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1. Purpose

University of Alaska Anchorage (UAA) personnel, student workers, faculty, staff, and outside contractors who perform trenching and excavation in the course of their work functions, potentially create hazards which could result in serious injury. The hazards associated with trenching and excavation can be substantially reduced by taking proper precautions. This program for Trenching and Excavation Safety is intended to ensure workers are knowledgeable in the hazards when trenching and excavating and the steps to be taken to protect themselves and others.

2. Objective

UAA, in its continuing effort to provide employees with safe, healthful working conditions, and to comply with the Occupational Safety and Health Act is implementing the following program for trenching and excavating to protect people working at the university, by helping employees, student workers, faculty, staff, and outside contractors better hazards introduced while performing trenching and excavation operations.

3. Scope

This program applies to UAA employees, student employees, faculty, staff, and outside contractors working on UAA trenching and excavation operations.

4. Definitions

Aluminum Hydraulic Shoring - a pre-engineered shoring system comprised of aluminum hydraulic cylinders (cross braces) used in conjunction with vertical rails (uprights) or horizontal rails (wales). Such system is designed specifically to support the sidewalls of an excavation and prevent cave-ins

Benching - a method of protecting personnel from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels

Cave-in - the separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person

Competent Person - one who is capable to identify existing and predictable hazards in the surroundings or working conditions that may affect personnel and the general public, and who has authority to take prompt corrective measures to eliminate them. The Competent Person(s):

- Be trained in and knowledgeable of excavation and trenching standard, and other applicable programs (Hazard Communication, Confined Space, Respiratory Protection)

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- Must be capable of recognizing hazardous conditions and must have authority to stop work and ensure that hazards are corrected
- Performs and documents the ‘Daily Excavation Inspection’, and knows when inspections should be performed
- Must assure that the location of underground installations or utilities have been properly located
- Must identify and ensure the use of adequate protective systems, work methods and personal protective equipment (PPE) on the excavation site

Cross Braces - the horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either uprights or wales

Excavation - any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

Fissured - refers to soil that tends to break along definite planes of fracture with little resistance or a material that exhibits open cracks such as tension cracks in an exposed surface

Hazardous Atmosphere - atmosphere that is oxygen deficient, potentially explosive, flammable, poisonous, corrosive, oxidizing, irritating, toxic or otherwise harmful in a manner that may result in death or serious injury

Hydro Excavating - a method of excavation that combines the use of high-pressure water with a vacuum truck to remove soils around utility lines with minimal damage to the lines themselves

Manual Tests - manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly

Protective Systems - methods for protecting personnel working in excavations from cave-in, material falling or rolling in from the exterior or from collapse of adjacent structures. Protective systems include the use of support systems, sloping and benching systems, shield systems and other systems that provide the necessary protection

Nominal Surface Removal – a surface removal (soil, gravel, etc.) that does not exceed 6 inches

Personal Protective Equipment - specialized clothing or equipment worn by personnel for protection against health and safety hazards.

Pocket Penetrometer - a lightweight instrument for use by field personnel to check visual classification of soils. It can be used to verify whether excavation side walls require shoring

Registered Professional Engineer (RPE) - a person who is registered as a professional engineer

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Shear Vane - a means of assessing the undrained shear strength of a cohesive soil. It consists of a rod with vanes mounted to it that is inserted into the ground and rotated. A gauge on the top of the rod measures the torque required to cause failure of the soil and provides a conversion to shear strength

Shield (Shield System) - a structure that can withstand the forces imposed on it by a cave-in and thereby protect employees with the structure. Shields can be a permanent structure or can be designed to be portable and moved along as work progresses. Also known as trench boxes or trench shields

Shoring (Shoring System) - a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins

Sloping (Sloping System) – a method of protecting personnel from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline varies with differences in such factors as the soil type, environmental exposure conditions, and application of surcharge loads

Soil - mixed Types (Layered Geological Strata): the soil must be classified on the basis of the soil classification of the weakest soil layer. Each layer may be classified individually if a more stable layer lies below a less stable layer, i.e. where a Type C soil rests on top of stable rock

Soil Type A - most stable: clay, silty clay, and hardpan (resists penetration). No soil is Type A if it is fissured, is subject to vibration of any type, has previously been disturbed, or has seeping water.

