

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.



Roadway Design Transportation Engineer Region Preconstruction – Roadway Design Section \$102,300 annually

Job Overview

The Roadway Design Transportation Engineer provides roadway design technical expertise to Region Roadway Design teams. This position collaborates with Project Teams by identifying potential design challenges and implementing acquired roadway design knowledge that focuses on ensuring quality deliverables, minimizing variability, and increasing the safety and performance of TDOT's transportation system. The Roadway Design Transportation Engineer position requires a professional engineering license and is expected to sign and seal applicable construction plans.

The Roadway Design Transportation Engineer ensures Department policies, technical guidance, roadway design standards, and procedures are incorporated into roadway design deliverables and assists in implementing the Quality Assurance Program as part of the Region's preconstruction activities. This position must effectively articulate technical engineering concepts through training, mentoring, and collaborating as part of a matrix organization.

Essential Job Responsibilities

Strengthen Region Preconstruction teams by providing technical expertise and support for complex roadway geometric designs using engineering software, including evaluations for ROW requirements, project footprint determinations in coordination with TDOT Environment, open channel flow designs for flows less than 500 cfs, closed stormwater system designs, erosion protection and sediment control design, and potential impact assessments for traffic control with the Traffic Design Division in order to allow Preconstruction staff to perform their roles effectively and efficiently and optimizing the Team's ability to successfully address unanticipated challenges.

Verify compliance with the Quality Management policy with respect to Roadway Design elements with the purpose of reducing plan errors and re-work, right-of-way delays, construction delays, and contractor claims. Assist the Quality Teams by providing reviews in alignment with the PDN and TDOT's Quality Assurance Program, identifying potential constructability concerns in proposed designs and making recommendations for proactive solutions with other disciplines to ensure the needs of the project are met.

Routinely collaborate with HQ and Asset Management to identify and document knowledge on industry best practices to avoid past errors and ensure TDOT project successes. Assist with modifications to all applicable policies, procedures, design standards, specifications, and special provisions.

Contribute to Project Teams as part of a matrix organization by providing roadway design expertise, defining expectations for how the Project Team manages risk; assisting in developing the project vision in alignment with Asset Management; assisting in defining critical goals and intended outcomes for the scope, schedule, budget, and quality in coordination with the Project Manager related to roadway design elements; participating in Risk Management Assessments; providing input at all applicable project milestones per the Project Delivery Network (PDN); assisting in support of Project Management staff with respect to the Roadway Design Scope of Work in collaboration with TDOT Environment, TDOT Maintenance, and TDOT Construction; applying context-sensitive roadway design methodologies; attending public meetings as a Department representative to assist with addressing stakeholder concerns; effectively coordinating with other disciplines within TDOT to address all potential roadway elements as part of the Functional Design Plans development per the PDN; providing approvals on roadway design-related products and deliverables, when applicable; and proactively assessing risk factors related to legal aspects, public relations and safety for roadway design elements.

Provide exceptional customer service to both internal and external customers, including mentoring and technical guidance related to roadway design, coordinating with other disciplines as part of a matrix organization, exercising effective listening skills, providing prompt responses, maintaining complete and accurate documentation, and communicating effectively.

Remain current and engaged on revisions to design codes, standards, and guidelines related to roadway design elements, adapt new technologies and best practices that drive TDOT's transportation projects forward, and assist in implementing policies and procedures related to roadway design. Collaborate on innovative strategies used as best practices for statewide quality assurance needs.

Collaborate with the Region Transportation Engineer to assist the TDOT Technical Training Director in the development of training related to roadway design elements that addresses acquired knowledge, including technical elements and emerging technologies related to Roadway Design for the purpose of improving team performance, creating a stronger understanding of roadway elements as they relate to the transportation industry, inspiring new ideas, and developing skills.

Assist in the development of a Consultant Acquisition Plan (CAP) for Roadway Design services and assist in the oversight of external partners by serving on technical review committees, including assisting with 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, and attending de-briefs for consultants where usable feedback must be provided.

Assist in ensuring Roadway Design deliverables are consistent, predictable, and repeatable to maintain consistently high levels of achievement, mitigate risk, and establish a track record of success by implementing statewide policy, data collection, processing standards, specifications, and direction. Utilize best practices and TDOT policy for the incorporation of roadway design elements, including access to acquired knowledge across the Regions.

Qualifications

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

Necessary Special Qualifications

- Licensed Professional Engineer (PE)

Ideal Candidate

The Roadway Design Transportation Engineer is an experienced engineer who is passionate about roadway design. They possess strong attention to detail and are committed to improving safety and performance. With a wealth of

technical expertise, they offer unique solutions to roadway design challenges. The Roadway Design Transportation Engineer's analytical skills allow them to predict and prevent issues before they become problematic, ensuring efficient and reliable transportation designs. They possess excellent communication and collaboration skills, which enable them to effectively communicate complex technical information with stakeholders at all levels.