LEAD ELECTRICIAN

DEFINITION

Acts as a lead and participates in the work of a small group of journey-level workers of the electrical trade and other assigned staff engaged in installing, maintaining, modifying, and repairing a variety of electrical systems and equipment related to light, heat, communications, and power at a college.

TYPICAL DUTIES

Schedules and oversees the work of a small group of journey-level workers and other assigned staff engaged in performing installation, maintenance, alteration, and repair work on a variety of electrical systems and equipment such as conduits, meters, panels, control boards, lights, fans, heaters, fire alarms, bell and buzzer systems, field lighting systems, clock systems, telephone systems, switch gear, and wall, floor, and ceiling receptacles.

Determines most efficient work procedures and techniques for assigned staff to ensure timely completion of electrical projects, and makes sure that safety standards and procedures are followed.

Lays out, assembles, installs, tests, maintains, and repairs electrical fixtures and apparatus.

Installs interior and exterior wiring for equipment and appliances; bends conduits, cuts, drills, and channels concrete floors and walls for conduits and related installations or repairs.

Installs wires and cables in conduits.

Installs data cable and security systems.

Installs, tests, maintains and replaces electronic controls for electrical and power apparatus.

Performs electrical work such as rewiring or replacement of lamps on lighting poles at athletic fields, parking lots, and other District facilities.

Performs maintenance on high voltage systems, rated up to 600 volts, when the systems are de-energized.

Safely operates hand and power tools and equipment used in the electrical trade.

Maintains electrical hand and power tools and equipment to ensure their safe and efficient operation.

Attends to trouble calls for emergency repairs to electrical systems and equipment.

Estimates job costs, prepares material lists and job records, and maintains an inventory of supplies and tools for assigned area.

Provides supervisor with technical input on electrical work concerning planned construction and work projects in progress.

Assists in planning and developing modifications to existing electrical systems.

Inspects facilities for maintenance and safety problems related to electrical systems and equipment.

Assists in the inspection of electrical work performed by outside contractors.

Assists in developing job specifications, diagrams, and blueprints related to electrical work.

Provides training to staff assigned to unit.

May schedule and oversee the work of other building trade workers assigned to unit.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A **Lead Electrician** acts as a lead over a small group of journey-level workers of the electrical trade and other assigned staff and performs the more complex work related to the installation, maintenance, and repair of a variety of electrical systems and equipment related to light, heat, communications, and power at a college. Lead responsibilities include guidance and instruction on techniques, methods, and procedures for accomplishing assigned tasks and solving problems. A small group of employees typically consists of at least three people, two of whom must be at the journey-level.

A **General Foreman** plans, coordinates, and supervises the work of skilled journey-level workers of at least three building trades and other staff assigned to work projects at a college, and has job site responsibility for various building trades projects.

An **Electrician** performs skilled journey-level electrical work in the installation, maintenance, alteration, and repair of a variety of electrical systems and equipment related to light, heat, communications, and power at a college.

SUPERVISION

General supervision is received from a General Foreman or facilities management staff. Exercises lead responsibilities over journey-level workers and Maintenance Assistants.

CLASS QUALIFICATIONS

Knowledge of:

- Basic solid state circuitry related to electrical fixtures and apparatus
- The electrical operations of: motor controls, machine shop equipment, traffic control equipment, and electric vehicles
- Current practices, materials, hand and power tools, and equipment used in the electrical trade
- Design, installation, and maintenance of electrical systems and equipment, including fire alarms
- Troubleshooting techniques used in detecting malfunctions of electrical systems and equipment
- Federal, state, and local electrical codes, regulations, administrative orders, and ordinances
- Pertinent safety orders issued by the Division of Industrial Safety and safety practices pertaining to work on up to 600 volts electrical systems
- Basic methods and procedures used in planning and estimating job projects
- Modern commercial and industrial building construction
- Harmful effects of hazardous or toxic materials, and the protection and safeguards required when working with or controlling such materials
- Basic plumbing systems and carpentry
- Basic principles of recordkeeping
- Principles of training
- Capabilities of computer applications, systems, and hardware used in the electrical trade

Skill in:

- Using tools and equipment of the trade

Ability to:

Lay out, assemble, install, test, analyze malfunctions of, and repair electrical fixtures, apparatus, control equipment, wire communications, and light and power systems for buildings
Prepare, read, interpret, and work from wiring diagrams, schematics sketches, drawings, and blueprints
Safely operate tools and machines of the electrical trade
Safely lift heavy tools and materials
Safely work at heights on ladders, scaffolds, or field poles
Safely work under buildings or in restricted spaces
Make accurate cost estimates of material and labor
Provide leadership and technical assistance to others
Train staff in the work of the unit
Work effectively and cooperatively with staff, administrators, faculty members, and contractors
Keep accurate records
Give clear and concise instructions
Effectively utilize computer systems and software applicable to the electrical trade
Learn characteristics of new systems and equipment of the electrical trade and update skills to adapt to changing technology
Learn general and specialized software applications

ENTRANCE QUALIFICATIONS

Education and Experience:

A. Graduation from high school or its equivalent **AND** completion of a recognized apprentice training program of at least four years' duration in the electrical trade **AND** two years of full-time, paid journey-level experience in the electrical trade. Experience in a lead capacity is desirable.

OR

B. Graduation from high school or its equivalent **AND** six years of full-time, paid experience in electrical work under the supervision of a journeyman or crafts supervisor. Two years of the required experience must have been at the journey-level. Experience in a lead capacity is desirable.

Special:

A valid Class "C" California driver's license.
Access to an automobile.

SPECIAL NOTE:

Prior to employment, all successful candidates will be required to pass an asbestos medical examination in compliance with the General Industry Safety Orders, Section 5208, Title 8 of the California Administrative Codes.