

Job Hazard Analysis

(Always Wear Proper PPE)

Project:	Superintendent:
Task: Culvert and Multi Plate Installation	Date:

Step	Potential Hazards	Safe Procedures/Crew Responsibilities
Preparation		<ul style="list-style-type: none"> • Designate a Competent Person or persons • Review P3 (Preparation Planning Procedures) and Hazard Analysis with crew • Complete and review STA's daily • Assess location and conditions*
Proper layout		<ul style="list-style-type: none"> • Review plans and specs; discuss with electrician
Mark and locate existing utilities	Damage to existing utility lines or personnel during location process	<ul style="list-style-type: none"> • Notify Dig Safe and all non-member utilities prior to start • Follow 18" rule for locating utilities: Use hand tools to dig within 18" of the marked line until the utility is exposed.
Excavate for culvert and backfill after installation	Overhead utility lines	<ul style="list-style-type: none"> • Follow the 10' overhead clearance rule • Have electric lines de-energized or covered if you need to be closer than 10'
	Cave-in of trench or test pit	<ul style="list-style-type: none"> • Use proper sloping or shoring while locating utilities and placing conduit • Do not enter trench until it is properly sloped or shored
	Rocks and dirt rolling into trench or test pit	<ul style="list-style-type: none"> • Spoils pile must be at least 2' from edge of excavation • Keep trench or test pit area clean of all debris
	Tools or supplies falling into trench or test pit	<ul style="list-style-type: none"> • Keep tools and supplies well away from the edge • Good housekeeping around excavation

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Excavation and backfill continued	Person falling or tripping into trench or test pit	<ul style="list-style-type: none"> • Good housekeeping around excavation • Berm and barricade excavation • Keep non-essential personnel away from the hole • Use a quality ladder of sufficient size to access holes over 4' deep • Never walk on edges or spreaders of trench boxes
	Water in the trench	<ul style="list-style-type: none"> • Divert or otherwise control surface water flows • Dewater trench before installing culvert **
	Personnel struck by trucks, machines, or excavation	<ul style="list-style-type: none"> • Maintain eye contact with excavator operator and truck drivers • Maintain a safe distance from excavation operation • All personnel should be out of trench when backfilling
Assemble and install culvert or multi-plate	Cuts from sharp metal on ends of pipe	<ul style="list-style-type: none"> • Eliminate or mark any sharp or jagged edges • Wear gloves when working with metals
	Cuts to hands from slipping when tightening bolts	<ul style="list-style-type: none"> • Use proper wrench or sockets for task and wear gloves
	Noise hazards	<ul style="list-style-type: none"> • Always wear ear protection when operating impact guns or cutting culvert or multi-plate with power saw
	Electrical shock from power source	<ul style="list-style-type: none"> • Keep equipment and culvert at least 10' from overhead wires • Ground generator and use GFCIs
	Pinched or crushed by rolling pipe	<ul style="list-style-type: none"> • Assemble on level surface and trig pipe
	Rigging failure	<ul style="list-style-type: none"> • Use proper rigging and inspect prior to each use • Use tag lines to control suspended loads • Maintain arm's length from suspended load at all times • Never put any body part under any suspended load

