

	conditions additional loads can be increased to the retention walls in case of adjacent foundations as per actual calculations
Minimum distance between anchors	(1.2m)
Maximum length of anchors	Not exceeding (10m)
Minimum length of anchors	Not less than(3m)
Maximum side offset	Maximum allowable offset for shoring is (40mm)
Unplanned excavations	When inspecting stability, equilibrium and deformation of the soil, retention, the wall design shall be made with the assumption of the existence of unplanned excavation in front of the wall with a depth not less than (10%) of the overall height of the vertical walls or (10%) of the vertical distance between the lowest anchor and the bottom of the excavation. minimum depth of unplanned excavations is (0.50m)

### 3. Design Excavation works near water bodies

The following instructions shall be followed when doing shoring works for projects close to water bodies:

- 3.1 Shoring works shall be designed as an independent structure, it is not acceptable to relay on the existence of pavement walls.
- 3.2 Location of the anchors shall be far from the pavement edge.
- 3.3 Special design for shoring near water bodies shall be provided.
- 3.4 All projects near water bodies shall have waterproof shoring system to prevent water leakage such as damper walls or secant piles.
- 3.5 Shoring systems shall be discussed and a final decision is made during the preliminary submission stage.
- 3.6 Temporary works shall be accurately defined; the consultant shall prepare a document containing the methodology. The contractor shall comply with executing all works stipulated in that document after obtaining written approval from the consultant.