Summary of Decisions of the Structural Engineering Committee
SEC 1/2007 held on 08.03.2007

(a) Case 1/2007

Issue :	Use of an allowable bearing pressure of 5000kPa for a particular foundation design.
Recommendation :	To accept for the particular project the use of an allowable vertical bearing pressure of 5000kPa for five large diameter bored piles and five panels of diaphragm walls subjected to the following conditions: (1) the rock should be of grade III or better and has a total core recovery of more than 85% of the grade and a minimum triaxial compressive strength of not less than 40MPa under a confining pressure of 3MPa; and (2) the foundation should be enclosed by rock of the grade, and such rock should have a minimum horizontal distance of 3m for bored piles and 1m for diaphragm walls from the edge of rock profile.
Decision :	Noting that (a) the granite bedrock at the micro-fractured zone is 55m to over 90m below ground, (b) the founding conditions have been justified by numerical simulation with finite element analysis models under both the working load condition and an ultimate loading condition with a load factor of 8, (c) the required rock strength of 40MPa under a confinement stress of 3MPa will be confirmed by further triaxial tests, and (d) the effects of possible joints/fissures under the piles concerned had been analysed with a factor of safety of more than 8, members have no objection to accept the recommendation.