

For ~~designing the~~ foundations on important buildings or on treacherous soils including deep fills, it is necessary to design the foundation in a comprehensive manner taking into consideration the soil condition, the expected transformation it may be subjected to by subsequent development, rain fall and super imposed loading later. It is necessary to design the foundations taking all the above factors into consideration. For ascertaining the details about the land fill, bearing capacity of the soil, expected variations etc. We get the tests carried out by some consultants. It is necessary that the tests are carried out properly before the recommendations are made by the consultants. It is also necessary to keep in mind the present geography of the ground and the transformation that may take place after levelling etc. by which time there can be difference in the levels. The tests to be carried out, the design calculations made and inferences should be scientific and technically sound based on present knowledge in soil mechanics and foundation engineering. The report from the consultants should not be accepted merely on its face value. The tests also should not be left unobserved by our site engineers. In other words, it should not be expected that the consultants will come out with a total report which we can accept in its totality. The process of testing, the procedures adopted for testing, the documentation of the results, should be watched and appreciated by the engineer. The results should be properly drawn up & documented for arriving at the important work namely fixing the safe bearing capacity of soil, the depth of foundation and the precautionary measures, for stability.

All the designs and field officers are therefore required to keep in mind the importance of this exercise and proper control at every stage. The acceptance of the report of the soil testing has to be done at a level not lower than that of a EE(P) or EE(constn.). In buildings more than 4 floors a formal analysis of the report and its acceptance should be an essential part of technical sanction of the foundations of the total structure.

It is also necessary to look into the bonafides of the various consultants who offer their services for soil testing. The consultants capacity has to be properly ascertained not only from equipment he possesses & experience but also the technical knowledge and the organization.

The CE(D) has prepared certain guide lines etc. He is being requested to circulate for the information of all the persons all useful information for all officers and engineers concerned with the work of special soil excavation, soil machine and tools. It is also necessary to keep in mind the type of soil and its chemical characteristics also specially in areas with high water level or where industrial effluents are likely to be discharged profusely by industrial units.

Engineer Member
DDA

1. All Chief Engineers i/c CE(D) & CE(OC).
2. All Sr. Eng. Engineers.
3. All EEs., DDA.
4. Chief Architects, DDA.