

# **Engineer I**



*To perform this job successfully, an individual must be able to perform the essential job functions satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the primary job functions herein described. Since every duty associated with this position may not be described herein, employees may be required to perform duties not specifically spelled out in the job description, but which may be reasonably considered to be incidental in the performing of their duties just as though they were actually written out in this job description.*

## **JOB SUMMARY**

Responsible for technical or non-technical related assignments of an entry level basis assigned by professional engineers or other experienced engineers or managers, assisting with office or field related assignments which may include portions of design, design reviews, inspection, measurements, dimensioning and drawing by hand or electronically in Auto CADD or other software, reporting, listing, planning and organizing tasks for and/or assisting with or collaborating on tasks assigned to one or more engineering interns, conducting traffic counts, researching or working on water or wastewater treatment plant, water distribution or sewer or storm water system designs or operations, preparing design or portions of drawings, details or specifications and contract documents, ensuring quality assurance or quality control in field construction, preparing drawings practicing and following safety protocols.

## **ESSENTIAL JOB FUNCTIONS (examples, not all-inclusive)**

*The list of essential functions, as outlined herein, is intended to be representative of the tasks performed within this classification. It is not necessarily descriptive of any one position in the class. The omission of an essential function does not preclude management from assigning duties not listed herein if such functions are a logical assignment to the position.*

- Participates in engineering studies, investigations, and surveys relating to construction projects.
- Produces detailed design drawings, layouts, sketches, marked up prints, maps, and graphic representations of engineering designs using computer-aided drafting software.
- Assists in preliminary to final planning, drafting or designing of plans and specifications or schematics for construction or presentations.
- Works to ensure projects are completed as specified, within established timeframes, and in accordance with approved project plans.
- Performs limited field work including data gathering, measurements or surveys of facilities or rights of way for design preparation.
- Maintains, references and manipulates project and/or departmental databases as needed to track projects and other resources or components of assigned projects.
- Interprets legal descriptions/instruments, survey documents, and technical plans/drawings/reports to determine boundaries, condition, type, locations of assets, and facilities for geo- or other referencing.
- Assists Capital Improvement Program Manager and Engineering Inspector/Plans Reviewer and intern(s) with processing permit applications for commercial or residential developments,

including review of applications, engineered plans and specifications, coordinating application submittal requirements and providing timely and appropriate customer response and service, as required.

- Assists Capital Improvement Program Manager with component elements and preparation of the city's 5 year Capital Improvement Plan.
- Assists the Grant Administrator in providing the technical requirements of the grants for capital projects.
- Assists Capital Improvement Program Manager with inspecting and reporting on vertical or horizontal construction projects in the city.
- May assist Capital Improvement Program Manager with administration of the Consultants' Competitive Negotiation Act selection process and related tasks assigned by the Capital Program Manager.
- Reviews and issues permits for right-of-way permit applications including curb cuts, driveways, sidewalks, curb and gutter, and utility work (water, wastewater, storm water, lighting and paving), and is familiar with preparation and review of maintenance of traffic plans, street lighting and other related engineered infrastructure.
- Responsible for additional tasks which could include supporting field assignments such as site topographic surveys, construction oversight, as well as providing support to Capital Improvement Project Manager, Assistant Director or Director, Surveyor, or Engineering Inspector and Plans Reviewer for project coordination.
- Performs other duties as assigned.

### **QUALIFICATIONS**

#### **Education and Experience:**

Graduation from an accredited college or university with a bachelor degree in civil, environmental engineering or related field.

Achievement of a passing score on the Engineering Fundamentals Exam (FE) for Civil, Environmental or related Engineering field is preferred.

#### **Knowledge, Skills and Abilities:**

- Knowledge of principals of civil engineering practices, terms, standards, and construction plan production.
- Knowledge of civil drafting, construction documents, and technical knowledge of various types of Civil or Environmental Engineering projects.
- Knowledge of principles and practices used in property locations and topographic surveys.
- Knowledge of construction equipment and materials used in civil and environmental engineering projects.
- Knowledge of GIS software.
- Knowledge of the Federal, State, City, and professional regulations governing municipal projects.
- Ability to use CADD software in the development and delivery of surveyed or engineering drawings, roadway alignments, profiles, and cross sections.

- Ability to use, operate, and maintain in-house plotter and all associated software.
- Ability to proficiently use manual or web based permitting system.
- Ability to utilize the Microsoft Office software suite.
- Ability to communicate effectively, both verbally and in writing.
- Ability to prepare clear, concise, and comprehensive reports as well document project findings.
- Ability to establish and maintain effective working relationships with associates and the general public.
- Ability to manipulate and maintain databases to capture, analyze, and manage data.
- Ability to coordinate and prioritize workload to complete engineering tasks on schedule.
- Skill in reading and interpreting construction drawings, equipment specifications & instructions.
- Ability to work with sketches, maps, blueprints, and schematics.
- Possession of appropriate driver license with a safe driving record. Knowledge of the materials, methods, practices, and equipment used in the water and wastewater field.

### **PHYSICAL/MENTAL DEMANDS**

Tasks involve the ability to exert light physical effort in sedentary to light work, which may involve some lifting, carrying, pushing and/or pulling of objects and materials of light weight. Tasks may involve extended periods at a keyboard or workstation. Work is performed in usual office conditions with a potential for daily outdoor assignments of a limited time duration.

### **WORKING CONDITIONS**

Tasks are mostly performed in the office environment with regular visits to the treatment plants, storage tanks, lift stations, and job sites with potential for exposure to adverse conditions, such as dirt, dust, pollen, odors, fumes, and poor ventilation, wetness, humidity, rain, temperature and noise extremes, machinery and moving vehicles, vibrations, electric currents, animals/wildlife, toxic/poisonous agents, gases or chemicals, oils, and other cutting fluids, or pathogenic substances.