

Cave-ins kill.



**There's always time
to work safe when
excavating and
trenching.**

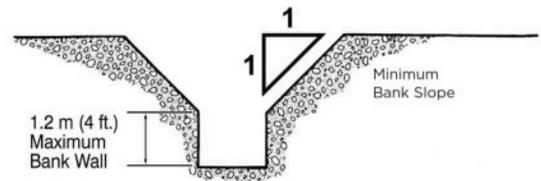
It's very important to take the time to prepare for safe trenching. Excavation and trenching work is inherently dangerous. Cave-ins, struck-by injuries, slips, trips and falls can occur without warning. Injuries to the worker can be fatal if the correct steps are not taken to minimize the risk. See the *PEI Occupational Health and Safety Act General Regulations Section 12, Excavation, Trenching and Construction* for specific safety requirements.

Collapsing Walls

The greatest risk, when working in an excavation or trench, is the potential for a cave-in or a collapse. When the walls suddenly collapse, the soil and debris can fill the excavated space quickly and forcefully. This can result in the crushing and trapping of workers if safe work procedures are not taken. These safe work procedures include:

SLOPING TRENCH WALLS

Sloping the walls is one way to keep a trench from collapsing and is ideal on worksites where there is plenty of room for the excavation. Once the trench is cut, the walls must be sloped when the trench becomes more than 1.2 m (4 ft.) deep. The slope must be cut back at a minimum of 0.3 m (1 ft.) back for every 0.3 m (1 ft.) up.



TRENCH BOXES

Trench boxes are used when there is not enough room for the sloping technique. Typically, an engineered trench box provides the required bracing to protect a worker in the trench in the event of a collapse. Additional shoring and bracing can be added to support any increased pressure as a result of equipment at the edge of the excavation. The trench box must be certified by a professional engineer as adequate for the scope of work it is required for.

Additional hazards include:

- Material, equipment or vehicles falling onto workers in excavations or trenches
- Insufficient personal protective equipment
- Traffic control on site
- Weather conditions
- Confined spaces and hazardous atmosphere
- Contact with overhead and underground service lines such as electrical, water and sewer

What additional precautions should you take?

Other important factors in protecting you and others in and around excavations and trenches include:

- Preplan the location of excavated spoils and any other new material brought on site.
- Locate and mark overhead lines, underground utilities and facilities on site.
- Keep equipment and excavated spoils back at least 0.6 m (2 ft.) from the edge of the excavation.
- Use proper lighting, barricades, guardrails, traffic control and flagging, where necessary.
- Provide a ladder to climb in and out safely. Workers must never climb on shoring or shields.
- Ensure all workers are wearing proper personal protective equipment (i.e., hard hat, safety boots, reflective vests, etc.)
- Use spotters on the surface to observe the employees working below.
- Barricade the excavation/trench at the end of the day.
- Ensure that utility poles or posts are supported or removed when they are within 3 m (10 ft.) of a trench more than 1.2 m (4 ft.) deep.

DISCUSSION TOPICS:

- Are the sides and crests of the trench scaled down to prevent loose material from falling in?
- Is there a ladder extending at least 1 m (3 ft.) above the trench for workers to safely climb in and out?
- Are workers wearing Canadian Standard Association (CSA) approved personal protective equipment such as hard hats, safety boots and reflective vests?

To report a serious workplace injury, contact the occupational health & safety line at **902-628-7513**



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Workers Compensation Board of PEI

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