



## JOB DESCRIPTION

### Electrician



|                         |  |   |                        |
|-------------------------|--|---|------------------------|
| <b>Reports to:</b>      | Maintenance, Operations and Transportation Manager | <b>Employment Group / Salary Range:</b>             | Classified             |
| <b>Dept:</b>            | Maintenance, Operations and Transportation         | <b>FLSA:</b>  | Non-exempt             |
| <b>Annual Workdays:</b> | 261  | <b>Formal Review Date:<br/>Board Approval Date:</b> | 5/17/2023<br>6/05/2023 |

### PRIMARY FUNCTIONS

Under general supervision, performs skilled electrical work in the installation, maintenance and repair of District electrical systems and related equipment; coordinates equipment service and testing/inspections with vendors and contractors; oversees supplies and equipment inventory and ordering; and performs related duties as assigned.

### ESSENTIAL DUTIES & RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

- Troubleshoots, installs and repairs electrical systems, components and devices associated with the operation of the District's facilities including interior and exterior conduits, light and power circuits, motor transformers, control panels, generators, switchboards, controllers and switches.
- Inspects electrical systems and their components to evaluate their condition, identifies necessary repairs and recommends preventive maintenance; tests electrical systems and continuity of circuits in electrical wiring, equipment and fixtures to ensure compatibility and safety of the system.
- Installs, repairs and maintains indoor and outdoor lighting systems on buildings, along paths and walkways and in parking lots.
- Measures, cuts, bends, threads, assembles and installs electrical conduits using rulers, measuring devices, hand tools, pipe threader and conduit bender; places conduit pipes or tubing inside partitions, walls or other concealed areas and pulls insulated wires/cables through conduit to complete circuits.
- Assists in commissioning new equipment and systems, including assisting in integrating electronic devices, controls and software testing; inspects work to ensure compliance with national and local electrical codes.
- Monitors, maintains and repairs emergency systems including lighting, generators, fire alarms, intrusion alarms, intercom, access control, employee access/security cards and call stations and security cameras.
- Participates in the installation, maintenance and repair of HVAC and energy management systems.
- Use of lift to replace ballast, bulbs and to 150 ft high.

- Performs or assists with semi-skilled and skilled maintenance including plumbing, painting, carpentry and basic electrical work.
- Operates a variety of light to medium trucks and equipment.
- Uses a variety of specialized tools and devices such as hand-held programmers and calibrators, process meters, signal generators, calibrators, frequency counters, digital and analog volt-ohm meters, digital analyzers, cable/conduit locators and other specialized test equipment; maintains tools and equipment in effective and safe working condition.
- Observes safe work methods and safety practices related to the work.
- Estimates labor, materials and equipment needed for assigned HVAC maintenance projects; compiles and prepares cost estimates; monitors and ensures adequate inventory levels of equipment and supplies; researches and recommends purchase of equipment and supplies as appropriate.
- Oversees and coordinates service contractors; may obtain quotes, estimates and timelines for contracted work; escorts contractors in building and facilities; conducts inspections of work performed for quality of service, adherence to plans/specifications and timeliness.
- Plans work from and maintains records in the form of blueprints, drawings, sketches, plans and specifications; maintains electronic maintenance records and requests including work order tracking and lockout/tagout records; participates in meetings and safety training.
- Provides work guidance to a crew of maintenance employees for larger projects; monitors work for completeness, accuracy and conformance with District and departmental standards; provides information, instruction and training on work processes, proper equipment use and safe work practices.
- Oversees the safe and legal disposal of hazardous waste, chemicals and biological materials.
- Performs related duties as assigned.

## **QUALIFICATIONS**

### **Education and Experience:**

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Graduation from an accredited vocational trade school, completion of an electrical apprenticeship program and three years of journey-level experience in the design, installation, maintenance and repair of complex electrical systems and related equipment and devices; or an equivalent combination of training and experience.

### **Licenses, Certificates and Other Requirements:**

- A valid California driver's license and the ability to maintain insurability under the District's vehicle insurance program may be required in some assignments.
- Forklift certification is required within three months of hire or appointment to the position.

