

**ENGINEER, ASSISTANT / ENGINEER, ASSOCIATE CIVIL**

DEFINITION

Under direction, manage, direct and coordinate the activities of the Engineering Division including subdivision and cooperative projects; to coordinate engineering activities with other divisions of the Public Works and other departments; and to provide highly complex staff assistance.

DISTINGUISHING CHARACTERISTICS

**Assistant Engineer** is the journey-level classification in the professional engineering classification series. Incumbents are expected to be able to perform many of the complex tasks typically performed by licensed civil engineers. The level of project responsibility and direct supervision exercised over the engineering division distinguishes this class from the lower classifications of Engineering Technicians.

**Associate Civil Engineer** is the advanced journey-level classification in the professional engineering classification series. Incumbents are expected to be able to perform all of the complex tasks typically performed by licensed civil engineers and requires registration as Professional Engineer. The level of project responsibility, direct supervision exercised over the engineering division and possession of a valid California Registration as a Professional Civil Engineer distinguishes this class from the lower classifications of Engineering Technicians and Assistant Engineer.

SUPERVISION RECEIVED AND EXERCISED

**Assistant Engineer** receives general supervision from higher level professional engineering staff and exercises functional and technical supervision over lower level engineering staff and technical supervision over lower level staff within the Public Works Department.

**Associate Civil Engineer** receives general supervision from higher level professional engineering staff. The Associate Civil Engineer is a management position and as such exercises functional and technical supervision over lower level staff within the Public Works Department.

EXAMPLES OF DUTIES - Duties may include, but are not limited, to the following:

Prepares plans and specifications for the construction, alteration and maintenance of a wide variety of civil engineering facilities including roads, rights of way, traffic signals, drainages, bridges, and related structures;

Confers with officials of other government agencies, utility companies, consultants and land developers regarding construction and design regulation and policy issues;

Assistant/Associate Civil Engineer

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Rev.- 02/11/07  
Rev.- 07/01/07  
Rev.- 01/13/08  
Rev.- 07/13/08  
Rev.- 07/01/11

M.O. #6-3/21/06  
M.O. #22-2/6/07  
M.O. #22-2/6/07  
M.O. #22-2/6/07  
M.O. #22-2/6/07  
M.O. #11-7/5/11

Designs road improvements and prepares plans, profiles, cross sections and other details and quantity estimates;

Designs plans for conformance with regulations regarding size, elevation and location of structures; verifies calculations;

Acts as resident engineer on complex construction projects;

Inspects major construction projects in progress to assure compliance with plans and specifications;

Reviews plans prepared by private consultants to ensure their compliance with engineering principles and County requirements;

Reviews records of surveys, parcel and subdivision maps and use permits and other land use documents for approval of conditions;

Compiles project records, prepares progress reports, expenditure reports, contract change orders, progress pay estimates and final project reports;

Performs responsible technical research and develops County standard plans and specifications;

May supervise lower level engineering staff and represent the Department at various meetings.

## QUALIFICATIONS

### **Assistant Engineer**

#### Knowledge of:

Principles, practices and methods of civil engineering as applied to the planning, designing and construction of complex roads, bridges, drainage and structures;

Modern standards of alignment and grade of roads;

Design principles, the strength of materials and the stress analysis required in planning and designing roads and bridges;

Occupational safety and health rules and regulations;

Customer service and public relations methods and practices;

Hydraulics and structural design of roads, bridges, drainage or other public works projects.

#### Ability to:

Design complex engineering plans and prepare specifications for roads, bridges, drainage and other public works facilities;

Conduct technical engineering project planning, make detailed analyses and prepare reports;

Evaluate the work of contractors and consultants for compliance and project plans, specifications and applicable laws, ordinances and policies;

Communicate effectively both orally and in writing;

Utilize computer hardware, software and peripherals to accomplish work objectives;

Inspect major construction projects for adherence to contracts and specifications.

**Associate Civil Engineer** (In addition to the qualifications for Assistant Engineer):

Knowledge of:

Conformance and regulations regarding line and grade;

Principles and practices of project management;

Ability to:

Design plans for conformance with regulations regarding line and grade.

**EXPERIENCE AND TRAINING GUIDELINES**

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

**Assistant Engineer**

Experience:

Three years of recent engineering experience including at least two years at a level comparable to the Engineering Technician IV.

Training:

Bachelors of Science Degree in Civil Engineering or related technical field.

License or Certificate

Possession of an appropriate California driver's license.  
Engineer-in Training/Land Surveyor-in-Training Certificate

**Associate Civil Engineer**

Experience:

Four years of professional civil engineering experience including at least two years at a level comparable to the Assistant Engineer. A Masters' degree in Civil Engineering may substitute for one (1) year of experience.

Training:

Bachelors of Science Degree in Civil Engineering or related technical field.

License or Certificate

Possession of valid California Registration as a Professional Civil Engineer and or obtain licensure in California by reciprocity within one-year from the date of hire. Failure to obtain licensure in California within the one-year period will result in the demotion to Assistant Engineer status.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to inspect County development sites, to operate a motor vehicle, and to visit various County and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is partially a sedentary office classification; the job also involves field inspection work requiring frequent walking at inspection site areas to monitor performance and to identify problems or hazards; standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard, typewriter keyboard, or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects, up to 30 pounds as necessary to perform job functions.

WORKING CONDITIONS

Employees partially work in an office environment with moderate noise levels and controlled temperature conditions, and partially in the field and may be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.