Associate Engineer

Department/Division:	Engineering
Reports To:	Director of Engineering
Provides Direction To:	N/A
FLSA Exemption Status:	Exempt
Effective Date:	12/19/2024

GENERAL PURPOSE

Under general direction, to perform a variety of professional-level civil-engineering work in the research, design, and construction of water capital infrastructure improvement, maintenance, and construction projects; to prepare a diverse range of engineering plans, specifications, calculations, studies, reports, and related documents; to conduct site visits to monitor construction projects progress; and to perform related duties as assigned.

DISTINGUISHING CHARACTERISTICS

This is the journey level classification in the Engineer classification series, which is responsible for independently performing a full range of professional engineering duties including exercising judgment and initiative. Positions at this level receive occasional instructions or assistance as new or unusual situations arise, and are expected to be fully aware of the operating procedures and policies of the work unit. The Associate Engineer is distinguished from the Senior Engineer in the complexity and scope of work and by the responsibility for the Senior Engineer to serve as a lead over a functional area of the Engineering Division.

ESSENTIAL FUNCTIONS

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the class.

- Performs a variety of civil engineering work in the research, design and construction of water capital infrastructure improvement, maintenance, and construction projects; prepares letter correspondence, including board letters and related documents; prepares presentation materials and graphic displays to groups involved in the project.
- Prepare preliminary engineering designs for presentation to groups involved in the project; prepares specifications and cost estimates, sketches of project options, and results of equipment and field research requirements.

- Completes a variety of civil engineering designs and calculations including, but not limited to, pipeline capacities, structural capacities, hydraulic pressure and related topics in support of projects and technical studies.
- Conducts reviews of project alternatives, considering financial, operational, maintenance, property/right of way, and constructability factors; conducts computer analysis and modeling and evaluates results to determine project-specific facility requirements and parameters.
- Participates in the completion of technical plans and documents for District projects; documents include, but are not limited to, feasibility studies, preliminary and final design, environmental conditions, water supply assessment, strategic and master plans, and related materials; coordinates the review and approval of documentation with District stakeholders.
- Performs project engineer tasks on assigned planning studies under direction from higher-level engineering staff; serves as point of contact for project stakeholders including District staff, consultants, contractors, and external agencies; establishes project scope of work, including schedules and cost estimates; coordinates project meetings and presentations; responds to requests for information; reviews proposed change orders; requests necessary permits; ensures compliance with regulatory requirements and interagency agreements; discusses status of projects and solutions with supervisor and senior engineers or higher-level staff; evaluates and recommends solutions to problems.
- Monitors and provides engineering support for construction work in progress, including field investigations, to ensure compliance with approved plans, specifications, and standards; maintains records of project activities including change orders and approvals.
- Reviews construction submittals by contractors, including shop drawings and change orders; reviews and researches alternative approaches in resolving change orders; ensures quality and conformance to project intent.
- Researches, coordinates, and reviews proposed right-of-way and the vacation of existing rights-of-way for acquisition or quit claim action; prepares documentation for easement acquisitions and coordinates activities with appropriate District departments
- Reviews project-related studies and documentation required by regulatory agencies; coordinates permit applications and submits required documentation.
- Participates in the Request for Proposals (RFP) process for assigned projects; prepares supporting documentation and engineer's estimates; coordinates pre-bid meetings; ensures clear communication on project between bidders and the District; assists in establishing selection criteria; reviews proposals based on technical merit and cost and provides recommendations; assists in contract negotiations; reviews contract documents and agreements and provides feedback/comments; prepares a variety of documentation such as purchase orders and task orders; reviews invoices and recommends action.
- Prepares technical communications for review and coordination with District management and staff including presentations, reports, and memoranda and other information necessary to coordinate project activities with internal and external stakeholders.
- Performs research and data gathering of technical datasets, historic information, and current projects to provide technical support and fulfill reporting requirements in response to requests from internal and external groups.
- Responds and answers to request for information.

- Provide technical support in answering design questions for walk-in customers, phone calls, e-mails and other District departments and staff.
- May be required to sign and approve engineering studies, construction plans and specifications, and other engineering documents.
- Perform related duties as required;

QUALIFICATION GUIDELINES

Knowledge of:

- Theory, principles and practices of civil engineering design and construction used in the utility industry.
- Principles and procedures of domestic water production, transmission, distribution and storage.
- Drafting principles, methods, and equipment, including AutoCAD and GIS.
- Sources of engineering information; knowledge of regulatory codes applicable to utility engineering.
- Field survey methods, procedures, and instruments.
- Statistics and graphic presentation of materials.
- General research and report writing methods.
- Engineering economics and cost estimating.
- Hydraulic principles and operation of computerized hydraulic modeling.
- Plan check methods.
- Construction management and inspection methods.
- Principles of lead direction, work coordination and training.

Ability to:

- Read and utilize field survey notes in the preparation of maps and plans.
  Write clear and concise technical reports.
- Interpret and analyze technical information and make independent judgments.
- Interpret construction and professional service contracts and construction contract documents.
- Make complex engineering calculations.
- Apply civil and engineering principles and practices to the solution or difficult problems.
- Work in a variety of environmental conditions, indoors and out, including wide temperature variations.
- Operate computerized hydraulic modeling software and analyze results.
- Adhere to and comply with safety standards and the proper use of safety equipment.
- Operate a vehicle observing legal and defensive driving practices.
- Understand and carry out oral and written instructions.
- Establish and maintain effective relationships with those contacted in the course of work.
- Work under moderate or high stress conditions.

Minimum Qualifications

Any combination of education, training, and experience that would likely provide the knowledge, skills, and abilities to successfully perform in the position is qualifying. A typical combination includes:

Education: Graduation from an accredited four-year college or university with a major in Civil Engineering or closely related fields;

and

Experience: Four (4) years of progressively responsible experience providing professional support to an engineering program, preferably in a public utility environment.

Licenses, Certificates; Special Requirements

Possession of a valid California Class "C" driver's license, acceptable driving record, and proof of auto insurance in compliance with the District Vehicle Insurance Policy standards.

In accordance with California Government Code Section 3100, West Valley Water District employees, in the event of a disaster, are considered disaster service workers and may be asked to protect the health, safety, lives, and property of the people of the State.

Desirable Certifications:

Possession of SWRCB Certification as a Water Distribution Operator and/or Water Treatment Operator.

Certification as an Engineer In Training (EIT).

PHYSICAL AND MENTAL DEMANDS

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 functions.

While performing the duties of this class, the employee is constantly required to sit and occasionally to stand and walk. Finger dexterity and light grasping is required to handle, feel, or operate computer hardware and standard office equipment; and reach with hands and arms above and below shoulder level. The employee occasionally bends, stoops, lifts, and carries records and documents, typically weighing less than 25 pounds.

Sensory demands include the ability to see within the normal range, talk, and hear, and use electronic touch keypads.

THIS POSITION MAY BE ELIMINATED, OR THE DUTIES, QUALIFICATIONS AND TRAINING REQUIRED CHANGED BY THE BOARD OF DIRECTORS AND/OR THE GENERAL MANAGER, WHEN IN THEIR JUDGEMENT, IT IS CONSIDERED NECESSARY AND PROPER FOR THE EFFICIENT OPERATION OF THE DISTRICT.