



Excavation & Trenching Considerations

Trenching and excavation are among the most hazardous construction operations. Some of the potential hazards include cave-ins, contact with underground utilities, falls, hazardous atmospheres, falling objects, overhead loads, and nearby equipment. One false step during trenching and excavation activities can cause serious injuries and deaths. A worker can be buried, suffocated, or crushed by the weight of soil. Workers also run the risk of electrocution and drowning should they accidentally contact underground utilities. But with proper pre-job planning and safe work practices, trenching and excavation can be performed safely.

Even if you've been involved in trenching and excavation jobs before, don't assume every excavation is the same. Conditions are different at every site based on a number of factors.

Following are some site-specific conditions consider:

- Underground and overhead utilities
- Soil type and stability
- Proximity and conditions of nearby structures
- Traffic
- Surface water and ground water
- Weather

A competent person - someone capable of identifying workplace hazards and who has the authority to correct, control, or eliminate them - should conduct daily inspections before any work begins, and as needed throughout the work shifts any time conditions change. Inspections should focus on protective systems, potential cave-ins, testing for hazardous conditions when it's reasonable to assume these conditions could exist.

Since ultimately, you'll be the one entering the trench or excavation, you should take responsibility for your safety. Don't assume that "someone" has made sure the trench is safe. Consider the following questions before you dig:

- Have all utilities been located and marked?
- Has the soil been classified as type A, B, C, or hard rock?
- Is the depth going to be greater than 20 feet?
- What forms of protective equipment will you use?
- Do you have a safe way to enter and exit trench?
- Has potential water accumulation been addressed?



Before you engage in trenching and excavation activities familiarize yourself with OSHA's Subpart P – Excavations.

SAFETY REMINDER

Weather can significantly affect soil conditions. Never enter a trench or excavation after rains, flooding, or snowfall until a competent person has inspected it.