

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.



Region Geodetics Technical Coordinator 2 Region Preconstruction – Geodetics Section \$64,356 annually

Job Overview

The Region Geodetics Technical Coordinator 2 supports Divisions, technical disciplines, Project Teams, and advises and collaborates with 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 collection of aerial base mapping. 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 Region Geodetics Technical Coordinator 2 position assists the Region Geodetics Manager to ensure Department policies, technical guidance, and geodetic policies and procedures are followed when conducting data analysis, preparing technical drawings and reports, and creating geodetic deliverables. This position collaborates with other Regions to advise on the utilization of aerial survey data collection versus drone data collection as well as providing guidance to the Region Geodetics Quality Team for quality drone mapping products. This position must effectively articulate geodetic concepts 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. Provide the Region Geodetics Manager with technical outputs as part of a project team and in support of the Department's Work Program.

Integrate Quality Management into all deliverables and all geodetic workflows developed to ensure geodetic products comply with the TDOT Survey Standards Manual and Quality Manual to eliminate any 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 set line, grade, perform route surveys, perform aerial corridor mapping, and project control. Advise remote pilots on suitable drone testing locations for remote pilot training, equipment testing,

and TDOT-specific drone data collection validation. Provide feedback on drone data collection methodology as part of ongoing remote pilot training and currency flights.

Coordinate the data collection and accurate location of utilities on projects to the level of accuracy needed. Serve as the point of contact and take accountability for the use of TN One-Call and the reporting of utility company responses to utility locations request. Communicate with internal and external entities to ensure quality location of utilities in survey deliverables.

Coordinate 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 required deliverables. Provide guidance for drone processing software use and data collection techniques to support quality geodetic outputs. Perform analysis of geodetic data in conformance with the TDOT Survey Standards Manual and utilize Open Roads Designer or other suitable software for technical drawings for projects having a high degree of risk to the Department.

Serve as the primary point of contact responsible for the complete and accurate delivery of legal descriptions for all proposed acquisition of property rights by the regional design and ROW offices. Analyze TDOT plans and legal descriptions to ensure they are in alignment for the purpose of acquiring property rights.

Perform analysis of project outcomes to provide feedback on improvement of the quality of geodetic products. Identify recommendations that enhance services provided by the Department. Assist with drone flight planning and peer reviews related to drone operations. Oversee the upkeep of maintenance logs for the Region to be submitted upon request to the TDOT Drone Program. Communicate with the Drone Administrator for drone program standard operating procedures and recommendations to improve geodetic workflows.

Collaborate with the Region Geodetics Manager to assist the TDOT Technical Training Director in the development of training, tools, and guidance related to geodetics that address acquired knowledge, 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, which inspires new ideas and develops skills. Administer the training to regional staff when required. Keep record of required training completion for regional geodetic staff.

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.
- FAA Part 107 Remote Pilot Certificate Preferred.

OR

- Education equivalent to graduation from high school
- 6 years of demonstrated competency in surveying, engineering, construction, or related technical discipline.
- FAA Part 107 Remote Pilot Certificate Preferred.

Ideal Candidate

The Region Geodetics Technical Coordinator 2 has an advanced skill set focused on assisting with geodetic projects. They are proficient in traditional surveying, aerial surveying, geodetic technology, data collection, and processing methods, and they skillfully oversee the creation and management of geodetic files with precision and organization. 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.