



# Illinois Department of Transportation

## Memorandum

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To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS  
From: Dianna L. Taylor  
Bureau Chief of Personnel Management  
Subject: Technical Vacancy  
Date: August 3, 2017

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Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement August 4, 2017 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Thursday, August 17, 2017**. Applicants will not be accepted after that time and date.

**NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.**

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

ET IV

Bridge Inspection Technician Specialist  
Region 2/District 2/Operations  
Highways Project Implementation  
Dixon

Attachments  
42147

Technical Applications [PM1080 rev 6/1/17](#)\*\***must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to [DOT.CO.BPM.EmploymentApplications@Illinois.gov](mailto:DOT.CO.BPM.EmploymentApplications@Illinois.gov) by **Thursday, August 17, 2017, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

**NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.**



An Equal Opportunity Employer

## Position Summary Sheet

<b>Classification:</b>	<b>Engineering Technician IV</b>	<b>Salary:</b>	<b>\$4,695 - \$6,735*</b>
<b>Position Title:</b>	<b>Bridge Inspection Technician Specialist</b>	<b>Union Position:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Position Number:</b>	<b>PW014-23-52-506-00-03</b>	<b>IPR#:</b>	<b>42147</b>

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### Office/Central Bureau/District/Work Address:

OHPI / Region 2 / District 2 / Bureau of Operations / 819 Depot Avenue, Dixon, IL

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### Description Of Duties:

This position serves as the Bridge Inspection Technician Specialist on the district Bridge Inspection Specialist team which makes detailed inspections of bridges, sign trusses, and structures. These duties are necessary to fulfill the requirements of the National Bridge Inspection Standards and department Policies and Procedures, compile information needed to program necessary repairs, and ensure public safety.

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### Special Qualifications:

#### Required:

- Valid driver's license
- Ability to work in an adverse environment of weather, traffic conditions, confined spaces, and/or extreme heights.

#### Desired:

- An associate degree from an accredited two-year civil engineering technology program or two years of college in pre-engineering or civil engineering technology.
- Eight years' experience in performing a variety of technical tasks of which at least four years should be related to civil engineering
- Extensive knowledge of the principles and practices of civil engineering and the application of engineering techniques to the design, construction, and maintenance of public works
- Ability to operate engineering field and office instruments and physical laboratory testing equipment
- Ability to supervise a staff engaged in either field or office engineering functions
- Strong oral and/or written communication skills

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### Shift/Remarks:

8:00 a.m. – 4:30 p.m. / Monday – Friday

**THIS POSITION IS COVERED UNDER THE REVOLVING DOOR PROHIBITION (RDP) POLICY.**

\*Individual salary offers are computed based on an applicant's current position and experience level in comparison to the posted title as well as internal equity of staff in the organizational unit

\*\*Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
POSITION DESCRIPTION**

<b>DATE:</b>	July 2017	<b>POSITION:</b>	Bridge Inspection Technician Specialist
<b>APPROVED BY:</b>	<i>Kevin Marchek</i>	<b>OFFICE/DIVISION:</b>	Region 2 / District 2 / Operations
<b>CODE:</b>	PW014-23-52-506-00-03	<b>REPORTS TO:</b>	Bridge Engineer Inspection Specialist

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***Position Purpose***

This position serves as the Bridge Inspection Technician Specialist on the District Bridge Inspection Specialist team which makes detailed inspections of bridges, sign trusses, and structures throughout the District. These duties are necessary to fulfill the requirements of the National Bridge Inspection Standards and Department Policies and Procedures, compile information needed to program necessary repairs, and most importantly, ensure public safety.

***Dimensions***

Subordinate Personnel:	1 -3 Indirect
Total Number of Bridge Structures More Than 20 Feet:	835
Total Number of Bridges Requiring Underwater Inspections:	63
Total Number of Bridges Requiring Fracture Critical Inspections:	37
Total Number of Sign Trusses:	240
Annual Inspections Mandated by State and NBIS:	450
Annual Fracture Critical Inspections:	15
Annual Underwater Inspections:	60
Annual Sign Truss Inspections:	85
Small Bridges Less Than 20 Feet:	950
Value of Bridge Inspection Equipment Managed:	\$600,000

***Nature and Scope***

This position reports directly to the Bridge Engineer Inspection Specialist. Reporting indirectly to this position are Maintenance Highway Maintainer(s) and Engineering Technician(s) on an as-needed basis.

