

Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job.

Job title	Assistant Engineer
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GENERAL PURPOSE

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

DISTINGUISHING CHARACTERISTICS

This is the fully qualified journey-level non-registered classification in the Engineering series. Incumbents perform the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit.

This class is distinguished from the Associate Civil Engineer I in that the latter is the first registered level within the Engineering series, performing the more complex registered level engineering work.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory or management personnel. Exercises no direct supervision over staff.

TYPICAL DUTIES AND RESPONSIBILITIES

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 this position.

- Performs a variety of professional-level civil engineering work in the research, design, and construction of water, sewer, and recycled 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.

- Prepares 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, pipe and open channel flows, groundwater flows, and related topics in support of projects and technical studies.
- Conducts a review 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.
- Prepares and/or reviews Plan of Service (POS) and Recycled Water Plan (RWUP) exhibit submittals, which contain a diverse range of supporting technical documentation for assigned projects.
- 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, hydrogeology/soil conditions, water supply assessment, strategic and master plans, and related materials; coordinates the review and approval of documentation with District stakeholders.
- Under direction from higher-level engineering staff, performs project engineer tasks on various development projects or planning studies; serves as point of contact among 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 other 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 constructions 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 among 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 tasks 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.
- Provides technical support in answering design questions for walk-in customers, phone calls, emails, and other District departments and staff.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Knowledge of:

- Theory, principles, and practices of civil engineering design and construction.
- Principles, modern techniques, and equipment used in the design, construction, and maintenance of water and wastewater utilities projects.
- Hydraulic system analysis applicable to civil engineering.
- Land use concepts.
- Land surveying principles.
- Construction management principles and practices.
- Public utility governance, oversight, regulations, and land development and zoning requirements.
- Concepts of physics as they relate to civil engineering.
- Advanced mathematic principles.
- Principles and practices of project management.

- Federal, state, and local laws, codes, and regulations in assigned areas of responsibility.
- Principles and practices of technical report and business correspondence preparation.
- Research principles and practices.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Review and prepare routine to difficult engineering plans, specifications, and legal contracts.
- Prepare and evaluate project engineering studies.
- Interpret, apply, and communicate design criteria, policies, ordinances, and procedures.
- Perform technical research and analyze engineering and mathematical problems, evaluate alternatives, and recommend and adopt effective courses of action.
- Perform accurate engineering calculations and cost estimates.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies, and procedures, and standards relevant to work performed.
- Prepare clear, concise, and accurate reports, drawings, maps, notes, correspondence, and other written materials.
- Coordinate and participate in meetings with governmental agencies; community groups; various business, professional, and regulatory organizations.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Eastern Municipal Water District
Job Title: Assistant Engineer
Last Update: March 2020

Experience:

Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

- Two (2) years of professional engineering experience preferably in a public utility environment.

Education:

- Equivalent to a bachelor's degree from an accredited college or university with major coursework in civil engineering, or related engineering discipline.

Licenses/Certifications:

- Some positions may require a valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.
- Possession of an Engineer-in-Training (EIT) certificate, or proof of eligibility to sit for the California Professional Engineer (P.E.) examination.

PHYSICAL DEMANDS

The physical 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.

When assigned to an office environment, must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle and visit various District sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone; ability to stand and walk between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer 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 25 pounds.

When assigned to field inspection, must possess mobility to work in changing site conditions; possess the strength, stamina, and mobility to perform light to medium physical work; to operate a motor vehicle and visit various District sites; to sit, stand, and walk on level, uneven, or slippery surfaces; to reach, twist, turn, kneel, and bend; and to operate a motor vehicle and visit various District sites; vision to inspect site conditions and work in progress. The job involves fieldwork requiring frequent walking

in operational areas to identify problems or hazards, with exposure to hazardous materials in some site locations.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees also work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, 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.

Eastern Municipal Water District
Job Title: Assistant Engineer
Last Update: March 2020

This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

Approved by:	<i>Board of Directors</i>
Date adopted:	<i>March 29, 2020</i>
Date modified:	
FLSA determination:	<i>Exempt</i>

Job Description Acknowledgment

I have received, reviewed and fully understand the job description for Assistant Engineer. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____