



# Illinois Department of Transportation

## Memorandum

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To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS  
From: Becky Koehler  
Bureau Chief of Personnel Management  
Subject: Technical Vacancy  
Date: May 14, 2018

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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 16, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m.** on **Wednesday, May 30, 2018**. Applications 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.**

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

ET IV (3 pos)      Bituminous & Concrete Quality Assurance Technician  
Region 1/District 1/Materials  
Office of Highways Project Implementation  
Schaumburg

Attachments  
42799

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 **Wednesday, May 30, 2018**, 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.**



## Illinois Department of Transportation

An Equal Opportunity Employer

### Position Summary Sheet

<b>Classification:</b>	<b>Engineering Technician IV (3 positions)</b>	<b>Salary Range:</b>	<b>\$4,695 - \$6,735*</b>
<b>Position Title:</b>	<b>Bituminous &amp; Concrete Quality Assurance Technician</b>	<b>Union Position:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Position Number:</b>	<b>PW014-23-51-703-00-01</b>	<b>IPR#:</b>	<b>42799</b>

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

Office of Highways Project Implementation/Region One/District One/Bureau of Materials/201 W. Center Ct., Schaumburg IL

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#### Description Of Duties:

This position is accountable for conducting the quality assurance (QA) testing and comparing the results with the quality control (QC) of all QC/QA projects within a specific geographical area. It is also accountable for monitoring the quality control testing and for the inspection, calibration and operation of production facilities to ensure that all Portland Cement Concrete (PCC) and Hot Mix Asphalt (HMA) mixtures produced are in compliance with QC/QA special provisions, Pay For Performance (PFP), Quality Control for Performance (QCP) special provisions, the current Standard Specifications for Road and Bridge Construction and any supplemental specifications applicable to conditions associated with assigned construction projects.

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#### Special Qualifications:

##### Required:

- Valid driver's license
- Successful completion of Illinois Department of Transportation (IDOT) Quality Management Training Program PCC Levels I & II (CET 030 & 024) and HMA Levels I & II (CET 029 & 023) within 12 months of the hire date
- Possession of or ability to pass IDOT Quality Management Training Program HMA Level III (CET 031) and PCC Level III (CET 039) within 12 months of hire date
- District-wide and state-wide travel required

##### Desired:

- An associate degree from an accredited two-year civil engineering technology program or completion of two years of college in pre-engineering or civil engineering technology
- Eight years experience in highway construction
- Excellent communication skills
- The ability to resolve conflicts and good problem solving skills
- Working knowledge of the QC/QA program and intimate familiarization with HMA and PCC

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#### Shift/Remarks:

7:00 am - 3:30 pm / Monday - Friday (30 minute lunch)

\*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>	March 2018	<b>POSITION:</b>	Bituminous & Concrete Quality Assurance Technician
<b>APPROVED BY:</b>	George Houston	<b>OFFICE/DIVISION:</b>	OHPI/District One/Bureau of Materials
<b>CODE:</b>	PW014-23-51-703-00-01	<b>REPORTS TO:</b>	Area Mixtures Control Supervisor

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***Position Purpose***

This position is accountable for conducting the quality assurance (QA) testing and comparing the results with the quality control (QC) of all QC/QA projects within a specific geographical area. It is also accountable for monitoring the quality control testing and for the inspection, calibration and operation of production facilities to ensure that all Portland Cement Concrete (PCC) and Hot Mix Asphalt (HMA) mixtures produced are in compliance with QC/QA special provisions, Pay For Performance (PFP), Quality Control for Performance (QCP) special provisions, the current Standard Specifications for Road and Bridge Construction and any supplemental specifications applicable to conditions associated with assigned construction projects.

***Dimensions***

Subordinate Personnel:	1 - 5 (1 seasonally)
Number of Projects Annually:	15 - 50
Annual Value of Mixtures:	\$15M - \$100M
Number of Plants:	5 - 25

***Nature and Scope***

This position reports to the Area Mixtures Control Supervisor. Reporting to this position are cadre technicians, seasonal inspectors and consultant personnel as required for project support.

