

Excavation/Trenching General Requirements

General Requirements for Entry

Regardless of depth:

- Daily Inspection by competent person prior to entry for evidence of possible cave-ins or other hazards.
- Re inspection after each rainstorm or other condition that could affect excavation.
- Locate spoil pile, tools, materials, and excavating equipment a *minimum* 2' from edge of excavation.
- Do not permit water to accumulate in excavation.
- Determine location of underground utilities: (NC One-Call: 800.632.4949).
- Employees exposed to vehicular traffic shall wear high visibility vests.
- Competent person identifies all other potential hazards.
- Maintain at least 10 feet clearance from overhead power lines.

Excavations between 4' and 5' in depth:

- Means of egress (exit) within 25' travel distance of any employee within a trench.
- Perform air monitoring if hazardous air quality (oxygen content, hazardous atmospheres) may be present. Also, monitor for other toxic materials, such as carbon monoxide, as needed.

Excavations between 5' and 20' in depth:

- Meet the requirements listed above.
- Protect employees from cave-ins by one of the following methods:

□ ***Sloping:***

1. Class A soil (3/4 Horizontal: 1 Vertical [53 degrees])
2. Class B soil (1 Horizontal: 1 Vertical [45 degrees])
3. Class C soil (1 1/2 Horizontal: 1 Vertical [34 degrees])

□ ***Shoring:*** Use an approved shoring system

□ ***Trench Box:***

1. Box must extend a minimum of 18" above top of excavation.
2. Soil must be packed flush against trench box.
3. All employees must remain in box while working in excavation.

Excavations greater than 20' in depth:

- Meets all requirements listed previously for excavations up to 20' in depth.
- A registered Professional Engineer designs protective systems.
- A copy of the approved design shall be kept at the job site.