Don’t Let a Trench Be your Grave

What’s at Stake?

Excavations and trenches more than 4-5 ft/1.2-1.5 m deep (depending on your federal, state, and provincial regulations) require a protective system is in place to protect workers from cave-ins.

If a protective system isn’t in place – don’t enter the excavation. Look out for your safety and the safety of your co-workers and don’t become another buried body of an excavation cave-in.

What’s the Danger?

Danny Meggison was an experienced trench worker, but while working in 9-foot (2.7m) deep unprotected trench – a wall of dirt collapsed. He was buried alive under more than a ton of dirt. He left his eight-year-old son without a father.

You think you can survive a trench collapse by holding your breath, digging yourself out, or climbing out…but you can’t. Thousands of workers who believed the same thing never made it home.

Considering one square yard of dirt weighs about 3000 pounds or1360 kg, suffocation or massive internal injuries will likely be what the coroner lists as your cause of death.

How to Protect Yourself

Know the Hazards

You should always know the potential hazards of any job you do, and excavation work is no different. Start by always taking time to read any posted permits or warning information.

Engulfment

- A cave-in is a likely outcome in excavation work, in fact, unless a trench or excavation is made of solid rock, you can assume that a cave-in will occur at some point. That’s exactly why you must never get into a trench or excavation that hasn’t been sloped, shored, or protected by a trench box or

shield.
- Rushing water is another engulfment hazard. Water can undermine the strength of the soil and cause a collapse so it’s important to report all leaks, rushing or standing water to your supervisor or competent person immediately.

Electrocution

- When a worker encounters underground utility lines that haven’t been shut off a serious shock or electrocution is possible.

Explosions

- Damaged natural gas lines and build-ups of other hazardous gases can cause a flammable and toxic atmosphere.
- In both cases remember, underground wires, cables, and gas lines must be located prior to digging.
- It’s also good practice to hand-dig as you get close to ***located*** and ***marked*** underground lines and pipes.

Toxic Gases

- Stay out of the trench until a competent person has tested the air in the trench and says it’s safe to enter.
- Low oxygen levels and toxic gas can quickly render you unconscious or kill you immediately (Immediately Dangerous to Life or Health).
- Be informed on what gases could be in the air, i.e. natural gas, carbon dioxide from equipment (nearby or in the trench), or deadly hydrogen sulfide.
    - Know these hazards and know them well.
        - Smell
        - Taste
        - Toxic effects
        - Symptoms of exposure
    - If you suspect something isn’t right – immediately exit the trench and report it to your supervisor, competent person, or safety person.

Protective Measures

- Trenches should be inspected daily before any work is performed, at the start of each shift, and following rain and other soil disturbances.
- A stairway or ladder must be in trench as a safe means of entering and exiting; and don’t enter an excavation that doesn’t offer a protective system such as:
- **Sloping** – cutting back the trench wall at an angle away from excavation to prevent soil collapse.
- **Shoring** – supporting the walls of the trench by installing wood or metal cross-braces to prevent the soil from caving in.
- **Shielding** – using trench boxes placed in the excavation to protect you in a cave-in.

Final Word

Don’t become entrenched in poor excavation practices. They could lead to your

premature burial.