

Civil Engineer II

Reports to: Assistant City Engineer/Senior Civil Engineer
FLSA Status: Exempt
Grade: N
Department: Public Works

Summary: The Civil Engineer II position is the full journey level position within the Civil Engineer series. This position is distinguished from the Civil Engineer I by the performance of the full range of duties as assigned. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the Department. This position is normally filled by advancement from the Civil Engineer I level, or when filled from the outside and have prior experience. The Civil Engineer II performs program management assignments demanding considerable knowledge of various aspects of engineering, related computer software, and survey instruments. Projects include but are not limited to land development, planning, design standards and regulations, streets and street improvements, traffic, storm drainage facilities, sanitary sewer facilities, municipal facilities, bridges, retaining walls, grading and drainage, review and processing of private development plans and development actions, and construction and maintenance.

The Civil Engineer II performs complex engineering tasks independent of close guidance, takes the role of project engineer for large multifaceted capital improvements from planning, through design, bidding, and construction phases. The Civil Engineer II reviews and examines construction drawings, specifications, and shop drawings prepared by outside consultants, determines feasibility, and prepares various reports pertaining to design of City infrastructure. The position is also responsible for assisting contractors, developers, builders, other departments, and other citizens needing assistance on projects, assigns tasks to engineering technicians and oversees at a general level the work of contractors on large 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, examines, and prepares design projects, construction drawings, specifications, and shop drawings; consults with other departments or agencies, and coordinates with consultants, contractors, and others to resolve problems.

Evaluates, prepares planning alternatives, and designs construction plans, Geographical Information System (GIS) maps, cost estimates, right of way plats, and specifications for capital improvement projects, i.e., streets, sewers and sewer facilities, water mains, 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.

Communicates technical and non-technical information clearly and effectively, both orally and in writing, with other City staff, public officials, external entities, external professionals, and the public.

Monitors and evaluates work of the Engineering Technicians and part-time Engineering Division staff while serving as a technical resource, coach, mentor, and trainer to other staff members.

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

Handles request for information, service or complaints over the phone, via electronic or regular mail and in person, or makes referrals to appropriate staff in a concerned manner that reflects effort to be helpful while at the same time acting responsibly on behalf of the City; all calls are promptly returned.

General Skill Levels:

Knowledge of:

- Modern principles, practices, methods, materials, and techniques of transportation, traffic, and environmental engineering as applied to private development projects and public works, utilities, and construction projects.
- 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.
- City, county, state, and federal regulations as they pertain to the division and department.
- Project cost estimating and planning principles.
- Managing within a budget.
- Principles of supervision, training, coaching, and mentoring.
- Report preparation methods and techniques.
- Computer spreadsheet, word processing, email and other programs related to performance of the essential functions of the job.
- Operating standards of a variety of equipment used in civil engineering.

Skill in:

- Applying the principles of civil engineering to assigned work.
- Planning, designing, detailing, and modifying engineering documents.
- Reviewing, analyzing, coordinating, and delivering of small to medium scale engineering projects.
- Effectively and efficiently administering programs and procedures.
- Working independently to resolve complex questions and problems.
- Communicating effectively, clearly, concisely, and professionally in writing and verbally with other employees, engineers, contractors, outside agencies and members of the general public.
- Applying knowledge of fiscal resource and contract management sufficient to assist with budget preparation and program/project execution.
- Using concepts and principles of negotiation to achieve program/project objectives.
- Working with consultants and consulting teams to manage projects.
- Providing coaching and training to direct reports.
- Utilizing mathematics required for engineering work and report preparation.

Ability to:

- Work independently under general guidance.
- Make responsible decisions in accordance with applicable laws, established policies and procedures.
- Share responsibility with others as appropriate.
- Establish and maintain effective working relationships with a variety of individuals.
- Communicate technical information and instructions effectively, in both written and verbal presentations.
- Coach and mentor subordinate staff.
- Use word processing, spreadsheet, e-mail, database, computer-aided design (CAD) software and the Internet.
- Handle multiple projects at the same time in a dynamic environment.
- 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.

- Work effectively and cooperatively with others and monitor contractors.
- Stay current with professional standards, think critically, solve problems efficiently, and manage time well.
- Make complex engineering computations quickly and accurately.
- Review, examine, and prepare construction drawings, Geographical Information System (GIS) maps, specifications, and shop drawings.
- Consult with others, meet, and correspond with consultants, contractors, the general public and others to resolve issues.
- Adapt to changing situations and/or priorities.
- Read, analyze, and interpret professional reports and studies, technical procedures, professional guidelines, and government regulations as appropriate to area of responsibility.
- Detect and locate defective workmanship and materials during various phases of completion.
- Manage work to conform to project scope, schedule, and budget.
- Visually assess work products in an office setting and in the field.
- Prepare detailed reports and correspondence, and protocols.
- Attend meetings outside of normal office/work hours.
- Work with confidential information.
- Interpret and explain City policies and procedures.

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. Minimum of four years of experience in municipal, county, state, or federal engineering or engineering consulting.
- Preferred - Previous 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.
- Active Illinois Professional Engineer (P.E.) license, or active registration in another state with the ability to reciprocate within six months of beginning employment, or ability to obtain license within twelve (12) months of 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.