

**POSITION DUTY STATEMENT**

PM-0924 (REV 03/2006)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
CALTRANS ELECTRICIAN I	04/Maintenance/Specialty Region	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
CALTRANS ELECTRICIAN I	904-760-6938-XXX	01-17-2014

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team as well as those we serve.

**GENERAL STATEMENT:** (BRIEF SUMMARY OF THE MAIN PURPOSE AND FUNCTIONS OF THE POSITION. DESCRIBE THE SUPERVISORY RELATIONSHIPS (INCLUDING THE CLASSIFICATION OF THE SUPERVISOR OR MANAGER TO WHOM THE INCUMBENT REPORTS.) WHEN APPROPRIATE, IDENTIFY THE NEED FOR ANY CREDENTIAL OR LICENSE (SUCH AS A DRIVERS' LICENSE.)

This position is considered the first journey level for this class. Under general supervision of a Caltrans Electrical Supervisor and guidance from an Electrician II, the incumbent is responsible for the routine installation, maintenance and repair of electrical and electronic devices associated with state facilities. This position requires the operation of light trucks, personnel hoists, vans and automotive vehicles. Class C driver's license is required; incumbent may drive heavy trucks, if properly licensed, Class A or B is desirable. With training and certification, where necessary, incumbent may be required to operate equipment such as: trenchers, forklifts, air quality monitors, hoists and cranes.

**TYPICAL DUTIES:** (BRIEF DESCRIPTION OF IMPORTANT DUTIES. RELATED DUTIES MAY BE GROUPED TOGETHER. USE ADDITIONAL SHEET IF NECESSARY.)

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

60%(E) Working with a crew or under lead guidance, will construct, maintain, troubleshoot and repair traffic signal systems, changeable message signs, extinguishable message signs, ramp metering systems, traffic count equipment, video surveillance and detection equipment, highway advisory radio equipment, building electrical systems, pumping plants, stationary bridge systems, movable span bridge equipment, scale house systems, rest area systems and highway lighting equipment. Work on stationary bridge systems which 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) Inspect and operate equipment utilized in the performance of electrical work associated with state facilities. Equipment will include, but not be limited to: light trucks, personnel hoists, trenchers, forklifts, pavement saw, pipe threading equipment, conduit benders, voltage meters, resistance meters, amperage meters, high potential tester, hot-sticks, power monitoring equipment, air quality monitoring equipment, manual digging tools, electrical hand tools and batter test equipment.

15%(M) Make materials acquisition requests and repair time projections. Attend meetings pertaining to state electrical facilities and provide concise, accurate reports regarding issues discussed. Assist in the training of less experienced personnel in the duties required of a Caltrans Electrician I. Maintain work logs, daily time keeping and maintenance records. Attend state provided classes, pertinent to the maintenance activities associated with state facilities and achieve certification status where necessary.

5%(M) Remove graffiti from light poles, cabinets and other electrical facilities. Clean and paint electrical facilities. Wash state owned vehicles. Independently load and unload materials and equipment to and from a state vehicle or building. Enter records into computer database. Work independently on routine electrical projects.

<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**

Position does not supervise.

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### **KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS**

**Knowledge:** Safety precautions and work procedures required in the maintenance and installation of traffic signal systems, stationary bridge systems, movable span bridge systems, building code, highway information systems, highway lighting systems, pump plants and rest areas.

**Abilities:** Make rough sketches and drawings related to electrical work. You will have to read and interpret standard plans, specifications, schematics, maintenance manuals and manufacturer requirements. Estimate, order and install materials and generate written reports. Troubleshoot and repair state facilities. Be able to establish effective communication and cooperation with other personnel assigned to a project. Inspect and write detailed reports regarding electrical projects. Instruct unskilled and semi-skilled assistants. Establish a safe work environment.

**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. Exhibit an effective understanding of electrical and electronic formulas as they pertain to state facilities.

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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 Caltrans personnel, contractors, engineering consultants and the general public. These contacts may take the form of verbal or written communication relating to the assignment.

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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 electrical tools. Incumbent may be required to bend, stoop, twist, power grasp, 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 for the job.

**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.

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### **WORK ENVIRONMENT**

The Caltrans Electrician may work under various climates and conditions. Work may be performed inside of climate controlled buildings, but most operations will take place alongside, over or upon state highways and right of way. The incumbent will be exposed to noise, inclement weather, dirt, odors, uneven surfaces, heights up to 550ft 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)	DATE
EMPLOYEE	DATE

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

SUPERVISOR (Print)	DATE
SUPERVISOR	DATE