

CLASSIFICATION TITLE Senior Transportation Electrical Engineer, Supervisor	OFFICE/BRANCH/SECTION North Region Construction	
WORKING TITLE Senior Transportation Electrical Engineer	POSITION NUMBER 903-502-3164-002	REVISION DATE

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

GENERAL STATEMENT:

Under the general direction of the South Area Construction Manager (a Supervising Transportation Engineer), the incumbent provides expertise to and supervises various classifications of engineers and technicians providing construction technical support on electrical, and traffic management activities. Incumbent will provide guidance to Resident Engineers on contracts dealing with highway electrical systems, including highway lighting, traffic control, and traffic management systems; will be responsible for planning, directing, and coordinating highway construction electrical work. Incumbent is also responsible for advising staff on construction safety as it relates to electrical contract administration. Must possess a valid California Professional Engineer Electrical License.

CORE COMPETENCIES:

As a Senior Transportation Electrical Engineer, Supervisor, 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. (Safety, Prosperity - Stewardship)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Equity - Equity)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Employee Excellence - Innovation, People First)
- **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 - Stewardship)
- **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. (Equity - Collaboration)
- **Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Climate Action - Innovation)
- **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. (Equity - 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. (Employee Excellence - People First)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Prosperity - Stewardship)

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M) ¹	Job Description
50% E	Serves as the first line supervisor to assigned staff. Assesses status of project and develops work assignments accordingly. Provides staff direction on work to be performed. Provides direction that ensures complete, accurate and timely contract records pertaining to construction in progress, job expenditures, budget programs, and ensure that work order balances are maintained in accordance with State and Federal regulations and laws. Confers with contractors regarding compliance with plans and specifications and quality of work and construction activity. Provides assistance and direction to Resident Engineers in review, analysis, evaluation, recommendation and monitoring of all claims, potential claims and disputes.

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15%	E	Provides engineering assessment of plans, for adequacy of design, particularly with respect to suitability to actual field conditions. Ensures compliance with plans, specifications and permits by the contractor.
15%	E	Attends meetings; responds to requests for information/reports; and resolves and/or negotiates issues on more complex matters. Prepares contract change orders for the purpose of making alterations, deviations, addition to or deletions from the plans and specifications to ensure proper completion or construction of the contract. Analyzes and interprets specifications to correlate with the project plans. Reviews construction projects to ensure that Resident Engineer Electrical is monitoring the contractor's construction safety program adequately and that an effective safety program is being performed. Ensures safety of State employees as well as the public passing through construction sites by conducting necessary training and safety meetings. Reviews contractor's operations for compliance with CAL OSHA regulations.
15%	E	Provide leadership and supervision for field office and inspection staff. Responsible for monitoring and managing staffing resources including overtime, operating expenses, travel and timely submittal of time sheets.
5%	M	Provide appropriate training and evaluation of subordinates to assure their development and the quality of their performance.

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

Supervise a staff of engineers and others engaged in transportation engineering work and development activities.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Must possess a valid certificate of registration as a Civil Engineer issued by the California Board Professional Engineers, Land Surveyors, and Geologists. Possession of a valid drivers license is desired.

Knowledge of: Various phases of transportation engineering, including planning processes and methods, systems planning, evaluation of alternatives, and facility locations and design, construction, operation and maintenance, transportation economics and financing; project management concepts; factors which influence the impact of transportation facilities on the environment, the community and the economy; principles and techniques of personnel management and supervision; Department's Equal Opportunity Policy and Objectives. Health and safety and labor relations programs and the processes available to meet their objectives.

Ability to: plan, organize and direct the work of others; analyze situations accurately and adopt an effective course of action; relate to work with interdisciplinary groups and private industry; speak and write effectively; dictate correspondence, prepare reports, and make effective presentations.

