



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: October 30, 2017

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement November 1, 2017 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Wednesday, November 15, 2017**. Applications will not be accepted after that time and date.

NOTE: Applications will be accepted from qualified permanent DOT employees only. A copy of each applicant's ACTIVE Illinois Professional Engineer License 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.

CE IV

Bridge Engineer Inspection Specialist
Region 4/District 7/Operations
Highways Project Implementation
Effingham

Attachments
42291

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 by, **Wednesday, November 15, 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: Applications will be accepted from qualified permanent DOT employees only. A copy of each applicant's ACTIVE Illinois Professional Engineer License 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

Classification:	Civil Engineer IV	Salary Range:	\$5,800 - \$9,230
Position Title:	Bridge Engineer Inspection Specialist	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW114-23-57-506-10-01	IPR#:	42291

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Region 4 / District Seven / Bureau of Operations / 400 West Wabash, Effingham, IL

Description Of Duties:

This position is responsible for detailed inspection of bridges and structures throughout the District to fulfill the requirements of the National Bridge Inspection Standards, those of the District and State Maintenance policies; management of the District's Bridge Inspection Specialist team; preparation of necessary reports and forms; and input of required data into the Bridge Inspection System Database (BIS).

Special Qualifications:

Required:

- Current Illinois Professional Engineer license
- Valid driver's license
- Extensive district-wide travel and occasional statewide travel which could include overnight stays
- Ability to work in all environmental conditions including weather, terrain, heights and traffic hazards
- Must successfully have completed, or complete within one year of hire date, the FHWA/NHI two week class "Safety Inspection of In-Service Bridges"

Desired:

- Six years' experience in civil engineering including four years of supervisory responsibility of which three years should be in the specific area of highway engineering
- Ability to direct and coordinate the work of subordinates, as well as the ability to interpret and implement departmental policies
- Strong oral and written communication and organizational skills

Shift/Remarks:

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

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

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

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	October 13, 2017	POSITION:	Bridge Engineer Inspection Specialist
APPROVED BY:	<i>Jeffrey M. South</i>	OFFICE/DIVISION:	OHPI/D7-Bureau of Operations
CODE:	PW114-23-57-506-10-01	REPORTS TO:	Bridge Maintenance Engineer

Position Purpose

This position is responsible for detailed inspection of bridges and structures throughout the District to fulfill the requirements of the National Bridge Inspection Standards, those of the District and State Maintenance policies; management of the District's Bridge Inspection Specialist team; preparation of necessary reports and forms and input of required data into the Bridge Inspection System Database (BIS).

Dimensions

Subordinate Personnel:	1 direct, 2 – 3 indirect
Total Number of Bridges and Drainage Structures, Including Major River Crossing	1777
Total Number of Bridges Requiring Underwater Inspection:	15
Total Number of Bridges Requiring Fracture Critical Inspection:	7
Total Number of Bridges Requiring Special Inspection:	67
Annual Inspection Mandated by State and NBIS:	610
Annual Underwater Inspections:	6
Annual Fracture Critical Inspections:	4
Annual Special Inspections:	83

Nature and Scope

This position reports to the District Bridge Maintenance Engineer as does the Maintenance Bridge Inspection Technician. Reporting directly to this position is the Bridge Technician Inspection Specialist. Other Maintenance Bridge Inspection Technicians(s) and Highway Maintainer(s) on loan from other bridge crews or Team Sections report to this position as required by operation needs.

The duties of this position are complex due to the large number and variety of bridges and structures involved. Access to critical areas of many structures is poor, making adequate inspection very difficult. The incumbent's analysis and recommendations have appreciated impacts on the safety of motorists, preservation of structures, and plans and procedures for temporary or permanent repair. The bridges are a large investment of public funds. Property inspection and evaluation according to standards, policies and engineering judgment protects this investment, attempts to prevent structural failures and increases the level of public safety. The incumbent must have knowledge of bridge nomenclature. He/She must possess the ability and special training to recognize structural problems related to fracture critical members and scour in various bridge designs. The incumbent must properly and adequately advise the District Bridge Maintenance Engineer of structural deficiencies or potential problems.

