



Code: 6254

Family: Technical Engineering

Service: Operation and Construction

Group: Engineering, Designing, and Structural

Series: Traffic Engineering

CLASS TITLE: TRAFFIC ENGINEER IV

CHARACTERISTICS OF THE CLASS

Under general supervision, performs and provides oversight in the conduct of professional traffic engineering work related to the design of streets and roads and the regulation and flow of traffic, and performs related duties as required

ESSENTIAL DUTIES

- Conducts field surveys on arterial streets to collect data on traffic patterns, volume, speed, capacity, accidents, parking and makes recommendations for modifications (e.g., install new guardrails, impact attenuators, bollards, sand barrels)
- 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 determines location and configuration of proposed signal installations
- Prepares engineering plans for new streets, traffic signal timing, and traffic control devices
- Drafts project work plans, specifications, and estimates for labor, material, and equipment costs for traffic projects
- 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
- Reviews roadway permit requests for construction, media and special events, parades, bridge repairs, and streetscaping activities to determine impact on traffic and safety and recommends measures to ensure minimal disruption and traffic flow efficiency
- Monitors the work of engineering contractors, ensuring work is completed according to contract specifications
- Reviews vouchers submitted by engineering and construction firms, ensuring payment requests reflect completed work
- Investigates traffic complaints, conducts studies, and makes recommendations to eliminate problems found
- Coordinates traffic signal installation projects with other City departments, agencies and utilities (e.g., Chicago Transit Authority, Chicago Police Department)
- Confers with contractors on plan changes and contract modifications and assists in resolving problems that arise during construction
- Maintains project activity journal and prepares engineering reports on the status of projects.
- Monitors the work of field crews installing traffic signs and pavement markings to ensure proper installation
- Assists in training and providing guidance to lower level staff

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, plus two years of traffic engineering experience; or an equivalent combination of education, training and experience provided that the minimum degree requirement is met

Licensure, Certification, or Other Qualifications

- 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, scanner)
- Personal protective equipment (e.g., hard hat, safety vest, glasses, gloves)
- Scientific calculators
- Field surveying equipment
- Computer Assisted Design and Drafting (CAD or CADD) equipment

PHYSICAL REQUIREMENTS

- Ability to stand and walk for extended or continuous periods of time

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Considerable knowledge of:

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

Moderate knowledge of:

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

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

Other knowledge as required for successful performance in the Traffic Engineer class series

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
- COMPLEX PROBLEM SOLVING – Identify complex problems and review related information to develop and evaluate options and implement solutions

Other skills as required for successful performance in the Traffic Engineer class series

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 Engineer class series

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- 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 use logic to address work or job issues and problems

Other characteristics as required for successful performance in the Traffic Engineer class series

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.

City of Chicago
Department of Human Resources
June, 2010