

**POSITION DUTY STATEMENT**

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION District 11/Various Divisions	
WORKING TITLE Inspector/Field Engineer (Range A-C)	POSITION NUMBER 911-516-3135-911	REVISION DATE 09/05/2024

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 Area Senior Construction Engineer, (a Senior Transportation Engineer), and/or Resident Engineer (RE) the Inspector/Field Engineer (Range A-C) will perform a wide variety of construction-related transportation engineering work.

Will serve as an Assistant Resident Engineer on construction projects. Write reports and make estimates in connection with various highway or other transportation projects. Responsible for reviewing and processing contract change orders, progress pay, and final estimates. Review plans and estimates for completeness and accuracy. Prepare correspondence; conduct engineering investigations to ensure compliance with applicable laws, ordinances, standards, plans, and specifications. Safety is paramount; all safety standards are to be strictly enforced and added enhancements are considered in all cases during the course of a project.

**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, Strengthen Stewardship and Drive Efficiency - Innovation, 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 - Equity, Integrity)
- **Ethics and Integrity:** Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Integrity)
- **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, 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, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Pride)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Integrity)
- **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 First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency, Advance Equity and Livability in all Communities - Engagement, Equity, Integrity)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Innovation, Pride)
- **Organizational Skills:** Keeps work prioritized and organized. Logically approaches situations. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Integrity, Pride)

**TYPICAL DUTIES:**

Percentage	Job Description
Essential (E)/Marginal (M) <sup>1</sup>	

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40%	E	Prepares, audits, and tracks costs on contract change orders, progress and final pay estimates, lump sum contract item payments, comprehensive field reports, miscellaneous correspondence, and contract acceptance with a recommendation to the licensed engineer in charge. Makes necessary calculations for the contract change orders to justify money or time, performs drafting and engineering necessary in making revisions to contract. Plans. Ensures contract change order is completed in accordance with specifications and State policies all under the direction of the RE or licensed engineer in charge. Assists the Construction Engineer (CE) and RE with construction claims resolution and/or preparation of claims report. Checks and reviews Critical Path Method (CPM) schedule for accuracy and acceptability and recommends appropriate action to RE of approval, rejection, or additional information needed. Reviews and monitors contractor progress to assist in the preparation of Weekly Statement of Working Days (WSWD) and analyze time impacts by reviewing daily reports and CPM schedule. Monitoring the Contractor's work will require working nights, weekends, and extended shifts on short notice. Use of a Departmental vehicle will be required and possession of a valid California driver's license is required to operate a State vehicle.
30%	E	Ensures engineering integrity of construction projects including plan revisions, make engineering inspection as to quantity and methodology; ensures compliance with plans and specifications; monitors contractor's work and progress; time-impact analysis; measures and records pay quantities; prepares daily reports. Analyzes the plans and estimates; interprets and enforces the State's requirements to ensure compliance with Specifications. Monitors contractor's operations to ensure compliance with safety orders, Labor Compliance, CPM, WSWD, and Substitution of Sub-Contractor. Ensures that project construction conforms to traffic control, environment, hazardous waste, and Storm Water Pollution Prevention Plan (SWPPP) criteria.
10%	E	Processes documents for Progress Pay Estimates, After Acceptance Estimates, Proposed Final Estimates, and necessary support documents for these estimates. This includes reviewing and auditing quantity calculations done in the field, and reviewing progress lump sum contract item payment calculations for accuracy. Prepares Weekly Statement of Working Days and/or reviews them and determines working and non-working days chargeable to contract. Recommends deductions or retentions for Liquidated Damages, CPM schedule failures, SWPPP violations, late lane closer opening penalties, survey re-staking cost, or railroad flagging bills. Make recommendations to RE regarding whether unsatisfactory progress deduction should be overridden due to pending time extensions or other circumstances.
10%	E	Collects construction material samples and performs laboratory tests. Reviews or analyzes field tests of construction materials including Quality Control/Quality Assurance (QC/QA) coordination and prepares or reviews reports on construction materials. Provides engineering comments/recommendations on those results. The tests will need to be performed according to the written standards. Tests construction materials including the following: Sand Equivalent test, Cleanness Value test, Gradation Sieve Analysis, Compaction test with nuclear gauge for soil and asphalt concrete, Moisture Content, and Concrete Modulus of Rupture (concrete beam testing). Performs asphalt concrete and Portland Cement concrete plant inspections. Evaluates correctness and completeness and inputs of QC results. Assures compliance and verification with QC/QA specifications for asphalt concrete and reports pay factor to RE. Prepares Material Certificates.
10%	E	Assists with maintaining the field office. Initiates/manages service contracts and makes purchases with the CAL-Card. Oversees Office Technician for maintaining supplies, equipment, and vehicle inventories. Determines the priority to be given documents; interprets problems and questions as they relate to the functions of the Construction Field Office. Prepares required reports. Ensures accurate contract financial records of construction contract expenditures, monitoring both payments to the contractor and expenditures of the state-furnished materials to ensure that financial allotments are not exceeded. Performs Record Management on projects. Files projects accurately and timely. Assists in the internal audit process, and archives project documents once projects have had final estimates issued. Assists with record review and/or preparing the records in the event of legal action. Assists with ensuring that the project records are maintained per the Construction Manual.

<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.

