The Orion Condominium-350 West 42nd Street, New York, NY, USA

Wind Engineering Study

Image Credit: Cetra/Ruddy Inc.

Client	Structural Engineer	Architect
The Cantor Seinuk Group Inc.	The Cantor Seinuk Group Inc.	Cetra/Ruddy Inc.
Height	**Year Tested**	**Model Scale**
604 feet	2004	1:400

The Project

The Orion Condominium in New York City consists of a 58-storey residential tower. The site is located in Midtown West Manhattan and is bounded by West 42nd Street, 8th Avenue and 9th Avenue.

The tower will accommodate approximately 550 units. Amenities featuring three private roof decks, private lounge, business centre, full size pool, spa and a 9,000 square foot state of the art gym are intended for levels 33 to 35.

The Wind Tunnel Studies

The wind engineering studies for the Orion Condominium included a study of the wind-induced structural loads and responses and local cladding pressure loads.

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

A study of wind-induced cladding pressures was carried out for 406 measurement locations distributed over the tower.

The Boundary Layer Wind Tunnel Laboratory

Western

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