STATE OF CALIFORNIA ◦ DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 07/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Caltrans Electrician I	District 12/Maintenance/Region I	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Caltrans Electrician I	**912-651-6938-XXX**	

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.)

Under the supervision of a Caltrans Electrical Supervisor or direction of a Caltrans Electrician II, the Caltrans Electrician I is responsible for the installation, maintenance and repair of the most complex electrical and electronically controlled devices on facilities and right of way. Installs, maintains and repairs all Highway Electrical Inventory. Works independently and/or with others and operates highway maintenance equipment and vehicles. The incumbent may be required to work overtime, work irregular shifts/alternate work schedules, including nights, holidays and weekends; may be required to work temporary and/or intermittent varied work shifts and required to respond to emergency situations and calls. May be loaned to other cost centers. This position is represented under collective bargaining.
This classification requires a valid class C driver's license. A class A or B drivers' license with endorsements and a current medical certificate is desirable. Duties include, but are not limited to:

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

Percentage Essential (E) / Marginal (M)	Job Description
40% (E)	Under supervision of a Caltrans Electrical Supervisor or direction of a Caltrans Electrician II performs typical work of the crew in repairing and/or troubleshooting lighting circuits, traffic signals, ramp meters, control equipment, loop detectors, telemetry equipment, power services, changeable message signs, and pump stations. Installs, maintains and repairs all Highway Electrical Inventory.
20% (E)	While on signal patrol incumbent is responsible for the maintenance of traffic signal intersections, 60-day operational checks, timing and field operations and traffic signal master systems. May routinely patrol an assigned area; perform routine maintenance activities and/or assist a Caltrans Electrical Supervisor and/or Caltrans Electrician II in the repair of more complex devices and circuitry.

◦ ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned
◦ MARGINAL FUNCTIONS are minor tasks of the position that can be assigned to others.

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TYPICAL DUTIES:

Percentage Essential (E) / Marginal (M)	Job Description
20% (E)	Perform preventative maintenance tasks such as painting, cleaning and routine testing; do laboring work such as pouring and finishing concrete bases; pulling wires through conduits; repairing conduits, poles and wires; re lamping traffic signals and illuminated signs; and flags traffic and installs necessary barriers for safety purposes. Operates manual/power tools and 2-way radios.
10% (E)	Give functional direction as crew leader in the absence of the Supervisor and/or Electrician II, in the inspection, maintenance, timing and repair of the Highway Electrical Inventory.
5% (E)	Makes estimates of labor, materials and equipment for repair costs.
5% (M)	Operate light trucks, vans and automotive vehicles. May drive heavy trucks if properly licensed. Incumbent shall follow prescribed methods of equipment as instructed by META and their supervisor. Shall use Pre-op and Post-op checklist for reporting any problems to their supervisor. Service and make minor repairs on equipment as instructed by META. May operate automatic and/or manual transmissions.

SUPERVISION EXERCISED OVER OTHERS:

On occasion may give functional direction as crew leader in the absence of the Supervisor and/or Electrician II.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS:

Knowledge of: Theory of electricity and electronics; basic terminology, principles, methods, materials, tools and equipment used in the installation, maintenance and repair of electrical and electronic equipment, including solid-state circuits and transistors; electronic test equipment including DVOM, signal generators, meggers logic probes, transistor checkers, oscilloscopes, high speed tape reader and laminators; wave-form analysis utilizing analog and digital techniques; safety precautions while working with electricity including the National Electric Code, the Electrical Orders of the Division of Industrial Safety and CAL/OSHA safety and health regulations. Must possess a knowledge of statewide Maintenance functions and the mission, goals, organization and procedures of the Department of Transportation.

Abilities & Analytical: Ability to install, construct, test, maintain and repair of a wide variety of electrical and electronic devices. Computer and telemetry skills are desirable. Design substitute methods of operation and instruct other electricians in methods of electrical maintenance and electrical inventory; gather statistical data for analysis that may be used for personal and equipment budgeting and/or material studies; maintain records and make reports; interpret plans, and estimate repair costs.

