

City of San José
CLASS SPECIFICATION

Title: Electrician I/II (3151/3153)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Varies	Senior Electrician/Electrician Supervisor	Non-exempt

CLASS SUMMARY

Under immediate (Electrician I) or general (Electrician II) supervision, performs a variety of work in the installation, maintenance and repair of electrical systems and equipment. Makes new installations, adds to existing installations, and repairs electrical systems in City buildings and infrastructure. Services, repairs, and maintains lighting, power, heating, street lighting, pumps, fire alarms, communications, and traffic control systems. Performs related work as required.

DISTINGUISHING CHARACTERISTICS

The Electrician I/II is the flexibly staffed entry level /journey level class in the Electrician classification series, described as follows:

Electrician I - This is the entry-level class in the Electrician classification series, wherein incumbents receive training and gain experience in order to develop the knowledge, skills and abilities necessary to perform the full range of installation, maintenance, and repair of electrical systems and equipment. Positions at this level are not expected to function with the same amount of knowledge or skill level as positions allocated to the Electrician II level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As experience is gained, assignments become more varied and are performed with greater independence. **Electrician I incumbents must complete training, be appointed, and pass probation as an Electrician II in order to retain employment.**

Electrician II - This is the journey-level class in the Electrician classification series responsible for performing the full range of work in the installation, maintenance and repair of electrical systems and equipment. Incumbents are expected to work independently and exercise judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Senior Electrician in that the latter class performs the most complex work assigned to the series, including serving as a lead worker over assigned technical staff. Electrician I/II is distinguished from Industrial Electrician in that the latter is required to maintain high voltage power lines, their supporting structures, and related equipment as a primary work assignment.

Depending on the work group, assignment will be made to any shift needed for an around-the-clock operation. Incumbents must be available for work on Saturdays, Sundays and holidays.

QUALIFICATIONS

(These qualifications are typically required. An equivalent combination of education and experience sufficient to satisfactorily perform the duties of the job may be substituted.)

Minimum Qualifications

Education and Experience

Electrician I

Completion of high school or equivalent (General Education Development [GED] Test or California Proficiency Certificate) AND completion of a recognized Electrician Apprenticeship program and successful completion of the City of San José Electrician practical exam at level I (achieves a passing score in up to three (3) attempts with a five (5) hour time limit).

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Electrician II

1) Completion of high school or equivalent (General Education Development [GED] Test or California Proficiency Certificate) AND completion of a recognized Electrician Apprenticeship program and successful completion of the City of San José Electrician practical exam at level II (achieves a passing score in up to two (2) attempts with a four (4) hour time limit).

OR

2) Completion of high school or equivalent (General Education Development [GED] Test or California Proficiency Certificate) AND completion of a recognized Electrician Apprenticeship program and one (1) year satisfactory performance as an Electrician I with the City of San José.

Acceptable Substitution

Documented proof of completion of 8,500 hours of both course work and experience in all of the areas covered in the State of California Electrician Apprenticeship Standards may be substituted for completion of a recognized Electrician Apprenticeship program. These areas include residential wiring, commercial and industrial wiring, intercom and signals, controls, underground work, trouble shooting, finishing and fixture hanging, solid state controls, and stock and inventory. Completion of the State of California Electrician Certification exam will be accepted as proof of completion of 8,500 hours of electrical work experience.

Required Licensing (such as driver's license, certifications, etc.)

- Possession of a valid State of California driver's license.

Other Qualifications

(Incumbents may be required to have different combinations of the listed qualifications, or more specific job-related qualifications depending on the position.)

Basic Competencies

(Needed at entry into the job in order to perform the essential duties.)

- Job Expertise - Demonstrates knowledge of and experience with applicable professional/technical principles and practices, including ability to safely perform duties using the applicable codes and standards for electrical systems; Citywide and departmental procedures/policies and federal and state rules and regulations.
- Communication Skills - Effectively conveys information and expresses thoughts and facts clearly, orally and in writing; demonstrates effective use of listening skills and displays openness to other people's ideas and thoughts.
- Computer Skills - Experienced with common business computer applications including but not limited to: MS Outlook, MS Word, MS PowerPoint, MS Access, and MS Excel.
- Teamwork & Interpersonal Skills - Develops effective relationships with co-workers and supervisors by helping others accomplish tasks and using collaboration and conflict resolution skills.
- Flexibility - Makes effective decisions and achieves desired results in the midst of major changes in responsibilities, work processes, timeframes, performance expectations, organizational culture, or work environment.
- Multi-Tasking - Can handle multiple projects and responsibilities simultaneously; has handled a wide variety of assignments in past and/or current position(s).

