

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION D04/Design/Office of Materials and Pavement	
WORKING TITLE Materials Design Engineer	POSITION NUMBER 904-231-3135-	REVISION DATE

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under the general direction and supervision of a Senior Transportation Engineer, the incumbent shall perform a variety of transportation engineering tasks related to the District's pavement and materials engineering program. This includes, but is not limited to, project field evaluation, designing pavement structures, writing Materials Reports, construction support, etc.

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.

- Managing Change:** Demonstrating support for organizational changes needed to improve the department's effectiveness; supporting, initiating, sponsoring and implementing change. (Safety, Equity, Climate Action - Collaboration, Equity, Innovation, Stewardship)
- Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety, Equity - Integrity, People First)
- 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. (Equity, Employee Excellence - 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, Equity - Collaboration, Equity, Integrity, People First)
- 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, Equity - Collaboration, Integrity, Stewardship)
- Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Safety, Equity, Climate Action - Collaboration, Equity, Innovation, 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. (Equity, Employee Excellence - Integrity, People First, Pride)
- Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety, Climate Action, Employee Excellence - Collaboration, Equity, Integrity)
- Computer literacy and application:** Appropriate knowledge of computer applications and other tools necessary to successfully perform tasks. (Safety - Collaboration, Equity, Innovation)

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M) <sup>1</sup>	Job Description
40% E	Prepares Materials Pavement Design Reports (Materials Reports). Preparation of reports typically includes research and study as-built plans and design parameters, preparing preliminary layout of field exploration program; analyzing logs of test borings; collection of field samples for corrosion and R-Value tests, prepare corrosion recommendation for roadway elements, designing pavement structural sections; analyzing pavement smoothness, organizing and interpreting pavement performance/test data; and furnishing conclusions in reports and letters.

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20%	E	Performs field visits, identifies pavement distress, analyzes pavement failures and recommends corrective strategy. Prepares correspondence, writes reports, does filing, attends meetings, prepares meeting minutes, takes field trips, coordinates work with others, and prepares technical documents.
20%	E	Perform peer and consultant review, prepare and review contract plans, specifications, cost analyses, and estimates.
10%	E	Provides technical support during Construction on Request for Information (RFI) and Contract Change Orders (CCO). Attend meetings with the consultants and contractors to address construction issues.
5%	E	Reviews Encroachment Permit Applications and investigates the application of innovative technologies in pavement design.
5%	M	Other pavement and materials related 5% M activities.

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<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.

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**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

None. May occasionally act as a lead person, assisting the Senior in the supervision and training of engineers and technicians.

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**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

The duties of this position require moderate analytical work in engineering to assist in the preparation of Materials Reports for use in the development of contract plans, specifications and estimates on highway design projects. He/she must also analyze compiled data related to as-built pavement and existing soil conditions. Field testing and/or sampling may also be required. The incumbent must be familiar with Caltrans' project development process and Caltrans' policies and procedures. The incumbent must have the ability to prepare difficult plans and write and prepare specifications, write correspondence and prepare reports, analyze situations and take effective action to accomplish his/her assigned tasks. He/she must be able to direct the activities of personnel when required and to interrelate to other personnel to maintain an effective working environment.

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**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

The incumbent is responsible for making technical and/or engineering decisions, which may affect the development and construction of transportation related projects. He/she is also responsible for taking the lead in planning studies, drafting technical reports, making investigations and assisting in the training of engineers.

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**PUBLIC AND INTERNAL CONTACTS**

The incumbent maintains a close working relationship with other District, Division of Engineering Sections and consultant personnel for the purpose of coordinating design activities.

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**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

Employees may be required to move large or cumbersome reports/plans from one location to another. The physical aspect may also require occasional digging collecting soil/rock samples that may require digging, bending, stooping and kneeling. Must be able to sit and/or stand for long duration and perform tasks utilizing a PC. Must have the ability to multi-task, adapt to changes in priorities, and complete tasks or projects with short notice. Employees must be able to concentrate in order to review and create documents and meet strict deadlines at times. Ability to resolve emotionally charged issues reasonably and diplomatically. Must deal effectively with pressure, maintain focused, and intensity yet remain optimistic and persistent, even under adversity. Must be able to develop and maintain cooperative working relationships.

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**WORK ENVIRONMENT**

While at their base of operation, employees will work in a climate-controlled office under artificial light. However, due to periodic problems with the heating and air conditioning, the building temperature may fluctuate. Most employees will work in workstations within shared cubicles. Working hours will be set sometime between 6:00 a.m. and 6:00 p.m. Employees may be required to travel to project sites for collecting roadside soil/rock samples and meetings with clients, depending on work demands.

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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.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

EMPLOYEE (Print)

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.

SUPERVISOR (Print)

SUPERVISOR (Signature)	DATE
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