

**POSITION DUTY STATEMENT**

PM-0924 (REV 02/2021)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION District 1 - System Planning	
WORKING TITLE Transportation Planning Engineer	POSITION NUMBER 900-800-3135-921	EFFECTIVE DATE

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

**GENERAL STATEMENT:**

Under the direction of the Chief, Office of System Planning and Local Development Review, the incumbent is responsible for analyses to support System Planning products, including Travel Demand Forecasting, Microsimulation Modeling Development, analysis of Vehicle Miles Traveled (VMT), "Big Data", and Level of Service (LOS), and aiding in the development of System Planning documents such as Corridor Management Plans (CMP), Engineered Feasibility Studies (EFS), and other System Planning reports. The incumbent may also serve as a member of Project Development Teams (PDT) as a representative for Transportation Planning and provide technical assistance for Capital Outlay projects. Incumbent may act as Lead Worker to Transportation Planner(s) and Transportation Engineer(s). Licensed Transportation Engineer (Civil) or Professional Traffic Operations Engineer (PTOE) is desirable.

**CORE COMPETENCIES:**

As a Transportation Engineer (Civil), the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Enhance and Connect the Multimodal Transportation Network - Innovation)
- **Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Cultivate Excellence - )
- **Reliability**: Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Strengthen Stewardship and Drive Efficiency - )
- **Problem-solving and Decision-making** : Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. ( Advance Equity and Livability in all Communities - Equity)
- **Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Lead Climate Action - Engagement)
- **Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety First - Integrity)
- **Communication**: Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Cultivate Excellence - Innovation)
- **Technical Expertise**: Depth of knowledge and skill in a technical area. (Enhance and Connect the Multimodal Transportation Network - )

**TYPICAL DUTIES:**

Percentage	Job Description
Essential (E)/Marginal (M) <sup>1</sup>	

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40%	E	<p>Develops technical information for use in System Planning products and oral presentations.</p> <p>*Microsimulation Modeling - Develops, operates, and maintains microsimulation models for selected highway corridors or segments. Microsimulation modeling is used to develop strategies to improve operations and safety on the system. The results of the modeling studies may be incorporated into other System Planning documents. Incumbent provides oversight of consultant microsimulation modeling contracts and coordinates modeling efforts with District Traffic Operations and other agencies. Incumbent may work with Vissim, Synchro, or other microsimulation software.</p> <p>*Travel Demand Forecasting (TDF) Modeling - Develops TDF models for selected counties or regions. Modeling is used to evaluate the impact of growth and local development on transportation systems and provide export data for use in developing microsimulation models, growth factors, and area-wide metrics, such as Vehicle Miles Traveled (VMT) for Planning needs. Incumbent provides oversight of consultant TDF modeling contracts as well as coordinates modeling efforts with other agencies. Incumbent works with TransCAD TDF software.</p> <p>*Vehicle Miles Traveled (VMT) and Level of Service (LOS) analysis, accident information analysis, and operational analyses for the State Highway System, evaluates traffic impact mitigation associated with development projects.</p> <p>*Queries Big Data platforms, such as StreetLight and Replica, to obtain highway and traveler data, including Origin and Destination Surveys, trip purpose, peak travel periods and highway volumes, vehicle classification, travel modes, and other data gathering and analysis.</p>
25%	E	<p>*Supports Capital Outlay functions by preparing Traffic Index (TI) Forecast memo and performing the requisite calculations and analysis. The incumbent participates in project design plan reviews and attends project constructibility reviews to ensure consistency with Planning guidance and data sources. The incumbent represents Transportation Planning as a member of various Project Development Teams.</p>
20%	E	<p>*Prepares, updates, or assists with Planning products, including: Operation of existing traffic models, Engineered Feasibility Studies, Special Studies funded through State Planning &amp; Research and other programs, including Highway Corridor Studies, Highway Needs Assessments, Corridor Management Plans, and other studies assigned to System Planning.</p> <p>*Oversight of technical studies contracted to consultants. Duties include contract administration, timely review of consultant deliverables, and evaluation of consultant work plans and products.</p>
15%	M	<p>Assist others in Transportation Planning as necessary to balance workload.</p>

<sup>1</sup>ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

There are no direct supervisory responsibilities in this position.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

System Planning products are based on the results of gathering data, conducting calculations, and summarizing available information. The incumbent must analyze and interpret technical information in order to recommend strategies to project development teams and management. The incumbent must have a thorough knowledge of the Department's mission, policies, planning objectives, and major transportation programs and have the ability to effectively and efficiently manage projects. The incumbent must possess effective written and verbal communication skills, including the ability to develop and present professional-quality presentation materials. Must be able to use Microsoft Excel and have the statistical skills necessary to perform traffic analyses. Incumbent must have the ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardized information or data exists. Ability to interpret a variety of instructions furnished in written, oral, and diagram or schedule form. Ability to read engineered plan sets and knowledge of transportation construction methods and Caltrans Standard Plans (specifications).

**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

Employee is responsible for the timely initiation and completion of assigned tasks/projects. The employee may need to coordinate work with others in the branch. Failure to diligently prosecute the above may delay projects and/or the work of others, increase and result in a less than satisfactory product. Developing and disseminating inaccurate information could result in errors in project development and would be detrimental to the department's public image.

**PUBLIC AND INTERNAL CONTACTS**

The individual filling this position will have contact with local and regional planning agencies, agency staff, and the public. In

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addition, the incumbent will work with other Caltrans functional units within the Planning Division, the District, North Region, and Headquarters.

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**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

Employees will be required to sit for periods of time using a keyboard and video display terminal or while attending meetings and trainings. Employees may be required to travel by car for up to 160 miles, one way. The incumbent may be required to transport heavy boxes, equipment, and/or materials to various locations throughout the District. While working outdoors, employee may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold. S/he must be mentally and emotionally stable to represent the department and interact with staff.

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**WORK ENVIRONMENT**

While at their base of operations, incumbent will work in an office under artificial lighting. Incumbent may also be required to drive to field sites and meetings, work outdoors, and may be exposed to dirt, noise, uneven surfaces and/or extreme temperatures.

This position may be eligible for partial telework. The amount of telework is at the discretion of the Department and based on Caltrans's evolving telework policy. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

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EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE

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