



JOB TITLE:	COMMUNICATIONS ELECTRONICS SUPERVISOR	DIVISION:	BRIDGE
REPORTS TO:	ELECTRICAL SUPERINTENDENT	EEO CATEGORY:	03 - TECHNICIAN
FLSA:	NON-EXEMPT	SAFETY- SENSITIVE:	NO
CLASSIFICATION:	NON-REPRESENTED	LOCATION:	SAN FRANCISCO

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

Position Summary

Under general direction of the Electrical Superintendent, is responsible for the installation, maintenance, testing and repair of District electronic, telecommunication and communications equipment. Performs system design and layout, prepares technical reports, exercises work direction over technicians involved in maintaining complex commercial electronic systems, prepares and maintains parts and equipment inventories, keeps appropriate service records and performs related duties as required.

Essential Responsibilities

- Develops and directs preventive maintenance program for District electronics equipment; prepares maintenance schedules; directs activities of subordinate personnel in order to meet schedules.
- Performs installation, maintenance and repair of complex radio communications and electronics equipment, including mobile two-way radios and base stations, radio control consoles, microwave radios, microwave multiplex equipment, data modems, electronic traffic controls, remote controls, selective signaling devices, traffic management and security video cameras and systems, electronic security equipment, fire alarm panels, etc.
- Installs, maintains and repairs electronic telephone switching equipment, data communications equipment and computer peripheral equipment.
- Designs, installs and maintains the following: District in-house telephone cable system; District in-house fiber optic cable system including terminating and splicing fiber optic cable; and District security equipment including building security alarms, access control and video surveillance.
- Mentors and provides staff development opportunities to assigned personnel.
- Supervises and directs work for the Electrical Department Electronics and Communications Technicians.
- Designs and constructs electronic, electro-mechanical and communication equipment for unique applications when commercial, off the shelf solutions may not be available.
- Calibrates and adjusts equipment to industry standards using state of the art test and measuring instruments including, but not limited to, selective voltmeters, transmission test sets, spectrum analyzers, frequency meters, power meters, signal generators, oscilloscopes, communications service monitor, fiber optic test sets, etc.



- Prepares and updates inventory list of all District electronic equipment; prepares inventory of parts needed for preventive maintenance program, replacements and future installation; submits requisitions to order parts and recommends vendors; checks parts received to verify correctness.
- Checks and repairs District microwave equipment.
- Keeps records of all maintenance and repair actions performed; prepares technical reports to meet FCC requirements.
- Acquires and updates manufactures' specifications on all electronics equipment to increase maintenance and repair efficiency.
- Instructs others and provides technical direction in maintenance, repair and installation of equipment.
- Prepares bid specifications for purchase of new equipment, inspects new equipment and installations for conformance to specifications.
- Coordinates maintenance of District-leased telephone lines with telephone company technicians.
- Isolates electronic system malfunctions; repairs electronic systems.
- Stay abreast of new technology in telecommunications, data communications and 2-way and cellular telephone communications.
- Knows and follows the safety and health rules and safe working practices applicable to his or her job.
- Establishes and maintains effective working relationships with District employees, customers, vendors and all others contacted during the course of work using principles of excellent customer service.
- Performs additional related duties as assigned
- Regular and reliable attendance and performance is required

Required Knowledge, Skills and Abilities

Knowledge of:

- Occupational health and safety rules and working practices applicable to this position.
- Solid state electronic circuits and components.
- Wireless communications technologies including terrestrial microwave and two-way radio. Experience with P25 digital trunking radio systems a plus.
- Analog and digital circuits. Some networking knowledge including familiarity with routers and switches a plus.
- Modern administrative and supervisory principles and techniques.

Skill in or Ability to:

- Using common hand and power tools including drills, hammers, electric saws, etc.
- Operate common test equipment such as analog and digital VOMs, RF and AF frequency counters, volt-ohm meter, ammeter, microwave power meter, calibrators, etc. (see above)
- Operate a four-wheel drive vehicle on steep terrain.
- Operate a boom truck, scissor lift and forklift.
- Organize, coordinate and direct installation and maintenance activities.
- Use Autocad Visio software for drawing schematic diagrams and equipment layout, and design review.
- Communicate and get along well with others.
- Use computer with Microsoft Excel, Word, and Outlook.



Minimum Qualifications

Education and/or Experience:

- Five years of full-time position related electronics experience including two-way radios, microwave equipment and some design experience; or equivalent combination of education and experience.
- Two years of supervisory experience preferred.
- Advanced electronics training from an accredited school or equivalent experience; additional position related experience may be substituted on a year for year basis (a written statement detailing experience must be submitted at time of application).

Required License:

- Must possess and maintain a current, valid California driver's license and satisfactory driving record. No reckless driving and DUI infractions within the last 7 years. No more than 2 moving violations within the last 3 years. Operates District vehicles on a regular basis.
- FCC General Class Radio Telephone License a plus.

Hours of Operation: Subject to 24-hour call back. Must go to all District locations, including Ferry and Bridge towers, piers, mountain tops, etc.

Physical Requirements: Must be available for emergency repair call backs. Must be able to work outside in inclement weather. Must be able to bend and crawl in small areas to install security equipment requiring bending and reaching. Lift up to 50 pounds. Climb on bridge main cables, radio antenna towers and structural steel up to 200 feet. Put arms, hands and fingers into narrow openings. Exposure to exhaust fumes, noise and sharp edges. May encounter reptiles and spiders at remote radio sites including some venomous species.

This position may have a potential for or actual exposure to lead. Pursuant to OSHA regulations, District employees are not exposed to lead at concentrations greater than 10 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air averaged over an 8-hour period.