



I-280 Veterans' Glass City Skyway

Location:	Toledo, OH
Submitted by:	Figg Bridge Engineers, Inc. (FIGG)
Owner:	Ohio Department of Transportation, District 2
Architect(s):	N/A
Engineer(s):	Figg Bridge Engineers, Inc. (FIGG)
Contractor:	Fru-Con Construction Corporation
PT Supplier:	DYWIDAG-Systems International USA, Inc.
Other Contributors:	Numerous other design consultants, construction subcontractors, and material suppliers

Project Overview:

The I-280 Veterans' Glass City Skyway over the Maumee River in Toledo, OH, opened to traffic on June 24, 2007, and incorporates unique structural and aesthetic features. The 1525 ft long cable-stayed main span unit features a 440 ft tall single pylon, with the upper 196 ft faced in glass to reflect Toledo's heritage as a leader in the glass manufacturing industry. LED fixtures behind the glass provide nightly dynamic displays. The project encompasses 2.75 miles of ramps, roadway, and cable-stayed bridge for a total of 1.2 million ft² of concrete segmental bridge deck.

Previously, interstate and local traffic used the Craig Memorial Bridge, a bascule span that averaged 500 annual openings, stalling traffic. Port of Toledo traffic now uses the new bridge, improving safety, reducing congestion, and extending the Craig Memorial Bridge service life.

The bridge accommodates three lanes of traffic in each direction, along with wide shoulders and ramp and gore areas that meet or exceed current standards for merging, accelerating, and decelerating traffic. Average daily traffic count is 68,750, which will increase over the 100+ year service life.

The I-280 Veterans' Glass City Skyway is the first cable-stayed bridge in the world to use the innovative cradle system that carries the stays through the pylon. The cable stays use epoxy-coated post-tensioning strands as the primary tensile elements that run from an anchorage at the bridge deck through the pylon and back to the bridge deck, transferring naturally compressive forces to the pylon through the cradle embedded in the pylon.

Jury Comments:

- Incorporates innovative structural and aesthetic features, including a unique pylon design and stay cradle technology that was groundbreaking at the time.
- The single plane stays in combination with the cradle system and precast delta frames post-tensioned into place allowed for larger stay spacing and reduced the number of stays to provide more openness at the deck level and more pleasing aesthetics.