STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineer Tech	District 12/ Office of Construction Field 2	
WORKING TITLE	POSITION NUMBER	REVISION DATE
Lab Technician	912-300-3175-018	

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

GENERAL STATEMENT:

Under the supervision of a Senior Transportation Engineer, the Transportation Engineering Technician performs a variety of field and laboratory duties in the Field Materials Testing Unit and Plant Inspection Unit. Responsibilities inculde material testing and analysis on soil, aggregate, asphalt and concrete samples to meet Caltrans specifications and contract requirements for highway construction projects.

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.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Employee Excellence - Collaboration)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety - Innovation)
- **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. (Employee Excellence - Pride)
- **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. (Employee Excellence - Innovation)
- **Relationship Building:** The ability to develop and maintain internal and external trust and professional relationships, which includes listening and understanding to build rapport. (Employee Excellence - Integrity)
- **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. (Climate Action - People First)
- **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. (Employee Excellence - Collaboration)
- **Forward Thinking:** Anticipates the implications and consequences of situations and takes appropriate actions to be prepared for possible contingencies. Anticipates and prepares for future developments. (Safety - Integrity)
- **Organizational Skills:** Keeps work prioritized and organized. Logically approaches situations. (Employee Excellence - Innovation)

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
35%	E	Perform Field Materials Testing and Plant Inspection on Concrete, Hot Mix Asphalt (HMA), Soils, Aggregate bases and other construction materials used in highway construction. Frequent visits to HMA and Concrete Production Plants as well as the Construction worksites.

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35%	E	Perform laboratory and field tests per California Test Method (CTM), American Concrete Institute (ACI), American Society for Testing Materials (ASTM), and the American Association of State Highway Transportation Officials (AASHTO) test methods on construction materials including but not limited to: Concrete, Rapid Strength Concrete, Lean Concrete Base, Polyester Concrete, Hot Mix Asphalt, Soils and Aggregate bases. Conduct sampling, testing, inspection, and analysis of soils, aggregates, asphalt, and concrete materials to verify compliance with Caltrans Standard Specifications, test methods, and contract requirements for highway construction projects.
20%	E	Assist lead workers in calibrating and maintaining records and monitor inventory of laboratory equipment in compliance with quality assurance program guidelines and California Test Method requirements. Assist in budgeting and supply acquisition for District Material Laboratory. Maintain records and monitor use of all nuclear gauges. Document test results, prepare reports, operate and maintain testing equipment, and coordinate with contractors, consultants, and Caltrans staff to support quality assurance and quality control activities.
5%	M	Prepare Daily Inspection and Test Reports per Caltrans' procedures. Maintain and Prepare reports, charts and graphics about materials analyzed in laboratory. Organize and file reports for project records
5%	M	Assists leadworkers to dispatch field inspection personnel and assign work-order accordingly to support various field construction offices. Prepares, delivery, and ship roadway materials samples to Headquarter Materials Engineering and Testing Service laboratory (METS) or Southern Regional Laboratory (SRL) or Consultant's Laboratory.

[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 testing in California Test Method (CTM), ASTM, ACI, and AASHTO, and equipment used in making physical test. Familiar with the Standard Specifications and Special Provisions relating to the properties of various types of materials. 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. The ability to establish and maintain friendly and cooperative relations with those contacted in the course of work, and to communicate effectively. Knowledge of sampling and testing frequencies shown in the Construction Manual, in the Quality Control/Quality Assurance (QC/ QA) procedures, or as outlined in the Special Provisions. The ability to apply sound judgement in testing situations and the ability to analyze factors capable of affecting test results. The ability to travel to meetings and training within California.

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

PUBLIC AND INTERNAL CONTACTS
There is little contact with the general public. Contacts are with Resident Engineers, Contractors, Asphalt Concrete (AC) and Portland Cement Concrete (PCC) suppliers.Construction Inspectors, Field Materials Personnel, and Consultants acting in any of the aforementioned capacities. Maintains a professional working relationship with the contractor.

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 coming into the laboratory. Due to the laboratory working environment, temperature fluctuations are common; must be capable to handle these fluctuations. Must be able to sustain mental activity to read, write and input test results. Must be

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able to maintain emotional control during conflicts with coworkers and maintain cooperative working relationship with them. Employees will be required to assist in moving larger samples of materials from one location to the other. Prolonged standing while running test may be required.

WORK ENVIRONMENT

This position requires the incumbent to work both indoors and outdoors. Majority of the work is outdoors and requires going to the field to perform material testing duties. Outdoor activity includes exposure to moving traffic, loud noise, weather conditions of extreme heat and/or cold, dust, working on uneven terrain, adjacent to heavy equipment. May require working in the field at night and possibly working alternate night shift between staff within the unit if work operation requires. Indoor activity includes exposure to extreme heat, dusty environment, odor and contact with solvents.

Incumbent must possess and maintain a valid California driver's license and be able to travel to construction sites, material production plants, laboratories, and other field locations as required. This position primarily supports nighttime construction operations, with a regular work schedule of 8:30 P.M. to 5:00 A.M. The incumbent may be required to work overtime, weekends, holidays, and in varying weather and traffic conditions to meet operational and project needs.

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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