

Job Title: Structural Engineer - Transportation
Job Location: Fort Worth/Allen, Texas
Requirements:
Education/Training: BSCE
Experience: 7 to 10 years design experience
Registration: Texas PE

JOB DESCRIPTION:

Established Civil Engineering and Surveying firm is seeking a Structural Engineer with experience in the design of bridges, retaining walls, and miscellaneous structures for transportation infrastructure projects. Familiarity with TxDOT and NTTA practice is required. Experience with DOT would be beneficial.

WHE offers benefit & compensation package competitive with large firms. We are looking for dedicated and motivated employees to perform quality designs and work alongside our staff to help us grow the business in Texas and Oklahoma to meet our strategic plans. There is an opportunity for advancement as the company grows.

Performs mid-level design of structures in accordance with applicable design codes (AASHTO, AREMA, etc.), and in accordance with applicable federal and state laws, policies, procedures, standards and guidelines. Background should include design of prestressed concrete I-beam bridges, retaining walls, and miscellaneous structures as a minimum. Experience in design of other prestressed girder types preferred; experience in design of steel girders (straight and horizontally curved) is a plus.

Experience shall include preparation of layouts, design of superstructure substructure, foundations, retaining walls, and miscellaneous structures. Experience shall also include preparation of plans, specifications and estimates. Familiarity with bridge design software required including MicroStation, GEOPAK, OpenRoads, BGS, RDS, PGSUPER, PSTRS14, CAP18, spcolumn; experience with LPILE, PYWALL is a plus.

Responsibilities include working to meet schedule milestones on various projects in close coordination with supervisor. Responsibilities include design and production of PS&E.

- **Bridge Layouts:** Establishes horizontal and vertical geometrics consistent with roadway design utilizing various programs; determine span lengths, coordinate roadway widths, establish superstructure types, substructure types and location, determine foundation types.
- **Superstructure Design:** Slab design, design of prestressed concrete beams (I-girders, U-beams, box beams, etc.), and design of bearing pads. Experience with steel design (rolled beams, plate girders – straight and curved) and design of bearing assemblies is considered a plus.
- **Substructure Design:** various bent types including multi-column, single column, wall, and inverted T, and foundations including drilled shafts, spread footings, and piling.
- **Retaining Wall Design:** various wall types including cast-in-place spread footing, drilled shaft, soil nail, and tied back walls.
- **Miscellaneous Structures Design:** various structures including box culverts, junction boxes, manholes, special utility and/or other structures.
- **Materials Design Expertise:** experience with a variety of structural materials including cast-in-place concrete, precast concrete, and prestressed concrete (minimum requirements); experience with post-tensioned concrete and steel considered a plus.

JOB QUALIFICATIONS

- **Codes/Design Criteria:**

- Codes

- AASHTO LRFD Bridge Design Specifications,
 - other AASHTO bridge specs

- Manuals

- TxDOT Bridge Design Manual
 - TxDOT Bridge Detailing Guide

- **TxDOT precertifications:**

- 5.2.1 Bridge Design
 - 5.5.1 Bridge Class Culvert
 - 5.3.1 Multi-Level Interchange Design is a plus

- **Materials Design Expertise:** experience with a variety of materials including cast-in-place concrete and prestressed concrete; experience with precast and/or post-tensioned concrete and/or structural steel is a plus.

7 to 10 years of experience and Texas P.E. required, Oklahoma P.E. is a plus.