

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.



Pavements Engineering Technician

Materials and Tests Division – Materials and Pavements Section, Pavements
Nashville, TN
\$43,140 - \$53,628 annually

Job Overview

The Pavements Engineering Technician works in a team setting, providing support to the Materials and Pavements Section. This position will analyze data and contribute to decisions regarding pavement treatment, design options, and maintenance strategies. This role requires technical knowledge of field and laboratory testing, inspecting pavement conditions, and performing data collection to ensure compliance with TDOT, state, and federal standards. The Pavements Engineering Technician operates and maintains specialized equipment, collects and analyzes pavement performance data, and documents findings to support the successful delivery of TDOT's infrastructure projects.

The Engineering Technician role supports the construction, maintenance, and inspection of Tennessee's transportation infrastructure by conducting tests, monitoring compliance, and maintaining accurate records. This position operates and maintains equipment, applies safety standards and technical specifications, and collaborates with stakeholders to ensure efficient project delivery. They assist in implementing the Quality Management Program as part of the Materials and Tests' Division activities. As they advance, engineering technicians take on more complex tasks, contributing to quality assurance, training, and process improvements, enhancing TDOT's commitment to safety and sustainability.

Essential Job Responsibilities of the TDOT Engineering Technician 1, 2, and 3 include:

Conduct field and laboratory testing on and perform inspections of pavement surfaces to assess condition, identify potential issues, and document findings. Collect and organize data related to pavement performance and assist in preparing basic reports on pavement condition and test results to support project documentation and compliance.

Operate and maintain equipment used in pavement testing and evaluation, ensuring proper calibration and functionality.

Participate in TDOT's Materials and Tests Engineering Technician Proficiency Program (ProPath) to develop skills and to improve knowledge and performance in pavements.

Provide exceptional customer service to both internal and external customers by exercising effective listening skills, providing prompt responses, maintaining complete and accurate documentation, and communicating effectively.

Additional Job Responsibilities of the TDOT Engineering Technician 2 and 3 include:

Conduct advanced pavement testing and evaluation, including smoothness testing and core sampling, ensuring compliance with specifications. Analyze data collected from pavement evaluations to identify patterns and trends in pavement performance. Assist in developing recommendations for pavement treatments, rehabilitation, and design options based on collected data and engineering judgment.

Calibrate and troubleshoot specialized testing equipment to ensure accuracy and reliability.

Collaborate with project teams to address pavement-related challenges and improve testing protocols.

Additional Job Responsibilities of the TDOT Engineering Technician 3 include:

Perform testing and evaluations for high-complexity or specialized pavement projects, ensuring strict compliance with specifications and safety requirements. Review and validate testing results and reports for accuracy and consistency, ensuring compliance with TDOT's quality management procedures.

Conduct in-depth analysis of pavement performance data to support decisions on resurfacing, rehabilitation, and maintenance strategies.

Assist in the training of employees by providing on-the-job training and guidance as needed to facilitate learning and development.

Contribute to research initiatives to evaluate innovative materials, testing techniques, and preservation methods for pavements.

Qualifications

TDOT Engineering Technician 1:

- High School Education or equivalent

TDOT Engineering Technician 2:

- High School Education or equivalent
- Completion of the Proficiency Requirements for the Engineering Technician 1 level.

TDOT Engineering Technician 3:

- High School Education or equivalent
- Completion of the Proficiency Requirements for the Engineering Technician 1 and 2 levels.

The Tennessee Department of Transportation reserves the sole right in determining the level of position based on the applicant's work experience, education, skill level, and all other appropriate factors, and based on business need. Within 6 months of hire, employees must demonstrate successful mastery of corresponding work competencies and skill blocks of the Technician Proficiency Program for the level of technician to which they were

hired. If skills and competencies are not met during that period, the employee can be demoted to the level of technician for which he/she is qualified.

Ideal Candidate

This position is a career path series within TDOT. The Pavements Engineering Technician 1, 2, or 3 demonstrates technical expertise coupled with a commitment to safety and quality. They are eager to learn, capable of adapting to evolving needs, offering process improvements, sharing knowledge to support team development. The Engineering Technician possesses a collaborative mindset, problem-solving abilities, and dedication to excellence, making them a vital contributor to the success of TDOT's infrastructure initiatives.