



# ALABAMA MUNICIPAL INSURANCE CORPORATION MUNICIPAL WORKERS COMPENSATION FUND, INC.



*Loss Control Division*

## Trenching and Excavation Tips

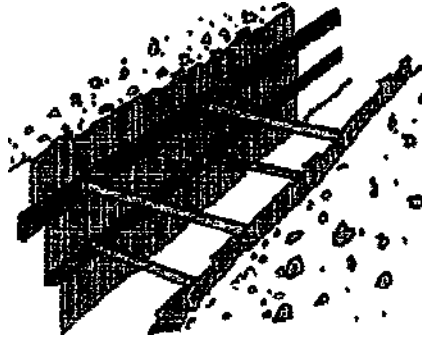
**T**rench and excavation cave-ins cause fatalities and many serious injuries each year. What have you done to prevent your employees from dying or being injured in a trench?

Too many employees fail to realize the hazard of working in unprotected or poorly protected excavations or trenches. With no warning an unsupported, improperly shored or sloped trench wall can collapse, trapping the workers below, inadequate shoring, misjudgments of soil conditions, defective shoring materials, and failure to evaluate changing weather conditions or heavy loads are among the most common causes of trench and excavation cave-ins.

Even though trenching and excavation projects are expensive, time-consuming and often short-term, tight schedules create pressures to take shortcuts on safety. Managers and supervisors should not allow anything to come before employee safety. Productivity and employee safety go hand in hand.

### Ten Rules to Follow:

1. Before starting any excavation, you should determine if there are underground utilities in the area. If so, then call the One-Call system and the utility company will mark the lines, if necessary.



*Shoring one way to protect employees who work in excavation.*

2. If a trench or excavation is five feet deep, or if employees are exposed to danger from cave-ins, the employees should be protected by a shoring system, sloping, or another approved method.
3. With excavations that employees may be entering, you should store backfill or other materials at least two feet from the edge.
4. A competent person should make daily inspections. If there is evidence of possible cave-ins workers should exit the trench until precautions are made to safeguard workers.
5. A trench four feet deep or deeper should have adequate exits, such as ladders, ramps, or steps. Exits should be located within 25 feet of the workers.
4. When using or placing mobile equipment near an excavation, you should install substantial stop logs,

barriers or barricades. If possible, the grade should be sloped away from the excavation.

7. A competent person should inspect the excavation after a rain storm or other occurrence that increases the hazard.

3. Surface water should be prevented from entering an excavation. Diversion ditches, dikes or other suitable means can be used to provide adequate drainage. Water should not be allowed to accumulate in an excavation where employees are working unless adequate precautions are taken to protect the workers.

9. If it is necessary to operate trucks or heavy equipment near an excavation, the side of the excavation should be shored and braced as necessary to resist the load pressure.

10. Use additional shoring and bracing when trenches are made adjacent to backfill excavations or when the excavation is subject to vibrations from railroads, highway traffic, or machinery operation.

These are a few reminders. For more details, we have videos on trenching and excavation. Loss Prevention also offers hands-on training. Don't hesitate to give us a call.

*Provided by the Texas Municipal League Intergovernmental Risk Pool July 2005*