

Civil Engineer I

Reports to: Assistant City Engineer/Senior Civil Engineer

FLSA Status: Exempt

Grade: M

Department: Public Works

Summary: The Civil Engineer I position is an entry-level Civil Engineering position. This position is distinguished from the Civil Engineer II and Senior Civil Engineer levels by the performance of the more routine tasks and duties assigned. Since this position is typically used as a training position, employees may have only limited or no directly related work experience. The incumbent performs beginning level professional engineering work which involves responsibility for coordinating projects of limited scope in the Engineering Division. Assignments require the application of basic professional knowledge and skills to various public works engineering matters. Work is performed under the guidance of a higher-level professional engineer who reviews work procedures and results. The Civil Engineer I reviews and examines submittals prepared by outside consultants or contractors. The position is responsible for assisting contractors, developers, builders, citizens, other departments, and oversees at a general level the work of contractors on construction jobs.

Essential Functions: This list may not include all tasks and/or knowledge which may be expected of the employee, nor does it cover all specific duties which may be required. Other duties may be assigned.

Utilizes principles and practices of civil engineering, including the areas of transportation, traffic, and environmental engineering to research, conduct field work, design, and work with consultants in the preparation of plans, designs, details, specifications, cost estimates, environmental documentation, and various reports for the construction, maintenance, and operation of projects.

Receives, reviews, and examines construction drawings, specifications, and shop drawings prepared by outside consultants or contractors, consults with other departments or agencies, meets, and corresponds with consultants, contractors, and others to resolve problems.

Designs construction plans, cost estimates, right of way plats, Geographic Information System (GIS) maps, and specifications for capital improvement projects, i.e., streets, sewers, watermains, detention basins, traffic signals and other miscellaneous public infrastructure.

Researches all required data for plan completion and integrates data pertaining to the project in hand.

Guides work of part-time Engineering Division staff engaged in tasks related to assigned projects in a team environment.

Familiar with the rules and standards associated with various funding alternatives such as motor fuel tax funds, federal urban aid funds, etc.

Assists the public in retrieving information from City records maintained by the department. Answers questions and complaints from the public on such topics as City infrastructure, traffic conditions, drainage, City Codes and policies, etc.

General Skill Levels:

Knowledge of:

- Modern principles and practices of civil engineering, including the areas of transportation, traffic, and environmental engineering.
- Hydraulics, water supply, wastewater engineering, and drainage.

- Highway standards and specifications used in public works projects applied to municipal type civil engineering projects.
- Principles and practices of land surveying and mapping.
- Operating standards of a variety of equipment used in civil engineering.

Skills in:

- Applying the principles of civil engineering to assigned work.
- Planning, designing, detailing, and modifying engineering documents.
- Reviewing and analyzing engineering projects.
- Communicating effectively, clearly, concisely, and professionally in writing and verbally with other employees, engineers, contractors, outside agencies and members of the general public.
- Applying civil engineering mathematical calculations as appropriate to this position.
- Using field survey instruments.

Ability to:

- Make responsible decisions in accordance with applicable laws, established policies and procedures.
- Share responsibility with others as appropriate.
- Communicate technical information and instructions effectively, in both written and verbal presentations.
- Use word processing, spreadsheet, e-mail, database, and computer-aided design (CAD) software and the Internet.
- Organize, analyze, interpret, and evaluate engineering problems and provide practical, cost-effective solutions.
- Use graphic instructions, such as blueprints, schematic drawings, layouts, or other visual aids.
- Make engineering computations quickly and accurately.
- Detect and locate defective workmanship and materials during various phases of completion.
- Work effectively and cooperatively with others and monitor contractors.
- Prepare construction drawings, Geographical Information System (GIS) maps, specifications, and shop drawings.
- Manage work to conform to project scope, schedule, and budget.
- Adapt to changing situations and/or priorities.
- Visually assess work products in an office setting and in the field.
- Work with confidential information.
- Follow City policies and procedures.
- Perform other related duties as assigned.

Education/Experience:

- Required: Bachelor of Science degree in Civil Engineering or related engineering field from an Accredited Board of Technology, Inc. (ABET)/Engineering Accreditation Commission (EAC) accredited program. A degree in Agriculture, General or Systems Engineering may be considered depending on the courses taken and major emphasis.
- Preferred: Previous internship or cooperative education experience in municipal, county, state, or federal engineering or engineering consulting.

Certificates and Licenses:

- Possess or obtain a valid State of Illinois Class D driver's license within fifteen (15) days of employment.
- Successful completion of Fundamentals of Engineering examination and registration as an Engineering Intern in the State of Illinois or in another state with the ability to reciprocate with Illinois within six months of beginning employment.

Physical Requirements/Working Conditions: Reasonable accommodations may be available to assist individuals with disabilities to perform the essential functions of the position.

Work is performed in both office and field environments. Requires traveling to other locations for meetings and attending meetings outside of normal work hours. Work includes visually inspecting work products in office and field settings. The physical demands on this position may include lifting and manipulation of heavy objects, primarily for demonstration and training, but in most cases physical activity is of an oversight nature. Oversight activities may take place in dusty, moist, or humid conditions and in a range of outdoor temperatures.

Equal Employment Opportunity

We value diversity and the many contributions that are made to our City by people from all walks of life. Therefore, it is our policy not to discriminate against any employee or applicant for employment because of race, color, religion, age, sex, sexual orientation, national origin, disability or any other attribute or characteristic protected by law.

ADAAA

It is the policy of the City to comply with all federal and state laws concerning employment of persons with disabilities and act in accordance with regulations and guidance issued by the Equal Employment Opportunity Commission (EEOC). Furthermore, it is the policy of the City not to discriminate against qualified individuals with disabilities regarding application procedure, hiring, advancement, discharge, compensation, training or other terms, conditions, and privileges of employment. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of this position.