

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.



Quality Transportation Engineer
Traffic Design Division – Production Support Section
\$102,300 annually

Job Overview

The Production Support Quality Transportation Engineer will assist with directing TDOT's efforts in the development and implementation of standard processes and procedures to establish consistency in Quality Control and Quality Assurance performed by the Traffic Design Division, Region Traffic Design, and Region Quality Teams in alignment with the Project Delivery Network (PDN). The Quality Transportation Engineer role requires collaboration with multiple TDOT Divisions, Project Team members, contractors, consultants, and other external stakeholders to deliver a quality project.

The Quality Transportation Engineer ensures Department policies and procedures, technical guidance, software, and systems are current and accurate for incorporation into the project delivery process. This position will assist with the implementation of the Quality Assurance Program as part of the Traffic Design Division's activities to reduce errors, delays, and contractor claims for those projects having the highest degree of risk to the Department. This position must effectively articulate quality concepts through training, mentoring, and collaboration as part of a matrix organization. The Quality Transportation Engineer assists with monitoring scopes, schedules, and budgets to ensure the work completed aligns with the strategic goals of the Asset Management Division.

Essential Job Responsibilities

Strengthen Traffic Design teams and provide technical expertise related to traffic design elements. Perform Quality Assurance for applicable Traffic Design deliverables by implementing a process-oriented approach to preventing errors, assessing risk factors, minimizing data variability, and ensuring all contractual documents align with the Asset Management objectives. Optimize the Traffic Design Team's ability to mitigate risk and address unanticipated challenges while meeting TDOT's quality requirements.

Confirm integration of Quality Management into all traffic design deliverables in compliance with the TDOT Quality Management guidelines, the PDN, and the business objectives established by the Asset Management Division. Ensure Department policies, technical guidance, and procedures are incorporated into preconstruction deliverables through the implementation of TDOT's Quality Management process.

Routinely collaborate with other TDOT Divisions, Region Quality Teams, and the Asset Management Division to identify and document knowledge on industry best

practices to avoid past errors and ensure TDOT project successes. Assist with modifying all applicable policies and procedures, design standards, specifications, and special provisions related to Traffic Design elements. Inform TDOT Leadership about metrics related to quality program reviews and any changes resulting from those reviews.

Partner with Project Teams as part of a matrix organization by providing traffic design expertise, identifying potential traffic design challenges, and defining expectations for the Quality Management Plan throughout the project's life. Assist in defining critical goals and intended outcomes for the scope, schedule, budget, and quality in coordination with the Project Manager related to Traffic Design elements. Confirm traffic design strategies, when applicable, and assist in the evaluation of innovative concepts. Provide input at all project milestones per the PDN. Assist in supporting the Project Manager with respect to the Traffic Design Scope of Work in collaboration with TDOT Environment, Maintenance, and Construction Divisions. Assist with Risk Assessments. Assist in evaluating the cause and effect of implementing Alternative Technical Concepts related to the Request for Proposal (RFPs), project quality, and life-cycle implications for traffic design elements.

Provide exceptional customer service to internal and external customers, including mentoring and technical guidance related to traffic design elements; provide technical guidance; coordinate with other disciplines as part of a matrix organization; exercise effective listening skills; provide prompt responses; maintain complete and accurate documentation; and communicate effectively.

Remain current and engaged in revisions to design codes, standards, and guidelines related to traffic design elements. Adopt new technologies and best practices that drive the Department's transportation projects forward. Assist in implementing policies and procedures related to traffic design. Collaborate on innovative strategies used as best practices for statewide quality assurance needs for the Traffic Design Division. Collaborate with TDOT Divisions, Regions, contractors, and design consultants to improve traffic design deliverables.

Serve on selection committees for professional engineering services as part of the Brooks Act, including assistance with quality aspects of RFP development, attendance at project-specific marketing meetings, assistance with determining scoring criteria, assistance with project information sessions, when applicable, serve as a scorer as part of the consultant acquisition process, and attendance at de-briefs for consultants where usable feedback must be provided.

Assist in ensuring Traffic Design deliverables are consistent, predictable, and repeatable to maintain consistently high levels of achievement, mitigate risk, and establish a track record of success.

Qualifications

- Bachelor's degree in engineering
- 4 years of demonstrated competency in developing and/or constructing transportation projects

Qualifications

- Licensed Professional Engineer (PE)

Ideal Candidate

The Quality Transportation Engineer assists the Production Support Section in ensuring outstanding quality assurance practices. They excel in managing and coordinating quality activities and promoting strong collaboration among teams and stakeholders. With their adept communication skills, they simplify and convey complex traffic design quality concepts and policies with clarity. Their meticulous attention to detail makes them essential to maintaining and improving traffic design quality statewide.