



MAKING WAVES AT SAILING AND VISITOR CENTER

TITLE	Northwestern University Visitor Center Parking Garage
DESCRIPTION	Tensile membrane fabric façade fins
LOCATION	Chicago, Illinois, USA
COMPLETED IN	2014
FABRIC AREA	930m ² /10,000ft ²
FABRIC TYPE	PTFE – Sheerfill V
ARCHITECT/CLIENT	Perkins+Will / Northwestern University

NORTHWESTERN UNIVERSITY VISITOR CENTER PARKING GARAGE CHICAGO, ILLINOIS, USA

The challenge – create a parking garage façade with a sailing theme

Chicago's Northwestern University was constructing a \$35 million lakeside sailing and visitor center, topped with a two-story car parking facility. To conceal the vehicles within the elevated garage, two of the walls were tinted glass. For the remaining sides, the design brief called for a façade with a sailing theme that made a signature statement, while augmenting the building's striking architectural features.

The solution – custom-shaped sails to depict a wave of water

PTFE membrane was used to create 94 thin-width vertically-curved fabric panels set at right angles to the building. Alternate panels curved towards or away from the building. For the outward curving panels, their point of maximum extension varied in height above the ground, creating a waveform along the entire length of the structure.

Our work included design collaboration, engineering the sails and their structural support, fabrication of PTFE and fiberglass components, and installation. Each frame had multiple attachment points and their location involved intensive collaboration with the contractor. Installing the membrane panels multiple stories above ground required masterful coordination and cooperative weather. Finally, careful planning in the final tensioning was also crucial to avoid overstressing the frames.

"The fins on the east façade have a pronounced curve that endows that side of the building with a striking, wave-shaped pattern that is an unexpected delight for passing pedestrians and cyclists."

—Chicago Tribune

