



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Becky Koehler
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: September 20, 2018

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement September 25, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Thursday, October 25, 2018**. Applications will not be accepted after that time and date.

NOTE: Official college transcripts must be included with application. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application. 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.

CET (5 pos)

Squad Engineer Trainee
Region 2/District 2/Program Development
Office of Highways Project Implementation
Dixon

Attachments
43123

*IDOT considers official college transcripts to be original embossed transcripts in a sealed envelope from the university/college or in PDF format sent from the university/college directly to the Bureau of Personnel Management.

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 **Thursday, October 25, 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: Official college transcripts must be included with application. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application. 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 Trainee (5 Positions)	Salary:	\$4,275 - \$4,655*
Position Title:	Squad Engineer Trainee	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW110-23-52-303-10-01	IPR#:	43123

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation/Region 2/District 2/Bureau of Program Development/819 Depot Avenue, Dixon, IL

Description Of Duties:

This is a training position and part of a rotation program and could also be accountable for assisting in the inspection and improvements to layouts on various construction projects and with preparation of location studies, and preparation of plans for highways, lighting, bridges, landscaping, and resurfacing improvements.

This is an entry-level engineering trainee position responsible for performing detailed tasks associated with the preparation of design studies, contract plans, and specifications for highway improvement plans. Additional responsibilities may include assisting the squad with preparation of exhibits, reports, plan sheets, and documents for highway and bridge improvements.

Special Qualifications:

Required:

- Bachelor of Science in Civil Engineering from an Accreditation Board of Engineering and Technology, Inc. (ABET) accredited university prior to date of employment or must be a Licensed Engineer Intern in the state of Illinois (includes those expecting to graduate in winter 2018/spring 2019)
- Minimum 2.5 cumulative GPA in engineering related courses (If GPA is between a 2.0-2.5, candidate must have passed Fundamentals of Engineering Exam.)
- Official college transcripts must be included with application. (Official transcripts indicating graduation date for winter 2018/spring 2019 graduates must be provided at time of hire.)
- Valid driver's license

Desired:

- Strong oral and written communication skills

Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

THIS IS AN ENTRY-LEVEL POSITION AND IS PART OF A ROTATION PROGRAM.

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*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**

DATE:	September 18, 2018	POSITION:	Squad Engineer Trainee
APPROVED BY:	Kevin Marchek	OFFICE/DIVISION:	District 2 / Program Development
CODE:	PW110-23-52-303-10-01	REPORTS TO:	Squad Engineer

Position Purpose

This is a training position and part of a rotation program. Squad engineer trainee will assist with the inspection and improvements to layouts on various construction projects and with preparation of location studies. They will also help with the preparation of plans for highways, lighting, bridges, landscaping, and resurfacing improvements.

This is an entry-level engineering trainee position. This position is responsible for performing detailed tasks associated with the preparation of design studies, contract plans, and specification for highway improvement plans. Additional responsibilities may include assisting the squad with preparation of exhibits, reports, plan sheets, and documents for highway and bridge improvements.

Dimensions

Subordinates:	None
Number of Location Studies and Contracts:	3 – 5 per year
Program Value of Contracts and Studies:	\$200,000 - \$5 Million per year

Nature and Scope

This position reports to the Squad Engineer and may report to a squad leader on a project basis. No subordinate personnel report to this position.

This position performs in an environment which is sensitive to public and municipal involvement. When proposing roadway improvements, he/she must seek input from all affected parties while remaining within design control value restraints. He/she must also have knowledge of highway technology as it relates to the planning functions of construction, maintenance, and traffic operations. Travel is required to check on project details, meeting with the public at informational meetings, and making field inspections of the various projects. The incumbent of this position performs in an environment of pre-determined and accelerated deadlines. He/She also performs in an area sensitive to quantity errors, incomplete plan assembly, and inadequate design which may result in an incomplete engineer's Cost Estimate, contractors bid or delayed letting schedules.

Understanding the requirements and reasoning behind the selection of specific design standards and providing a high level of accuracy in calculations are the most typical problems encountered by this position. Additional challenges include obtaining field data and properly transferring this data to the plan in a neat, accurate and timely manner. The greatest challenges to this position are learning the processes used for selecting design standards, to learn the plan assembly process, and to accomplish assigned duties in an effective manner to ensure completion of contract plans in time for proposed lettings.

This position is responsible for proposing highway improvements compatible with state policies and within the Design Control Value. This includes layout of design alignments, developing vertical gradelines, determining preliminary design elements, and estimating quantities and costs. All these responsibilities are subject to the review and approval of his/her supervisor. This position is also responsible for the justification and documentation of the proposal through the means of a Project Studies Report. He/she acts as liaison with the public and advises the project studies sub-squad leader of any project detail which could become publicly or ecologically controversial. He/she personally computes and verifies materials and earthwork quantities, establishes horizontal and vertical elevations, and under direction of the Squad Engineer, lends design input to plans.

In accomplishing the objectives of this position, the incumbent must operate within the limits of prescribed department standards and specifications and the directions of the Squad Engineer. Any problems involving design details, quantity changes or deviations from departmental standards or policies should be referred to his/her supervisor.

Internal contacts include other sections within the Bureau of Program Development for the purpose of obtaining information relative to specific design projects and regarding right-of-way requirements. He/she has occasional contact with the Bureau of Operations for signing requirements and to obtain information regarding maintenance problems and landscaping requirements, and with the Bureau of Project Implementation for soil survey data. External contacts include local, county, and state agencies and the general public affected by the proposed designs being studied.

Performance on the job can be measured best through the quality of computations, roadway designs, and ability to learn the specifics of design report preparation, standard selection, and plan assembly.

Principal Accountabilities

1. Responsible for the preparation, completion, and processing of project studies reports that are technically feasible, cost effective, minimize adverse environmental effects, and are acceptable to the public.
2. Assists the Squad Engineer in the preparation of plans, specifications, and contract documents, while ensuring the proper design of road construction, reconstruction, and rehabilitation projects.
3. Verifies and computes plan quantities and prepares pay item quantity schedules to ensure the accuracy of plan submittals.
4. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
5. Performs other duties as required.