

CITY OF LATHROP

ENGINEERING TECHNICIAN I/II

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include all** duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

DEFINITION:

Under general supervision, performs and learns to performs the full array of duties assigned to classes in the Engineering Technician series, including performing entry level para-professional work in support of civil engineering projects, surveying, mapping and traffic engineering; assists in the preparation of engineering plans, maps and specifications; operates computer assisted drafting (CAD) and geographical information systems (GIS); demonstrates a full understanding of all applicable policies, procedures and work methods associated with assigned duties; performs other related duties as required.

DISTINGUISHING CHARACTERISTICS:

Engineering Technician I

The **Engineering Technician I** is the entry level class in the para-professional Engineering Technician series that allows the incumbent to develop journey level knowledge and abilities. Initially, under immediate supervision, incumbents perform the more routine and less complex assignments within an established procedural framework where there are minimal consequences of error, including a variety of research, drafting, office and field engineering work that does not require previous specialized experience. This classification is alternatively staffed with Engineering Technician II and incumbents may advance to the higher level after gaining experience and demonstrating a level of proficiency that meets the qualifications of the higher level class.

Engineering Technician II

The **Engineering Technician II** is a journey level class within the Engineering Technician series. Incumbents in this class perform the full range of complex procedures in carrying out a variety of drafting, surveying, traffic, office and field engineering work. This classification is distinguished from the next higher classification of Senior Engineering Technician in that the latter performs the more difficult and complex assignments and provides lead supervision.

SUPERVISION RECEIVED/EXERCISED:

Engineering Technician I

Receives immediate supervision from higher lever engineering staff. Incumbents in this class do not routinely exercise supervision.

Engineering Technician II

Receives general supervision from higher level engineering staff. May exercise functional and technical supervision over lower level staff.

ESSENTIAL FUNCTIONS: *(include but are not limited to the following)*

- Performs the full array of duties assigned to classes in the Engineering Technician series, including a broad range of office, field, surveying and traffic engineering work; performs CAD drafting and computing operations in the preparation of a wide variety of engineering drawings, plans and computations; performs mapping and indexing for the City's GIS system.
- Performs engineering calculations; prepares sketches and designs from instructions and design data; interprets and converts survey notes to various types of drawings; develops, modifies and maintains computer programs required to provide graphics, maps and overlays for engineering drawings; maintains and updates the Pavement Management System (PMS).
- Performs field work and makes field checks of project sites as assigned; performs title searches; researches right-of-way and easements based on legal descriptions; checks and writes routine legal descriptions; reviews, recommends and issues utility, curb, sidewalk, street and encroachment permits; calculates permit fees.
- Provides information related to project design to the general public, contractors and developers; provides information regarding City standards and development approval procedures and requirements; checks subdivision maps, parcel maps and other engineering documents for conformance to State laws and local ordinances; oversees and updates maps to include new subdivisions and other changes.
- Demonstrates a full understanding of applicable policies, procedures and work methods associated with assigned duties; may provide training to lower level staff; responds to questions and concerns from the general public, contractors and developers; provides information as is appropriate and resolves public service concerns.
- Provides development processing for commercial and residential site improvements.
- Establishes positive working relationships with representatives of community organizations, state/local agencies and associations, City management and staff, and the public.

PHYSICAL, MENTAL AND ENVIRONMENTAL WORKING CONDITIONS:

Position requires prolonged sitting, standing, walking, reaching, twisting, turning, kneeling, bending, squatting, and stooping in the performance of daily activities. The position also requires grasping, repetitive hand movement, and fine coordination in preparing reports and drawings using a computer keyboard. Additionally, the position requires near and far vision in reading written reports and work related documents. Acute hearing is required when providing phone and personal service. When working in field assignments the incumbent may be required to lift, carry and push tools, equipment and supplies weighing in excess of 25 pounds. The nature of the work may require working around heavy construction equipment and in all weather conditions, including wet, hot and cold.

Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

QUALIFICATIONS: *(The following are minimal qualifications necessary for entry into the classification.)*

Education and/or Experience:

Any combination of education and experience that has provided the knowledge, skills and abilities necessary for a **Engineering Technician I/II**. A typical way of obtaining the required qualifications is to possess the equivalent of:

Engineering Technician I

One year of work experience in an office environment using automated systems, and a high school diploma or equivalent supplemented by specialized course work in construction technology, civil engineering, or a related field.

Engineering Technician II

In addition to the above, an associate of art's degree in drafting, pre-engineering, surveying or a related field and one year of experience equivalent to that of an Engineering Technician I with the City of Lathrop.

License/Certificate:

Possession of, or ability to obtain a valid, class C California driver's license.

KNOWLEDGE/ABILITIES/SKILLS: *(The following are a representative sample of the KAS's necessary to perform essential duties of the position. The level and scope of the knowledge and abilities listed below vary between the I and II levels.)*

Knowledge of:

City standards, standard drafting symbols, methods, practices, techniques and instruments used in engineering and mapping; basic principles and practices of civil engineering; operational characteristics of standard engineering equipment; basic principles of mathematics; applicable federal, state and local laws, codes and regulations; methods and techniques of scheduling work assignments; standard office procedures, practices and equipment; modern office practices, methods and equipment, including a computer and applicable software; methods and techniques for record keeping and report preparation and writing; proper English, spelling and grammar; occupational hazards and standard safety practices.

Ability to:

Use computer aided drafting and design systems, databases, GIS systems and other programs related to engineering design; review plans and documents for conformance with regulations; prepare plans and specifications neatly and accurately; perform heavy manual labor when assigned to field survey crews; prepare and maintain accurate records and reports; understand, interpret and prepare legal descriptions, engineering reports and maps; work effectively with City staff, contractors, developers and the general public; perform mathematical calculations quickly and accurately; interpret, explain and apply applicable laws, codes and regulations; read, interpret and record data accurately; organize, prioritize and follow-up on work assignments; work independently and as part of a team; make sound decisions within established guidelines; analyze a complex issue, and develop and implement an appropriate response; follow written and oral directions; observe safety principles and work in a safe manner; communicate clearly and concisely, both orally and in writing; establish and maintain effective working relationships.

Skill to:

Operate various equipment and tools required to perform engineering technician work, including surveying instruments, computer equipment and a variety of software applications, such as CAD, GIS and the Pavement Management System (PMS).