



JOB TITLE:	SENIOR ELECTRICAL ENGINEER	DIVISION:	DISTRICT – ENGINEERING
REPORTS TO:	DIRECTING CIVIL ENGINEER – ADMIN, BUS & FERRY DESIGN	EEO CATEGORY:	02 - PROFESSIONAL
FLSA:	NON-EXEMPT	SAFETY-SENSITIVE:	YES (Public Safety)
CLASSIFICATION:	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 direction, perform varied professional and electrical engineering work at an advanced level of difficulty in the field and office. Perform assessments of and prepare written reports documenting the existing electrical systems and loads at existing facilities. Work with other engineers and technicians on design of new facilities and rehabilitation/retrofit of existing facilities. May supervise subordinate engineering personnel engaged in design and construction work. May act as resident engineer on major capital improvement projects and as oversight engineer on in-house maintenance and repair projects. Interpret, explain and carry out electrical engineering design, inspection and construction methods and procedures. Responsibilities include regular contact with other professional engineering personnel, as well as contractors and their representatives, and the general public, obtaining and providing technical electrical engineering data and information, preparing, checking and reviewing detailed and complex electrical engineering plans, specifications and related reports. Perform related duties as required.

Essential Responsibilities

- Performs assessments of electrical systems and prepare written reports documenting the capacity and limitations of the systems
- Performs detailed engineering calculations and analysis in connection with electrical design of utility systems for transportation facilities
- Prepares and supervises the preparation of detailed electrical engineering designs, drawings, specifications, cost estimates and quantity estimates for a wide range of electrical construction and maintenance projects
- Works with other in-house and consultant engineering professionals and technicians to develop, prepare and finalize complete sets of construction bid documents for capital improvement and other construction projects
- Reviews consultants submittals and work products to ensure compliance with required scope of work and deliverables
- Reviews contractors' work to ensure compliance with plans and specifications
- Plans, schedules and coordinates detailed phases of engineering work either as part of a major project or for an entire project of smaller scope



- Makes investigations of contractual and construction problems that may arise on construction projects
- Inspects and supervises a wide variety of ordinary and complex construction projects to ensure compliance with contract plans and specifications
- Assists in the preparation of complex contract documents
- Conducts correspondence and prepare technical engineering reports in connection with a wide variety of projects
- Knows and follows the safety and health rules and safe working practices applicable to their job
- Ensures that employees under their supervision follow established safe work practices and obey all safety rules
- Meets and consults with department officials, engineers and contractors on technical engineering matters
- Regular and reliable performance and attendance are required

Required Knowledge, Skills and Abilities

Knowledge of:

- Theories, principles and practices of electrical engineering
- Electrical designs for transportation systems and facilities
- Modern construction methods and inspection procedures
- Current practices and uses of electrical components and materials and the planning of their integration into construction projects

Skill in or Ability to:

- Prepare electrical designs for transportation systems and facilities
- Originate and check design details, estimates, engineering plans and specifications
- Application of engineering theories and practices to practical engineering field and office problems
- Demonstrate effective supervisory skills

Minimum Qualifications

Education and/or Experience:

- Bachelor's degree in Electrical Engineering
- Five years position-related electrical engineering experience, including design, estimate and specification preparation and the inspection of construction work
- One-year supervisory experience is desirable

Required Licenses:

- Registration (P.E. license) as an Electrical Engineer in the state of California for at least 5 years.
- Must possess and maintain a current, valid California Driver's License and a satisfactory driving record.
- Operates District Vehicles on a regular basis.



Physical Requirement: Must inspect construction work on the Golden Gate Bridge, other structures and buildings, climb scaffolds, catwalks and ladders. Carry test, inspection and electrical equipment that may weigh up to 50 pounds.

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.