

Engineering Technician II

DEPARTMENT: Public Works
DIVISION: Engineering
SUPERVISOR: Engineering Manager
FLSA STATUS: Non-Exempt (overtime eligible)
UNION: Yes
CONFIDENTIAL: No



POSITION SUMMARY

Performs routine sub-professional engineering related work in the areas of environmental, street, water, sewer, storm drainage, and other public works projects and programs.

SUPERVISION RECEIVED

Engineering Manager

SUPERVISION EXERCISED

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following, but are not limited to:

- Performs a variety of drafting and design work
- Prepares drawings for engineering projects; creates and updates drawings, maps, graphs, and charts; develops, maintains, and updates various databases; reviews technical drawings, construction plans, calculations, engineering studies, impact analysis, and reports; conducts research and analyzes data; prepares comments for land use pre-application meetings; evaluates engineering cost estimates; researches and compiles contract documents, contracts, bid reviews, and preliminary bid analysis for contract awards; prepares reports.
- Conducts surveys for engineering projects and activities; locates, measures, and records field data of existing facilities; field stakes and marks proposed construction projects; operates survey equipment.
- Assists in developing and maintaining data layers and spatial data structures using Geographic Information Systems (GIS) and AutoCAD tools and relational databases; develops and maintains relational databases; creates, and maintains maps, drawings, spreadsheets, data files, and other documentation using AutoCAD; converts AutoCAD mapping and data to GIS and vice-versa; provides GIS application support; trains and assists system users.
- Provides guidance and information to staff, managers, architects, engineers, inspectors, developers, contractors, utility companies, the general public, and/or outside agencies; acts as a representative on committees, interagency task forces, and special projects as assigned.
- May act as Project Manager for assigned projects for various municipal public works street, water, sewer, and storm drainage construction projects.

- Conducts field surveys for horizontal/vertical locations, topography, construction staking and other related survey work acting as a survey party chief
- Performs onsite inspections of project sites to determine conformance with design specifications.
- Performs other duties as assigned as it pertains to this job and the department/division.

MINIMUM QUALIFICATIONS

- Graduation from a high school or GED, supplemented by two years of technical school or college course training in drafting, computer-aided design (CAD), engineering
- Minimum of four years related experience

KNOWLEDGE, SKILLS & ABILITIES:

- Considerable knowledge of civil engineering and surveying principles, practices and methods as applicable to a municipal setting; knowledge of design, construction, inspection and maintenance of public works facilities; and reasonable knowledge of applicable City policies, laws, and regulations affecting division activities
- Skill in arriving at cost estimates on complex projects, some skill in operating the listed tools and equipment, and some skill in basic drafting, surveying, and flagging
- Ability to prepare, organize and maintain engineering field and office data, reports, and systems; ability to effectively communicate complex technical information orally and in writing to contractors, developers, property owners, employees, consultants, other governmental agency representatives, city officials and the general public; and ability to coordinate and plan multiple long-range and short-range projects simultaneously
- Knowledge of AutoCAD Civil 3D and ESRI GIS software
- Organized, good written and verbal communication skills, attention to detail, good attendance, sound problem-solving skills, and general computer knowledge
- Effective written and oral communication skills
- Applicable laws and regulatory codes relevant to assigned area of responsibility
- Methods, materials, and techniques used in the construction of public works projects
- Understand engineering plans, specifications, and other technical documents
- Analyze problems, identify alternative solutions, assess consequences of proposed actions, and implement recommendations
- Operate a variety of electronic surveying, automated drafting, and mapping equipment
- Operate office equipment and technology tools including personal computers, laptop computers and printers, and presentation equipment
- Prepare, understand, and interpret engineering construction plans, specifications, and other contract documents
- Communicate clearly and concisely, both orally and in writing
- Physically perform the essential job functions
- Interpreting data or information

SPECIAL REQUIREMENTS

- Must possess a valid State driver's license or ability to obtain prior to employment.

- Must be physically capable of moving about on construction work sites, climbing ladders, and safely negotiating sites under adverse field conditions.

TOOLS AND EQUIPMENT USED

Personal computer, including word processing, spreadsheet, and data base and computer-aided- design software; standard drafting tools; surveying equipment, electronic distance measuring devices; motor vehicle; phone; mobile radio

PHYSICAL DEMANDS AND WORKING CONDITIONS

The physical demands herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform these essential job functions.

1. **Physical Demands:** While performing the duties of this job, the employee is occasionally required to stand or sit; walk, use hands to finger, handle, feel or operate objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to climb or balance; stoop, kneel, crouch, or crawl; talk or hear. The employee must occasionally push, pull, lift and/or move up to 20 pounds.
2. **Vision:** Vision sufficient to read small print, computer screens and other printed documents. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth vision, depth perception and the ability to adjust focus.
3. **Mobility:** Incumbents require sufficient mobility to work in an office setting and operate office equipment. Some outdoor work is required to inspect various developments and construction sites. Hand-eye coordination is necessary to operate computers and various pieces of office equipment.
4. **Environment:** Normal office setting with some travel for meetings or inspections. The noise level in the work environment is usually quiet in the office and moderate to very loud in the field.
5. **Working Conditions:**
 - a. Position has normal business hours. Occasional attendance at evening meetings required.
 - b. Adverse working conditions include exposure to seasonal weather changes including working in inclement weather.
6. **Resource Accountability:**
 - a. Records maintained include accountability for files relating to projects such as: improvement agreements, security documents, engineering plans, specifications related to developments, as built drawings, and program records.

EMPLOYEE ACKNOWLEDGEMENT

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

ACKNOWLEDGEMENT

I acknowledge that I have received a copy of the Engineering Technician II job description. I understand that it is my responsibility to adhere to the guidelines of the expectations, hours of work and essential duties outlined within this job description.

Employee Signature: _____

Date: _____

Manager Signature: _____

Date: _____