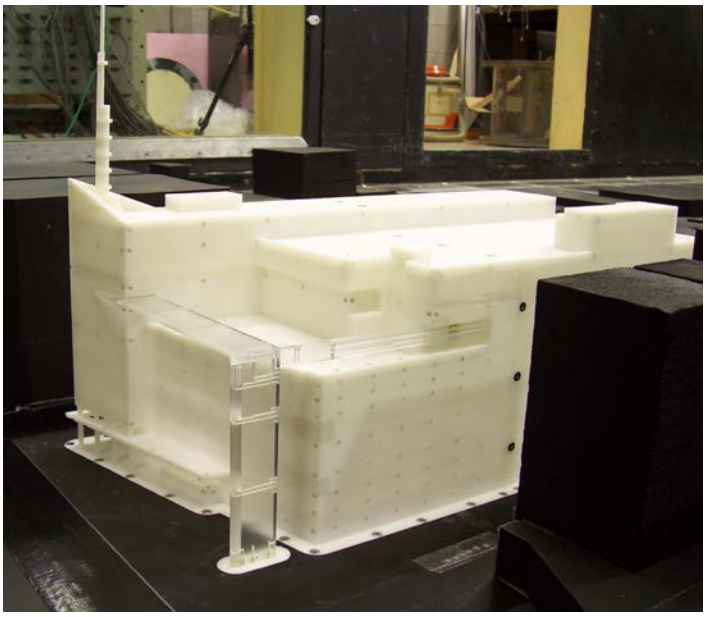
MBC Building, Ilsan, Korea

Wind Engineering Study



Client	*Structural Engineer*	*Architect*
MIDAS Information Technology Ltd.	Structural Design Group Co. Ltd. MIDAS Information Technology Ltd.	Samwoo Architects and Engineers
Height	*Year Tested*	*Model Scale*
Main Building – 70 m Front Free-standing Wall – 43 m Front Atrium Structure – 37 m	2006	1:400

The Project

The MBC Building is a 10-storey broadcasting station building in Ilsan, Korea. The building structure consists of a main concrete building, a steel atrium structure (covering the front space with a 37 m height and about 25 m length from the main building), and a steel free-standing wall (43 m high + 56 m long) in front of the atrium.

The curtain wall covers most of the main building, while a large glass wall forms the front atrium structure.

The Wind Tunnel Studies

The wind engineering studies for MBC Building included a study of the wind-induced structural load effects and wind loads suitable for use in the design of the atrium and the front wall structure and local cladding pressure loads.

The study of structural load effects and wind loads was determined for the atrium structure and the front wall structure using the pressure integration technique.

A study of wind-induced cladding pressures was carried out for 387 measurement locations distributed over the main building and the atrium and front wall structures.

The Boundary Layer Wind Tunnel Laboratory

Western

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