

TOOLBOX TALK

Excavation & Trenching

WHY THIS MATTERS

Trench cave-ins kill an average of 40 workers every year. A cubic yard of soil weighs approximately 3,000 lbs (1,360 kg) — enough to crush and suffocate a person in seconds. Cave-ins happen without warning. Proper protection is not optional — it is life or death.

40+

Trench cave-in deaths per year

3,000

Pounds per cubic yard of soil (1,360 kg)

100%

Trench deaths are preventable

5 Critical Rules for Excavation Safety

These rules are non-negotiable — follow every one, every time:

1

NEVER ENTER UNPROTECTED TRENCHES

Any trench 5 ft (1.5 m) or deeper requires sloping, shoring, or shielding. No exceptions.

2

COMPETENT PERSON MUST INSPECT DAILY

A trained competent person must inspect before each shift, after rain, and after any disturbance.

3

LOCATE UNDERGROUND UTILITIES FIRST

Call 811 or equivalent before digging. Gas, electric, water, and sewer lines can kill instantly.

4

KEEP SPOIL PILES BACK FROM THE EDGE

Excavated soil must be at least 2 ft (60 cm) from the trench edge. Weight on edges causes cave-ins.

5

PROVIDE SAFE MEANS OF EXIT

A ladder, ramp, or stairway within 25 ft (7.5 m) of every worker in the trench at all times.

Before Entry — Critical Checklist

- Has the competent person inspected the trench today?
- Is cave-in protection in place (sloping, shoring, or shielding)?
- Are underground utilities located and marked?
- Are spoil piles at least 2 ft (60 cm) from the edge?
- Is there a ladder or exit within 25 ft (7.5 m) of all workers?

Trench Hazards — Know What Can Kill You

Cave-in: The #1 killer. Soil walls can collapse without warning. Never trust unprotected walls.

Toxic atmosphere: Gases from decomposing material, leaking lines, or nearby equipment. Test air in deep trenches.

Water accumulation: Rain, groundwater, or broken water lines. Pumps must be available. Never work in flooded trenches.

Falling objects: Tools, materials, or soil from the edges. Keep materials back from edges. Wear hard hats.

Utility strikes: Hitting gas, electric, or water lines while digging. Always hand-dig near marked utilities.

Mobile equipment: Vehicles and excavators operating near open trenches. Use barricades and spotters.

Common Mistakes That Kill

- ✗ "It's only 5 feet deep, I'll be quick" — cave-ins happen in seconds regardless of depth
- ✗ Not inspecting after rain — water drastically weakens trench walls overnight
- ✗ Stacking spoil at the trench edge — the added weight is the #1 trigger for cave-ins
- ✗ No exit ladder in the trench — if walls collapse, you need to get out in seconds
- ✗ Digging without locating utilities — one strike on a gas line can cause an explosion

Safety Tips to Remember

- ✓ Treat every trench as if it could collapse at any moment — because it can
- ✓ Never enter a trench without checking that protection is in place — every single time
- ✓ If you see cracks, bulging, or water seeping into walls — get out immediately and report
- ✓ Keep heavy equipment away from trench edges — vibration triggers cave-ins
- ✓ Know your exit — always be within 25 ft of a ladder or ramp, and face it while working

Discussion Questions for Your Team

1. What excavation work is planned on our site this week?
2. Who is the competent person for trench inspections?
3. What type of cave-in protection are we using (sloping, shoring, or shielding)?
4. Have all underground utilities been located and marked?
5. Where are the exit ladders positioned in our current trenches?

TOOLBOX TALK SIGN-OFF

Date: _____ Supervisor: _____

Project: _____ Location: _____

Attendance sheet attached: Yes