Summary of Duties: Performs professional transportation engineering work which includes investigating and analyzing street traffic conditions to determine the need for traffic control measures; reviews street improvement plans to determine the need for traffic control devices; prepares plans, specifications and estimates for installation of traffic signal systems and channelization; prepares planning and research studies to look at existing and proposed traffic control measures and methodologies; may supervise or act as project manager for staff engaged in a particular project requiring expertise in a specific area; and does related work.

Distinguishing Features: Transportation Engineering Associate I is the normal entry level to the class. Employees at this level usually have little, if any, experience or special training. They initially perform the less complex professional engineering work under close supervision while learning and assisting in a variety of routine duties. As employees become more experienced, they may work independently and may be responsible for one or more large projects. Positions at this level are three-year temporary training positions under Civil Service Rule 5.30. Employees with two years of full-time paid City experience as a Transportation Engineering Associate I and an Engineer-in-training (EIT) Certificate will automatically promote to Transportation Engineering Associate II.

Employees at the Transportation Engineering Associate II level perform journey level engineering work requiring a broad knowledge of engineering skills. Individuals at this level usually work independently, receive instructions in general terms and may be responsible for one or more major City projects having wide impact and significant costs. Employees may serve as a lead over a small group of lower level employees.

Employees at the Transportation Engineering Associate III level may supervise, may serve as a lead over a small group of employees or act as a project manager or project engineer involved in work that is technically complex and requires considerable experience, skill and engineering knowledge. Two years of full-time paid, professional experience at the level of Transportation Engineering
Associate II and registration as a professional engineer with the California State Board of Registration for Professional Engineers is required for advancement to this level.

Employees at the Transportation Engineering Associate IV level are non-supervisory technical experts, who shall maintain the skills and expertise necessary to remain at this higher paygrade level. They may conduct extensive research into new technical developments and evaluate their suitability for City use, may prepare standards for technical design, may develop and conduct training for other employees about new procedures and techniques, or may act as an internal consultant to other employees or on very difficult issues. These positions are designated by department management according to the department’s needs. Some positions require registration as a professional engineer with the California State Board of Registration for Professional Engineers, as determined by department management.

**Examples of Duties:** A Transportation Engineering Associate

- conducts surveys, field investigations, and congested area studies to re-route private and public transportation vehicles, set up terminal facilities for bus lines, build bikeway projects, create one-way streets, and establish or enlarge major street or freeway systems;
- responds to requests or complaints from the Mayor, City Council, and citizens to install, modify, replace, or remove traffic control devices, including traffic zones, time limit parking, parking prohibitions, crosswalks, street signs, traffic signals, signal timing, and safety lighting;
- prepares design drawings of signal hardware, lane striping, raised traffic islands, curb setbacks, and realignment of roadways;
- determines the type of investigation to be made, the data necessary to recommend a solution, the procedures used in gathering data;
- monitors the progress of traffic feasibility studies;
- reviews reports and statistical data for traffic and pedestrian control devices;
- insures that department guidelines and standards are met;
- reviews street improvement plans to determine the need for traffic signals and warning, guide and regulatory signs;
- analyzes statistical studies and accident information and makes field observations, when necessary, to evaluate data;
- discusses transportation problems and proposed solutions with supervisors, employees in other City departments, contractors, other governmental agencies, and civic groups;
- assists in developing, applying and evaluating advanced mathematical
and computer techniques to investigate transportation engineering problems;
• may assign projects to, or supervise, other employees engaged in this work;
• may select, orient, assign, train, counsel, evaluate, and discipline employees using job-relates criteria

May occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies;

**Qualifications:** Incumbents must have the following knowledges and abilities:

**A good knowledge of:**
• transportation engineering principles and practices, together with the ability to apply them to specific problems related to traffic congestion and safety.

**A working knowledge of:**
• the uses of various traffic control devices such as traffic signals, signs, and lane striping;
• the State and City traffic laws and regulations pertaining to traffic control.

**A general knowledge of:**
• principles of design of the physical facilities for controlling traffic signal operation;
• statistical methods for compiling and presenting graphic and tabular reports of transportation data.
The ability to:

- make sound analyses of transportation problems based on personal observations and facts presented by subordinates;
- write clear and concise reports of findings in traffic investigations and recommendations for control measures;
- prepare working plans and drawings for installing traffic signals and constructing traffic islands;
- plan and lay out the work of a small group of sub-professional transportation engineering employees;
- Deal tactfully and effectively with supervisors, employees, persons from private businesses, other City departments and the public;
- Speak clearly and effectively before groups and individually with fellow employees, other government and business people, and the public.

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to the disability, and the ability of the hiring department to accommodate the limitation.

**Minimum Requirements:**

Graduation from a school of engineering in a recognized four year college or university which includes at least 9 semester or 12 quarter units of Transportation Engineering, Civil Engineering, and/or Computer Science courses; or possession of a valid Engineer-in-Training Certificate issued by the California State Board of Registration for Professional Engineers.

**License:** A valid California driver’s license may be required.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties, responsibilities, and required qualifications of any position shall be.