

**CITY OF FONTANA
ENGINEERING TECHNICIAN I
ENGINEERING TECHNICIAN II**

DEFINITION: Under general and/or immediate supervision from higher level engineering staff, performs a variety of journey level technical drafting, office and field engineering work; and provides assistance and information to the public. May exercise functional and technical supervision over less experienced technical staff.

DISTINGUISHING 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 within the series including routine drafting, survey and technical engineering work that does not require previous specialized experience. Work is observed and reviewed both during performance and upon completion, and changes in procedures or exceptions to rules are explained in detail as they arise. Since this class is typically used as a training class, employees may have only limited or no directly related work experience.

Engineering Technician II – This is the full journey level in the Engineering Technician series. Employees within this class are distinguished from the Engineering Technician I by the performance of the full range of duties as assigned including the moderately complex duties of drafting, office and field engineering work. 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. This class is flexibly staffed and is normally filled by advancement from the I level, or when filled from the outside, requires previous work experience.

ESSENTIAL FUNCTIONS: Incumbent must have the ability to:

- Review and process tract maps, parcel maps, of line adjustments, grants of easement, and street right-of-ways for recordation.
- Verify fulfillment of conditions of approval for new subdivisions; perform on-site inspections to verify survey monuments related to parcel maps and lot line adjustments.
- Prepare and draft technical engineering plans for construction of streets, alleys, storm drains, water lines, and other public improvements.
- Provide public assistance at counter and over the telephone.
- Prepare quantity and cost estimates for engineering projects.
- Maintain a variety of maps and records including tract maps, parcel maps, lot line adjustments, easements, street and address changes.
- Review engineering plans to determine appropriate layout of construction projects.
- Perform on-site inspections to obtain information; determine angles and set grade stakes, hubs, turning points and benchmarks using appropriate surveying techniques; locate and measure boundary lines, right-of-ways, and land grades.

- Make and check mathematical calculations related to surveying, drafting and basic engineering.
- Maintain accurate survey records in the form of field notes and sketches.
- Participate in a variety of engineering design and planning work related to municipal engineering projects.
- Answer questions and provide information to the public concerning engineering activities.
- Assist in development and maintenance of the record keeping and filing systems.
- Prepare, assemble and distribute copies of maps, charts and blueprints.
- Answer questions and provide information to the public concerning engineering activities.
- Perform any other tasks or functions deemed necessary to the daily operations of the employer.

THE ABOVE LIST OF ESSENTIAL FUNCTIONS IS NOT EXHAUSTIVE AND MAY BE SUPPLEMENTED AS NECESSARY BY THE EMPLOYER.

WORKING CONDITIONS: Position requires prolonged sitting, standing, walking, reaching, twisting, turning, kneeling, bending, and stooping in the performance of daily activities. The position also requires grasping, repetitive hand movement and fine coordination in preparing reports using a computer keyboard. Additionally, the position requires near and far vision when preparing and reading written reports and other work related documents. Acute hearing is also required when providing phone and counter assistance.

EXPERIENCE AND TRAINING GUIDELINES

A combination of experience and training that would likely provide the required knowledge and abilities is qualifying. The employee must have knowledge of:

Engineering Technician I

- Basic geometry and algebra as applied to routine engineering computations.
- Modern office procedures, methods and computer equipment.
- Safe work practices.

Ability to:

- Read figures quickly and accurately and to make mathematical calculations.
- Learn to use and care for drafting, surveying, and mechanical instruments and tools.
- Understand and follow oral and written instructions.
- Communicate effectively, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted in the course of work.

Engineering Technician II

In addition the qualifications of Engineering Technician I, knowledge of:

- Terminology, methods, practices and techniques of drafting.
- Trigonometry as applied to the computation of angles, areas, distances and traverses.
- Elementary surveying techniques and practices.
- Engineering maps and records.

Ability to:

- Perform moderately complex engineering and mathematic calculations with speed and accuracy.
- Understand and follow written instructions and sketches.
- Use and care for drafting, surveying, and mechanical instruments and tools.
- Work independently in the absence of supervision.

Experience: Engineering Technician I - Some experience performing routine surveying or drafting work is desirable. Engineering Technician II - Two years of increasingly responsible experience performing drafting and technical engineering work.

Education: Equivalent to completion of the twelfth grade supplemented by specialized training in drafting, surveying or a related field.