

## INCIDENT FACTS

### REPORT #:

71-196-2020

### REPORT DATE:

June 15, 2020

### INCIDENT DATE:

March 26, 2019

### VICTIM:

30 years old

### INDUSTRY:

Site preparation contractors

### OCCUPATION:

Laborer

### SCENE:

Residence yard

### EVENT TYPE:

Trench collapse/Struck by



Unprotected trench after its sidewall collapsed, partially burying the laborer. The "x" indicates the laborer's location.

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This narrative is an alert about the serious traumatic injury of a worker and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or the cause of the injury. Developed by WA State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), WA State Dept. of Labor & Industries. The FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5U60OH008487). For more information visit [www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face](http://www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face).

## Laborer Partially Buried when Trench Wall Collapses

### SUMMARY

A 30-year-old laborer was seriously injured when a sidewall of the trench he was working in collapsed, partially burying him.

The laborer had worked in the construction industry for 12 years. He had received trenching training from his employer, a construction contractor, and had experience working in trenches.

The laborer and a coworker, who was also the site competent person, were working at a residential site to install a new side sewer line. To access the line, they used excavators to dig a 25-foot-long by four-foot-wide trench. The trench depth varied from five feet to six and a half feet. They did not use a trench protective system, which is required at depths of four feet or more in Washington State.

The laborer had been hand digging in the unprotected trench for two hours to expose a water main. As he was doing this, a section of the trench sidewall collapsed. He was buried in soil from his waist down.

The coworker entered the trench and attempted to rescue him, but was unable to. He then used an excavator to dig out soil from around the laborer. The excavator's bucket struck and ruptured a water main, causing the trench to start filling. As the trench rapidly filled with water, bystanders responded. From the side of the trench, they held the laborer's head above the rising water while the coworker used the excavator to dig a side trench to drain the water. First responders arrived and after 30 minutes freed the laborer. He suffered pelvic fractures and internal injuries.

Investigators found: **1)** The trench was not protected from cave-ins by an adequate protective system. **2)** Spoil piles three feet high of type C soil were placed within two feet of the trench edge. **3)** Spoil piles were positioned on the uphill side of the trench creating a surcharge towards the trench opening. **4)** It is possible that the excavators created vibration in the ground and caused the trench side to sluff.

### REQUIREMENTS

- Trenches must have adequate cave-in protective systems. See [WAC 296-155-657](#).
- Never enter a trench unless a competent person has properly inspected it. See [WAC 296-155-655\(11\)\(a\)](#).
- If a competent person finds evidence that a possible trench cave-in could occur, employees must be removed from the trench until precautions have been taken to ensure their safety. See [WAC 296-155-655\(11\)\(b\)](#).
- Keep excavated or other materials away from the edge of the trench. See [WAC 296-155-655\(10\)\(b\)](#).
- Ensure that there is a safe way to enter and exit a trench that is four feet or more in depth. See [WAC 296-155-655\(3\)\(b\)](#).
- Ensure prompt and safe removal of injured employees from trenches and excavations prior to commencement of work. See [WAC 296-155-035\(9\)](#).

### RECOMMENDATIONS

FACE investigators concluded that, to help prevent similar occurrences:

- Never enter an unprotected or uninspected trench, even for a short task.
- Do not assume that there will be a warning sign to alert you before a cave-in, or that you will have time to move out of the way.
- Be aware that heavy equipment operating nearby a trench may cause soil distress.



Unprotected trench after its sidewall collapsed. The "x" indicates the laborer's location.