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.

Traffic Services Transportation Engineering Specialist 3 and 4
Traffic Design – Traffic Services Section
$80,784 - $88,860 annually

Job Overview

The Traffic Services Transportation Engineering Specialist 3 and 4 supports Project Teams, Technical Divisions, and Region Operations through the application of Department specifications, policies, technical guidance, and procedures into the design of traffic services-related assets. This position collaborates with technical disciplines and Project Teams to prioritize traffic services cohesiveness for project elements in support of TDOT's project delivery process.

The Traffic Services Transportation Engineering Specialist 3 and 4 assists and supports in the planning, design, development, and deployment of traffic services programs across Tennessee. This role supports the integration of advanced traffic services technologies to improve safety, mobility, and operational efficiency on statewide transportation projects. This position works collaboratively with internal teams, consultants, contractors, and local partners to identify, coordinate, and implement traffic services solutions that meet both federal and state standards. Responsibilities include providing technical guidance during design and implementation, ensuring quality control, and maintaining proficiency in emerging traffic services technologies and best practices.

The Traffic Services Transportation Engineering Specialist 3 and 4 plays a strategic role in optimizing TDOT's infrastructure by implementing proactive and predictive traffic management strategies that enhance corridor safety and performance. This position collaborates closely with divisions such as Traffic Operations, Asset Management, Region Traffic Operations, and Transportation Management Centers to ensure integration of traffic services considerations across all project initiatives and deliverables. This position supports coordination with TDOT Region stakeholders to identify, plan, design, deploy, and maintain effective traffic services strategies that align with program planning needs. Within a matrix organization, this role contributes to mentoring and training efforts while transforming project control activities into high-quality deliverables that reflect asset management goals. Additionally, the position advances technical guidance, procedures, and manuals aligned with the Traffic Services Section's strategic vision, the Strategic Highway Safety Plan, and risk management objectives. This position continuously evaluates performance indicators to implement acquired knowledge into traffic services elements, mitigating the Department's risk and increasing performance as part of fulfilling TDOT's strategic vision and objectives.

Essential Job Responsibilities of Transportation Engineering Specialist 3 and 4 include:

Serve as a technical resource to Project Teams by applying TDOT's Project Delivery Network (PDN) to guide the scope and integration of traffic services elements across all project stages. Assist with the development, review, and approval of traffic services designs for signals, lighting, signing, and pavement markings on TDOT capital and maintenance projects. Collaborate with Project Managers, Roadway Design, Traffic Operations, Region Traffic Offices, Asset Management, Construction, and Maintenance teams to embed traffic safety and asset sustainability strategies into project development. Coordinate with Transportation Management Centers (TMCs) and Region stakeholders to align solutions with real-time traffic operational needs. Assist and support consultants and contractors during project scoping, design, and implementation to ensure all traffic services elements are aligned with the project's scope, schedule, and budget.

Assist in developing and reviewing traffic services plans and deliverables; conduct traffic and safety studies to analyze crash patterns and congestion issues; and support targeted corridor safety improvements. Collaborate with cross-disciplinary teams to proactively address risks such as utility conflicts, ROW constraints, and work zone limitations, recommending context-sensitive alternatives to enhance safety, mobility, and operational efficiency. Assist with providing technical guidance to ensure traffic services strategy configurations minimize risks to workers and the traveling public. Support data-informed decision-making by applying advanced analytics and incident tracking tools within an integrated asset management framework. Leverage condition and performance data related to safety, mobility, delay, and regulatory compliance to extend the lifecycle and improve the operational efficiency of traffic services infrastructure.

Incorporate Quality Management into all deliverables to proactively identify and resolve plan issues, minimize right-of-way delays, and reduce contractor claims. Ensure alignment with TDOT's Quality Management Guidelines for Traffic Design and Operations by addressing review comments and supporting consistent compliance throughout project development. Ensure traffic services elements conform to established standards, including the TDOT's Work Zone Safety & Mobility Manual, Strategic Highway Safety Manual, MUTCD, and TDOT policies and procedures. Assist and support with the development and review of accurate cost estimates to maintain budget alignment and minimize scope changes. Assist with design reviews under TDOT's Quality Assurance Program to reduce rework and construction errors. Recommend improvements based on lessons learned, consultant performance, and observed inconsistencies to enhance future design quality.

Stay current on national best practices and support the evaluation and deployment of innovated emerging traffic services technologies while helping to plan and implement safety and mobility solutions in alignment with TDOT standards and state regulations. Integrate and assist with the implementation of complex traffic services scenarios, addressing legislative and local traffic services operational concerns. Promote innovative solutions and support continuous improvement through tracking mechanisms that ensures the traffic design program, software, and systems are continually evolving to meet TDOT's operational and technology traffic service's needs.

