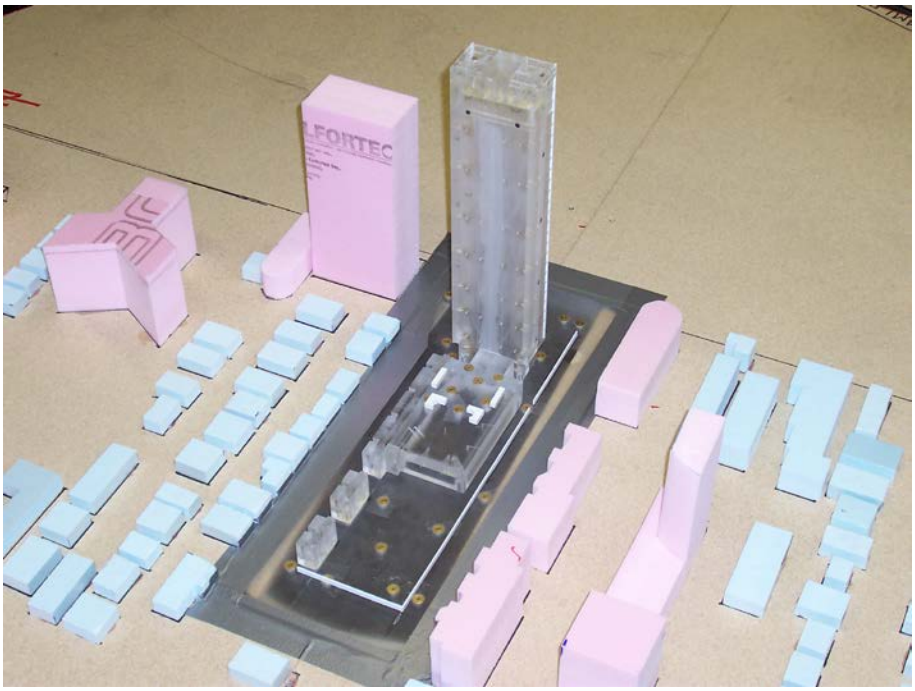
Element / ICE #2, Miami, FL, USA

Wind Engineering Study

Artistic Illustration



Wind Tunnel Model

Client	*Structural Engineer*	*Architect*
BCRE-Brickell	GF Consulting Engineers, Miami	J. Scott Architecture
Height	*Year Tested*	*Model Scale*
565 ft	2005	1:400

The Project

The Element building in Miami is a residential building that consists of a tall tower 565.5 ft high, a podium 51.5 ft high as well as several low-rise condos located on 620 NE 31st Street between NE 31st Street and NE 30th Terrace on Biscayne Bay in Miami. The east elevation of the building has alternating and large balconies for different units.

The Wind Tunnel Studies

Wind tunnel studies were carried out using a pressure modelling technique.

Information on cladding pressures was determined at 364 locations.

Structural loads and responses were determined from analyzing the detailed simultaneous pressure measurements and building dynamic properties.

Pedestrian level wind speeds were determined at 34 locations on and around the project site.

The Boundary Layer Wind Tunnel Laboratory

Western

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