

ENGINEERING TECHNICIAN

DEFINITION

Under general supervision of the Deputy Director of Public Works/Assistant City Engineer, performs engineering drafting and design work; performs instrument work as part of an engineering survey party; inspects public works improvements; conducts traffic control and other engineering studies; coordinates the streetlight maintenance and public works safety programs; and performs all other related duties as assigned.

EXAMPLES OF DUTIES

- Prepares draft and final plans for public works projects, including streets, sidewalks, parks, drainage, and water and wastewater systems; prepares project cost estimates and assists in the preparation of technical specifications for public works projects.
- Participates in the work of engineering survey parties by establishing survey control, performing construction staking, and determining quantities using total station, data collector, and level; reduces field notes, researches recorded data for public works projects and performs field surveys to prepare plans, maps, and property descriptions.
- Inspects public works projects, including those done on a contract basis.
- Provides technical assistance to citizens related to projects such as sidewalks, driveways, water service and/or sewer laterals; processes applications and inspects work for encroachment permits.
- Sets up and maintains traffic counters on City streets; records traffic count data; conducts traffic speed studies.
- Files and duplicates City maps, plans and documents upon request; sets up and maintains hard copy and electronic master files for drawings, project documents, surveys and studies.
- Provides information to the public regarding the City's infrastructure, including right-of-ways, streets, storm drainage, and water and wastewater systems.
- Performs all other related duties as assigned.

REQUIREMENTS

Knowledge of: Principles, practices instruments and techniques of surveying; civil engineering construction requirements and standard practices; computer aided drafting techniques; standard business software, including word processing, spreadsheet and

database programs; traffic survey and traffic analysis techniques and methods; basic principles and practices of construction inspection; standard safety principles and practices related to construction and surveying work; report writing techniques, including the use of maps, charts and graphs for the presentation of graphic and numerical data.

Skill in: Reading, understanding, interpreting and applying a wide variety of technical information related to construction, surveying, and civil engineering work, including engineering plans, notes, reports, maps, specifications and descriptions; performing mathematical calculations related to surveying and engineering work, including trigonometric functions and engineering formulas; conducting site surveys and establishing survey controls, including staking and the use of surveying instruments; preparing legally acceptable property descriptions from basic data and field survey notes; performing construction inspections to determine conformance with engineering plans and specifications; preparing and presenting written and verbal reports; utilizing personal computers and computer software programs; and establishing and maintaining effective and cooperative working relationships with co-workers and the general public.

OTHER REQUIREMENTS

Must possess a valid California Driver's License. Must be willing to work overtime, weekends and/or holidays as required. Must be willing and able to handle the physical aspects of the job, including working outside in inclement weather and exposure to dust and pollen. Should be proficient in the use of a wide variety of equipment related to the work, including drafting machines, electronic traffic and flow detectors and monitors, surveying level, total station, data collector, and computers.

DESIRABLE EXPERIENCE AND TRAINING

Applicants should have experience and training which would tend to demonstrate possession of the required knowledge and skills outlined above. An example would be:

College level coursework in civil engineering, drafting, engineering mathematics or related fields, and at least one year of experience in sub-professional engineering and/or surveying work. Previous experience working in the public sector is also desirable.