

# STATE OF MONTANA

## JOB DESCRIPTION

*Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.*

**Job Title:** Bridge Inspection Team Leader 2

**Position Number:** 50019, 50038

**Location:** Various

**Department:** Transportation

**Division and Bureau:** Engineering / Bridge Bureau

**Section and Unit:** Bridge Management Section / Bridge Inspection Unit

**Job Overview:** A Bridge Inspection Team Leader 2 is a technical expert in structure condition, safety inspection, and Federal reporting. The Bridge Inspection Team Leader 2 inspects most types of in-service structures including bridges, tunnels and culverts in order to protect critical infrastructure, maintain public safety and fulfill the Department's legal responsibilities. Duties include structure inspection and assessment, bridge condition documentation and reporting, bridge inspection planning and program operations, and bridge inspection quality control to ensure accuracy of legal records of structure inspections. This position is supervised by the Area Bridge Inspection Manager.

### **Essential Functions (Major Duties or Responsibilities):**

#### **Structure Inspection - 80%**

- Inspects most types of structures to identify conditions, defects and operational safety. Ensures that bridge inspections are thorough, high quality, efficient, and cost-effective, and meet all Federal requirements.
- Assesses complex structural conditions and problems and their affect on public safety.
- Identifies and addresses bridge inspection resource needs, and coordinates the timing of inspections with MDT personnel, county road supervisors, railroad flaggers, and local law enforcement as needed.
- Develops accurate, high quality bridge inspection reports that document structural condition and meet inspection program requirements and Federal regulations.

- Reports critical bridge safety issues to the Bridge Inspection Engineer and the Area Bridge Inspection Manager when they are identified. Makes recommendations to close or restrict a bridge if necessary to protect public safety.
- Recognizes and reports bridge components that need repair in order to maintain bridge safety and avoid the need for costly replacement.
- Ensures adherence to safety standards and procedures to protect staff, materials, and the public from hazards associated with bridge inspection.
- Responds to emergency assistance and other requests from local/county officials, Department staff, FHWA personnel, and members of the public.

#### **Structure Inspection Program Operations – 15%**

- Complies with established operational policies and procedures and progress toward inspection program goals.
- Works toward achieving program goals, meeting Federal requirements, and ensuring public safety.
- Assists the Area Bridge Inspection Manager in determining supply, equipment, and vehicle procurement needs for inspections, including developing specifications, ensuring compliance with department procurement practices, developing budget justifications, and integrating equipment into inspection practices to ensure maximization of resources.
- Assists the Area Bridge Inspection Manager with evaluating current and projected workflow, relative complexity of inspections (e.g. fracture critical, pin and hanger, UBIV, emergency, etc), and available resources to determine priorities.
- Coordinates with the Area Bridge Inspection Manager to train new inspectors in all aspects of bridge inspection. Emphasizes the importance of safety for the inspector and the public. Explains basic structural engineering principles and bridge inspection techniques.
- Uses bridge inspection software for data collection and management, and trains other personnel on best practices with software and documentation practices.
- Represents the Department at professional conferences and workgroups, formal hearings, legal proceedings, and other events to explain, promote, and defend Department positions, actions, and interests on various issues related to bridge inspection and safety.
- Builds and maintains relationships with Bridge Management Section personnel and District Personnel to facilitate communication, safe and positive work environment, and effective response in emergent situations .

#### **Other Duties – 5%**

This position performs a variety of other duties as assigned by the Area Bridge Inspection Manager.

#### **Supervision**

*If this incumbent supervises others, please list each employee supervised and the position number:*

Revision Date: xx/xxxx

The number of employees supervised is: 0

The position number for each supervised employee is:

**Physical and Environmental Demands:**

***Physical:***

- Lifting objects weighing up to 50 lb
- Walk over uneven terrain or in water, climb structures spanning significant heights (i.e., 100+ feet), and use safety equipment (e.g., ropes, hardhats, etc.)
- Travel extensively within the state to project locations (1,500 miles or more per month).
- Remain seated for extended period of time, with occasional walking, standing and bending.
- Operate a personal computer, laptop, and small handheld electronic devices.
- Operate the bucket of an Under Bridge Inspection Vehicle over water and at significant heights.
- Ability to see small bridge defects within arm's reach and at a distance.
- Communicate in person, in writing and over the phone.
- Interpret complicated and complex technical publications, manuals, laws, and regulations.
- Multi-task and meet inflexible deadlines.
- Concentrate for long periods of time.
- Manage stress from the responsibility of making decisions that affect the public health and safety.