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- Problem Solving - Approaches a situation or problem by defining the problem or issue; determines the significance of problem; collects information; uses logic and intuition to arrive at decisions or solutions to problems that achieve the desired outcome.
- Reliability - Completes quality work assignments in a timely and efficient manner; fulfills responsibilities and maintains confidentiality as appropriate.

DUTY NO.	TYPICAL CLASS ESSENTIAL DUTIES: (These duties and estimated frequency are a representative sample; position assignments may vary depending on the business needs of the department.) Duties may include, but are not limited to, the following:	FREQUENCY*
1.	Makes new installations, adds to existing installations, and repairs electrical systems in City buildings; reads blueprints and electrical diagrams, and performs diagnostic testing.	Daily/Several Times
2.	Services, prepares, and maintains lighting, power, heating, street lighting, pumps, fire alarms, communications, and traffic control systems.	Daily/Several Times
3.	Completes work order forms, activity logs, requisitions, supply orders, electrical damage reports, and other forms.	Daily
4.	Repairs and replaces defective parts in motors, generators, pumps, regulators, switchboards, controllers, switches, and other fixtures and appliances.	Daily
5.	Tests, locates, diagnoses, and repairs trouble in electronic components, electrical and communications systems, and electrical equipment.	Weekly
6.	Repairs, and replaces damaged electroliers and fire alarm boxes.	Weekly
7.	Maintains high and medium intensity runway, taxiway and ramp lighting.	Weekly
8.	Installs conduits, wires, cables, pull boxes, transformers, switchboards, and switches required in making additions, extensions, or alterations in electrical systems.	Weekly
9.	Maintains, repairs, modifies and replaces remote software monitoring systems including, but not limited to those used in public safety, utilities, video surveillance and card reader systems.	Weekly
10.	Maintains, repairs and modifies life safety systems; Uninterrupted Power Systems, generators and lighting inverters.	Weekly
11.	Replaces defective underground cables on streetlight and traffic signal systems; maintains streetlights, traffic signals and other electrical distribution systems	Intermittent
12.	Repairs and replaces floodlights at tennis courts and sports fields.	Intermittent
13.	Answers emergency calls and is responsible for being part of a on call rotation which responds to emergency calls and performs repairs on electrical equipment in all operational areas.	Intermittent
14.	May supervise apprentices or semi-skilled workers.	Intermittent
15.	Performs other related duties as required.	As Required

*Frequency defined as Daily/Several Times, Daily, Weekly, Intermittent, or As Required

PHYSICAL/ENVIRONMENTAL ELEMENTS

The following is a general statement for the classification. Individual positions may have additional or different physical/environmental elements.

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Possess ability to:

- Move between/within work areas, including but not limited to sitting, standing, and walking on various surfaces, turning, bending, grasping, and making repetitive hand movements;
- Communicate in person and over the telephone or radio;
- Maintain professional demeanor during interactions with staff, customers and the public.

When assigned to an office environment, possess ability to:

- Operate, access, enter, and retrieve data using standard office equipment, including but not limited to a computer or tablet;
- Read printed materials and a computer screen;
- Be exposed to moderate noise levels and controlled temperature conditions.

When assigned to fieldwork, possess ability to:

- Maintain strength, stamina, and mobility to perform medium to heavy physical work;
- Lift, carry, push, and pull materials and objects averaging a weight of 50 pounds, or heavier weights, in all cases with the use of proper equipment;
- Identify problems or hazards, work in confined spaces and around machines, and climb/descend ladders;
- Operate, inspect, and repair varied hand and power tools and construction equipment;
- Operate a motor vehicle and visit various City sites;
- Be exposed to unpredictable working conditions including but not limited to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, hazardous physical substances, fumes, dust, and air contaminants.

CLASSIFICATION HISTORY *Created 2/80, Rev. 4/92, Rev. 10/93, Rev. 4/98, Rev. & Ret. 4/15 (formerly Electrician), Rev. 06/17; s005*