

Who We Are

P.E. Structural Consultants, Inc. (PESC) is a full-service structural engineering consulting firm specializing in the structural design and architectural engineering of bridges and buildings. Founded in 1992, PESC is owned and operated by Principals Lisa Carter Powell, P.E. and David W. Powell, P.E.

PESC has provided bridge design, corridor-wide aesthetic development, quality review and assurance services, construction support, and design of miscellaneous structures for Design-Build transportation projects across Texas.

The firm's experience also includes a wide variety of traditionally delivered projects, including design of major bridges and transportation structures; design of commercial, industrial and institutional facilities; specialty analyses; structural investigation and retrofit; and construction support.

A diverse group of dedicated, highly qualified and experienced structural and architectural engineers and technical personnel offer their talents to serve the clients of PESC.

Certifications

DBE/WBE with the City of Austin

HUB with the TBPC

WBE with the NCTRCA

SBE/WBE with the SCTRCA

8(a) Program Participant with the SBA

TxDOT Pre-certifications

3.4.1, 3.5.1, 3.6.1, 5.1.1, 5.2.1, 5.3.1, 5.4.1, 14.3.1

IH-10/Loop 375 (Americas) Interchange

Three direct connectors of the proposed ultimate four level, fully directional interchange are being constructed under a CDA by Americas Gateway Builders for the Camino Real Regional Mobility Authority (CRRMA). Connecting the four ports of entry from Mexico, LP 375 serves as a critical artery in El Paso County. IH-10 is a major trucking and oversized vehicle route.

P.E. Structural Consultants is providing engineering design of the western and northern approaches to the IH-10 EB to LP 375 NB connector. Superstructures use prestressed concrete Tx Girders; substructure will include concrete hammerhead bents with column heights up to 75ft. PESC staff are working from our home office in Austin, and also traveling to the El Paso project office. \$146M Total estimated cost. Design underway at 90%. Scheduled completion 2013.

rendering by TxDOT



Americas Interchange | El Paso, Texas

Structural Engineering
Experience and Expertise

for

DESIGN-BUILD

Bridges
Transportation Structures
Aesthetic Design
Visualization



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DESIGN-BUILD EXPERIENCE

183A Toll Road

The Central Texas Regional Mobility Authority's (CTRMA's) first project, this 11-mile new Toll Road facility includes 21 bridges and miscellaneous structures (retaining walls, drainage structures, sign supports, toll gantries). PESC staff co-lead the structures design team with prime URS and were Engineers of Record or played a key role in the design of 15 bridges spanning lower roadways, creeks and railroad.

PESC led development of the aesthetic scheme for all structural elements of the project and production of aesthetic project standards that balanced visual appeal with constructability. P.E. Structural worked closely with Hill Country Constructors, the design team and the CTRMA to develop a plan for distributing aesthetic costs throughout the project.

Beyond structural engineering design services, PESC provided Load Rating Analysis of all bridge structures and led the construction support effort for the entire construction phase. \$238M Construction. Completed 2007.



183A Toll Road | Austin, Texas

SH130 Toll Road

P.E. Structural Consultants, Inc. assisted Lone Star Infrastructure in the Proposal Phase, providing preliminary design and developing the Aesthetic Design Guidelines for Structures in this landmark turnpike project encompassing approximately 50 miles of new toll road.

As a subconsultant to DMJM+Harris PESC contributed as a major component of the Structures Design Team, leading aesthetic design of bridges, retaining wall and sign structures; providing structural design of approximately 50 bridges in Segments 1 through 4 of the project; and serving as structural Engineers of Record for all Mainlane and Ramp Toll Plaza facilities.

P.E. Structural staff, working out of the Pflugerville project office, provided technical leadership in all aspects of bridge design, developing design protocols and tools for use by the entire team. Senior PESC engineering staff provided quality control and assurance for the design process. \$1.5B Construction. Completed 2008.



SH130 Toll Road | Austin, Texas

El Paso Inner Loop (Spur 601)

The Camino Real Regional Mobility Authority's (CRRMA's) 7.4 mile-long Inner Loop in northeastern El Paso improves access to the city, Fort Bliss and international ports of entry to the region. Providing structural and aesthetic design as well as quality assurance for J.D. Abrams, P.E. Structural Consultants, Inc. designed two mainlane bridges, a creek crossing, aesthetic details for bents and a host of miscellaneous structures along the project. PESC created custom project standards for monotube sign structures that offered a significant savings over the standard TxDOT design. PESC also provided key personnel to work directly with prime URS Corporation staff in the El Paso project office. \$268M Construction. Expected completion 2011.



El Paso Inner Loop | El Paso, Texas



El Paso Inner Loop | El Paso, Texas