## 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.

**Region Geodetics Transportation Engineer**
Region Preconstruction – Geodetics
$102,300 annually

**Job Overview**

The Region Geodetics Transportation Engineer provides geodetic technical expertise to the Region's Geodetic Teams. This position collaborates with Project Teams by identifying potential data collection or design challenges, coordinating, and confirming data collection for items completed by the Region, and implementing data collection, processing, and design concepts that integrate with all disciplines.

This position must effectively articulate technical engineering concepts through training, mentoring, and collaborating as part of a matrix organization.

This position will assist in the training and dissemination of Geodetics policies, discipline-specific technical guidance, procedures, design standards, specifications, and manuals and assist the Region Geodetics Section in managing deliverables through coordination with the Geodetic Quality Manager. They will also assist in implementing the Geodetics Quality Assurance Plan that focuses on ensuring quality, minimizing variability, and providing flexibility on a risk-based scale to maximize efficiency as part of the Department's Work Program. The Region Geodetics Transportation Engineer will assist the Geodetics Manager with schedules and budgets, confirm consistency and quality of deliverables, and assist the geodetic engineering team members as needed.

The Region Geodetics Transportation Engineer ensures Department policies, technical guidance, and procedures are incorporated into geodetic deliverables and assists in implementing the Quality Assurance Program as part of the Region's geodetic activities.

**Essential Job Responsibilities**

Strengthen Region Preconstruction teams by providing technical expertise and support in matters related to geodetics, including management and coordination of data for those items completed by the Region, to allow preconstruction staff to perform their roles effectively and efficiently, optimizing the Team's ability to successfully address unanticipated challenges.

Verify compliance with the Quality Management policy for use with all Regions and other Divisions obtaining and utilizing survey data, with the purpose of reducing plan errors and re-work, right-of-way delays, construction delays, and contractor claims.

Assist the Region Geodetics Quality Team by providing reviews as part of TDOT's Quality Assurance Program.

Routinely collaborate with HQ and TDOT Asset Management to identify and document knowledge on industry best practices to avoid past errors and ensure TDOT project successes. Assist with modifications to all applicable policies, procedures, design standards, specifications, and special provisions.

Serve on Project Teams as part of a matrix organization by providing geodetic expertise, assisting in developing the project vision; assisting in defining critical goals and intended outcomes for the scope, schedule, budget, and quality in coordination with the Project Manager related to Region Geodetics; providing input at all applicable project milestones per the Project Delivery Network (PDN); assisting in support of Project Management staff with respect to the Geodetics Scope of Work working in collaboration with TDOT Roadway, TDOT Environment, TDOT Maintenance, and TDOT Construction; applying context-sensitive survey data collection methodologies per the TDOT Survey Standards Manual; effectively coordinating with other disciplines within TDOT to address all potential survey needs as part of the Functional Design Plans development per the PDN; providing approvals on geodetic products and deliverables, when applicable; and proactively assessing risk factors related to legal aspects, public relations and safety related to Geodetics tasks.

Provide exceptional customer service to both internal and external customers, by mentoring and providing technical guidance related to geodetics, 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.

Remain current on revisions to design codes, standards, and guidelines related to geodetics components, including trends and technologies; understand and follow the specifications for data collection used in the Regions, and assist in implementing policies and procedures related to geodetics. Collaborate on innovative strategies used as best practices for statewide quality assurance needs.

Assist in the development of training that addresses acquired knowledge, including technical elements and emerging technologies related to Geodetics for the purpose of improving team performance, creating a stronger understanding of Geodetics as it relates to the transportation industry, inspiring new ideas, and developing skills.

Assist in the development of a Consultant Acquisition Plan (CAP) for Geodetics services and assist in the oversight of external partners by serving on selection committees for Geodetics services, including assisting with RFP development, attending project-specific marketing meetings, assisting with determining scoring criteria, assisting with project 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.

Assist in ensuring Geodetics deliverables are consistent, predictable, and repeatable to ensure consistently high levels of achievement, mitigation of risk, and an established track record of success by implementing statewide policy, data collection, processing standards, specifications, and direction. Utilize best practices and TDOT policy for the management of survey data, including access to existing data across the Regions.

**Qualifications**

- Bachelor's degree in Civil Engineering
- 4 years of demonstrated competency in land or aerial surveying, geodetic data processing and analysis, preferably in a transportation engineering field
- Registered Professional Land Surveyor (RLS) or Professional Land Surveyor in Training (PLSIT) preferred

**Necessary Special Qualifications**

- Licensed Professional Engineer (PE)

**Ideal Candidate**

The Region Geodetic Transportation Engineer is a reliable subject matter expert on geodetic requirements for transportation design and construction projects. They excel in the role by applying not only their data processing and detail-oriented skill set but also their communication, team-mindedness, and quality diligence skill set. They interact positively with their team, providing an open environment for expressing ideas and concerns. The Region Geodetic Transportation Engineer provides customer and employee satisfaction across all project team members while delivering performance excellence. They are an exceptional collaborator with all levels of personnel throughout TDOT, survey crews, and stakeholders to ensure high-quality results. They advocate for geodetics and the professionals who collect and manage the Department's geospatial data.