

## 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.



### **Geodetics Technology Technical Coordinator 2**

Engineering Division – Geodetics Section

Nashville, TN

\$64,356 annually

#### **Job Overview**

The Geodetics Technology Technical Coordinator 2 supports Divisions, technical disciplines, Project Teams, and the Regions with project-specific and program-wide geodetic assistance including development of geodetic workflows, addressing equipment and software issues, review of surveys and calculations, and assisting in the development of a statewide base mapping program. This position collaborates with Project Teams in identifying potential geodetic project challenges, minimizing variability in geodetics deliverables, and ensuring the sustainability of the Department's Work Program.

The Geodetics Technology Technical Coordinator 2 position assists the Geodetics Technology Team Lead in the research and testing of innovative technology, developing workflows to support the integration of technology into geodetic processes and providing training to promote technology adoption. This position also assists in ensuring Department policies, technical guidance, and geodetic policies and procedures are followed when conducting data analysis, preparing technical drawings and reports, and preparing geodetic deliverables. This position must effectively communicate with State and Region Geodetics Managers through mentoring, training, and collaborating as part of a matrix organization.

#### **Essential Job Responsibilities**

Support Project Teams and the efficient delivery of TDOT's Work Program by performing the collection, analysis, and technical drawing of complex geodetic data.

Integrate Quality Management into all deliverables and all geodetic technology workflows developed to ensure geodetic products are in compliance with the TDOT Survey Standards Manual for the purpose of eliminating rework to obtain data and provide uniform outputs. Independently check data, reports, and technical drawings for consistency, quality, and desired accuracy. Provide QA/QC for geodetic products that are prepared by the geodetics team. Perform the analysis of project outcomes to provide feedback on improvement of the quality of geodetic products. Identify recommendations that enhance the services provided by the Department.

Understand data collection techniques that comply with the TDOT Survey Standards Manual and operate various types of survey equipment to perform aerial corridor mapping and project control. Research and test innovative technology, including equipment and software, that complies with the TDOT Survey Standards Manual and

document the results for verification/validation. Be able to justify the use of new technology in collaboration with standard survey methods or in place of standard survey methods.

Coordinate, develop workflows for, and/or perform the processing of geodetic data, including photogrammetry, LiDAR, and conventional survey in accordance with the TDOT Survey Standards Manual. Utilize appropriate software for geodetic-specific processing of complex data sets to produce the required deliverables.

Assist Regional Geodetics with equipment and software integration, troubleshooting, and performing the analysis of geodetic data in conformance with the TDOT Survey Standards Manual and their utilization of associated technology software, potentially proprietary, for drone processing and other types of innovative technology to support the creation of technical drawings for projects having a high degree of risk to the Department.

Coordinate the preparation of geodetic files for engineering design, construction quantities, and survey use. Provide the State Geodetics Manager with technical outputs as part of a project team and in support of the Department's Work Program. Assist with the development of a statewide base mapping program utilizing GIS and archive film and other documents.

Oversee the flight planning and drone flight operations, including maintenance and maintenance logs, for drone flights taking place for Geodetics. Coordinate with the TDOT Drone Program's Drone Administrator for standard operating procedures and recommendations to improve geodetic workflows. Provide feedback on technology improvements and workflows that are documented for the use of drones.

Collaborate with the State Geodetics Manager to assist the TDOT Technical Training Director in the development of training, tools, and guidance related to geodetics, including technical elements and emerging technologies to drive consistency statewide, creating a stronger understanding of geodetic practices and products as they relate to the transportation industry, inspiring new ideas, and developing skills.

Remain current on geodetic best practices. Participate in collecting, analyzing, and reporting on various types of geodetic data collection and processing techniques. Provide input on relevant geodetics technology and techniques the contribute to delivering the Department's Work Program.

Provide exceptional customer service to project stakeholders by communicating results of geodetic data collection reports and sharing acquired knowledge with Project Teams, ensuring geodetic data is easily accessible and organized, exercising effective listening skills, and communicating effectively.

### **Qualifications**

- Associate or bachelor's degree
- 4 years of demonstrated competency in surveying, engineering, construction, or related technical discipline.
- Remote Pilot Certification preferred.

OR

- Education equivalent to graduation from high school
- 6 years of demonstrated competency in surveying, engineering, construction, or related technical discipline.
- Remote Pilot Certification preferred.

### **Ideal Candidate**

The Geodetics Technology Technical Coordinator 2 has an advanced skill set focused on leading geodetic projects. They are proficient in surveying, data collection, and processing methods, and they skillfully oversee the creation and management of geodetic files with precision and organization. They enjoy learning and testing new technology and providing solutions to challenges encountered. They excel in team environments, using their expertise to promote cooperation and teamwork, ensuring project success. Their clear communication skills enable them to effectively share technical information with team members and stakeholders.