization of Test Pits for On-Site Septic Systems

D 5925 Practice for Preliminary Sizing and Delineation of Soil Absorption Field Areas for On-Site Septic System

3. Terminology

3.1 *clinometer, n*—an instrument for measuring inclination, as in topographic slope.

3.2 *constructed filter bed, n*—a material, usually of a sandy texture, placed above or in an excavated portion of the natural soil for filtration and purification of wastewater from an on-site septic system.

3.3 *on-site septic system, n*—any wastewater treatment and disposal system that uses a septic tank or functionally equivalent device for collecting waste solids and treats wastewater using natural soils, or constructed filter beds with disposal of the treated wastewater into the natural soil.

3.4 *potentially suitable field area, n*—the portions of a site that remain after observable limiting surface features, such as excessive slope, unsuitable landscape position, proximity to water supplies, and applicable setbacks, have been excluded.

3.5 *recommended field area, n*—the portion of the potentially suitable field area at a site that has been determined to be most suitable for an on-site septic system soil absorption field or filter bed based on surface and subsurface observations.

3.6 *soil absorption area, n*—an area of natural soil used for filtration and purification of wastewater from an on-site septic system.

3.7 *soil absorption field area, n*—an area that includes soil absorption trenches and any soil barriers between the trenches. Also called a *leachfield*.

3.8 *soil absorption trench, n*—an excavated trench, usually 1.5 to 3 ft wide that receives wastewater for treatment. Also called a *lateral* or *leachline*.

4. Summary of Practice

4.1 This practice describes a procedure using existing information about a site, simple field equipment, and visual observation for identifying and evaluating all significant conditions at the surface of a site, including climate, vegetation, topography, surface drainage, water sources, and human influences (structures, property lines), that may affect the suitability for design and construction of an on-site septic system. The procedure involves exclusion of areas that are unsuitable for natural soil absorption or constructed filter beds as a result of topography, landscape position, and proximity to surface

¹ This practice is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.01 on Surface and Subsurface Characterization.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.