

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION Office of Pavement Recycling and Job Order Contracting	
WORKING TITLE Cold Recycling Engineer	POSITION NUMBER 913-601-3135-918	REVISION DATE

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

GENERAL STATEMENT:

Under general direction of a Supervising Transportation Engineer in the Office of Pavement Recycling and Job Order Contracting and under the specific direction of a Senior Transportation Engineer (Specialist), the incumbent will assist in providing technical expertise to Caltrans district, headquarters and Pavement Program staff regarding all aspects of Cold Recycling specifications, quality characteristics, testing requirements and training. The incumbent will be involved in developing, revising, and updating specifications, special provisions and test methods; serving on statewide task forces; preparing technical reports, guidelines and manuals; and evaluating new products related to Cold Recycling pavements. The incumbent will also work in partnership with industry and academia on issues regarding Cold Recycled materials; respond to inquiries from the district on projects; help in the forensic investigations related to pavement failures; prepare technical reports; and track the performance of pilot projects.

CORE COMPETENCIES:

As a Transportation Engineer (Civil), 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. (Safety, Climate Action - Collaboration, Innovation, People First, Stewardship)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety, Equity, Climate Action, Prosperity - Innovation, Integrity, Pride)
- **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, Equity, Employee Excellence - Equity, Innovation, People First, Stewardship)
- **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, Prosperity, Employee Excellence - Equity, Innovation, Integrity, Stewardship)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Stewardship)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety, Equity, Employee Excellence - Collaboration, Equity, People First, Stewardship)
- **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. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, Pride, Stewardship)
- **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, Equity, Climate Action, Prosperity - Equity, Innovation, Integrity, Pride, Stewardship)
- **Thoroughness:** Ensures that work and information is complete and accurate. Ensures that assignment goals, objectives, and completion dates are met. Documents and reports on work progress. (Safety, Prosperity - Collaboration, Equity, Innovation, Integrity, People First, Stewardship)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	
30% E	Serve as Caltrans and Office of Pavement Recycling and Job Order Contracting's representative on statewide task forces and committees. Attend and participate in technical meetings and conferences with Caltrans and industry to influence the development of materials specifications and test methods applicable to Caltrans operations.

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20%	E	Provides guidance and information to districts and Headquarters Construction, Design and Maintenance personnel regarding Cold Recycling materials throughout all phases of testing, design, specifications, construction, maintenance, and rehabilitation.
20%	E	Responsible for investigation, testing analysis and reporting of special studies for Cold Recycled pavement materials. Assist the Senior Transportation Engineer in developing information for special assignments.
20%	E	Prepare and review technical reports and correspondence as appropriate. Work with Industry/contractors in the development of specifications. Develop training materials and guidance on asphalt pavement specifications.
5%	M	Performs other staff duties as required to ensure efficient functioning of the Office of Pavement Recycling and Job Order Contracting.
5%	M	Make presentations at Resident Engineers, Design Engineers and Material Engineers meetings.

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

No direct supervision responsibilities. May serve as lead engineer over other engineers on specific tasks. Primarily serves as a staff specialist providing assistance to the Senior Transportation Engineer, but also assisting other seniors as needed.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

The incumbent must possess a broad knowledge of Pavement Recycling, such as Partial Depth Recycling, Full Depth Recycling, and Cold Central Plant Recycling and other pavement materials to facilitate design, construction, and maintenance activities, laboratory and field testing, and evaluation. Specifically, the following is expected from the candidates:

- Knowledge of engineering principles, practices and materials used in the design, construction, and maintenance of Cold Recycled (CR) pavements.
- Knowledge of procedures and practices applied in the inspection and testing of materials used in CR pavement construction.
- Familiarity with quality control and quality assurance activities for CR and field operations.
- Knowledge of Superpave design.
- Understanding of CR mix components (such as aggregate and asphalt) effects on CR properties (such as inclusion of fines, recycling agents, cementitious materials)
- Demonstrated analytical, quantitative, and interpretive capabilities of CR material performance and quality characteristics.
- Familiarity in conducting investigations related to premature pavement failures and forensic field evaluation.
- Basic knowledge in developing training materials and experience in delivering training to Caltrans engineers and other Industry members.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

This work is directly associated with CR materials' contribution to pavement structural section design, construction and maintenance. Incorrect analysis can result in recommendations that increase maintenance costs and/or costly early rehabilitation. Incorrect analysis or recommendations can also result in costly delays of construction and/or claims or lawsuits against the State.

PUBLIC AND INTERNAL CONTACTS

Incumbent must work well, and communicate with other personnel in the Pavement Program, other Headquarters functional units, districts/regions, other state agencies, Federal Highway Administration (FHWA), and other Federal Agencies, Local Agencies, representatives of industry, academia, consultants, and the general public to provide the necessary analysis and recommendations on asphalt pavement specifications.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

This position will require an excellent state of mind and the ability to make clear, timely judgments under pressure. It also requires teamwork orientation to openly discuss issues and reach consensus. May require traveling to the Districts periodically.

WORK ENVIRONMENT

The incumbent will work in a climate-controlled office under artificial lighting. Occasionally, the employee will be required to travel within and outside the State to meetings, construction projects and material production plants. The incumbent will also be required to occasionally work outdoors which may cause exposure to dirt, dust, noise, uneven ground surfaces, allergens in the air and/or hot or cold temperature extremes.

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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
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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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