City of Merced

Bargaining Unit: FLSA:

MS Covered

Position Number:

LAND ENGINEER

DEFINITION

Under general direction, to perform a variety of difficult and complex professional office and field engineering and land surveying work; to prepare plans, designs, maps, and specifications for a variety of City projects; oversees the review and processing of all private and public development activity within the City for conformance of master, parcel, review tentative and final maps, lot line adjustment/lot mergers, acquisitions, dedication of easements, rights-of-way and parcels; resolves difficult survey issues; certifies final subdivision maps and related documents; and to do related work as required.

DISTINGUISHING CHARACTERISTICS

This is a single incumbent position class. Incumbents perform a wide scope of professional office, field engineering, surveying, and mapping work. They may also provide project planning and coordination for paraprofessional and technical staff. This class is distinguished by requiring registration as a land surveyor and the performance of a broader range of more complex assignments.

REPORTS TO

City Engineer, Senior Engineer or designee

CLASSIFICATIONS SUPERVISED

Incumbents may provide some work coordination and training for Assistant Engineer and Engineering Technician I, II, III, and IV

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES (The following is used as a partial description and is not restrictive as to duties required.)

Develops and implements policy and procedures for technical staff in review, processing, coordination, and approval of map check and certificates of compliance for public and private development; provides technical advice to subordinate personnel; provides a variety of technical engineering and land surveying advice to the public and other agencies; responds to a variety of technical questions regarding property line location, vertical and horizontal control inquiries, mapping questions, and City Standards; prepares, signs and seals maps, legal descriptions and plats for the acquisition of rights-of-ways, easements, and disposal of City-owned property and other documents as required; performs rights-of-way studies involving research of recorded deeds and easements; performs a variety of project development and coordination assignments including, but not limited to, the following; performs project administration, contract administration, prepares engineering cost estimates, construction inspection, and reviews change orders and progress payments for approval; directs the processing of subdivision maps and maps of surveys for filing as required by the Subdivision Map Act and Land Surveyor's Act, and local ordinances; maintains records and archives of

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EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES (continued)

maps, streets, benchmarks, certificates of compliance, easements, and deeds for public and City staff access; checks legal descriptions and certificates of correction for technical correctness and conformance with State and City requirements; reports deficiencies for correction; maintains City monumentation; replaces monuments as needed; maintains and updates records to ensure accurate survey activities; receives, logs, prioritizes and manages design staking and construction staking requests; operates a wide variety of survey instruments and instructs others in their operation; performs a variety of professional office surveying duties including calculating survey data from notes, maps, deeds and other records; provides technical map checking assistance to the City Engineer; reviews, signs, and seals maps for technical accuracy of the survey-related aspects of maps, may prepare grant applications and associated documentation; interprets and computes field data, evaluating for accuracy and completeness; may assist in property negotiation and acquisition; prepares accurate field notes of work performed showing lines, angles, distances, benchmarks, mathematical calculations, and other data pertinent to the field survey; performs field reviews and surveys of various engineering projects; performs survey activities in a safe and effective manner; may represent the City's Engineering Department in meetings with contractors, engineers, developers, property owners, attorneys, and representatives of other public agencies; performs other or related duties as assigned.

TYPICAL PHYSICAL REQUIREMENTS

Frequently stand, walk and sit for extended periods; normal manual dexterity and hand-eye coordination; lift and move objects weighing up to 25 pounds; corrected hearing and vision to normal range; verbal communication; use of engineering and office equipment, including computer, telephone, calculator, copiers, scanners and FAX.

TYPICAL WORKING CONDITIONS

Work is performed in an office environment; may work outside; some exposure to weather and temperature variances; exposure to dust and continuous contact with other staff and the public.

DESIRABLE QUALIFICATIONS

Knowledge of:

Principles and practices of engineering surveying including boundary establishment and property description.

Principles and practices of land surveying as applied to the design and construction of public works facilities, technical inspection services, design review and other areas.

Principles of subdivision design and standards.

Pertinent laws and regulatory codes dealing with development, construction, surveying, and real estate.

Applicable principles and practices of engineering as related to survey work.

General operation of automated equipment and standard application software related to surveying functions.

Principles of algebra, geometry, and trigonometry as applied to technical engineering and surveying calculations.

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DESIRABLE QUALIFICATIONS (continued)

Record keeping and survey data collection methods.

Engineering maps and records.

Proper inspection methods and procedures.

Modern office procedures, methods and computer equipment.

Ability to:

Organize, implement and direct survey-related operations and activities.

Provide work coordination and training for paraprofessional and technical engineering support staff.

Perform a wide scope of professional engineering and surveying work in the preparation of maps, plans, designs, and specifications for public works and City facility development, construction, and maintenance.

Understand and interpret legal descriptions and record survey maps.

Understand and interpret engineering plans, diagrams, and notes.

Prepare and maintain accurate survey records.

Conduct land surveying reviews of designs, plans, and specifications prepared by others.

Gather, organize, analyze, and present a variety of technical engineering, land surveying and statistical data.

Perform construction project administration, ensuring compliance with plans, specifications, and contracts.

Use a computer and appropriate software in professional engineering and land surveying administrative work including, but not limited to, CAD drafting, plotting and printing.

Use and care of surveying instruments and equipment.

Communicate clearly and concisely, both orally and in writing.

Effectively represent the City's Engineering Department in contact with the public, other City staff, and other government agencies.

Establish and maintain cooperative working relationships.

Training and Experience:

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

Completion of requirements for a Bachelor's degree in civil engineering or a closely related area and three years of increasingly responsible experience in civil engineering and land surveying (e.g., roads, construction surveying, rights-of-way and preparing legal descriptions).

Special Requirements:

Possession of a valid California Driver License.

Possession of a Certificate of Registration as a Land Surveyor in the State of California or possession of a Certificate of Registration as a professional civil engineer in the State of California issued prior to January 1, 1982.

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Reference: City of Merced Personnel Rules and Regulations, Sections 5.05 and 5.07.

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APPROVED _

Chairperson, Personnel Board

DATE //-13-12