

Job Title: CIVIL ENGINEER IV-TRAFFIC DESIGN ENGINEER - IPR#45289

Agency: Department of Transportation

Closing Date/Time: 12/02/2021

Salary: \$5,920 - \$9,230 Monthly

Job Type: Salaried Full Time

County: Cook

Number of Vacancies: 1

Plan/BU: NR916

“Interested applicants must apply for this position on the Work for Illinois website, www.work.illinois.gov. Please direct any questions to the Agency Contact listed below.”

This position is a union position; therefore, provisions of the relevant collective bargaining agreement/labor contract apply to the filling of this position.

All applicants who want to be considered for this position MUST apply electronically through SuccessFactors. Applications submitted via email or any paper manner (mail, fax, hand delivery) will not be considered.

***This position is covered by the Revolving Door Prohibition Policy.**

Agency Mission Statement

The Illinois Department of Transportation is seeking to hire a Traffic Design Engineer.

The IDOT team works diligently to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity and protect our environment. We are problem solvers and leaders, constantly searching for innovations and improvements in support of our commitment to providing the best multimodal transportation system for Illinois.

Our team fosters a culture of inclusivity. We value diversity and hold ourselves to the highest ethical standards as we work together for a common purpose. Team members frequently collaborate with colleagues and others outside the department to best meet customer needs.

Employees enjoy excellent benefits, including health, vision and dental insurance; a retirement plan and deferred compensation options; state holidays and other time off; tuition reimbursement; flexible schedules; and pre-tax benefit programs. The department also offers extensive training and career advancement opportunities.

We invite qualified applicants to apply to become part of our team. We are confident that you will take pride in serving Illinois and its residents and visitors.

Job Responsibilities

This position is accountable for directing and coordinating all activities related to the design, plan preparation and review of all traffic control devices including signing, pavement marking, signals, railroad interconnects, Congestion Mitigation and Air Quality Improvement (CMAQ) and Highway Safety Improvement Program (HSIP) through the application of appropriate engineering principles to improve the safety and capacity of the state highway system.

This position reports to the Traffic Programs Engineer. Reporting to this position are the Traffic Design Squad Engineers, the Traffic Signal Plan Review Technicians, and the Traffic Design Technicians.

The physical characteristics of the district involving as they do urban, suburban and rural features constitute an unusual challenge to the effective design of traffic control devices. Because the district is highly urbanized, its highway system is interlocked with a complicated network of tollway and local government highways and streets. With this urbanization there has developed a condition where forty-seven billion vehicle miles are traveled annually on the district's highway system. This constitutes a constant potential for traffic disruption and endangers traffic safety. The declining availability of right-of-way increases the importance of the operational aspects of traffic control and poses unusual problems in the design of effective traffic control devices that improve highway safety and capacity. The availability of increasingly sophisticated technology, particularly in the areas of signal system control hardware, communications, and the use of computers in signal design (including such programs as MicroStation CADD Work Station, Syncro, HCM and others) increase possible options

and complicates the task of application to present and anticipated traffic conditions. Based on constantly changing equipment technology, the incumbent reviews design policies and specifications to provide timely updates for proven and beneficial concepts to be included in future design contracts.

This position coordinates the activities of three designs quads and several outside consulting firms in preparing and/or reviewing plans, specifications and estimates for low cost traffic improvements, traffic signal improvements, interstate highway or freeway signing improvements, thermoplastic pavement markings, and raised pavement markings; evaluating various traffic control devices that might be used in specific situations; ascertaining the appropriate traffic engineering design criteria that are applicable to specific projects and resolving questions regarding interpretation and applicability of specifications; coordinating work of subordinates, consultants and Computer Aided Design and Drafting (CADD) personnel so as to meet established schedules; projecting scope of work so as to ensure the demands of site traffic flow are met; and integrating traffic control plans into general project improvement plans.

(Job Responsibilities continued)

Major roadway projects cannot afford to be delayed due to necessary field revisions caused by various problems, such as, unforeseen underground conflicts, additions to the scope of the contract or consultant design errors. The incumbent will work closely with the resident engineer and project manager and, through his/her staff, provide advice and recommend solutions to these problems. The incumbent, through his/her staff, reviews all proposed equipment submittals/catalog cuts for construction projects on District One roadways. Any discrepancies in equipment to be supplied must be settled in a timely manner. The greatest challenge to this position is to provide for the appropriate application of the principles of traffic engineering, and an increasingly sophisticated communications and computer technology to the design of traffic control improvement projects.

