

Safety Tips - Trench Safety



Every year, workers are killed or seriously injured conducting work in trenches, including utility repair, utility inspections, and construction. Trenches are recognized by OSHA as one of the most hazardous construction work conditions, with a fatality rate more than double that for construction work overall.

Prevent Worker Injury When Working in Trenches

- Protect workers from soil cave-ins in all trenches 5' or deeper, and in shallower trenches where a cave-in hazard exists. Do this by supporting the walls with shoring, shielding workers with trench boxes, or sloping the walls back wide enough, in accordance with the OSHA Excavation Standard.
- Provide ladders to workers in trenches 4' or deeper.
- Underground utilities must be identified and supported. Call Dig Safe 1-888-344-7233.
- Ensure that workers wear high visibility clothing when exposed to vehicle traffic, and use appropriate work zone signage and traffic channeling set-ups.
- Spoils must be kept back a minimum of 2' from the trench edge. Keep equipment and heavy material as far back from the trench edge as possible.
- Stabilize undermined adjacent structures.
- Protect employees from water accumulation by pumping out ground or utility water, and preventing drainage or other water from entering the trench.
- Do not allow employees to work under suspended or raised loads or materials.
- Conduct pre-job planning and inspections of trench worksites.

A competent person must inspect each trench worksite, including the soil protective system, prior to the start of work, and again if there is a hazard-increasing change in conditions such as a rainstorm.

Based on findings of worksite investigations, cave-ins of the soil walls cause the most worker fatalities and injuries during work in trenches.

Workers in trenches face other significant hazards in addition to cave-in of the soil walls, including:

- Falling loads, falling spoils pile
- Heavy equipment hazards
- Electrocution or explosion from underground utility
- Drowning from trench filling with groundwater
- Falling undermined sidewalk / structure
- Traffic / Roadway Work Zone Hazards
- Hazardous atmosphere
- Drowning from a compromised utility pipe