

MECHANICAL EXCAVATION



METHOD OF WORK

Ensure a Risk Assessment is carried out and control measures put in place.

1. The work area must be secured using pedestrian barriers before works commencing.
2. Operatives must be experienced and competent in works.
3. Carry out pre-use inspection checks to ensure all plant and equipment are free from defects.
4. Check fuel levels, top-up if required while the engine is cool. Do not refuel when the engine is running or hot!
5. Prior to any excavation, complete a site survey to locate underground services using Utility Drawings and a CAT & Genny. Mark all service locations. Warning: Do not use mechanical excavation near shallow services. Complete hand dug trial holes to locate underground services.
6. Where excavation works are in close proximity to structures, walls, lamp posts, telegraph poles etc., suitable controls must be in place to protect the stability of the structures and the excavation. Do not proceed unless authorised to do so.
7. Deep excavations and excavations in unstable ground are subject to temporary works / excavation support.
 - o 0 – 1.2m: *Batter Back or excavation support determined by on site point of work risk assessment.*
 - o 1.2m: *Stop Work, Reassess, and determine if safe to continue or if additional controls are required, i.e., batter back or excavation support.*
 - o 1.5m: *Excavation support or battering back must be used (standard designs)*
 - o 2.5m: *A bespoke external design must be used if battering back is not possible.*
8. A Banksman must be present to monitor excavation works at all times.
9. Always monitor ground conditions during excavation to prevent collapse of excavation or destabilisation of mechanical excavator.
10. Operator must wear a seat belt at all times when operating the excavator.
11. Surface Removal
 - o Tarmac / Asphalt / Concrete: Use Road / Stihl Saw to cut clean line in surface, Dust Suppression must be used and PPE / RPE worn. Break out surface layers using breaker attachment.
 - o Paving Slabs / Blocks: Remove with care noting sequence of removal, store to one side for reuse.
 - o Grass / Soft Verge: Strip with care and place to one side for reuse.
12. Commence excavation with Mechanical Excavator using a toothless bucket. Excavate in layers (max 150mm) and always re-sweep area using CAT & Genny to prove no underground services are present.
13. Excavated material must be stored a safe distance from the edge of the excavation, minimum distance to be equal to trench depth. Material should be positioned to allow safe access and removal from site.
14. Do not use Mechanical Excavator to dig down directly on top of underground services.
15. Underground apparatus must be adequately supported and protected during the works.
16. Safety zones and communication signals must be in accordance with People and Plant Interface Guidance.
17. All excavations to be regularly inspected and assessed by a competent person. All excavations must be adequately guarded and deep excavation signage displayed where necessary.

Note: Do not enter a flooded excavation, always dewater to a safe location.



HAZARD IDENTIFICATION

- Noise, Dust
- HAVS
- Underground & Overhead Services
- Collapse of Excavation
- Failure of Mechanical Plant
- Slips, Trips, Falls
- Flooded Excavation



PLANT, EQUIPMENT, MATERIALS

- CAT & Genny (including accessories)
- Road / Stihl Saw
- Mechanical Excavator
- Hydraulic Breaker
- Toothless Buckets
- Insulated Hand Tools
- Excavation Support / Shoring (as required)



EMERGENCY ARRANGEMENTS

- Ensure you are familiar with the point of work emergency arrangements
- All work vehicles to carry First Aid Kit and Fire Extinguisher.
- Familiarise yourself with nearest hospital location



ENVIRONMENTAL

- Ensure engine is switched off when not in use.
- Only refuel in designated safe areas.
- Spill Kit to be available on site.
- Dust suppression must be used.
- Always dewater excavations to a safe location,
- Remove waste materials from site.
- Note: All excavated materials must be accompanied by a Waste Transfer Note.



PPE REQUIREMENTS

PPE items shown below must be available and worn during this task.



COSHH

Refer to COSHH Assessments for further information on the below

DUST (Silica)	
PETROL DIESEL	