Soil Type B - medium stability: silt, sandy loam, medium clay and unstable dry rock; previously disturbed soils unless otherwise classified as Type C

Soil Type C - least stable: gravel, loamy sand, soft clay, submerged soil or dense, heavy unstable rock, and soil from which any water is seeping

Stable Rock - natural solid mineral material that can be excavated with vertical sides and will remain intact while exposed. Unstable rock is stable when the rock material on the side or sides of the excavation is secured against caving-in or movement by rock bolts or by another protective system that has been designed by a registered professional engineer

Torvane - a common brand name for a shear vane

Trench (Trench Excavation) - a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet or less, the excavation is also considered to be a trench

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Wales - horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth

5. Authority and Responsibilities

In addition to the roles and responsibilities outlined in the UAA Training Program, the following apply to the Trenching and Excavation Safety Program.

EHS/RM

- Assist, upon request, with trenching and excavation operation planning, technical assistance and determination of best practices procedures to be followed
- Assist departments with identification of appropriate training for trenching and excavation operations activities
- Assist with the creation, tracking, and/or conduct inspections on trenching and excavation protection equipment where applicable with this standard

Supervisor

- Identification of personnel who will participate in trenching and excavation activities and ensure proper training is provided
- Ensure procedures and equipment for trenching and excavation activities are available, communicated and utilized to protect UAA personnel and the general public
- Designate or act as the “competent person” as defined in the definitions section for trenching and excavating activities
- Seek assistance for trenching and excavation activities when needed

Department Safety Coordinator

- Assist in the determination of safe working procedures for trenching and excavation activities
- Conduct periodic inspections of trenching and excavation activities their department to ensure adherence to procedures and this program

Employees/Student Workers

- Adhere to designated procedures and work practices for trenching and excavation activities
- Alerts department supervisor when trenching and excavation hazards are identified
- Monitor on-going work and notify supervisor when unexpected trenching and excavation work is required

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Outside Contractors

- Perform all work in compliance with their company's trenching and excavation program, which will be reviewed and approved by the EHS/RM department.
- If the company does not have a program, they must comply with this program

6. Hazards Associated with Trenching and Excavation.

The following hazards associated with trenching and excavation can lead to personal injury or death:

- Damage to utility lines. pose hazards associated with the type of utility. Electric lines can cause electrocution and shock, gas lines can cause a gas leaks, fires and explosions, steam lines can release hot steam that can cause burns
- Cave-ins and trench collapses* causing injury or engulfment of personnel working in and around trenches and excavations
- Water accumulation posing additional hazards to personnel entering the trench/excavation
- Falls from various heights into trench or excavation
- Falling Loads onto personnel working in and around trenches and excavations
- Hazardous atmospheres. inside trench or excavation trench is not suitable for occupancy for a person. The atmosphere can be hazardous by many different causes. These causes are: low oxygen levels, presence of a poisonous or harmful gas and the presence of sewer gases

* According to OSHA, Cave-ins and trench collapses are the most common hazard causing dozens of fatalities and hundreds of injuries each year

7. Engineering Controls

Engineering controls are design plans or changes to the working environment to prevent or reduce employee exposure to potential hazards. The following example of engineering controls should be considered in area design to reduce trenching and excavation hazards.

- Procure equipment adequate for the work to be performed
- Guarding pinch points on associated equipment
- Install adequate ventilation for work in trenches and excavations
- Procure barriers to protect trenches and excavations and equipment

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8. Administrative Controls

Administrative controls are safe work practices and procedures designed to reduce the risks associated with working with trenching and excavation. Examples of administrative controls include the following:

- Train personnel who are required to work with trenching and excavating
- Routine inspections of equipment used for trenching and excavating to ensure they are in safe working condition
- Immediate removal of any equipment that are found to be damaged or defective
- Provide personnel with the authority to stop work when additional hazards are identified

9. Procedures







Underground Utility Locates

Prior to all work that will penetrate the ground greater than 6 in. the location of sewers, telephone, fuel, electric, water lines, or any other underground installations that may be encountered during excavation work must be determined and clearly marked on the surface. The Department Supervisor along with the appropriate utility agency shall determine what actions may be necessary for the protection, removal, shutdown, or relocation of underground installations.

