

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.



Statewide Geodetics Technical Specialist - GIS

Engineering Division – Geodetics Section

\$99,864 annually

Job Overview

The Statewide Geodetics Technical Specialist ensures geodetic practices follow the TDOT Survey Standards Manual and serves as a subject matter expert for the Geodetics Division. This position is responsible for collecting, processing, and delivering geodetic data sets; providing expertise and guidance throughout the project development process; and aiding the Regions with complex collections, as needed. The Statewide Geodetics Technical Specialist is responsible for assisting and supporting TDOT's Regions to seamlessly integrate all aspects of geodetics in the Project Delivery Network (PDN) in accordance with the project's scope, schedule, and budget. These projects will range in complexity and risk from simple to highly complex. The Statewide Technical Specialist role requires collaboration with multiple TDOT Divisions, project team members, consultants, and other external stakeholders.

The Statewide Geodetics Technical Specialist ensures that Department policies, technical guidance, procedures, software, and systems related to geodetics are current and accurate for incorporation into the project delivery process. This position assists in implementing the Quality Assurance Program as part of the Geodetics Division activities to reduce errors, delays, and contractor claims. This position provides statewide guidance and oversight of geodetic strategies and methodologies and implements GIS solutions. The Statewide Geodetics Technical Specialist assists with monitoring and managing the scope, schedule, and budgets of all project related data collections and working with the Project Management Division to make the required adjustments as necessary to ensure that the work completed is in alignment with the Department's Asset Management and Strategic Planning and Investment goals.

Essential Job Responsibilities

Support and serve on Project Teams as part of a matrix organization as the Geodetics subject matter expert: respond to requests for support and guidance utilizing expertise to provide technical options and recommendations for consideration by the Project Manager and Project Teams to promote the efficient collection and delivery of geodetic data which support efficient project and program delivery.

Apply context-sensitive geodetic data collection strategies and implements GIS solutions; implement innovative concepts; and ensure recommendations are in alignment with Asset Management objectives and funding allocation and consistent with critical goals and intended outcomes for the scope, schedule, budget and quality

in coordination with the Project Manager. Optimize the Project Team's ability to mitigate risk and address unanticipated challenges related to data collection and coordination.

Integrate Quality Management into all deliverables in compliance with Asset Management business objectives, the Geodetics Division's guidance documents, processes, and procedures, and in alignment with the PDN with the purpose of reducing right-of-way delays, construction delays, and contractor claims. Assist Project Teams by providing reviews as part of TDOT's Quality Assurance Program.

Routinely identify, document, and effectively collaborate with Asset Management, HQ Divisions, and Regions on acquired knowledge that includes maximizing project successes, acknowledging national best practices, and incorporating effective solutions gleaned from past challenges. Assist with modifications to applicable policies, procedures, design standards, specifications, and special provisions.

Assist in the development of a Consultant Acquisition Plan (CAP) and serve on selection committees for professional engineering and non-engineering services. Provide support in the development of the Request for Proposal (RFP) by attending project-specific marketing meetings, determining scoring criteria, participating in project information sessions, serving as a scorer as part of the consultant acquisition process, and attending de-briefs with consultants. For complex projects, support Project Managers and Project Teams in the management of external partners together with the Professional Services Division, including the negotiation of contracts, review of consultant invoicing, development of contract scopes, management of contract tasks, and documentation of consultant performance and qualifications.

Remain current on national best practices, Federal regulations, Tennessee statutes, and the changing requirements of geodetics practices. Stay current on revisions to design codes, standards, specifications, and guidelines related to geodetics relative to transportation projects, including trends and technologies; maintain licensure and assist with the development of legislation and regulations; participate in regional/national working groups, research, committees, and training opportunities related to geodetics initiatives that may benefit/improve TDOT's staff and project/program delivery.

Provide exceptional customer service to both internal and external customers, including mentoring and technical guidance to Utility Estimates Section staff, Project Managers, and Project Team members, while 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.

Assist in the development and delivery of geodetics training and mentoring to TDOT staff and external stakeholders. Provide technical guidance that addresses acquired knowledge, risk management, technical design elements, and emerging technologies. As the subject matter expert, prepare for and make presentations at industry conferences to improve team performance, creating a stronger understanding of the transportation industry, inspiring new ideas, and developing skills as it relates to geodetics, progressive data collection methods, data processing, and project delivery.

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

Qualifications

- Bachelor's degree in math, physics, engineering, land surveying, GIS, or related field.
- 8 years of demonstrated competency in geodetics or land surveying.
- Registered Professional Land Surveyor (RLS) or Professional Land Surveyor in Training (PLSIT) preferred.

OR

- Master's degree in math, physics, engineering, land surveying, GIS, or related field.
- 7 years of demonstrated competency in geodetics or land surveying.
- Registered Professional Land Surveyor (RLS) or Professional Land Surveyor in Training (PLSIT) preferred.

Ideal Candidate

The Statewide Geodetics Technical Specialist is a highly skilled problem solver, demonstrating a deep understanding of geodetic principles and advanced technical skills. They are extremely knowledgeable in the technical components and emerging geospatial data collection and dissemination technologies. The Statewide Geodetics Technical Specialist has a collaborative mindset that enables effective teamwork, ensuring seamless coordination with diverse groups involved in geodetic projects.