STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineer Tech	D7 Construction / Materials Field Testing & Acceptance Labs	
WORKING TITLE	POSITION NUMBER	REVISION DATE
Materials Tester	907-503-3175-xxx	07/15/2025

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

GENERAL STATEMENT:

Under the direction of a Senior Transportation Engineer, the incumbent performs the testing and analysis on construction materials such as soils, aggregates, asphalt and concrete samples. The incumbent is required to possess current certification in the California Test Methods and certification in the Fundamentals of Radiation Safety and Nuclear Gage Operation. The incumbent attends pre-construction meetings, performs equipment calibration, assists the Senior Transportation Engineer with inventory control. The incumbent may serve in the capacity as an Assistant Radiation Safety Officer under the direction of the Radiation Safety Officer and supervision of the Senior Transportation Engineer. This position requires both day and night shift work, to perform field testing through Los Angeles and Ventura Counties, and materials testing in district Lab. The incumbent must be capable of moving up to 75 pounds.Incumbent must possess and maintain a valid driver's license when operating State vehicles.

CORE COMPETENCIES:

As a Transportation Engineer Tech, 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. (Safety - Collaboration, Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety, Employee Excellence - Equity, Integrity)
- **Ethics and Integrity:** Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Equity, Climate Action - Equity, 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 - Innovation, Pride, Stewardship)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety, Climate Action - Collaboration, Innovation)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety, Equity - Equity, 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. (Safety, Employee Excellence - Innovation, Pride)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety, Climate Action, Prosperity - Collaboration, Integrity)
- **Organizational Skills:** Keeps work prioritized and organized. Logically approaches situations. (Safety, Equity, Climate Action, Prosperity - Equity, Integrity, Stewardship)

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M)[1]	Job Description

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85%	E	Performs technical testing in accordance with California Test Methods of soils and aggregates for earthwork, subbase, base, and asphalt concrete pavement as well as the flexural strength testing of rigid pavements (i.e. portland cement concrete, rapid set concrete, and polyester concrete, etc.). Fabricates concrete cylinders and concrete beams, conducts gradation tests, sand equivalent testes, and sampling of soils, and construction materials. Performs testing at the Construction Acceptance Testing Facility for Hot Mix Asphalt concrete pavement, portland cement concrete pavement and aggregates used in roadway construction. Preparation of field and laboratory testing reports and submittal of the completed reports to the Resident Engineer. Testing is performed at the project site and at the field materials laboratory or at the acceptance laboratory. Assignments may be located anywhere within the boundaries of District 7 (Los Angeles and Ventura Counties). Night work and weekend work may be required depending on the project requirements. The incumbent must be capable of moving up to 75 pounds. Maintain all necessary certificates to perform required duties.
10%	E	Attends pre-construction meetings and recommends procedures for conducting the material testing safely. Recommends the testing frequency based on the Construction Manual or Quality Control / Quality Assurance (QC / QA) guidelines or the Special Provisions.
5%	M	Assists in calibration, maintenance and inventory of nuclear gages and other field and laboratory material testing equipment.

[1]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
None.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS
Knowledge of materials used in state transportation projects.
Knowledge of California Test Methods and equipment used in making physical test.
Knowledge of how materials are placed, sampled and tested.
Knowledge of construction contract documents including plans and specifications.
Knowledge of the Standard Specifications and Special Provisions relating to the properties of various types of materials and material testing.
Knowledge of the basic principles of mathematics, chemistry and applied sciences as it applied to Civil Engineering; mechanics; properties and uses of engineering construction materials.
Knowledge of testing frequencies shown in the Construction Manual, in the QC / QA procedures, or as outlined in the Special Provisions.

Ability to interpret material test data and visually recognize basic material properties.
Ability to work independently, make clear recommendations, prepare concise reports / documentation, and work constructively with others.
Ability to establish and maintain friendly and cooperative relations with those contacted in the course of work and to communicate effectively.
Ability to apply sound judgment in a test situations and the ability to analyze factors capable of affecting test result.
Ability to travel to meetings within California.
Ability to operate office equipment; i.e., computers, telephone, fax and copier machines.
Ability to maintain good safety practices.

Analytical determination of material acceptability and interpretation of material problems.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
Must be able to effectively follow directions and testing procedures, failure to adhere to this may result to inaccurate test results that may subject the state to undue delays and to incur added expenses.

PUBLIC AND INTERNAL CONTACTS
Public and internal contact is very minimal. Contact could happen mostly when conducting testing, receiving or shipping materials.

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PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical activities vary and may be for a lengthy period of time. Requires manual dexterity to operate testing equipment and handle material in the field or in the laboratory. Must be capable to handle the temperature fluctuations. Must be able to sustain mental activity to read, write and input test results. Must be able to maintain emotional control during conflicts with coworkers and maintain cooperative working relationship. Employees may be required to move large samples of materials weighing up to 75 pounds form one locations to the other. Prolonged standing while running test may be required.

WORK ENVIRONMENT

This position requires the incumbent to work independently and to work both indoors and outdoors. Outdoor activity may include but not limited to carrying field testing equipments, moving laboratory samples form the sample loading dock area into the laboratory facility, prepare testing samples, saw cut the samples. May be exposed to loud noise, weather conditions of extreme heat and/or cold, dust. May require both day and night work, weekends and holidays. Require working at various locations within District 7 boundaries to meet the operational needs. Indoor activities may be exposed to extreme heat, dusty environment, odor and contact with solvents.

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

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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