TRAFFIC ENGINEERING ANALYST SERIES

Definition:

Under varying levels of supervision by the City Engineer or designated engineering manager, manages or assists in managing the activities of the Traffic Engineering program of the Public Works Department; manages or assists in the management of projects and the day to day operations of the Division; prepares plans, estimates, reports, and related studies for traffic signals and other traffic control and traffic safety devices; manages or assists in the management of the City's Traffic Management Center; prepares or assists in the preparation of operating and capital improvement project budgets; prepares or assists in the preparation of grant applications; complies with grant regulations; provides highly responsible and complex staff assistance to the Public Works Director and/or City Engineer; and performs related work as required.

Class Titles

Traffic Engineering Analyst I
Traffic Engineering Analyst II
Senior Traffic Engineering Analyst

Essential Duties and Responsibilities:

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

Traffic Engineering Analyst I/II:

Note: Under the general supervision of the City Engineer or designated engineering manager, positions at the Traffic Engineering Analyst I level may perform some of these duties and responsibilities in a learning capacity.

Evaluates the need for and designs, plans, and approves traffic signals, traffic control devices, stop signs, street striping, parking, and related plans and specifications.

Reviews, evaluates, investigates, and responds to requests, concerns, and inquiries from public officials, City staff, contractors, developers, and residents regarding traffic, parking, vehicle speeds, signal operations, proposed development, public safety, and related issues.

Prepares and monitors the Capital Improvement Project (CIP) budget in conjunction with other City departments and regional jurisdictions for traffic related projects.

Prepares and monitors the operating budget for the Traffic Engineering program; locates funding sources and estimates needed expenditures; and reviews and verifies expenditures.

Represents the division and the City in meetings with school officials, PTA's, universities, homeowner associations, residents, community groups, commissions, committees, City Council members, City departments, other governmental agencies, and various businesses, professional, and regulatory organizations.

Prepares staff reports and makes oral presentations at Traffic Commission and City Council meetings regarding traffic, parking, and related subjects. Writes, reviews, analyzes, and prepares a variety of records, contracts, reports, correspondence, and other data.

Monitors and evaluates completion of regional, multi-jurisdictional traffic signal synchronization projects.

Performs traffic signal system operational checks and surveillance in the field and records resulting data; recommends changes and adjusts the timing for traffic signals.

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

Prepares grant funding applications; oversees funding contracts from other agencies; complies with grant requirements and audits.

Provides input regarding traffic safety, operations, rules, or regulations on various City construction projects including sewers, park improvements, grade separations, water improvements, and street reconstruction.

Ensures compliance with all City and mandated safety rules, regulations, and protocols.

Documents and responds to accident and traffic related claims, litigation, interrogatories, subpoenas, and public records requests; participates in depositions as required.

Reviews commercial and residential development requests related to traffic impact analysis.

Reviews and approves applications for Special Events located within Public right-of-way and/or on City-owned properties; participates in administering and improving the Special Permit Program.

Oversees and administers City-wide Parking Management Program.

Conducts miscellaneous studies, observations, and special projects as requested.

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

Prepares requests for proposals for selection of consultants and contractors; oversees bid openings; selects vendors; prepares bid awards; administers contracts and agreements; prepares staff reports and submits recommendations for selection of consultants and contractors to the Public Works Director and City Council for approval; approves contract change orders.

Manages and operates the City's Traffic Management Center signal computer system for signal coordination or communication failures; monitors the CCTV camera system for traffic progression failures or problematic occurrences.

Performs other duties as assigned.

Senior Traffic Engineering Analyst

Note: Under the general supervision of the City Engineer or designated engineering manager, the Senior Traffic Engineering Analyst, in addition to the above:

Oversees the daily operations of the City's Traffic Engineering Division including traffic control, traffic signal system maintenance, traffic safety, street striping, parking, and related functions.

Plans, organizes, assigns, reviews, and assists in the supervision of the work of traffic engineering staff, consultants, and contractors, and plans, supervises, and conducts professional traffic engineering analyses.

Trains staff in work procedures; evaluates employee performance, counsels employees, and recommends initial disciplinary action; assists in selection and promotion.

Monitors and evaluates performance of vendors, contractors, and outside agencies providing consulting and contractual services; oversees construction projects.

Performs some City Traffic Engineer duties in his or her absence under the supervision of the City Engineer or designated engineering manager.

Other Duties and Responsibilities:

Performs other projects/tasks as assigned.

Lifts and carries boxes of files and records weighing 30 pounds or less.

Class Characteristics:

Traffic Engineering Analyst I is an entry level class used for the purposes of recruiting and training in the field of traffic engineering. An incumbent may have limited experience and normally works under direct supervision. An incumbent at the Traffic Engineering Analyst I level may be advanced to the Analyst II level upon completion of one year at the Analyst I level with an exceeds expectations or above performance rating. Traffic Engineering Analyst II is a trained, responsible class. Incumbents are experienced in and knowledgeable of traffic engineering programs and operations, and are assigned wider responsibilities, greater operating independence, and more difficult duties than a Traffic Engineering Analyst I. A Traffic Engineering Analyst II normally works under the general supervision of a department or division head. An incumbent at the Traffic Engineering Analyst II level may be advanced to the Senior Analyst level upon completion of one year at the Analyst II level with an exceeds expectations or above performance rating. Senior Traffic Engineering Analyst is completely familiar with all traffic engineering programs and operations. Under limited supervision, Senior Traffic Engineering Analyst has complete responsibility for a broad range of assignments, performs special tasks, conducts programs on an independent basis, and provides technical and functional supervision to staff as assigned.

