

Engineer I

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



POSITION SUMMARY

Entry-level position performs a variety of duties related to designing and constructing infrastructure and public works systems. Assist senior Engineering Division staff in obtaining, evaluating, and coordinating all information needed to construct the project in accordance with the contract documents and to assure that the work meets all safety standards, is within schedule requirements, and is constructed to the highest level of quality possible.

SUPERVISION RECEIVED

Engineering Manager.

SUPERVISION EXERCISED

None.

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

- Prepare simple and routine plans, designs, calculations, and cost estimates by following standard engineering practices and procedures within well-established guidelines under close supervision
- Perform research into public records and other documents pertaining to the project.
- Interpret engineering specifications and solve routine problems by applying defined procedures with ample precedent. Make suggestions for modifying concepts and/or product techniques and materials
- Assist senior Engineering Division staff with more complex designs, plans, calculations, and surveys. Assist with proposal development and contract documentation. Assist in contract administration services during construction.
- Assist in the preparation of project as-builts
- Check plans for conformance with regulations regarding line, grade, size, elevation, and location of structures
- Review the plans of consulting engineers and private contractors; recommend adjustments to engineering designs; ensure compliance with specifications; and applicable codes
- Prepare progress reports on projects under construction; maintain records of changes and field notes
- Calculate the quantity, quality and cost of materials used for various projects

- Oversee the maintenance of project plans and contract documents including as-builts, maps, etc.
- Provide assistance to the senior Engineering Division staff
- Perform field engineering and inspection of engineering and public works related projects and improvements.
- Perform field survey and construction inspection services
- Assists in the preparation of design plans, specifications, and bid documents. Assist in bid conferences, bid evaluations, bid award recommendations, and review of contractor pay requests
- Keeps immediate supervisor accurately informed of work progress, including present and potential work problems and suggestions for new or improved ways of addressing such problems
- Provides construction inspection for City public works projects.
- Performs construction inspection of private development projects within the public right of way
- Check plans and specifications for accuracy and completeness of design. Prepare preliminary and final project cost estimates.
- Participates in conducting routine and periodic inspections of new construction to ensure compliance with approved plans and specifications. Inspects materials, equipment, and methods used for quality and compliance with specifications.
- Reviews plans related to structures such as streets, sidewalks, gutters, and other offsite construction; check plans for conformance with regulations regarding line, grade, size, elevation, and location of structures; check calculations.
- Performs other duties as assigned as it pertains to this job and the department/division

MINIMUM QUALIFICATIONS

- Graduation from a four-year college or university with a bachelor's degree in Civil Engineering,
- Engineer in Training certification or ability to obtain certification within 1 year of hire

KNOWLEDGE, SKILLS & ABILITIES:

- Basic 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
- Ability to work efficiently, manage multiple and conflicting deadlines, establish priorities
- Knowledge of basic civil engineering principles and techniques
- Applicable laws and regulatory codes relevant to assigned area of responsibility
- Methods, materials, and techniques used in the construction of public works projects
- Principles of advanced mathematics and their application to engineering work
- Communication principles, practices, and techniques
- Adapt to changing, intensive deadlines
- Interpreting data or information

- Performing highly detailed work
- Use math and perform complex scientific and mathematical computations
- Modern office practices and methods, computer equipment, and software applications
- Perform technical research and solve engineering problems
- Prepare plans and drawings neatly and accurately
- Make engineering design computations and check, design, and prepare engineering plans and studies
- Prepare, understand, and interpret engineering construction plans, specifications and other contract documents
- Communicate clearly and concisely, both orally and in writing

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 and climbing ladders.

TOOLS AND EQUIPMENT USED

Personal computer, including word processing, spreadsheet, and data base and computer-aided- design software; standard drafting tools; surveying equipment including level, and 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 Engineer I 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: _____