

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE CT Electrical Technician	OFFICE/BRANCH/SECTION District 12 / Maintenance	
WORKING TITLE Caltrans Electrical Technician	POSITION NUMBER 912-651-6939-xxx	REVISION DATE 06/16/2026

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

GENERAL STATEMENT:

Under the direction of a Caltrans Electrical Supervisor (CES), a Caltrans Electrician (CE) I or II, the Caltrans Electrical Technician (CET) will assist the CE I or II in performing preventative maintenance (PM), troubleshooting and repair (T&R), install, reinstall, rebuild, and field inspections on all Highway Electrical Inventory. CET responsibilities are restricted to assisting the CE I & II in the installation and maintenance associated with the less complex electrical and electronically controlled devices on facilities and Right of Way. The CET will usually work with either a CE I or II, but at times may work independently with appropriate supervision on less technical tasks. The incumbent will 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 operates highway maintenance equipment and vehicles and requires a valid class C driver's license. A class A or B driver's license with endorsements and a current medical certificate is desirable. Computer and telemetry skills are also desirable. In District 12, we do not have any high voltage situations (above 600 volts), but at some point high voltage work may be required. Proper training shall be given before any high voltage work is required. Duties include, but are not limited to:

CORE COMPETENCIES:

As a CT Electrical Technician, 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.

- Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Employee Excellence - Collaboration)
- Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety - Innovation, 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. (Employee Excellence - Integrity, Stewardship)
- 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. (Equity, Climate Action - Pride)
- Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Employee Excellence - 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. (Employee Excellence - Integrity, Pride)
- Interpersonal Effectiveness** : Effectively and appropriately interacts and communicates with others to build positive, constructive, professional relationships. Tailors communication style based on the audience. Provides and is receptive to feedback. (Employee Excellence - Collaboration)
- Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety, Climate Action - Innovation, Pride)
- Commitment/Results Oriented**: Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Employee Excellence - Integrity, Pride)

TYPICAL DUTIES:

Percentage
Essential (E)/Marginal (M)¹ Job Description

Americans with Disabilities Act (ADA) Notice: This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

40%	E	Assists a CE I or II in the PM, T&R, install, reinstall, rebuild and field inspections on traffic signals and traffic signal master systems, lighting circuits, highway and tunnel lighting, highway sign lighting, navigation lighting, battery backup systems (BBS),electrical services and their associated electrical devices as needed, and telemetry equipment.
30%	E	Assists a CE I or II in the PM, T&R, install, reinstall, rebuild and field inspections on pump plants, changeable message signs (CMS), ramp meters, vehicle detection systems (VDS), closed circuit TV systems (CCTV), battery backup systems (BBS), highway advisory radio systems (HARS), electrical services, carbon monoxide analyzers and detectors, ventilation equipment, motors, generators, sprinkler controllers, Maintenance Stations and their associated electrical devices as needed, and telemetry equipment.
20%	E	Operates light trucks, trucks with personnel hoist, vans, and automotive vehicles. The ability to obtain a class A or B license and operate class A and B equipment is very desirable and is rewarded with Commercial Driver's License Differential for this classification. Shall follow prescribed methods of equipment operation as per Code of Safe Practices (COSP), Mechanized Equipment Training Academy (META), Cal Osha, owner's manual, and their supervisor. Shall use Pre-operation and Post-operation checklists for reporting any problems to their Supervisor. Services and makes minor repairs on equipment as instructed by META. May operate automatic and/ or manual transmissions.
10%	M	Performs tasks such as painting, cleaning around or near electrical assets and facilities, pouring, and finishing concrete, and traffic control as per Chapter 8.

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
None. This is an entry-level position.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of:

AC & DC theory, National Electric Code (NEC); basic terminology, principles, methods, tools and equipment used in the installation, maintenance and repair of electrical and electronic equipment.

Test equipment; volt meters, amp meters, ohm meters, digital volt ohm meter (DVOM).

Safety precautions while working with electricity and fiber; the Electrical Orders of the Division of Industrial Safety and Cal Osha, Safety and Health Regulations; Caltrans Safety Manual, Caltrans Code of Safe Practices, and Chapter 8.

Abilities & Analytical:

- Communicate at level required for successful job performance.
- Follow directions and work cooperatively with others.
- Establish and maintain effective, cooperative working relations with crew and other groups in the workplace.
- Must be able to effectively analyze various work situations and make sound decisions.
- Read electrical schematics.
- Complete tasks.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Poor judgement could result in danger, and possible injury or loss of life for the traveling public or Caltrans employees, ineffective production methods, and substandard quality of work. Negligence could result in tort liability to the State as well as civil and/or criminal liability to the employee.

PUBLIC AND INTERNAL CONTACTS

The incumbent will be asked to work with 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.

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

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

uneven/unstable ground. Working in confined spaces and standing or sitting for prolonged periods. May be required to work 55 feet 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 at times required to wear earplugs, respirators and at all times appropriate safety gear. 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, draw valid conclusions, make appropriate recommendations and adopt an effective course of action. 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.

WORK ENVIRONMENT

The employee will be based in a District 12 Office in a climate-controlled environment under artificial lights, but most duties and time will be spent outdoors engaged in the duties mentioned above. 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, stand, squat, kneel, or all the above 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 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

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

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE