

## 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.



### **ITS (Intelligent Transportation Systems) Communications Senior Technical Specialist**

Traffic Operations Division – ITS Communications Section

Nashville, TN

\$75,204 annually

#### **Job Overview**

The ITS Communications Senior Technical Specialist will work independently and in a team setting, providing support and expertise to the ITS Communications Section. This position will assist the ITS Communications Section with implementing statewide work plans, meeting the Section's strategic vision, and assuring compliance with Federal and State laws and requirements pertaining to ITS and Digital Radio Communications. This Senior Technical Specialist will be involved with overseeing Quality Assurance and Quality Control on the ITS and Digital Radio Communications programs and implementation of best practices at HQ and in the Regions. This position will also assist the ITS Communications Team Lead with the planning and implementation of the State ITS Communications Section performance metrics and plans, schedules, and budgets, development of various technical reports, and assurance of continuity and consistency statewide.

The ITS Communications Senior Technical Specialist requires collaboration with TDOT Divisions, Project Teams, consultants, contractors, Federal Highway Administration (FHWA), and external stakeholders. This position must effectively articulate technical concepts through training, mentoring, and collaborating as part of a matrix organization. The Senior Technical Specialist will support the accessibility of all State ITS Communications Section deliverables, ensuring that relevant documentation and data are collected and stored to facilitate timely and accurate invoicing, efficient decision-making, and effective project close-outs. This role demands critical thinking skills for problem-solving and making informed decisions that enhance the safety, reliability, performance, sustainability, and efficiency of TDOT's transportation system.

#### **Essential Job Responsibilities**

Coordinate resources and assist the ITS Communications Section and Project Managers as the ITS and Digital Radio Communications Subject Matter Expert (SME) in the management of external partners together with the Professional Services Division, including the negotiation of contracts, review of consultant invoicing, development of scopes, management of contract tasks, compliance monitoring, and completion of consultant grading. Take ownership of change, clarify the vision of TDOT ITS Communications Section's Program goals and metrics, communicate effectively, remain transparent, and hold yourself accountable to develop, maintain, and enhance TDOT's ITS Communications production and public service standards.

Coordinate with the ITS Communications Team Lead to assist the TDOT Technical Training Director in the development and delivery of ITS and Digital Radio Communications training and technical guidance that addresses acquired knowledge, risk management, technical design elements, and emerging technologies related to transportation to improve team performance, creating a stronger understanding of the transportation industry, inspiring new ideas, and developing skills. Provide mentoring to TDOT staff, consultants, and local agencies with respect to the ITS Communications Section. Administer and manage TDOT ITS Communications Section's database program and software.

Provide input with the development of a Consultant Acquisition Plan (CAP) and the oversight of external partners by serving as a resource on selection committees for professional ITS Communications services as part of the Brooks Act, including assisting with Request for Proposals (RFP) development, attending project-specific marketing meetings, assisting with determining scoring criteria, and 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.

Serve as a resource on Project Teams, as part of a matrix organization, in developing the project vision for those projects having the highest complexity; help define ITS Communications-related critical goals and intended outcomes for the scope, schedule, budget, and quality in coordination with the Project Manager; support Project Management staff by assisting with writing the ITS Communications Scope of Work in collaboration with other Traffic Operations Division Teams, TSMO/ITS, TDOT Roadway, TDOT Maintenance, and TDOT Construction; assist with ensuring that ITS and Digital Radio Communications cost estimates data is accurate and current; proactively assess risk factors; and for Project Teams associated with Alternative Delivery Contracts, forecast the cause and effect of implementing Alternative Technical Concepts (ATCs) related to RFP's, project cost, and construction timing.

Provide exceptional customer service to internal and external customers by exercising effective listening skills, providing prompt responses, maintaining complete and accurate documentation, and communicating effectively. Ensure successful strategic partnerships with FHWA and local agencies to implement TDOT's statewide vision.

Assist in ensuring TDOT ITS and Digital Radio Communication deliverables are aligned with TDOT's Quality Management procedures to produce consistently high levels of quality and achievement, mitigate risk to the Department, and establish a track record of success. Integrate all deliverables into the ITS Communications Section's tracking mechanism to provide for project continuity and efficient workflows for internal project stakeholders.

Assist the ITS Communications Team Lead with developing and implementing revisions of statutes, specifications, standards, policies, procedures, and guidelines related to ITS and digital radio communications. Perform investigations and research of ITS Communications components. Conduct and/or review complex technical studies/analyses to identify communications needs, opportunities, priorities, and appropriate remedies. Drive innovation to generate safer transportation facilities through interoperable emergency communications technology. Assist with reviewing department guidelines and project deployments ensuring the integration of statutory and regulatory requirements into all ITS Communications elements and tasks.

Collaborate and coordinate with TDOT IT to ensure appropriate system integration and security measures are maintained for the sustainability of the ITS communication network and applicable digital radio equipment. Coordinate with Regions and ITS stakeholders to identify, plan, deploy, and maintain the appropriate communications equipment and ITS programs. Assist with the development and maintain a strategic statewide interconnective communications plan that is stakeholder-driven, multi-jurisdictional, and multi-disciplinary to enhance infrastructure interoperability across emergency communications networks; connect with legacy communication systems, ensuring compatibility and scalability to accommodate future data backhaul needs; establish protocols to mitigate cybersecurity risks; establish a plan and procedure for communication gaps and under-served areas.

Remain current on national best practices related to TDOT ITS Communication guidelines, the Federal Communications Commission (FCC), the American Association of State Highway and Transportation Officials (AASHTO), FHWA, local and state officials, ITS America, the Transportation Research Board (TRB) National Cooperative Highway Research Program (NCHRP), and other applicable Department standards and procedures.

**Qualifications**

- Bachelor's degree
- 3 years of demonstrated competency in ITS Communications and Digital Radio work.

**OR**

- Master's degree
- 2 years of demonstrated competency in ITS Communications and Digital Radio work.

**Ideal Candidate**

The ITS Communications Senior Technical Specialist brings a remarkable blend of technical expertise and knowledge to the team. They are exceptional project team members excelling at collaboration and communication and are proficient at seamlessly engaging with project teams, leadership, and external stakeholders. They take a meticulous approach with each project, ensuring that every aspect of ITS Communications and Digital Radio work meets the highest quality and complies with Federal and State regulations. The ITS Communications Senior Technical Specialist brings experience and knowledge and is a proficient problem solver. They have proved capable of overcoming obstacles with innovative solutions, a skill always required when handling multiple state agencies, communication compatibility needs, legacy network sustainability, and similar challenges. They understand that the best outcomes are achieved through collective effort and effective communication.