

SENIOR CIVIL ENGINEER, 9485

Summary of Duties : Performs difficult and responsible professional civil engineering work in supervising the planning, design, construction, maintenance, and operation of municipal facilities and structures; may act as assistant division or district engineer; and does related work.

Distinguishing Features : A Senior Civil Engineer is usually in direct charge of an important design or coordinating function, and may act as an assistant to the head of a major unit. A Civil Engineer is distinguished from a Senior Civil Engineer in that the latter is responsible for the more difficult administrative and technical engineering duties.

A Senior Civil Engineer receives assignments in general terms, delegates detail to subordinates, and is personally concerned with the fundamental aspects of engineering problems and the review of completed work. An employee of this class usually discusses nonroutine problems with the division or district head, but assigns, directs, reviews, and prepares reports on the work after basic decisions are made. The employee must resolve many technical problems requiring the correlation of civil engineering requirements with the work of other divisions, bureaus, departments, other governmental agencies, and private engineers. In much of the work, an employee of this class must take into account the feasibility of various methods of financing work, and ways in which the work may be done with greatest benefit to the City.

Examples of Duties : Acts as the responsible administrative and technical director of an important planning, design, or coordinating function in connection with a wide-variety of municipal engineering projects including sewerage, sewage and refuse disposal facilities, sewage treatment plants, storm drains, street and highway improvements, street opening and widening, erosion control, flood control, harbor facilities and earth dams, diversion works, penstocks, railroads, steam and hydroelectric power developments and other power system facilities and appurtenant works and services, airport passenger terminals and airfield facilities; represents the City in conferences with other engineering groups and government agencies; makes or directs the making of special studies and investigations; prepares or directs the preparation of comprehensive reports and recommendations;

May be responsible for providing civil engineering service in a specialized operating bureau or department, including the administration, coordination, and direction of research and testing, structural and architectural, sanitary, mechanical and electrical, or surveying and mapping aspects of civil engineering

projects; may coordinate and control the activities of utilities and contractors making excavations in public streets; may review, approve and coordinate the design and construction of major tenant projects on City property; and may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications: A good knowledge of civil engineering, including the mechanics of materials, testing of materials, and hydraulics as applied in the preparation of environmental documentation, designs, plans, specifications, estimates, studies, and recommendations for sewerage, sewage and refuse disposal facilities, street and highway improvements, storm drains, erosion and flood control, harbor facilities, airport facilities, and steam and hydroelectric power plants and other power system facilities and appurtenant works, including dams and penstocks; a good knowledge of sources of engineering information; a good knowledge of safety principles and practices; a working knowledge of environmental procedures; a working knowledge of engineering economics; a working knowledge of assessment act procedures and other methods of financing municipal projects; a working knowledge of the coordination, supervision, organization and budgeting problems encountered in large-scale engineering and design work; a working knowledge of the laws and regulations related to equal employment opportunity and affirmative action; a general knowledge of City personnel rules, policies, and procedures; a general knowledge of memoranda of understanding as they apply to subordinate personnel; the ability to plan, coordinate, direct, and review the work of a group of engineers and other technical and clerical employees working on a large project; the ability to analyze and evaluate alternate engineering design proposals for technical and economic feasibility, and to make sound recommendations; the ability to conduct difficult engineering research studies; the ability to prepare clear and comprehensive plans and reports; the ability to represent the City in conferences, hearings, and meetings; and the ability to deal tactfully and effectively with government officials, employees, tenants, and the public.

Two years of professional engineering experience at the level of Civil Engineer or three years of such experience at the level of Structural Engineering Associate II.

Registration: Registration as a Civil Engineer with the California State Board of Registration for Professional Engineers is required.

Physical Requirements: Strength to perform average lifting of less than 5 pounds and occasionally over 15 pounds; good speaking and hearing ability; and good eyesight.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this

class. Such determination must be made on an individual basis in light of the person's limitations, the requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties and responsibilities of any position shall be.