

TRAFFIC ENGINEER

DEFINITION & DISTINGUISHING CHARACTERISTICS

Definition:

Under general supervision, performs complex traffic engineering and transportation planning work; provides lead direction to a project team or unit of professional and technical staff to formulate, organize, and implement various traffic engineering and transportation planning related functions.

Distinguishing Characteristics:

This is the lead level classification in the professional engineering series which provides direction as assigned. This class is distinguished from the next higher class of Senior Civil Engineer in that the latter is the first full supervisory level class in the professional engineering series. This class is distinguished from the Associate Civil Engineer class by the former requiring specialized skills and expertise relating to traffic engineering and transportation planning, including a valid California Registration as a Traffic Engineer.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

- Performs the most difficult and complex traffic engineering and transportation planning assignments.
- Plans, assigns, provides lead direction and reviews the work of a professional and technical project team or unit performing duties in the areas of traffic engineering, travel demand modeling, transportation planning, design, construction, contract administration and land use activities.
- Forecasts the effects of road improvements, land use changes, policy changes, and/or public transport schemes.
- Collects, tabulates and analyzes traffic information; prepares standards, methods, techniques, analysis, recommendations and solutions for complex traffic operational issues and problems.
- Prepares complex transportation planning studies and documents, staff reports, presentations and other documents and reports; researches, collects, analyzes and presents planning data; collects complex data for special reports and projects; prepares maps and other graphic tools for presentation in inclusion in reports.
- Implements transportation planning documents, land use planning documents, general plans, specific plans and environmental documents.
- Reviews development projects (including proposed subdivisions, building plans and re-zoning requests) and associated technical analyses (e.g. traffic studies) and recommends conditions related to impact upon traffic conditions.
- Participates in and coordinates transportation and related planning studies; assists in the development of both short and long range transportation plans.
- Analyzes information related to transportation, such as land use policies, environmental impact of projects, or long range planning needs.
- Analyzes transportation-related consequences of federal and state legislative proposals.
- Analyzes, evaluates and documents transportation project needs and costs.
- Conducts field observation regarding traffic related requests, complaints, and concerns.
- Provides technical and professional assistance to staff and others; reviews plans, specifications, contract documents and other reports, analyses and documents to ensure compliance with applicable codes, laws, policies, procedures and guidelines for assigned engineering activities.

- Coordinates the activities of the unit with other divisions, departments, and public and private organizations and individuals.
- Represents the County in a variety of meetings with property owners, engineers, contractors, developers, attorneys, the public and others.
- Prepares and maintains a variety of records and reports related to unit activities.
- Acts as "engineer in responsible charge" on assigned projects of a less complex nature, may approve and sign off on drawings and project documents.
- Trains assigned staff in areas of responsibility and provides for their development.
- Assists in budget preparation for projects and monitors project expenditures.
- Assist in policy and procedure development and implementation.
- Attendance and punctuality that is observant of scheduled hours on a regular basis.
- Performs other duties as assigned.

MINIMUM QUALIFICATIONS

Education & Experience Requirements:

Where college degrees and/or college course credits are required, degrees and college units must be obtained from an accredited college or university. Courses from non-accredited institutions will not be evaluated for this requirement.

Education:

Equivalent to graduation from a four-year college or university with major coursework in traffic engineering, transportation planning, or civil engineering, or a closely-related field.

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Experience:

Two (2) years of professional experience in traffic engineering, transportation planning, civil engineering, or a closely-related field at a level equivalent to the County's Assistant in Civil Engineering class or Transportation Planner class. Desirable work experience includes exposure to field work, traffic operations analysis (e.g. HCS, Synchro, CUBE, VISSIM) and GIS.

Other Requirements:

Must possess and maintain a valid California driver's license. Must possess a valid California Registration as a Traffic Engineer or obtain licensure in California by comity (reciprocity) within the one-year probationary period. A valid California Registration as a Professional Civil Engineer is highly desirable. Must be willing to attend meetings outside of normal working hours.

Knowledge of:

- Principles and practices of traffic and civil engineering.
- Principles and practices of land development and transportation planning.
- Principles and practices and techniques of developing, implementing, and maintaining transportation plans, programs, projects and associated funding requests and grant applications.
- Mathematical and computer simulation models.
- Statistical analysis and mathematical concepts related to the planning process.
- Construction materials, methods, and equipment.
- Applicable codes, regulations, standards, and safety practices.
- Principles and practices of administration and project management and evaluation.
- Basic budgetary principles and practices

- Standard office procedures, practices and equipment; modern office practices, methods and equipment, including a computer and applicable software.
- Methods and techniques for record keeping and report preparation and writing; proper English, spelling and grammar; occupational hazards and standard safety practices.
- Local government organization functions and practices.

Skill in:

- Applying traffic engineering and transportation planning principles and techniques to the solution of highly complex problems.
- Organizing work, setting priorities, and exercising independent judgment within policy guidelines.
- Preparing clear, concise, and accurate reports, records, and correspondence.

Ability to:

- Analyze complex technical data and reports, evaluating alternative solutions and recommend or adopt effective courses of action.
- Communicate effectively both orally and in writing with subordinates, superiors, and the general public.
- Deal tactfully and effectively with the public, staff, other agencies, engineering firms, contractors, developers, manufacturers, and others.
- Establish and maintain effective working relationships with a variety of citizens, community groups, boards and commissions, staff and governmental organizations.

ENVIRONMENTAL CONDITIONS/PHYSICAL DEMANDS

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 primarily performed indoors in an office setting with occasional work outdoors in all weather conditions; frequent repetitive/fatiguing duties, occasional long or irregular hours, infrequent work above and below ground level, exposure to fumes, dust, airborne hazardous substances, and hazardous substances, and microwave radiation.

Physical:

Primary functions require sufficient physical ability to work in an indoor setting; vision in the normal visual range with or without correction sufficient to read computer screens and printed documents and to operate equipment; hear in the normal audio range with or without correction.

Frequent sitting, use of both legs, use of all fingers on both hands, wrist and arm motion and fine coordination; lifting, carrying, pushing and pulling objects weighing up to 15 lbs.

Occasional walking, grasping and holding. **Infrequent** climbing, reaching and bending; lifting, carrying, pushing and pulling up to 40 lbs.

HISTORY

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