STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

# POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CURRENT/PROPOSED

| CLASSIFICATION TITLE | OFFICE/BRANCH/SECTION | |
|---|---|---|
| Sr Bridge Eng | DES/Bridge Design Office | |
| WORKING TITLE | POSITION NUMBER | REVISION DATE |
| Bridge Design Branch Chief | 559-240-3185-162 | 03/24/2025 |

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

## GENERAL STATEMENT:

Under the direction of a Supervising Bridge Engineer, the incumbent is responsible for supervising staff, managing the project delivery of bridges and other types of structures; developing processes, procedures, and policies; and ensuring compliance with Caltrans' policies and guidelines.

## CORE COMPETENCIES:

As a Sr Bridge Eng, 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, Employee Excellence - Collaboration, Equity, Innovation, People First, Stewardship)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety - Collaboration, Stewardship)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Safety, Climate Action, Employee Excellence - Collaboration, Innovation, People First, Pride)
- **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. (Safety, Equity, Prosperity - Collaboration, Innovation, People First, Pride)
- **Relationship Building:** The ability to develop and maintain internal and external trust and professional relationships, which includes listening and understanding to build rapport. (Employee Excellence - Collaboration, People First, Pride)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety, Climate Action - Integrity, People First)
- **Interpersonal Effectiveness :** Effectively and appropriately interacts and communicates with others to build positive, constructive, professional relationships. Tailors communication style based on the audience. Provides and is receptive to feedback. (Safety, Equity, Employee Excellence - Collaboration, People First)
- **Workforce Management:** Hires and retains appropriate staff. Conducts workforce and succession planning. Provides feedback on performance. Addresses employee issues in a timely manner. (Safety, Equity, Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride)
- **Managing Performance:** Responsible for employee performance, setting clear goals and expectations, tracking progress against departmental and unit goals, providing feedback, and addressing performance issues promptly. (Equity, Employee Excellence - Collaboration, Equity, Innovation, Integrity, People First, Pride, Stewardship)

## TYPICAL DUTIES:

| Percentage | Essential (E)/Marginal (M)[1] | Job Description |
|---|---|---|
| 20% | E | Plans, directs, and coordinates the project delivery of bridges and structures; monitors design progress to ensure on-time completion within allocated resources. |
| 20% | E | Supervises the work and activities of staff. Develops staff knowledge and ability through training, coaching, and work assignments. Provides Annual Performance Reviews and Individual Development Plans annually to staff. Recruits and hires new staff to fill vacancies. |

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| | | |
|---|---|---|
| 20% | E | Acts as the task manager for Work Breakdown Structure (WBS) tasks assigned to Bridge Design. Reviews project scope and schedule for each project from task 150 through task 250 to ensure successful project delivery. Considers site and environmental restrictions and other project risks in developing the scope and schedule. Communicates with other DES functional units and the districts on issues such as project status, capital support resourcing, schedule, cost, risk management, and quality management to ensure cost-effective and timely project delivery. |
| 20% | E | Performs constructability, risk, and quality reviews of each project delivered by the branch. Actively seeks to improve quality and efficiency of the project delivery process. Reviews and comments on technical and project- delivery guidance documents. Encourages innovation and actively keeps up on advances in the field of complex bridge design and analysis. Addresses technical and project delivery challenges through creative problem solving. Sets technical, design, and project-delivery policy and practices for the branch within the framework of the policy and procedures of the Structure Design subdivision. |
| 10% | E | Acts as a consultant and primary DES contact to the Districts and external agencies on questions involving bridges and other types of structures. Attends meetings with the District to address technical and project-delivery issues. |
| 10% | M | Responsible for the development of bridge design processes, procedures, and policies. Acts as a technical and Load And Resistance Factor Design (LRFD) expert on bridge design. Develops training and guidance for the design and analysis of bridges and other types of transportation related structures. Attends conferences on bridge design and construction. Develops relationships with design and industry leaders in the design and analysis of bridges and other types of structures. |

[1]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

Directly supervises the work of Transportation Engineers and Structural Design Technicians. Supervisory duties include monitoring attendance, maintaining product quality, disciplining, etc. May perform as a lead worker to Senior Bridge Engineers (Specialists) in the branch. Performs the duties of the Office Chief when requested.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Employee must hold a valid certification of registration as a Civil Engineer. Must have education equivalent to graduation from college with major work in civil engineering with an emphasis on structures.

