

ASSOCIATE ENGINEER

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under minimal supervision, performs professional engineering work and administrative tasks associated with the planning, design, and construction of engineering projects; and performs a variety of tasks relative to the assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Associate Engineer is identified as a mid-level professional engineering classification. It is distinguished from positions in the Engineering Technician series in that the latter are primarily engaged in engineering plan checking and other technical support tasks. It is distinguished from Assistant Engineer in that the latter is an entry level engineering position, not licensed as a Professional Engineer, and less experienced than the Associate Engineer. It is distinguished from the Engineering Manager(s) position in that the latter is a senior level Professional Engineer and manages the Engineering Department.

SUPERVISION RECEIVED AND EXERCISED

Direct supervision is received from the Engineering Manager (Capital & Development) and/or the Assistant General Manager.

Direct supervision may be provided to Assistant Engineer, Lead Engineering Technicians Lead Engineering Inspector, CAD Analyst, Engineering Inspector I/III and/or Engineering Intern.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following:

Essential Functions:

1. Performs professional engineering work in support of District projects and programs. Engaged in and can lead planning, designing, and/or construction management activities.
2. Can lead engineering planning studies; makes preliminary analyses of hydraulic capacity and/or suitable locations for pipelines and facilities; makes site visits and surveys of field locations as appropriate.
3. Assists in reviewing engineering plans or specifications prepared by engineering consultants or developers; makes engineering calculations to include quantity take-offs and initial cost estimates for construction; participates in the review of submittals and vendor drawings for conformance with design requirements.
4. Can lead engineering project management work including administration of construction contracts; attends project review meetings; assists in coordinating construction inspection activities; does preliminary review of invoices requesting progress payments; coordinates directly with contractors.
5. Writes draft scope of work statements and content for Requests for Proposals and evaluation criteria for use in selecting consultants; may participate in reviewing and evaluating proposals for consultant work.

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6. Coordinates fire flow testing program and assembles and reviews data and statistics relative to these tests.
7. Learns and utilizes engineering and hydraulic modeling software to help conduct engineering analyses; maintains system model from system drawings/as built; runs planning level scenarios to develop and support capital projects.
8. Uses project scheduling software to track achievement of project milestones and monitor project budgets; assembles information for inclusion in engineering project status reports and staff reports as required.
9. Regular attendance at the work site.

Marginal Functions:

1. Performs related duties and responsibilities as required.
2. May be required to sign and approve engineering studies, construction plans and specifications, and other engineering documents as permitted by the Engineering Manager and/or Assistant General Manager.

KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

Complex civil engineering principles, practices, methods, materials and hydraulics.
Fundamentals of engineering economics including cost/benefit analysis.
Engineering project management methods and techniques.
Construction management and scheduling principles, including change order management.
Specification writing and editing.
Construction cost estimating.
Public contracting code and general contracting principles.
Federal, State and local laws and regulations affecting water and wastewater utilities.
OSHA regulations and safe work practices.

Skill in:

Using a personal computer and related software for business and engineering applications.

Ability to:

Learn and apply general engineering principles to the solution of specific engineering problems.
Gather, analyze and evaluate technical information and make reasoned recommendations thereon.
Assist in the conduct of various engineering project management activities.
Review and evaluate engineering specifications, requests for proposals, contract documents and design drawings.
Present technical information to non-technical persons.
Make accurate engineering calculations.
Maintain detailed and accurate records.
Understand and carry out oral and written instructions.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain cooperative working relationships with those contacted in the course of work.
Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

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Maintain mental capacity which allows the capability of making sound decisions and demonstrating intellectual capabilities.

Maintain effective audio-visual discrimination and perception needed for making observations, communicating with others, reading, writing and operating assigned equipment.

REQUIRED QUALIFICATIONS

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:

Experience and Education:

Either (a) five (5) or more years of technical engineering experience and possession of a Bachelor's degree from an accredited college or university with a major in Civil Engineering or a related field, or (b) ten (10) or more years of technical engineering experience.

License:

Possession of a Professional Engineering License in current and good standing in the State of California.

Possession of a valid Class C California driver's license and a satisfactory driving record.

PHYSICAL DEMANDS AND WORKING CONDITIONS

The physical and mental demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment

Standard office setting; frequent interaction with District staff and general public.

Physical

Incumbents require sufficient mobility to work in an office setting; stand and sit for prolonged periods of time; operate office equipment including use of a computer keyboard; ability to verbally communicate to exchange information; use of hands repetitively to operate finger, handle or feel office equipment and reach with hands and arms. Employees are frequently required to stand and walk.

Mental

The incumbent is regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve complex problems; use math and mathematical reasoning; perform highly detailed work under changing, intensive deadlines, on multiple tasks; work with constant interruptions.

Vision

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents and to operate assigned equipment.

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Hearing

Hear in normal audio range with or without correction.

JOB STATUS: Exempt
DATE MODIFIED: July 2021

Safety Sensitive Position