CONSEQUENCE OF ERROR / RESPONSIBILITY FOR DECISIONS:

Poor judgment could result in danger and possible injury or loss of life for the travelling public or Caltrans employee, ineffective production methods, and substandard quality of work. Negligent administrative skills could result in tort liability to the State. Errors in judgement could also result in civil and/or criminal liability to the employee.

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PUBLIC AND INTERNAL CONTACTS:

The incumbent may be asked to work with the other Maintenance, Permits, Traffic Operations and Construction Branches and all levels of Caltrans Management. May also be required to work with California Highway Patrol representatives, members of the public and outside resource agencies. Internal contacts are made by telephone, radio and/or in person. Contact with outside public agencies, utility companies, distributors, manufacturers and railroads are made by telephone and/or in person contact. Public contact is continuous and the public is often phoned to notify and clarify information.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS:

Physical: The incumbent will be required to do heavy manual labor including moving/placing heavy objects by lifting, pulling, pushing and carrying; as well as power grasping, squatting, stooping, kneeling, bending, twisting, reaching, climbing, walking on uneven/unstable ground; working in confined spaces; and standing or sitting for prolonged periods. May be required to work 55 feet or above the pavement, water or in the midst of traffic using ladders or lift trucks. May be required to sit in/on and drive or operate maintenance vehicles. The incumbent will be required to wear earplugs for loud noises; wear respirators and appropriate safety gear at all times. The incumbent must be able to hear and see, with or without corrective assistance, at a satisfactory level to ensure the safety of the employee and others. Must have visual and color acuity adequate to perform the essential functions of the job. This position is a drug sensitive class. The incumbent will be required to pass a pre-employment drug test and subject to reasonable suspicion testing during appointment. If incumbent possesses a commercial driver's license, employee will be required to take random drug tests throughout appointment.

Mental & Emotional: Must be able to keep up with current technological changes in the fields of electricity and electronics. Must have the ability to develop and maintain cooperative working relationships; respond appropriately to difficult situations; recognize emotionally charged issues or problems; and cope with and respond to emergency situations such as traffic/weather conditions and other natural disasters. Will be required to deal tactfully and courteously with public and crew under stressful and possibly adverse conditions. Must be able to focus on precise work beyond the distractions of traffic, be emotionally stable, alert and aware at all times. Reason logically, draws valid conclusions, makes appropriate recommendations, and adopt an effective course of action. May need to determine amounts of materials and length of time to accomplish a job. This position is responsible for working cooperatively with team members and supervisors to identify innovations that will increase productivity, reduce cost and maintain or improve quality. This position must adhere to the customer service standards set by their unit and provide high quality service to both internal and external customers.

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WORK ENVIRONMENT:

The employee will be based at a Maintenance Station in a climate-controlled environment under artificial lights, but most of the duties and time will be spent outdoors installing, maintaining and repairing electrical systems and/or performing manual labor. Weather conditions vary from a cold, windy and wet winter climate to a very hot and dry summer climate. May be exposed to dirt, dust, fumes, hot materials, chemicals, loud noises, inclement weather, steep uneven and/or unstable terrain, fast moving traffic, and/or extreme temperatures. May be required to sit or stand for long periods of time. May be exposed/put in stressful situations. Will be required to wear long pants and appropriate footwear in good condition, and must wear provided Personal Protective Safety Equipment including but not limited to: shirts and/or vests, hard hats, safety glasses, gloves, face shields, respirators, ear plugs, as well as other safety devices deemed necessary. The incumbent will be required to travel extensively throughout the assigned area and may be required to travel and work in other areas in the District. Employees may be required to work nights, weekends, holidays, alternate work schedules/irregular shifts and required to respond to emergency situations and calls.

I have read, understand and can perform the duties listed above. If you believe you may require accommodation, please discuss this with the hiring supervisor.

EMPLOYEE NAME *(Please Print)*

EMPLOYEE SIGNATURE DATE

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

SUPERVISOR NAME *(Please Print)*

SUPERVISOR SIGNATURE DATE

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