- Utility locates must be ordered at least two working days prior to the start of the excavation
- Trenching and excavation must occur no more than 15 days after utility located have been performed
- No trenching or excavation activity may begin unless utility locates have been confirmed for the work area

Recommended marking colors per Alaska 811 for underground utilities are provided in Table 1.

Table 1: Underground Utility Marking Colors

	Red – Electric		Green – Sewer
	Orange – Telecommunications		Blue – Water
	Yellow – Gas and Oil		Grey/White – Proposed Excavation

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Digging Around Known Underground Lines

If any drawing or utility locate indicate the presence of an underground installation, digging within 3 feet must be done using one of the following methods:

- Hand tools
- Hydro excavating

When the positive location is determined and marked, mechanical digging means may then be employed if the owner or landlord of the underground installation has determined that this will not adversely impact the integrity of the installation.

If feasible, consider isolation of the utility to reduce the hazard if the utility is accidentally damaged.

Utilities left in place should be protected by barricades, shoring, suspension or other means as necessary to protect personnel.

Underground utility installations can vary from totally encased conduits in concrete to direct burial with no mechanical protection. If the engineering drawing or the utility owner does not indicate totally encased, then a UAA Electrical contact person from facilities and maintenance the installation and determine the appropriate precautions to be taken.

Protection of Trenching Excavation Location

Excavations must be isolated from public access by a substantial physical barrier to prevent unauthorized entry to the area. Barricades, lighting and posting shall be installed as appropriate prior to the start of excavation operations.

Guardrails, fences, or barricades shall be installed around excavations adjacent to walkways, roads, paths or other traffic areas. Use of barricade tape alone is not considered a sufficient method of isolation when the excavation is unattended. Warning lights or other illumination shall be used as necessary for the safety of the public at night.

Walkways or bridges used by the general public to cross excavations must be equipped with standard guardrails.

Stability of Adjacent Structures

Support systems shall be constructed where excavations could possibly affect the stability of adjacent buildings, foundations, and sidewalks. This shall be done by support systems to prevent the underpinning of the structure adjacent to the excavation.

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Ingress and Egress

Access to and exit from the trench requires the following conditions:

- Trenches 4 feet or more in depth should be provided with a fixed means of egress
- Spacing between ladders or other means of egress must be such that a worker will not have to travel more than 25 feet laterally to the nearest means of egress
- Ladders must be secured and extend a minimum of 36 in (0.9 m) above the landing
- Metal ladders should not be used when electric utilities are present.

Temporary Spoil

Temporary spoil piles shall be placed no closer than 2 feet from the surface edge of the excavation. The distance is measured from the nearest base of the spoil to the cut. This distance should not be measured from the crown of the spoil deposit. This distance requirement ensures that loose rock or soil from the temporary spoil will not fall on personnel in the trench.

The spoil should be placed so that it channels rainwater and other run-off water away from the excavation. Spoil should be placed so that it cannot accidentally run, slide, or fall back into the excavation.

Surface Crossing of Trenches

Surface crossing of trenches should not be made unless absolutely necessary. However, if necessary, they are only permitted under the following conditions:

Vehicle crossings must be designed by and installed under the supervision of a registered professional engineer.

Walkways or bridges must have a minimum clear width of 20 inches, be fitted with standard rails, and extend a minimum of 24 inches past the surface edge of the trench.

Exposure to Vehicles

Personnel exposed to vehicular traffic shall be provided with and required to wear reflective vests or other suitable garments marked with or made of reflectorized or high-visibility materials. Trained flag persons, signs, signals, and barricades shall be used when necessary.

Exposure to Falling Loads

Personnel are not allowed in the excavation while heavy equipment is digging. Personnel must not work under loads being lifted or moved by heavy equipment used for digging or lifting. Personnel are required to stand away from equipment that is being loaded or unloaded to avoid being struck by falling materials or spillage.

