

Who we are:

Transportation is so basic that many of us overlook its overwhelming importance in our daily lives. Practically everything used in our homes, offices, or schools across Tennessee – from furniture to food items to clothing – requires a large and complex transportation network. The Tennessee Department of Transportation provides citizens of Tennessee and travelers with one of the best transportation systems in the country. TDOT is a multimodal agency with responsibilities in building and maintaining roads, aviation, public transit, waterways, railroads, cycling and walking. Our involvement ranges from airport improvements to funding transit buses to planning for river ports. The Department of Transportation has approximately 3,500 employees with four statewide region facilities in Knoxville, Chattanooga, Nashville, and Jackson. TDOT Aeronautics is located near the John C. Tune Airport in Nashville, TN.



Geotechnical Engineering Specialist

Materials and Tests Division – Geotechnical Engineering Section

\$80,784 - \$88,860 annually

Job Overview

The Geotechnical Engineering Specialist 3 & 4 supports Project Teams, Materials and Tests Field Services Teams and Regional Operations by providing geotechnical engineering guidance and recommendations. This position also provides recommendations on geohazard mitigation and response options. This position employs Department specifications policies, technical guidance, and procedures related to pavement design and construction to support the project delivery process.

The Geotechnical Engineering Specialist 3 & 4 are responsible for collaborating with both internal and external stakeholders, including Project Teams, TDOT Divisions, Regions, and contractors to ensure contractual requirements are met.

This position will apply acquired knowledge to improve TDOT specifications, policies, and procedures that mitigate the Department's risk and increase performance as part of fulfilling TDOT's strategic vision. This position must effectively articulate geotechnical concepts through training, mentoring, and collaborating as part of a matrix organization.

Essential Job Responsibilities

Essential Job Duties of TDOT Transportation Engineering Specialist 3 and 4 include:

Serve as a resource for TDOT Operations and Project Teams as part of a matrix organization by serving as a Subject Matter Expert (SME) for all aspects of geotechnical engineering from initial subsurface testing and condition evaluation to geotechnical designs and foundation analysis, to geohazard mitigation and/or response options. Develop in-house geotechnical-related products or manage consultant geotechnical products as appropriate. Ensure all geotechnical and foundation plans comply with TDOT specifications, design standards, policies, and procedure. Provide data-driven engineering judgment for complex issues.

Integrate Quality Management into all deliverables, including development and maintenance of geotechnical specifications, geotechnical/foundation/retaining wall designs, technical documents, policies, procedures, and manuals.

Proactively assess geotechnical related risk factors on projects and work with the Project Team to minimize potential impacts to the project scope, schedule, and budget.

Participate in peer exchanges, fostering collaboration both internally and with relevant partners to share ideas, skills, and insights to get the best results. Serve as TDOT's liaison in teaming with industry for pavements.

Assist Project Teams and Materials & Pavements with geotechnical related construction contract and dispute resolution issues with contractors, producers, and/or suppliers.

Assist with developing and delivering geotechnical-related training to TDOT staff, Construction Engineering and Inspection (CEI), contractors and other external stakeholders.

Assist in the development of a Consultant Acquisition Plan (CAP) to address CEI requests and assist in the oversight of CEI consultants by serving on selection committees for professional engineering services as part of the Brooks Act, including assisting with Request For Proposal (RFP) development, attending project-specific marketing meetings, assisting with determining scoring criteria, assisting with project information sessions, when applicable, serving as a scorer as part of the consultant acquisition process, negotiating contracts, attending de-briefs for consultants where usable feedback must be provided, and monitoring contract compliance.

Remain current on the latest geotechnical specifications, design, and construction trends. Assist and conduct pavement research to optimize designs, methods, and preservation techniques.

Provide exceptional customer service to project stakeholders by exercising effective listening and communicating effectively.

Additional Job Duties for the TDOT Transportation Engineering Specialist 4 include:

Serve as a mentor and resource to less experienced staff by assisting in the development and presentation of training that addresses geotechnical elements, including governing rules and processes, lessons learned, and emerging technologies.

Provide innovative recommendations for geotechnical methods.

Assist Project Teams by providing data-driven, engineering judgment for complex issues, anticipating and acting on potential issues, and meeting associated deadlines and timelines.

Participate in constructability reviews.

Qualifications

The Transportation Engineering Specialist 1 and 2 are part of the Graduate Transportation Engineer (GTE) Program.

Transportation Engineering Specialist 3:

- Bachelor's Degree in Engineering
- 2 years of demonstrated competency in Geotechnical Engineering/Testing or a Highway Construction related field

OR

- Master's Degree in Engineering
- 1 year of demonstrated competency in Geotechnical Engineering/Testing or a Highway Construction related field

Transportation Engineering Specialist 4:

- Bachelor's Degree in Engineering
- 3 years of demonstrated competency in Geotechnical Engineering/Testing or a Highway Construction related field

OR

- Master's Degree in Engineering
2 years of demonstrated competency in Geotechnical Engineering/Testing or a Highway Construction related field

Ideal Candidate

This position is a part of the career path series at TDOT. The Geotechnical Engineering Specialist 3 and 4 possess exceptional problem-solving and communication skills, which enable them to effectively articulate geotechnical data and technical concepts to stakeholders. Geotechnical Engineering Specialist 3 and 4 understand that optimal results are achieved through teamwork and clear, effective communication. Their analytical mindset and keen attention to detail enable them to identify inefficiencies and seize opportunities for enhancement.