

**Design, Construction, Supply, Installation, Testing, Commissioning,  
Operation and Maintenance of 4MLD Sewage Treatment Plant at IIT Madras.**

**TENDER NO: 34R/2013-14/Civil**

**Soil Report**

“The proposed STP is in area which is partly to be reclaimed from an existing aeration tank. This reclamation will require 2-3m thick soil filled for which suitable borrow material outside the campus has to be arranged by the bidder. Bidders are required to test the borrow soil proposed by them and get the same approved by the Institute.

The existing layer of stone pitching in the aeration tank slope and bed shall be excavated and the stones removed shall be stacked separately for its reuse in the construction. Thereafter, the borrow soil approved shall be placed in layers not exceeding 300mm in thickness and compacted to minimum 95% of modified proctor density as per the approved procedure. The design parameters for the foundation of units shall be based on laboratory testing of these compacted samples.

It is likely that all the structures of the STP may not be accommodated in the reclaimed area. It shall be ensured that each individual structure is either in the reclaimed area or in the virgin area. No structures shall be placed partly in the reclaimed area and partly in the virgin area as this may lead to differential settlements and excessive stresses. The bidder shall submit the design ensuring adequate bearing capacity and settlement within the permissible limit.

Pile foundation may have to be adopted as the strata comprises of soft silty clay in part of the area as indicated by a bore hole No. 5 which was drilled along the compound wall and closer to the proposed STP. The bore profile and the laboratory test results available is attached with this for your information. It may be noted that the existing ETP is supported on pile foundation. However, the bidder shall get familiar with the site conditions and if required arrange for additional “Geotechnical investigations”.

SD/-

**Superintending Engineer**