

Missouri Department of Transportation

Code: R05430

Title: Structural Hydraulics Engineer

Exemption Status: Exempt

Grade: 20

Job Description

Effective Date 03-01-2008

Replaces (Effective Date) 04-01-2006

General Summary The structural hydraulics engineer serves as a staff specialist in a specific area of expertise as needed to investigate complex issues and conditions encountered in the design and operation of the department's transportation structures. Responsibilities are performed under general supervision.

Minimum/Required Qualifications Bachelor's Degree: Civil Engineering
Licensed as a Professional Engineer in the State of Missouri.
Nine years of experience in civil engineering with a demonstrated proficiency in structural or seismic design, hydraulics, or engineering application software. An advanced degree in civil engineering with an emphasis in structures, seismic design, hydrology/hydraulics, or engineering applications programming may be substituted for a maximum of two years of experience.

Supervisory Responsibilities Lead Worker Only

Location Central Office - Bridge

Special Working Conditions/Job Characteristics Job requires occasional statewide and/or national, overnight travel.

Examples of Work

- (1) Serves as expert technical resource in specialty area such as hydrology and hydraulics, structural or seismic design, and/or engineering applications software for department personnel; performs special studies for unusual or complex situations related to area of expertise.
- (2) Participates in the review of research projects with regard to their practical implementation and provides recommendations for incorporating into design of the department's bridges and structures.
- (3) Develops and recommends design procedures and policies based on new research, new best practices, and observed problems with existing guidance.
- (4) Evaluates and recommends responses to requests for exceptions to department policy.
- (5) Serves as an expert witness, participates in hearings, and otherwise advises department legal staff on matters involving impact of proposed legislation, claims, and litigation for area of expertise.

- (6) Serves as a liaison with department personnel, other state and federal agencies, consultants, and other resources in the areas of hydrology/hydraulics, structural design, and seismic design.
- (7) Develops, coordinates, and leads training classes for engineers in both design software and design procedures in specialty area as needed.
- (8) Negotiates and manages contracts for engineering services; signs and seals structural plans and/or related documents as necessary.
- (9) Performs lead worker responsibilities, which may include providing general instruction, assigning and reviewing work, coaching and training, providing guidance and instruction in the proper and most efficient methods of accomplishing tasks, and providing input to the direct supervisor on staffing decisions and performance management.
- (10) Performs other responsibilities as required or assigned.

The Missouri Department of Transportation promotes an equal opportunity workplace that includes reasonable accommodation of otherwise disabled applicants and employees. Please see your manager should you have any questions about this policy or these job duties.