

ENGINEER ASSISTANT/ASSOCIATE ENGINEER

DEFINITION:

Performs professional civil engineering work in the design, construction, and contract administration of a variety of public works projects; and does related work as required.

The class has two levels. Engineering Assistant is the entry-level position. The position is distinguished from the Associate Engineer level by the performance of professional engineering duties of limited scope and complexity. The incumbent is not expected to perform with the same level of independence and judgment on matters related to established procedures and guidelines. Engineering Assistant differs from Engineering Technician in that the latter is responsible for performing sub-professional office and fieldwork involving drafting, surveying and inspections. The incumbent in this position may have limited or no experience, works under close supervision while learning job tasks and is expected to perform at the next level within the prescribed time frame.

Associate Engineer is the journey-level position responsible for performing the full-range of professional civil engineering work. The incumbent is expected to work under general direction and perform work requiring a higher degree of judgment, independence of action and problem solving than the entry-level position of Engineering Assistant. Appointment to Associate Engineer requires that the employee meet the qualification standards established for the Associate Engineer classification and perform the duties at the required level. Both levels receive supervision and direction from a Senior Civil Engineer.

ESSENTIAL JOB FUNCTIONS:

The listed tasks are essential to this position and may include, but are not limited to, the following: prepares plans, specifications and cost estimates for storm drain, street, water, sewer, or miscellaneous city improvement projects; prepares drawings and reports on traffic engineering studies; prepares design calculations, determines right-of-way requirements and prepares engineering drawings and maps; analyzes engineering data and makes estimates of quantities and costs; performs calculations requiring knowledge of algebra, trigonometry, calculus, elementary mechanics, strength of materials, statics and structural analysis; assists in conducting hydraulic and hydrologic studies to determine the design criteria and operational requirements for storm drain, sewer and water facilities; handles a variety of other assignments from project engineers. Other duties for Associate Engineer may include: serving as Chief of Party on various survey assignments such as location surveys, topographic surveys and others; inspecting the construction of projects in the field to see that plans and specifications are being followed by contractors. This class may be required to work shifts, weekends and/or holidays.

QUALIFICATIONS:

Training and Experience: Engineering Assistant: A Bachelor's degree from an accredited college or university in civil engineering or four years of civil engineering training at an accredited college with successful completion of an E.I.T. examination or its equivalent, which is recognized by the California Board of Civil and Professional Engineers.

Associate Engineer: A Bachelor's degree from an accredited college or university in civil engineering and the equivalent of three years of experience in civil engineering at the level of Engineering Assistant or higher. In order for the experience to be considered, it must have been gained subsequent to receipt of the bachelor's degree or successful completion of EIT examination.

License: A valid California "C" driver's license.

Knowledge, Skills and Abilities: Requires knowledge of principles and practices of civil engineering including surveying, hydraulics, structural design, traffic and construction; ability to prepare engineering plans and specifications; ability to perform mathematical analyses.

PHYSICAL DEMANDS AND WORK CONDITIONS:

Work is performed mostly in office settings. While performing the duties of this job, the employee is frequently required to sit and talk or hear and use a telephone and a personal computer with a VDT screen for extended periods of time. Some outdoor work is required in the inspection of various land use developments, construction sites or public works facilities. The employee is occasionally required to stand, walk, stoop, kneel, and use arms, legs, and back to lift and/or move up to 50 pounds.