

soil 1 (soil) n. 1. The top layer of the earth's surface in which plants can grow, consisting of rock and mineral particles mixed with decayed organic matter and having the.

A numerical rating of the potential for liquefaction in sands. Darcy, The formula used for laminar flow of water through porous saturated soils. Degree of consolidation The proportion of consolidation that has occurred after a given elapsed time. Degree of saturation The proportion of the volume of water to the total volume of voids of a given mass of soil. Density The ratio of the total mass to the total volume of a unit of soil. Usually expressed as a unit weight where weight is interchanged with mass. Density index Also, relative density. The density of a granular soil relative to the minimum and maximum densities achieved for that particular soil. Density of soil grains The average density of the mineral or rock of which the soil particles are composed. Density of water The density of water will vary with temperature and pressure. Values used for soils analysis are A value of Depth factor One of the terms in the bearing capacity equation that relates to depth of the foundation. The ratio between the depth of a slip circle below the top of a slope and the height of the slope. See the link to Bearing Capacity for publications, equations and calculations. Desiccation The process of shrinkage or consolidation of the fine-grained soil produced by increase of effective stresses in the grain skeleton accompanying the development of capillary stresses in the pore water. Deviator stress The difference between the axial and radial stresses of a triaxial test sample. Dewater Removal of water from a job site. Usually by pumping from excavations. Differential settlement The vertical displacement due to settlement of one point in a foundation with respect to another point of the foundation. Direct shear test Laboratory test used to determine the relationship of shear strength to consolidation stress. Strength characteristics that are estimated from this test includes cohesion and angle of internal friction. Direct strain The ratio of the change in length to the original length of a soil mass. Downdrag Negative skin friction. Forces induced on deep foundations resulting from downward movement of adjacent soil relative to the foundation element. Drained loading Loading which is slow enough for the water to drain from the soil as the total stresses increase. Pore pressure will not change, and volume will with loading. Drawdown The magnitude of the lowering of a water table, usually near a well being pumped. Dredging Removing soils from a sea, river or lake bed in order to deepen the waterway for water travel. Dry density The ratio of the mass of the solids soil grains to the total unit volume of soil. Dry unit weight The weight of solids soil grains to the total unit volume of soil. See unit weight page for various tables and relationships. Dynamic compaction The use of high-energy impact to densify loose granular soils. E Earth pressure The force per unit area exerted by soil on a retaining wall. See the link to Retaining Walls for additional information, equations and calculations. Earth pressure coefficients Coefficients used in determining earth pressure. Components may include angle of internal friction, friction between the soil and wall face, angle of the wall face, and angle of the sloping backfill. Effective stress The portion of the total stress that is supported through grain-to-grain contact of the soil. The stress in a soil mass that is effective in causing volume changes and in mobilizing the shear strength arising from friction. The difference between the total stress and the pore water pressure. Efficiency of a pile Also, pile efficiency. For a given pile in a group of piles, the ratio of the average ultimate load in the group to the individual ultimate load on the given pile. Elastic deformation Deformation caused in a soil due to a change in loading, and the soil recovers completely when the load is removed. Engineering properties Engineering parameters of a soil such as permeability, shear strength and consolidation. Different from index properties. Engineered fill Soils used as fill, such as retaining wall backfill, foundation support, dams, slopes, etc.. These specifications may delineate soil grain-size, plasticity, moisture, compaction, angularity, and many other index properties depending on the application. Eolian Soil Soil deposits that have been transported by wind. Equipotential For a flow net, lines connecting points of equal total head. Equipotential lines are usually drawn so that the interval, or equipotential drop, is constant. Equipotentials intersect flow lines and impermeable boundaries at right angles. Equivalent fluid pressure Horizontal pressures of soil, or a combination of soil and water, which increase linearly with depth and are equivalent to those that would be produced by a heavy fluid

