

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE Stationary Engineer	OFFICE/BRANCH/SECTION D6 Administration	
WORKING TITLE Electric Vehicle Infrastructure Engineer	POSITION NUMBER 906-001-6712-918	REVISION DATE 08/29/2024

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

The Electric Vehicle Infrastructure Engineer is tasked with maintaining, improving, and managing the electric vehicle charging infrastructure for all Divisions within District 6. This role demands a combination of technical expertise and strategic thinking to ensure the functionality and sustainability of electric vehicle infrastructure. The incumbent reports directly to the Support Services Manager (a Staff Services Manager I, Supervisor) and collaborates closely with the Fleet Optimization Manager (a Staff Services Manager I, Specialist). The incumbent will provide support and training for District 6 employees on multiple types of charging stations and battery-electric vehicles, which could include creating user manuals, conducting training sessions, and offering cell phone communication customer support. This position requires significant physical activities such as lifting, bending, and performing tasks requiring manual dexterity. This position involves developing and maintaining strong partnerships, with the goal of independently planning and coordinating opportunities to bridge a large and diverse group of multi-disciplined teams to improve electric vehicle infrastructure. Incumbent must utilize effective communication skills for liaising with team members, management, and external entities. Incumbent must be able to perform physically demanding tasks, including lifting objects up to 50lbs, enduring various weather conditions, and standing for extended periods of time.

CORE COMPETENCIES:

As a Stationary Engineer, 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.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Cultivate Excellence, Lead Climate Action - Innovation, Pride)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Lead Climate Action - Innovation, Pride)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Lead Climate Action - Innovation)
- **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. (Lead Climate Action - Innovation, Pride)
- **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. (Lead Climate Action - Equity, Innovation, Pride)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Strengthen Stewardship and Drive Efficiency - Innovation)
- **Influencing Others:** The ability to gain the support of others for ideas, proposals, projects and solutions. (Strengthen Stewardship and Drive Efficiency - Innovation)
- **Planning and Results Oriented:** Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Lead Climate Action - Innovation)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Lead Climate Action - Innovation)

TYPICAL DUTIES:

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

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30%	E	<p>The incumbent will perform detailed and regular maintenance along with complex repairs to enhance the operational life and performance of electric vehicle supply equipment (charging stations) and supporting infrastructure, focusing on both single-phase and multi-phase electrical circuits. Incumbent will work on circuits up to 550 volts, direct current (DC) and alternating current (AC). This includes the repair and maintenance of electrical transformers, motors, controls, and machinery fixtures. Utilize advanced diagnostic tools and sophisticated troubleshooting techniques to swiftly resolve critical issues, minimizing downtime. Plan layouts and estimate the costs of electrical, mechanical, and electronic systems. Requisition necessary parts, supplies, and equipment. Calculate systems requirements to provide estimates for modifications or replacements of systems. Lead, train, and mentor subordinate and less experienced personnel, advising them on unusual problems, procedures, and practices. Repair and maintain components of refrigeration systems such as compressors, condensers, evaporators, traps, transfer pumps, expansion valves, stop valves, and float valves, along with all refrigerant lines associated with electric vehicle charging stations, closed circuit television, automatic alarm systems, security systems, energy management systems, equal potential grounding and automatic power transfers. Efficiently track and report all completed work using tools like Maximo and Microsoft Word to ensure transparency and accountability in operations. Conduct repairs in accordance with approved mechanical plans, make material lists and install equipment.</p>
20%	E	<p>System Improvements: The incumbent will take the lead in current and future projects designed to enhance the efficiency and user interface of the electric vehicle supply equipment (charging stations) infrastructure. The incumbent analyzes electric vehicle usage patterns to identify trends, inefficiencies, and opportunities for cost savings, and coordinates inter-divisional vehicle movements to optimize utilization and reduce expenses. The incumbent maintains constant communication with District 06 vehicle coordinators, overseeing the management of electric vehicle requests, returns, and related processes. Additionally, the incumbent supports the Fleet Optimization Staff Services Manager I by utilizing a variety of analytical tools, including the Division of Equipment Intranet, AssetWorks Fleet Management database, Fleet Optimization Reports, GPS database, and Equipment Management Smartsheet database. These tools are essential for identifying and analyzing equipment utilization patterns, which may lead to the reassignment/swap of internal combustion engine vehicles with battery-operated vehicles. The role also involves promoting adherence to all provisions of Deputy Directive DD-111 for the Use of State Vehicles, thus ensuring accountability.</p>
15%	E	<p>The incumbent will deliver comprehensive support and conduct training sessions for charging station users, including instructions on how to operate electric vehicles. This includes developing user-friendly manuals and resources that enhance customer satisfaction and safety. The incumbent will emphasize the importance of safety standards and practices in the high-stakes environment of electric vehicle infrastructure. Additionally, the incumbent may provide expert roadside assistance for electric vehicles that have run out of charge, employing sophisticated mobile charging technology to efficiently restore power to the vehicle. This service enables stranded motorists to resume their journeys with minimal delay, demonstrating a high level of technical expertise and commitment to customer satisfaction. The incumbent will also monitor charging locations for instances of policy abuse and regularly communicate with management on these matters. Overall, the incumbent must possess strong analytical skills to effectively manage and optimize the operations of the electric and solar vehicle charging ports in District 06. The incumbent coordinates with the Fleet Optimization Manager, Senior Transportation Electrical Engineer and the Office of Zero Emission Vehicle (ZEV) to implement District activities that support sustainability, including Zero Emission Vehicle charging station installation and maintenance, formulation of policy, procedure, and reporting standards, and other sustainability performance objectives and goals. Additionally, the incumbent will respond to tenant work order requests and take corrective action either in person or through contract service to remedy the issues.</p>

