

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE CALTRANS ELECTRICAL SUPERVISOR	OFFICE/BRANCH/SECTION 04/Maintenance/Specialty Region	
WORKING TITLE Caltrans Electrical Supervisor	POSITION NUMBER 904-760-6925- xxx	EFFECTIVE DATE 07/20/2015

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

**GENERAL STATEMENT:**

Under guidance from an Electrical Superintendent, the incumbent is responsible for supervising a crew to perform various works such as installations, maintenance, troubleshooting, repair and replacement of electrical and electronic systems, equipment and devices used on state right of ways such as TOS/ITS, traffic signals, Toll Bridge equipment and pump stations. Read and interpret standard plans, specifications, schematics, maintenance manuals and manufacturer requirements. Estimate, order and install materials and generate written work reports. Work independently and establish effective communication and cooperation with other personnel assigned to a project. Inspect and write detailed reports regarding electrical projects. Lays out and assigns work to crew members and personally performs difficult technical work in connection with the repair or modification of traffic signal control devices; inspects field work performed by crews; promotes and enforces CAL/OSHA and safety rules and regulation; the National Electric Code and the District Maintenance Code of Safe Practices designs special circuits and wiring systems are required; makes drawings of schematics, wiring diagrams, intersections, phase-diagrams, and corrections; instructs and trains subordinates and evaluates their performance; makes estimates of cost; orders supplies and equipment; maintains records and prepares reports.

**TYPICAL DUTIES:**

Percentage Essential (E)/Marginal (M) <sup>1</sup>	Job Description
50% E	Supervise the work of an Electrical crew in the responsible in the construction, maintenance, inspection, troubleshooting and repair of traffic signal systems, changeable message signs, extinguishable message signs, ramp metering systems, traffic count equipment, video surveillance and detection equipment, highway advisory radio equipment and state highway, Toll bridges and facilities electrical system. This will involve working on and around high voltage equipment and switchgear up to 12,000 volts (high voltage equipment is disconnected from source and locked out prior to work being performed on systems). Work on stationary bridge systems may include, but not be limited to, toll collection equipment, highway call box systems, remote supervisory systems, storage battery systems, telephone systems, navigation aid and warning systems, fog detection systems, airway navigation systems, heaters, air conditioners, transformers, sub-station control centers, engine driven generators and carbon monoxide analyzers.
20% E	Make materials acquisition requests, cost estimates and repair time projections. Create punch lists for project inspections and perform site reviews for construction T-forms. Document electrical utilities, process billing information, and adjust accounts. Facilitate and attend meetings pertaining to state electrical facilities and provide concise and accurate reports regarding issues discussed. Incumbent will maintain work logs, daily time keeping and maintenance records, field inventory, expire assets and provide for input of it to computer database.
20% E	Perform the work as required involving, work assignment, performance evaluation, training, promotion of the electrical crew and enforcement of safety rules, safety reviews. Develop, maintain and review appropriate reports and performance of the more complex technical electrical &, electronic work. Review and comment on technical drawings and plans, specification committee reviews, attend new signal installations; computer data entry for inventory and billing, field site reviews, review maintenance agreements, review and respond to electrical permit requests.
5% E	Attend state provided training classes, pertinent to the maintenance activities associated with state facilities and achieve certification status where necessary.

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5% M May be required to remove graffiti from light poles, cabinets, other electrical facilities and label equipment with identification. May be required to clean and paint electrical facilities; wash state owned vehicles; independently load and unload materials and equipment into a state vehicle or building.

<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

Directly supervise a group of electrical personnel assigned to support electrical needs for the District.

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## KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

**Knowledge:** Techniques of effective supervision, labor relations, health and safety objectives, affirmative action and equal opportunity programs, contract management and purchasing procedures. Safety precautions and work procedures required in the maintenance and installation of traffic signal systems, stationary bridge systems, movable bridge span systems, building code, highway information systems, highway lighting systems, pump plants and rest areas.

**Abilities:** Make rough sketches and drawings related to electrical work. Read and interpret standard plans, specifications, schematics, maintenance manuals and manufacturer requirements. Estimate, order and install materials and generate written work reports. Troubleshoot and repair state facilities. Work independently, but be able to establish effective communication and cooperation with other personnel assigned to a project. Plan, layout, inspect and write detailed reports regarding electrical projects. Instruct unskilled and semi-skilled assistants. Establish a safe work environment. Class B driver's license is required; Class A is desirable.

**Analytical Requirements:** Utilize progressive and logical troubleshooting techniques in the repair of electrical and electronic devices. Understand electrical diagrams, charts, technical sheets, oral and written instructions. Interpret electrical codes as they pertain to state electrical facilities. An effective understanding of electrical and electronic formulas as they pertain to state facilities. Ability to interpret safety and health regulations as they pertain to state personnel.

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## RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Errors in judgment, decision making and troubleshooting skills could affect public safety or result in tort liability for the department. The work environment could also be rendered unsafe for employees involved in the project.

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## PUBLIC AND INTERNAL CONTACTS

Incumbent will routinely contact or interact with other state agencies, city, county and Caltrans personnel, contractors, engineering consultants and the general public. These contacts may take the form of verbal or written communications relating to state facilities.

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## PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

**Physical:** Incumbent must be physically capable of utilizing writing instruments, hand tools, manual digging tools and electric tools. Incumbent may be required to bend, stoop, twist, power grab, use fine manipulation, stand, sit, squat, lift and pull during performance of their duties. Incumbent must have good balance for walking on uneven surfaces, climbing ladders, climbing scaffolding and working on other structures associated with state facilities. Incumbent should have visual and color acuity adequate for performing the essential functions of the job. Incumbent must be comfortable working at extreme (200-500ft) heights on bridge structures over bodies of water and on towers supporting bridge structure.

**Mental:** Incumbent must be capable of understanding and performing the essential functions of the job in a reasonable and prudent manner, using logic and deductive skill to provide and end product that is safe and usable.

**Emotional:** Incumbent must have the capacity for stable and reasonable interaction with supervisors, fellow workers and the general public during the performance of their duties.

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## WORK ENVIRONMENT

The Caltrans Electrical Supervisor may work under various climates and conditions. Work may be performed inside of

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climate controlled buildings, but most operations will take place alongside, over or upon state highways and bridges and right of way. The incumbent will be exposed to noise, inclement weather, dirt, odors, uneven surfaces, heights up to 550 feet above pavement or water, confined spaces, concrete products, cleaning solvents, high speed traffic conditions and moving construction equipment. The incumbent must be willing to work odd hours, nights, weekends and be available for trouble call outs.

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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.)

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EMPLOYEE (Print)

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EMPLOYEE (Signature)

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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)

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DATE