of a selected unit weight. Excess pore pressure That increment of pore water pressures greater than hydro-static values, produced by consolidation stresses in compressible materials or by shear strain; excess pore pressure is dissipated during consolidation. Exit gradient The hydraulic gradient near an exposed surface through which seepage is moving. Expansive Clays Also, Reactive Clays. Clays that are sensitive to water, causing them to swell or expand. F Factor of safety The ratio of a limiting value of a quantity to the design value of that quantity. See Factor of Safety for typical values with relation to geotechnical design. Failure envelope For a given soil, the graph of the shear stress and normal effective stresses at which shear failure occurs. Fault A shear fracture in a rock mass along which movement has taken place. Field density test Also In-place density test. Field testing that determines density of compacted fill to verify that it meets specifications. Types of tests may include sand cone, rubber balloon or nuclear densiometer. Fine-grained soils Silt and clay soils. Soils containing particles smaller than No. Fines content fraction Soil grains smaller than No. Fissured clay A clay having an internal network of narrow cracks or separations, in which the width and depth tends to increase upon drying. Flow line The path water will follow traveling from high head to low head in a seepage flow analysis. Flow net A graphical analysis of seepage flow in a mass of soil to estimate flow quantities and pore pressures. Flow quantity The total volume of water flowing in a seepage analysis. Flow rate The ratio of total volume of water flowing to a particular unit of time. Flow slide Shear failure in which a soil mass moves over a relatively long distance in a fluid-like manner, occurring rapidly on flat slopes in loose, saturated, uniform sands, or in highly sensitive clays. Flow velocity The velocity of water flow through a soil. Footing An enlargement at the base of a foundation that is designed to transmit forces to the soil. See the link to Foundations or Bearing Capacity for foundation types, applications, equations and calculations. Founding depth The depth below the ground surface where the base of a foundation is located. Friction angle See angle of internal friction. Friction pile A pile that derives the majority of its load bearing ability from the skin friction between the soil and the pile. Frost jacking G Geotextiles A synthetic fabric used to stabilize soils, retain soils, prevent the mixing of dissimilar soils, provide a filtering function, pavement support, subgrade reinforcement, drainage, erosion control and silt containment. See Geosynthetics for additional information and publications. Grading curve See grain size distribution curve. Grain size distribution See particle size distribution. Grain size distribution curve A curve drawn on a log scale to represent the distribution of particle sizes in a soil. Gravity walls Retaining walls which depend upon their self weight to provide stability against overturning and sliding; usually made of a high bulk structure. See the link to Retaining Walls for equations and calculations.

Chapter 2 : Soiled | Define Soiled at calendrierdelascience.com

Soil types vary widely from one region to another, depending on the type of bedrock they overlie and the climate in which they form. In wet and humid regions, for example, soils tend to be thicker than they do in dry regions.

Chapter 3 : Soil dictionary definition | soil defined

soil 1 (soil), USA pronunciation n.. the portion of the earth's surface consisting of disintegrated rock and humus. a particular kind of earth: sandy soil. the ground as producing vegetation or as cultivated for its crops: fertile soil.

Chapter 4 : Geotechnical Glossary

Just as important, the prevailing topography and soils influenced the date of permanent settlement and the degree of seigniorial control over land and farming. From Cambridge English Corpus In the poor-market-access areas soils were better and land more abundant.

Chapter 5 : Glossary of Soil Science Terms | Soil Science Society of America

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First Known Use of soil. Verb (1) 13th century, in the meaning defined at transitive sense 1. Noun (1) , in the meaning defined at sense 1a. Noun (2) 14th century, in the meaning defined at sense 1.

Chapter 6 : soil | Definition of soil in English by Oxford Dictionaries

the earth, origin of all plant growth and the basis of all animal agriculture. Its characteristics of chemical composition, physical structure, especially porosity and water retaining capacity, its humus content, pH and salinity exert enormous effects on its productivity.

Chapter 7 : Soil Synonyms, Soil Antonyms | Merriam-Webster Thesaurus

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Definition of soil - the upper layer of earth in which plants grow, a black or dark brown material typically consisting of a mixture of organic remains.