

**POSITION DUTY STATEMENT**

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION 12/ various Divisions	
WORKING TITLE Transportation Engineer (Civil)	POSITION NUMBER 912-XXX-3135-XXX	REVISION DATE

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

**GENERAL STATEMENT:**

The incumbent will perform engineering duties throughout the District in: Construction, Design, Traffic Operations, or Program/ Project Management. Based on the annual workload, delivery commitments, and seasonal needs, the incumbent may be assigned by the Department to a variety of engineering positions in an office or field environment. When working in a Design area under the supervision of an Office Chief, a Senior Transportation Engineer and lead direction of the Project Engineer, a Transportation Engineer (Civil) performs engineering work of varying complexity, involving problem analysis and development of technical reports, plans, specifications and estimates for the construction of transportation improvements. This technical work requires the use of computer applications, including word-processing, spreadsheet applications, and computer-aided drafting and design (CADD) systems. When working in Construction, the incumbent will be under the direct supervision of an Area Construction Engineer (Senior Transportation Engineer, Caltrans) in a field environment. When working in a Project Development area, the incumbent will be under the direct supervision of a Branch Chief (Senior Transportation Engineer, Caltrans) In either area, the incumbent will perform various transportation engineering tasks accomplished through understanding and applying Caltrans standards, manuals, guidelines, policies, directives and computer software applications. Travel is required. The incumbent must possess a valid driver's license when operating state vehicles or driving another vehicle for state business. This position may require both day and night work.

Possession of a valid Professional Engineering License (Civil) issued by the California Board of Registration for Professional Engineers is required for Range D appointment.

**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, Lead Climate Action - Equity, Pride)
- **Decision Making**: Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety First, Cultivate Excellence - Engagement, Innovation, Integrity)
- **Initiative**: Ability to identify what needs to be done and doing it before being asked or required by the situation. Seeks out others involved in a situation to learn their perspectives. (Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)
- **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. (Safety First, Enhance and Connect the Multimodal Transportation Network - Equity, Innovation)
- **Teamwork and Collaboration**: Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Safety First, Lead Climate Action - Engagement, Integrity, Pride)
- **Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - Integrity, Pride)
- **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, Advance Equity and Livability in all Communities - Engagement, Equity)
- **Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety First, Strengthen Stewardship and Drive Efficiency - Equity, Innovation)
- **Technical Expertise**: Depth of knowledge and skill in a technical area. (Safety First, Strengthen Stewardship and Drive Efficiency - Innovation)

