Excavation Safety

**Contact Utilities:** Many accidents with possibly disastrous consequences such as explosions, death, destruction of property, and the ire of those without utilities can be avoided if prior to excavation any and all utilities and other obstructions are marked and depth verified before the commencement of digging activities by calling 811, and/or your local one-call number and/or the public utilities.

**Soil Testing:** Soils are classified based on the Unconfined Compressive Strength Test which is a testing method to assess the mechanical properties of rocks and fine-grained soils and is defined as the load per unit area (tons/sq ft or kg/sq cm). It is necessary to evaluate soil conditions and select and construct appropriate protective systems such as shoring, trench boxes, shields, benching and/or sloping of trench sides or combinations of the aforementioned methods. A registered Professional Engineer should be consulted for what is required for each individual project. A trained “competent person” who is capable of identifying existing and predictable hazards at the jobsite should inspect excavations at the start of every shift, and after any sort of environmental event (i.e. rainstorm).

**Identify factors influencing the choice of protective systems used:** The proximity to structures, heavy traffic/vibration, raised loads, environmental events and other events can have negative effects on an excavation and may lead to its collapse or to dislodge pieces of material from the walls, which can injure workers and passersby.

**Safety:** Provide safe access into and out of the excavation and ensure that all employees are within 25 feet of a means of access/egress in any excavation 4 feet or deeper and that all ladders and ramps are approved by a competent person or by OSHA regulations. Test for low oxygen levels, hazardous gases and vapors, and make appropriate respiratory protection available to employees when necessary.

For additional resources, contact your local OSHA branch, or refer to the online OSHA manual concerning Confined Spaces at: U.S. Department of Labor. Occupational Safety and Health Administration. Trenching and Excavation CLP 02-00-069. [http://www.osha.gov/SLTC/trenchingexcavation/index.html](http://www.osha.gov/SLTC/trenchingexcavation/index.html) In case of life-threatening emergencies, notify OSHA at (800) 321 OSHA. The nearest area or state office will field the call for help.