Fill Compaction

Flexible Base Material: Flexible base material for the tank pad area should meet the requirements of TxDOT Standard Specifications Item 247, Type A or D, Grade 1-2. The material should be compacted to a minimum 95 percent of standard Proctor maximum dry density (ASTM D 698) and within 0 to +3 percentage points of the material's optimum moisture content.

General fill soils to be used outside the tank/structure areas should be compacted to a dry density of at least 95 percent of standard Proctor maximum dry density (ASTM D 698) and within the range of 1 percentage point below to 3 percentage points above the material's optimum moisture content.

Compaction should be accomplished by placing fill in about 8-inch thick loose lifts and compacting each lift to at least the specified minimum dry density. Field density and moisture content tests should be performed on each lift.

Subgrade Improvement for Support of Foundations and Base Slab

If some foundation movement is tolerable (about 3 inches), the foundations can bear on improved soils. To improve consolidation characteristics of the existing soils and provide a suitable base with increased bearing capacity for the tank foundation, we recommend removal of existing soils and/or placement of flexible base to a minimum depth of 3 ft beneath the tank structure. The flexible base fill should extend throughout the tank limits, at least 2 ft beyond the perimeter of the foundation, and under adjoining flatwork. Flexible base is described in [the **Fill Compaction** paragraphs above of this document]. This improvement procedure will not eliminate future movement of a soil supported foundation slab, tank slab, or footings. In choosing this method of movement reduction, the Owner is accepting some post construction movement (about 3 inches) of the slabs/footings.