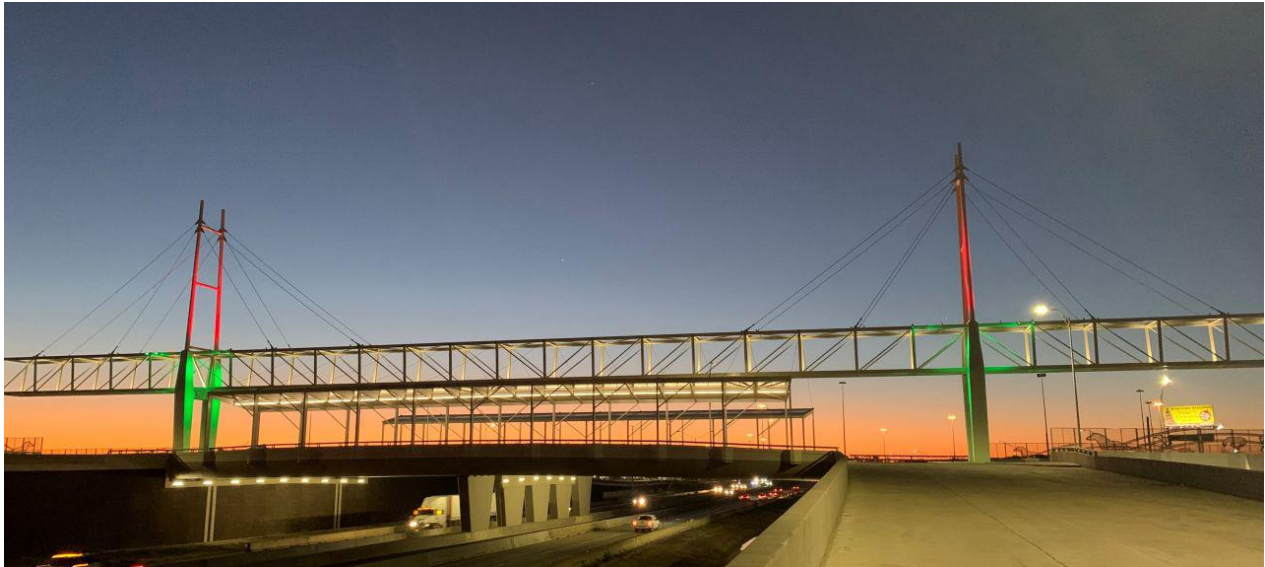


Owner, Client



Owner

Texas Department
of Transportation
City of Irving

Using the latest Accelerated Bridge Construction (ABC) practices, this project connects the north and south sides of the highway near the old Dallas Cowboy stadium and the SH 114 Irving Signature Bridge. It consists of five bridges that combine to appear as one structure.

Client

Webber LLC

The project provides safe connectivity with an iconic landmark to connect a 78-acre development site to a new Dallas Area Rapid Transit (DART) rail station. The bridge consists of ramps for cars to gain access to and from SH 114, canopy-covered pedestrian walkways on both sides, and seating areas with planters. A large steel truss was hung above the bridge, supported by pylons and cables.

Services

ABC Alternative
Design
Engineer of Record

The two pedestrian bridges were originally designed as cast-in-place post-tensioned continuous box girders. The ABC implementation used prefabrication techniques in conjunction with SPMT (self-propelled transporter) gantry transporters and an adjacent laydown yard. This significantly reduced the closure of the main and HOV lanes on this major Dallas thoroughfare from four continuous months to just two weekends night-time to install the four post-tensioned precast segments weighing around 700 tons each. The prefabrication alternative eliminates the need for falsework over SH 114 providing safer construction and traffic operations.

Construction Cost

\$ 39.5 M

Completion

2020

This implementation has reduced the units' weight by 12 percent, with subsequent reduction of materials, volumes and quantities translating to a reduction in construction costs.