

## 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 statewide with four region facilities in Knoxville, Chattanooga, Nashville, and Jackson. TDOT Aeronautics is located near the John C. Tune Airport in Nashville, TN.



### **Rail Engineering Senior Transportation Engineer** Freight and Rail Safety & Engineering – Rail Engineering Team \$104,292 annually

#### **Job Overview**

The Rail Engineering Senior Transportation Engineer acts as the subject matter expert for rail design and construction, with the ability to sign and seal rail plans. This role brings deep discipline knowledge to resolve rail-related technical challenges, sign and seal rail plans, and steer project teams through risk, quality, and change management on tight schedules and budgets. Beyond day-to-day design, the role champions emerging technologies and participates in divisional technical committees so that TDOT's practices keep pace with industry advances.

This role operates at the intersection of engineering and leadership, mentoring junior engineers, guiding consultant teams, and representing TDOT in public forums. The position's scope spans everything from rail-highway grade-crossing upgrades to the construction bid-letting process, demanding strong communication skills, data-driven decision-making, and the ability to align diverse stakeholders toward a safe, efficient rail network across Tennessee. The Rail Engineering Senior Transportation Engineer coordinates early with Project Managers on risk and budget impacts, executes rail tasks in TDOT's Project Delivery Network, and manages multidisciplinary QA reviews to ensure every submittal meets state and federal standards.

The Rail Engineering Senior Transportation Engineer also manages the construction bid-letting process, assembling proposal documents, setting contract completion dates, concurring on awards, and supporting electronic bidding—while chairing public meetings to address community concerns and railroad coordination.

#### **Essential Job Responsibilities**

Serve as the SME for rail-related projects by applying deep MUTCD knowledge to frame design parameters, troubleshoot technical issues, sign and seal final plans. Guide matrixed teams by outlining how risk, communication, and quality will be managed throughout the project life-cycle. Contribute to divisional technical committees that assist in setting statewide rail standards. Draft new or revised discipline guidance for TDOT manuals.

Facilitate meetings with the Project Manager to highlight rail impacts on scope, schedule, and budget. Execute all rail tasks in the Project Delivery Network (PDN), documenting key decisions for increasingly complex projects. Perform formal risk assessments to surface hazards and embed mitigation strategies into design packages. When conflicts arise, utility clashes, right-of-way constraints, or incompatible geometry, guide cross-discipline sessions to craft proactive solutions that keep the project on track.

Research and pilot emerging technologies, translating successful proofs of concept into statewide standards. Cost-benefit evaluations and deployment recommendations inform leadership decisions, and lessons learned are circulated through technical committees and training sessions.

Act as a senior reviewer, leading or assisting multidisciplinary plan reviews within TDOT's QA process. Maintain rail-specific QC checklists and tie every finding to corrective actions and lessons learned. Program metrics such as first-cycle approval rate and average unit costs are developed and tracked to drive continuous improvement. Before letting, verify that every submittal fully complies with TDOT, federal, and railroad standards, closing the feedback loop with designers.

When designs are complete, manage the bid-letting cycle, compiling proposal documents, setting contract completion dates, providing concurrence on bid packages, and executing awards while supporting TDOT's electronic-bidding platform. Clarify special provisions, answer contractor questions during advertisement, ensure rail requirements are fully represented in contract documents, and hand off a complete package to the resident engineer to bridge the design-to-construction gap.

Draft scopes of services for consultant projects, establishing selection criteria, and participate on Brooks-Act selection panels. Negotiate fees and schedules, oversee consultant performance through evaluation forms, invoice reviews, and debrief sessions that drive accountability. Assist in developing consultant-acquisition plans that balance in-house capacity with external resources.

Serving as TDOT's face at public meetings and hearings, translate technical rail details into plain language and documents commitments made to residents and railroad partners. Champion prompt, high-quality customer service by maintaining correspondence logs and following up on inquiries. Regularly coordinate with railroads, MPOs/RPOs, and state and federal agencies to secure required reviews and agreements, to enhance project delivery.

Mentor junior engineers, supporting individual development plans, and cultivating leadership and communication skills across the team. Provide oversight for divisional technical committees and deliver workshops that disseminate best practices statewide. By modeling continuous learning and embracing innovation, the Rail Engineering Senior Transportation Engineer ensures TDOT's rail-engineering capabilities keep pace with an evolving industry.

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

Manage change, clarify the vision, take ownership of the change, communicate effectively, remain transparent, and hold yourself and others accountable throughout the process.

### **Qualifications**

- Bachelor's degree in engineering
- Licensed Professional Engineer (PE)
- 6 years of demonstrated competency in rail or freight management or related field.

### **Ideal Candidate**

The Rail Engineering Senior Transportation Engineer is a proactive and knowledgeable highway and rail professional with a strong background in rail infrastructure, regulatory compliance, and project delivery. They are licensed engineers who excel at managing complex maintenance projects from planning through closeout while focusing on

safety, quality, and schedule. This candidate is a collaborative leader and clear communicator, adept at working across multidisciplinary teams, engaging stakeholders, and mentoring staff. They are forward-thinking, using emerging technologies and national best practices gained through active participation in professional organizations, to drive continuous improvements in the effectiveness, consistency, and resilience of Tennessee's statewide highway and rail systems.