



# 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: May 5, 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 May 8, 2017 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Friday, May 19, 2017**. Applicants 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.**

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.

CE V

Geometric Project Engineer  
Region 5/District 8/Program Development  
Office of Highways Project Implementation  
Collinsville

Attachments  
41450

Technical Applications (PM 1080 rev 9/19/16) **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 **Friday, May 19, 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

<b>Classification:</b>	<b>Civil Engineer V</b>	<b>Salary Range:</b>	<b>\$6,315 - \$10,210</b>
<b>Position Title:</b>	<b>Geometric Project Engineer</b>	<b>Union Position:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Position Number:</b>	<b>PW115-23-58-303-60-01</b>	<b>IPR#:</b>	<b>41450</b>

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

OHPI / Region 5 / District 8 / 1102 Eastport Plaza Drive, Collinsville IL

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**Description Of Duties:**

This position is accountable for the development of intersection geometrics conforming to state policy; recommending to the central office any design exceptions to policy; creating designs which are cost-effective and often unique, using sound principles of value engineering; determining if central office concurrence of geometrics is required prior to inclusion in a prehearing design report; approving designs developed in accordance with policy; and reviewing and approving private and/or commercial development plans to ensure acceptable levels of operation and safety potential are maintained on state/local systems.

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**Special Qualifications:****Required:**

- Current Illinois Professional Engineer license
- Valid driver's license
- Districtwide travel

**Desired:**

- Nine years of experience in civil engineering of which at least five years should be in the specific area of highway engineering, three years of which should have been supervising engineering functions
- Extensive knowledge of the principles and practices of civil engineering
- Extensive knowledge of modern methods and techniques as applied to the design, construction, and maintenance of public works
- Ability to direct the work of other engineers, mechanics, equipment operators, and laborers
- Ability to develop and maintain cooperative relationships with departmental staff
- Strong oral and / or written communication skills

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**Shift/Remarks:**

Typically, 8:00 am - 4:30 pm / Monday - Friday, subject to variance according to district operational needs.



Typical problems include the continuing evaluation of new and innovative policies/procedures, the resolution of implementation problems, the interpretation of policies/procedures, and the resolution of problems associated with proposed designs by district bureaus, county/municipal governments and consultants. The greatest challenge to this position is the application of technical knowledge coupled with keen insight to develop geometric configurations which are appropriate and create an efficient and cost/safety-effective highway improvement with minimal adverse social and environmental impacts.

This position is accountable for developing geometric highway designs, analyzing traffic volumes, proposing access control limits, determining pavement/shoulder/median and right-of-way widths, designing horizontal/vertical alignments, deciding earth slopes, design speeds, sight distance, superelevation, and performing capacity analysis for intersections and interchanges. S/He provides advice and guidance to consultants, county, and municipal engineers during their preparation of geometric designs, capacity analysis, cross-section, alignment and slope designs. This position reviews and concurs with geometric designs prepared by other district bureaus, consultants and counties/municipalities including those prepared after construction contracts have been awarded. The incumbent approves those designs which conform to policy. Those that do not conform to policy are approved by the central office. Functions performed by this position are highly innovative and have specific objectives of fiscal restraints, cost-effectiveness and safety. This position establishes procedures for the development of feasible alternative improvements and evaluation techniques for the priority selection of such alternate types in terms of cost/safety-effectiveness and mitigation of impact. S/He reviews and/or recommends appropriate accident countermeasures for safety projects to the safety committee for inclusion in the annual program. The incumbent must maintain a state-of-the-art knowledge of appropriate state/federal/ local policies and evaluates pertinent research with a view toward improving current practices. S/He develops procedures for the implementation of cited policies and cost-effectiveness analysis of resulting improvements. This position maintains all pertinent policy and procedural information regarding geometric design. The incumbent directs route location and design studies during peak workloads.

Responsibilities are accomplished with the assistance of:

*Geometrics Engineer and Geometrics Studies Engineer* who are responsible for preparing geometric and/or traffic signal designs according to established policies and standards.

The incumbent exercises considerable latitude in performing the duties of this position. Decisions are based on state/federal policies and experience which incorporate innovation, field observations, educational seminars and current literature. Certification by the Central Bureau of Design and Environment allows this position to approve, without central office concurrence, intersection design studies which are not design exceptions to policy. The incumbent recommends, for approval to the section chief, design solutions for resolving conflicting situations and highly technical problems dealing with interchange and intersection designs.

Internal contacts include the district Bureau Chiefs of: Local Roads and Streets, Program Development and Operations; district staff; and the Central Bureau of Design and Environment. External contacts include FHWA, consultants, local governmental entities and the general public. Districtwide travel is required.

The effectiveness of this position is measured according to the accurate and timely completion of assigned tasks. In addition it can be measured by the increase in the safety and mobility afforded the motoring public by the effective use of available funds with the least adverse social and environmental consequences.

**PRINCIPAL ACCOUNTABILITIES**

1. Develops geometric designs and determines if central office review of geometrics is required prior to a public hearing or informational meeting. Approves policy consistent designs.
2. Reviews and concurs with geometric designs on state highways which have been prepared by consultants, counties, municipalities, and other district bureaus. Approves policy consistent designs.
3. Reviews and/or prepares safety projects prior to submission to safety committee for inclusion program. Approves policy consistent designs.
4. Reviews and accepts geometric revision prepared after construction contracts have been awarded. Approves policy consistent designs.
5. Directs route location and design studies during peak workloads.
6. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
7. Performs other duties as assigned.