

APPENDIX A

DAILY INSPECTION WORKSHEET

Municipal Excavation & Trenching

Employer Responsibility: The employer is responsible for ensuring that employees are protected from cave-in.

How to Use this Inspection Worksheet: A daily inspection is required at all excavation sites that workers enter, even sites less than 5 feet deep. One way to verify that the daily inspections are conducted is to complete an inspection checklist.

1. **Date:** _____ **Work Order #** _____
2. **Excavation Address:** _____
3. **Scope:** Purpose of excavation: _____
 Dimensions: Depth: _____ Width: _____ Length: _____

4. CAVE-IN PROTECTION

- 4.1 **Is the depth of excavation greater than 5 ft deep?** ____ Yes ____ No
If YES to 4.1, the trench is greater than 5 feet deep, cave-in protection is required.

If NO to 4.1, is there potential for cave-in as determined by the Competent Person? ____ Yes ____ No
 If Yes, there is a cave-in potential, then cave-in protection is required.

Key issues to be reviewed by the competent person in determining the cave-in potential:

Does ground have any of the following:

	<u>Yes</u>	<u>No</u>
☐ Water accumulation	___	___
☐ Water seeping out of wall or floor	___	___
☐ Tension cracks or fissures	___	___
☐ Bulging wall or heaving floor	___	___
☐ Sliding walls	___	___
☐ Significant vibration or surcharge load	___	___
☐ Other _____	___	___

- 4.2 **If excavation is deeper than 5 ft, OR the Competent Person determined that there is a potential for cave-in, then cave-in protection is required.** Answer the questions below to determine cave-in protection options.

- 4.2.1 List the soil types, to aid in proper use of protective systems and/or required sloping.
Vibration, surcharge loads, and other conditions may require downgrade of soil type.

<u>Soil Type</u>
___ Type C
___ Type B
___ Type A
___ Stable Rock

- 4.2.2 List soil tests conducted.
At least one manual and one visual test.

___ No Test, assume Type C soil.
___ Soil Tested: ___ Visual: _____
___ Manual: _____

- 4.2.3 List the type or types of cave-in protection that will be used.

Trench and Shoring: The employer is responsible to ensure the Owner's Manuals and tab data is available and all equipment is used in accordance with manufacturer's instructions and tab data.

___ Trench Box	<u>Max Allowable Slope</u>
___ Shoring	C: (34°) 1 ½ H: 1V
___ Slope	B: (45°) 1H: 1V
___ Trench box plus slope	A: (53°) 3/4H: 1V
___ Engineered system	Rock: (90°) Vertical

4.2.4 Confirm proper use of protective systems and/or sloping:

4.2.4.1 **If sloping** is used, what is maximum allowable slope for the soil type? H:V = _____

4.2.4.1 **If shoring** is used, what are maximum spacing requirements per tab data? H: _____ V: _____

4.2.4.2 **If trench box** is used, what is the maximum depth certification? _____

5. SAFE WORK PROCEDURES

UTILITIES

	Yes	No	NA
a. Digsafe 811 called for underground utilities. Conf #: _____	_____	_____	_____
b. Exposed utilities are supported or removed.	_____	_____	_____
c. Water pipe pressure is shut off or reduced at excavation location.	_____	_____	_____
d. 10 ft. clearance between operating equipment and overhead electrical is maintained.	_____	_____	_____

WET CONDITIONS

	Yes	No	NA
a. Water accumulation is controlled.	_____	_____	_____
b. Surface water is diverted or controlled.	_____	_____	_____
c. A re-inspection for cave-in potential is conducted after each rainstorm.	_____	_____	_____
d. Employees exit if water seeps from walls or floor.	_____	_____	_____

UNDERMINED STRUCTURES

	Yes	No	NA
a. Adjacent foundations, telephone poles, etc. are braced.	_____	_____	_____
b. Adjacent sidewalks, pavement, etc. are fully supported.	_____	_____	_____
c. Exposed underground utility pipes are supported.	_____	_____	_____

EDGE OF EXCAVATION

	Yes	No	NA
a. Spoils are kept more than 2 ft from edge.	_____	_____	_____
b. Top of trench box/shoring reaches grade level or higher.	_____	_____	_____
c. Bottom of trench box/shoring is less than 2 ft from floor.	_____	_____	_____
d. Ladder in place for trenches deeper than 4 ft.	_____	_____	_____
e. Trench boxes are installed in a manner to restrict lateral or other hazardous movement of the shield in the event of sudden lateral loads, e.g. space between box plate and soil wall is minimized.	_____	_____	_____
f. Weight of adjacent trucks and equipment are kept a safe distance away from edge to prevent surcharge loading or vibration.	_____	_____	_____

HAZARDOUS ATMOSPHERE

	Yes	No	NA
a. Test air before employees enter excavation > 4 ft deep when oxygen deficiency or a hazardous atmosphere could be expected.	_____	_____	_____
b. Test air for LEL, O2, CO and VOCs in landfills, underground fuel, or other contaminated soils. Don't assume that toxics are heavier than air.	_____	_____	_____
c. Test air for CO if gas powered tools used in or near excavation.	_____	_____	_____
d. Dust control is used when cutting concrete or asbestos pipe.	_____	_____	_____

WORK ZONE TRAFFIC

	Yes	No	NA
a. Traffic controlled by MUTCD signs/devices. Close street if possible.	_____	_____	_____
b. Hi-visibility reflective clothing worn.	_____	_____	_____
c. Check blind spots before each vehicle is moved at the site.	_____	_____	_____

6. INSPECTION and VERIFICATION BY EMPLOYER

<i>To be filled out by the Competent Person:</i>	<i>To be filled out by DPW Superintendent</i>
Name: _____ Inspection date/time _____	Name: _____ Date: _____ Signature: _____

