



JULY 2016
FLSA: EXEMPT

ASSOCIATE TRANSPORTATION ENGINEER

DEFINITION

Under direction, performs various transportation and traffic engineering studies and duties related to traffic control, including traffic control devices such as traffic signal systems and speed feedback display signs, traffic signing, and striping to improve traffic operation and transportations safety; manages complex transportation projects. Provides professional staff assistance to management, other departments, and the public in areas of expertise; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisor or management staff. Provides technical and functional direction to lower-level or temporary staff.

CLASS CHARACTERISTICS

This is the journey-level class in the Transportation Engineering classification series responsible for performing the full range of transportation and traffic engineering duties. Responsibilities include traffic signaling, managing Capital Improvement Transportation projects, and conducting transportation/engineering investigations and studies. Incumbents are expected to work independently and exercise judgment and initiative. Positions 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. This class is distinguished from the Senior Transportation Engineer in that the latter has direct supervisory responsibility of technical and professional staff within the Transportation Division.

EXAMPLES OF TYPICAL JOB FUNCTIONS (ILLUSTRATIVE ONLY)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Performs various transportation and traffic engineering studies and duties related to traffic control systems; assumes responsibility for the operation and maintenance of the City's traffic signal and street light systems.
- Plans, designs, and inspects all phases of transportation and traffic engineering projects such as traffic signal modification or installation projects, including preparing improvement plans, specifications, cost estimates, and contracts.
- Reviews and prepares traffic signal plans, timing plans, and sign and striping plans.
- Manages the implementation of assigned Capital Improvement Transportation projects and other safety improvements; coordinates with contractors, consultants, and other Municipal, State, and Federal agencies.
- Conducts, coordinates, and directs the execution of appropriate transportation and traffic engineering investigations, surveys, and studies.
- Prepares grant applications for City projects at the County, State, and Federal levels.
- Serves as a liaison for the transportation department to other City departments, the City's Transportation and/or Bicycle Commissions, the public, and other outside agencies; prepares meeting agendas, minutes, staff reports, oral presentations, and responds to inquiries from the Commission.

- Provides technical and functional direction and training to engineering and technical staff.
- Prepares and maintains records of work performed, time and materials used in each project.
- Attends training, meetings, workshops, etc., as required to enhance job knowledge and skills.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of

- Principles and practices of traffic and transportation engineering and planning, including traffic signal timing standards and principles.
- Methods, materials, equipment, and tools used in the construction, design, extension, and maintenance of traffic systems.
- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility, including California Vehicle Code, California Manual on Uniform Traffic Control Devices (CA-MUTCD), and the American Association of Transportation and Highway Offices (AASHTO) design guidelines.
- Principles and practices of pedestrian and bicycle facility planning, design, and construction.
- Basic electrical engineering principles.
- Modern developments, current literature, and sources of information regarding engineering.
- Principles of advanced mathematics and their application to engineering work.
- Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations, and preparing and presenting effective staff reports.
- Project management and contract administration principles and techniques.
- Modern office practices and methods, including computer equipment and software programs relevant to work performed. Principles and procedures of record-keeping and reporting.
- Safety principles and practices.
- Methods and techniques of effective technical report preparation and presentation.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.

Ability to

- Conduct complex transportation and traffic engineering research projects, analyze complex problems, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
- Prepare, understand, and interpret traffic engineering plans, specifications, and other contract documents for traffic engineering projects such as new traffic signal installations or modifications.
- Conduct comprehensive engineering studies and prepare reports with recommendations.
- Perform traffic signal and street light diagnostics.
- Perform mathematical and engineering computations with precision.
- Effectively represent the department and the City in meetings with governmental agencies, community groups, and various business, professional, and regulatory organizations and individuals.
- Direct the work of contract consultants.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software programs relevant to work performed.
- Use English effectively to communicate in person, over the telephone, and in writing.

- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

EDUCATION AND EXPERIENCE

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

- Equivalent to graduation from an accredited four-year college or university with major coursework in transportation engineering, civil engineering, urban planning with an emphasis in transportation planning/engineering, or a related field.
- Four (4) years of increasingly responsible experience in professional traffic engineering or transportation planning work.

LICENSES AND CERTIFICATIONS

- Possession of, or ability to obtain, a valid California Driver's License.
- Possession of a Registered Professional Traffic Engineer or Registered Professional Civil Engineer license issued by the State of California.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect City traffic sites, including traversing uneven terrain, climbing ladders, stairs, and other temporary or construction access points, to operate a motor vehicle, and to visit various City and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is primarily a sedentary office classification although standing and walking between work areas and to conduct inspections may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 25 pounds.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may work in the field and occasionally be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.