**ADA Notice**

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**TYPICAL DUTIES:**

Percentage	Job Description
Essential (E)/Marginal (M) <sup>1</sup>	
30% E	<p>When in Design the incumbent acts as a team member in design of roadway alignments, profile grades, geometric and drainage facilities, construction details, construction staging and utilities, including performing necessary engineering calculations. When working in a Project Development area, duties include the development, coordination, and review of engineering plans, specifications, estimates and reports for highway, freeway, and transportation facility projects. Development of plans includes producing and reviewing layouts, profiles, typical sections, title sheets, super elevation diagrams, drainage, construction details, grading, utilities, traffic striping, stage construction, detours, and quantity summaries. Provides review of technical studies ,reports and package produced by local agencies, developers, and permit applicants and their consultants for compliance with design standards an engineering principles. Produces and reviews project hydraulic analysis and studies, storm water data reports, prepares and assembles contract specifications and documents for ready to list (RTL) submittal. Prepares letters and memorandums. Conducts utilities research, field investigation, coordination and preparation of utility conflict plans. Coordinates safety, constructibility, and value analysis review meetings, reviews and provides comments on project plans and estimates to asses completeness and to correct errors and deficiencies and to improve the final plans, specifications, and estimate (PS&amp;E) product. Provides Computer Aided Design and Drafting (CADD) support and training for various design software, user best practices, resolution of issues pertaining to computerized design, plotter support, file support and computer related equipment inventory management. Prepares and/or Oversight transportation projects. Air Quality studies and Noise Studies require engineering analysis of traffic data, interpretation of engineering plans, and computer analysis of air and noise environments. When working in the Division of Traffic Operations, duties include performing and reviewing traffic operations analyses for freeway and highway segments and intersections using various traffic engineering software. Prepare and/or review Intersection Control Evaluation (ICE), Traffic Engineering Performance Assessment (TEPA), Safety Analysis and Collision Analysis. Reviews Plans Specifications and Estimates (PSE), reports such as Project Initiation Report (PIR), Project Reports (PR) and Design Standard Decision Document (DSDD) during the project development phases.</p>
30% E	<p>When in Project Program Management the incumbent works closely with the assigned project manager to ensure project delivery is within scope, schedule, and budget. Provide support to District Asset Manager, Sustainability and Innovation Managers on project nomination, performance tracking, project book certification, grant application write up and Asset Management tools data updates. Assist with activities in support of PPM by producing various types of reports including but not limited to resource, task assignment, and status for monitoring project costs, scope, and schedule by utilizing available databases and tools (FileMaker Pro/WPS, AMS Advantage, Enterprise Datalink, CTIPS, Microsoft Excel &amp; Word). Review and monitor project workplans to ensure they are continuously updated. Assist the project manager in the preparation of project work-plans in coordination with the functional units. Attend project development team meetings and assist the teams in developing a reasonable schedule and resource distribution that meets the needs of the various functional support units. Attend Statewide Asset Management meetings, sustainability and Innovation workshops and venues. When working in Design, the incumbent calculates quantities for engineering estimates and prepares and acts as a team member in preparation of plans and specifications. When working in Construction, duties include inspecting contractor construction activity to ensure compliance with the project plans and specifications. Collects engineering data, sample construction materials, and performs materials and environmental testing. Develops or assist in the preparation of specifications, change orders, contract estimates, and various documents and reports involved in the construction of transportation projects. Assists in the review of contractor submittal, including Critical Path Method (CPM) schedules, water pollution control submittal, temporary traffic control submittals, shop drawings, etc. Assists in the research and documentation of information used for the resolution of claims being brought against the State by the contractor. May provide oversight of activities related to encroachment permits for utility relocation, local, agency, and special funded transportation projects. May assist with construction support functions in the construction offices or Materials labs.</p>

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20%	E	the new incumbent will participate in the District's engineering Rotation Program. The incumbent will receive training and practical experience in various functions of the District including the Construction, Design, and an assignment to an elective function which may require live-out/per diem assignments. The incumbent will perform a wide variety of professional engineering work in an office and/or field setting. Elective assignments: As part of the Rotation Program, the incumbent will be assigned transportation-related work in Environmental Engineering, Highway Operations, Traffic Management, Hydraulics, Local Assistance, Maintenance Engineering, Permits, Traffic Systems, Traffic Operations, Program Project Management. When in Design, the incumbent prepares technical reports, letters, and memos for development of transportation projects. Reproduces and distributes project-related documents such as memorandums, plans and reports; updates and maintains project files.
10%	E	When in Design, the incumbent performs project activities with other functions within Caltrans, consultants, other agencies, and the general public. This includes, but is not limited to attending meetings, preparing and presenting information to the public about all types of transportation engineering matters, and conferring with local agencies and department personnel regarding project-related activities. When in Traffic Ops, the incumbent Makes engineering calculations while analyzing situations regarding transportation facilities or system design concepts and applying sound engineering principles. Works as a team member or independently to complete assigned engineering tasks for the development of projects or administration of construction projects. Facilitates, schedules, participates in, and/or conducts quality control or constructibility reviews, safety review meetings, Value Analysis Studies, and/or participates as a team member of a Project Development Team.
5%	E	When in design, the incumbent Reviews and prepares documents for encroachment permit applications, construction plan submittals, preliminary engineering studies, consultant-prepared documents, environmental documents, planning documents, traffic studies, tentative maps and other documents from public agencies as they relate to existing and future Caltrans Facilities to ensure compliance with Caltrans' design standards and procedures. When in Traffic Ops, the incumbent makes engineering calculations while analyzing situations regarding transportation facilities or system design concepts and applying sound engineering principles. Works as a team member or independently to complete assigned engineering tasks for the development of projects or administration of construction projects. Facilitates, schedules, participates in, and/or conducts quality control or constructibility reviews, safety review meetings, Value Analysis Studies, and/or participates as a team member of a Project Development Team.
5%	M	When in design, the incumbent performs preliminary field investigations and surveys, including research and retrieval of project background data. When in Traffic Ops, the incumbent reviews or references encroachment permits, intergovernmental Review (IGR)/California Environmental Quality Act (CEQA) documents, Geometric Approval Drawings (GAD)and local development plans. Responds or proposes responses to inquiries, complaints, maintenance concerns, resolution of claims, or pending litigation. Performs field reviews, investigations, and inspections and prepares associated reports, diaries, and documentation. When in Traffic Ops, the incumbent performs miscellaneous inspections and nonprofessional engineering duties as assigned on various active projects. Produces meeting minutes, maintains project files, attends training, performs special reviews, handles telephone inquires, attends public workshops, develops other staff reports, attends staff meetings, and interprets new requirements. Prepares presentations, populates data bases, and develops web based materials.

