



# 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: September 27, 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 September 28, 2017 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Thursday, October 12, 2017**. Applications will not be accepted after that time and date.

**NOTE: A copy of each applicant's National Bridge Inspection Standards Team Leader Certification must accompany application for this position. 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.**

If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

ET IV

Senior Structural Inventory Technician  
Bureau of Bridges & Structures  
Office of Program Development  
Springfield

Attachments  
42308

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, October 12, 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: A copy of each applicant's National Bridge Inspection Standards Team Leader Certification must accompany application for this position. 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.**



**Illinois Department  
of Transportation**

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>Senior Structural Inventory Technician</b> | <b>Union Position:</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Position Number:</b> | <b>PW014-23-65-907-20-01</b>                  | <b>IPR#:</b>           | <b>42308</b>  |

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

Office of Program Development / Bureau of Bridges and Structures /2300 South Dirksen Parkway, Springfield, IL

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### Description Of Duties:

This position is accountable for documentation control, oversight of the structural inventory, and National Highway Institute (NHI) training necessary to fulfill National Bridge Inspection Standards (NBIS) requirements. In addition, this position serves as a NBIS Team Leader as necessary for the inspection of major river crossings needed to fulfill federal requirements and ensure the traveling public's safety.

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### Special Qualifications:

#### Required:

- Certification as National Bridge Inspection Standards Team Leader
- Ability to work in confined spaces and at extreme heights over land and water; operate under bridge cranes, aerial lift and underwater inspection equipment as well as nondestructive testing and confined space entry equipment
- Occasional travel with overnight stays
- Valid driver's license

#### 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
- Working knowledge of bridge nomenclature and ability to recognize structural problems in a variety of bridge types in order to immediately report serious deficiencies
- Strong oral and written communication skills; and organizational skills
- Ability to supervise, train and motivate staff engaged in either field or office engineering functions

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### Shift/Remarks:

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

\*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>   | Senior Structural Inventory Technician                          |
| <b>APPROVED BY:</b> | Carl Puzey            | <b>OFFICE:</b>     | Office of Program Development<br>Bureau of Bridges & Structures |
| <b>CODE:</b>        | PW014-23-65-907-20-01 | <b>REPORTS TO:</b> | Services Development Section Chief                              |

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***Position Purpose***

This position is accountable for documentation control, oversight of the structural inventory, and National Highway Institute (NHI) training necessary to fulfill National Bridge Inspection Standards (NBIS) requirements. In addition, this position serves as a NBIS Team Leader as necessary for the inspection of major river crossings needed to fulfill federal requirements and ensure the traveling public's safety.

***Dimensions***

|  |                 |
|--|-----------------|
| Detailed Major Bridge Inspections and Reports: | 10-15 annually  |
| Structural Correspondence Files:               | 25,000 - 30,000 |

***Nature and Scope***

This position reports to the Services Development Section Chief. Reporting to this position are the Structural Inventory Technician, Associate Structural Inventory Technician, and Assistant Structural Inventory Technician.

With the continued aging of state bridges and structures, there is an increased emphasis placed on bridge inspection activities and structure files. This position ensures proper documentation of these activities to guarantee accurate record keeping. S/He serves as liaison with the National Highway Institute (NHI) to coordinate required training for bridge inspectors. The incumbent assists with consultant agreement oversight and exercises judgement in reviewing and approving records. This position functions as a central coordinator for bureau projects that need to be expedited. The incumbent operates in a team environment for the inspection of major river bridge structures throughout the state, as assigned, to meet all Code of Federal Regulations 23 requirements as described in the NBIS. S/He performs bridge inspection activities including routine, fracture critical, underwater and other inspections of bridges and other structures as needed. The incumbent must be able to operate under-bridge and underwater inspection equipment as well as nondestructive testing and confined space entry equipment, including ultrasonic and air monitors, in a safe manner and provide care and maintenance for that equipment. The incumbent must have appreciable knowledge of bridge nomenclature and ability to recognize structural problems in a variety of bridge types in order to immediately report serious deficiencies.

