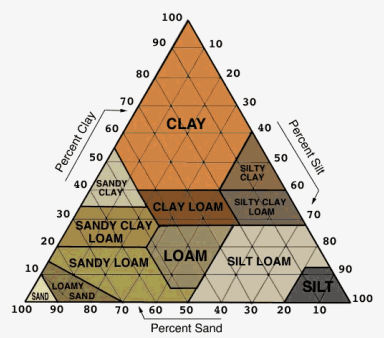
ARCO SAFE TOOL BOX TALKS

Excavation – Soil Classification

1926 Subpart P, Excavations



Excavations are one of the most dangerous activities that occur on construction sites. OSHA has classified soils into three types to help determine what is the acceptable amount of slopping and benching to prevent unintended slide, or cave in on workers.

Type A Soil: means cohesive soils with an unconfined compressive strength of 1.5 tons per square foot. Examples of Type A are clay, silty clay, sandy clay, and clay loam. Type A soil stops being A if it is fissured in any way, subject to vibration, or has been disturbed. (acceptable slope H ½ and V 1)

Type B Soil: means cohesive soils with an unconfined compressive strength of 0.5 tons per square foot. Examples of Types B are angular gravel, silt, silt loam and sandy loam. Type B soil can also be Type A that is fissured in any way, been subjected to vibration, or been disturbed. Also included in Type B is dry rock that is not stable. (acceptable slope H 1 and V 1)

Type C Soil: means cohesive soils with an unconfined compressive strength less than 0.5 tons per square foot. Examples of Type C granular soils are gravel, sand, and loamy sandy. Also included in Class C is submerged soil, soil which water is freely weeping, and submerged rock. (acceptable slope (H 1 ½ and V 1)

Soil must be classified by a competent person using at least one visual and one manual test, or assume all soil is type C.

Layered soils: Soils can be layered with different types running on top of or beneath each other. In these cases special care must be taken because one layer can easily “slide” on another causing a slide or cave in of an excavation. Each layer should be tested and the lowest soil classification should be used.

(Example: an excavation has class A with a layer of class C, the excavation must be classified C and the appropriate caution slopes must follow standards for a class C soil.)