Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties, or responsibilities that are required of the employee for this job.

Job title	Engineering Technician I/II

GENERAL PURPOSE

Under immediate (Engineering Technician I) to general (Engineering Technician II) supervision, performs technical and paraprofessional engineering-related work within an engineering or maintenance section; functional areas of responsibility include, but are not limited to, field and office engineering, new business development, and water resources management; and performs related duties, as assigned.

DISTINGUISHING CHARACTERISTICS

Engineering Technician I: This is the entry-level classification in the Engineering Technician series. Initially under close supervision, incumbents perform routine work maintaining and updating maps and drawings, in addition to performing office and field work related to assigned engineering projects and programs. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Engineering Technician II level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

Engineering Technician II: This is the fully qualified journey-level classification in the Engineering Technician series. Positions at this level are distinguished from the Engineering Technician I level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions 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 work unit.

This class is distinguished from the Senior Engineering Technician in that the latter performs the more complex work assigned to the series, such as advanced technical and paraprofessional engineering-related work in a specialized functional area.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate (Engineering Technician I) to general (Engineering Technician II) supervision from assigned supervisory or management personnel. Exercises no direct supervision over staff.

TYPICAL DUTIES AND RESPONSIBILITIES

The duties listed below 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 this position.

Positions at the Engineering Technician I level may perform some of these duties and responsibilities in a learning capacity.

- Assists in the preparation of and/or interprets specifications, plans, sketches, layouts, graphic displays, exhibits, maps, and pertaining to the construction, maintenance, and operation of a variety of water, sewer, and recycled water facilities.
- Reviews water, sewer, and recycled water facilities plans for conformance with District standards.
- Reviews water line plans for line size, hydrant type and size, available water pressure, and location of valves and fittings and right-of-way required.
- Reviews sewer plans for type of bedding, size, type and location of manholes, backflow or overflow devices, and right-of-way required.
- Reviews recycled-water line plans for line size, available pressure, location of valves and fittings, and any right-of-way required.
- Drafts electrical control wiring diagrams/schematics from red line drawings received from other departments; compiles, analyzes, and interprets red line drawings received from the District's construction inspectors; transfers inspectors' updates to original mylar drawings.
- Reviews existing utility plans for size of lines and elevations to ensure proper connections; reviews slopes and elevations for conformance with District requirements.
- Performs calculations of water and recycled water demands and sewage generation, hydraulics, and other engineering computations.
- Prepares and reviews easement drawings and legal descriptions.
- Prepares quantity and cost estimates.
- May perform survey work and/or field verifications of existing facilities.

- Reviews and evaluates studies, designs, reports, and records generated by other departments and outside entities; conducts research and data gathering of technical datasets, historic information, current projects, and related information to provide technical support and fulfill reporting requirements in response to requests from internal staff and external parties.
- Utilizes multiple software programs to generate a variety of special and recurring reports and to update and maintain a variety of system records, reports, and models.
- May design traffic control plans to facilitate maintenance and repair projects.
- Observes and complies with all District and mandated safety rules, regulations, and protocols; performs safety-related activities including conducting safety meetings and audits; ensures staff complies with safety training requirements; ensures Materials Safety Data Sheets are current; plans for, and maintains alternative communication system in the event of emergencies.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Knowledge of:

- Basic procedures involved in design and construction engineering and specification development work.
- Plan check and review practices, and permit filing and approval procedures.
- Methods and techniques of using engineering plans and drawings to perform assigned duties.
- Methods and techniques of preparing engineering calculations and computations.
- Principles and practices of technical civil engineering drafting.
- Method and techniques of preparing drawings, maps, charts, and related documents.
- Operational characteristics of databases and networked systems.
- Architectural and general drafting standards including manual drawing, ink, line work, and text lettering.
- Use and application of survey equipment.
- Applicable federal, state, and local laws, codes, and regulations in assigned areas of responsibility.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Prepare a variety of plans, specifications, maps, graphs, cost estimates, and technical engineering reports.
- Modify engineering drawings, topographic maps, improvement plans, and illustrative graphics.
- Perform responsible technical engineering support work with accuracy, speed, and minimal supervision.
- Read and interpret engineering plans, technical drawings, specifications, and subdivision maps.
- Perform standard engineering design under professional engineering supervision.
- Make mathematical calculations and accurate engineering computations and drawings.
- Use engineering, drafting, and surveying instruments and equipment.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.
- Understand and follow oral and written instructions.
- Maintain accurate files and records.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Experience:
Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

- Engineering Technician I: One (1) year of experience in sub-professional engineering and/or surveying work.

- Engineering Technician II: Two (2) years of experience in sub-professional engineering and/or surveying work, or one (1) year of experience as an Engineering Technician I with the District.

Education:

- Equivalent to completion of the twelfth (12^{th}) grade, supplemented by college-level coursework in civil engineering, drafting, engineering mathematics, or a related field.

Licenses/Certifications:

- Some positions may require a valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials, a computer screen, and to operate a motor vehicle and visit various District sites; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing in work areas, walking between work areas, and operating a motor vehicle to visit various District sites may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 25 pounds.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

FLEX REQUIREMENTS

Positions in the Engineering Technician class series are flexibly staffed; positions at the Engineering Technician II level are normally filled by advancement from the Engineering Technician I level; progression to the Engineering Technician II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications; and (iv) management approval for progression to the Engineering Technician II level.

This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

Approved by:	*Board of Directors*
Date adopted:	*March 29, 2020*
Date modified:	
FLSA determination:	*Non-Exempt*

Job Description Acknowledgment

I have received, reviewed, and fully understand the job description for Engineering Technician I/II. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____