JOB HAZARD ANALYSIS (JHA)

Business name

Document: JHA-001 Rev 1
Prepared: Nov 9, 2026
Review by: Dec 9, 2026
Highest risk after controls: Medium

1. BUSINESS AND JOB DETAILS

Job	Irrigation installation	**Start date**	Nov 9, 2026
Working hours	7:00 am to 3:30 pm	**Trade**	Landscaping

2. JOB STEPS, HAZARDS AND CONTROLS

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
1	Get 811 locates and mark trench lines	Hitting underground services Rules: 29 CFR 1926.651(b) and your state 811 law	**Critical Possible / Fatality**	1.1 Keep machine buckets well clear of marked services and use a spotter. [Engineering (guarding)] 1.2 Scan the area with a cable locator before digging and mark services on the ground. [Engineering] 1.3 Hand dig or vacuum excavate to expose services before using a machine near them. [Engineering] 1.4 Call 811 before you dig and wait until all utilities have marked their lines. [Administrative] 1.5 Keep plans or locate tickets on site and check them again if the work area grows. [Administrative] 1.6 Support or protect exposed utilities so they cannot sag or break while the excavation is open (29 CFR 1926.651(b)(4)). [Administrative] 1.7 If you hit a service, stop, get everyone clear, and call the owner and emergency services. [Administrative] 1.8 Wear safety boots, gloves and hi-vis when digging. [PPE]	**Medium Rare / Fatality**	Site supervisor
2	Dig shallow trenches by hand or with a trencher	Lifting and carrying heavy loads Being hit by heavy equipment Rules: 29 CFR 1926 Subpart O	**Critical Possible / Fatality**	2.1 Plan to avoid carrying: have materials delivered, and old items picked up, as close as possible to where they are used. [Elimination] 2.2 Use lighter or smaller loads: order smaller bags and shorter lengths, and drain or break down old items before moving them. [Substitution] 2.3 Use trolleys, pallet jacks, hoists, vacuum lifters or plant instead of carrying by hand. [Engineering] 2.4 Use a two-person lift for anything heavy, long or awkward. Plan the route first and clear it. [Administrative] 2.5 Keep the load close, back straight and no twisting. Turn with your feet. [Administrative] 2.6 Rotate tasks and take breaks on long lifting jobs. [Administrative] 2.7 Wear gloves for grip and safety boots to protect your feet. [PPE] 2.8 Separate people and equipment with barriers, exclusion zones and marked walkways. [Engineering (guarding)]	**Medium Unlikely / Recordable / lost time**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				2.9 Use equipment with working backup alarms, cameras and lights. [Engineering] 2.10 Have a site traffic plan showing equipment routes, loading areas and pedestrian paths. [Administrative] 2.11 Use a spotter when backing up or working near people. [Administrative] 2.12 Make eye contact with the operator before going near. Stay out of the swing radius. [Administrative] 2.13 Operators are trained and authorized for each machine. Forklift and telehandler operators are trained, evaluated and certified by the employer (29 CFR 1910.178(l), via 1926.602(d)). [Administrative] 2.14 Do a pre-start check on each machine every day and record it. [Administrative] 2.15 Wear hi-vis clothing and a hard hat. [PPE]		
3	Lay pipe and glue joints with ventilation	Hazardous chemicals Rules: 29 CFR 1926.59 Hazard Communication	**Medium Possible / Recordable / lost time**	3.1 Choose the least harmful product that does the job, for example water-based instead of solvent-based. [Substitution] 3.2 Use chemicals in well-ventilated areas, or use fans and extraction in closed rooms. [Engineering] 3.3 Read the Safety Data Sheet (SDS) and labels before use, following OSHA Hazard Communication. [Administrative] 3.4 Keep chemicals in labeled containers. Never pour them into drink bottles. [Administrative] 3.5 Store chemicals away from heat, food and drink, and keep products that react with each other apart. [Administrative] 3.6 Have eye wash and a spill kit nearby, and wash hands before eating. [Administrative] 3.7 Wear chemical-resistant gloves and safety glasses or goggles as listed on the SDS. [PPE] 3.8 Use a respirator with the right cartridge if the SDS calls for one. [PPE]	**Medium Unlikely / Recordable / lost time**	Site supervisor
4	Connect the controller, getting a licensed electrician for any new power	Electric shock from live wiring Rules: 29 CFR 1926 Subpart K	**Critical Possible / Fatality**	4.1 Isolate the power before any work. Do not work live. [Elimination] 4.2 Lock out and tag the disconnecting means with your own personal lock and tag so the circuit cannot be energized (29 CFR 1926.417). [Engineering (guarding)] 4.3 Test before you touch: prove dead at the point of work with a tested voltage tester. [Engineering] 4.4 Only qualified persons work on or near exposed energized parts. [Administrative] 4.5 Check for back feeds from solar, batteries and generators that can keep a circuit live after the main switch is off. [Administrative] 4.6 If energized work cannot be avoided, use an energized work permit, a safety observer and insulated tools, following NFPA 70E. [Administrative] 4.7 Wear insulated gloves, arc-rated clothing and a face	**Medium Rare / Fatality**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				shield when testing or working near live parts. [PPE]		
5	Test, backfill and clean up	Pressure testing Poor housekeeping and waste	**Medium** **Unlikely / Serious injury**	5.1 Test with water instead of air or gas where the system allows it. Never put water in refrigerant pipework, which is tested with dry nitrogen. [Substitution] 5.2 Keep people out of the test area with signs and barriers. [Engineering (guarding)] 5.3 Use a calibrated gauge and a relief valve set to protect the system. [Engineering] 5.4 Test to the pressure the system calls for and hold it for the set time. Never go over. [Administrative] 5.5 Release the pressure fully before tightening anything or fixing leaks. [Administrative] 5.6 Wear safety glasses or a face shield. [PPE] 5.7 Order materials to size and send packaging back where you can. [Elimination] 5.8 Put dumpsters and waste chutes close to the work. [Engineering] 5.9 Clean as you go, and do a full clean up at the end of each day. [Administrative] 5.10 Keep exits, stairs and walkways clear at all times. [Administrative] 5.11 Stack materials neatly on level ground, away from edges. [Administrative] 5.12 Wear gloves when handling waste. [PPE]	**Low** **Rare / Serious injury**	Site supervisor

