



Illinois Department of Transportation

Memorandum

To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: July 26, 2016

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement July 28, 2016 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Wednesday, August 10, 2016**. Applicants 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.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Jennifer Sunderland or Denise Hamilton at 217/782-5594.

ET V

Electrical Traffic Control Supervisor
Region 4/District 6/Operations
Highways Project Implementation
Springfield

Attachments
41104

Technical Applications (PM 1080) **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, August 10, 2016**, 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

Classification:	Engineering Technician V	Salary Range:	\$5,015 - \$9,155
Position Title:	Electrical Traffic Control Supervisor	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW015-23-56-506-20-01	IPR#:	41104

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / District 6 / Bureau of Operations / 2713 Stevenson Dr, Springfield, IL

Description Of Duties:

This position is responsible for the design, construction and maintenance of highly technical traffic control components, including software and electrical equipment, and their integration with the geometric design.

Special Qualifications:

The following is desired:

- Knowledge and skill equivalent to the completion of three years of college with the major courses of study being in pre-engineering, completion of a two-year program in civil engineering technology or a four-year degree in a scientific other than engineering.
- Twelve years of engineering technician experience under the direction of a professional engineer or equivalent with a minimum of three years in a supervisory position
- Strong oral and/or written communication skills

Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

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

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	December 2015	POSITION:	Electrical Traffic Control Supervisor
APPROVED BY:	<i>Roger Driskell</i>	OFFICE/DIVISION:	Highways/Region 4/District 6 Operations
CODE:	PW015-23-56-506-20-01	REPORTS TO:	Design & Planning Engineer

Position Purpose

This position is accountable for the design, construction and maintenance of highly technical traffic control components, including software and electrical equipment, and their integration with the geometric design.

Dimensions

Subordinate Personnel:	6 direct
Traffic Signal Installations:	295, 35 systems
Highway and Sign Lighting Units:	3000
Flashing Beacon Installations:	130
Annual Contract Budget:	\$2.0 million
Value of Electrical Devices Maintained:	\$28.3 million

Nature and Scope

This position reports to the Plans and Design Engineer as does the Plans and Contracts Supervisor and the Permit Supervisor. The Electrical Maintenance Technician, Traffic Signal Systems Engineer, Associate Traffic Signal Systems Engineer and the Assistant Traffic Signal System Engineer report to this position.

This position is unique in that the incumbent provides the District with a centralized source of innovative technical expertise regarding electrical and electronic devices. This position functions in a highly technical environment in which there is no centralized departmental expertise and must continually learn the most recent technical developments in system electronics. The incumbent must represent the Department in matters concerning the frequent legal implications inherent when the public is provided a traffic control system. The incumbent ensures proper fail-safe protection for complex interconnected signal systems throughout the various counties within the district and ensures compliance with state and federal regulations for traffic/railroad interconnected signal systems. The position serves as an expert witness and must be able to explain the design and operation of what is frequently extremely sophisticated traffic control systems.

Typical problems solved by this position include evaluating new Intelligent Transportation Systems (ITS) products and determining their potential application to departmental needs; identifying the highest priority locations for traffic signal system modernization; performing needs studies and applying cost benefit analysis; analyzing traffic data, existing and proposed intersection geometrics to determine the best traffic control layout; and solving traffic control problems for local agencies, consultants and contractors. The greatest challenge to this position is to understand the technical capacity of both existing and new high tech traffic control devices and to integrate this equipment into a single system that produces the most efficient traffic control plan.

This position is personally accountable for reviewing all intersection design studies and construction plans for compliance with policies and procedures. The incumbent is required to initiate, review and complete preliminary and final designs of traffic signals, including system timing, highway and sign lighting units and flashing beacon installations; provide technical expertise to the local agencies, consultants and contractors; review all local agency electrical projects for compliance with applicable federal and state regulations and

specifications; provide technical expertise to Program Implementation at pre-construction conferences, approve all traffic signal materials, and perform final inspection and acceptance of these installations and systems; develop, coordinate and monitor special and experimental devices and systems; review and evaluate existing control devices for possible modernization and develops and coordinates various traffic signal and SCAT programs. The incumbent is required to supervise and implement the programming of the traffic signal controller and interconnect system timing plans of the various systems in the District, conduct traffic flow studies and capacity analysis on existing and proposed signal projects to ascertain the optimum timing sequences and, conduct traffic studies which aid in the design and operation of existing or proposed traffic signal systems.

The incumbent is directly responsible for the effective use of contractual services and commodity monies for the repair, maintenance and improvement of the District's electrical devices. The incumbent personally prepares the annual electrical operations budget and monitors these expenditures on a monthly basis. The position is also responsible for the execution of Master Agreements with numerous municipalities within the District.

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

Electrical Maintenance Technician - who is responsible for the day-to-day maintenance of traffic control devices.

Traffic Signal Systems Engineer - who is accountable for the safety, signal design and efficient operation of all the district's traffic signal system and interconnections.

Associate Traffic Signal Systems Engineer – who assists in the coordination and timing of moderately complex traffic signal systems.

Assistant Traffic Signal Systems Engineer – who assists in the coordination and timing of simple to moderately complex traffic signal systems.

This position requires a thorough knowledge of the application of sound traffic engineering principles; the theory and operation of traffic signals and lighting systems; the Illinois Department of Transportation's design policy; the Manual of Uniform Traffic Control Devices; the National Electrical Code; current NEMA standards; micro-processor technology; digital circuits and familiarity with general electrical components.

The incumbent exercises very wide latitude (as there is no centralized departmental expertise) in the development and operation of all proposed and existing traffic control devices, lighting systems, flashing beacon installations, and ITS systems. Problems such as complaints or contacts from elected officials and the general public are referred to the supervisor along with a suggested response.

Internally, the incumbent maintains daily contact with Programming, Studies and Plans, construction, materials and Administrative Services personnel. S/He is in frequent contact with other Bureaus regarding future improvements, design and construction standards, and Central Bureaus of Operations and Design and Environment on policies and procedures. Outside the organization s/he has daily contact with county and municipal units, consulting engineer groups, electrical contractors, utility companies, manufacturers, Federal Highway Administration (FHWA), Federal Railroad Administration (FRA) and the general public.

The incumbent is evaluated by the quality of the design, construction and maintenance of highly Technical Traffic Control components including software, intersection geometrics and electrical equipment.

Principal Accountabilities

1. Design and review electrical traffic control device plans to meet letting schedules.
2. Test, inspect and program new equipment and installations.
3. Develop and implement an electrical equipment maintenance and reprogramming schedule.
4. Perform emergency repairs to electronic equipment and computer programs as necessary.
5. Serves as an advisor on the ITS for the District, the Department, contractors, consultants and local governmental agencies.
6. Keep abreast of the latest ITS and software technology in traffic signals and lighting equipment to provide the highest level of service possible in the safest and most cost-effective manner.
7. Train, motivate and evaluate subordinates and ensure their compliance with all departmental safety rules, practices and procedures.
8. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
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.