

**POSITION DUTY STATEMENT**

DOT PM-0924 (REV 01/2025)

CURRENT/PROPOSED

|  |   |                             |
|--|---|-----------------------------|
| CLASSIFICATION TITLE<br>Structural Design Technician III | OFFICE/BRANCH/SECTION<br>DES/OTA/Structural Design Branch |                             |
| WORKING TITLE<br>Detailer                                | POSITION NUMBER<br>559-220-3036-017                       | REVISION DATE<br>04/23/2026 |

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

**GENERAL STATEMENT:**

This is the advanced journey level in the series. Under general direction from the engineer, incumbent prepares complete sets of contract drawings and BIM models for the most difficult and complex steel, concrete, masonry, and timber structures (e.g.: major interchange, viaducts and unique bridges). The incumbent acts in a lead capacity in the preparation of plans and/or quantity estimates for a wide variety of structures including buildings, bridges and walls.

**CORE COMPETENCIES:**

As a Structural Design Technician III, 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. (Employee Excellence - Collaboration, Innovation, Stewardship)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Equity - Collaboration, Stewardship)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Prosperity, Employee Excellence - Collaboration, Innovation, Integrity, Stewardship)
- **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. (Prosperity, Employee Excellence - Integrity, Stewardship)
- **Relationship Building:** The ability to develop and maintain internal and external trust and professional relationships, which includes listening and understanding to build rapport. (Equity, Prosperity, Employee Excellence - Collaboration, People First, Pride, Stewardship)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Employee Excellence - Collaboration, Innovation, Stewardship)
- **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. (Safety, Equity, Employee Excellence - Collaboration, Innovation, Stewardship)
- **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. (Employee Excellence - Collaboration, Integrity, Stewardship)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Employee Excellence - Collaboration, Stewardship)

**TYPICAL DUTIES:**

| Percentage | Essential (E)/Marginal (M) <sup>1</sup> | Job Description   |
|------------|---|---|
| 45%        | E                                       | Prepares construction contract drawings and BIM models for the most difficult and complex steel, concrete, masonry, and timber structures from engineer's design notes and sketches. Uses state-of-the-art - technology, i.e., Computer-Aided-Drafting/Design (CADD) and related complex computer programs to develop details and to determine layout and geometric design and to electronically submit plans to Office Engineer. |
| 15%        | E                                       | Makes preliminary layouts of various types of structures for planning studies using the state-of-the-art technology, i.e., CADD, Revit and related computer programs.   |

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| 15% | E | Calculates and checks preliminary and final quantity estimates used to develop structure costs. Checks completed drawings for accuracy and completeness of details.   |
| 15% | E | Makes engineering calculations as required for horizontal and vertical alignment and dimensions for layout of the most difficult and complex structures based on data supplied by the District and/or engineer's design notes and sketches. |
| 10% | M | Completes as-builts corrections, use state-of-the-art technology (i.e.: CADD) based on data supplied by the Structure Construction representative and/or the Project Engineer.  |

<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.

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**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

This position does not supervise other employees; however, this position may act as a lead worker over 1 to 10 technicians.

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**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

- Details, methods, layouts, scale and organization of details used in preparation of structural design, details, construction drawings and as-builts for a variety of structures of above-average difficulty.
  - Engineering mathematics, quantity estimates for a variety of structures of above-average difficulty.
  - State-of-the-art technology, e.g., CADD and related computer programs (BIM) used to determine layout, detail drawings and create geometric designs for a variety of structures of above-average difficulty.
  - Lead person responsibilities on less difficult projects in the preparation of plans. Ability to:
  - Communicate both orally and in writing.
  - Follow oral and written directions.
  - Interpret complex sketches, drawings and plans encountered in the work.
  - Assist in performing geometric design of above-average difficulty for various structures.
  - Prepare and check quantity estimates for a variety of structures of above-average difficulty.
  - Use state-of-the-art technology, e.g., CADD and related computer programs.
  - Assist in training of Drafting Aids and Structural Design Technician's.
  - Analyze situations accurately and adopt an effective course of action. Analytical Requirements:
  - Use of trigonometric calculations and interpretation of the survey notes and computer alignment output in preparing General Plans, site data and locating specific abutments and bents.
  - Must be thoroughly informed in regard to information available from standards.
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**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

The incumbent exercises judgment in the selection of views and standard plans and details used in the preparation of a complete set of plans, which could result in incomplete information in the contract plans and estimates. Incomplete information in the contract plans and estimates could result in unnecessary rework, increased cost and time to produce corrected plans, and possible delay of the project.

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**PUBLIC AND INTERNAL CONTACTS**

Employee maintains communications, generally through the Project Engineer, with various personnel working on the project to which he/she is assigned, including other Department personnel, engineering consultant and industry representatives to transmit or obtain relevant engineering information. These contacts will be verbal or written, as needed to perform one's assignments.

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**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

Employee may be required to sit for long periods of time using keyboard and mouse. They 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, around the work site or when out in the field.

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**WORK ENVIRONMENT**

Employee will work in a climate-controlled office under artificial lighting. Employees may also be required to travel to job sites and may be exposed to dirt, noise, uneven surfaces and/or extreme heat or cold.

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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.

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EMPLOYEE (Print)

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EMPLOYEE (Signature)

DATE

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I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

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SUPERVISOR (Print)

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SUPERVISOR (Signature)

DATE