

ENGINEERING TECHNICIAN I/II

Definition

Under direct supervision, performs difficult subprofessional engineering work on public works projects and related improvements in the field or office, and related work as required.

Duties and Responsibilities

- Performs preliminary map plotting from topographic survey notes prepared in field surveys;
- Prepares charts, sketches, designs, specifications and plans;
- Makes field inspections.
- May act as a party chief on occasion, making preliminary construction, topographic, and other surveys;
- Checks tentative and final subdivision maps, parcel maps, public improvement plans, grading plans, and other plans;
- Assists in computing grades, reducing cross-section notes, plotting profiles, and drawing alignments;
- Checks, interprets, and prepares legal descriptions, boundary descriptions, and preliminary agreements;
- Records engineering data on maps;
- Provides information and assistance to developers, engineers, property owners and other City staff members;
- Reviews plot plans and development plans, writes conditions of approval and related staff reports;
- Plans, estimates and analyzes a variety of engineering studies;
- Checks operational aspects of street construction project for traffic flow improvement;
- Makes field investigations related to various types of engineering problems and submits reports and recommendations;
- Assists in operating and programming of computer systems for engineering analyses;
- Writes correspondence, memorandums, and engineering specifications.

Supervision

Supervision is received from an Engineer I and/or II, or higher-level engineering staff; Supervision may be exercised over Engineering Aides, and after progression to Engineering Technician II, supervision may be exercised over Engineering Technician I.

Employment Standards

Knowledge of:

- Elementary principals of civil engineering;
- The nomenclature, symbols, methods, practices, and instruments used in engineering drafting;
- Plane trigonometry;
- Materials, methods, and equipment used in the collection, analysis and construction of public works structures and facilities;
- Principles of engineering mechanics;
- Fundamentals of traffic engineering;
- Skills in the use of drafting, survey and other engineering instruments;
- Principles and practices of customer service.

Ability to:

- Supervise and conduct field surveys;
- Operate Computer Aided Drafting (Auto CAD);
- Operate and maintain mechanical map reproduction equipment and related engineering equipment;
- Read and interpret engineering maps and drawings;
- Prepare accurate drawings from field notes;

ENGINEERING TECHNICIAN I/II
Page Two

- Analyze, prepare and interpret plans, specifications, survey notes, and a variety of statistics and graphs;
- Follow oral and written instructions;
- Make quick and accurate computations;
- Supervise and train others;
- Speak and write effectively;
- Perform duties in a manner which demonstrates an understanding and respect for the diversity of City employees and the community;
- Establish and maintain effective relationships with employees, developers, engineers, property owners, and other personnel;
- Operate personal computer software applications, including Microsoft office and e-mail.

Education and Experience – Any combination equivalent to completion of two years of college in engineering or related field, including courses in (CAD), algebra, geometry, trigonometry, and surveying; and two years of experience as an engineering aide, land surveyor, or related work which includes CAD.

Advancement to Engineering Technician II may be made after successfully completing one year as a Engineering Technician I with the City of Escondido. Initial appointment at a Engineering Technician II level may be made based on the above educational requirements and three years of responsible sub-professional engineering experience.

Date
8/00

Revised By
HR - SB