CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineer (Civil)	HQ/Maintenance/Maintenance Traffic Guidance and Safety	
WORKING TITLE	POSITION NUMBER	REVISION DATE
Maintenance Safety Program Support Engineer	913-630-3135-XXX	02/10/2025

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

GENERAL STATEMENT:

Under the general direction of the Branch Chief, the Senior Transportation Engineer (Supervisor) is responsible for supporting programming and project management efforts to deliver state highway safety countermeasures and enhancements through the HM-4 Safety Program and other HM programs. The incumbent coordinates and monitors headquarters' functional management of HM-4 Safety Program projects, serving as an assistant liaison to district HM-4 managers. Additionally, the incumbent assists in managing various maintenance assets on the State Highway System (SHS), including but not limited to overhead signs, pavement markers and markings, delineators, roadside signs, and other highway traffic control and safety devices.

Key responsibilities include monitoring maintenance production and expenditures related to traffic control devices, as well as assisting in the delivery of annual statewide signing and striping training for district maintenance staff. The incumbent ensures that training materials and other mandated maintenance programs comply with federal regulations and state policies and procedures.

The incumbent also plays a critical role in overseeing, operating, and maintaining service contracts related to stripe retroreflectivity, asset collection, and other maintenance services, including striping, markings, signs, guardrail, guardrail end treatments, attenuators, crash cushions, safety barriers, and other transportation-related facilities.

Additional duties include conducting technical research, preparing legislative analyses, drafting responses to public inquiries and legislative requests, developing engineering reports and charts, managing databases, preparing specifications, and performing other tasks related to highway traffic control devices and safety maintenance programs.

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, Employee Excellence Innovation, Integrity, Pride, Stewardship)
- Decision Making: Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety, Equity, Prosperity Collaboration, Equity, Integrity, Pride, Stewardship)
- 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, Integrity)
- **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, Prosperity Equity, Integrity, Pride)
- 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, Employee Excellence Collaboration, Equity, Integrity, People First)
- 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. (Prosperity, Employee Excellence - Collaboration, Integrity, People First)
- **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, Integrity, People First)
- Analytical Skills: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety, Prosperity, Employee Excellence Integrity, Pride)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Safety, Equity, Prosperity Integrity, Pride, Stewardship)

TYPICAL DUTIES:

Percentage Job Description

Essential (E)/Marginal (M)¹ 40% E R

Reviews proposed district projects under the 170 Program, Infrastructure Investment and Jobs Act programs for State Highway Operation Program Project and HM-4 projects, ensuring compliance with engineering standards and regulatory requirements. Provides engineering and technical support for highway traffic control and safety devices, including signs, striping, guardrail, end treatments, overhead sign structures, and crash attenuators, to enhance roadway safety and operational efficiency. Monitors and generates detailed analysis reports for SB1 performance and other maintenance-related activities, identifying trends and areas for improvement. Coordinates with districts to address and resolve work deficiencies related to traffic control and safety devices, ensuring corrective actions align with best practices. Collaborates with the Division of Safety Programs, Design, and Construction on technical committees to enhance traffic control and safety device improvements. Works with the Transportation Laboratory to evaluate pavement marking materials, pavement markers, and marker adhesive materials for durability and effectiveness. Provides a maintenance perspective in the development of technical specifications and Standard Plan Sheets for striping details, pavement markings, markers, Standard Specifications, and Standard Special Provisions related to pavement markers, markings, traffic paint, thermoplastic markings, guardrails, and overhead sign structures. Assists in reviewing and evaluating new traffic control devices and products for construction, maintenance, and daily operations on the State Highway System, conducting comprehensive product analysis that includes needs assessments, costbenefit evaluations, performance reviews, and conformance with health, safety, and environmental regulations. Develops training materials on highway traffic control devices, including signs and striping, and contributes to the development and maintenance of statewide training courses and conference materials, ensuring alignment with federal regulations and state policies while delivering training sessions to technical and non-technical staff.

35%

Е Reviews statewide project nominations under the HM-4 Safety Program by assessing project scope, capital cost estimates, work plans, specifications, reports, and agreements submitted by district maintenance engineers. Evaluates safety countermeasures within the Wrong-Way Driver Preventive Countermeasures Program, Pedestrian Systemic Safety Improvement Program, and the Statewide Curve Warning Sign Program to ensure alignment with engineering standards and safety objectives. Serves as an assistant liaison between the Headquarters HM-4 Safety Program Coordinator in the Safety Programs Division, district maintenance engineers, and the Division of Maintenance Office of Resource Management staff, facilitating communication and coordination. Supports the preparation of plans, specifications, special provisions, proposals, and contracts for the HM-4 Safety Program while ensuring compliance with regulatory requirements, monitoring program achievements, and assessing product guality. Provides technical guidance to the Headguarters HM-4 Safety Program Coordinator and district maintenance engineers while overseeing the progress of HM-4 Safety Contract for Delivery projects to ensure adherence to scope, budget, and schedule constraints. Assists district maintenance engineers in formulating and refining HM-4 Safety Program work plans to optimize project planning and execution. Develops and implements policies, procedures, and guidelines to enhance the efficiency and effectiveness of the HM-4 Safety Program in alignment with statewide transportation safety strategies. Prepares and delivers professional presentations to public, technical, and professional audiences, effectively communicating program objectives, project outcomes, and engineering methodologies.

