City of Winona
Excavation/ Trenching Operations
CHECKLIST

Project location: _____ Date: _____
Utilities locate request form (Gopher State One Call 1-800-252-1166) was completed and locates done: (date of call) _____ (date completed)_____
Trench Measurements: Depth: _____ Length: _____ Width: _____
Soil Type: _____ (see attached "Soils Analysis Checklist")
Type of Protective System Used: _____

FOR ALL EMERGENCIES IMMEDEATELY CALL 911

GENERAL INSPECTION OF THE JOB SITE

Yes	No	N/A	
			Excavations, adjacent areas, and Protective Systems inspected by the competent person daily, prior to the start of work.
			Competent person has the authority to remove workers from the evacuation immediately.
			Surface encumbrances supported or removed.
			Employees protected from loose rock or soil that could possibly pose a hazard by falling or rolling into the excavation.
			Hard hats worn by all employees.
			Spoils, materials, and equipment set back a minimum of 2 feet from the edge of the excavation.
			Warning vests, or other highly visible garments, provided and worn by all employees exposed to public vehicular traffic.
			Barriers and walkways with guardrails must be provided at all excavations over four feet deep.
			Warning system established and utilized when mobile equipment is operating near the edge of an excavation.
			Employees are prohibited from working on the faces of sloped or benched excavations above other employees

WET CONDITIONS

YES	NO	N/A	
			Precautions need to be taken to protect employees from accumulation of water.
			A competent person will monitor water removal equipment.
			Inspection of site will be made following any rainstorm.
			All surface water controlled and diverted.

MEANS OF ACCESS AND EGRESS

YES	NO	N/A	
			Lateral travel distance to a means of egress does not exceed 25 feet for excavation 4 feet or more in depth.
			Ladders, when used, must extend 3 feet above the edge of the trench and be secured.
			Competent person must design structural ramps used by employees and Registered Professional Engineers (RPE) must design ramps used for equipment.
			Employees must be protected from cave-ins while entering, working in, or exiting excavations.

HAZARDOUS ATMOSPHERE

YES	NO	N/A	
			Atmosphere tested when there is a reasonable possibility of oxygen deficiency, or build up of other hazardous gases, that may expose an employee to a hazard. (Oxygen content is within normal limits between 19.5% & 21%)
			Ventilation is provided to prevent flammable gas build up to 20% of the lower explosive limit of the gas.
			Testing conducted to ensure that atmosphere remains safe from toxic gas/es.
			Does this space meet requirements of a confined space? (if **YES** initiate confined space entry permit Policy 112 – 7)

PROTECTIVE SUPPORT SYSTEMS

			Materials and/or equipment selected on soil analysis expected loads and trench parameters.
			Materials and equipment inspected and in good condition.
			Materials and equipment not in good condition was removed from service and will not be returned till repaired and approved by a RPE.
			Protective systems installed without exposing employees to hazards of cave-ins, collapses, or from being struck by materials or equipment installed from the top down to the bottom.
			All structures and supports are securely fastened and adjacent structures securely supported.
			The backfill process must progress with the removal of the support system.
			Shield system is placed to prevent lateral movement.
			Employee/s are prohibited from remaining in a Trench Box when being moved vertically.

Signature of Competent person completing check list:
Name: _____ Date: _____

SOIL ANALYSIS

This checklist must be completed when the analysis is performed to determine the soil/s type present at the excavation site where trenching is to occur. The competent person performing the analysis must use and be familiar with Appendix A to 1926 Subpart P – Soil Classification. A separate analysis must be performed for each change in soil conditions, such as layers in the excavation wall.

Project Location: _____
Weather: _____ Date: _____ Time: _____
Measurements of Trench: Depth: _____ Length: _____ Width: _____
Sample taken from: _____

Visual Test
*Particle Type: Fine Grained (cohesive)*_____
Course Grained (sand or Gravel) _____
Water Conditions: Wet ___*Dry* ___*Submerged* ___ *Surface Water Present*

Manual Test
*Plasticity: Cohesive*_____ *Non-Cohesive*_____
Dry Strength: Granular (crumbles easily) _____ *Cohesive (Broken w/difficulty)* _____
*Thumb Test Performed*_____
Pentameter or Shearvane _____
Wet Shake Test _____

Soil Classification

Type "A" Soil _____
Clay, Silty clay, sandy clay, clay loam, and in some cases silty clay loam and sandy clay loam.
Type "B" Soil _____
Angular gravel, (similar to crushed rock), silt, silt loam, sandy loam and in some cases silty clay loam, and sandy clay loam
Type "C" Soil _____
Granular soil including gravel sand and loamy sand.
Note : *Type A soil – no soil is a "Type A" if the soil is fissured, subject to vibration, previously disturbed, layered dipping into the excavation on a slope of 4h:1v.*
For selection of the appropriate protective system, use the flow chart in Appendix F of the 1926 Subpart P standard.

- Sloping or Benching (appendix B) Specify Angle _____
- Timber Shoring or alternative approved shoring (appendix C)
- Aluminum Hydraulic shoring (appendix D)

Signature of Competent Person completing check list
Name: _____
Date: _____