

**JOB DESCRIPTION**  
**Senior Engineering Technician**  
**Code Number: 22013**

**GENERAL PURPOSE**

Under direction, performs advanced technical and paraprofessional engineering-related work, including drafting, layout, calculations, graphics, and photo work, plan checking, file revisions and conversions, specifications, estimates and engineering reports; and performs related duties as assigned.

**DISTINGUISHING CHARACTERISTICS**

This is the lead or advanced-journey level in the Engineering Technician series. In the lead assignments, incumbents provide direction to lower level staff including assigning, directing, and reviewing the work of staff. In the advanced-journey assignment, incumbents perform the more difficult and complex tasks and assignments in support of CAD design and drafting, GIS and Graphic design. Positions at this level are distinguished from those in the lower level classification of Engineering Technician II by the independence with which they perform their duties of handling the most difficult and complex work or by performing lead work.

**ESSENTIAL 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 the class.*

Provides day-to-day leadership and works with staff to ensure a high-performance, customer service-oriented work environment that supports achieving the department's and the District's mission, strategic plan, objectives and values.

Leads and participates in the work of technical and clerical personnel in the performance of technical, paraprofessional civil engineering and administrative work; plans, schedules, oversees and reviews the work of any assigned project staff.

Creates and converts CAD files to GIS files; formats, edits, draws and revises geo-coding, projecting, linking, coloring and adding data to the data base.

Performs CAD design work, including creating, drawing, editing, and revising, scaling, printing and plotting; programs pentable for maps and displays used on display boards.

Confers with representatives from engineering firms, developers, property owners, other utilities, public works agencies, other governmental agencies and contractors on technical matters to verify data, locate lines, coordinate various stages of work and/or explain the District's procedures and water commitment process.

Computes District fees and cost estimates for new services and developments.

Inks, traces and letters charts, graphs, maps, plans and other drawings; designs and prepares plans utilizing computer-aided drafting (CAD); uses GIS to analyze data when needed; prepares miscellaneous illustrative materials.

Reviews water, sewer and recycled water plans for new/current developments, services, subdivisions, main extensions and laterals for conformance to District service rules, construction standards and the District's Master Plan; calculates and assures proper distribution of fees; prepares hydraulic calculations; reviews subdivision and parcel maps and easements; reviews easement drawings and legal descriptions; assures legal easements, where applicable, are obtained; reviews plans and subdivision maps to verify that all required corrections have been made before final approval by the District.

Reviews and evaluates studies, designs, reports and records generated by other departments and outside entities.

Uses a computer to generate a variety of special and recurring reports and to update and maintain a variety of system records, reports and models.

Supports departments using GIS and CAD graphics programs to create location signs, photos, maps, water and sewer displays, table and charts.

Reviews specifications and/or drawings prior to the start of construction and makes recommendations for change or approval; confers with supervisors, engineers, consultants and contractors regarding interpretation of documents.

Researches water commitments and determines water requirements and sewage generation for various land parcels and proposed developments.

Performs or directs the checking of existing utility plans for size of lines, location and elevation to ensure proper connections and the slopes and elevations for conformance with District requirements.

Conducts field investigations to verify location and installation of existing and proposed water or sewer facilities.

Prepares a variety of technical reports, specifications, graphs, charts and correspondence; designs, prepares and updates a variety of forms and charts

throughout the department; writes periodic progress reports on construction and expansion projects.

Performs related duties as assigned.

## **DESIRED MINIMUM QUALIFICATIONS**

### **Knowledge of:**

Technical procedures and standards involved in design and construction engineering and specification development; District operating policies and procedures applicable to plan check and water/sewer plan approvals; District Service Rules; drafting techniques, terminology, equipment and software, including computer-aided drafting; nomenclature, symbols and techniques of mapping and surveying; engineering mathematics, including trigonometry; applicable ordinances and laws pertaining to water and sewer utility engineering.

### **Ability to:**

Use a variety of software programs including Microstation and AutoCAD; participate in work involving a variety of technical engineering applications; precisely follow written and oral instructions; perform detailed work thoroughly, neatly and accurately; maintain accurate files and records; coordinate work assignments with other divisions, departments or agencies; establish and maintain effective working relationships with those contacted during the course of work; follow and apply written and oral work instructions; make sound independent judgments within established guidelines; train others in work processes and procedures.

### **Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is two years of college work in civil engineering or closely related field; and six years of sub-professional engineering, drafting and field survey experience; or an equivalent combination of training and experience.

### **Licenses; Certificates; Special Requirements:**

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

## **PHYSICAL AND MENTAL DEMANDS**

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

## **Physical Demands**

While performing the duties of this job, the employee is regularly required to walk, stand and sit; talk and hear, both in person and by telephone; use hands to finger, handle, feel or operate standard office equipment; and reach with hands and arms.

Specific vision abilities required by this job include close vision, color vision and the ability to adjust focus.

## **Mental Demands**

While performing the duties of this class, the employee is regularly required to use written and oral communication skills; read and interpret information and documents; analyze and solve problems; observe and interpret situations; perform highly detailed work on multiple, concurrent tasks; work with constant interruptions; and interact with officials and the public.

## **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.*

The employee usually works under typical office conditions where the noise level is quiet. Employees may occasionally be required to work in outside conditions, exposed to hot or wet conditions, where the noise level may be loud.

**FLSA DETERMINATION:** Non-exempt.