

Excavation/Trenching Training: By the Numbers

- ½ sec.** -How long it takes dirt to fall 10'
- 1**
 - 1 square foot of soil weighs 90-140 lbs.
 - 1 cubic yard of soil weighs 1.3 – 1.6 tons
 - 1 daily excavation/trench soil inspection by a competent person
- 2'**
 - Spoils piles shall be placed a min. of 2' from the edge of the trench
 - Bridges over trenches must extend 2' past the surface of the trench
- 3'**
 - Ladders shall be extended 3' above trenches and be secured
- 4'**
 - Ladders or ramps shall be placed in excavations/trenches
 - Competent person shall determine soil type
 - Trench should be barricaded
 - Air monitoring in hazardous atmospheres
- 5'**
 - Protective system (shield, shoring, sloping, benching)
 - Tabulated data for shoring or trench boxes shall be kept on site
- 6'**
 - Guardrails required on walkways over excavations/trenches
- 20'**
 - Excavation/Trench must be designed by a registered professional Engineer
- 25'**
 - Lateral travel no more than 25' in excavations/trenches 4' or deeper.
- 34 degrees**
 - Max. allowable slope for excavations less than 20' deep in Type C soil (no benching)
- 45 degrees**
 - Max. allowable slope for excavations less than 20' deep in Type B soil
- 53 degrees**
 - Max. allowable slope for excavations less than 20' deep in Type A soil