

EXCAVATIONS INCLUDING ACCESS

Excavations are a cause of many accidents on sites and should be minimized but where they are necessary designers should be aware of:

- The type of support for excavations must be suitable and structurally designed if necessary.
 - The position of all buried services must be made known to all machine operators and ground workers. Drawings are essential to complete this. A permit to dig must be in place for all operations involving breaking ground.
 - Access into excavations, via suitable ladders (or stairs in large excavations) should be available and located in the supported section of the excavation.
- Where it is possible for persons or plant to fall into an excavation, effective barriers must be erected at each accessible face. Barriers should be at least 1m high and set 1m back from the edge if not rigidly fixed. On the edges where vehicles work, stop blocks must be positioned to prevent vehicles from falling in.
- Ladders must be secured and extend 1m past the landing place, or another handhold made available.
 - Spoil and materials should not be placed at the edge of the excavation, where they will add to the effective depth of the excavation.
- Material such as pipes should not roll into the excavation and heavy material such as concrete manhole rings should not place an undue strain on the sides of the trench.
- Spoil and materials should be stored the same distance away from the edge of an excavation as the depth of the excavation.
- Where the sides of an excavation are battered or stepped, ensure the correct angle of repose for the type of soil. No attempt should be made to increase this angle.

