

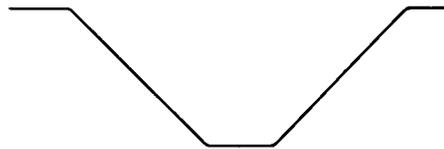
Things to Do Before Training

- ▶ In the index of the *Cal/OSHA Pocket Guide for the Construction Industry*, look up **Excavation, Trenches, and Earthwork** and read the pages listed.

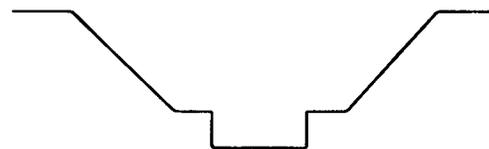
Introduction

Almost all construction work requires digging or excavating at some point.

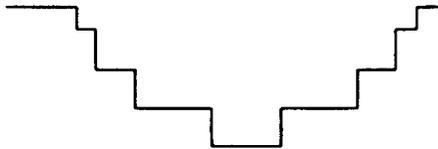
The hazards associated with excavation are cave-ins, the striking of underground utilities, and falling tools, materials, and equipment.



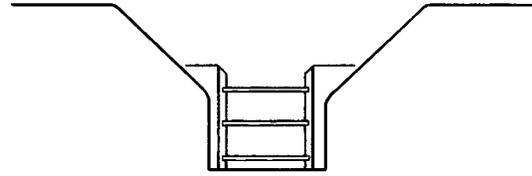
SIMPLE SLOPE



SIMPLE BENCH



MULTIPLE BENCH



TRENCH SHORING

QUESTIONS TO ASK

- ▶ Have you or someone you know been injured while working in trenches? What could have been done to prevent the injury?
- ▶ What are the trenching hazards on this site?
- ▶ What can we do to reduce these hazards?

SAFETY BREAK

ACTIONS TO TAKE

- ▶ Go inspect all excavations onsite and determine that all utilities are protected or removed, that all materials are at least 2 ft from the trench's edge, and that ladders are within 25 ft of work areas.
- ▶ If a trench is over 5 ft deep, make sure the sides are sloped, benched, shored, or boxed.

Key Points to Keep in Mind

- The type of trench protection depends on the type of soil, and only a competent person can classify soil.
- Before doing any trenching, **all underground utilities must be found and marked.**
- All utilities must be protected, supported, or removed** as necessary while a trench is open.
- Excavations **5 feet or deeper require a permit** from Cal/OSHA if workers will be entering them.
- All **soil taken from the trench must be placed at least 2 ft from edge of trench.**
- Excavations **must be inspected prior to returning to work after a rainstorm, an earthquake,** or whenever something has disturbed the trench.
- Do not enter a trench 5 or more ft deep unless its sides have been sloped, benched, shored, or boxed.**
- Ladders or safe access must be provided within 25 ft of work area** in all trenches 4 ft or deeper.
- Trenches and supporting structures should be checked at least daily** for problems before anyone enters.