McCormick Place West Expansion, Chicago, IL, USA

Wind Engineering Study

Client	Structural Engineer	Architect
A. Epstein and Sons International Inc.	A. Epstein and Sons International Inc.	Take II LLC, Chicago
Height	**Year Tested**	**Model Scale**
140 ft	2004	1:400

The Project

The project is located along the southwest shoreline of Lake Michigan approximately two miles south of the high-rise core of Chicago, Illinois.

The project consists of a large ballroom facility at the north end of the project with approximate dimensions of 400 ft by 600 ft, an exhibition hall at the south end of the site with approximate dimensions of 600 ft by 900 ft and a central concourse between the north and south areas.

The Wind Tunnel Studies

The study provided information on wind-induced cladding pressures, structural loads on tributary areas of the roof and walls, and pedestrian-level wind speeds.

Assistance was also provided on potential snow accumulation and drifting problems using a flow-visualization test and a desktop study following Chicago Code requirements and ASCE 7-02 guidelines.

The structural wind loads and responses were determined from the integration of simultaneously-measured pressures.

The Boundary Layer Wind Tunnel Laboratory

Western

The Boundary Layer Wind Tunnel Laboratory
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