

## **ENGINEERING ASSISTANT II**

*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, to assist in various traffic engineering projects; to participate in the design and preparation of plans and specifications for new traffic signals; to perform manual and computerized drafting of Capital Improvement Projects, grading plans, utility plans and traffic signal plans; and to perform related duties as assigned.

### **CLASS CHARACTERISTICS**

This is the full journey level class within the paraprofessional Engineering Assistant series. Employees within this class are distinguished from the Engineering Assistant I by the performance of the full range of duties as assigned including the performance of manual and computerized drafting and basic design work. Employees 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. Positions in this class are flexibly staffed and may be filled by advancement from the I level, or when filled from the outside, have prior experience. This class is distinguished from the Senior Engineering Assistant in that the latter functions with a greater degree of independence and is assigned more complex technical engineering tasks including plan checking and some design work.

**EXAMPLES OF DUTIES** - *Examples of duties performed by employees in this class may not include all required duties, nor are all listed tasks necessarily performed by everyone in this class.*

Makes traffic counts and collects, organizes, tabulates, and analyzes a variety of traffic load data; reviews plans for compliance to code requirements; answers questions and provides information to the public concerning traffic engineering activities; prepares work orders for the installation of traffic control devices; reviews and approves permits for traffic control plans and haul routes in construction work zones; reviews and analyzes traffic accidents; performs various drafting and graphic preparation; drafts improvement, grading, utility and traffic signal plans; utilizes appropriate drafting tools, equipment and techniques including computerized drafting equipment; prepares base maps of City storm drain system; collects, compiles, tabulates and analyzes field data; prepares summaries and reports based upon data collected and analyzed; provides general administrative assistance to the Engineering Division; may serve as a member of a survey crew using various types of surveying equipment and instruments.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge of:**

- Principles and practices of traffic engineering and design.
- Construction equipment, materials and methods.
- Principles, procedures, techniques and equipment used in drafting and surveying.

- Nomenclature, symbols, methods, practices, techniques and instruments used in engineering and mapping.
- Mathematics, including algebra, geometry and trigonometry and their application to engineering.
- Methods and techniques of customer service.
- City ordinances, policies and procedures.
- Pertinent Federal, State, and local laws, codes and regulations.
- Modern office procedures, methods and equipment including computers and applicable drafting software applications.
- Principles and procedures of record keeping.
- Principles of business letter writing and basic report preparation.

**Ability to:**

- Perform routine traffic engineering statistical tasks.
- Review plans and documents for conformance to regulations.
- Gather data and make accurate traffic engineering computations.
- Understand and interpret traffic engineering plans, records, and maps.
- Make engineering calculations and draft plans and maps.
- Utilize appropriate drafting tools, equipment and techniques including computerized drafting equipment.
- Maintain and update accurate records and files.
- Prepare clear and concise reports.
- Prepare visual presentation aids.
- Perform basic arithmetic calculations accurately.
- Work independently and efficiently to carry out assignments.
- Communicate clearly and concisely, both orally and in writing.
- Understand and carry out oral and written instructions.
- Establish and maintain effective relationships with those contacted in the course of work.

**Experience and Training Guidelines**

**Experience:** Two years of paraprofessional traffic engineering, drafting or field survey experience.

**Training:** Equivalent to the completion of the twelfth grade supplemented by college level course work in civil engineering or a related field such as algebra, geometry, trigonometry, drafting or design.

**License or Certificate:** Possession of an appropriate, valid driver's license.

**WORKING CONDITIONS**

**Environmental Conditions:** Office and field environment; travel from site to site to collect field data; exposure to noise, traffic and computer screens.

**Physical Conditions:** Essential functions may require maintaining physical condition necessary for sitting, walking or standing for prolonged periods of time; speaking and hearing to exchange information; visual acuity to read, interpret and develop specifications and drawings; extensive use of computer keyboard.