This position operates in an environment where, due to the district's unique highway system, innovative roadway construction practices and the need to make pavements that are long lasting, safe and economical are of prime importance. This makes the function of applying appropriate and durable PCC and HMA mixtures such as Stone Matrix Asphalt (SMA) exceedingly important to the motoring public. The duties of this position are complicated by the increasing complexity of mixture control technology such as Superpave mix design procedures, high performance HMA mixtures such as SMA, special concrete mixtures such as self-consolidating concrete, and internally cured concrete and concrete mixtures modified with latex and silica fume. The technology characterizing plants in this district vary widely from manual plants to more modern plants with automatic control devices and computerized systems. Also, there are various types of plants which require analyses and revisions on a wide variety of processes to ensure consistency in the mixtures produced.

Typical problems encountered in this position include: evaluating ingredient amounts to obtain a uniform mixture; assuring acceptable HMA and PCC mixes for required conditions; controlling and reducing segregation and degradation of aggregate stockpiles at plant sources; and evaluating equipment maintenance and adjustments to ensure accurate weighing, timing, grading, ingredient quantity and temperature measurements of materials and material mixes. Additional problems encountered in this position include: interpreting specifications and current policies as they pertain to HMA and PCC mixtures; obtaining consistency in the testing, reporting and stockpiling of materials; and eliminating deceptive practices to ensure that mix samples are representatives of materials used on construction projects. The greatest challenge to this position is maintaining effective working relationships with producers to ensure proper procedures are used in obtaining quality and durability. This is accomplished by taking appropriate corrective actions based on acceptable standards reflected in QC/QA, PFP, and QCP testing procedures, Superpave mix design guidelines and testing for HMA mixes and QC/QA procedures for PCC and HMA mixes.

To ensure compliance with QC/QA special provisions, the incumbent personally monitors: the quality of material shipments delivered to the plants and material storage facilities; stockpiles and stockpiling procedures

## **Bituminous & Concrete Quality Assurance Technician**

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at plants; aggregate gradation and quality; and all measuring, weighing, timing and temperature devices used in the production of both concrete and HMA mixes for accuracy and proper adjustment.

He/She will, as required, use various computer related programs and spreadsheets to record results, document test procedures and electronically submit reports as needed. The incumbent will also conduct various tests on HMA produced under PFP and QCP special provisions to determine compliance with the specifications and to determine the corresponding pay factor of such mix. He/She will be required to review contractor created HMA and PCC mix designs to determine compliance with Superpave mix design guidelines, as well as applicable special provisions. The incumbent will review job specific HMA and PCC quality control plans to determine the adequacy and stability regarding the contract special provisions and plans. The incumbent will monitor various mixture testing procedures completed by contractors as well as consultant staff. He/She will inspect contractor and producer quality control laboratories and equipment, as well as prequalified consultant laboratories and their levels of proficiency for compliance with policy memorandums and specifications as they relate to QC/QA, Aggregate Gradation Control System (AGCS), HMA and PCC.

This position accomplishes objectives with the assistance of cadre technicians, seasonal inspectors and consultant personnel on a project basis.

The incumbent will be required to attend various training classes and seminars provided by the department to improve his/her skills and knowledge. He/She must operate within the guidelines included in the Standard Specifications for Road and Bridge Construction and applicable special provisions; and is responsible for accurately interpreting specifications when needed in the field. The incumbent must be able to operate a motor vehicle and travel to project locations throughout the district.

The contacts for this position include: the contractor's quality control manager and staff to ensure that the approved project quality control plan is adhered to and implemented, and the incumbent's supervisor to update the status and quality of work done for each highway construction project and problems encountered at any production plant. Frequent district-wide and state-wide travel is necessary to fulfill the duties of this position.

The effectiveness of this position can be measured by the production of quality HMA and PCC mixtures which meet standard specifications, project special provisions or any supplemental specifications.

### **Principal Accountabilities**

1. Monitors contractor QC/QA, PFP, or QCP program for PCC and HMA, QC/QA, PFP or QCP program for mixture construction as required.
2. Monitors and documents the required annual plant and scale calibrations for both HMA and concrete production facilities.
3. Annually inspects and approves all laboratories at HMA and concrete production facilities, prequalified consultants' laboratories and ensures their conformance to the required policy memorandums and QC/QA requirements.
4. Reviews all contractor test results and ensures that corrective actions are taken when warranted for compliance with QC/QA specifications and special provisions.
5. Performs all testing as required by the Manual of Test Procedures for Materials, Standard Specifications, special provisions and policy memorandums.
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.