Risk key: risk = likelihood x consequence on a 5 x 5 matrix. Low, Medium, High, Critical. Work must not start while the risk after controls is high or above. Controls are listed in order of the hierarchy of controls: Elimination, Substitution, Engineering (guarding), Engineering, Administrative, PPE.

3. PPE AND PERMITS

Required PPE	Permits and plans
Safety-toe boots (ASTM F2413) Work gloves Sun protection (sunscreen, hat, long sleeves) High-visibility safety apparel, ANSI/ISEA 107 Class 2 or 3 (Type R near roadways) Hard hat (ANSI Z89.1) Chemical-resistant gloves Safety goggles (ANSI Z87.1) Half-face respirator (P100 cartridges) Coveralls Safety glasses (ANSI Z87.1) Face shield (ANSI Z87.1)	None required

4. PLANT AND EQUIPMENT

Plant / equipment	License or training needed	Inspection needed	Rego / ID	Last inspected	Certificate / report
Hand tools					
Excavator					
Power drill		Visual check of cord, plug and guards before each day's use; if you run an assured equipment grounding program instead of GFCIs, test every 3 months (29 CFR 1926.404(b)(1))			

5. TRAINING REQUIRED FOR THIS WORK

- Equipment operator training (29 CFR 1926.20(b)(4)); forklift and telehandler operators trained, evaluated and certified, re-evaluated every 3 years (29 CFR 1910.178(l))
- Hazard communication training on the written program, labels and SDS (29 CFR 1910.1200(h), via 1926.59); respirator fit test and medical evaluation if a respirator is used (29 CFR 1910.134)
- Qualified person training for work on or near exposed energized parts (29 CFR 1926.416, NFPA 70E)

6. CREW TRAINING AND CERTIFICATIONS

Crew listed at sign-on below, with ticket and licence numbers.

7. EMERGENCY ARRANGEMENTS

Emergency number	911	**First aid kit**	In the work vehicle
Fire extinguisher	In the work vehicle	**Alarm and evacuation**	Shout for help and stop work. Make the area safe and go to the assembly point. Call the emergency number and send someone to meet the ambulance.
Reporting incidents	Report a fatality to OSHA within 8 hours, and an in-patient hospitalization, amputation or eye loss within 24 hours.		

8. MONITORING, REVIEW AND LEGAL BASIS

A competent person inspects the job site, materials and equipment before work each day and as conditions change (29 CFR 1926.20(b)(2)). Any time this JHA is revised, the affected crew is re-briefed and signs again.

Legal basis: OSH Act Section 5(a)(1) and 29 CFR 1926, Safety and Health Regulations for Construction (incl. 1926.20 and 1926.21). OSHA requires employers to find and fix hazards and to train workers on them. A JHA breaks the job into steps, lists the hazards in each step and the controls that protect the crew. General contractors often require one before you start.

Keep this JHA on site during the job, and keep it with the training and inspection records for at least 1 year after the job (longer if your state plan or general contractor requires it). OSHA does not set a retention period for JHAs themselves.

9. REVISION HISTORY

Rev	Date	By	What changed

Rev	Date	By	What changed
1	Nov 9, 2026		First issue

10. SIGN-OFF

	Name	Signature	Date	
Prepared by				
Supervisor				
General contractor review				Accepted for use: Yes / No

By signing below, each crew member confirms they were trained on the hazards and controls in this JHA before work started, and will follow it. Stop work and tell the supervisor if conditions change.

Name	Role / company	Tickets / licences	Signature	Date

Name	Role / company	Tickets / licences	Signature	Date