

# CITY OF SCOTTS VALLEY CLASS SPECIFICATION

## ASSISTANT IN CIVIL ENGINEERING

### **JOB PURPOSE**

Under direction to perform a variety of professional engineering duties in conjunction with the design, research, plan checking and administration of public works projects. May also direct the work of other technical employees on an intermittent project basis. Incumbents either prepare engineering designs and specifications for projects using standardized methods, or prepare segments of the design work for projects assigned to and supervised by Associate Civil Engineers. Additionally, incumbents review engineering plans and specifications and land development projects prepared by professional consultants; and perform related work as required.

### **EXAMPLES OF DUTIES**

#### **Essential Duties:**

- Conducts reviews concerning a wide variety of subjects relating to Public Works projects and private developments involving public right-of-ways. These entail determinations such as the conformance of parcel maps to applicable regulations and the technical correctness and feasibility of developer's plans;
- Assists in the review of preliminary concept plans and maps through final approved plans and maps for subdivisions, commercial developments and public improvements appurtenant to them within the public right-of-way. Checks maps and plans for conformity to City policies, conditions of approval and recognized engineering practices. Assists in the response to maps and plans, including reviewing cost estimates, establishing fee schedules, and development contract provisions and specialized agreements;
- Performs a number of functions attendant to the above reviews such as advising developers of deficiencies in maps and plans and the preparation, negotiation and administration of contracts and the preparation of bonds for development projects;
- Prepares, negotiates, reviews and administers a variety of public works contracts and other project documents covering such matters as property descriptions, project specifications, easements, access maintenance, and City franchises;
- Conducts studies involving the research, investigations and recommended disposition of engineering problems regarding existing or proposed public works or improvements to them, i.e., erosion control, street lighting, parking, drainage, etc.;
- Performs a variety of drafting and engineering computations;
- Prepares routine designs, plans, drawings, specification, and reports for roads, sewers, water, flood control, drainage, bikeways, refuse disposal, water and other public works projects and grants that meet Federal, State and local environmental safety standards;
- Writes construction project specifications;
- Prepares detailed cost estimates;
- Conducts field surveys to identify technical problems and collect data;
- Uses survey data to develop cross sections and alignments;
- Conducts right-of-way research and writes legal descriptions;
- Obtains required permits for projects from other agencies;

- Assists in developing and preparing information for documents, proposals, affidavits, bonds, specifications, change orders and other documents and reports involved in the construction of engineering projects;
- Gathers, compiles and computes data using engineering, drafting and calculating instruments and techniques to prepare designs, plans, estimates, technical reports and specifications for the construction, alteration, maintenance and operation of a variety of engineering projects;
- Provides information to the public, contractors, and consultants;
- May assist in inspecting construction projects for conformance with specifications, safety standards and Federal, State and local regulations;
- May prepare traffic studies to determine transportation needs and review traffic studies prepared by consultants for accuracy;
- Uses a computer terminal to input, access, and analyze data and perform computer aided design;
- Prepares reports, correspondence, exhibits and presentations in connection with the above and related assignments.

**Marginal Duties:**

- Performs other related duties as assigned;
- May direct the work of other technical employees on an intermittent or project basis.

**EMPLOYMENT STANDARDS**

**Education, Experience and Licenses:** Equivalent to a Bachelor's degree in Civil Engineering; two years of experience (preferably in municipal government); a valid California motor vehicle operator's license; completion of the Engineer-in-Training portion of the examination for Registration as a Civil Engineer in the State of California.

**Ability to:** Accurately prepare and review engineering plans, draftings, specifications, maps, and computations; develop a good working knowledge of department programs, regulations and policies; prepare concise technical reports and presentations; communicate effectively orally and in writing; and maintain effective working relationships with those contacted in the course of work. Gather data and solve engineering problems and perform engineering calculations.

**Knowledge of:** Principles and practices of Public Works engineering and methods, materials and techniques used in the construction of public works. Working knowledge of basic civil engineering design and drafting. Working knowledge of chemistry, physics and mathematics as applied to civil engineering. Some knowledge of the principles of hydraulics, hydrology, strength of materials, structural analysis, surveying, and the application of data processing to solve engineering problems.

**CITY COUNCIL APPROVAL:** November 2, 1994