



Excavation

Intent: To eliminate or minimise the risks of fatalities, injuries and events arising from excavations, and other activities involving breaking ground.

Engineered Safety in Practice (examples):

- Eliminate or minimise deep excavations through engineering alternatives
- Assess preliminary temporary works schemes, advising of complex or unusual methodologies
- Eliminate or reduce overhead and/or underground services interfaces
- Plan service routes to avoid high-risk excavation areas

FSR Controls

1. Obtain a Ground Penetration Permit before commencing any ground penetration activity.
2. Identify the location, depth, and safe approach distances of all underground services with physical marking before ground penetration activities.
3. Clearly mark exposed services with visual indicators and protect them with physical barriers to prevent accidental contact.
4. When the operational envelope of an excavator can encroach on the Safe Approach Distance (SAD) of powerlines, it must have slew / height limiters and a trained electrical spotter.
5. Protect excavations deeper than 1.5m from collapse using approved temporary works designs (e.g. battering, benching, or shoring) or confirm via a geotechnical engineer that ground support is not required.
6. Use only proprietary shoring systems approved by the Temporary Works Coordinator.
7. Construct shoring in accordance with the approved design and have it verified by the Temporary Works Coordinator or their delegate.
8. Only enter excavations where safe access and egress are provided and specified ground support is installed as per the approved design.
9. Place all spoil, plant, and equipment at least 1m beyond the zone of influence unless otherwise approved by the Temporary Works Coordinator.
10. Controls for prevention of falls around excavations must adhere to FSR Prevention of Falls and Dropped Objects.
11. Deep excavations left unattended must be secured with fencing or barriers at least 1.8m high, or covers to prevent unauthorised access, along with Deep Excavation signage.
12. The Temporary Works Supervisor must inspect all excavations open for more than 24 hours daily and after any weather event for signs of fretting or deterioration.
13. An emergency plan is in place, equipment available, and the team are trained in the response process.
14. Excavator operators must be trained and hold the relevant nationally recognised unit of competency.

DEFINITIONS

Zone of Influence: The area around an excavation that could collapse or be destabilised by loads, vibration, or poor ground; it is dependent upon soil / strata type

