C/M or P/M Reviewed:		**CONSTRUCTION JOB HAZARDS ANALYSIS** **Excavation, Trenching & Pot Holing**	
Building & Room(s):		**Contractor/Subcontractor Name:**	**Rev: 2022**
Project:		**Date:**	
Scope of Work: **Please list the scope of work in this area. Example; dig hole or trench (5) trenches 3' wide x 4' deep using a backhoe.** (and remove these directions).			

Tasks being Performed	Potential Safety Risks/Hazards	Safety Controls / Mitigations
This is a TEMPLATE Describe the specific means & methods (job tasks) for completing all work associated with the project. It is helpful to list these as steps. Describe the work location (street, controlled construction job site, landscaping, etc.) & whether pedestrian or traffic flow needs to be controlled to ensure safety of pedestrians and drivers. Identify any heavy equipment (back hoe, excavator, dump truck, etc.) that will be used to complete the project. **NOTES:** **Penetration Permit may be required. See:** https://fac.lbl.gov/Facilities/OpMaint/DigApp/ **Storm Water Pollution Prevention Plan (SWPPP) may be required** **Special procedures and controls are required for excavating and handling contaminated material.** **A Traffic & Pedestrian control plan may be required**	Risk of injury to automotive or pedestrian traffic.	A Traffic / Pedestrian Control Plan is required when blocking or partially blocking any walkway, roadway or driveway. Work area should be delineated off from Un-Authorized personnel & signs posted Proper PPE shall be worn by adjacent personnel, as required by their proximity to the work task.
	Risks of injury from cave-in's collapse of unstable or poorly supported soil.	An Excavation Competent Person (CP) shall be assigned. Soil type shall be classified by the CP. If no soil testing is performed, the soil shall be classified as type "C". Trenches, spoil piles and surrounding work areas are inspected daily or as needed. Shoring or benching is required as determined by the CP. Hierarchy of benching/shoring shall include sloping/benching as the first option. When infeasible, shoring will be considered with trench boxes as the first consideration. If trench boxes are infeasible, hydraulic or other types of shoring can be considered. When adjacent newly compacted soil and heavy vibratory equipment is in use in the vicinity, trench boxes should be the primary means of protection unless work shifts can be adjusted to deconflict the work. If trench box cannot be installed or work shifts adjusted, consider inspecting the shoring system by competent person more frequently including in the morning, midday, and after heavy equipment use at a minimum. Do not hand dig in the trench when there is heavy vibratory equipment being used in the vicinity. Any trench greater that 5 feet deep, located next to underground piping or tanks containing hazardous materials, or having soil discoloration or odors shall be evaluated for permit-required confined space controls. Excavated soil spoils must be properly managed.
	Risk of accidental release into the storm water drains	Follow LBNL SWPP Program as required. If storm drains are below work areas, ensure drain covers are surrounded by waddles, lined with mesh covers (silt screens). Ensure dechlorination tablets are in place.
	Risk of damaging underground utilities.	Follow Penetration Permit requirements. Ensure all areas to be disturbed have been scanned prior to the start of work. All areas within 30" of known utilities shall be hand dug unless an exemption id obtained

Employee Signatures:	Date:

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Tasks being Performed		Potential Safety Risks/Hazards		Safety Controls / Mitigations	

A signed copy of this JHA must be posted while the applicable subcontractor is working on-site and be available to any LBNL employee upon request.