

CONSTRUCTION & FIELD OPS EXCAVATION SAFETY TEMPLATE

Excavation Safety Checklist

Inspect utilities, cave-in protection, protective systems, access, spoil, equipment, water, atmosphere, adjacent structures, competent-person checks, and safe closure.

PROJECT / LOCATION

INSPECTION DATE

COMPETENT PERSON

APPROVER

1. Excavation setup, scope, competent person, and authorization

- 1 Confirm the project, excavation location, inspection date, contractor, excavation supervisor, competent person, inspector, and approver.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Use the exact trench or excavation location and depth so the inspection is traceable.

- 2 Define the excavation or trench dimensions, planned depth, work purpose, soil conditions, nearby structures, utilities, equipment, and worker exposure included in the inspection.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Include workers, equipment, spoil, utilities, structures, and public exposure in the scope.

- 3 Verify the current excavation permit or authorization, risk assessment, method statement, utility information, protective-system design, and emergency arrangements are available before work begins.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Keep current protective-system design and utility information at the workforce.

- 4 Confirm a competent person is designated with authority to identify excavation hazards and take prompt corrective measures.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: The competent person must have authority to take prompt corrective measures.

- 5 Review previous cave-in indicators, utility strikes, water ingress, atmospheric concerns, protective-system defects, access issues, and overdue corrective actions.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Use repeat failures to target high-risk contractors, soil conditions, and work methods.

- 6 Capture the inspection start time, location, and approved reference photos showing the excavation, edges, spoil placement, access, protective system, and surrounding conditions.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Take reference photos before spoil, access, or protective systems change.

2. Underground utilities, surface hazards, and pre-excavation controls

- 7 Determine the estimated location of sewer, telephone, fuel, electrical, water, process, or other underground installations before opening the excavation.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: OSHA requires estimated underground utility locations to be determined before excavation starts.

- 8 Confirm utility owners or locating services have been contacted and current marking, survey, drawings, detection results, or other approved location evidence is available.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Use the current utility-locate process required by the jurisdiction and project.

- 9 When excavation approaches the estimated location of underground installations, verify the exact location is established by safe and acceptable means before mechanical work continues.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Approach marked services cautiously and verify exact location by safe means.

- 10 Confirm exposed underground installations are protected, supported, isolated, or removed as necessary to safeguard workers while the excavation remains open.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Support or protect exposed services while the excavation remains open.

- 11 Identify and remove or support surface encumbrances such as structures, stored materials, poles, pavement, equipment, or other loads that could create a hazard.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Surface loads can become excavation hazards even when they are outside the cut.

- 12 Verify the excavation boundary, service markings, no-dig or hand-dig zones, machine restrictions, and communication between spotters and equipment operators are clearly established.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Machine boundaries and spotter roles should be unmistakable to the crew.

3. Soil conditions, cave-in risk, sloping, benching, shoring, and shielding

- 13 Verify soil and ground conditions have been evaluated by the competent person and the selected protective system matches the conditions and excavation geometry. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Soil and ground conditions can change during the shift.

- 14 Confirm each worker in an excavation is protected from cave-in by an adequate protective system unless the excavation is entirely in stable rock or is less than 5 feet deep and the competent person finds no cave-in **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Under OSHA, protective systems are generally required at 5 feet or deeper unless stable-rock or competent-person exceptions apply.

- 15 Check sloping or benching angles, bench dimensions, surcharge effects, soil changes, water conditions, vibration, and nearby loads against the selected protective-system criteria. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Sloping and benching must account for soil classification and surcharge loading.

- 16 Inspect shoring, hydraulic shores, timber systems, sheeting, braces, struts, walers, trench boxes, shields, and other protective-system components for correct installation, damage, displacement, or overloading. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Inspect shields and shoring for damage before workers enter the protected zone.

- 17 For excavations more than 20 feet deep, verify the protective system is designed by a registered professional engineer or based on tabulated data prepared or approved by one, as required. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: OSHA requires engineer-designed or engineer-approved criteria for protective systems deeper than 20 feet.

- 18 Confirm workers are removed from any area showing cave-in indicators, protective-system failure, tension cracks, sloughing, bulging, heaving, unexpected movement, or other hazardous ground conditions until EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Visible distress is a stop-work signal, not a condition to monitor while workers remain exposed.

4. Access, egress, ladders, ramps, walkways, and edge protection

19 Provide a stairway, ladder, ramp, or other safe means of egress in trench excavations 4 feet or more in depth. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: OSHA requires safe egress in trenches 4 feet or deeper.

20 Verify the safe means of egress is positioned so workers in trenches 4 feet or more in depth travel no more than 25 lateral feet to reach it. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: No worker should need more than 25 feet of lateral travel to an exit in qualifying trenches.