The greatest challenge is the ability to maintain positive working relationships with Bureau employees as the position must anticipate record, training, budget and supply needs and proceed accordingly while operating in an environment of critical deadlines. The incumbent must have proficiency in numerous service areas so that quality assistance is provided when requested. As the incumbent assists in bridge inspection activities, typical problems include locating and detecting visible and hidden defects that affect the structural integrity of the bridges, utilizing current technology and testing methods, and to determine the reasons for those problems.

The position is responsible for maintaining all documentation regarding structural correspondence files, including existing structure plans, as-built plans, reference materials, and research materials. This position ensures the ultimate integrity of the Bureau's files as well as the maintenance of present and past files.

S/He serves as the representative for the Bureau of Bridges and Structures on the Records and Information Management Program committee and as the Bureau's Document Management Coordinator.

This position assists in maintaining the Bureau budget, procurement needs and inventory. S/He serves as liaison with the NHI to coordinate required training for bridge inspectors. The incumbent maintains Bureau training records, as stored in the Learning Management System (LMS). This position processes form requests from Bureau employees, including requests for new forms, establishment and modification or abolishment of existing forms. S/He has oversight of a consultant agreements tracking system, processing of payments to vendors, and supply inventory, including ordering, for the Bureau. The incumbent operates in a team environment for the inspection of major river bridge structures throughout the state, as assigned. S/He performs inspection crew activities including routine, fracture critical, underwater and other inspections of bridges and other structures. Functions performed personally by the incumbent include, but are not limited to: oversight of the Bureau's structural files, NHI required training, development of operating budget, procurement, record retention schedules, performing NBIS inspections, magnetic particle and dye penetration testing, operating inspection cranes and aerial lift equipment, being fully knowledgeable of the Structure Information and Procedure (SIP) manual, and the inspection of structures per state guidelines. S/He must also be aware of the necessary traffic control in accordance with Departmental standards to protect both motorists and inspection crews and to minimize interference with highway traffic. The incumbent prepares detailed and complex bridge inspection reports.

Responsibilities are accomplished with the assistance of the *Structural Inventory Technicians* who maintain a structural inventory system comprised of all state maintained structures on the Illinois Highway System.

The incumbent is afforded latitude in the accomplishment of duties and keeps the Bridge Inspection Group Technician apprised of any structural problems encountered. S/He is constrained by all applicable departmental, state and federal guidelines.

Internal contacts are with the Bureau of Bridges and Structures, Office of Finance and Administration, Office of Highways Project Implementation Regions and Bureaus and other Office of Program Development Bureaus. External contacts include local agencies, Federal Highway Administration, contractors and the public. This position may require overnight travel and the ability to perform strenuous physical activities in an outdoor environment, and safely work at extreme heights and in confined spaces. Access to many of the components of large bridges is very difficult and at considerable height above ground or water.

The effectiveness of the position can be measured by the accuracy of work performed, the integrity and quality of the structural file inventory, and the quality of the inspections reports. Effective performance in this position also requires team workmanship to gain full cooperation of other crew members and willingness to work in an adverse environment of weather, debris, traffic conditions and heights.

### ***Principal Accountabilities***

1. Maintains the Bureau's structural file record system, including working with the Records Center Manager to keep retention schedules and files up-to-date.
2. Provides document management support services in a timely and efficient manner ensuring that critical deadlines are met.
3. Identifies, coordinates and communicates National Highway Institute training opportunities applicable to bureau staff. Maintains LMS documentation records for all Bureau employees.

4. Assists in the development of the Bureau's operating budget and conducts necessary activities for the procurement of and payment for equipment, software, services and other supplies as needed.
5. Conducts nondestructive testing on fatigue-prone details and welded areas during in-depth bridge inspections.
6. In the absence of the Bridge Inspection Group Engineer and Bridge Inspection Group Technician, can serve as inspection crew chief.
7. Performs visual, nondestructive, and fracture critical inspections of bridges to seek out damaged or deteriorated structural components.
8. Prepares detailed bridge inspection reports.
9. Operates and maintains a variety of sophisticated bridge inspection equipment.
10. Performs other duties as needed.
11. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.