

**Civil Engineer IV (2 Positions)
Area Mixtures Control Supervisor**

IPR Number:	43697	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW114-23-51-703-00-01	Shift:	8:00 am – 4:15 pm (45-minute lunch)
Opening Date:	August 28, 2019		Monday – Friday
Closing Date:	September 11, 2019	Salary:	\$5,800 – \$7,515*

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Bureau of Materials / Region One / District One / 201 West Center Court, Schaumburg, Illinois 60196

Position Purpose:

This position is accountable for directing and coordinating, within a designated geographical area, all the activities related to the production, testing and reporting of all Portland Cement Concrete (PCC) and Hot Mix Asphalt (HMA) mixtures to ensure compliance with the Standard Specifications and all applicable contract special provisions; the review of contract plans and documents; and the review and approval of annual Quality Control/Quality Assurance (QC/QA) plans, contract specific Quality Control (QC) plans, and addendums. This position also acts as the department's liaison with local agencies regarding mixture design verification, inspection and testing within the designated geographical area.

Qualifications:

Position Requirements:

- Current registration as a Licensed Professional Engineer in the state of Illinois
- Five years of experience in civil engineering
- Successful completion of the Hot Mix Asphalt courses through Level III and the Portland Cement Concrete courses through Level III or successful completion of those courses within twelve months of hire date
- A valid driver's license
- District and state-wide travel
- Occasional night and weekend work hours

Position Desirables:

- Excellent oral and written communication skills
 - Excellent conflict resolution skills
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How to Apply/Remarks:

Technical Applications PM1080 (rev 8/23/19) 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 4:30 pm on the closing date listed above. Applications will not be accepted after this date and time. The previous application form revised 6/1/17, will be accepted until 4:30 pm on October 23, 2019.

Agency Contact: Bureau of Personnel Management, 217/782-5594

To be considered for a permanent position within IDOT, you must either be a US citizen or a non-citizen with permanent work authorization.

Only education/coursework and experience listed within the application will be considered for determining eligibility for this position.

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 is 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.

Applicants will be notified in writing to schedule interviews.

*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.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	July 16, 2019	WORKING TITLE:	Area Mixtures Control Supervisor
POSITION CLASSIFICATION:	Civil Engineer IV	OFFICE/BUREAU:	OHPI/Bureau of Materials
POSITION NUMBER:	PW114-23-51-703-00-01	REGION/DISTRICT:	Region One/District One

Position Purpose

This position is accountable for directing and coordinating, within a designated geographical area, all the activities related to the production, testing and reporting of all Portland Cement Concrete (PCC) and Hot Mix Asphalt (HMA) mixtures to ensure compliance with the Standard Specifications and all applicable contract special provisions; the review of contract plans and documents; and the review and approval of annual Quality Control/Quality Assurance (QC/QA) plans, contract specific Quality Control (QC) plans, and addendums. This position also acts as the department's liaison with local agencies regarding mixture design verification, inspection and testing within the designated geographical area.

Dimensions

Subordinate Personnel:	19 Direct; 1 – 3 Seasonally
Number of Project Annually:	25 – 100
Annual Value of Mixtures:	\$50M – \$100M
Number of Plants:	9 – 17 HMA; 25 – 35 Concrete
Number of Consultants/Testing Agencies:	10 – 30

Nature and Scope

This position reports to the Mixtures Control Engineer. Reporting to this position are the Mixture Quality Assistance Engineers and the Bituminous & Concrete Quality Assurance Technicians. Additionally, this position may have seasonally assigned personnel.

Due to the district's high and unique traffic demands, there is a need to research and produce a variety of mixtures to provide safe and skid resistant pavements such as Stone Matrix Asphalt (SMA), Polymerized Hot Mix Asphalt (HMA), and High-Performance Concrete Mixtures to accommodate the high volume of traffic. There is a need to use locally available by-product materials to decrease the demand for scarce materials. This position is responsible for recommending equipment, materials, mixtures and lay-down processes to make this possible. The use of Phase III consultants on large rehabilitation establishes a unique need for the incumbent to review consultant material inspections, equipment and personnel performance to ensure that acceptable Portland Cement Concrete (PCC) and HMA mixtures are produced, placed, and reported. This position is responsible for the review and approval of annual Quality Control (QC) Plans and addendums. It coordinates the annual inspection and approval of consultant and supplier Quality Control/Quality Assurance (QC/QA) laboratories. The incumbent will evaluate and approve all PCC and HMA mix designs as well as review contract plans and documents to ensure that the PCC and HMA mixtures specified are adequate and in compliance with policies and procedures.

