

## **TRAFFIC ENGINEERING ANALYST**

### **Definition:**

Under general supervision performs a variety of responsible traffic engineering duties related to the preparation of plans, estimates, reports and studies for traffic signals and other traffic control/traffic safety devices; assists management in the administration, maintenance and operation of traffic systems and services; prepares and coordinates traffic signal activities for capital projects and performs related work as required.

### **Essential Duties and Responsibilities:**

The responsibilities and essential duties performed on a frequent and recurring basis by an incumbent include the following:

Designs, plans and approves various traffic control, striping, parking and traffic signal plans.

Evaluates the need for and develops justification for traffic signals, stop signs and other traffic control devices to include preparation of warrant studies.

Monitors and oversees contracts for the installation and operation of traffic control equipment, traffic signs and street striping.

Monitors and oversees the traffic signal maintenance contract.

Prepare staff reports for the Transportation and Circulation Commission (TCC) and City Council related to traffic, parking and related items.

Makes oral presentations to a variety of groups and provides staff support at TCC meetings and to the City Traffic Engineer.

Writes, reviews, analyzes and prepares a variety of records, contracts, reports, correspondence and other data.

Reviews, implements and adjusts the timing for traffic signals.

Performs traffic signal system operational checks and surveillance in the field, records resulting data, makes recommendations for change as needed.

Oversees the collection of and evaluates data related to traffic flow, volume, speed(s), circulation patterns, sight visibility, public parking and traffic accidents.

Reviews, evaluates, investigates and responds to requests and concerns from the public.

Prepares cost estimates and monitors funding/expenditures for capital projects related to traffic control equipment.

Prepares grant funding applications and oversees funding contracts from other agencies.

Lifts and carries boxes of traffic monitoring equipment and cables weighing 40 pounds or less.

Drives a vehicle on City business.

**Other Duties and Responsibilities:**

Performs other projects/tasks as assigned.

Oversees the work of staff as assigned.

**Class Characteristics:**

Traffic Engineering Analyst is a single incumbent technical class within the Engineering Department. The incumbent performs a variety of traffic engineering tasks related to traffic control, striping, parking and traffic signal plans and activities.

**Contacts and Relationships:**

The Traffic Engineering Analyst establishes and maintains contact with Engineering Department staff and staff in other City departments and has additional contact with the public, regional traffic planners, other public agencies, traffic engineers from other cities, members of the TCC and traffic signal maintenance contractors.

**Qualification Guidelines:**

The knowledge and abilities which are required to perform the duties and responsibilities of this class are as follows:

**Knowledge of:**

Traffic control equipment, striping and signing.

Intermediate math to include routine traffic engineering calculations.

Electronic logic control for signal timing and phasing and traffic signal maintenance procedures.

Methods of performing vehicle/traffic studies.

Applicable State and local vehicle codes.

English usage, spelling, punctuation and grammar.

**AND**

**Ability to:**

Make traffic engineering computations, estimates and designs.

Prepare and interpret plans and specifications to include computer generated traffic signal plans.

Operate a personal computer and use applicable software programs to include Autocad drafting and related applications.

Prepare clear and comprehensive written reports, memos, letters and other related material.

Understand and carry out oral and written instructions independently.

Establish and maintain effective relationships with those contacted in the course of work.

Communicate effectively orally and in writing.

Prepare and make oral presentations to a variety of groups.

**A typical way to obtain the knowledge and abilities is as follows:**

**Education:**

Associate of Arts Degree from an accredited college to include course work in pre-engineering or a related field, drafting, algebra, geometry, trigonometry and electrical theory.

**AND**

**Experience:**

Four years of increasingly responsible traffic engineering experience.

**Special Requirements:**

Valid and appropriate California Drivers License and acceptable driving record at time of appointment and throughout employment in this position.

Must be able to work a flexible schedule to accommodate City needs.

**Physical Tasks and Working Conditions Include the Following:**

Work is performed in an office environment and on-site when performing traffic signal system operational checks and surveillance. When working in an office environment, sitting or standing for periods of time and the use of a computer is required. When working in the field, walking and standing for periods of time is required and there will be some exposure to the elements. The incumbent drives a vehicle on City business and may kneel, crouch, twist, climb steps and sloping surfaces, walk on slippery/uneven surfaces, bend, reach, grasp, push, pull, drag, lift and carry equipment, cables and other items weighing 40 pounds or less. The incumbent may be exposed to vehicular traffic and exhaust, fumes, road dust and electrical hazards and must be able to meet the physical requirements of the class and have mobility, vision, hearing and dexterity levels appropriate to the duties to be performed.

**Fair Labor Standards Act Designation:** Non-exempt.

Established October 2002 from the class of Traffic Engineering Technician I/II