21 Inspect ladders, stairways, ramps, and runways for secure placement, stable footing, sufficient length, non-slip condition, damage, and clear access. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Keep ladders and ramps usable throughout the shift.

22 Confirm structural ramps used by workers are designed by a competent person and equipment ramps are designed by a competent person qualified in structural design. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Structural ramps have specific competent-person design requirements.

23 Provide walkways where workers or equipment must cross excavations and verify guardrails are installed where walkways are 6 feet or more above lower levels. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Crossings need suitable walkways and fall protection where required.

24 Keep access routes, ladders, ramps, walkways, and excavation entry points free from spoil, hoses, pumps, materials, vehicles, and other obstructions throughout the shift. EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Do not let dewatering hoses or spoil block the only escape route.

5. Spoil piles, falling material, equipment, traffic, and edge loading

- 25 Keep excavated material, spoil piles, tools, equipment, and other objects at least 2 feet from the excavation edge unless an effective retaining system or equivalent protection is provided.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: OSHA uses a 2-foot setback for spoil or requires equivalent retaining protection.

- 26 Inspect excavation faces and edges for loose rock, soil, debris, or material that could fall, roll, slide, or dislodge into the excavation.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Scale or retain loose material that could fall or roll into the excavation.

- 27 Confirm workers are protected from loads handled by lifting or digging equipment and do not remain beneath suspended or falling-load exposure.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Workers should not stand beneath loads handled by digging or lifting equipment.

- 28 Verify vehicles and mobile equipment operating adjacent to the excavation use barricades, stop logs, spotters, signals, or other warning systems when operators do not have a clear view of the edge.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Use stop logs, barricades, or spotters when operators cannot see the excavation edge.

- 29 Check cranes, excavators, loaders, dump trucks, compactors, stored materials, structures, and traffic do not impose unsafe surcharge loads on excavation walls or protective systems.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Surcharge loading can reduce protective-system effectiveness.

- 30 Maintain suitable barricades, lighting, warning signs, high-visibility controls, and public or vehicle separation around excavation hazards.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Protect the excavation from both construction traffic and the public.

6. Water accumulation, drainage, weather, and ground deterioration

- 31 Do not allow employees to work in excavations with accumulated or accumulating water unless adequate precautions have been taken for the resulting hazards. CRITICAL EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Water can rapidly change soil strength and cave-in risk.

- 32 Verify pumps, sumps, drainage, dewatering systems, diversion ditches, dikes, or other water controls are suitable for the excavation and surrounding ground conditions. CRITICAL EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Plan surface-water control as well as pumping inside the excavation.

- 33 When water-removal equipment is used, confirm its operation is monitored by a competent person. CRITICAL EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: OSHA requires competent-person monitoring when water-removal equipment is used.

- 34 Inspect for seepage, saturated soil, erosion, softening, undermining, piping, surface runoff, standing water, or instability that could weaken excavation walls or protective systems. CRITICAL EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Look for soil piping and erosion, not only visible water depth.

- 35 Confirm excavations exposed to heavy rain, runoff, flooding, frost-thaw, vibration, or other hazard-increasing conditions are reinspected by the competent person before workers re-enter. CRITICAL EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Rain and runoff require reinspection before re-entry when hazards may have increased.

- 36 Record changes in groundwater, weather, drainage, soil appearance, protective-system condition, or adjacent loading and stop work when the original excavation controls are no longer reliable. EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Stop work when drainage or ground changes invalidate the original plan.

7. Hazardous atmospheres, ventilation, testing, and emergency rescue

37 Where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected, test the atmosphere before employees enter excavations greater than 4 feet in depth. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Atmospheric hazards can occur in landfills, contaminated areas, sewers, and other unusual locations.

38 Confirm atmospheric testing covers relevant oxygen, flammable, toxic, or other identified hazards and uses suitable, maintained, and calibrated or verified instruments. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: OSHA requires testing before entry to qualifying excavations deeper than 4 feet when hazardous atmospheres could reasonably be expected.

39 Verify controls such as ventilation, respiratory protection, process isolation, purging, or access restriction are in place when atmospheric hazards are identified. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Use controls appropriate to the identified atmosphere and task.

40 Where controls are used to reduce atmospheric contaminants to acceptable levels, repeat testing as often as necessary to confirm the atmosphere remains safe. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Continue testing when ventilation or other controls are maintaining acceptable conditions.

41 Ensure emergency rescue equipment such as breathing apparatus, harness and line, or basket stretcher is readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop. **CRITICAL** EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Rescue equipment must be readily available where hazardous atmospheres may develop.

