

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.



Pavement Transportation Engineer

Materials & Test Division – Materials & Pavements Section

Nashville, TN

\$99,348 annually

Job Overview

The Pavement Engineer is a transportation engineer position that will provide support to TDOT's Materials and Pavements Section. The work will range in complexity and risk from simple to highly complex. The Pavement Engineer role requires collaboration with multiple TDOT divisions, project team members, Federal Highway Administration (FHWA), contractors, and other external stakeholders. It requires critical thinking and engineering judgment to problem-solve and make well-informed decisions that increase the safety, performance, sustainability, and efficient delivery of TDOT's transportation system. This position provides engineering support and guidance across the spectrum of pavement materials used in TDOT's road and bridge projects and the follow-on in-service testing and evaluation.

The Pavement Engineer ensures the appropriate Department policies, technical guidance, and procedures related to TDOT's pavements are incorporated into the project delivery process. This position assists in determining the best pavement treatment for the 3-year Pavement Plan and provides pavement engineering as part of projects teams. This position must effectively articulate technical engineering concepts through training, mentoring, and collaborating as part of a matrix organization. The Pavement Engineer will assist with ensuring all applicable pavement related documentation and data is collected, stored, and reported to assist with timely and accurate invoicing and project close-outs.

Essential Job Responsibilities

Coordinate resources and assist Project Managers by managing external partners together with the Professional Services Division on pavement design and pavement evaluation related issues. Assist with the negotiation of contracts, review of consultant invoicing, development of scopes, management of contract tasks, compliance monitoring, and completion of consultant grading. Integrate Quality Management into all pavements related products, systems, and deliverables. Assist the team lead and pavements team with assigned duties according to the team leads needs and workload.

Perform and review evaluations on internal and consultant pavement designs and in-place pavement performance for all pavement structures incorporated into TDOT transportation infrastructure projects. Conduct reviews and analyses, and make dispute resolution recommendations, when sub-standard pavements are identified during construction. Assist in the determination of scopes for pavement rehab or remove and replace based on in service condition. Conduct field reviews to ensure all pavements meet design, specification and contractual requirements. Conduct field reviews to assess in-service pavement performance across TDOT's road and bridge network.

Assist in the development and delivery of pavements related training and mentoring to TDOT and external engineering staff. Assist in the development of training and technical guidance that addresses acquired knowledge, risk management, technical design elements, and emerging technologies and innovations related to pavements for the purpose of improving team performance, creating a stronger understanding of the transportation industry, inspiring new ideas, and developing skills. Assist the Operations Support Section in ensuring TDOT transportation infrastructure project data is complete and accurate.

Manage and take ownership of change, clarify your vision of TDOT's pavement design and evaluation efforts, communicate effectively, remain transparent, and hold yourself accountable.

Serve on Project Teams as part of a matrix organization by providing pavement expertise and reviews, assisting in developing proposal contract documents for project lettings, and contributing to bid reviews and bid analysis for alternative delivery projects. Ensure alignment and compliance with Division and Section metrics and performance goals.

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. Remain current on pavements-related industry trends and national best practices by participating in AASHTO, industry associations, and other appropriate committees as assigned.

Routinely collaborate with appropriate TDOT staff and external stakeholders to identify and document knowledge on industry best practices to avoid past errors and ensure TDOT project successes.

Assist in the development and maintenance of TDOT's pavement design policy. Assist in ensuring pavements-related designs, evaluations and other deliverables are accurate, consistent, predictable, and repeatable to provide consistently high levels of achievement, mitigation of risk, and an established track record of success. Assist the Team Lead, Materials and Pavements Manager, and Materials & Tests Director as needed on various reviews and tasks within the unit. Assist with modifications to all applicable policies, procedures, standards, specifications, and special provisions.

Qualifications

- Bachelor's degree in engineering
- Licensed Professional Engineer (PE)
- 4 years of demonstrated competency in Materials Engineering/Testing or a Highway Construction related field

Ideal Candidate

The Pavement Transportation Engineer is a versatile individual who possesses a strong passion for pavement materials. They are a technical expert who comprehends pavement design and TDOT's transportation system. They also utilize their exceptional project management, communication, and teamwork skills to ensure successful

interactions. Their attention to detail is remarkable, as they examine every aspect of pavement projects, from complex and dynamic pavement systems to managing multiple stakeholders and risks. The Pavement Transportation Engineer's collaborative spirit shines as they work closely with project teams and team members to problem-solve, mentor, and learn.