

**POSITION DUTY STATEMENT**

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION Safety Innovation & Cooperative Research/TRDM	
WORKING TITLE Transportation Engineer	POSITION NUMBER 913-155-3607-018	REVISION DATE 11/13/2024

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 the Chief, of the Transportation Research and Data Management(TRDM) Branch (a Senior Transportation Electrical Engineer), the incumbents will perform engineering work as a Research Project Manager for the Division of Research, Innovation and System Information (DRISI). The incumbents will manage research for the Divisions of Maintenance/ Equipment/ Right of Way/Land Surveys, and Safety. Typical work assigned to the employee will include the following: 1) acts as a Project Manager for research projects and preliminary investigations, 2) acts as a Contract Manager, 3) writes and reviews technical documents and reports, 4) Uses best practices and conducts in-house research and, 5) completes administrative duties and provides support to others as assigned. The incumbents will also assist the management of the National Cooperative Highway Research Program (NCHRP) and the Transportation Pooled Fund (TPF) program. The incumbents is expected to exercise good judgment and act independently to perform assigned tasks. A valid driver's license is required for this position.

**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.

- **Learning on the Fly:** Learns quickly, is open to change, experiments, and is flexible. ( Advance Equity and Livability in all Communities - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety First - 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. (Strengthen Stewardship and Drive Efficiency - 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 - Integrity)
- **Fostering Diversity:** Capable of working with a diverse work group, including but not limited to differences in race, nationality, culture, age, gender, and differently able. Makes everyone feel valuable regardless of diversity in personality, culture, or background. Fosters a diverse culture to create best solutions. ( Advance Equity and Livability in all Communities - Equity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. ( Advance Equity and Livability in all Communities - Engagement)
- **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. (Cultivate Excellence - Integrity)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Strengthen Stewardship and Drive Efficiency - Innovation)
- **Organizational Skills:** Keeps work prioritized and organized. Logically approaches situations. ( Advance Equity and Livability in all Communities - Innovation)

**TYPICAL DUTIES:**

Percentage	Job Description
Essential (E)/Marginal (M) <sup>1</sup>	

**POSITION DUTY STATEMENT**

PM-0924 (REV 01/2022)

40%	E	<b>MANAGE ENGINEERING RESEARCH:</b> Acts as a Project Manager to oversee engineering research and preliminary investigations. Participates fully in the effort to become familiar with research activities and have a complete understanding of the research. Uses active project management and engineering judgment to successfully control scope, schedule, and budget and identify risks and problems for immediate correction, including requesting amendments when needed. Achieves this using tools, trainings, skills, and experiences. Formulates options and makes decisions, manages risks, and decides when issues need elevation to management. Leads and participates in meetings with Customers and Researchers to discuss current and future research. Monitors contractor progress by holding regular meetings and phone discussions and comparing observed and reported work to that listed in the approved proposal. Travels to research facilities and field sites to monitor research. Tracks and approves all research deliverables.
30%	E	<b>MANAGE ENGINEERING RESEARCH CONTRACTS:</b> Prepares and submits engineering research contracts for approval. Manages and enforces engineering contract terms. Monitors budgets and pay invoices, monitor schedules, and contract compliances with research scope. Amend contracts as needed. Closeout contracts when complete. Works with others as needed to facilitate this (DRISI staff, Division of Procurements and Contracts, etc.)
20%	E	<b>TECHNICAL DOCUMENT REVIEW AND WRITING:</b> Provides thorough reviews of drafts and final engineering documents, including final reports, preliminary investigations, the scope of work and proposal documents, and other important documents produced by the Researchers or the Division. This includes a critical analysis to identify shortcomings in the document such as incomplete reporting, lack of clarity, erroneous conclusions, poor document structure, missing research needs, bad schedules, and budgets, and more. Also included is proofreading for spelling, punctuation, and grammar problems. The purpose is to provide high-quality final documents for use by the Division and others. Produces (write) high-quality documents for use by the Division and others. This includes quarterly reports, research notes and results documents, scope of work documents, and more.
10%	M	<b>OTHER RESEARCH RELATED ACTIVITIES:</b> Works with Customers to define research purpose and need and develop the initial scope of work documents. Works with Researchers to support the development of proposal documents. Participates in the Research and Deployment Advisory Committee, mid-cycle, contingency, and other funding processes to secure funding for research. Keeps the RPMD current with information about the research. Supports Peer Exchanges by supporting the planning, setup, and execution. In lieu of contracting out, conduct minor research for the Division as assigned. Acquires the knowledge to provide consultation to other Caltrans Divisions and represent Caltrans on technical matters in your assigned topic areas. Completes other research-related work and reporting as assigned.

