Cheongju Daenong Project, Cheongju, Korea

Wind Engineering Study

Client	*Structural Engineer*	*Architect*
MIDAS Information Technology Ltd	MIDAS Information Technology Ltd	Kunwon Planners, Architects & Engineers
Height	*Year Tested*	*Model Scale*
Tower 102 – 134.7m Tower 103 – 150.4m Tower 105 – 160.0m	2006	1:500

The Project

The Cheongju Daenong development in the city of Cheongju, Korea consists of nine residential towers in three types of building geometries: 1) five 45-storey towers with the building height of 160.0m, 2) two 42-storey towers with the building height of 150.4m and 3) two 37-storey towers with the building height of 134.7m. All towers have the same width and length in plan.

The Wind Tunnel Studies

Wind tunnel tests were carried out on three of the nine towers; one of each distinct building height. The location of each tower (shown above) represents the most open exposure.

The wind engineering studies for the Cheongju Daenong included a study of wind-induced structural loads and responses.

The study of overall structural loads and responses was determined using the force balance technique.

The Boundary Layer Wind Tunnel Laboratory

Western

The Boundary Layer Wind Tunnel Laboratory
The University of Western Ontario
Faculty of Engineering, London, Ontario
Canada, N6A 5B9 Tel: (519) 661-3338 Fax: (519) 661-3339
Internet: www.blwtl.uwo.ca E-mail: info@blwtl.uwo.ca

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