

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer Tech	OFFICE/BRANCH/SECTION District 12 / Project Delivery / Office of Construction Field	
WORKING TITLE Transportation Engineering Technician	POSITION NUMBER 912-300-3175-024	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:

Under the direction of a Senior Transportation Engineer, the Transportation Engineering Technician acts as a lead worker for the Field Materials Testing Unit to oversee performance of material testing and analysis on soil, aggregate, asphalt and concrete samples to meet Caltrans specifications and contract requirements for highway construction projects. Incumbent will also perform smoothness testing of existing pavements to determine the extent of pavement smoothness correction and to evaluate / analyze the smoothness of old and new pavements. Must have valid California driver license.

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 First, Cultivate Excellence - Engagement)
- **Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety First, Cultivate Excellence - Engagement)
- **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. (Safety First, Cultivate Excellence - Engagement)
- **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 - Innovation)
- **Relationship Building**: The ability to develop and maintain internal and external trust and professional relationships, which includes listening and understanding to build rapport. (Safety First, Cultivate Excellence - Equity)
- **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 First, Cultivate Excellence - Equity)
- **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 First, Cultivate Excellence - Innovation)
- **Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety First, Cultivate Excellence - Innovation)
- **Technical Expertise**: Depth of knowledge and skill in a technical area. (Safety First, Cultivate Excellence - Innovation)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	
40% 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 HMA and Concrete Production Plants as well as the Construction worksites.

ADA Notice

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40%	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.
10%	E	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%	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.
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.

¹ESSENTIAL 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

Demonstrate knowledge of testing in California Test Method (CTM), ASTM, ACI, and AASHTO, and equipment used in making physical test. Also must be 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 a test situations and the ability to analyze factors capable of affecting test result.

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 to 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 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.

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WORK ENVIRONMENT

This position requires the incumbent to work both indoors and outdoors. Majority of the work is outdoors and require to go 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.

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.)

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
