

SOIL INVESTIGATION REPORT

PROJECT

PROPOSED RESIDENTIAL BUILDING
NADAKAV
CALICUT

CLIENT

MR. DEVARAJ
CALICUT

REPORT ON SOIL INVESTIGATION AT SITE FOR THE PROPOSED RESIDENCE AT NADAKAV, CALICUT.

1.0 INTRODUCTION

Proposal is to construct a residence for Mr. Devaraj at Nadakav, Calicut.

The proposed building consist of 2 floors.

For exploring the strata below the ground level to fix the type of foundation for the proposed building single exploratory bore hole was drilled during the last week of March, 2015 according to the instruction of the client.

2.0 INVESTIGATION PROGRAMME AND DATA

Single exploratory bore holes was sunk at the location indicated in the site plan attached. The bore hole was advanced using rotary drilling technique supplemented by bentonite mud circulation. Bentonite circulation was used to stabilize the sides and the bottom of bore holes and to bring the soil cuts to the surface. Use of drilling mud will also help in minimizing the disturbance to the soil at the bore hole bottom during drilling operations. Bore hole was always kept full with drilling mud so that positive head is maintained in the bore hole, thus preventing any disturbance to the soil within the test zone.

Standard penetration tests was conducted at regular depth intervals in these bore holes and N values were recorded. Disturbed samples collected through the split spoon sampler were preserved and used for field identification. Borehole was advanced upto 10m. All the field test results are recorded in the bore logs attached. The N values recorded in the bore logs are field values.

3.0 GROUND WATER TABLE

The ground water table is found high located 1.20m below existing ground level at the time of test.

4.0 SOIL PROFILE

The top 2.70m consist of fine sand (loose) followed by sandy clay upto 4.50m. Beyond this depth clayey sand is present upto 6m followed by stiff lateritic clay with pebbles upto 10m.

5.0 CONCLUSION

A study of soil profile shows the soil is very weak at shallow depths. Stiff lateritic clay is available from 6m upto 10m. Since soil is weak , pile foundation is recommended.

For pile foundation adopt single under reamed piles taken to rest on stiff lateritic clay at 6m. .

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