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Personal Protective Equipment

The supervisor with assistance from EHS/RM upon request must assess the trenching and excavation work to determine required PPE of all personnel working in the vicinity. The following minimum PPE is required during excavation/trenching activities:

- Hard hats
- Steel Toe Boots
- Safety glasses with side shields
- High Visibility Vests or Shirts if exposed to vehicular traffic

Warning Systems

Warning systems for moving equipment where the operator cannot see the edge of the excavation. The systems shall consist of hand signals, barricade and stop logs. The operator has to know what meanings of the hand signals that he is receiving. Barricades and stop logs shall be located so that the equipment will not fall into the excavation

Water Accumulation

Personnel shall not enter an excavation where water has accumulated. Personnel can enter the excavation once water removal has started and there is no sign of a collapse. Personnel can also enter the excavation once the level of the water has been controlled. Dikes or drainage ditches shall be constructed when the excavation interferes with the natural drainage its surroundings. This is done to prevent the water from entering the excavation.

Fall Protection

Personnel shall be protected from falling into the excavation if the excavation is more than 6 feet in depth. This shall be done by means of a fall protection system or by a guardrail type of system to keep employees away from the edge of the excavation.

Hazardous Atmospheres and Confined Spaces

UAA personnel and contractors are not allowed to enter areas where there is any possibility that the trench or excavation could contain a hazardous atmosphere. Atmospheric testing must be conducted prior to entry to identify the below hazardous atmospheres:

- Oxygen concentration below 19.5% or above 23.5%
- Combustible gas concentration greater than 10% of the lower explosive limit (LEL)
- Airborne contaminants in excess of the threshold limit value (TLV) established by the American Conference of Industrial Hygienists (ACGIH)*

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* Contact EHS/RM for assistance in determining possible contaminants, TLV limits, and proper testing methods

Conditions that might warrant atmospheric testing would be if the excavation was made in a landfill area or if the excavation is adjacent to sources of contamination (e.g. sewage or fuel leaks).

Testing should be conducted before personnel enter the trench and should be done regularly to ensure that the trench remains safe. The frequency of testing should be increased if equipment is operating in or around the trench that could produce airborne contaminants.

Personnel required to wear respiratory protection must be trained, fit-tested, and enrolled in the UAA Respiratory Protection Program.

Trenches and excavations with hazardous concentrations of airborne contaminants or oxygen deficient atmospheres qualify as confined spaces. When this occurs, compliance with the UAA Confined Space Program is required.

Protective Systems Including Benching, Sloping, Shoring, and Shielding Requirements

All excavations or trenches 4 feet or greater in depth shall be appropriately benched, shored, or sloped. Excavations or trenches 20 feet deep or greater must have a protective system designed by a registered professional engineer. Sloping or benching are often the preferred methods of protection; however, shoring or shielding is used when the location or depth makes sloping to the allowable angle impractical.

Soil Classification

The competent person in charge of the excavation shall be responsible for determining the soil type. Excavations shall be made to meet the requirements for the appropriate soil type as appropriate. Soil may be considered Type C by default and no additional tests required.

To classify soil as type A or B, the competent person shall use a visual test coupled with one or more manual tests.

Visual Test

The visual test is a qualitative evaluation of conditions around the entire excavation site and adjacent soils.

The purpose of the visual check is to identify any signs of vibration, check for crack-line openings along the failure zone, look for existing utilities that indicate that the soil has been previously disturbed, and observe the open side of the excavation for indications of layered geologic structuring.

Look for signs of bulging, boiling, or sloughing, as well as signs of water seepage from the sides or bottom of the excavation.

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The area adjacent to the excavation should be evaluated for foundations or other intrusions into the failure zone, and the evaluator should check the spoil distance from the edge of the excavation.

Any one of the following will cause soil to be classified as Type C

- Water seepage into excavation
- Vibration from road traffic or equipment
- Signs of bulging, boiling, or sloughing
- Crack lines along failure zone

Manual Tests

Plasticity or Wet Thread Test: Take a moist sample of the soil. Mold it into a ball and then attempt to roll it into a thin thread approximately 1/8 inch in diameter by two inches in length. If the soil sample does not break when held by one end, it may be considered Type B. A pocket penetrometer, shear vane, or Torvane may also be used to determine the unconfined compression strength of soils.

