Centennial Towers, South San Francisco, California

Wind Engineering Study

Client	Structural Engineer	Architect
Myers Development Company San Francisco	Middlebrook + Louie San Francisco	Skidmore, Owings & Merrill LLP San Francisco
Height	**Year Tested**	**Model Scale**
320 ft and 196 ft	2007	1:400

The Project

The Centennial Towers project is comprised of two office towers and a parking garage with adjacent retail areas and a performing art component. The taller tower is 320 ft with 21 storeys and the smaller tower is 196 ft with 12 storeys.

The project site is close to the corner of Sister Cities Blvd and Airport Blvd (on the north side) at the base of San Bruno Mountain in South San Francisco, California.

The Wind Tunnel Studies

The wind engineering studies for the Centennial Towers project included a study of the wind-induced structural loads and responses, and local cladding pressure loads using the pressure model study. The study was carried out for 576 measurement locations distributed over the two towers, with 307 pressure taps on the taller tower and 269 taps on the smaller tower.

In order to determine the effect of the nearby San Bruno Mountain without a topographic study, two numerical wind simulations on the topography surrounding the building were performed. They included a 3-dimensional simulation of the wind with the mountain and an analysis from ESDU.

The Boundary Layer Wind Tunnel Laboratory

Western

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FSTB/ 276 /January 2008 / LK
Last Printed: March 19, 2009