Typical problems include properly recognizing and analyzing bridge pin and link assembly deficiencies and recommending repair or rehabilitation; recognizing seized bearings and pin-hanger assemblies; recognizing and analyzing structural steel for fatigue and weld cracks; analyzing concrete in beams and substructure units for deterioration or displacement; and, analyzing channels for scour. The greatest challenge in the course of the inspections is to find deficiencies, establish the cause of the deficiencies discovered and recommend corrective action.

This position with a staff of the Bridge Technician Inspection Specialist and loaned Engineering Technician(s) and Highway Maintainer(s) is responsible for assisting in the ongoing detailed inspection and minor preventive maintenance of all State maintained bridges and inventoried drainage structures in the District. This includes, but is not limited to, bridges requiring inspections of fracture critical members, pin and link assemblies and underwater inspections of those with potential scour. This work includes obtaining field measurements, photographs, surveys, assessment of structural conditions and compilation of complete inspection forms and reports for various bridges and structures. This position evaluates structural problems, assesses damages, and makes recommendations for maintenance and repair.

Proper performance of these duties is critical in order to ensure the safety of the highway user, protect the public's investment in bridges inspected, and fulfill requirements of the National Bridge Inspection Standards. The incumbent assembles an inventory of bridges, schedules inspections and may supervise necessary repairs. This position requires the ability to work in all environmental conditions including weather, terrain, heights and traffic hazards.

This position accomplishes accountabilities through the following subordinate positions:

BRIDGE TECHNICIAN INSPECTION SPECIALIST - who, with the assistance of temporarily assigned Engineering Technician(s) and Highway Maintainer(s), prepares detailed notes and take photographs of components inspected; obtains stream bed profiles and clearances; assembles data in reports; and enters inspector ratings and work accomplishment data into the BIS System. He/She must research and be current with the latest available design, construction, and repair policy, techniques and data.

ENGINEERING TECHNICIAN(S) – who assist in the inspection of more complicated structures on a temporarily assigned basis.

HIGHWAY MAINTAINER(S) - who safety operate and maintain specialized bridge inspection equipment. The Highway Maintainers are assigned to the Bridge Inspection Specialist Team on an as-needed basis.

The incumbent works within the guidelines of the National Bridge Inspection Standards, IDOT Structural Services Manual (specifically Section 3 – Inspection), the FHWA's Bridge Inspector's Reference Manual, Personnel Policies Manual and various labor agreements.

Contacts are with the District's Bureau of Program Development for existing plan review, plan preparation requirements, and bridge inventory information, and the Bureau of Project Implementation for "as built" plans, material certification and tests. He/She also has contact with the Central Bureau of Bridges and Structures in order to remain current with inspection requirements and to share detailed technical information and analysis techniques or standards. This position requires extensive districtwide travel and occasional statewide travel which could include overnight stays.

The effectiveness of this position may be measured by the results achieved in complying with the requirements of the National Bridge Inspection Standards. This includes and is documented by the quantity and quality of inspections and reports completed. Ultimate effectiveness is measured in the level of safety and integrity of the bridge and structures maintained.

Principal Accountabilities

1. Plans, directs and controls the District Bridge Inspection Specialist team in the continuing detailed field inspection of bridge structures throughout the district to ensure compliance with the National Bridge Inspection Standards.
2. Conducts field inspections of fracture critical structures and pin and link assemblies, underwater bridge inspection and scour analysis to meet the requirements of the National Bridge Inspection Standards.
3. Detects and analyzes structural problems encountered during inspections and for making specific recommendations based on observations and structural expertise. Must evaluate the seriousness of all problems encountered and take appropriate action as required.
4. Conducts field investigations and evaluations of damaged bridges and bridge deficiencies.
5. Completes all necessary reports concerning bridge inspections and the accurate entry of required data into the Bridge Inspection System. Requests reports and analyzes information from the System.
6. Ensures safety operation and maintenance of the specialized equipment and vehicles used by the inspection crew.
7. Responsible for being knowledgeable of the National Bridge Inspection Standards and technological developments relating to bridge inspection through training and other resources.
8. Demonstrates techniques, evaluates and motivates subordinate personnel to ensure staff development and competence.
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.
10. Performs other duties as assigned.