Contacts and Relationships:

A Traffic Engineering Analyst I has most of their interaction within their own department, although some contact may be made with other City departments and the public. A Traffic Engineering Analyst II has wider contact including substantial interaction with other City departments, and a wider scope of public contact and vendor contact. At the Senior Traffic Engineering Analyst level, interaction increases to include the City Manager, department heads, and representatives of public and private agencies.

Qualification Guidelines:

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

Traffic Engineering Analyst I

Knowledge of:

Traffic control equipment and striping and signing practices.

Intermediate math including routine traffic engineering calculations.

Local and regional streets, arterials, highways, and traffic issues and patterns.

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

Fundamentals of traffic engineering practices.

Basic principles and practices of public administration as applied to operational unit and program administration.

Research, reporting, and business writing methods, techniques, and procedures.

Applicable federal, state, and local laws including motor vehicle laws, vehicle codes, ordinances, and procedures relevant to traffic engineering.

Record keeping principles and procedures.

City and mandated safety rules, regulations, and protocols.

Techniques and methods of administrative analysis and research.

Methods of making oral and written presentations.

Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.

The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

AND

Ability to:

Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.

Analyze, interpret, summarize, and present administrative and technical information and data in an effective manner.

Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.

Prepare and make oral presentations to a variety of groups.

Prepare and interpret plans and specifications including computer generated traffic signal plans.

Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.

Establish and maintain a variety of filing, record keeping, and tracking systems.

Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.

Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.

Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.

Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Traffic Engineering Analyst II - Knowledge of those items listed under "Knowledge of" for Traffic Engineering Analyst I plus the following:

Principles, practices, and procedures of funding sources and grant funding compliance.

Public agency budget development and administration, and sound financial management policies and procedures.

Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
Techniques for effectively representing the City in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.

Principles and practices of contract administration and evaluation.

Recent and on-going developments, current literature, and sources of information related to traffic engineering and operations.

AND

Traffic Engineering Analyst II - Ability to do/perform those items listed under "Ability to" for Traffic Engineering Analyst I plus the following:

Perform a variety of complex traffic engineering calculations and computations.

Attend and effectively represent the division and the City in meetings with various commissions, committees, City Councilmembers, City staff, residents, other governmental agencies, community groups, and various business, professional, and regulatory organizations.

Conduct research on a wide variety of administrative topics including grant funding, contract feasibility, and operational alternatives; prepare grant applications and ensure compliance with grant regulations.

Provide professional advice and technical assistance to departmental management and staff, as well as commissions, committees, and the public; confer with a variety of public and private officials.

Prepare the division's operating and CIP budgets; monitor and approve expenditures as appropriate; forecast funding sources and needs for appropriations.

Senior Traffic Engineering Analyst - Knowledge of those items listed under "Knowledge of" for Traffic Engineering Analyst I & II plus the following:

Organizational and management practices as applied to the analysis, evaluation, development, and implementation of traffic engineering studies, programs, policies, and procedures.

Principles and practices of employee supervision, including work planning, assignment, review and evaluation, discipline, and the training of staff in work procedures.

AND

Senior Traffic Engineering Analyst - Ability to do/perform those items listed under "Ability to" for Traffic Engineering Analyst I & II plus the following:

Research, negotiate, administer, assign work, and monitor contracts and agreements with outside suppliers, service providers, consultants, other engineers, and contractors.

Assume management responsibility for all services, activities, goals, objectives, policies, procedures, and work standards of the Traffic Engineering program including traffic signal system operations and traffic safety.

Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.

Plan, direct, coordinate, and review the work plan for assigned personnel.

Education – All Classes in this Series:

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

Graduation from an accredited four-year college or university with major coursework in civil engineering, public administration, or a related field.

Possession of a State of California Engineer in Training Certificate is desirable.

AND

Experience:

Traffic Engineering Analyst I: None

Traffic Engineering Analyst II: Two years of experience at the Traffic Engineering Analyst I level or equivalent in a public sector setting.

Senior Traffic Engineering Analyst:	Four years of experience at the Traffic Engineering Analyst II level or equivalent in a public sector setting including one year of experience in a lead or supervisory capacity.

Special Requirements – All Classes in this Series:

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.

Special / Other Requirements – Senior Traffic Engineering Analyst:

The City of Fullerton's Conflict of Interest Code requires that the Senior Traffic Engineering Analyst file financial disclosure statements in accordance with state and local laws.

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, life 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:

Traffic Engineering Analyst I:	Non-exempt.
Traffic Engineering Analyst II:	Exempt.
Senior Traffic Engineering Analyst:	Exempt.

Established February 2020