

**JUNIOR TRANSPORTATION ENGINEER  
ASSISTANT TRANSPORTATION ENGINEER  
ASSOCIATE TRANSPORTATION ENGINEER**

*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.*

**SUMMARY DESCRIPTION**

Under supervision (Junior), general supervision (Assistant), or direction (Associate), performs traffic engineering studies, plan review, complaint investigation, signal system monitoring and control, and field and office engineering.

**DISTINGUISHING CHARACTERISTICS**

**Junior Transportation Engineer** - This is the entry level class in the Transportation Engineer series. This class is distinguished from the Assistant Transportation Engineer by the performance of the more routine tasks and duties assigned to employees within the series. Since this class is typically used as a training class, employees may have only limited or no directly related work experience. Incumbents perform office or field engineering projects of easy to average difficulty, including routine professional and non-professional assignments. Advancement to the Assistant Transportation Engineer level is based on demonstrated proficiency in performing the full range of assigned duties, possession of required certifications, and is at the discretion of higher level supervisory or management staff.

**Assistant Transportation Engineer** - This is the second level class in the Transportation Engineer series. This class is distinguished from the Associate Transportation Engineer by the performance of the more routine tasks and duties not requiring a Professional Engineer certification. Employees work independently, receiving only occasional instruction or assistance. Incumbents are responsible for a variety of office or field projects of average difficulty and are expected to direct them to completion. Advancement to the Associate Transportation Engineer level is based on management judgment and possession of a Professional Engineer certification and requires considerable knowledge of all aspects of civil engineering including land development, traffic engineering and the planning, design, construction and maintenance of a wide variety of civil engineering projects.

**Associate Transportation Engineer** - This is the full journey level class in the Transportation Engineer series. Employees within this class are distinguished from the Assistant Transportation Engineer by the performance of the full range of duties as assigned including the performance of duties requiring a Professional Engineer certification. 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.

**REPRESENTATIVE DUTIES**

*The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Review plans for streets, bicycle and pedestrian facilities, and interchanges prepared by consultants to see that they meet established specifications.
2. Prepare, review and implement traffic signalization plans; review traffic signal operations and verify correct operation.

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3. Perform responsible engineering work in connection with municipal traffic projects.
4. Ensure that traffic signals are well maintained by County signal electricians; perform field reviews and submit repair requests.
5. Provide traffic signal timings that allow for vehicular, bicycle, and pedestrian safety and minimum delay at each intersection; review proposed timings of consultants.
6. Determine traffic circulation patterns and roadway capacity.
7. Gather, interpret and prepare reports on vehicular, bicycle, and pedestrian traffic issues such as traffic flow, volume, circulation patterns, roadway capacity, collisions, parking requirements and projected traffic loads.
8. Maintain statistical records related to traffic issues.
9. Receive, investigate and respond to complaints regarding traffic signals and hazards.
10. Analyze traffic collision reports and make recommendations; provide data and evidence regarding traffic collisions on City streets.
11. Prepare grant funding applications for various transportation projects and traffic signals; process and track grant applications and funds.
12. Provide technical expertise in the development and use of spreadsheets and databases, software related to traffic projections and operations, and the organization of traffic-related systems and operations.
13. May supervise subordinate staff.
14. Perform related duties as required.

**QUALIFICATIONS**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

**Knowledge of:**

- Principles and practices of civil engineering and their application to traffic engineering.
- Equipment and materials used in street construction and maintenance.
- Public works contract administration including contract preparation, contractor selection, administration of contract work, change orders, disputes, claims, equal opportunity and closing of contracts.
- Traffic modeling concepts and application.
- Design and AutoCad methods and equipment.
- Traffic signal timing methods and software.
- Basic engineering principles as related to signing, striping, signals and street lighting.
- Principles of supervision, training, and performance evaluation.
- Pertinent federal, state, and local standards, codes, laws, and regulations.

**Ability to:**

- Plan, perform and coordinate professional and technical traffic engineering studies and surveys.
- Analyze problems and develop effective alternatives for their solutions.
- Oversee and coordinate the work of consultants and contractors.
- Write clear, concise and accurate technical and non-technical reports, correspondence and memoranda; prepare reports, agreements and accurate records.
- Coordinate traffic engineering activities with activities of other divisions and outside organizations.
- Take coaching, instruction, and feedback with a cooperative and positive attitude.
- Prepare accurate plans, specifications, cost estimates and engineering reports and make accurate engineering computations and drawings.
- Deal tactfully with the public, high level staff or other public and private agencies, contractors, private engineers, governmental officials and other City employees.
- Explain complicated technical matters in non-technical terms.
- Communicate clearly and concisely, both orally and in writing.
- Select, train, and evaluate staff.
- Establish and maintain effective working relationships with those contacted in the course of work.

**Education and Experience Guidelines**

**Junior Transportation Engineer**

**Education/Training:**

A Bachelor's degree from an accredited college or university with major course work in civil engineering, traffic engineering, or a related field.

**Experience:**

No experience is required.

**License or Certificate:**

Possession of an appropriate, valid driver's license.

**Assistant Transportation Engineer**

**Education/Training:**

A Bachelor's degree from an accredited college or university with major course work in civil engineering, traffic engineering, or a related field.

**Experience:**

Two years of increasingly responsible and professional engineering experience in plan checking, design, construction and contract management comparable to that of a Junior Transportation Engineer with the City of Antioch.

**License or Certificate:**

Possession of an appropriate, valid driver's license.

Possession of registration as an Engineer-In-Training.

**Associate Transportation Engineer**

**Education/Training:**

A Bachelor's degree from an accredited college or university with major course work in civil engineering, traffic engineering, or a related field.

**Experience:**

Two years of increasingly responsible and professional engineering experience comparable to that of an Assistant Transportation Engineer with the City of Antioch.

**License or Certificate:**

Possession of an appropriate, valid driver's license.

Possession of registration as a Traffic Engineer or Civil Engineer in the State of California.

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Work is performed primarily in a standard office setting with occasional exposure to an outdoor field setting and travel from site to site.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an office setting; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information.

FLSA: Exempt

Revised: June 1997

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This class specification identifies the essential functions typically assigned to positions in this class. Other duties not described may be assigned to employees in order to meet changing business needs or staffing levels but will be reasonably related to an employee's position and qualifications. Other duties outside of an individual's skill level may also be assigned on a short term basis in order to provide job enrichment opportunities or to address emergency situations.