Typical problems encountered in this position include maintaining calibration list of PCC and HMA plants; determining the maximum capacity of plant operation; determining methods of testing new materials, processes, or equipment; evaluating HMA and PCC mix designs to determine the need for possible changes based on strength and durability for various contracts; ensuring the adequacy of consultant testing equipment

and consultant personnel engaged in materials testing, inspection, and reporting; and ensuring that the material inspection and testing by Phase III consultants is properly reported and documented. The greatest challenge to this position is developing mixture designs to accommodate unusual project demands for optimum pavement durability and skid resistant properties.

This position personally schedules subordinates' work assignments; trains and advises assigned state and consultant personnel; reviews, tests, and evaluates new processes, materials, and equipment; reviews reports regarding materials and equipment inspections, rolling patterns, and nuclear density testing for completeness and accuracy; surveys material plants and records types of equipment used to ensure state requirements are met; reviews plans and contract documents; attends pre-construction conferences and progress meetings; investigates pavement failures for possible mixture or mixture design errors; oversees plant calibrations and determines maximum capacity for operation; designs PCC and HMA mixtures to adapt to unusual project demands; reviews and approves contractor mix designs.

The incumbent accomplishes his/her accountabilities through the following personnel:

- Mixture Quality Assistance Engineer : is responsible for monitoring QC testing; performing QA testing to compare with and validate all QC testing and results at plant sites; conducting, coordinating, and approving density testing and rolling patterns for HMA mixtures to validate QC test results and ensure compliance with appropriate specifications and special provisions; and assisting in the review of mix designs, reporting, QC plans, and addendums.
- Bituminous & Concrete Quality Assurance Technician : is responsible for monitoring QC testing; performing QA testing to compare and validate all QC testing and results at plant sites; conducting, coordinating, and approving density testing and rolling patterns for HMA mixes to validate QC test results and ensure compliance with appropriate specifications and special provisions; assisting local agencies when federal, state, and Motor Fuel Tax (MFT) funds are involved, by conducting PCC and HMA QA testing; and assisting in the review of mix designs and reporting.

The incumbent operates within guidelines included in the Standard Specifications and Special Provisions and is responsible for accurately interpreting specifications when needed. The incumbent is required to exercise considerable technical judgement in establishing methods for testing new processes, materials or equipment being considered for use in state projects.

The incumbent has frequent contact with contractor and supplier personnel; Phase III consultants; local agencies; local agency consultants; the district Bureaus of Construction, Design, Local Roads & Streets, Maintenance, Programming, Materials; and the Federal Highway Administration (FHWA). The incumbent must attend pre-construction meetings to inform the contractor and Resident Engineer of special materials requirements and specifications in the contract. Daily contact is made with consultants, material equipment suppliers, and contractors to ensure their understanding of state guidelines governing conditions of material acceptability, project compliance, and job completion. The incumbent must be familiar with the department's QC/QA Program, Aggregate Gradation Control System (AGCS) program, QC program for Pre-Cast, SuperPave procedures, and special mixture policies for implementation in projects. District and state-wide travel, as well as occasional nights and weekends are required. The incumbent is required to drive to various sites within the district and throughout the state to attend meetings and provide direction.

The effectiveness of this position can be measured by the attainment of quality mixtures, pavement life and safety which result in skid-resistant wearing capabilities of PCC and HMA pavements along with timely contract completions.

Principal Accountabilities

1. Assigns personnel to perform the required QC tests and to monitor, compare, and validate all QC tests on QC/QA projects to ensure the mixtures produced, tested, and reported are in accordance with the Standard Specifications and Special Provisions.

2. Reviews reports on material testing, inspection, and densification procedures for completeness, accuracy and compliance with the Standard Specifications and Special Provisions.
3. Reviews and approves all QC plans and addendums.
4. Reviews and approves all contractor mix designs prior to their use in projects.
5. Evaluates and calibrates HMA and PCC plants to ensure compliance with state standards.
6. Recommends uses for new processes, materials, and equipment based on test results to improve the efficiency, viability, and quality of road construction.
7. Provides for subordinate development through on-the-job instruction and recommendations of specific training activities.
8. Ensures that subordinate staff performs duties in accordance with the "Employee Safety Code" and established work practices.
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.

Subordinates of this position

Position Classification	Position Number	Working Title	Authorized Identical
Civil Engineer III	PW113-23-51-703-00-01	Mixture Quality Assistance Engineer	11
Engineering Technician IV	PW014-23-51-703-00-01	Bituminous & Concrete Quality Assurance Technician	8

Supervisor of this position

Immediate Supervisor Position Classification: Civil Engineer VI

Working Title: Mixtures Control Engineer

Position Number: PW116-23-51-703-00-01

Position Requirements

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Position Desirables

- Excellent oral and written communication skills
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Agency Approvals


Bureau Chief of Personnel Management


Secretary, Department of Transportation