



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	Principal Engineering Technician I/II
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GENERAL PURPOSE

Under general supervision (Principal Engineering Technician I) or direction (Principal Engineering Technician II), performs highly technical civil engineering work in the research, design, and construction of water, sewer, and recycled water capital improvement and construction projects; coordinates engineering design projects with outside developers and agency representatives and District staff to maintain developer and agency schedules, positive professional relationships, and a high level of service for District customers and the general public; may serve as a project engineer for small facilities expansion and refurbishment projects; and performs related duties, as assigned.

DISTINGUISHING CHARACTERISTICS

Principal Engineering Technician I: This is first working level in the Principal Engineering Technician series, which is a non-degreed and non-registered series providing highly specialized support to engineering construction projects. As experience is gained, assignments become more varied, complex, and difficult; review of work lessens as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Principal Engineering Technician II level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

Principal Engineering Technician II: This is the fully qualified journey-level classification in the Principal Engineering Technician series. Positions at this level are distinguished from the Principal Engineering Technician I level by the performance of 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.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision (Principal Engineering Technician I) or direction (Principal Engineering Technician II) 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.

Positions at the Principal Engineering Technician I level may perform some of these duties and responsibilities in a learning capacity.

- Performs highly technical civil engineering work in the research, design, and construction of water, sewer, and recycled water capital improvement and construction projects; develops effective partnerships with District staff, agency engineers, consultants, contractors, and representatives of other agencies during project planning and construction; attends and/or conducts pre-job conferences or on-site coordination meetings.
- Receives and reviews Agency Utility Letters; researches proposed developments or improvement plans and/or as-built drawings; meets with agency project engineers, consultants, developers, and owners to discuss the development processes including, but not limited to, conducting due diligence on existing facilities; conditions projects to follow the District's latest master plans including performance of viability evaluation/demand calculation of recycled water use.
- Prepares, or causes to be prepared by consulting engineers, plans and specifications for the construction of a variety of water, wastewater, and recycled water facilities; analyzes and determines hydraulic requirements and facilities using District-adopted guidelines and standards for existing and proposed projects; performs routine to difficult engineering calculations encompassing hydraulics, surveying, and mechanical and structural calculations in compliance with the Project Engineering Manual.
- May serve as project engineer for small facilities expansions and/or refurbishment projects designed in-house or by engineering consultants; evaluates and recommends solutions to problems; generates preliminary design reports; drafts specifications for construction of District facilities; establishes schedules and cost estimates and serves as a liaison between the District, contractors, consultants, and other utilities or agencies; monitors design project progress; coordinates engineering design projects with other departments and agencies.

- Receives contract bids and estimates, and reviews for compliance with mandated and District standards; oversees, administers, and coordinates District construction projects; reviews submittals from contractors for compliance with contract documents; reviews and recommends action on request for information and change order proposals; prepares drafts and responds to support staff for review and processing; monitors and provides engineering support for construction work in progress, including field investigations, to ensure compliance with approved plans, specifications, and standards; maintains project files throughout project duration; negotiates change orders.
- Researches, coordinates, and reviews proposed right-of-way and the vacation of existing rights-of-way; verifies documentation for easement acquisitions and coordinates with the District's Right-of-Way Agent; reviews and implements permit requirements in the design of facilities.
- Provides assistance in answering design questions for walk-in customers, phone calls, emails, and other District departments and staff.
- Reviews submittals/shop drawings; assists in the solution of difficult problems; reviews plans for adherence to District standards; answers contractors' requests for information.
- Prepares Inter-Agency Facility Agreements; reviews prevailing wage bids for District over-sizing contributions for additional facility capacity.
- Prepares a variety of correspondence, requests for proposals, Board letters, records, files, and reports.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Positions at the Principal Engineering Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Principles, modern techniques, and equipment used in design, construction, and maintenance of civil engineering projects.
- Construction materials properties, strengths, and general usage.
- Theory, principles, and practices of civil engineering design and construction.
- Principles and practices of construction management.
- Federal, state, and local laws, codes, and regulations in assigned areas of responsibility.
- Methods and techniques of preparing project plans and specifications.

- Principles of physics and mathematics applicable to civil engineering and land surveying.
- Research methods and techniques.
- Principles and practices of project management.
- Principles and practices of contract administration.
- 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:

- Coordinate engineering projects with internal and external stakeholders.
- Review and prepare routine to difficult engineering plans, specifications, and legal contracts.
- Prepare and evaluate project engineering studies.
- Perform technical research and analyze engineering and mathematical problems.
- Perform accurate engineering calculations and cost estimates.
- Prepare clear, concise, and accurate reports, drawings, maps, notes, correspondence, and other written materials.
- Explain design criteria, policies, ordinances, and procedures.
- Follow and apply written and oral work instructions.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies, and procedures, and standards relevant to work performed.
- 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.

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:

- Principal Engineering Technician I: Four (4) years of progressively responsible civil engineering experience; experience working in a water utility agency desirable.
- Principal Engineering Technician II: Five (5) years of progressively responsible civil engineering experience, or one (1) year as a Principal Engineering Technician I with the District.

Education:

- Equivalent to an associate degree with major coursework in civil engineering, construction management, or a related engineering discipline.

Licenses/Certifications:

- A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.

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.

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen, and to operate a motor vehicle to visit various District sites; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although 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 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.

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 may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

FLEX REQUIREMENTS

Positions in the Principal Engineering Technician class series are flexibly staffed; positions at the Principal Engineering Technician II level are normally filled by advancement from the Principal Engineering Technician I level; progression to the Principal Engineering Technician II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications; and (iv) management approval for progression to the Principal Engineering Technician II level.

Eastern Municipal Water District
Job Title: Principal Engineering Technician I/II
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:	Non-Exempt

Job Description Acknowledgment

I have received, reviewed, and fully understand the job description for Principal Engineering Technician I/II. 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: _____