



Service Beyond Expectation

CADD ANALYST

Job Status: Non-Exempt
Date Adopted: 11-2001
Date Modified: 03-16-2023

Safety Sensitive Position

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 general supervision, uses computer-aided design (CADD) equipment, software and traditional drafting techniques to prepare engineering plans and drawings; and performs a variety of tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Incumbents are experienced and perform programming tasks in CADD system, update, maintain and administer CADD database. Perform basic engineering, planning and administrative duties relating to long-range planning. The position also provides technical and administrative support for District projects and programs. The CADD Analyst also has skills beyond drafting and designing, including graphics design and photo editing. The position will require knowledge and efficient use of common graphics design and photo editing software.

SUPERVISION RECEIVED AND EXERCISED

Direct supervision is received from the Senior Associate Engineer and/or Engineering Manager (Capital & Development).

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

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

Essential Functions:

1. Utilizes AutoCAD design and mapping software to prepare construction plans and drawings for water and sewer line installation and relocation, pumping stations, wells, reservoirs, plant piping and site improvements.
2. Assists in maintaining and updating an AutoCAD database of water/wastewater facilities from construction drawings and “as-built” information; obtains information from engineering project files and/or measurements from field visits to verify accuracy.
3. Creates and maintains District atlas maps, drawings and master plans; researches reference information for staff and the public; makes any needed corrections on a variety of maps, plans, tracings and related records.
4. Reviews CADD files of construction drawings submitted by consultants and developers to ensure they meet District standards and policies.

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Essential Functions (continued):

5. Uses traditional engineering drafting techniques, equipment and tools to produce engineering drawings and records.
6. Formats data records and/or facilitates the transfer of electronic files into Geographic Information System (GIS) files; works with GIS Analysts to improve database interface.
7. Provides assistance to professional engineering staff regarding engineering capital projects or other special assignments as needed
8. District employees are expected to work overtime, weekends, evenings, and holidays as required to accommodate the District's needs, in addition to responding as a Disaster Emergency Service Worker.
9. Regular attendance at the work site.

Marginal Functions:

1. In the absence of the GIS Analyst, enters data into the District's GIS databases.
2. Performs related duties and responsibilities as required.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

Basic civil engineering and drafting principles and practices GIS.
Methods and techniques used for the design and construction of public water and sewer facilities.
AutoCAD equipment and software.
Principles of drafting and engineering specification preparation.
Standard engineering terminology, symbols, mathematics and record keeping.
Modern office practices, procedures, and equipment.
Operational characteristics of a geographic information system.

Skill in:

Operating a personal computer, including AutoCAD design and mapping software.
Utilizing basic engineering field surveying and measurement equipment.

Ability to:

Ability to perform various responsible computer-aided drafting and sub-professional engineering work in support of District activities under general supervision.
Prepare engineering plans and drawings using AutoCAD.
Understand engineering design principles.
Read and interpret engineering maps and records.
Maintain and update a database for the collection of District water and sewer information.
Read and understand blueprints, maps, and civil engineering plans and specifications.
Perform various design and drafting duties utilizing graphical skills.

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Ability to (continued):

- Format and/or enter data into a GIS system database.
- 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.
- 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

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge, skills, and abilities would be:

Job Title	CADD Analyst
Experience	<ul style="list-style-type: none">• Five (5) years of experience in engineering drafting using AutoCAD software, including AutoCAD Civil 3D. Experience in the public sector is preferred.
Education/Training	<ul style="list-style-type: none">• Equivalent to an Associate degree in Civil Engineering, Mechanical Engineering, Drafting and Design, or a related field.
Desirable Degree/License/Certification	<ul style="list-style-type: none">• A valid D2.• Computer Aided Design (CAD) Architecture & Drafting Certificate, or equivalent.• Bachelor's degree in Civil Engineering Mechanical Engineering, or a related field.
DMV Class	<ul style="list-style-type: none">• Possession of a valid California Class C driver's license and a satisfactory driving record.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The physical demands and working environment demands described here are representative of those that must be met by an employee 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:

Incumbent usually works under typical office conditions where the noise level is generally quiet; may regularly be required to work in special no light or low-light area.

Physical:

Incumbent is regularly required to walk, stand and sit; talk and hear both in person and by telephone; use hands to finger, handle, feel or operate standard office equipment; and reach with hands and arms. The incumbent is regularly required to lift objects weighing up to 10 pounds and occasionally up to 50 pounds.

Mental:

While performing the duties of this class, incumbents is regularly required to use oral communications, skills, read and interpret information and documents; analyze and solve problems; observe and interpret situations; use math/mathematical reasoning; learn and apply new information and skills; and perform highly detailed work on multiple, concurrent tasks.

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Physical Demands and Working Environment (Continued):

Vision:

Specific vision abilities required by this job include close vision, color vision, and ability to adjust focus.

Hearing:

Hear in normal audio range with or without correction.