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Dear Sirs

**BCA /IES /ACES ADVISORY NOTE 1/03
ON SITE INVESTIGATION AND LOAD TESTS**

I refer to the dialogue session held jointly among BCA, IES and ACES on Jul 2003 and your subsequent feedback.

As discussed and agreed, I attached the recommended guide and good practices on the extent of site investigation and number of load tests for building projects with structures of 10-storey or more in **Annex A** - Ref. " BCA/IES/ACES ADVISORY NOTE 1/03 - SITE INVESTIGATION AND LOAD TESTS"

3 I would appreciate it, if you could disseminate the contents of Annex A to your members. Please contact me or Mr. Yang Kin Seng at Tel 63257571 if you need any clarification. Thank you.

Yours faithfully

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BCA /IES /ACES ADVISORY NOTE 1/03 ON SITE INVESTIGATION AND LOAD TESTS

Variable ground conditions are frequently encountered in Singapore. These could have significant influence and impact on the design and construction of a piled foundation. This joint BCA/IES/ACES advisory note serves to remind the industry which has generally in place the good practices, on site investigation and load test requirements for projects with building structures of 10-storey or more.

Site Investigation

Site investigation should be carried out to sufficient extent and depth to establish the significant soil strata and ground variation.

(a) The number of boreholes should be the greater of (i) one borehole per 300 sq m or (ii) one borehole at every interval between 10m to 30m, but no less than 3 boreholes in a project site.

(b) Boreholes should go more than 5 metres into hard stratum with SPT blow counts of 100 or more than 3 times the pile diameters beyond the intended founding level.

Load Tests

(a) The table below gives the number and type of load tests to be carried out:

Type of Load Test	Pile Test Schedule
(a) Ultimate load test on preliminary pile (preferably instrumented)	1 number or 0.5% of the total piles whichever is greater.
(b) Working load test	2 numbers or 1% of working piles installed or 1 for every 50 metres length of proposed building, whichever is greater.
(c) Non-destructive integrity test. (Note: This is for the purpose of quality control, and high-strain type should be used for bored piles)	2 numbers or 2% of working piles installed, whichever is greater.

(b) For adequate assessment of the pile capacity, it is essential to conduct ultimate load test and working load test.

(c) The load test shall be conducted in accordance to the SS CP 4: Code of Practice for Foundations which requires, among others, the test load be measured by a calibrated load gauge and also by calibrated pressure gauge.