

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE Senior Transportation Engineer, CT	OFFICE/BRANCH/SECTION CADD & Eng. GIS Support/CADD Development & Support	
WORKING TITLE Branch Chief, CADD Development & Support	POSITION NUMBER 913-330-3161-008	REVISION DATE 09/23/2024

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 general direction of the Chief, Office of Computer Aided Design and Drafting (CADD) and Engineering Geographic Information System (GIS) Support, a Supervising Transportation Engineer, supervises the CADD Development and Support Branch, which is responsible for coordinating the development and statewide implementation of the Engineering CADD program (MicroStation) and for the development/support of presentation standards used for preparing 3D model deliverables created as part of Caltrans' Building Information Modeling for Infrastructure (BIM4I) initiative.

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.

- **Managing Change:** Demonstrating support for organizational changes needed to improve the department's effectiveness; supporting, initiating, sponsoring and implementing change. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Integrity)
- **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 - Engagement, Innovation)
- **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. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation)
- **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. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network - Engagement, 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. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network - Engagement, Innovation)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - 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 - Engagement, Innovation)
- **Planning and Results Oriented:** Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation)
- **Computer literacy and application:** Appropriate knowledge of computer applications and other tools necessary to successfully perform tasks. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)

TYPICAL DUTIES:

Percentage
Essential (E)/Marginal (M)¹ Job Description

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35%	E	Direct and coordinate statewide implementation, training, support, and installation of CADD software for engineering functions. Act as liaison between Headquarters CADD functional units, various Headquarters design units and divisions, District CADD Coordinators and users, and Technical Committees. Act as contract manager for Bentley Contract and other CADD, Building Information Modeling for Infrastructure (BIM4I) software application contracts.
30%	E	Supervise, and lead staff to develop and support statewide implementation of the Engineering CADD program (MicroStation) and for the development/support of presentation standards used in preparing 3D model deliverables to support Caltrans' BIM4I initiative. Provide feedback to employees on performance appraisals and take timely action on disciplinary matters. Ensures that all staff are aware of and follow Departments Expectation Memos, Policies, and Directives. Prepares annual Individual Development Plans (IDPs) with all employees, and works directly with them on work assignments, training plans, career development, and equipment needs.
15%	E	Direct the development of statewide CADD standards, certain Standard Plans, Submittal Standards, and document them in the CADD Users Manual and Plans Preparation Manual.
10%	E	Coordinate the interoperability between MicroStation, Roadway Design Software, GIS Software. Assist, manage and support BIM4I software for HQ and district staff. This includes meeting periodically with the management and providing functional feedback/direction as required.
5%	M	Act as statewide consultant and advisor to Caltrans management on CADD matters and potential new uses of CADD and BIM4I, frequently conferring with Headquarters individuals and District engineers on engineering problems as related to CADD and BIM4I.
5%	M	Act as liaison to external partners in addressing CADD Standards and Plans/3D model submittal standards related questions.

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

The incumbent supervises direct reports and works closely with staff. Incumbent works closely with staff in Information Technology and the districts to coordinate the development and implementation of CADD/BIM4I programs and systems.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

- Possession of a valid certificate of registration as a Civil Engineer issued by the California State Board of Registration for Professional Engineers.
- Knowledge of the Department's goals and objectives, organization and policies and procedures.
- Knowledge and experience in Caltrans project delivery process.
- Knowledge of Caltrans CADD system. Caltrans project delivery experience using Roadway Design Software (RDS) used at Caltrans.
- Knowledge of Caltrans engineering related processes including planning, design and construction; computer applications as related to engineering and engineering management report.
- Knowledge of interrelations between engineering functions including Photogrammetry, Planning, Design, Structures Design, Structures Architecture, Right of Way engineering, Office Engineer, and Construction. Knowledge of principles and techniques of personnel management and supervision.
- Ability to use good judgment, based on engineering experience for analysis of engineering CADD needs, and adopts an effective course of action.
- Ability to effectively coordinate between engineering computer users and Information Technology staff.
- Ability to perform administrative tasks.
- Ability to plan and direct the work of others.
- Ability to make effective presentations and prepare reports.
- Ability to speak and write effectively.
- Ability to review policy documents as related to CADD/BIM4I and Project Delivery process.
- Ability to take the initiative as the coordinator for CADD/BIM4I development to achieve desired goals.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Responsible for independent action in developing Caltrans CADD system, including analyzing, planning and implementing CADD software procurement, installation and deployment. Acts as a liaison between District and Headquarters CADD units.

Responsible for CADD software contract administration and is responsible for monitoring and reporting the usage of engineering CADD applications. Consequences of bad judgment or decisions will decrease productivity of engineering unit, delayed project delivery and additional cost to Caltrans to produce projects.

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PUBLIC AND INTERNAL CONTACTS

The incumbent will be required to maintain contact with District and Headquarters engineering functions and with nonengineering functions such as Information Technology, as necessary to accomplish activities and duties of the position. There will be regular contact with vendors, State and Federal agency staff, City and County staff along with engineering organizations throughout the country.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

This job will require interaction with other people. It is important that employees work with each other in a cooperative manner. Employee must have patience in dealing with people over the phone. Employee may be required to sit for long periods of time using a keyboard and video display terminal.

WORK ENVIRONMENT

The incumbent will work in a climate-controlled office under artificial light. The incumbent may be required to travel in state, but the travel is not very frequent.

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.)

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