The incumbent participates in the field inspection of highway bridges, sign trusses, and structures throughout the District. The incumbent must have appreciable knowledge of design plans, standards, structure technology, nomenclature, and the ability to recognize structural problems in a variety of bridge types so that serious deficiencies can be properly analyzed and accurately reported. Bridges, sign trusses, and structures represent a significant investment of public funds. Proper inspection helps to preserve this investment, to prevent structural failures, and insure the highest level of public safety. Under the direct supervision of the incumbent, the crew operates and is responsible for approximately \$450,000 worth of equipment and precision instruments. The incumbent must be able to operate all of the equipment and direct proper care and maintenance. The incumbent is responsible for analyzing and scheduling the specific equipment, supplies, and traffic control needs for each structure to be inspected.

The greatest challenge to this position is the search for and detection of deficiencies that affect structural integrity and capacity, determining the reasons for those deficiencies, and suggesting repair strategies. These investigations include, but are not limited to, fracture critical members, pin and link assemblies, and underwater bridge inspection and scour analysis. Typical problems include coordinating, managing, and making arrangements for personnel and equipment of the Inspection Specialist team in such a manner to ensure that the required inspection data is collected safely, accurately, and efficiently.

Functions personally performed by the incumbent include: assisting in preparation of the yearly bridge and sign truss inspection schedule and drafting bridge repair plans. The incumbent is responsible for obtaining accurate elevations of critical points and obtaining profile elevations of lower chords and decks; and sounding underwater areas around river piers and obtaining river bottom profiles and elevations with electronic depth sounding equipment. He/She must be aware of problems associated with welded bridges and be capable of testing for flaws and cracks associated with welds and out-of-planes bending. The incumbent must be able to establish the necessary traffic control in accordance with Department standards in order to protect both motorists and team, and to minimize interference with highway traffic. Additionally, the incumbent assists in the preparation of forms and detailed bridge and sign truss inspection reports as directed by the Bridge Engineer Inspection Specialist.

This position accomplishes these accountabilities through the following subordinate positions:

Engineering Technician(s) who assist in the inspection of more complicated structures on a temporarily assigned basis.

Highway Maintainer(s), one or more who serve on an as-needed basis and who operate, transport, and service heavy trucks, cranes, backhoes, loaders, tractors, motor boats, and specialized hydraulic boom equipment; maintain specialized equipment including the repairs, maintenance, and adjustment; perform some routine maintenance and minor repairs and arrange for other services as required; complete necessary forms and reports relating to equipment operation and maintenance; and perform other related duties as assigned by the Bridge Technician Specialist when engaged in bridge inspection and related activities.

The incumbent is afforded latitude in the accomplishment of duties and keeps the Bridge Engineer Inspection Specialist apprised of any structural problems encountered. In the absence of the Bridge Engineer Inspection Specialist, this position assumes full responsibility for the Bridge Inspection Specialist team.

The incumbent has internal contacts with the District and/or the Central Bureaus of Operations, Local Roads and Streets, Program Development, and Bridges and Structures for the purpose of accomplishing position accountabilities and responsibilities. Externally, the incumbent has occasional contacts with local agencies, the Federal Highway Administration, consultants, and the public.

The effectiveness of this position can be measured by the accuracy of the work performed, the quality of the inspection reports, and the efficiency of the team when under his/her direction. Effective performance in this position also requires leadership to gain full cooperation of other team members and willingness to work in an adverse environment of weather, traffic conditions, confined spaces, and/or height.

**Principal Accountabilities**

1. Directs and supervises on a day-to-day basis the Maintenance Bridge Inspection Specialist team in the continuing detailed field inspection of bridges, sign trusses, and structures throughout the District to insure compliance with the National Bridge Inspection Standards.
2. Conducts field inspection involving fracture critical structures, pin and link assemblies, underwater bridge inspection and scour analysis to meet the requirements of the National Bridge Inspection Standards and Department Policies and Procedures.
3. Conducts visual inspection of bridges to seek out damaged or deteriorated components, providing records and photographs of deficiencies detected, and makes appropriate recommendations for repair or further structural analysis.
4. Prepares bridge inspection forms and reports under the direction of the Bridge Engineer Inspection Specialist. Enters inspection data, requires reports, and analyzes information from the Maintenance Management Information System.
5. Operates and maintains a variety of expensive and sophisticated equipment used by the team.
6. Establishes proper traffic protection in accordance with Departmental standards.
7. Performs calculations in conjunction with the inspection and reports.
8. Prepares bridge repair plans for contract maintenance and Day Labor projects using computer aided CAD design.
9. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.