**KNOWLEDGE, SKILLS AND ABILITIES****Knowledge of:**

- Practices, methods, techniques, tools and equipment used in the design, installation, testing, calibration, maintenance and repair of electrical systems.
- Tools and practices used in performing all preventive/predictive maintenance (thermography, infrared, motor circuit analysis and other predictive maintenance tools) on the electrical instrumentation, equipment and systems used in the District's infrastructure.
- Safety policies, procedures and safe work practices applicable to assignment, including OSHA regulations, confined-space entry, arc flash safety, lockout/tagout procedures and National Fire Protection Association (NFPA) and National Electrical Code (NEC) rules.
- Applicable building and safety code requirements.
- Applicable electrical codes, standards and regulations.
- Regulations and applicable laws regarding the use and disposal of various hazardous materials.
- Applicable federal, state and local laws, rules and regulations including applicable OSHA rules and regulations.
- Mathematics applicable to the area of assignment.
- Correct English usage, including spelling, grammar and punctuation.
- Recordkeeping, filing and basic purchasing procedures and expense reporting.
- Uses and operations of computers, standard business software and specialized database and spreadsheet applications.

**Skills and Abilities to:**

- Work independently with limited supervision.
- Test, diagnose, calibrate and repair a wide variety of electrical systems and related equipment devices, motors, machinery and equipment.
- Utilize modern diagnostic and testing techniques and instruments, including motor circuit analysis, ultrasonic and infrared cameras, and other predictive maintenance tools; laptops and other computer equipment to test, calibrate, configure and repair complex electrical and electronic devices, equipment and wiring.
- Operate welding equipment, forklifts, hydraulic lifts, power equipment and tools used in the maintenance and repair of facilities and equipment.
- Identify and implement safe and effective courses of action to complete assigned work.
- Exercise independent judgment and initiative within established guidelines.
- Perform mathematical calculations.
- Estimate and ensure adequate resources to meet material, labor, equipment and time requirements.
- Determine work priorities during peak workload periods, using sound judgment in the application of policies, rules, regulations and standard operating procedures.

- Safely operate and maintain a variety of electrical and maintenance equipment.
- Coordinate and inspect contracted maintenance work.
- Read, interpret and update blueprints, plans, specifications, manuals and circuitry/wiring diagrams of the District's HVAC infrastructure and systems.
- Estimate time, materials and equipment required to perform assigned duties.
- Prepare and maintain records accurately.
- Communicate effectively, both orally and in writing.
- Understand and follow written and oral instructions.
- Operate a computer and use standard business software.
- Establish and maintain effective working relationships with all those encountered in the course of work.
- Understand and be sensitive to and respectful of the diverse academic, socioeconomic, cultural, disability, and ethnic backgrounds of students, faculty and staff..

### **PHYSICAL AND MENTAL DEMANDS**

The physical and mental demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

#### **Physical Demands:**

While performing the duties of this class, employees are regularly required to talk or hear, in person and by telephone; use hands repetitively to finger, handle, feel or operate standard office equipment; and reach with hands and arms. The employee is frequently required to climb or balance and stoop, kneel, crouch or crawl. The employee is frequently required to lift up to 50 pounds unaided or 100 pounds with assistance. Specific vision abilities required by this job include close vision and the ability to adjust focus.

#### **Mental Demands:**

While performing the duties of this class, the incumbent is regularly required to use written and oral communication skills; analyze and solve problems; use basic math; work under deadlines with interruptions; and interact with others encountered in the course of work including District managers, employees, contractors, vendors and dissatisfied/abusive individuals.

### **WORKING ENVIRONMENT**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

The employee works in a shop and field environment where the noise level is usually moderate. The employee works in outdoor weather conditions; extreme heat or cold; wet, humid conditions; in confined spaces; on ladders/scaffolding or in high, precarious places; on uneven or slippery surfaces; near moving mechanical parts, moving equipment, and heavy traffic. The employee is occasionally exposed to loud or prolonged noise and equipment with heavy vibrations. The employee may be at risk of electrical shock.

The employee is required to travel to various campus sites, to respond to emergency situations and to adjust to work schedule changes and requirements to work overtime. Employees may be required to work nights and on weekends.

**EMPLOYEE CERTIFICATION OF JOB DESCRIPTION**

I hereby acknowledge I have read and understand the content of this job description. I have had the opportunity to ask questions and have those questions answered about the general duties and responsibilities of this job. I understand that the job description may be revised from time to time in the future by the Patterson Joint Unified School District Governing Board in consultation with my professional association as needed and where applicable.

I understand and agree nothing in this job description should be construed as a contract of employment. My employment with the Patterson Joint Unified School District is contingent upon execution of a signed contract approved by the board of trustees. Continued employment is subject to my adherence to board policy, state and federal laws, the collective bargaining agreement between my association and the district where applicable, and my performance evaluation.

I further acknowledge that it is my responsibility to notify my supervisor immediately in the event I may need reasonable accommodations to perform the primary functions, general duties and responsibilities, or the physical, mental and social requirements of this job.

\_\_\_\_\_  
*Employee Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Name Printed*