

Trench Log-Excavation Checklist

This checklist (one checklist per hole dug) must be filled out by a competent person before employees are allowed entry into an excavation. Give completed form to your supervisor at end of shift.

DATE: _____ **LOCATION:** _____ **HOLE DEPTH:** ___ ' ___ ”

EXCAVATION DUG BY

City Competent Person _____ Contractor _____

A) UTILITIES

- Underground utility locations have been identified. Dig # _____
- At least 10' of clearance will be maintained between equipment & overhead power lines or overhead power lines have been de-energized
- “Spotter” is assigned to ensure at least 10' clearance is maintained.

B) TRAFFIC CONTROL

- Motorist warning signs have been placed in/along street
- Traffic cones are set out in street in appropriate locations
- Flagmen are being utilized (when necessary)

C) SOIL CLASSIFICATION

Visual Analysis

1. Estimate Range of Particle

- Fine Grained = Cohesive Material
- Coarse Grained = Sand & Gravel

2. Observe Soil as Excavated

- Clumps = Cohesive Material
- Breaks Up Easily = Granular Material

3. Observe Open Excavation

- Layered Soils
- Layers Sloped Toward Excavation
- Fissures – Excavation Sides
- Fissures – Top of Excavation

4. Water Condition

Is there water in the excavation that is affecting the stability of the soil?

- Yes
- No

5. Vibration Present

- Yes
- No

Manual Analysis (indicate methodology used, Results = average of several samples)

Thumb penetration test

- Barely able to penetrate with thumb pressure
- Penetrate to back of thumb nail
- Easily penetrate and mold with light finger pressure

Pocket Penetrometer

- 1.5 tsf or greater
- greater than 0.5 but less than 1.5 tsf
- 0.5 tsf or less

CLASSIFICATION (Based on visual and manual analysis)

- (Type A) (Type B) (Type C)

D) CAVE-IN PROTECTION (excavations 5' or deeper, or less than 5' if potential for cave-in)

- Sloping has been done...angle of slope is 3/4-1 (A), 1-1 (B), 1.5-1 (C)
- Benching has been done (not allowed in Type C soil)
- Shoring equipment other than a trench box has been installed in accordance with manufacturer's tabulated data
- Approved sheeting is being used (if use of sheeting is allowed by tabulated data)
- Trench box is being used (tabulated data is at jobsite)
- Trench box is stable from horizontal movement and is relatively even
- Trench boxes and/or shoring equipment is no more than 2' from the bottom of hole
- Surface encumbrances and structures (ex: street lights, trees, poles) are supported

E) 2 FOOT RULE

- Spoils and all equipment are kept at least 2' from the excavation edge (or further away when required by the shoring/shielding equipment tabulated data)

F) PERSONAL PROTECTIVE EQUIPMENT

- Steel toed safety shoes are worn by all crew members
- Hard hats are being worn by all (only exception is machine operator in cab)
- Eye/face protection equipment is worn by all when airborne projectiles could come into contact with an eye
- Hearing protection used when exposed to high noise levels

G) MEANS OF EGRESS (LADDERS)

- Ladders in use in excavations 4' or deeper and are secured from falling
- At least one ladder is provided for every 25' of lateral travel
- Ladders extend at least 3' from top edge of excavation

H) ATMOSPHERIC TESTING

- Required before entering an excavation 4 feet or deeper in excavations where oxygen-deficient or hazardous atmosphere exists or could reasonably be expected to exist, such as in:

I) ADDITIONAL AREAS OF EXPOSURE

- Employees are not permitted underneath suspended loads
- Spotter assigned to ensure worker not hit by digging equipment if worker must be in excavation while backhoe/excavator is digging.
- De-watering has been performed and majority of water removed
- No unusual smells or odors detected when digging (if detected, check atmosphere before entry)
- "After hour" protection (ex: barricades, fencing) is provided to prevent against someone falling into open hole

J) CREW MEMBERS
