

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION Project Development/ Engineering Services/ OCER	
WORKING TITLE Transportation Engineer	POSITION NUMBER 910-207-3135-XXX	REVISION DATE

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 direction of a Senior Transportation Engineer, incumbent assists in the identification of best practices for preparing final construction cost estimates on construction contracts before advertisement, providing statewide estimate best practice training, and performing independent assurance on estimates. The incumbent will use cost analysis methods to suggest changes to unit prices that are reflective of the proposed work, current market trends and industry construction standards.

Incumbent may be assigned by Supervisor to be a Lead-worker to train, direct, and manage the work of the other staff within assigned branch.

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. (Cultivate Excellence - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Strengthen Stewardship and Drive Efficiency - Integrity)
- **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. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **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. (Strengthen Stewardship and Drive Efficiency - 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. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - 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, Strengthen Stewardship and Drive Efficiency - Engagement)
- **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 - Pride)
- **Thoroughness:** Ensures that work and information is complete and accurate. Ensures that assignment goals, objectives, and completion dates are met. Documents and reports on work progress. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network - Integrity)

TYPICAL DUTIES:

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

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40%	E	Responsible for assisting in the development and maintenance of standards and practices used in determining accurate construction contract costs, schedules, and risk management. Perform estimate independent assurance on a representative number of major construction contracts and all large, complex construction contracts to research current trends and to monitor improvements. Perform extensive analysis of cost data, methods and time that could impact cost, for the construction of all types of highway construction projects including production rates, equipment rental rates and labor rates.
20%	E	Perform statistical analysis comparing Department design estimates of quantities, costs, and schedules to submitted bids and to completed contract values. Identify trends and possible mitigation to improve overall accuracy of estimates and therefore improve project budgeting. Provide tracking and informational tool to those providing cost estimates.
20%	E	Review and address all engineering documents such as Project Initiation Report (PIRs), Project Reports (PRs), Project Scope Summary Report/Project Reports (PSSR/PRs) and Plans, Specifications and Estimates (PS&E) packages for Constructability Review within the District. Perform Life Cycle Cost Analysis (LCCA) for all projects that meet the requirements within the District. Additional work includes reviewing critical path method (CPMs) diagrams for all projects.
10%	E	Research current heavy construction industry best practices for construction cost and schedule estimating and risk management. Analyze current Department Construction cost estimating standards and practices. Research current bidding trends on Department construction contracts, including both costs and schedules. Close coordination of activities with Districtwide Construction.
5%	M	Publish identified mitigation steps as best practices. Develop and provide construction cost estimating and training. Part of Central Region's Quality Control (QC) teams for reviewing projects.
5%	M	Work with other divisions to identify project cost estimating practice improvements, including risk management for all stages of project delivery. Work with Headquarter's and District Office Engineer's concerning economic trends and impacts to future costs.

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

This position does not supervise; however, the incumbent may be given the authority to lead in the absence of the supervisor. The lead person's authority is limited to reviewing work, assigning tasks, providing input on employee performance, and preparing recommendations relating to work assignments.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Must have a working knowledge of heavy construction, cost estimating and scheduling, including practices, materials, software, and equipment used in highway construction estimating. Must have working knowledge of the plans, specifications, and estimates development process; construction stages and sequences; production rates of highway construction equipment; and construction costs statistics. Must have a working knowledge of the Department's Standard Specifications, Standard Special Provisions and Standard Plans, technical writing, design and construction practices, State and Federal regulations and Departmental policies and practices.

Ability to interpret engineering plans and specifications; analyze cost estimates and schedules; understand computer program applications for preparing costs estimates and generating statistical data. Ability to effectively communicate verbally and in writing, and work effectively with others. Ability to develop and maintain cooperative working relationships within the Department, and with external stakeholders such as the Federal Highway Administration (FHWA), local agencies and the construction industry.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible for assisting in the development and maintenance of standards and practices used in determining accurate construction contract costs, schedules, and risk management. Inaccurate estimates of construction costs and schedules could result in major delays, funding or postponement of construction projects.

PUBLIC AND INTERNAL CONTACTS

Contact with personnel representing the various Department Divisions, District representatives, construction industry (such as the Associated General Contractors of California), and FHWA. Direct communication with contractors, suppliers and manufacturers of materials used in highway construction is also required.

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PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent must be able to meet the following requirements:

Physical Requirements:

- Sit for long periods of time using a keyboard, mouse, and video display terminal. Other physical requirements include, but are not limited to walking, climbing stairs, lifting/carrying objects without causing injury (i.e. books, binders, plan sheets, box(s) of plotter or printer paper, etc.), twisting, stretching, bending, stooping, and kneeling.
- Travel to and from project sites and meeting locations.

Mental Requirements:

- Grasp the essence of new information and master new technical knowledge.
- Simultaneously work on several work assignments and/or deadlines.
- Work within a noisy and occasionally distracting work environment.
- Evaluate and understand critical calculations, data, and other material that may require long periods of mental concentration.

Emotional Requirements:

- Deal with all contacts in a calm and respectful manner.
 - Resolve emotionally charged issues reasonably and diplomatically.
 - Develop and maintain cooperative working relationships with all contacts.
 - Receptive to change, new information, and new situations.
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WORK ENVIRONMENT

The majority of the work performed while in office assignments will be in a climate-controlled office environment and within a work cubical or work area under artificial lighting. Not often, but field visits may have exposure to moving vehicles, fog, field work, earthwork, paving operations, weather conditions, equipment, machinery, heat, cold, dust, gas, fumes, outdoor conditions, humidity, uneven ground, heights, and high decibels of noise. Overtime may be required and vacation restricted during peak times and fiscal year-end closing. One day, overnight trips, or extended travel may be required. The typical office working hours are between 7:30 a.m. and 4:15 p.m. Monday through Friday, and 40 hours per week. May be required to go on loan or rotation to other units (i.e. Construction, Maintenance, Permits, Traffic, Office Engineer, PJD, etc) based on workload needs.

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
