

Missouri Department of Transportation

Code: R01591

Title: Senior Design Technician

Exemption Status: Non-Exempt

Grade: 10

Job Description

Effective Date 01-01-2014

Replaces
(Effective Date) 08-01-2005

General Summary The senior design technician provides advanced technical or paraprofessional support in the preparation of plans and documents used in the design of roadway projects. Responsibilities are performed under general supervision.

Minimum/Required
Qualifications High School Diploma or GED/HiSET, including successful completion of a trigonometry course and six years of technical experience. Waiver of the trigonometry requirement requires approval from the Human Resources Director - Central Office.
OR
Associate Degree in Civil Engineering Technology, Surveying or related field and four years of experience in technical positions.
OR
Bachelor's Degree in Civil Engineering Technology or related field.

Supervisory
Responsibilities None

Location Central and District Offices - Design

Special Working
Conditions/Job
Characteristics

Examples of Work

- (1) Utilizes computer aided drafting, road design software, and various other computer software programs to perform design related activities; may produce project plans, locate information on aerial and topographic maps, crosscheck plans and specifications, develop and maintain databases, and prepare detailed reports and graphs.
- (2) Develops highway projects or portions of projects, including but not limited to, contract surface leveling, bridge overlay and resurfacing, lighting, traffic control plans, erosion control plans and signing sheets; may develop and monitor the contract surface leveling course schedule.
- (3) Utilizes design software, computer aided design and drafting, or calculator to calculate quantities such as concrete, steel, asphalt, and grading as required for project assignments; prepares tabulation sheets, summaries of quantities, and cost estimates.

- (4) Utilizes design software, computer aided drafting and design, or a calculator to check calculations, detailed drawings, aerial photography, survey data, shop drawings and finished plans or maps developed by coworkers, consultants, or contractors to ensure completeness, accuracy, and adherence to design concept, specifications, and contract provisions.
- (5) Gathers data during field checks by sketching, measuring, performing calculations, and utilizing photography to prepare plan sheets and summarize project information.
- (6) Provides technical assistance and support to computer users of drafting and design software.
- (7) Researches historical databases and records; locates and reproduces highway plans that are kept on microfilm or compact disk for designers, the general public, contractors, consultants, and utility companies.
- (8) Prepares displays and graphics for public hearings, legal hearings, and public meetings.
- (9) Assists with assembling project plans and specifications, proposals, addenda or cost estimates for bid openings; may review final contracts for completeness and accuracy; may assist in the bid opening process.
- (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.