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10%	E	The incumbent prepares parts and materials lists, obtains cost estimates, and assists with purchasing parts for equipment and system repair in accordance with approved mechanical plans. In addition to these responsibilities, the incumbent will assist the charging station manufacturer with installation procedures, configuration settings, and software updates for EV charging stations. The incumbent may also perform these tasks according to the manufacturer's specifications. Incumbent will provide clear and concise instructions to ensure proper equipment functionality, ensuring that all aspects of the installation and maintenance process are thoroughly documented and communicated. This role requires meticulous attention to detail and the ability to coordinate effectively with the manufacturer to ensure that all systems operate efficiently and reliably. Incumbent will provide coverage as needed for the Facility Stationary Engineer and in specific projects assist with their installment or repair.
10%	E	The incumbent will assist in design, develop, and lead the architectural design and technical specification drafting for state-of-the-art electric vehicle supply equipment (charging stations) infrastructure, incorporating high-efficiency components and intelligent communication systems. Lead all phases of charging station installations, from site assessment to final deployment, coordinating with contractors and suppliers for flawless execution.
5%	E	Professional Development: The incumbent will actively pursue advanced learning opportunities in electric vehicle technology to stay ahead of industry trends, maintaining the cutting-edge expertise required to lead in a dynamic field.
5%	E	The incumbent will be responsible for the installation of electric vehicle (EV) charging stations and associated infrastructure, including the laying and securing of conduit, connectors, and wiring to ensure safe and efficient operation. They will install and configure transformers, switchgear panels, and other essential components to facilitate a robust connection to the electrical grid. This role may include hand trenching, operating a mechanical trencher, and drilling, cutting, or excavating through various types of surfaces and materials. The materials needed include appropriate sizes of conduit, connectors, transformers, switchgear panels, wiring, circuit breakers, and other necessary hardware to ensure proper grid connectivity and system functionality.
5%	M	The incumbent may act as back-up to the District 6 Region Fleet Management Coordinators.

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

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Ability to: Follow oral and written directions; demonstrate mechanical ability; keep accurate records; install, operate and make repairs to the various types of equipment listed above in the knowledge requirements; make written reports, read, interpret, and work from plans, drawings and specifications; lay out work for others and direct them in this work; analyze situations accurately and take effective action. The incumbent must be able to effectively coordinate with various levels of management and staff, communicate effectively both orally and in writing. Incumbent must be proficient with Microsoft Office. Must also build and maintain good cooperative working relationships both internally and externally. Incumbent must be able to reason logically and creatively in order to analyze data from numerous sources and present ideas, information, and alternatives effectively with a minimum of direction. Incumbent must negotiate effectively, deal tactfully with all parties in stress producing periods, make timely decisions, prioritize critical program needs and excel in conflict resolution. Knowledge of: Electric and solar vehicle charging equipment; lighting, ventilating, air conditioning, power, refrigeration, building electric and other mechanical or electrical equipment; the methods, tools, materials, and equipment used in the operation, maintenance and repair of such equipment.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Failure to exercise correct and timely decision making would adversely affect the deliver of the Central Region Capital Outlay Support projects and put the District and Department in violation of both Federal and State regulations on the expenditure of funds. Sanctions could potentially be imposed or millions of Federal highways dollars could be lost.

PUBLIC AND INTERNAL CONTACTS

Must be able to write and speak effectively. Ability to communicate with and respond to the general public, other governmental agencies as well as elected officials and their staff. All documentation residing inside the secured office require a high degree of sensitivity, personality, respect and confidentiality.

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PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Involves heavy lifting up to 50 pounds, often combined with pushing, pulling, bending, stooping, squatting, grabbing, carrying, kneeling, twisting and reaching at, or above, shoulder level; includes bending and twisting. Includes sitting, standing and walking most of the time, with, or working on, irregular surfaces; and periodically requires extraordinary physical activity. enduring various weather conditions, and standing for extended periods. Requires correct vision and hearing to normal range. Manual and finger dexterity and eye-hand coordination. Must maintain the strength, agility, endurance and sensory ability to perform the duties contained in this duty statement. Ability to work on a keyboard; manual dexterity; sitting for long periods; develop and maintain cooperative relationships; ability to focus for long periods of time; and multitasking. Work cooperatively with other office staff personnel and personnel from other functional units. Will be provided a utility vehicle to travel daily to facilities.

WORK ENVIRONMENT

At times work involves exposure to unusual elements, such as confined spaces, uneven ground surfaces, outside hot and cold temperatures, dust, fumes, unpleasant orders and loud noises, and may involve exposure to hazardous chemicals or require physical risk which require adherence to safety precautions and procedures. Telework not available for this position.

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

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