CITY OF SANTA ANA JOB CODE

ASSISTANT TRAFFIC OPERATIONS ENGINEER

DEFINITION

Under general supervision, performs professional traffic operations and/or traffic engineering work in the design, operation, inspection, and installation of equipment, signals and signal systems. Oversees work performed by maintenance contractors to repair and troubleshoot traffic signals, signal systems, Intelligent Transportation System's components, and related communication systems.

ESSENTIAL FUNCTIONS INCLUDE BUT ARE NOT LIMITED TO

Prepares plans, specifications and estimates pertaining to the design and construction of traffic signals, signal systems and related Intelligent Transportation System (ITS) equipment. Oversees work performed by maintenance contractors to repair and troubleshoot traffic signal controls and systems including traffic signals, detectors, cabinets, wirings, traffic controllers, switches, conduits, and related appurtenances. Performs work required to maintain ITS devices including closed circuit television (CCTV), and changeable message signs (CMS). Investigates and troubleshoots Traffic Signal and ITS communication systems that includes twisted interconnect cables, fiber optic cables, and telephone interconnect such as T-1 and telephone data lines. Performs repair/splicing of twisted interconnect and fiber optic cables. Prepares traffic signal timing for traffic signals and signal systems. Assists other staff in operating and maintaining the City's Traffic Management Center and its components. Monitors and assists inspectors/contractors on traffic signal-related construction projects. Organizes and conducts traffic field studies and traffic counts including manual counts, speed surveys, and the collection and analysis of other traffic related information. Investigates and responds to citizen inquiries concerning traffic signals, ITS devices, and traffic signal timing issues. May prepare, assign and supervise the work of a small number of subordinate staff and clerical personnel. Performs other work and functions as assigned.

DISTINGUISHING FEATURES OF THE CLASS

This classification requires the application of specialized technical experience and knowledge, and the use of independent judgment and initiative in developing work methods, in seeking solutions to problems, and in dealing with contractors and the general public. Supervision may be exercised over a small number of subordinate staff and clerical personnel.

RECOMMENDED MINIMUM QUALIFICATIONS

Graduation from an accredited college or university with a bachelor's degree in Civil Engineering, Electrical Engineering, or other engineering with major course work in Civil or Electrical Engineering, or possession of a valid certificate as an Engineer-In-Training, and one year of professional experience, or any equivalent experience and training which results in the following knowledge, skills and abilities:

DESIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of: principles and practices of traffic engineering, traffic signal/system operations and maintenance, and hardwire and fiber optic communication systems; principles of supervision, training and performance evaluation.
Working knowledge of: methods and techniques for troubleshooting and repairing traffic signals/systems, and related communication systems; mathematics, calculating machines and personal computers; Microsoft Office software, computer aided design software, Microstation, traffic signal timing software, traffic engineering maps, diagrams, and records; and equipment used in traffic signal maintenance and control.
Ability to: make independent investigations, troubleshoot traffic signal system problems and malfunctions; perform technical research; perform difficult calculations with speed and accuracy; prepare comprehensive technical reports and complete plans, specifications and estimates of routine traffic-related construction and installation projects; inspect contractor's work and effectively secure compliance with plans and specifications; layout, assign and supervise the work of others; and meet and deal tactfully and effectively with the public.
Skill in: the use of traffic signal operations software, traffic signal maintenance tools and testing equipment, and twisted wire and fiber optic communication equipment.

SPECIAL REQUIREMENT:

Possession of a valid California Class “C” Driver's License.

CHARACTERISTICS OF SUCCESSFUL PERFORMERS

Successful performers are technically competent, conscientious workers who use independent judgment and initiative to develop work methods and seek solutions to problems. Effective communicators, they work well with the general public and subordinate staff.

Established per Resolution No. 2007-045
Effective 7-1-07
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