Dry Strength Test: Take a sample of dry soil. If it crumbles freely or with moderate pressure into individual grains it is considered granular (Type C). Dry soil that falls into clumps that subsequently break into smaller clumps (and the smaller clumps can only be broken with difficulty) it is probably clay in combination with gravel, sand, or silt (Type B).

Thumb Penetration: The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in ASTM Standard designation D2488 Standard Recommended Practice for Description of Soils (Visual: Manual Procedure). Type A soils with an unconfined compressive strength of 1.5 tons per square foot (tsf) can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.

Benching and Sloping

OSHA 1926 Subpart P Appendix B provides detailed guidelines for sloping and benching for excavations greater than 4 feet and less than 20 feet. UAA requires all trenching and excavating projects to adhere to these guidelines to protect personnel or contractors working in trenches and excavations. EHS/RM can aid obtaining these regulations if requested.

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Maximum allowable slopes for excavations less than 20 feet are shown below.

Soil Type	Height/Depth Ratio	Slope Angle
Stable Rock	Vertical	900
Type A	.75:1	530
Type B	1:1	450
Type C	1.5:1	340

Shoring

Shoring is the provision of a support system for trench faces used to prevent movement of soil, underground utilities, roadways, and foundations. Shoring or shielding is used when the location or depth of the cut makes sloping back to the maximum allowable slope impractical. There are three basic types of shoring; timber, aluminum hydraulic, and pneumatic.

Timber shoring is an allowable method of shoring, however at UAA aluminum hydraulic and pneumatic will be used unless determined to be unfeasible.

Aluminum Hydraulic Shoring provides a critical safety advantage over timber shoring because workers do not have to enter the trench to install them. Hydraulic shoring is also light enough to be installed by one worker. They are gauge-regulated to ensure even distribution of pressure along the trench line and can be adapted easily to various trench depths and widths.

All shoring shall be installed from the top down and removed from the bottom up. Hydraulic shoring shall be checked at least once per shift for leaking hoses and/or cylinders, broken connections, cracked nipples, bent bases, and any other damages or defective parts.

The top cylinder of hydraulic shoring shall be no more than 18 inches below the top of the excavation. The bottom cylinder shall be no higher than four feet from the bottom of the excavation. Two feet of trench wall may be exposed beneath the bottom of the rail or plywood sheeting, if used. Wales are installed no more than two feet from the top and no more than four feet from the bottom, and no more than four feet apart – vertically.

Pneumatic Shoring works in a manner similar to hydraulic shoring. The primary difference is that pneumatic shoring uses air pressure in place of hydraulic pressure. A disadvantage to the use of pneumatic shoring is that an air compressor must be on the excavation site.

Specific OSHA requirements for shoring are found in 29CFR 1926 Subpart P, Appendices C-F. These regulations must be referenced when planning shoring for a trench or excavation. EHS/RM can assist in locating these regulations.

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Shielding

Trench boxes or trench shields are intended to protect workers from cave-ins and similar incidents. The trench shield is lowered into the excavation and workers may then enter the protected area within the shield. Only trench shields designed or certified by a registered professional engineer may be used. The use is limited to those trenches for which the shield is certified (e.g. maximum depth and material). The manufacturer must approve any modifications to the shields. The excavated area between the outside of the trench box and the face of the trench should be as small as possible. The space between the trench box and the excavation side should be backfilled to prevent lateral movement of the box.

Trench boxes may be used in combination with sloping and benching. The box must extend at least 18 inches above the surrounding area if there is sloping toward the excavation. This can be accomplished by providing a benched area adjacent to the box.

Shields may be placed two feet above the bottom of an excavation, provided they are calculated to support the full depth of the excavation and there is no caving under or behind the shield.

Workers must enter and leave the shielded area in a protected manner, such as by a ladder or ramp. Workers may not remain in the shielded area while it is being moved.

10. Inspections

A competent person shall conduct visual inspections using the Daily Inspection Form found in Appendix A:

- Daily and before the start of each shift
- As dictated by the work being done in the trench
- After every rain event
- After other events that could increase hazards, such as a snowstorm, windstorm, thaw, earthquake, dramatic change in weather, etc.
- When fissures, tension cracks, sloughing, undercutting, water seepage, bulging at the bottom, or other similar conditions occur
- When there is a change in the size, location, or placement of the spoil pile
- When there is any indication of change or movement in adjacent structures.