Knowledge of:
- Purposes, organization, policies, and procedures of the Department of Transportation and the Division of Engineering Services.
- Methods of design and construction of various types of complex bridges and other types of bridges and structures.
- Characteristics of materials and equipment used in the design and construction of bridges.
- Advanced analysis and computer modeling for complex bridges.
- Methods of stress analysis for both statically determinate and indeterminate structures, methods for the determination of structure deflections, and the influence of the deflections on the stresses in structures.
- Factors affecting structure type selection, constructability, maintenance inspection, and load rating of structures.
- Structure seismic design criteria, modern seismic design philosophy, factors affecting seismic behavior of bridges.
- Geotechnical conditions/parameters that affect the design of bridges and structures, and the potential impact of liquefaction and scour on bridge design
- Risk and quality management principles.
- Principles of project management including scope, schedule, and budget.
- Consultant contracting process, including consultant selection and contract management.
- External financing of transportation facilities.
- Budgetary and resource matters; economics of bridge design and financing.
- Principles of personnel management including related Department guidelines.

Ability to:
- Plan, direct and coordinate the work of a group of engineering and technical staff.
- Perform engineering calculations and develop engineering sketches.
- Analyze technical situations accurately and recommend or adopt an effective course of action.
- Address an audience effectively; work effectively with Caltrans' districts, consultants, and external agencies.
- Effectively write and review technical papers, memos, and reports.
- Work successfully with others to gain respect and confidence. Be flexible and adaptive to changes.

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RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent has the professional responsibility to assure the safety of the traveling public at a cost that is an effective use of public funds. Errors in judgment and decisions could affect program delivery, lead to costly contract change orders, impact public safety, or result in liability for the Department. Structural failure can be catastrophic due to loss of life, disruption in goods movement, and/or delays to the traveling public.

PUBLIC AND INTERNAL CONTACTS

Employee maintains communication with all personnel assigned to his/her project, including bridge designers and staff from other DES functional units such as Geotechnical Services, as well as District project managers and designers. Communicates with external agencies on project issues such as scope, cost, and schedule. Examples of external agencies include regional transportation agencies and local communities with a vested interest in a particular project. Works with maintenance personnel on routine and emergency issues as a technical advisor. Maintains communication with appropriate vendors and other industry representatives.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employee may be required to sit for long periods of time using keyboard and mouse. May also be required to lift/move/carry large or cumbersome plans (maximum of 50 pounds). They may be required to lift/move/carry various types of portable equipment, which may weigh up to 50 pounds. Must be able to adapt to changes in priorities and complete tasks or projects with short notice. Must be able to work with others in a cooperative manner and treat others with respect.

Must be able to use fine manipulation and/or simple grasping during the course of their workday. Some walking may be required.

Will be required to travel to meetings statewide and nationally. Will be required to meet at construction sites and work in the field. Must be able to handle multi-tasks, adapt to changes in priorities, and complete tasks or projects with short notice and work with others in a cooperative manner. The incumbent must have the ability to develop and maintain cooperative, collaborative working relationships and recognize difficult, emotionally charged and/or sensitive situations and handle them effectively and appropriately. Must deal effectively with pressure, maintain focus and intensity yet remain optimistic and persistent, even under adversity.

The incumbent behaves in a fair and ethical manner toward others and demonstrates a sense of responsibility and commitment to public service. The incumbent values cultural diversity and other individual differences in the workforce.

WORK ENVIRONMENT

While at their base of operation, incumbent will work in a climate-controlled office under artificial lighting or work-from-home in self-controlled telework environment. As a statewide organization, DES adjusts to periods of fluctuating workload to successfully deliver projects. Incumbent will be required to travel and perform fieldwork and will be exposed to dirt, uneven surfaces, extreme temperatures, noise, vibration, and odor associated with fieldwork. May work around bulky/heavy materials and equipment used in the vicinity of inspection areas. May also be exposed to the motoring public. DES employees may be given temporary assignments on DES projects throughout the State as workload demands.

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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 |

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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