Incumbent needs to have knowledge of a manager's/supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment. Knowledge of safety and health policies and procedures as contained in the Department's Injury and Illness Prevision Program, and the supervisor role in maintaining an effective injury and illness prevention program. Incumbent is required to have a moderate degree of analytical skill to determine if construction work meets specification requirements and to interpret plans and specifications correctly.

Incumbent analyzes special provisions, plan estimates, regulations, construction progress, and critical path method (CPM) scheduling and makes decisions based on these factors. Incumbent must have a thorough knowledge of scheduling, materials, safety practices, contract financing and record keeping. Ability to communicate and work under pressure is required.

Must have a complete knowledge of contract administration paperwork and documentation. Prefer incumbent who is able to use and understand computers. Must be able to prepare reports and correspondence. Incumbent is expected to have a good knowledge of all phases of engineering and departmental policies and operations; be familiar with all rules and regulations pertaining to the State and Highway Code, Construction Manual, Standard Specifications, Special Provisions, and other pertinent manuals, laws and codes.

Incumbent should have knowledge of methods, materials, tools and equipment used in highway and bridge construction; scheduling; and safety practices. Incumbent is required to know methods and equipment used in construction of transportation facilities; methods of proportioning and handling Portland cement and asphalt concrete; testing of materials; principles and practices involved in utility relocation, environmentally sensitive areas, Storm Water Pollution Prevention Plans (SWPPP) and Cal/OSHA safety regulations. Incumbent must be able to calculate pay quantities on Contractor's contracts and communicate effectively orally and in writing. Must have the ability to make neat and accurate mathematical calculations and engineering

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notes; make sound decisions in the implementation of contract plans, specifications and various engineering activities; organize/ arrange data to produce effective work products without repetitious direction; and possess interpersonal skills necessary to be an effective team member.

Knowledge of: Basic principles of physics, chemistry, and mathematics as applied to civil engineering; stress analysis; mechanics; strength of materials; properties and uses of engineering materials; methods and equipment of engineering construction; engineering economics; hydrology and hydraulics.

Possess interpersonal skills necessary to be an effective team member.

Ability to: Inspect construction work and enforce compliance with plans and specifications.

Incumbent is expected to apply sound engineering judgment in evaluating a variety of problems, assess workloads, and set priorities and allocate staff.

Must have the ability to evaluate work methods and traffic conditions closely, both before and during the work, to assure safety.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Employee has responsibility to take initiative in resolving complex construction project issues and making timely, effective decisions and recommendations within prescribed Department policy and guidelines. Failure to consider alternative solutions to construction problems, apply sound engineering/professional judgment and/or promptly implement preferred courses of action could delay projects; increase project cost, and/or adversely affect relationships with external and internal customers. Ineffective or poor decision-making may impact the safety of the traveling public.

PUBLIC AND INTERNAL CONTACTS

Daily contact with supervisors, subordinates, peers, other branches within the District. Contact with state, local and Federal agencies, the public, property owners and highway users.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

When at their base office setting, employee may be required to sit for long periods of time using a keyboard and video display terminal. In the course of the employee's work must maintain a cooperative working relationship within the working environment, with peers, subordinates, and contractors and their employees. Incumbent will be required to drive to and work at various locations throughout the North Region. Incumbent would be required to stand for long periods of time, when on construction project sites; walk on slopes or uneven terrain.

The employee must work closely with his/her peers, supervisor and subordinates to provide a smooth working organization. It is necessary for the employee to maintain close contact with other branches within the District to provide a coordination of effort. In addition the employee must work with state, local and Federal agencies to effectively deliver transportation products to the traveling public. He/she will be required to maintain personal contacts with the public to minimize the effect of construction operations on nearby property owners and the highway users.

WORK ENVIRONMENT

The position requires travel throughout the region to various construction projects with the employee's headquarters being Sacramento. The incumbent will be subject to noise, odors, and dust; extreme weather conditions when on construction project sites; when working at the base office site, will be subject to a climate-controlled environment; artificial lighting, etc. Must work with and about a variety of materials, construction and testing equipment.

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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
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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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