Posco E&C Headquarters, Songdo, Incheon, Korea

Wind Engineering Study

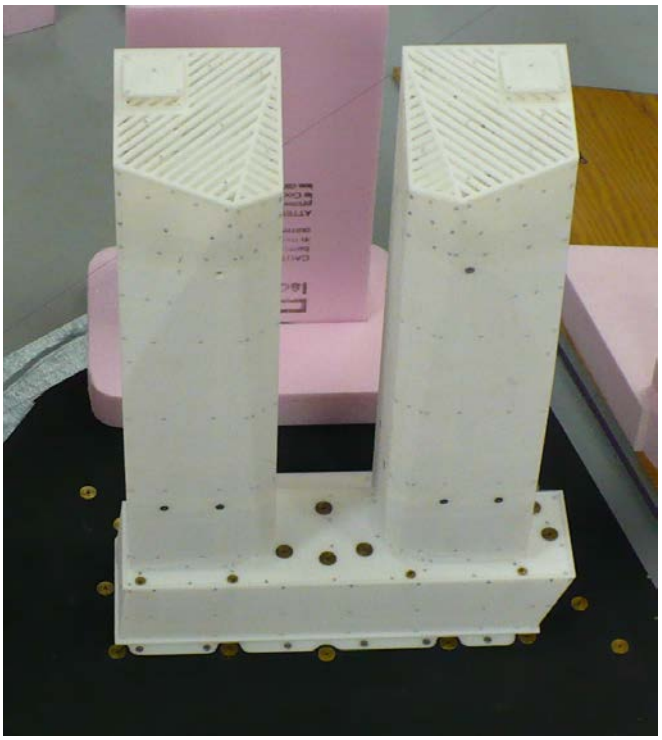

Image Credit: MIDAS Information Technology Ltd.

Client	*Structural Engineer*	*Architect*
MIDAS Information Technology Ltd	MIDAS Information Technology Ltd	Posco Architects & Consultants Ltd Gansam Partners Ltd
Height	*Year Tested*	*Model Scale*
Office Tower – 185.6m Rental Office Tower – 185.6m	2007	1:400

The Project

The Posco E&C Headquarters development in Songdo Town in Incheon City, Korea consists of two towers connected by a common 6-storey podium. The towers are not structurally linked by the podium. The first tower is a 37-storey office building for Posco E&C Headquarters and the second is a 37-storey rental office building. The site is located in a new development area, the international business subdivision of Songdo Town in Incheon City.

The total floor area of the towers is 148,822 m² and the glass curtainwall covers the cladding of the towers as well as the podium.

The Wind Tunnel Studies

The wind engineering studies for the Posco E&C Headquarters included a study of wind-induced structural loads and responses, local cladding pressure loads and pedestrian level wind speeds.

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

A study of wind-induced cladding pressures was carried out for 646 measurement locations distributed over the two towers and podium.

A study of pedestrian level wind speeds was conducted to provide statistical predictions of expected pedestrian level wind speeds for 30 measurement locations around the site.

The Boundary Layer Wind Tunnel Laboratory

Western

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