

Summary of Duties: Plans, organizes and directs the work of an engineering staff engaged in the preparation or checking of designs, plans, specifications, and reports for a variety of structures; applies sound supervisory principles and techniques in building and maintaining an effective work force; fulfills affirmative action responsibilities; performs the more difficult and responsible technical engineering work; participates in the budget process; and does related work.

Distinguishing Features: Greater administrative responsibility and more difficult professional engineering duties distinguish this class from Structural Engineer. A Senior Structural Engineer may be in direct charge of a plan checking group or may act as an assistant to the head of a major unit. A Senior Structural Engineer may have additional responsibility for architectural work, or may directly supervise employees engaged in the analyses and the development of departmental systems and operations, or be assigned to work involving research in structural engineering problems. An employee of this class receives assignments in general terms, delegates detail to subordinates, and is directly involved with the fundamental aspects of engineering problems and the review of completed work. Incumbents in the class of Senior Structural Engineer, as bona fide supervisors, are responsible for the performance of the full range of supervisory activities including: application of discipline, processing and resolution of grievances, evaluation of performance and approval of time off requests. A Senior Structural Engineer must deal with many technical problems requiring coordination of the structural requirements with architectural, mechanical, and electrical features.

Examples of Duties: Directs and coordinates the preparation of designs, plans, specifications, estimates, and reports relating to structural and economic aspects of a variety of reinforced concrete, steel, and timber structures, such as bridges, buildings, tunnels, retaining walls, wastewater treatment facilities, steam and hydroelectric generating plants, transmission line towers, receiving and distributing stations, and concrete reservoirs and dams; receives and analyzes assignments, distributes them among subordinates, and suggests methods of approach; interprets, evaluates, and reviews completed work; communicates equal employment/affirmative action information to employees; applies job-related criteria in selecting, orienting, assigning, training, counseling, evaluating, and disciplining subordinates; assists employees in preparing for promotion as described in the City's Affirmative Action Program; interprets plans and specifications to assist in settling disputes raised by construction inspectors and contractors.

Directs and coordinates the checking of plans and specifications for conformance to the City Building Code and State law related to construction; confers with engineers, architects, and contractors on plans in the formative stage and advises them on proper construction

procedures, designs and practices according to building regulations; resolves differences between subordinates and the public regarding the interpretation of the Code and the conformance of proposed plans to it; may act as an assistant to the head of a large plan checking section in the Building and Safety Department; makes research studies and prepares recommendations on new materials and methods of design or construction; and may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications: A good knowledge of structural engineering, including recognized standards, as applied to the preparation or checking of designs, plans, specifications, and estimates for reinforced concrete, steel, and timber structures such as bridges, buildings, electric generating plants, transmission line towers, receiving and distributing stations, and concrete reservoirs and dams; a good knowledge of the City Building Code and applicable State laws relating to construction; a good knowledge of the usual sources of engineering information; a good knowledge of engineering economics; a good knowledge of supervisory principles and practices including: planning, delegating and controlling the work of subordinates; a good knowledge of techniques of training, instructing and evaluation of subordinate work performance; a good knowledge of techniques for counseling, disciplining, and motivating subordinate personnel; a good knowledge of the procedures for grievance handling; a good knowledge of supervisory responsibility for EEO/AA as set forth in the City's Affirmative Action Program; a good knowledge of effective safety principles and practices; a working knowledge of memoranda of understanding as they apply to subordinate personnel; a general knowledge of City personnel rules, policies, and procedures; the ability to direct and review the work of a group of engineers and other employees and to coordinate it with an over-all program; the ability to evaluate the engineering soundness of alternate proposals; the ability to prepare clear and comprehensive plans and reports; the ability to deal tactfully and effectively with employees and the public; the ability to establish and maintain a work environment to enhance both employee morale and productivity; the ability to apply sound supervisory principles and techniques; and the ability to fulfill supervisory affirmative action responsibilities as indicated in the City's Affirmative Action Program.

Two years of professional engineering experience at the level of Structural Engineer or four years professional engineering experience at the level of Structural Engineering Associate is required.

Registration: Authority to use the title Structural Engineer, issued by the California State Board of Registration for Professional Engineers, is required.

License: A California driver's license may be required.

Physical Requirements: Strength to perform average lifting of less than 15 pounds and occasionally over 25 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 4.5 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.