***Environmental:***

- Work in the office and in the field
- Endure exposure to heavy vehicles and equipment, extreme heights, high speed traffic, dynamic weather conditions, and enclosed spaces

**Knowledge, Skills and Abilities (Behaviors):**

***Knowledge:***

- Civil engineering principles and associated mathematics and physical sciences.
- Extensive knowledge of the principles and practices of structural inspection.
- Knowledge of inspection practices for Fracture Critical Bridges.
- Familiarity with the AASHTO Manual for Bridge Evaluation, National Bridge Inspection Standards, and Element Level inspection standards and procedures.
- Non-destructive testing techniques for structural materials.
- Methods and techniques of highway construction.
- Safety practices and OSHA regulations.

***Skills:***

- Coordinating multiple inspection projects.
- Operating inspection equipment.
- Adapting to changes in plans and site conditions.

- Effective written and verbal communication.
- Operating computer software, including standard Microsoft Office software and bridge inspection applications.
- Managing, comparing and compiling large amounts of data.
- Communicating tactfully with other agency officials and with the public.
- Applying engineering concepts to a variety of situations.
- Evaluating structural problems by examining evidence, discussions with peers and structural engineers.
- Solving problems for multiple types of structural and logistical issues .
- Using inspection experience to make decisions on structural stability and safety.

**Abilities:**

- Effectively communicates in a high stress and multi-task environment.
- Establishes and maintains effective working relationships with others.
- Creates a positive work environment through cooperation and communication.
- Motivated to takes action to achieve results with out being told.
- Supports team decisions and outcomes through actions and communication.
- Highly observant and pays attention to detail.
- Adjusts to meet inflexible deadlines.
- Makes sound decisions that affect public health and safety.
- Committed to workplace safety for self and others.

**Minimum Qualifications (Education and Experience):**

*List the required education and experience required for the first day of work, including alternative methods of acquiring minimum qualifications*

The required knowledge and skills are typically acquired through a combination of education and experience equivalent to a Bachelor’s Degree in Civil Engineering, Construction Technology, or a related field from an ABET accredited program, and proof of passage of the Fundamentals of Engineering (FE) exam, and 4 years of in-service bridge inspection experience with a minimum of 2 years of experience as a Bridge Inspection Team Leader, and meets current Federal requirements to be a Bridge Inspection Team Leader.

Alternative qualifications include: Registration as a Professional Engineer in Montana, and 2 years of in-service bridge inspection experience with a minimum of 1 year of experience as a Bridge Inspection Team Leader, and meets current Federal requirements to be a Bridge Inspection Team Leader; or 7 years of in-service bridge inspection experience with a minimum of 2 years of experience as a Bridge Inspection Team Leader, and meets current Federal requirements to be a Bridge Inspection Team Leader; or 5 years of in-service bridge inspection experience and 2 years of bridge inspection related experience with a minimum of 2 years of experience as a Bridge Inspection Team Leader. In-Service bridge inspection experience must be under the guidance of Bridge Insepection

**Commented [HH1]:** Should this qualification say 2 years as a Team leader? If this person meets Fed TL requirements they would already have these two yrs unless they were a PE. This would allow a degreed person to go straight to TL 2 when they meet Fed TL requirements. I think they should spend a year minimum as a TL1 before TL2, can discuss. With the current wording a PE would remain in TL1 for a year after Fed TL qualification. Should we write a third alternative that a PE Fed TL qualifies as a TL 2?

**Commented [HH2]:** Would our current "Assistants" grandfather in to this TL2 level? They have been Fed TL's for quite a few years.

Team Leader. Bridge inspection related experience means any combination of bridge inspection, bridge design, or bridge construction experience.

Any combination of education and related work experience equivalent to the minimum qualifications.

Certifications, licensure, or other credentials include: Successful completion of a Federal Highway Administration (FHWA) approved comprehensive bridge inspection training course and successful completion of a FHWA approved Fracture Critical Inspection Techniques for Bridges Course.

**Special Requirements:**

*List any other special required information for this position*

- Fingerprint check
- Valid driver's license
- Background check
- Other; Describe
- Union Code
- Safety Responsibilities

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.

**Signatures**

My signature below indicates the statements in the job description are accurate and complete.

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<b>Immediate Supervisor</b>	<b>Title</b>	<b>Date</b>
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<b>Administrative Review</b>	<b>Title</b>	<b>Date</b>
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My signature below indicates that I have read this job description.

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<b>Employee</b>	<b>Title</b>	<b>Date</b>
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**Human Resources Review**

**Job Code Title:**                      **Job Code Number:**                      **Pay Band:**

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

- |  |  |
|--|--|
| <input type="checkbox"/> FLSA Exempt             | <input type="checkbox"/> FLSA Non-Exempt               |
| <input type="checkbox"/> Telework Available      | <input type="checkbox"/> Telework Not Available        |
| <input type="checkbox"/> Classification Complete | <input type="checkbox"/> Organizational Chart attached |

**Human Resources:**

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<b>Signature</b>	<b>Title</b>	<b>Date</b>
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