



**Code: 6255**

Family: Technical Engineering

Service: Operation and Construction

Group: Engineering, Designing, and Structural

Series: Traffic Engineering

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## **CLASS TITLE: TRAFFIC ENGINEER V**

### **CHARACTERISTICS OF THE CLASS**

Under general supervision, supervises construction and renovation projects related to the design of streets and roads and the regulation and flow of traffic, and performs related duties as required

### **ESSENTIAL DUTIES**

- Serves as a project engineer responsible for supervising and participating in the conduct of field surveys on arterial streets to collect data on traffic patterns, volume, speed, capacity, accidents, and parking
- Analyzes survey data and recommends the installation of traffic control devices, including traffic signals, stop signs, crossing areas, and directional arrows
- Designs complex timing sequences using computer software and reviews and approves designs prepared by staff
- Prepares, reviews, and approves engineering plans for new streets, traffic signal timing, and traffic control devices prepared by staff and/or consultant engineering firms
- Reviews plans prepared by consultant engineering firms to ensure compliance with established design standards and specifications, sound engineering principles, and City ordinances, and makes changes as required
- Oversees the monitoring of engineering contractors, ensuring work is completed according to contract specifications
- Assigns, monitors, and participates in investigations of traffic complaints and implements procedures to eliminate problems found
- Coordinates traffic signal installation projects with other City departments and utilities
- Confers with contractors on plan changes and contract modifications and assists in resolving problems that arise during construction
- Acts as a liaison between the department and other government agencies (e.g., Illinois Department of Transportation, Federal Highway Administration, Chicago Transportation Authority, Bureau of Electricity) to coordinate traffic engineering projects
- Represents the department to community groups
- Prepares grant applications to secure project funding

**NOTE:** *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

### **MINIMUM QUALIFICATIONS**

#### **Education, Training, and Experience**

- Graduation from an accredited college or university with a Bachelor's degree in Engineering, supplemented by four years of traffic engineering experience of which one year is in a supervisory role related to the responsibilities of the position; or an equivalent combination of education, training and experience provided that the minimum degree requirement is met

**Licensure, Certification, or Other Qualifications**

- Registration as a Professional Engineer (R.P.E.) in the State of Illinois is required
- A valid State of Illinois driver's license is required
- Must have the permanent use of an automobile that is properly insured, including a clause specifically insuring the City of Chicago from accident liability

**WORKING CONDITIONS**

- General office environment
- Exposure to outdoor weather conditions

**EQUIPMENT**

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Computers and peripheral equipment (e.g., personal computer, computer terminals, hand-held computer, modems)
- Personal protective equipment (e.g., hard hat, shoes, glasses, gloves)
- Scientific calculators
- Field surveying equipment
- Computer Assisted Design and Drafting (CAD or CADD) equipment

**PHYSICAL REQUIREMENTS**

- Ability to stand for extended or continuous periods of time

**KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS**

**Knowledge**

Advanced knowledge of:

- \*applicable traffic engineering design theories, principles, methods, and practices
- \* applicable computer software packages and applications, including computer assisted design software
- \*use of surveying and drafting instruments

Considerable knowledge of:

- City, state, and federal regulations affecting transportation projects
- applicable safety principles, methods, practices, and procedures

Moderate knowledge of:

- applicable civil and transportation engineering methods, theories, principles, and procedures

Some knowledge of:

- \*supervisory methods, practices, and procedures
- budgetary preparation and planning

Knowledge of applicable City and department policies, procedures, rules, regulations, and ordinances

Other knowledge as required for successful performance in the Traffic Engineering IV class

### **Skills**

- \*ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- \*ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- \*CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- \*MATHEMATICS - Use mathematics to solve problems
- \*MONITORING - Monitor and assess performance of one's self, other individuals, or organizations to make improvements or take corrective action
- \*COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- TIME MANAGEMENT - Manage one's own time and the time of others
- \*COORDINATION WITH OTHERS - Adjust actions in relation to others' actions

Other skills as required for successful performance in the Traffic Engineering IV class

### **Abilities**

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- WRITE - Communicate information and ideas in writing so others will understand
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- REASON MATHEMATICALLY - Choose the right mathematical methods or formulas to solve a problem
- VISUALIZE - Imagine how something will look after it is moved around or when its parts are moved or rearranged

Other abilities as required for successful performance in the Traffic Engineering IV class

### **Other Work Requirements**

- INITIATIVE - Demonstrate willingness to take on job challenges
- LEADERSHIP - Demonstrate willingness to lead, take charge, and offer opinions and direction
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems

Other characteristics as required for successful performance in the Traffic Engineering IV class

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All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

\* May be required at entry.

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City of Chicago  
Department of Human Resources  
(Valtera Corporation)

Date: June, 2010