

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Senior Transportation Engineer, CT	OFFICE/BRANCH/SECTION Construction/Office of Performance and Innovation	
WORKING TITLE Innovation Engineer	POSITION NUMBER 913-500-3161-010	REVISION DATE 08/15/2024

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 direction of the Chief, Office of Performance and Innovation (Supervising Transportation Engineer), the Innovation Engineer performs difficult and complex engineering work related to construction management policies, procedures, and tools within the Division of Construction. This individual is part of a team that leads the effort to transition existing construction administration processes toward digital construction management, e-Construction tools, and Building Information Modeling for Infrastructure (BIM4I) processes. Assist with statewide adoption to support and guide the use of digital construction technology and innovative tools to implement BIM4I tools and processes for the efficient delivery of Caltrans infrastructure projects. This individual will work with the other project delivery divisions, district staff, and Federal Highway Administration (FHWA) to develop special reports, develop & recommend changes in policies, programs, standards and concepts, coordinate the implementation of construction and other project delivery performance measures, and ensure timely construction program support. Exceptional leadership, initiative, change management, and communication skills are fundamental to carrying out the mission of this position.

CORE COMPETENCIES:

As a Senior Transportation Engineer, CT, 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.

- **Change Leadership:** Develops new and innovative approaches needed to improve effectiveness and efficiency of work products. Encourages others to value change. Considers impact and recommends changes. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency, Lead Climate Action - Engagement, Innovation, Integrity, Pride)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency, Lead Climate Action - 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 First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, 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, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation)
- **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. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **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. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Influencing Others:** The ability to gain the support of others for ideas, proposals, projects and solutions. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Integrity)
- **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 First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Pride)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Pride)

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TYPICAL DUTIES:

Percentage		Job Description
Essential (E)/Marginal (M) ¹		
40%	E	Act as the Division of Construction change ambassador for the implementation of new technologies and BIM4I. Lead innovative efforts to develop, test and implement new technologies for field construction staff in the areas of digital construction inspection and BIM4I. These efforts include the development and implementation of engineering report software, digital construction management technologies, digital as-built processes, and other software tools used by Caltrans construction field staff. Utilize various software: Trimble Business Center, Microstation, AutoCAD Civil 3D, TopoDOT, RealWorks, Cyclone, UASMaster, POSPac, ArcGIS, Microsoft Office Suite, Adobe Acrobat Pro and other supporting software to create digital construction management workflows, develop policies and processes. Ensures that existing and future technology solutions comply with policies and procedures in the Construction Manual.
25%	E	Lead innovative efforts to develop and implement efficiencies in statewide contract administration. Lead a team and/or efforts to develop, implement, maintain, and support statewide construction contract management systems. Support and guide the use of digital construction technology and innovative tools to implement BIM4I tools and processes for the efficient delivery of Caltrans infrastructure projects. Develop and perform training for various technological solutions. Coordinate the planning, scheduling, and implementation of statewide training for new technology solutions.
15%	E	Develop guidance, policies, and procedures for the integration and implementation of digital construction technologies in transportation infrastructure projects. Develops, reviews, and collaborates with team to identify new technologies and applications to advance current workflow processes. Provide district support and training on digital construction technologies, AMG equipment, Unmanned Aerial Systems (UAS), Digital As-Built, Digital construction Processes, and Geographic Information Systems (GIS) efforts.
15%	E	Lead research studies and engineering projects, including preparation of issue papers and policy proposals related to program support. Provide oral and written presentations to division managers. Represent Caltrans and the Construction Division on committees and at meetings. Work with research entities, including Division of Research, Innovation and System Information (DRISI), to evaluate new technologies used in construction contract administration. Provide statewide technical construction contract administration tasks.
5%	M	Provide ad hoc engineering reports reflecting the status of the construction program. Review and provide legislative analysis' or develop legislation affecting the Division of Construction. Other duties as assigned relating to the innovation and improvement of polices and procedures.

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 is exercised. However, the incumbent performs a lead role and may direct the activities of other personnel who assist in implementation of policies, developing business plans and reports.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

The incumbent must possess a valid certificate of registration as a professional engineer issued by the California State Board of Registration for Professional Engineers and have the knowledge of construction policies and practices, including construction techniques, construction engineering, and construction contract administration.

The incumbent must possess knowledge of the mission, vision, goals, values, purpose, organization, policies and procedures of the Department; transportation economics and financing; and the methods and materials used in the construction of state highway facilities. The incumbent should have knowledge of the goals, objectives, organizational policies and procedures of project development.

The incumbent must have the ability to prepare complete and comprehensive engineering reports, accurately analyze matters relating to construction engineering and adopt an effective course of action; present recommendations and information through oral and written communication methods and address an audience effectively; and effectively contribute to the Department's industry relations objectives. The incumbent must have the understanding of construction field office procedures and knowledge of computer applications. The incumbent must have the desire and ability to work cooperatively with others, analyze situations accurately, and take effective action.

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RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible for independent action in carrying out assigned duties. Initiates, develops, and makes recommendations on changes in policies and procedures. Failure to carry out these responsibilities could result in inefficient project delivery for the Division of Construction and loss of construction industry and public confidence in the Department as a responsible public agency.

PUBLIC AND INTERNAL CONTACTS

Incumbent will be responsible for developing and maintaining partnerships with other headquarter and district functions, local governments, contractors, state agencies, and federal agencies, and speaking in public on the effects of current transportation projects as they relate to transportation matters. The incumbent will have contact with external entities and will be responsible to respond to inquiries and sensitive issues.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent sits for long periods of time using a laptop. The incumbent develops new insights into situations and applies innovative solutions to make organizational improvements. The incumbent must have the ability to multi-task, adapt to changes in priorities, and complete tasks or projects with short notice. The incumbent creates a work environment that encourages creative thinking and innovation as well as develops and sustains an organizational culture which encourages others to provide the quality of service essential to high performance. The incumbent must be able to develop and maintain cooperative working relationships, be able to resolve emotionally charged issues reasonably and diplomatically, and behave in a fair and ethical manner toward others. The incumbent demonstrates a sense of responsibility and commitment to public service as well as influences others toward a spirit of service and meaningful contributions. The incumbent values cultural diversity and other individual differences in the workforce, ensures that the organization builds on these differences and that employees are treated in a fair and equitable manner.

WORK ENVIRONMENT

The incumbent will usually work in a climate-controlled environment under artificial lighting, but may be required to travel to districts and construction field offices.

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.

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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.)

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
