

## **DESIGN DRAFTER**

This is a technical position requiring skill and competence in engineering design drafting and graphic communications. Primary responsibilities include, processing data, performing design calculations, preparing construction plans for project bidding, graphics design and visual representations of a wide variety of public information materials including; informational displays, maps, graphs, Public Works structures, and charts. Performance of duties require knowledge of drafting and graphic techniques; the application of engineering and survey data to detail design development; and the use of computer assisted drafting equipment and other related equipment and supplies. Most work is project oriented with the incumbent working on a team with other professional engineering staff members to completed projects and related work assignment.

### **CLASSIFICATION DISTINCTIONS**

This position is considered as the journey level within this job classification and performs highly technical professional engineering support work within the department of Public Works. The incumbent reports to both the Engineering Section Supervisor and related professional engineering staff who are responsible for reviewing work for accuracy, conformance to standards, and they provide instruction as needed. The next higher level in the department would be the Sr. Engineering Technician or an Engineer I position.

### **KEY OR TYPICAL TASKS AND RESPONSIBILITIES**

- Operates computer assisted drafting equipment in transforming technical survey and engineering data into base sheets and finished drawings suitable for construction, inspection of construction, and graphics presentations.
- Prepares to scale maps and detailed working drawings of Public Works structures, utilities and electronic or mechanical equipment in a timely and cost-effective manner.
- Reduces survey field notes: performs design calculations and verifies design data as necessary. Researches utility location and right-of-way survey data as required to complete drafting or graphic assignments.
- Determines, in conjunction with the originator of the request for graphics product, the intended information to be conveyed to what specific type of audience.
- Prepares and maintains "as-built" drawings from construction records.
- Conceives, designs and produces graphic work for public presentation or publication within established time lines using computer graphics programs including GIS applications.

**MINIMUM REQUIREMENTS**

Two (2) years college course work in drafting, engineering technology or related subjects and two (2) years drafting or graphics experience which includes using AUTO-CAD or similar computer assisted drafting software.

**OR**

High School Diploma or GED certificate and four (4) years of drafting and graphics experience to include two (2) years civil engineering or related drafting experience and using AUTO-CAD or similar computer assisted drafting software.

**AND**

Must have or be able to obtain at time of appointment a valid motor vehicle operator's license.

**Knowledge of...**the principles and practices of drafting and of the use of drafting tools and equipment; graphic design and presentation and of the use of related tools and equipment; mathematics through trigonometry and its application in field surveying and design engineering computations; the use of computer assisted drafting equipment and its application in the development of detailed drawings, technical drafting including the utilization of a variety of equipment, materials, and media.

**Ability to...**read and interpret engineering plans, specifications and other technical material; identify the objective and outcome desired by the person requesting graphics work and in negotiating changes and resolving differences; produce finished drawings and graphics products using computer assisted drafting software; determine the most efficient, cost-effective manner of producing graphics that accomplish the established objective; establish and maintain effective working relations as necessitated by the work of the position; to determine and utilize various layout techniques common to reproduction and printing; and to perform architectural or engineering freehand lettering;

**WORK ENVIRONMENT & PHYSICAL DEMANDS**

Work is performed primarily in an office setting and includes extensive use of personal computers and highly advanced software applications. Field visits are required on an infrequent basis to inspect various items of interest. To perform the essential tasks, incumbents must be able to sit for prolonged periods and perform repetitive hand motions when using computer keyboard and related computer equipment. Other physical requirements include the ability to view a computer terminal screen for extended periods, viewing a wide variety of data with attention to detail, the ability to read and interpret complex materials, as well as the ability to communicate electronically, in person, over the phone, and in writing.

Office use: 6/20/00