

Missouri Department of Transportation

Code: R05773

Title: Senior Geotechnical Specialist

Exemption Status: Non-Exempt

Grade: 9

Job Description

Effective Date 11-01-2023

**Replaces
(Effective Date)** 07-01-2022

General Summary The senior geotechnical specialist performs geotechnical investigations to provide department personnel with information regarding existing subsurface conditions for structures. Responsibilities are performed under general supervision.

**Minimum/Required
Qualifications** Bachelor's Degree in Civil Engineering (with Geotechnical emphasis), Geological Engineering, or Geology from an ABET-accredited college or university curriculum.
OSHA 10-Hour Certification required within 90 days.
Four years of experience in highway or transportation engineering.
Successful completion of a range of motion examination and a medical-physical examination.

**Supervisory
Responsibilities** Lead Worker Only

Location Central and District Offices - Construction and Materials

**Special Working
Conditions/Job
Characteristics** Job may require regular, statewide, overnight travel.
Job requires heavy physical exertion and effort.
Job requires exposure to moderately adverse and undesirable environmental conditions.
Job may require operation of vehicles to plow snow and spread ice control materials.

Examples of Work

- (1) Provides technical support for field subsurface investigations on structures; reviews and analyzes geotechnical test data and develops recommendations for solutions to problems.
- (2) Provides technical support for field investigations of compressible foundations, slides, and other slope stability problems including undisturbed sampling and analyzes the test data for future job sites and proposed roadways.
- (3) Coordinates with Central Office geotechnical crews within the district prior to beginning a subsurface investigation; contacts property owners to secure access; contacts the utility company to mark lines in the field and sets up work zones when working on roadways.

- (4) Performs ledge stone sampling in quarries, which includes determining the geology of quarry ledge groups and obtaining samples from the quarry face to determine future aggregate suitability.
- (5) Performs computations, writes reports, and makes recommendations after completing subsurface investigations for design or bridge personnel; answers questions pertaining to geotechnical issues during construction and maintenance of projects.
- (6) Conducts surveys to determine condition of existing pavement for future overlays; performs general material inspections and coordinates with producers of the materials for use of materials in highway construction.
- (7) Conducts special on-site investigations during construction such as seepage, caves, and sinkholes.
- (8) Locates, tests, and recommends acceptance/rejection on borrow material.
- (9) Coordinates training and implements safety programs for district personnel in regard to the use of nuclear radiation gauges.
- (10) 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.
- (11) 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.