

2.5.5. Underground or Mounded LPG Tank installation

2.5.5.1. Underground or Mounded LPG Tank installation shall comply with requirements of **Section 2.5.1., 2.5.2., 2.5.5.** and **section 6.**

Table 11.9: Underground or Mounded LPG Tank Installation Guideline

ITEMS	REQUIREMENTS FOR UNDERGROUND OR MOUNDED LPG TANK INSTALLATIONS
1. LOCATION OF UNDERGROUND OR MOUNDED TANKS	<ul style="list-style-type: none"> i. Underground or Mounded LPG Tanks shall be installed below ground, outdoor with relief valves open to sky at grade level. ii. Buildings, sheds and canopies shall not be constructed over any underground or mounded LPG tanks. iii. Partially buried or unmounded LPG tank installation shall be considered as Above ground installation and shall comply with Section 2.5.3. iv. Location of the tank shall be such that it is not prone to water flooding, either from rain or from accidental water main leakages. v. LPG Tanks shall be installed where there is free air movement. vi. Underground or Mounded LPG tanks installed in areas with no vehicle traffic shall be installed at least 15 cm below grade. vii. Underground or Mounded LPG tanks installed in areas with vehicle traffic within 3 m shall be installed at least 46 cm below grade or shall be provided with barricades around the entire tank and connections to prevent vehicular damages and accidents. viii. Approved and listed interchangeable aboveground and underground LPG tank assemblies shall not be placed with underground tank shell more than 3 m below grade (ground). ix. Where tanks are covered because of aesthetic reasons, such enclosure shall be fully ventilated or perforated and shall comply with separation distances of Table 11.9. x. LPG Tanks shall not be located within 3 m of dike wall of other flammable and combustible liquids.
2. INSTALLATION OF UNDERGROUND OR MOUNDED TANKS	<ul style="list-style-type: none"> i. Underground or mounded LPG tanks shall be approved and listed for underground or mound installation with labels and marking confirmation. ii. Underground installations shall be executed by Civil Defence approved contractor. iii. Cathodic protection shall be provided for the underground and mounded LPG tanks to prevent corrosion. iv. Tanks shall be coated fully without any pinhole in the coating to prevent underground or mounded tanks from corrosion. v. Concrete bed shall be provided as foundation in all cases and designed to overcome buoyant forces in case of water flooding. The UG tanks must be fixed/strapped to this foundation. vi. All underground tanks must be strapped or fixed to a solid foundation designed to prevent floatation in case of submergence of the tank due to water flooding for any reasons. vii. An underground LPG tank shall not be acceptable as underground installation without backfilling the pit. viii. Backfill shall be free of rocks and abrasives so that coating is not compromised. ix. The discharge of the regulator vent shall be above the highest probable water level to prevent the tank relief valve from blockages. x. Before backfilling, any damage to LPG tanks shall be inspected and repaired. xi. Containers shall be set level and shall be surrounded by earth or sand firmly tamped in place.