The incumbent personally plans and schedules work; provides technical direction to subordinate staff on unusual problems of design and preparation of contract documents, and designs more complex projects using the CADD system; implements and establishes policy and procedures for the standardization of design; provides a central record and filing system for the storage, preservation and recording of all contract documents; assigns work to the state's traffic signal design consultants and monitors progress; reviews corridor, location and geometric design studies; provides preliminary cost estimates for projects under consideration for inclusion in future programs; and establishes the target letting dates for all assigned projects based upon an analysis of manpower and workload. The incumbent for this position must have good communicative skills to deal with consulting firms, contracting engineers, municipal engineers and the general public. Numerous field meetings are required which mandates the ability to drive a state vehicle in order to perform these functions.

The incumbent accomplishes these accountabilities through the following staff:

- Traffic Design Squad Engineer: is responsible for difficult professional assignments in the preparation and design of contract documents for low cost traffic improvements, traffic signal improvements, traffic signal systems and highway or freeway signing improvements including pavement marking projects.
- Traffic Plan Review Technician: is responsible for reviewing all permit and traffic control equipment contract plans, specifications, and cost estimates.

The incumbent applies principles of traffic engineering and establishes project costs in accordance with established policies, but sound judgment and independent decisions must be exercised in the preparation of contract documents and the design for all types of traffic improvements. The incumbent is expected to develop revisions in project scope or cost where required by operating needs of the project site.

(Job Responsibilities continued)

Within the department, the incumbent is required to establish and maintain contact with the Engineer of Bridge and Traffic Structures in the central Bureau of Design & Environment concerning technical aspects of the design in Interstate highway or freeway signing structures, and the district Bureaus of

Design and Construction on proper contract preparation procedures. Contacts outside the department include Commonwealth Edison Company concerning power service to traffic signals, traffic signal and signing consultants, and the Federal Highway Administration (FHWA) in describing project limits and requirements and in obtaining project approval.

The effectiveness of this position is measured by the prompt and accurate preparation and/or review of contract documents of meet target letting dates with minimum engineering costs.

Principal Accountabilities

1. Ensures all signal and traffic plans on District One roadways are accurately designed in accordance with appropriate design principles and equipment specifications.
2. Ensures that all Bureau of Traffic Operations designs are completed in time to meet established letting dates.
3. Ensures all consultant, county, local, and private contracts are reviewed on time to meet established lettings.
4. Ensures systematic reviews of design policies and new products and incorporates proven and beneficial concepts into future designs.
5. Ensures all traffic signal material and equipment is approved for all construction projects involving District One roadways in a timely fashion.
6. Ensures technical advice to communities and consultants concerning signal design and operation.
7. Provides direction and training to Traffic Design staff.
8. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
9. Performs other duties as assigned.

Qualifications

Position Requirements

- Education/Experience
 - Current registration as a licensed Professional Engineer in the state of Illinois
 - Four years of experience in civil engineering
- A valid driver's license
- District-wide travel to conduct site visits; state-wide travel to attend conferences, trainings, and meetings
- Ability to traverse uneven terrain

Position Desirables

- Working knowledge of preparing plans and specifications and supervising traffic or highway engineering
- Ability to manage technical staff
- Ability to interpret and enforce federal, state, local, and departmental policies
- Strong oral and written communication skills

Work Hours: 8:00 AM - 4:15 PM Monday-Friday (45-minute lunch)

Work Location: 201 Center Ct Schaumburg, IL 60196-3169

Office: Office of Highways Project Implementation/Region 1/District 1/Bureau of Traffic

Agency Contact: DOT.CO.BPM.EmploymentApplications@Illinois.gov

Job Function: Transportation

APPLICATION INSTRUCTIONS

Use the "Apply" button at the top right or bottom right of this posting to begin the application process.

If you are not already signed in, you will be prompted to do so.

State employees should sign in to the career portal for State of Illinois employees – a link is available at the top left of the work.Illinois.gov homepage in the blue ribbon.

Non-State employees should log in on the using the "View Profile" link in the top right of the work.Illinois.gov homepage in the blue ribbon. If you have never before signed in, you will be prompted to create an account.

If you have questions about how to apply, please see the following resources:

State employees: Log in to the career portal for State employees[KS(1)] and review the Internal Candidate Application Job Aid HERE[KS(2)]

Non-State employees: on work.Illinois.gov – click “Application Procedures” in the footer of every page of the website.