<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**

The incumbent does not supervise others but on occasion could provide guidance to others or if Range D, could act in a lead worker capacity. The incumbent will receive supervision from a Senior Transportation Engineer (Caltrans) and/or direction from a Transportation Engineer (Civil) working as a lead worker.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Must possess general knowledge of civil engineering principles. Ability to interpret engineering mapping and plans, make neat and accurate computations and engineering notes, and prepare reports.

Establish and maintain friendly and cooperative relations with those contacted in the course of work. Must be able to communicate effectively, i.e., present thoughts, ideas, and compose various correspondence. Must be able to coordinate and work with others within a team environment.

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Due to the complexity of transportation facilities, a general knowledge of Caltrans project development procedures, highway design, standards, policies and practices is essential. Must possess a broad knowledge of personal computer applications and computer-aided design and drafting systems. Must possess knowledge of methods and processes used in the preparation of engineering design and contract plans and highway design and practices and interpretation of technical data.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Responsible for making accurate calculations and preparation of plans, specifications and estimates. Decisions made during the project development process will have a direct impact on the quality of the final transportation facility. Errors in judgement or preparation could result in liability to the State, increased project cost and/or delay of project delivery.

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### PUBLIC AND INTERNAL CONTACTS

Has direct contact with all levels of District staff and some contact with Headquarters staff, private engineers, consultants, contractors and the public.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

#### PHYSICAL:

Employee may be required to sit for long periods of time using a personal computer and may be required to move plans, which are bulky and heavy. When conducting field reviews, may be subjected to loud noises such as heavy traffic. Employee may also be required to travel construction sites on a daily basis if working in Construction and may need to work extended, night and weekend work shifts on a routine basis.

#### MENTAL:

The work requires considerable analytical ability. Employee must possess a sustained mental capacity for analysis, problem solving, reasoning, and report writing.

#### EMOTIONAL:

Must be able to develop and maintain cooperative working relationships, handle stressful and demanding situations in a calm manner.

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### WORK ENVIRONMENT

While at the base of operation, employee will work in a climate-controlled office under artificial lighting. Employee may also be required to occasionally travel and perform field investigations and may be exposed to moving traffic. Employee may be exposed to dust, dirt, noise, uneven surfaces and/or extreme heat or cold.

This position may be eligible for telework. The amount of telework is at the discretion of the Department and based on Caltrans' current telework policy. While Caltrans supports telework, in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksite with minimal notification if an urgent need arises. Employees may be required to conduct business travel on behalf of the Department or commute to the assigned Headquarters location. Business travel reimbursements consider an employee's designated Headquarters location, primary residence, and may be subject to California Department of Human Resources regulations or applicable bargaining unit contract provisions. All commute expenses to the Headquarters location will be the responsibility of the employee.

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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)

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EMPLOYEE (Signature)

DATE

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

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SUPERVISOR (Print)

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SUPERVISOR (Signature)

DATE

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