



## DEFINITION

Under supervision (Engineering Technician I) or general supervision (Engineering Technician II), from an assigned Supervisor, performs routine to difficult drafting and technical engineering work in field surveying, material testing, inspection, drafting, and/or office engineering functions; performs manual drafting and computer aided drafting utilizing a variety of technical engineering software applications including the CADD (Computer Aided Drafting and Design) system and GIS (Geographic Information System) to create and maintain engineering drawings and maps; collects samples and performs a variety of field engineering activities; establishes and maintains a variety of engineering files and records; provides technical and administrative support to District projects and programs; and performs related work as required.

## DISTINGUISHING CHARACTERISTICS

**Engineering Technician I** is the entry-level class in the Engineering Technician series. Under close to general supervision, within a framework of established policies and procedures, incumbents learn and perform routine engineering technical assignments. As experience and proficiency are gained, assignments become more varied and complex. Assignments are given in specific terms and are subject to review by the assigned Supervisor or Manager while in progress and upon completion, except where tasks are well defined by established standards, policies, and procedures. There is limited latitude for independent judgment. Opportunities exist for learning the use of specialized equipment and developing various engineering technical skills.

This classification is distinguished from the experienced, journey-level Engineering Technician II class by the routine nature and limited complexity of work assignments and the level of supervision received. The Engineering Technician I and II classifications are flexibly staffed. Upon recommendation of the immediate supervisor and approval by the department manager, incumbents in this class may advance to the Engineering Technician II classification after two (2) years at the first level and with demonstrated proficiency to meet the job requirements of the Engineering Technician II classification.

**Engineering Technician II** is the experienced, journey-level class in the Engineering Technician series. Under general supervision, within a framework of established policies and procedures, incumbents perform the full range of technical engineering assignments with responsibility for several concurrent projects, or for an ongoing assignment requiring independent action and/or with significant impact on District relationships with the public and/or other governmental organizations. Assignments are given in general terms and are subject to review upon completion by the assigned supervisor or manager. There is significant latitude for independent judgment and action in well-defined areas of work.

This classification is distinguished from the entry-level Engineering Technician I class by the complexity of work assignments, the potential impact of error, the level of independence with which assignments are performed, and the level of supervision received. The Engineering Technician II classification is distinguished from the advanced-level Engineering Technician III class which is the lead level class in the series responsible for performing the most difficult technical engineering assignments and coordinating the work of others.

## TYPICAL DUTIES

### TYPICAL EXAMPLES OF DUTIES MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- Performs field engineering activities, measures and records distances and dimensions in the field, takes water well level and surface water measurements, collects water samples

and performs field analysis, collects field test data, assists with specific capacity tests, locates wells, performs stream gauging, conducts fire flow tests and prepares related correspondence, and assists with corrosion control field surveys.

- Collects, summarizes, and reduces data; performs simple to complex engineering calculations; performs engineering design; prepares schematics, plans, detailed drawings and profiles from engineering sketches and/or oral instruction; takes measurements and prepares project documentation and drawings; performs standard drafting and mapping; updates distribution system maps and drawings; uses a computer to enter data into an engineering database system.
- Updates and creates datasets; performs geospatial analysis; ensures the integrity of GIS data; reviews data input for accuracy and compliance with system standards; prepares maps, reports, figures, and exhibits as needed from multiple layers of data.
- Performs customer job order preparation and estimation for District work; coordinates construction and related activities with District Operations and Maintenance Department, developers, external contractors, and other public agencies; may review the work of other technicians.
- Assist in the preparation of monthly, quarterly, annual and/or triannual drinking water regulatory reports.
- Prepares and maintains record drawings for facilities and infrastructure.
- Provides administrative support to project engineers in managing, tracking, and monitoring budgets and schedules of contracts.
- Effectively provides service to customers and responds to a variety of customer inquiries.
- Reviews elements of engineering drawings and improvement plans submitted by developers, consultants, and other agencies for conformance with district standards to facilitate design; confers and coordinates with vendors, contractors, and/or outside agencies in response to questions; oversees and coordinates work and helps to resolve problems and disputes.
- Maintains engineering files and logs; monitors development project costs and status; maintains procedures for development processes and related work; collects, organizes, files, maintains, retrieves, reproduces, and transmits drawings, maps, logs, reports, and other documents and records as needed; maintains records for District facilities, easements, deeds, annexations, customer job orders, and District projects.
- Performs field surveying and survey verification in support of design and evaluation of capital projects.
- Prepares and reviews easements and property and easement descriptions; prepares utility permits and associated plans and documentation; prepares temporary water service agreements; performs simple research and develops and presents reports; prepares and maintains routine correspondence.
- Performs and/or assists in soil gradation-sieve analysis; operates particle counter; performs and/or assists with materials and equipment tests; performs and/or assists with facility performance testing.

- May provide updates to various databases under the direction of an Engineer.
- May maintain, update, and upgrade the Capital Improvement Program (CIP) database and CIP related records for the District.
- Performs other related work as required.

## **REQUIREMENTS**

*Any combination of education and experience that would likely provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the knowledge, skills, and abilities would be the equivalent of:*

### **Education and Experience:**

Possession of an Associate's degree in engineering or a related field; and

**Engineering Technician I:** No work experience is required.

**Engineering Technician II:** Two (2) years of full-time experience equivalent to that of a Engineering Technician I within the District.

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

Knowledge of: engineering mathematics including trigonometry; drafting principles, practices, techniques, and equipment; engineering surveying principles and equipment; detailing practices and standard presentation formats; applicable codes, guidelines, and regulations; modern office practices, methods, and computer equipment and applications related to the work, including word processing, record keeping and filing, and spreadsheet software.

Skill and Ability to: work on projects alone or cooperatively with others; set priorities and coordinate several concurrent projects under time pressures and deadlines; perform routine to difficult mathematical calculations with speed and accuracy; use drafting materials, tools, and techniques to complete assignments; prepare neat, accurate, and legible drawings; letter neatly and clearly and take accurate and legible notes; read and interpret plans, specifications, maps, legal property descriptions, construction drawings, and related engineering documents; learn and effectively use a variety of technical engineering software applications including the CADD (Computer Aided Drafting and Design) and GIS (Geographic Information System); maintain detailed, complete, and accurate records; perform the essential functions of the job without causing harm to self or others; operate modern office equipment including computer equipment and specialized software applications programs; communicate clearly and concisely, both orally and in writing; establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

### **Additional Requirements:**

- Must possess a valid California driver's license and have a satisfactory driving record.

### **Engineering Technician I:**

- Must obtain a Grade 1 Water Distribution certificate within 18 months of appointment, when assigned to the Development Services Division or Water Production Division.

### **Engineering Technician II:**

- Must possess a Grade 1 Water Distribution certificate within 18 months of appointment, when assigned to the Development Services Division or Water Production Division.

**Working Conditions/Physical Requirements:**

The essential functions of the job require the ability to: sit for extended periods of time when performing office tasks; finger dexterity to operate a computer; and speak and hear in person and on the phone. Field activities require the ability to: work outdoors on a year-round basis under a variety of climatic and geographic conditions in an environment with exposure to loud noise, chemicals, fumes and other environmental substances; traverse uneven terrain; stand for long periods of time; bend, squat and/or climb; grasp, hold and reach; work long or unusual hours as situations demand; and frequently lift, carry and/or maneuver objects weighing up to 55 pounds and occasionally up to 90 pounds.

Revised: 10/15, 11/21

Approved: \_\_\_\_\_  
Human Resources/Risk Manager

