



## ENGINEERING TECHNICIAN I/II

*Class specifications are intended to present a description of the range of duties performed by the classification. Specifications are not intended to reflect all duties performed. Classifications will perform other related duties as assigned.*

### **Definition:**

Under supervision, performs a variety of paraprofessional engineering tasks, computerized drafting and mapping activities on a geographic information system, and a variety of technical tasks relative to assigned area of responsibility.

### **Classification Characteristics:**

Engineering Technician I – This is the entry level class in the Engineering Technician series. This class is distinguished from the Engineering Technician II by the performance of the more routine tasks and duties assigned to positions with the series. This position receives direct supervision from higher level staff and may receive technical and functional supervision from higher level technicians. This class is typically used as a training class and employees may have only limited experience. Positions in this class are flexibly staffed and may advance to the Engineering Technician II level when training and experience is sufficient to perform at the full journey level.

Engineering Technician II – This is the full journey level class in the Engineering Technician series. Employees in this class are distinguished from the Engineering Technician I by the performance of the full range of duties assigned. Employees 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. Positions in this class are flexibly staffed and are normally filled by advancement from the Engineering Technician I level, or when filled from the outside, have prior experience.

### **Essential Functions:**

- Prepare maps, drawings, spreadsheets, data files, and documentation; compile data for input into the system; develop, edit, and automate data layers; update and enhance the GIS database utilizing a variety of software.
- Work with ARC/Info mapping activities; develop technical programs to perform repetitive tasks utilizing the AutoCAD system.
- Research records, maps, and other data to obtain engineering data including location of sewer stubs and water mains; prepare and maintain accurate engineering records.
- Conduct research of ownership, legal descriptions, or other such data needed to complete information required in preparation of construction projects.
- Perform a variety of technical duties utilizing engineering and mapping software and modern computer peripherals including digitizers, plotters, and printers.
- Update maps of the City as new roads or other changes are made; duplicate maps as required for City use.

- Conduct traffic studies which may include observing traffic and movement patterns and taking traffic counts.
- Processes permit applications; calculates fees, completes necessary paperwork, and issues permits for assigned projects.
- Provide assistance and information to the public, developers, and other City departments on mapping, engineering data, and engineering processes and procedures.

### **Engineering Technician I Qualifications:**

#### Knowledge of:

- Terminology, methods, practices, and techniques of drafting.
- Trigonometry as applied to the computation of angles, areas, distances, and traverses.
- Basic civil engineering principles and practices.
- Engineering maps and records.
- Construction plans and specifications.
- Modern office procedures, methods, and computer equipment.

#### Ability to:

- Learn City engineering policies and procedures.
- Learn to understand and interpret engineering plans and specifications.
- Prepare and maintain accurate engineering records.
- Perform work in accordance with sound safety practices.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted in the course of work, including City staff and the public.
- Maintain physical condition, audio-visual discrimination and perception, and mental capacity appropriate to the working conditions and the performance of assigned duties and responsibilities.

Experience and Training: *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

#### Experience:

Some technical engineering and geographic information system (GIS) experience or training is highly desirable.

#### Training:

Equivalent to graduation of the twelfth grade supplemented by coursework in engineering, construction technology, or a related field.

#### License or Certificate:

Possession of a California Class C Driver's License with an acceptable driving record.

## **Engineering Technician II Qualifications:**

### Knowledge of:

- Terminology, methods, practices, and techniques of drafting.
- Trigonometry as applied to the computation of angles, areas, distances, and traverses.
- Basic civil engineering principles and practices.
- Engineering maps and records.
- Construction plans and specifications.
- Modern office procedures, methods, and computer equipment.

### Ability to:

- Understand and interpret engineering policies and procedures.
- Understand and interpret engineering plans and specifications.
- Understand the organization and operation of the City and outside agencies as necessary to assume assigned responsibilities.
- Prepare and maintain accurate engineering records.
- Perform work in accordance with sound safety practices.
- Work independently in the absence of supervision.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted in the course of work, including City staff and the public.
- Maintain physical condition, audio-visual discrimination and perception, and mental capacity appropriate to the working conditions and the performance of assigned duties and responsibilities.

Experience and Training: *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

### Experience:

Two years progressively responsible sub-professional engineering experience.

### Training:

Equivalent to an Associate's degree with major work in drafting, civil engineering or a related field.

### License or Certificate:

Possession of a California Class C Driver's License with an acceptable driving record.

## **Working Conditions:**

Work primarily in an office environment including sustained posture in a seated position for prolonged periods of time; this position will occasionally work in a field environment. Position requires walking, reaching, twisting, turning, kneeling, bending, squatting, and stooping. The Engineering Technician I/II position requires grasping, gripping, repetitive hand movement, and fine coordination in preparing reports and in using a computer and related equipment. Lift, carry, and push objects weighing up to 40 pounds. Near and far vision is required for performing office and field duties. Field work requires driving motorized vehicles and working around moving traffic.