



CAD DRAFTER

FC: TA 298
PG: SEIU-08

PC: 713
BU: 04
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*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, performs complex layouts and designs for various engineering projects; prepares complex and difficult electrical, mechanical, civil and other working plans, detail drawings, schematics, dimensional representations, and as-built records; may provide lead direction to CAD Drafters; checks and reviews the work prepared by other CAD Drafters; makes computations and assists in drawing reproduction, scanning maintenance and control of engineering documents and electronic files; and performs related work as assigned.

CLASS CHARACTERISTICS

Incumbents in this class perform varied, complex and difficult drafting assignments, and may provide instruction and direction to others design work under the direction of a professional engineer. Incumbents may specialize in one or more disciplines, but are expected to be capable of performing the full scope of drafting duties using computer-aided techniques. This class is distinguished from the Drafting Supervisor in that the latter regularly provides lead direction and assigns and reviews the work of other CAD Drafters.

EXAMPLES OF DUTIES – *Duties may include, but are not limited to, the following:*

1. Prepares highly specialized and difficult Electrical, Mechanical, Civil and Structural working plans, detailed drawings, schematics and as-built records using the current CAD software and other software applications used by the District.
2. Performs various engineering design work under the direction of a professional engineer.
3. Reads, interprets and applies engineering terminology and symbols.
4. Transfers engineering designs and concepts to final hard copy drawings and records that comply with specialized standards and specifications.
5. Uses a variety of electronic document management hardware and software applications to scan, index, and manage a variety of electronic file format.
6. Performs calculations and uses standard tables to determine dimensions, scale, and linear and angular measurements.
7. Prepares complex and difficult electrical, mechanical, and civil working plans, detail CAD

drawings, schematics, dimensional representations, and as-built records using computer-aided techniques.

8. Develops, designs, and arranges layouts for a variety of work such as posters, banners, signs, brochures, and reports; may provide instruction and lead direction to CAD Drafters and others.
9. Discusses job requirements and specifications with originators prior to work and at various stages of completion.
10. Monitors developments in the use of drafting hardware, software and techniques and recommends and utilizes changing technologies as appropriate.
11. Maintains records and prepares brief reports regarding application and revision of drafting standards and procedures.

QUALIFICATIONS

Knowledge of:

Principles and practices of basic engineering design in one or more disciplines of electrical, mechanical or civil design and illustration.

Principles and practices of engineering drafting.

Hardware and software used in computer-aided drafting and document file control including the hardware and software used in Computer Aided Drafting (CAD) and Electronic Document Management Systems (EDMS).

Principles and practices of design and illustration.

Layouts and positional relationships for representing electrical, mechanical, and civil projects, systems and equipment.

Operation and care of drafting, lettering and duplicating equipment and tools.

Electrical, mechanical, and civil engineering terminology and schematic symbols.

Applicable codes, standards and procedures.

Basic mathematical calculations including fundamental geometry.

Media and materials used in the preparation of technical drawings

Document control, retrieval and filing systems.

Skill in:

Preparing highly specialized and difficult Electrical, Mechanical, Civil and structural working plans, detail drawings, schematics and as-built records using the District's standard CAD software and other software applications.

Preparing basic engineering designs under the direction of a professional engineer.

Reading, interpreting and applying engineering terminology and symbols to working plans.

Providing instruction, work review and project or day-to-day direction to others.

Establishing and maintaining effective working relationships with those contacted in the course of the work.

Transferring engineering designs and concepts to final hard copy drawings and records, which comply with specialized standards and specifications.

Using a variety of electronic document management hardware and software applications to scan, index and manage a variety of electronic file formats.

Performing calculations and using standard table to determine dimensions, scale and linear and angular measurements.

MINIMUM QUALIFICATIONS

Education:

Associate in Arts Degree in Drafting Technology from an accredited college or university.

Experience:

Three (3) years of (full-time equivalent) verifiable experience in engineering drafting. Experience must have included the use of the latest version of AutoCAD.

Other Requirements:

Must have successfully passed an advanced AutoCAD certification test conducted by the District for the latest release of AutoCAD.

Must possess visual acuity to distinguish detailed drawing features, and manual dexterity to operate drafting tools and equipment and a computer keyboard.

Substitution:

Additional experience as described above using AutoCAD may be substituted for the education on a year-for-year basis.

WORKING CONDITIONS

Environmental Conditions:

Office environment; exposure to computer screens.

Physical Conditions:

Requires maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time.