

## **PRINCIPAL ENGINEER**

### **DEFINITION**

Under general direction, to direct, manage, supervise and coordinate the Engineering Section of the Public Works Services Department, to perform highly complex and professional engineering administration duties; to plan, direct, and supervise a variety of engineering projects and programs; and to conceptualize, develop, design, and implement all phases of difficult design and engineering research projects. Coordinate assigned activities with other City departments and outside agencies.

### **DISTINGUISHING CHARACTERISTICS**

The Principal Engineer provides full line and functional management responsibility for a division and performs full supervisory and managerial responsibilities for a unit, including planning, assigning, and evaluating the work of subordinates and are responsible for a program area within a work unit or department.

This class is distinguished from the City Engineer in that the latter is responsible for the general administrative direction of the Engineering Section and control of all projects.

### **ESSENTIAL AND IMPORTANT DUTIES**

- Plan, develop, coordinate, and direct the activities of a Division of the Public Works Department;
- Plan, organize, and manage engineering projects from the preliminary stage to the completion of construction and/or installation;
- Confer with and assist the City Engineer and/or Director of Public Works in the development of long-range plans, prioritization of projects, goals, objectives, and budgets;
- Act as a mentor to staff providing them with leadership, training, direction, & support;
- Manage, schedule, and evaluate the work of assigned Division staff, and develop processes and procedures designed to support a continuous learning environment;
- Attend meetings and work with other Departments and City Staff to implement projects of mutual interest and follow City guidelines as it relates to Public Works projects;
- Prepare and manage: Requests for Proposals, contracts, agreements, consultants/contractors for consulting and/or construction projects; Inspect or direct projects being performed by outside contractors; Perform specialized technical studies and/or investigations;
- Prepare complete and comprehensive oral and written reports and make recommendations;
- Monitor the progress of projects through a data base and ensure that projects are completed on-time and within budget;
- Prepare division operating and capital improvement budgets and assist in the preparation of departmental operating and capital improvement budget;
- Present to City Council, commissions, and other organizations;
- Ensure that public facilities installed as part of private developments are constructed per approved plans and to City standards;
- May act as the City Engineer or Director of Public Works in his/her absence; and
- Perform other related work as assigned.

### **JOB-RELATED AND ESSENTIAL QUALIFICATIONS**

**Knowledge of**

- Civil engineering principles, practices, and methods of planning, design, construction and maintenance of public works projects;
- The strengths, properties, and uses of materials of public works construction;
- Land surveying as it relates to urban municipalities;
- Hydraulics, mechanical, structural, and sanitary engineering as they relate to public works projects;
- Practices of real property description, land acquisition, and report writing relating to all above subjects;
- Principles and practices of budgeting (operating and capital), communication, safety, contracting, leadership, human resources, information technology, public relations, project management, outreach, performance standards, records management, and resources to achieve outcomes and expectations;
- Research methods and statistical analysis, complex spreadsheets, database applications, and project and workload planning;
- Problem solving, and conflict resolution practices and techniques; and
- Environmental and safety practices, procedures, and standards, e.g. OSHA, Federal, State and local rules and regulations.

#### **Ability to**

- Organize, implement and direct Public Works operations and activities.
- Determine, plan, assign and manage Section priorities.
- Effectively supervise and train professional, technical and clerical support staff.
- Learn and retain City administrative, budgeting, purchasing and personnel processes and procedures.
- Be proactive in identifying problem areas and develop alternative solutions and recommendations.
- Make complex engineering calculations and to check, design, and supervise the construction of a wide variety of municipal improvements and construction projects.
- Communicate effectively, orally and in writing; communicate technical information clearly and accurately to non-engineering staff, consultants, and the general public.
- Performing difficult engineering work in the design and construction of Public Works projects.
- Developing and implementing improvements to systems and operations.
- Operate Engineering tools and equipment

#### **EDUCATION AND TRAINING**

Sufficient education and experience to satisfactorily perform the duties of this classification. A typical qualifying background would be:

*Experience:* Five (5) years of increasingly responsible experience in civil engineering office and field work, three (3) years of which were obtained after registration and two of which have been as an engineer in a supervisory capacity.

*Training/Education:* Bachelor's Degree in Civil Engineering from a college or university that is accredited by the Accreditation Board of Engineering and Technology

#### **LICENSES, CERTIFICATES AND REGISTRATION**

- Possession of a valid Class C California driver's license.
- Possession of a valid certificate of registration as a Civil Engineer issued by the California State Board of Registration for Civil and Professional Engineers.
- Possession of a license as a Professional Land Surveyor in California is highly desirable.
- Other certifications such as Qualified SWPPP Practitioner (QSP)/Qualified SWPPP Developer (QSD) are desirable.

**SPECIAL REQUIREMENTS**

Work is performed mostly in office settings. Some outdoor work is required in the inspection of various land use developments, construction sites, or public works facilities. Use of safety equipment, such as safety vests, safety eye wear, safety boots and hard hats, as required. May on occasion have to actively participate in evening and weekend meetings.