

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Materials and Research Engineering Associate (Specialist)	District 03/North Region Construction/Redding Materials Lab	
WORKING TITLE	POSITION NUMBER	REVISION DATE
Weights and Measures Coordinator	928-502-3381-XXX	

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 the North Region Construction's North Area District Materials Engineer, a senior transportation engineer, the incumbent administers the Caltrans Material Plant Quality Program and CT 109 certification process (MPQP/CT 109 program). The incumbent will be encouraged to take independent action with significant decisions and final recommendations reviewed and generally concurred with by the District Materials Engineer. The position requires effective communication with internal programs and private stakeholders. A driver's license is required when operating a state owned or leased vehicle.

CORE COMPETENCIES:

As a Materials and Research Engineering Associate (Specialist), 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. (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. (Equity - Innovation)
- Conflict Management**: Recognizes differences in opinions and encourages open discussion. Uses appropriate interpersonal styles. Finds agreement on issues as appropriate. Deals effectively with others in conflict situation. (Equity - Stewardship)
- Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Equity - Collaboration)
- Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Employee Excellence - 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. (Employee Excellence - Collaboration)
- Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Equity - Stewardship)
- Technical Expertise**: Depth of knowledge and skill in a technical area. (Employee Excellence - Stewardship)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	
50% E	Performs hot mix asphalt, Portland cement concrete, rubber, lime and other plant weight and scale certifications per the MPQP/CT 109 program. Makes decisions as to acceptability of asphalt and concrete plants for Caltrans projects. Work involves test procedures for hopper scales, liquid metering, conveyor scales, and volumetric. Also requires the employee to perform a thorough Material Plant Safety Inspection. Upon completion of CT 109, employee drafts appropriate reports and documentation and uploads information into the statewide MPQP database.

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35%	E	Performs asphalt and concrete plant inspections and trains others to perform these inspections and make presentations. Training includes creating detailed PowerPoint presentations that covers topics including: warm mix asphalt (additive technology and water injection technology), rubberized hot mix asphalt, hot mix asphalt quality assurance processes, and pay factor quality characteristics. Includes the five pay factors: core density, asphalt binder content, air voids, percentage passing the number 200 sieve, and percentage passing the number 8 sieve. The final step of plant inspection training includes a visit to a plant in operation to see in person. Presentation material will need to be kept updated with any new information.
10%	E	Operates the inertial profiler, including preventive maintenance, maintenance, repair, and operation of the inertial profiler. Uploads data and generates a report in appropriate technical format for the resident engineer. Collects samples for culvert analysis from the field. This includes collecting the samples, having the materials lab test them, and writing a culvert analysis report, which may include a formal Alternative Pipe Culvert Recommendation Memo.
5%	M	Services and maintains laboratory equipment in good repair. May act as back-up for the North Area's Independent Assurance Program Manager and Radiation Safety Officer.

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.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS
This position requires knowledge in operation and calibration of hot mix asphalt and concrete production plants. Computer skills required to maintain databases, create presentations, present as a trainer and develop written reports. It requires knowledge of plant inspection methodology and related contractual language. Also requires certification in the inertial profiler and knowledge of pipe culvert size selection. This position requires knowledge in operation and calibration of asphalt an concrete production plants. Requires a thorough knowledge of materials and construction related processes, test methods, regulations and manuals of instruction. Must be able to observe and evaluate if procedures are performed as required under the California Manual of Test Methods, AASHTO, and ASTM test methods. In order to enforce the IA Program the position required to be certified as an Independent Assurance Inspector. Must be an effective communicator to coordinate data with other employees, as well as various agencies, suppliers, and private sector laboratories. Computer skills required to document the certification program maintain databases, develop written reports, and order testing equipment. Must be knowledgeable regarding use of nuclear gauges and safety regulations. Maintain and calibrate test equipment.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
Failure to accurately perform CT 109 certifications could result in highway structural section failure, high construction and/or maintenance costs, and wasted effort. Responsible for the accuracy and completeness of sample preparation and physical tests performed. Inaccurate test results can have serious financial and credibility consequences for Caltrans.Safe work practices must be followed at all times for accident/injury prevention.

PUBLIC AND INTERNAL CONTACTS
Requires contact with plant personnel, resident engineers, Cal/OSHA, county weights and measure staff, and other project-related personnel. Performs as interdisciplinary team member in project reviews. Requires contact and communication with suppliers of materials, resident engineers, design personnel, external lab personnel and could require contact with other State Agencies. Minimal public is required. Some contact with owners of materials sites and owners of property adjacent to highway is necessary. Occasionally handles inquiries from contractors and general public for technical information on highway projects.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
Incumbent will be required to stand for long hours observing plant operations, and must be able to work in noisy and dusty conditions. Will be required to carry boxed/bagged sample material weighing up to 50 pounds into and throughout the Materials Laboratory. Must be able to develop and maintain cooperative working relationships. Incumbent will work as a member of a team, stay out of town, drive long distances, and work overtime.

WORK ENVIRONMENT
While working in the office, the incumbent will work in a climate-controlled office under artificial lighting. When working in the lab area, at a plant, or outdoors, employee may be exposed to dirt, dust, fumes, noise, uneven surfaces, and/or extreme heat or cold.

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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

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)	
SUPERVISOR (Signature)	DATE