



## Project Overview:

Vidalta Bridge is a concrete-steel composite structure that was conceived to maximize the use of post-tensioning techniques. Its 161 m steel main span is supported by means of parallel strand cable stays, while its 78 m compensation back assembly is made of 50 MPa concrete, post-tensioned with multi-strand cables.

The inclined, two-column 50 MPa concrete tower was supported by means of temporary parallel strand cable stays during construction. It features a post-tensioned horizontal brace and has its tension-solicited sections compressed by means of PT bars. Finally, the seismic overturn safety is accomplished through double corrosion-protection ground anchors composed of parallel strands and a post-tensioned two-column tension bent.

The construction process featured the use of six pairs of temporary stays made of four to 12 parallel 0.6 in. strands; and permanent stays to control the cantilever. Force adjustments were required for the different stages.

Architecturally, Vidalta Bridge is conceived as an entrance gate to a private, exclusive housing development in the Lomas district in southwestern Mexico City.

## Jury Comments:

- Visually striking structure that maximized the use of PT in multiple structural elements.
- Resulted in a very efficient use of materials.

## Vidalta Bridge

<b>Location:</b>	Mexico City, Mexico
<b>Submitted by:</b>	MEXPRESA
<b>Owner:</b>	Grupo Altiva, Mexico City
<b>Architect:</b>	N/A
<b>Engineer(s):</b>	MEXPRESA—Carlos Fernandez Casado
<b>Contractor(s):</b>	MEXPRESA
<b>PT Supplier:</b>	MEXPRESA
<b>Other Contributors:</b>	High-Performance Concrete: Cemex, and Epoxy-Coated Strand: Insteel Wire