

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.



Design Quality Transportation Engineer Region Preconstruction – Roadway Design Section \$99,348 annually

Job Overview

The Design Quality Transportation Engineer provides a process-oriented approach for preventing errors, minimizing data variability, and ensuring all contractual documents are in alignment with Asset Management's project purpose. This position ensures Department policies, technical guidance, and procedures are incorporated into preconstruction deliverables through the implementation of TDOT's Quality Management process.

The Design Quality Transportation Engineer partners with Project Teams by identifying potential design challenges and implementing statewide acquired knowledge that focuses on ensuring quality deliverables in alignment with the Project Delivery Network (PDN). This position collaborates with TDOT Divisions, Regions, contractors, and design consultants to improve work products and increase customer confidence. 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 quality assurance reviews at each milestone in the PDN for all deliverables associated with projects having a moderate degree of risk to the Department; preserving the project vision in alignment with Asset Management objectives and quality program requirements; proactively assessing risk factors; completing quality assurance and the compilation of plans, specifications, estimates, and supporting documents for the Stage 4 milestone deliverable to HQ Construction; assisting with Risk Assessments; ensuring the consistent implementation of design standards and specifications; and, for Project Teams associated with Alternative Delivery Contracts, assisting in providing quality assurance as part of reviewing project deliverables per the Request For Proposal (RFP).

Perform Quality Assurance on all project deliverables in compliance with the TDOT Quality Management guidelines, the PDN, and the business objectives established by Asset Management, including Line and Grade Plans, Functional Design Plans, Plan-in-Hand Plans, PS&E Plans, and all supporting documents and calculations.

Assist selection committees in the procurement of professional engineering services as part of the Brooks Act by providing input related to the past performance of each consultant with respect to Quality.

Routinely identify, document, and effectively communicate quality assurance review comments with Project Managers and Project Team members to ensure quality objectives are met for all deliverables, maximizing project successes, acknowledging national best practices, and avoiding past errors. Assist with modifications to applicable policies, procedures, design standards, specifications, and special provisions.

Provide specific, actionable feedback regarding consultant deliverables to Project Managers for use in completing Consultant Performance Evaluations related to quality. Provide routine assessments to TDOT Divisions and Region stakeholders regarding the quality of project deliverables.

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 preconstruction design elements. Collaborate on innovative strategies used as best practices to address Region quality assurance needs.

Provide exceptional customer service to both internal and external customers, including mentoring and technical guidance related to transportation design elements, 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.

Assist in the implementation of training that addresses asset management objectives, risk management, technical design elements, and emerging technologies related to transportation design elements for the purpose of improving the quality of preconstruction deliverables and developing technical skill sets that reduce knowledge gaps.

Assist in ensuring preconstruction deliverables are consistent, predictable, and repeatable to provide for consistently high levels of achievement, mitigation of risk, and an established track record of success.

Qualifications

- Bachelor's degree in engineering
- Licensed Professional Engineer (PE)
- 4 years of demonstrated competency in quality programs, project delivery, or construction of transportation projects

Ideal Candidate

The Design Quality Transportation Engineer is the driving force behind roadway design excellence. They take on the role of a subject matter expert, providing technical expertise required to resolve complex or unique technical challenges. They are a strong communicator who can assist with translating complex concepts into understandable language for diverse audiences. The Design Quality Transportation Engineer is passionate about all matters related to the highest standards of quality and innovation of roadway design.