<sup>1</sup>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. May act as lead person over a team of engineering staff.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

The employee MUST:

- Through their actions and work, support Caltrans' Mission, Vision, Goals, and Values.
- Applies active project management to successfully manage their research.
- Be able to communicate effectively both verbally and in writing.
- Possesses the ability to self-direct, work independently, and have strong critical thinking and analytical skills.

**ADA Notice**

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## POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

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- Works diligently to resolve problems and issues. When help is needed, identify's options, selects a recommended best option, if available, and ready supporting information to provide to others.
  - Keeps the supervisor informed of any problems, issues, or delays in a timely manner in order to minimize negative repercussions.
  - Follows directions given by the supervisor and ask questions if directions are not clear.
  - Meets work and deliverable deadlines.
  - Be able to write scope of work documents, reviews and critiques research proposals, and reviews and critiques research final reports and other documents. Strong report writing and reviewing experience, including report formatting, content population, proofreading for technical clarity, spelling, and punctuation is required.
  - Acquires the knowledge to provide consultation to other Caltrans Divisions and represent Caltrans on technical matters your topic areas. Employee is not considered a subject matter expert (SME), but is expected to be highly knowledgeable on topics of interest to Customers in order to provide quality support and commentary.
  - Cultivates and maintains cooperative relationships with other employees, staff, and students in Caltrans, local, State and Federal agencies, universities, and the private sector.
  - Has the ability to function well in multi-disciplinary technical groups and project meetings and act as the lead when needed.
  - Be familiar with computer oriented processes, personal computers, and applications (ie, Microsoft Word, Excel, Power Point, etc.) to effectively manage research, contracts, and budgets.
  - Be capable of administering research contracts and managing the research efforts, and have the ability to evaluate research results. Previous experience managing or performing research, or prior project management experience is highly desirable.

It is DESIRABLE for the employee to:

- Be familiar with research methods and procedures.
- Possesses knowledge of methods, materials, and equipment used in designing, constructing, maintaining, and operating transportation facilities.
- Has knowledge of Caltrans District operations in order to identify needs and facilitate effective deployment of new products or methods. Of particular interest is knowledge of Maintenance, Equipment, and Right of Way and Land Surveys operations.
- Has a work history or personal experience in these areas due to its relevancy to the research we manage: equipment or vehicle operation and/or repair; traffic or worker safety; transportation engineering; mechanical engineering; land surveying; GPS related fields; computer science; structures maintenance; drone operation, maintenance, and regulations; or other technology related experience.
- Be able to identify relevant existing and emerging technologies/methods and apply them to improve transportation system construction, operation and maintenance, and achieve modal integration. Must be innovative in all areas where possible to achieve cost savings, time savings, improve safety (worker and public), increase facility service life, etc.
- Be familiar with the Caltrans program on research and development of new technology, and Federal and State regulations that apply to the work of the Division.
- Be capable of leading in-house research efforts.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Failure to use sound judgment and maintain professionalism in the execution of the duties of this position could result in damage to the credibility or success of research projects and research projects data management, the credibility of the research program will be negatively impacted, funding opportunities will be lost or jeopardized, National and Statewide external partnerships will be adversely affected, the Division of Research, Innovation and System Information or the Department. This could limit the effectiveness of the Office of Safety Innovation and Cooperative Research in its relationships with other Caltrans units, external agencies, and the public.

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### PUBLIC AND INTERNAL CONTACTS

Frequent contact is required in person, in writing, by telephone, and through virtual meeting platforms with personnel within the Department, other agencies, private interests, political representatives, and the public at large.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Incumbents may be required to sit for long and short periods using a keyboard and a mouse (fine manipulation), view a video display terminal, and use a telephone. Ability to move large or cumbersome plans and project documents from one location to another. Ability to drive long distances for project-related activities. Ability to travel for training purposes to various locations

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throughout the State of California. Must maintain an even mental balance of analytical process for multiple projects. Must be able to handle accelerated project schedules. Must maintain emotional stability under stressful and rapid-paced working environments.

### WORK ENVIRONMENT

While at their base of operation, employees will work in a climate controlled office under artificial lighting. Incumbents may also be required to travel and work outdoors and may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold. Periodic travel is required for fieldwork and training. Incumbents may be required to work overtime and may remain in field locations in rural areas without facilities. This position may be eligible for telework. The amount of telework is at the discretion of the Department and based on Caltrans's evolving telework policy. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

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