10% E Updates the Maintenance Manual and assists in development of policies and memorandums related to highway traffic safety and control devices. Provides recommendations to the enhancement of special provisions, standard specifications, and standard plans for state highway work zones as required. Manages and updates office intranet webpage content to ensure accessibility and accuracy of information. Analyzes product life cycle trends and makes recommendations to districts, Construction, Maintenance, Design, Engineering Services, Operations, Office Engineer, Procurement, local agencies, contractors, associations, and manufacturers. Provides guidance to district maintenance staff on annual nighttime inspections, and statewide QA/QC audits. Collects and analyzes data within the Integrated Maintenance Management System (IMMS) to support requests from other offices regarding highway traffic control devices, ensuring data driven decision making and process improvements.

10%	E	Reviews and recommends revisions in the implementation of district striping maintenance work plans and performance contracts, ensuring alignment with allocation resources and proposed activities. Monitors performance across multiple districts, assessing compliance with established work plans and contractual obligations. Conducts detailed evaluations to ensure district maintenance activities on State Highways adhere to statewide policies, procedures, best practices, standards, and Level of Service (LOS) requirements. Provides recommendations to enhance efficiency, quality, and compliance in maintenance operations.
5%	Μ	Conducts technical research and collaborates with district offices and Safety Programs staff to implement pilot projects and evaluate emerging traffic safety improvement technologies for potential statewide

pilot projects and evaluate emerging traffic safety improvement technologies for potential statewide adoption. Prepares responses to public inquiries, legislative requests, Caltrans executive requests, and industry-related inquiries as needed. Facilitates headquarters maintenance meetings to support program coordination and policy implementation.

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. However, the incumbent may act as lead to provide program-related guidance to Transportation Engineers (Civil), Maintenance Area Superintendents/Managers, and student assistants.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Incumbent must have general knowledge of the Departmental project delivery process and understand the supporting role of Division of Maintenance with Division of Safety Programs. Must have the ability to correctly interpret errors and determine corrective measures. Prefer Maintenance Design or Traffic Safety experience.

The incumbent must have knowledge of Caltrans organization and departmental policies and procedures. Also requires knowledge of highway design, traffic and construction policies, procedures, standards and other factors relating to transportation facilities and traffic safety and control devices. The position requires knowledge of organizational and engineering functions including IMMS, GIS mapping, computer programming, asset management, project development and database management.

The incumbent must have a working knowledge of maintenance project funding policies, traffic engineering and functional management.

Based on engineering experience and expertise, one must be able to exercise good judgment on matters relating to engineering issues. The incumbent should work efficiently and have good interpersonal skills. Incumbent must have analytical abilities to assimilate technical and procedural input from various sources, to evaluate that input, develop alternative courses of action, and to make objective recommendations on all critical issues affecting safety and operations. Must reason logically and creatively using a variety of analytical and problem-solving techniques.

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RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

This position is responsible for making independent actions and taking initiatives to carry out the assigned duties. The incumbent will routinely provide data, reports and make final recommendations on changes in policies and procedure. Failure to carry out the responsibilities could result in: • Compromising the traveling public's health and safety • Litigation that could delay and/or add substantial cost to essential projects or activities • Loss of credibility and public confidence in Caltrans as a responsible public agency • Inability to quantify performance in meeting the Department's strategic goals and safety and mobility commitments • Collision costs that impact California's economy and traffic safety culture. Errors may have a significant impact on the internal and external operations of the Division of Maintenance, as well as the Department as a whole.

PUBLIC AND INTERNAL CONTACTS

This position routinely has contacts with a large number of people in the Department, in the Districts, and Headquarters. Besides, this position responds to questions from the public regarding the Department's traffic control and safety devices practices. It also has continuous contact with engineers from Federal Highway Administration (FHWA), local agencies, other states, national experts, academia, the private sector, and occasionally foreign governments.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit for long periods of time using a keyboard/mouse and video display monitor, or while attending meetings. Must be able to use fine manipulation and/or simple grasping during the course of the workday. Some walking may be required. Must be able to work flexible hours, sometimes staying late or arriving early to complete an important

assignment. The position requires the ability to multi-task, adapt to changes in priorities and ensure completion of tasks or projects given short notice, develop new insights into situations, foster a work environment that encourages creative thinking and innovation; and to adapt behavior and work methods in response to new information, changing conditions, or unexpected obstacles. The incumbent must be able to sustain the mental activity needed to conduct necessary research, analysis, and synthesis of issues and make well-reasoned recommendations to management. Must be able to make presentations, lead workshops, and serve on quality teams. The workload is subject to frequent, substantial, and unexpected changes that could affect the scheduling or completion of assignments. Must deal effectively with pressure, maintain focus, and intensify yet remain optimistic and persistent, even under adversity.

WORK ENVIRONMENT

The incumbent will work in a climate-controlled office under artificial lighting. Due to periodic problems with heating and air conditioning, the building temperature may fluctuate. The environment is fast-paced, demanding, and busy; and requires considerable flexibility in managing time, priorities, and assignments. The incumbent is required to travel periodically within the state (federal and state offices, district offices, local agencies, etc.) to office buildings and indoor/ outdoor field locations. While at field locations, the incumbent may be exposed to uneven surfaces, noise, and varying climate conditions. The incumbent may be required to travel out-of-state. Vacations may be restricted during peak times.

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