

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.



Bridge Inspection Transportation Engineering Specialist 3 & 4 Region Operations – Field Operations, Bridge Inspection \$80,784 - \$88,860 annually

Job Overview

The Bridge Inspection Transportation Engineering Specialist 3 & 4 supports Project Teams, technical Divisions, and Region Operations through the application of Department specifications, policies, technical guidance, and procedures to the inspection of bridges and ancillary structures. This position collaborates with technical disciplines and Project Teams to promote the safety, structural integrity, and longevity of bridges in support of TDOT's project delivery processes and asset management goals.

The Bridge Inspection Transportation Engineering Specialist 3 & 4 continuously evaluates performance indicators to implement acquired knowledge into the inspection of bridges, mitigating the Department's risk and increasing performance as part of fulfilling TDOT's strategic vision.

The Bridge Inspection Transportation Engineering Specialist 3 & 4 collaborates with both internal and external stakeholders, including Project Teams, TDOT Divisions, Regions, and contractors to help effectively execute TDOT's bridge inspection program and structural assessments. This position must effectively communicate bridge inspection concepts through training, mentoring, and collaborating as part of a matrix organization to support safety, compliance, and infrastructure longevity.

Essential Job Responsibilities of the Transportation Engineering Specialist 3 and 4 include:

Serve as a resource for Project Teams by defining the scope of work related to bridge inspection activities. Support the completion of bridge inspection reports and related deliverables in alignment with the project's scope, schedule, and budget. Ensure inspection findings, recommendations, and necessary maintenance actions are accurately documented and effectively communicated to stakeholders to support asset management and project planning.

Integrate Quality Management into all bridge inspection deliverables to proactively identify and address structural deficiencies, ensure compliance with inspection standards, and enhance the accuracy of reports.

Perform Quality Control reviews of bridge inspection reports and related documentation, ensuring accuracy, consistency, and compliance with FHWA and TDOT inspection standards. Proactively identify and address errors and discrepancies

and reporting concerns to improve the reliability of inspection data. Provide recommendations, when applicable, in response to identified risks related to structural conditions or maintenance needs. Verify that all inspection findings and recommendations align with asset management goals, the scope of work, applicable TDOT standards, federal and state policies, and other project-specific requirements. Address and resolve all comments obtained from Quality Control reviews.

Conduct field inspections to assess the condition of bridges and other ancillary structures in accordance with FHWA and TDOT guidelines. Develop and implement traffic control plans to ensure the safety of inspection crews and the traveling public. Draw as-built plans and interpret structural plans to determine element quantities for structures where design plans are unavailable. Ensure accurate and comprehensive field data collection, proper documentation in InspectX, and timely delivery of final reports to support asset management and decision-making. Ensure compliance with regulatory requirements.

Coordinate and mitigate potential areas of risk related to bridge inspections by collaborating with Project Teams, the Asset Management Division, Region Bridge Inspection, and Region Maintenance. Identify access constraints, potential safety hazards that may impact inspection activities, and risk mitigation strategies before fieldwork begins. Monitor the effectiveness of implemented risk mitigation strategies and provide recommendations to enhance inspection safety, structural integrity, and overall asset management.

Assist in ensuring safety remains the top priority in bridge inspection operations by identifying and communicating structural deficiencies, hazardous conditions, and potential risks to the traveling public and inspection crews. Collaborate with Headquarters (HQ) Structures Section, Region Bridge Inspection Teams, and Traffic Operations to enhance safety protocols and integrate best practices that reduce risks during bridge inspections. Apply acquired knowledge to continuously improve safety measures and ensure compliance with federal and state safety standards.

Provide exceptional customer service to project stakeholders by facilitating the sharing of acquired knowledge with Project Teams, providing prompt assistance for bridge condition concerns, exercising effective listening skills, and communicating effectively.

Remain current and engaged on bridge inspection procedures, certifications, and changes to specifications, including the National Bridge Inspection Standards (NBIS), Specification for the National Bridge Inventory (SNBI), Bridge Inspector's Reference Manual (BIRM), and TDOT's Bridge Inspection Manual. Research national best practices to optimize access methods, inspection efficiency, and safety considerations.

Additional Job Responsibilities of the Transportation Engineering Specialist 4 include:

Coordinate with the TDOT Technical Training Director to assist in the development and presentation of training related to bridge inspection. Provide guidance on inspection procedures, risk management, TDOT performance metrics, governing regulations, reporting protocols, and emerging technologies in bridge inspection. Support team development by enhancing knowledge of structural assessment, safety practices, and data collection methods to improve inspection quality, inspire innovation, and strengthen technical skills.

Assist in the development of the scope of work documents for consultant bridge inspection services.

Qualifications

The Transportation Engineering Specialist 1 and 2 are part of the Graduate Transportation Engineer (GTE) Program.

Transportation Engineering Specialist 3:

- Bachelor's Degree in Engineering
- 2 years of demonstrated competency in bridge inspections

OR

- Master's Degree in Engineering
- 1 year of demonstrated competency in bridge inspections

Transportation Engineering Specialist 4:

- Bachelor's Degree in Engineering
- 3 years of demonstrated competency in bridge inspections

OR

- Master's Degree in Engineering
- 2 years of demonstrated competency in bridge inspections

Ideal Candidate

The Bridge Inspection Transportation Engineering Specialist 3 & 4 is a detail-oriented and safety-conscious professional who is dedicated to ensuring the integrity and reliability of transportation infrastructure. They are analytical and observant, with the ability to assess structural conditions and make sound judgments in the field. This individual thrives in a collaborative environment, communicates effectively with diverse teams, and adapts to evolving industry standards and technologies. They are proactive problem-solvers who take the initiative to identify risks and improve processes. Their strong work ethic, commitment to professional growth, and dedication to safety and quality make them a valuable asset in supporting TDOT's mission to maintain and enhance the state's bridge and ancillary infrastructure.