

JOB DESCRIPTION

Job Title: Railroad Systems Engineer I

FLSA Status: Exempt

Salary Grade: 7

PURPOSE OF POSITION

The Railroad Systems Engineer I will be responsible for working closely with consultants and other staff. Coordinating project design and development, perform design reviews, oversee construction administration and management activities, and provide quality assurance monitoring on railway bridge, track, and related projects constructed under contract.

DISTINGUISHING CHARACTERISTICS

This is the entry level in the Railroad Systems Engineer series. At this level, assignments are generally limited in scope and are performed within a procedural framework established by higher-level employees.

SUPERVISION EXERCISED AND RECEIVED

- Receives supervision from departmental management/supervisory level roles
- No formal supervisory responsibilities

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended to describe the general nature and level of work being performed and are not to be interpreted as an exhaustive list of responsibilities.

- Support the delivery of railroad-related projects involving track and signals, bridges, buildings, drainage and retaining structures, grading, and other right-of-way facilities.
- Calculate construction and maintenance work quantities (perform quantity take-off) from plans and specifications, field survey data, or direct field measurements.
- Prepare estimates of the probable cost of construction and maintenance activities using data from estimating tables, previous bids, production reports, or analysis of crew and equipment.
- Monitor expenditures during design and construction and prepare reports of cost to date for on-going work, projected cost at completion, and anticipated outlays over life of project.
- Observe construction and maintenance activities, perform time and method studies, and make recommendations for process improvement.
- Prepare or check pay estimates for work performed on various contracts using measured work quantities or similar methods.
- Track funds received for projects from grants, deposits, or other revenue, and prepare reports of cost versus revenue, and assist accounting personnel with timely billing on projects.
- Review submittals from contractors for conformance with the requirements of the contract, respond to requests for information, and maintain logs, submittals, requests for information, correspondence, and other contract related documents.
- Develop work plans for construction and maintenance activities using inspection and other measurement and condition data, and prepare schedules for design, construction, and maintenance project using critical path scheduling techniques (CPM).



- Calculate project material requirements, prepare bid packages from standard plans and specifications, prepare purchasing requisitions, track material procurements, and record material installation locations.
- Maintain a culture of safety by participating in activities of safety committees, reviewing work plans for compliance with safe operating practices, making observations of work activities, and testing contractor employees for compliance with railroad rules.
- Prepare plans and specifications for job order contracts and small contract packages using SCRRRA standard plans and specifications and other industry standards.
- Prepare or review designs of temporary structures for construction.
- Prepare or review work plans prepared by others for construction work involving railroad track and related facilities.
- Coordinate work of consultants and internal agency departments to maintain project scope, schedule, and budgets.
- Perform construction surveying and layout, and make measurements in the field using standard and specialized engineering equipment.
- Prepare correspondence to contractors, consultants, agencies, and other railroads to address engineering and construction topics.
- The responsibilities outlined above are representative of the role but not exhaustive. Additional duties may be assigned as needed, and reasonable accommodations will be provided to qualified individuals with disabilities in accordance with applicable laws.

MINIMUM QUALIFICATIONS

Education and Experience

- Bachelor's degree in Engineering or a related field.
- A minimum of four (4) years of work experience in the supervision of the construction of engineering structures at the field engineer or project engineer level.
- A combination of training, with a minimum of an Associate Degree and/or experience that provides the required knowledge, skills, and abilities, may be considered when determining minimum qualifications. Advanced relevant coursework may also substitute for a portion of the required experience.
- A valid Class "C" California driver's license with a satisfactory driving record of no more than two moving violations and no DUIs within the last three years

Preferred Qualifications

- Degree in civil or mechanical engineering

Knowledge, Skills, and Abilities

Knowledge of:

- Common forms and terms for construction contracts such as unit price, lump-sum, and design-build
- Principles, methods, or tools for developing, scheduling, coordinating, and tracking projects and resources, including monitoring and inspecting work, and contractor performance
- Methods and equipment used in performing engineering surveys and be able to perform engineering

Skilled In:

- Use of Microsoft Office
- CAD software



- Primavera P6
- Verbal and written communication
- Time management and organization

Ability to:

- Learn Primavera P6
- Multitask and manage multiple projects
- Work on and around railroad right-of-way and construction sites
- Work irregular hours, nights, and weekends when necessary

PHYSICAL REQUIREMENTS

- Transition between a stationary position at a desk or work location and move about Metrolink facilities or other work site locations
- Operate tools to perform the duties of the position, such as computers, office equipment, and work-related machinery
- Transport equipment or boxes up to 25 lbs
- Exchange ideas by means of communication
- Visual acuity to detect, identify, and observe employees or train movement and any barriers to movement when working on or near railroad tracks
- Hear and perceive the nature of sounds when working on or near railroad tracks
- Balance, ascend/descend, climb, kneel, stoop, bend, crouch, or crawl within assigned working conditions and or locations

Working Conditions

Position requires work in a normal office environment with little exposure to excessive noise, dust, or temperature. Work may also be conducted in outdoor environments, at construction sites, Railroad Track and Right-of-Way environments, and warehouse environments, with possible exposure to individuals who are hostile or irate, moving mechanical parts, and loud noises (85+ decibels, such as heavy trucks, construction, etc.)

Southern California Regional Rail Authority is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the Authority will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

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