

- For raft foundations, the depth of the tests conducted on site or boreholes shall be equivalent to or more than the width of the foundation / base unless solid rock soil is found at this depth.
- In natural circumstances, the investigation boreholes shall be made under soil levels unsuitable for laying foundations such as weak or insufficiently compressed soil.

2. Minimum requirements for the Geotechnical / soil test report

Geotechnical / soil test report is requested to know the possibility of liquefaction or loss of strength in the soil and the ramifications such as settlement, lateral movement, loss of bearing capacity or any other geotechnical risks; the report shall include the following items:

- 2.1 Design parameters which are: type of recommend foundation, soil bearing capacity, [soil/sub-grade](#) reaction factor, and allowable settlement.
- 2.2 Recommendation for treatment or reduction of impact of some problems that may occur such as soil prone to swelling or settlement, soil liquefaction, settlement and impact of adjacent loads.
- 2.3 Various seismic [factors/ coefficients](#) for upper layer of soil (30 meter height) according to the specified parameters.
- 2.4 Bearing capacity of pile foundations under tension and compression for several pile diameters and several depths, and effective length of the piles (*all levels to be taken from DMD*).
- 2.5 Recommendations for group pile adjustment factors for loads and settlement (*if applicable*).
- 2.6 Values of elasticity coefficient.
- 2.7 **Modulus/coefficient for lateral sub-grade reaction (Kh) and Vertical resilience constants (Kv)**
- 2.8 **Constant coefficient for lateral soil reaction (nh) used for structural analysis for lateral pile flexibility**
- 2.9 Poisson's ratio
- 2.10 Group Pile durability and stiffness (Ks) and recommendations in case of group pile settlement (if applicable)
- 2.11 Ideal distance between piles
- 2.12 Soil [factors/ coefficients](#) required for shoring design and basement walls, such as total, saturated and dry density, shear resistance angle, cohesion, lateral soil pressure (Ko)- active, passive and at rest- for the various layers of the soil.
- 2.13 Soil classification, particle grading, and general description of the soil.

The original text is not clear – ambiguous-