42 Confirm rescue arrangements, communication, attendant or standby requirements, emergency access, and escalation routes match the actual excavation depth, configuration, atmosphere, and worker exposure. EXCAVATION

Compliant Needs attention Stop entry N/A

Execution tip: Emergency planning should match depth, access, atmosphere, and casualty-removal difficulty.

8. Adjacent structures, foundations, roads, utilities, and excavation stability

- 43 Assess whether excavation work could endanger adjoining buildings, retaining walls, foundations, pavements, sidewalks, poles, utilities, temporary works, or other structures.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Excavation can destabilize structures without obvious movement at the start of work.

- 44 Provide shoring, bracing, underpinning, or another suitable support system when excavation operations could affect the stability of adjacent structures.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Provide engineered support where adjacent stability is endangered.

- 45 Do not excavate below the base or footing of a foundation or retaining wall where it could pose a hazard unless an approved support or engineering condition is satisfied.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Foundation undermining requires specific control or engineering approval.

- 46 Inspect nearby ground for settlement, cracking, movement, voids, undermining, displaced pavement, structural distress, or other evidence that excavation activity is affecting stability.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Inspect nearby pavements and structures for early movement indicators.

- 47 Verify heavy equipment, material storage, stockpiles, cranes, traffic routes, and temporary structures are positioned far enough from the excavation or otherwise controlled to avoid destabilizing the excavation.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Keep surcharge loads away from the excavation unless their effect is accounted for.

- 48 Escalate unexpected structural movement, utility displacement, ground loss, pavement failure, or foundation exposure for immediate engineering and competent-person review.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Unexpected ground or structural movement needs immediate escalation.

9. Daily competent-person inspection, changes, stop-work, and worker protection

49

Confirm the competent person inspects excavations, adjacent areas, and protective systems before the start of work and as needed throughout the shift when employee exposure is reasonably anticipated.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: OSHA requires competent-person inspection before work and as needed during the shift.

50

Verify additional competent-person inspections are completed after rainstorms or other occurrences that could increase excavation hazards.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Reinspect after rain or any other hazard-increasing event.

51

Check the inspection covers cave-in evidence, protective-system condition, hazardous atmospheres, water, loose material, access, utilities, equipment, adjacent structures, and other changing hazards.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Inspect the complete excavation system rather than only the trench walls.

52

Remove exposed employees from the hazardous area immediately when the competent person identifies a possible cave-in, protective-system failure, hazardous atmosphere, or other dangerous condition.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Workers must leave hazardous areas until necessary precautions are taken.

53

Verify workers understand excavation entry restrictions, safe access, exclusion zones, equipment interaction, emergency response, and stop-work authority.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Entry rules and stop-work authority should be understood by the whole crew.

54

Record inspection findings, weather or condition changes, restrictions, corrective actions, re-entry authorization, and supporting evidence for each active excavation.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Keep a traceable inspection record for each active excavation.

10. Findings, corrective actions, closure, backfilling, and sign-off

55

Summarize the excavation safety result, including critical cave-in risks, utility concerns, access deficiencies, water issues, atmospheric hazards, protective-system defects, and recurring contractor gaps.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Separate immediate removal of exposure from permanent corrective action.

56

Create immediate containment or work restriction for every critical excavation hazard before allowing exposed employees to remain or re-enter.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Do not allow re-entry until the competent person confirms controls are restored.

57

Assign each finding an owner, priority, due date, engineering or competent-person review requirement, corrective action, verification method, and closure evidence rule.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Engineering review may be necessary for deeper or unusual excavations.

58

Verify protective systems, utilities, barriers, access controls, pumps, shoring, trench boxes, and other temporary safeguards remain effective until the excavation is safely closed, backfilled, or handed over.

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Temporary systems should remain until their protection is no longer required.

59

Confirm backfilling, removal of shoring or shields, restoration of surfaces, utility protection, traffic reinstatement, and cleanup are completed using a controlled sequence that does not expose workers to new

CRITICAL

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Removal and backfilling can create new cave-in and struck-by hazards.

60

Record the final excavation decision, remaining restrictions, re-entry status, closure condition, next review date, competent person, inspector, supervisor, approver, date, time, and sign-off.

EXCAVATION

Compliant

Needs attention

Stop entry

N/A

Execution tip: Record unresolved restrictions before closing the excavation inspection.

RUN THIS CHECKLIST DIGITALLY

Turn excavation hazards into accountable stop-entry, reinspection, and verified closure

Capture ground, utility, protective-system, access, water, atmosphere, and action evidence in Taqtics.

[Try Excavation Safety in Taqtics](#)