**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

Supervisory duties are the responsibility of the Senior Transportation Engineer (Construction Engineer). However, the Inspector/

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Field Engineer will may assist with the responsibilities in coordinating the activities of a small group of staff which may include inspectors, testers, and office assistants. May be called upon to act in the absence of the supervisor for a short duration. Position will have responsibility for functional guidance in training and assisting less experienced employees.

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**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Knowledge of: Contract documents to include but not limited to the Standard Plans and Specifications, varying types and methods of industry construction practices, State safety orders, traffic control, field office engineering techniques, effective communication, both written and verbal, and negotiation skills with respect to internal and external customers. Basic principles of physics, chemistry, and mathematics as applied to civil engineering; stress analysis; mechanics; engineering economics; hydrology and hydraulics.

Ability to: Comprehend and interpret the Construction Manual, Standard Plans and Specifications and Special Provisions, and change orders; assess contractor's field operations for safety purposes; determine if Contractors have adequate and competent staff performing required work in compliance with contract; communicate effectively, both verbally and in writing; work under pressure; read and write English at a level required for successful job performance; prepare reports and correspondence; use and understand computers; make accurate mathematical calculations and engineering notes; possess interpersonal skills necessary to be an effective team member.

Analytical Requirements: Assess and resolve conflicts in contract documents and determine best course of action; assess and respond appropriately to internal and external personality conflicts that may interfere with progress of the work. Assess circumstances that may require elevation of issues to appropriate level for resolution.

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**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

Failure to understand and failure to incorporate appropriate standards, requirements and policies into work product may result in expensive waste of time and materials, cause additional work and project delays, and could result in excessive construction contract claims, and unnecessary costs to the State. An error in decision, judgment, or the processing of estimates or other contract administration paperwork would result in errors in payment to contractors and/or providers of service under contract with Department. Poor engineering decisions made by the employee could cause a reduction of productivity.

Responsible for their actions, decisions, quality of work, and proper use of State time, equipment, and materials. Improper performance of duties and/or failure to adhere to established policies, procedures and guidelines could lead to adverse action and possible termination.

Must take effective action to avoid delays.

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**PUBLIC AND INTERNAL CONTACTS**

Must be able to communicate effectively with others including Departmental staff, technical/professional staff of outside agencies, assistant resident engineers, contractor's personnel, and members of the public regarding construction projects. Frequent contact with private contractors, engineers, and their staff, the traveling public, Senior Engineers and their staff, the District and Headquarters personnel, to provide coordination of effort in processing estimates, payments and other documents that are handled by the Construction Field Office. Good communication skills are essential in carrying out the duties. Must be able to guide team(s) toward an issue resolution and be able to build consensus within a team.

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**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

Must possess the ability to work on uneven ground, climb, lift, carry, bend, squat, kneel, crouch, reach, pull, push, grasp, sit, stoop, crawl, and repetitive use of extremities. Must be able to transport variety of objects that are less or equal to 40 pounds. Hard hat and safety vest or approved safety shirt must be worn at all times in the field, no exceptions. May be required to sit and stand for long periods of time.

Must be able to organize and prioritize. Must be able to concentrate, formulate effective strategies, multi-task, adapt to changes in priorities, and complete complex task or projects with short notice. Ability to resolve emotionally charged issues reasonably and diplomatically. Must be able to develop and maintain cooperative working relationships. Use of computers and other various office equipment is required.

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**WORK ENVIRONMENT**

Job will have exposure to night work, field work, earthwork, paving operations, lab work, fog, weather conditions, chemicals, lab conditions, equipment, machinery, heat, cold, dust, gas, fumes, outdoor conditions, indoor conditions, humidity, and high decibels of noise. Hardhat and safety vest or approved safety shirt, and eye protection must be worn at all time in the field, no exceptions. Incumbent must work with a variety of materials including testing equipment. While at the Construction office employees will normally work in a climate-controlled office under artificial light. However, due to periodic problems with the heating and air

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conditioning, the building temperature may fluctuate. Workload may subject employee to night work, flexible hours, frequent changes of shift, frequent changes of work hours and workdays, and geographic transfer. Travel is required. Possession of a valid California driver's license is required to operate a State vehicle. Incumbent may be required to travel on short-term and/or long-term expense. Vacations may be restricted during peak times. Overtime may be required.

The Caltrans Transportation Engineer (Civil) Rotation Program is a mandatory 24 month to 33 months rotation assignment for all permanent, full-time Transportation Engineer (Civil) employees that have completed their probationary period hired by Caltrans Districts after June 22, 2018, or an earlier date as determined by the Districts. The purpose of Rotation Program is to provide opportunities for employees and Caltrans to benefit by participating in a standardized process that systematically engages newly hired engineers. Participants will develop well-rounded project delivery knowledge, skills, and abilities by rotating through diverse project delivery functional units. The Rotation Program includes mandatory core assignments in Design and Construction units, as well as a mandatory elective assignment. Each rotation assignment is typically between 6 to 12 months and will be based on workload needs and the employee's goals. Assignments may involve long term travel and can be located throughout the state.

In addition to the Caltrans Transportation Engineer (Civil) Rotation Program, an incumbent may be required to go on loan to another project delivery function when there are temporary or peak staffing needs in those areas.

Will be assigned work based on Departmental needs and can be assigned anywhere within District 11 which includes San Diego and Imperial Counties.

Possession of a valid California driver's license is required to operate a State vehicle.

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

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