Suggested - Excavation Method Statement

Main Contractor:

Groundwork Contractor:

Activity: Excavation of pit and installation of earthwork support system to maintain safe working environment for installation of pumping chamber.

The work consists of excavating a pit size 3.6 x 3.6 x 3mtr deep. Excavations will be done by a 360° 15 to 20 tonne excavator assisted at all times by a competent banksmen. Work will commence by excavating a section of the pit to a safe suitable depth, we suggest a depth of no more than one metre, in order for the earthwork support system to be installed. Excavated material will either be loaded directly onto lorries or tipped away from the excavation using six tonne dumpers.

Earthwork support will consist of KD6/8mm trench sheets driven into the ground to 600mm minimum or deeper, if necessary. To ensure complete stability of the sides of the excavation, the trench sheets will be braced at the top and bottom of the excavation using double acting Type B manhole frame braces 41kn/m². It is envisaged that four metre long trench sheets will be sufficient to ensure complete stability, and a half metre upstand. The braces will be preformed and will act as a guide to the installation of the sheets as work progresses. The trench sheets will be driven by the excavator using a KD6 driving cap.

When the excavation is finally completed the braces will be tightened to ensure the structure is completely rigid, and the hanging chains attached correctly. The system will be checked continually to ensure a completely safe working environment for the duration of the work, security fencing will be in operation at all times, with 'Danger Deep Excavation' signs on all four sides. The excavation will be inspected by an authorised person before any work commences.

The concrete base to the pit will be poured with the assistance of the 360° excavator using a 0.5mtr concrete coneflow skip – (1500kg swl). After the concrete has cured, work will commence on the installation of the pump chamber. The bottom frame can now be lifted to just under the top frame, and the top frame removed. The pumping chamber can now be lifted into position either by a suitable crane with a trained appointed person managing the lifting operation, or a suitable excavator with a swl indicator fitted, with a banksmen. Only lifting equipment with current reports of thorough examination are to be used.

When work on the chamber is complete, backfilling as specified will commence and the bottom, now top manhole frame removed. As backfilling progresses the sheets will be withdrawn using the excavator fitted with a compatible sheet extractor – checking the safe working load on it before extracting commences.

Access to the excavation will be by means of secured, tested ladders. If ingress of water occurs during any time the excavation is open, it will be removed by using a compatible pump (100 or 150mm) diesel powered.

It is the responsibility of the Groundwork General Foreman to check the safety of the excavation at regular intervals, and ensure PPE is worn at all times.