

CITY OF LATHROP

SENIOR ENGINEERING TECHNICIAN

*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 direction, supervises, evaluates and participates in the work of staff responsible for maintaining the Engineering Division records and providing technical engineering assistance to all City departments, private engineers, other public agencies, developers and the general public; ensures safe work practices, work quality and accuracy; serves as a technical resource for assigned staff; performs other related duties as required.

DISTINGUISHING CHARACTERISTICS:

The **Senior Engineering Technician** is an advanced journey level class in the Engineering Technician series. Incumbents are responsible for the maintenance of Engineering Division records and for providing complex technical engineering assistance. This classification is distinguished from the next lower classification of Engineering Technician II by the difficulty and complexity of assignments, the degree of independence, and the performance of lead responsibilities.

SUPERVISION RECEIVED/EXERCISED:

Receives direction from higher level management staff. Exercises functional and technical supervision lower level technical and office support staff.

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

- Plans, coordinates, prioritizes, monitors and participates in the work of staff responsible for the maintenance of Engineering Division records and for providing technical engineering assistance.
- Assigns work to staff; monitors work activities to ensure safe work practices, work quality and accuracy; ensures compliance with applicable rules, policies and procedures; participates in the development of policies and procedures; recommends programs, projects and work assignments to higher level Public Works personnel, participates in the selection and training of staff; assumes responsibility for motivating and evaluating assigned personnel; provides necessary training.
- Performs the more difficult and complex technical engineering duties of the work unit, including complex field inspections of sewer, grading and water pressure testing; calculates fees for processing subdivision applications; participates in development review activities.
- 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, overlays and engineering drawings; researches available automated technology and makes recommendations to higher level management staff.

- Performs CAD drafting and computing operations in the preparation of a wide variety of engineering drawings, plans and computations; performs mapping, indexing and oversight for the City's GIS system; maintains and updates the Pavement Management System.
- 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.
- Performs rod and chain duties associated with land surveys for office research requiring interpretation of construction drawings, field survey notes, deeds, maps and legal descriptions.
- Demonstrates a full understanding of applicable policies, procedures and work methods associated with assigned duties; provides training to lower level staff; responds to the most complex questions and concerns from the general public, contractors and developers; provides information as is appropriate and resolves public service concerns.
- 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 **Senior Engineering Technician**. A typical way of obtaining the required qualifications is to possess one year of experience equivalent to that of an Engineering Technician II with the City of Lathrop, and an associate of art's degree in drafting, pre-engineering, surveying or a related field.

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.)*

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; methods and techniques of supervision, training and motivation; 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; 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 heavy manual labor when assigned to field survey crews; 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 duties, including surveying instruments, computer equipment and a variety of software applications, such as CAD, GIS and the Pavement Management System.