Support the prioritization of safety and risk mitigation in design decisions by applying context-sensitive concepts and implementing strategies that improve roadway performance. Collaborate with Traffic Operations and Region staff to incorporate safety features, traffic control concepts, and traffic services management measures based on operational input and acquired knowledge. Contribute to the reliable operation of managed lanes and ensure the integration of solutions that enhance safety, mobility, and system efficiency. Apply national best practices to address constructability, operational, and maintenance challenges.

Deliver exceptional customer service to both internal and external partners by offering technical guidance and mentorship in traffic services, maintaining clear and accurate documentation, responding promptly to inquiries, and communicating effectively. Collaborate across disciplines within a matrix organization to ensure timely, professional input on traffic services components. Represent TDOT on project teams and at public meetings, engaging with consultants, MPOs, local agencies, and federal partners to support successful project outcomes.

Remain current with evolving design codes, standards, federal regulations, and MUTCD revisions, while actively

supporting the implementation of policies and procedures that enhance traffic services safety and mobility across TDOT's network. Research national best practices and participate in peer exchanges to identify innovative technologies and methodologies that improve traffic throughput, reliability, and safety. Assist with the preparation of technical memoranda, review reports, and design decision documentation while coordinating with Communications Offices, Region staff, and public stakeholders to communicate traffic services impacts for high-profile projects. Contribute to the ongoing development of TDOT's Work Zone Design Manual and standards to ensure TDOT remains responsive to regulatory updates.

Coordinate with Project Teams, Asset Management, Region Construction, Region Maintenance, and Traffic Operations to identify and mitigate risks throughout the project delivery process, while supporting the implementation of statewide policy, data collection, specifications, and guidance to ensure traffic services deliverables are consistent, predictable, and repeatable. Monitor the effectiveness of risk mitigation strategies and provide ongoing recommendations to sustain high performance and establish a track record of success.

Additional Job Responsibilities for the Transportation Engineering Specialist 4 include:

Coordinate with the TDOT Technical Training Director to assist in the development and presentation of training that addresses traffic services elements, including acquired knowledge, risk management, TDOT performance metrics, governing rules and processes, reporting procedures, and emerging technologies related to traffic services design. These efforts improve team performance, strengthen understanding of traffic services, inspire innovation, mentoring staff, and support skill development.

Assist Project Teams by evaluating complex traffic services studies, planning, and designs to determine potential incompatibility with other technical discipline requirements. Break down complex issues, including the identification of causes and their cause-and-effect relationships.

Assist and support with developing Scope of Services documents for consultant-led traffic studies and design services. Contribute to the development of a Consultant Acquisition Plan (CAP) for Traffic Design, ensuring alignment with project goals and technical requirements. Participate in consultant oversight by serving on technical review committees, supporting RFP development, attending marketing meetings and project information sessions, assisting with scoring criteria, serving as a scorer during selection, and providing meaningful feedback during consultant debriefs.

Verify compliance with the Quality Management Guidelines for traffic services elements by ensuring the performance of the transportation network is safeguarded, operational and maintenance concerns are addressed, and construction delays and contractor claims are mitigated. Assist the Quality Teams by conducting reviews in alignment with the PDN and TDOT's Quality Assurance Guidelines while identifying potential constructability and maintenance concerns in proposed designs. Perform quality control reviews of traffic services design elements, proactively addressing plan errors and constructability issues. Provide recommendations to mitigate risks and ensure that designs align with Asset Management goals, the Scope of Work, TDOT standards, and federal and state policies, ensuring all project-specific requirements are met.

Qualifications

The Transportation Engineering Specialist 1 and 2 are part of the Graduate Transportation Engineer (GTE) Program.

Transportation Engineering Specialist 3:

- Bachelor's Degree in Engineering
- 2 Years of demonstrated competency in developing and/or designing transportation projects

OR

- Master's Degree in Engineering
- 1 year of demonstrated competency in developing and/or designing transportation projects

Transportation Engineering Specialist 4:

- Bachelor's Degree in Engineering
- 3 years of demonstrated competency in developing and/or designing transportation projects

OR

- Master's Degree in Engineering
- 2 years of demonstrated competency in developing and/or designing transportation projects

Ideal Candidate

The Traffic Services Transportation Engineering Specialist 3 and 4 has a proven track record in engineering experience in traffic services, fostering collaboration and ensuring the successful execution of simple and complex projects. Committed to public safety, they serve as strong communicators who bridge the gap between technical experts and stakeholders while mentoring and supporting team members in their growth and development. As mobility leaders, they are passionate about improving safety, reducing congestion, and enhancing travel reliability. Detail-oriented and adept at balancing multiple priorities, they apply problem-solving skills and industry best practices to assess challenges and implement solutions that improve project outcomes. Through effective communication, training, and mentorship, they make complex concepts understandable, working collaboratively with internal and external stakeholders to drive TDOT's mission forward.