

POSITION DUTY STATEMENT

PM-0924 (REV 04/2021)

CLASSIFICATION TITLE Transportation Engineer Tech	OFFICE/BRANCH/SECTION District 03/North Region Construction	
WORKING TITLE Inspector / Materials Tester	POSITION NUMBER 928-502-3175-XXX	EFFECTIVE 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:

Transportation Engineering Technician can be tasked in several engineering functions in the region. Based on annual workload and seasonal needs, the incumbent may be assigned by Caltrans to a variety of positions in an office or field environment. The incumbent will be under the direct supervision of a NR Construction, Senior Transportation Engineer, and may receive direction from a Resident Engineer (Lead Worker). The incumbent will perform various transportation engineering tasks including project inspection; materials sampling and testing used in roadway construction; collecting, recording, measuring and analyzing data; conducting field surveys for measurement and payment of various items of work on the project construction site. Travel to project sites will be required. Possession of a valid California Drivers License is required when operating a state owned or leased vehicle.

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. (Cultivate Excellence - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **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. (Safety First - 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. (Safety First - Equity)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Strengthen Stewardship and Drive Efficiency, Advance Equity and Livability in all Communities - Integrity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Enhance and Connect the Multimodal Transportation Network, Lead Climate Action - 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 First - Engagement)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Cultivate Excellence - Innovation, Pride)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Lead Climate Action, Advance Equity and Livability in all Communities - Equity)

TYPICAL DUTIES:

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

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50%	E	The incumbent will make inspections of construction projects. Ensure compliance with plans and specifications, collect engineering data, assist in drafting and prepare specifications, change orders, contract estimates, and other documents and reports involved in the construction of projects. Complete daily diaries documenting work progress, field measurements, job site safety and conduct storm-water inspections. Check engineering calculations for accuracy; assist in the preparation of and processing of Extra Work Bills, verify hours and dollar amounts against diaries, make field investigations and laboratory analysis of materials being used in construction projects and advise Resident Engineer of problems or situations on project sites.
20%	E	Sample and test, in accordance with California Test Methods, AASHTO, ASTM, Standard Specifications, Special Provisions, and the Construction Manual, materials used in roadway construction. This will include earthen materials, aggregates, asphalts, cements, epoxies, polymers, and other materials.
20%	E	Prepare, organize, and maintain, records and forms associated with construction contract administration.
10%	M	Perform special technical studies, investigations, and transportation engineering surveys or road inventories: prepares related reports and correspondence.

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

This position does not supervise but the individual may act as a lead worker for other staff.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of: Methods, materials, and equipment used in construction, surveying, and maintenance of transportation facilities; standards of alignment, grade of highways and other transportation facilities; Caltrans, American Association of State Highway and Transportation Officials (ASHTO), and ASTM test methods; Mechanical properties of soils, aggregates, and common roadway construction materials; Material sampling techniques; Standards and Practices of materials as practiced by the Department and the engineering profession; and Caltrans Specifications and Special Provisions.

Ability to: Work with others cooperatively in a project team relationship; communicate effectively, both written and oral, with supervisors, fellow workers, and others. Must have the ability to incorporate new procedures or techniques and be able to receive instruction from the transportation engineer supervisor, lead-worker, or designer on a continuous basis. Perform math (algebra and basic trigonometry). Work independently. Prioritize and manage tasks. Literacy in personal computers and commonly used software, including Microsoft Word and Excel. Independent decision making, based on engineering principles and the analysis of data. Establish and maintain professional, amiable relationships with coworkers, other employees, contractor personnel and the public.

Analytical Requirements: Must know how contract item quantities are computed, and know the method of payment. Must be familiar with safe field review practices. Interpret sampling and testing data, and apply the results to recommend roadway engineering solutions. Must be familiar with safe field review practices.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Inability to work with others cooperatively in a project team can result in a loss of productivity and negatively affect team moral. Inaccurate measurements or project records may delay projects, increase cost, and result in a less than satisfactory product. Improper sampling and testing technique, or poor analysis of their results, can result in poorly designed or constructed roadway facilities. Failure to diligently prosecute the above can lead to reduced safety for the traveling public, increased direct costs to the Department for corrective work, and increased indirect costs through liability.

PUBLIC AND INTERNAL CONTACTS

At all times this assignment requires working effectively with other people. This includes personnel at levels within the North Region, other Districts, Headquarters, local agencies, FHWA, private industry, and the general public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employees will be required to sit for long periods of time using a keyboard and video display terminal. Employee must be congenial and tactful when dealing with others while effectively and cooperatively accomplishing tasks. Employees will also work under field conditions in which the incumbent may have to stand for long periods of time, walk on slopes or uneven terrain, move and transport bags of material samples (weighing up to 50 pounds) to Materials Labs. Employee will be required to stand for long

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periods of time, often on a concrete floor, while operating various testing equipment. Needs to repeatedly lift and carry samples of materials, which weigh up to 50 pounds.

WORK ENVIRONMENT

At times, employee will work in a climate-controlled office under artificial lighting. At other times employee will be exposed to dirt, noises, asphalt, solvents, and other materials when working in the field. Field trips will require walking and climbing on uneven surfaces, short periods of exposure of heat or cold, and working around live traffic and heavy equipment. Some night work will occasionally be necessary and the work shift may vary depending on workload. Periodic overtime work and out of town overnight travel may be required. Travel may require the use of State supplied vehicles that vary in size.

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