

PRINCIPAL CIVIL ENGINEER

DEFINITION

Under general direction, plans, designs, and supervises major public works projects; performs related duties as required.

DISTINGUISHING CHARACTERISTICS

The Principal Civil Engineer is the advanced level within the engineering series wherein assignments are complex, and responsibility is assumed for the supervision of personnel and projects. It is distinguished from the Associate Engineer by the complexity of regular engineering assignments and the amount of supervision exercised over personnel and projects.

REPRESENTATIVE DUTIES

The duties listed below are examples of the work typically performed by employees in this class. An employee may not be assigned all duties listed. Not all assigned duties may be listed. Marginal duties (shown in italics) are those which are non-essential job functions for this class.

1. Prepares preliminary and final designs for complex projects from written/verbal direction, or from a general assignment of an area of engineering responsibility.
2. Assigns, reviews and participates in the design, preparation and checking of construction plans, site investigations, cost estimates, specifications, and reports for the construction, improvements, and repair of public facilities; calculates and analyzes stresses and loads to which structures may be subjected to; determines structural sections, line and grade for construction projects; reviews all plans as they relate to floodplain matters.
3. Supervises front counter operations; assists subordinates with citizen inquiries and complaints; discusses fees with City contractors and developers.
4. Confers with other department employees and representatives of government agencies, public utilities, and contractors to obtain information pertaining to the preparation of plans, specifications, cost estimates, and coordination of contract requirements.
5. Reviews manufacturers specifications and confers with representatives of material suppliers, contractors, and other department personnel concerning design criteria; prepares specifications for construction contracts; analyzes bids and recommends contract awards; interprets specifications, drawing, details of construction, and installation for field personnel; reviews proposals and recommendations for design changes to determine the need for design modifications and coordinates the required changes.
6. Investigates structural damages and prepares estimated cost of repair, prepares reports pertaining to the progress of design, construction and other agencies.

7. Functions as a departmental representative at various meetings; may serve on behalf of superior as assigned.
8. May participate in administrative studies in areas outside the scope of regular duties; *provides temporary and vacation relief in similar occupational fields as necessary.*
9. Reviews traffic complaints; prepares reports on safety matter issues.
10. Represents and supports the policies and procedures established by the City Council, City Manager, Department Heads and Division Chiefs.

EMPLOYMENT STANDARDS

Education and/or Experience

Graduation from an accredited college with a Bachelor's degree in civil engineering and five years of public works design and construction management experience or any combination of training and experience that provides the desired knowledge and abilities.

Knowledge of:

Principles and practices of civil engineering as related to the preparation of plans and specifications for a variety of public works projects; land and engineering survey systems, methods, and techniques; construction materials and approved safety standards as related to structural design and specifications; supervisory techniques and practices; principles and practices of traffic engineering.

Ability to:

Adopt approved engineering methods and standards to the design and construction of a variety of public works projects; supervise the work of others engaged in engineering activity; communicate effectively, both verbally and in writing; establish and maintain cooperative working relationships; understand and follow verbal and written directions; analyze and resolve unusual situations through application of City/department policy; constructively deal with conflict and develop effective resolutions.

Special Requirements

Possession of or ability to obtain a valid California Driver's License may be required. Registration as a Civil Engineer from the State of California.

Physical Demands

Sitting, standing, walking, some stooping and bending; dexterity and coordination to handle files and other references materials; occasional lifting of objects up to 25 lbs; moving from place to place within an office; some reaching for items above and below desk level.

WORKING CONDITIONS

Generally clean work environment with limited exposure to conditions such as dust, fumes, odors, or noise; use of a computer; temperature fluctuations due to working inside and outdoors; independent travel throughout the area is required.

Date Adopted: August 6, 1996