

Summary of Decisions of the Structural Engineering Committee  
SEC Meeting 11/2014 held on 5.11.2014

(a) Case 33/2014

Issue: Methodology Report for Wind Tunnel Test

Recommendation: To accept the following methodology and parameters for wind tunnel test of the proposed development:

(1) Topographic Model

Model 1:3000

(2) Proximity Model

(i) Model Scale: 1:400

(ii) Two surrounding conditions will be tested

Case 1: The wind tunnel test will be carried out using the Existing Surrounding Configuration. This includes all existing buildings and structures within 500 m radius of the site.

Case 2: The wind tunnel test will be carried out using a Reduced Sheltered Surrounding Configuration.

(3) Wind Climate Study Results

Directional characteristics of typhoons affecting HK based on a Monte Carlo simulation of storms passing within 250km of HK

(4) Possible Removal of Surrounding / Adjacent Building

2 building groups were proposed to be removed in the Proximity Model.

(5) Wind Pressure to be adopted in design

The following in the superstructural design were proposed:

(i) The finally adopted peak design force from the wind tunnel test shall not be less than 70% of the peak design wind base moment on the calculation in accordance with the Code of Practice on Wind Effects in Hong Kong 2004.

(ii) If the peak design force from the wind tunnel test from the wind tunnel test is found greater than the peak design wind base moment on the calculation in accordance with the Code of Practice on Wind Effects in Hong Kong 2004, the result from the wind tunnel test shall be adopted for design.

(iii) The peak building acceleration assessment on human comfort under wind loads shall be in accordance with the Code of Practice for Structural use of Concrete 2013

clause 7.3.2. Limiting maximum peak acceleration at the top occupied floor of a non-residential building to  $0.25\text{m/s}^2$  should be adopted.

Decision:

Having noted the background information and arguments together with RSE's supervision arrangement, members endorsed the recommendation.