11. Training

UAA shall provide training for personnel, who will be performing work in and around trenching and excavation operations, under the supervision of the competent person, must receive training

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prior to starting work that covers the following:

- Potential hazards encountered when working in and around excavations
- Procedures that need to be followed in order to avoid these hazards

A competent person must show they have the training or experience as outlined in the Excavation Competent Person Evaluation Form found in Appendix B. Once complete the form should be kept on file in the department and a copy sent to EHS/RM.

If required, the competent person shall receive training in at least the following topics:

- Hazards related to excavation work
- Work practices and selection of appropriate protective systems
- Methods of evaluating soil and the site
- Inspection procedures
- Specific requirements of the policy and of related policies
- Emergency procedures

12. Program Evaluation

The Trenching and Excavation Safety Program shall be evaluated on an annual basis utilizing the protocols set forth by EHS/RM. The evaluation team will consist of a department safety coordinator and a designee from EHS/RM. EHS/RM will define the scope of the evaluation. The final report will be developed by the EHS/RM utilizing the information received during the evaluation. The deficiencies determined in the report will be documented and corrective action plans will be developed.

13. References

OSHA regulations that apply to trenching and excavation safety are included below.

- 29 CFR 1926 Subpart P


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14. Revision History

Revision Number	Date Revised	Description of Change	Revised By	Approved By
0		Initial Issue		
1				
2				
3				

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Appendix A


Excavation Site Checklist and Daily Field Report

Competent Person: _____ Date: _____
 Project Name: _____ Time: _____
 Project Number: _____
 Project Location: _____
 Weather Conditions: _____ Rainfall (in.): _____

Instructions: Complete the items in the checklist by circling the appropriate response and noting descriptive conditions in the comments column. Sign the form to attest that the indicated items were reviewed during the inspection.

Description of Inspection Item:	Yes	No	Comments
Have all utilities marked their locations?			
Have all affected parties been notified?			
Is proper traffic control in place?			
Has the soil been classified?			
Has a protective system been selected by the competent person?			
Has the competent person inspected the excavation/trench prior to start of each work			
Has the work plan been discussed with all employees?			
Are all employees protected from cave-ins when entering and exiting the excavation?			
Have hazardous objects around the excavation been removed or supported?			
Is all spoil maintained at least 2 feet back from the edge of the excavation?			
Are ladders used for access and egress? If so, are they installed correctly?			
Are employees protected from loose materials or tools which could fall into the trench?			
Are employees wearing the proper safety equipment?			
Is the excavation/trench free of standing or seeping water?			
Are there evidences of shrinkage cracks in the face of the trench wall?			
Were there evidences of sloughing of soil from the trench face since the last inspection?			
If a support system has been installed, was it installed			
Is heavy equipment kept away from the edge of the excavation?			
Are any changed conditions properly noted?			
Additional comments on safety.			

Competent Person Signature: _____

Date: _____

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EHS/RM Programs	Page 17
Title Trenching and Excavation Safety	Effective Date 06/25/2021

Appendix B



Excavation Competent Person Evaluation Form

Employee Name: _____ Date: _____
 Job Title: _____ Years in Job: _____
 Department: _____ Years in Department: _____
 Total years in service: _____

Instructions Evaluate the designated individual by completing the items in the evaluation list. If any item is deficient additional training will be required

Evaluation Item	Yes	No	Comments
Does the individual show proficiency through training and experience in the following:			
The requirements of 1926 Subpart P			
The use of protective systems			
Soils analysis and classification			
Work in hazardous environments			
Does the designated individual have the ability to competently conduct the following inspections:			
Daily Job Site Inspections			
Integrity of adjacent areas			
Integrity off the protective systems			
As needed throughout the work shift as scope and conditions change			
After a rainstorm			
When new hazards are suspected or identified			
Does this individual have the authority to:			
Take prompt corrective measures to eliminate existing and predictable hazards			
Stop work when hazards are identified until hazards are mitigated			
Comments:			

Supervisor Signature _____ Date _____