



Code: 8879
Family: Public Safety
Service: Public Safety
Group: Fire Service
Series: Fire Prevention

CLASS TITLE: CHIEF FIRE PREVENTION ENGINEER

CHARACTERISTICS OF THE CLASS

Under the direction, functions as a technical advisor and subject matter expert in fire protection engineering to assure compliance with fire prevention/protection codes and life safety ordinances and regulations, and performs related duties as required

ESSENTIAL DUTIES

- Reviews and approves construction/structural plans (new and existing structures) and engineering specifications to ensure plans and proposed fire protection systems are in compliance with the fire prevention, fire protection, and fire/life safety requirements of the Municipal Fire Codes
- Provides technical engineering expertise and code consulting/analysis to departmental staff, developers, architects, and contractors on the interpretation and application of the Municipal Fire Codes
- Evaluates alternatives and solutions to unusually difficult fire code interpretations and provides recommendations to developers, architects, and contractors to obtain code compliance
- Audits plans approved by internal and external plan examiners to ensure compliance with Municipal Fire Codes
- Reviews and recommends amendments to the Municipal Fire Codes
- Represents the department in meetings, conferences, technical seminars, and public meetings to provide input on the City's regulation of building construction through the provisions and requirements of the Municipal Fire Codes
- Stays abreast of emerging fire protection trends and best practices to ensure Municipal Fire Codes and Life Safety Ordinances are current and recommends changes to department policies and procedures
- Conducts site reviews of new projects/developments to ensure adequate water supply, water distribution systems, fire hydrant availability, and emergency access
- Conducts on-site reviews of completed construction projects to test fire alarm equipment for proper operation prior to building occupancy
- Reviews and approves fire suppression system plans for all Mobile Food Vehicles (Food Trucks)
- Coordinates with the Department of Water Management to determine the placement and removal of city fire hydrants
- Responds to all correspondence related to plan reviews Municipal Fire Codes
- Assists with specialized and complex inspections/reviews, as needed
- Prepares various management, technical, and ad hoc reports

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 Fire Protection, Mechanical Engineering or a directly related area of Engineering, plus five (5) years of fire protection engineering work experience, **OR**
- Graduation from an accredited college or university with a Master's degree or higher in Fire Protection, Mechanical Engineering or a directly related area of Engineering, plus four (4) years of fire protection engineering work experience

Licensure, Certification, or Other Qualifications

- A valid State of Illinois driver's license is required
- Registration as a Professional Engineer (P.E.) in the State of Illinois is required. At the time of employment, must have obtained Registration as a Professional Engineer in the State of Illinois.

WORKING CONDITIONS

- General office environment
- Exposure to hazardous conditions (e.g., active construction sites)

EQUIPMENT

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator, adding machine)
- Computers and peripheral equipment (e.g., personal computer, computer terminals, hand-held computer, AutoCAD)

PHYSICAL REQUIREMENTS

- Ability to climb staircases, ladders, and/or step stools
- Ability to access multi-level structures and other spaces

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

Comprehensive knowledge of:

- *International Fire and Building Codes (IFC & IBC)
- *National Fire Protection Association (NFPA) codes and standards
- City of Chicago Life Safety Ordinance
- *codes, standards, and ordinances related to fire prevention and fire suppression systems, including the Chicago Building Code and Chicago Fire Code
- *fire protection engineering principles, practices, and procedures
- *mechanical engineering principles, practices, and procedures
- *reading and interpreting construction plans, engineering specifications, and architectural drawings

Moderate knowledge of:

- *building materials used in design and construction

- management and supervisory methods, practices, and principles
- permit and licensing applications and fees
- *methods, practices, and procedures related to survey of plats and deed restrictions
- *project management methods, practices, and procedures
- *report preparation methods, practices, and procedures
- applicable computer software and applications (i.e., MS Office, AutoCAD)

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

Skills

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE ENGAGEMENT - Give full attention to what other people are communicating, 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
- JUDGEMENT AND DECISION MAKING - Consider the relative costs and benefits of potential actions to choose the most appropriate one
- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- MONITORING - Monitor and assess performance of one's self, other individuals, or organizations to make improvements or take corrective action
- INSTRUCTING - Teach others how to do something

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
- CONCENTRATE - Concentrate on a task over a period of time without being distracted
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

Other Work Requirements

- PERSISTENCE - Persist in the face of obstacles on the job
- INITIATIVE - Demonstrate willingness to take on job challenges

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- 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
 - INNOVATION - Think creatively about alternatives to come up with new ideas for and answers to work-related problems
 - ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems
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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.

City of Chicago
Department of Human Resources
May, 2021; April, 2025