

DAILY EXCAVATION/TRENCH INSPECTION CHECKLIST

DATE: _____ PROJECT: _____ WEATHER: _____

COMMENT CODES: Use one or more of the following codes or other descriptions to fill-in-blanks.

DESCRIPTIONS: (G)Good (P)Poor (S)Stable (U)Unstable (SL)Sloped (SH)Shored (TS)Trench Shield

CONDITIONS: (D)Dry (M)Moist (SA)Saturated (R)Rainstorm (Y)Yes (N)No

SOIL TYPE: Rock, Stable Rock, "A", "B", "C"

DESCRIPTION AND EVALUATION OF EXCAVATION/TRENCH LOCATION

Trench Location: _____ Length: _____ Width: _____ Depth: _____

Is trench location in close proximity to traffic/excess vibration? _____ If yes, state distance: _____

Have utility locations been marked? _____ Which utilities are present? SEWER WATER PHONE
(circle all applicable utilities)

ELECTRIC GAS OTHER

If "OTHER", explain: _____

SOIL TYPE: _____

PLASTICITY: Cohesive _____ Non-cohesive _____

DRY STRENGTH: Fissured (cracked): _____ Granular (crumbles easily): _____ Cohesive: _____

SOIL TESTING:

NOTE: One MANUAL test and one VISUAL test must be performed. Otherwise, trench must be shored or sloped for type "C" soil. No soil can be classified as type "A" if the soil is fissured (visible cracks), subject to vibration (pile driving, heavy traffic), has been previously disturbed, or is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater.

MANUAL TESTS:

1. Thumb Penetration Test: (used to estimate compressive strength of *cohesive* soil)
Soil Type "A" _____ 1/4" or less (Indented with thumb with very great difficulty)
Soil Type "B" _____ 1/4" to 1" (Indented with thumb with some difficulty)
Soil Type "C" _____ 1" or more (Easily penetrated)
2. Pocket Penetrometer Test: (used to estimate unconfined compressive strength of *saturated* soil)
Soil Type "A" _____ unconfined compressive strength of 1.5 tsf or greater
Soil Type "B" _____ unconfined compressive strength of between 0.5 and 1.5 tsf
Soil Type "C" _____ unconfined compressive strength of 0.5 or less OR soil is submerged or subject to exposure with water (run-off)
3. Wet Shake Test: (used to determine the percentage of granular and cohesive material in soil sample)
Soil Type "A" _____ clay, silty clay, sandy clay, clay loam
Soil Type "B" _____ angular gravel, silt, silt loam, loam

Soil Type "C" _____ granular soil, including gravel sand and loamy sand

SOIL TESTS (continued)

VISUAL TESTS:

COHESIVE

GRANULAR

Spoil Pile: Remains in clumps _____ Breaks up easily _____
Fine-grained clay _____ Coarse-grained silt, sand,
or gravel _____

Trench Sides: Stands vertical for _____ Coarse-grained silt, sand, or gravel
over 2 hours _____
Fine-grained clay _____ Sloughs into trench

Are fissures (cracks or spalls) present in trench sides? _____ top of trench? _____

Is there seepage into trench from sides? _____ surface? _____ bottom? _____

Has water been present in bottom half of trench within the last 24 hours? _____

Are there vibration sources present that may affect trench stability? _____

Do soil layers slope into trench at 4H:1V or steeper? _____

EMPLOYEE AND PUBLIC SAFETY INSPECTION

AIR QUALITY TESTING:

Has air quality been tested (potentially hazardous atmosphere, %O₂)? _____

Are power compactors or other equipment used in the trench? _____

Is emergency rescue equipment available? _____

Is the trench located near traffic? _____

FALL PROTECTION:

Is excavation barricaded (fencing, warning signs, lighted barricades)? _____

Is warning system for mobile equipment installed? _____

METHOD OF ENTRY / EXIT:

Are ladders located so employees are within 25' of a ladder at any time? ... _____

Do ladders extend 3' out of excavation? _____

PROTECTION SYSTEM:

Is excavation less than 5 feet deep? _____

What is the slope angle of repose used? _____

Is hydraulic shoring/walers used? _____

Are the trench sides benched? _____

Is a trench box/shield used? _____

Inspection performed by: _____ Date: _____ Time: _____