



# 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.*

<b>Job title</b>	Mapping Technician I/II
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## **GENERAL PURPOSE**

Under immediate (Mapping Technician I) or general (Mapping Technician II) supervision, performs a variety of routine to difficult computer workstation operations to maintain and produce accurate land-base and/or facilities maps for the District; processes requests for as-building of engineering drawings, updating the Geographic Information Systems (GIS) mapping facilities, and processing service orders and frontage memos; inputs new land and new facilities information; and performs related duties, as assigned.

## **DISTINGUISHING CHARACTERISTICS**

Mapping Technician I: This is the entry-level classification in the Mapping Technician series. Initially under close supervision, incumbents learn and perform routine GIS mapping duties. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen 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 Mapping 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.

Mapping Technician II: This is the fully qualified journey-level classification in the Mapping Technician series. Positions at this level are distinguished from the Mapping 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.

This class is distinguished from the Senior Mapping Technician in that the latter performs the more complex work assigned to the series, such as providing technical and functional direction over lower level staff.

## **SUPERVISION RECEIVED AND EXERCISED**

Receives immediate (Mapping Technician I) or general (Mapping Technician II) supervision from the Mapping Manager. 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 Mapping Technician I level may perform some of these duties and responsibilities in a learning capacity.*

- Enters new land and facility plans into the GIS database, including both graphics and database attributes; updates plan and profile drawings with new as-built data.
- Creates maps, drawings and designs such as site plans, grading and drainage plans, pump and piping plans, conceptual route maps for construction projects, and pressure zone maps utilizing the Computer-Aided Drafting and Design (CADD) system.
- Prepares detailed automated drawings of existing facilities and infrastructure.
- Prepares prints of various original plans and District records for internal and external agency use.
- Provides complete and accurate record drawings and other information to departments and to other public and private agencies and organizations.
- Processes letters for facility location requests and assists field personnel requests for location.
- Assists customers by providing information from maps and plan and profile drawings of water and sewer lines and making prints of plans as requested.
- Obtains record information from other utilities; researches files, drawings and maps for water line locations, depth and other relative information.
- Verifies assessor's maps, survey maps and parcel information; plots easements for District right-of-way; plots and enters recorded parcel and subdivision maps on District record maps; ensures quality and accuracy of completed maps and records.
- Converts GIS layers for display in multiple format/media and creates files to reflect acreage of District owned properties; records new frontages and service orders summaries into the program.
- May assist in field studies and other special projects.
- May interpret field survey notes and prepare design drawings.

- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

### **REQUIRED QUALIFICATIONS**

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

#### Knowledge of:

- Terminology, methods, practices, techniques and nomenclature of civil, mechanical and/or electrical engineering drafting.
- Methods and techniques of mapping infrastructure including services and attributes in multiple systems and/or databases.
- Operational characteristics of mapping systems and associated databases.
- Principles and concepts on the use of GIS for mapping purposes.
- Methods and techniques of manipulating GIS data to display required data.
- Drafting, mapping and engineering terminology and practices, and a Geographic Information System (GIS).
- Algebra, geometry and trigonometry as applied to mapping processes.
- District files and locations and the means for retrieving information.
- 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:

- Use technology to map a diverse range of District infrastructure, services and attributes.
- Manage multiple layers of data to create desired data and graphics.
- Prepare comprehensive maps, plans and records.
- Read and interpret field notes and engineering and construction drawings.
- Perform basic engineering computations.
- Perform detailed work thoroughly, neatly, accurately and efficiently.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Follow written and oral instructions.

- 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:*

- Mapping Technician I: One (1) year of experience performing sub professional, technical civil engineering work, including six (6) months of GIS or CADD software experience.
- Mapping Technician II: Two (2) years of progressively responsible experience performing sub professional, technical civil engineering work in mapping, drafting or cartography including six (6) months of GIS or CADD software experience, or one (1) year as a Mapping Technician I with the District.

Education:

- Mapping Technician I/II: Equivalent to completion of the twelfth (12th) grade, supplemented by college level coursework in mechanical drawing, engineering drafting, GIS technology, or a related field.

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.
- Certification in the application of GIS concepts and technology from a nationally recognized organization is desirable.

**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 Mapping Technician I/II class series are flexibly staffed; positions at the Mapping Technician II level are normally filled by advancement from the Mapping Technician I level; progression to the Mapping 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 Mapping Technician II level.

Eastern Municipal Water District  
Job Title: Mapping 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):

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

**Job Description Acknowledgment**

*I have received, reviewed and fully understand the job description for Mapping 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:* \_\_\_\_\_