



**Title: Director, Systems Design**

FLSA Status: Exempt

**BRIEF DESCRIPTION:**

The purpose of this position is to direct the Systems Design Department with work primarily related to light rail engineering systems. This is accomplished by supervising and providing technical and procedural guidance to staff, coordinating and interfacing with various outside agencies, preparing requests for proposals, reviewing and directing staff and consultants in preparation of plans and specifications, and developing and reviewing technical reports and recommending changes to existing plans and design criteria.

**ESSENTIAL FUNCTIONS:**

Note: This information is intended to be descriptive of the key responsibilities of the position. The list of essential functions below does not identify all duties performed by any single incumbent in this position. Additionally, please be aware of the legend below when referring to the physical demands of each essential function.

<b>(S) Sedentary</b> Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	<b>(L) Light</b> Exerting up to 20 lbs. occasionally; 10 lbs. frequently; or negligible amounts constantly; OR requires walking or standing to a significant degree.	<b>(M) Medium</b> Exerting 20-50 lbs. occasionally; 10-25 lbs. frequently; or up to 10 lbs. constantly.	<b>(H) Heavy</b> Exerting 50-100 lbs. occasionally; 10-25 lbs. frequently; or up to 10-20 lbs. constantly.	<b>(V) Very Heavy</b> Exerting over 100 lbs. occasionally; 50-100 lbs. frequently; or up to 20-50 lbs. constantly.
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#	Code	Essential Functions	% of Time
1	S	Implements capital projects by developing work plans, budgets, staffing plans, and schedules, obtaining consultant services, managing and reviewing performance of engineering staff and consultants, providing technical support and guidance, providing direct coordination with public utilities, city, county, state and private parties, reviewing documents and providing technical feedback, preparing CPUC applications and required applications for encroachment, administering contract documents, and making presentations.	50%
2	S	Develops designs by supervising conceptual plans for proposed light rail extensions and facility improvements, developing cost for projects, evaluating impacts of proposed projects and determining feasibility, providing direct coordination and interfacing with outside agencies, providing recommendations, making presentations, and participating in technical committees and panels.	20%
3	S	Provides technical support related to vehicles, mechanical systems, traction power, overhead catenary system (OCS), and signaling systems, working with various internal department staff to provide technical support related to bus fueling, fiber, electrical and mechanical systems, and the construction/installation of traction power, OCS, and signaling improvements.	15%
4	S	Represents the District by attending and/or making presentations at	5%



		conferences/seminars, organizing and/or leading meetings or discussions on District issues, providing District feedback on development projects, and meeting with outside agencies to advocate for planned projects or projects under development.	
5	S	Performs administrative duties by providing input to the development of the division's annual budget, participating in divisional management team meetings, advising District management staff of issues affecting execution/completion of capital projects, providing input to the performance evaluations of project team members, and working with staff to ensure capital projects accomplish needs.	10%

**JOB REQUIREMENTS:**

-Description of Minimum Job Requirements-	
Formal Education	Work requires broad knowledge in a general professional or technical field. Knowledge is normally acquired through four (4) years of an accredited college or university resulting in a Bachelor's degree or equivalent in Electrical, Mechanical or Industrial Engineering.  Substitution of experience for the required education is not accepted.
Experience	A minimum of seven (7) years of experience performing professional engineering work in design, estimating, construction, and contract administration, with a strong emphasis on design and construction of rail transit systems and facilities, including three (3) years of supervisory experience.
Supervision	Work involves problem solving and mediating highly conflicting, unexpected and unusual problems involving multiple groups. Applies broad management responsibility for a large program or set of related functions. Provides direct and indirect supervision to lower level personnel.
Human Collaboration Skills	Recommendations regarding policy development and implementation are made and/or recommended. Evaluates customer satisfaction, develops cooperative associations, and utilizes resources to continuously improve customer satisfaction.
Freedom to Act	The employee normally performs the duty according to his or her own judgment, requesting supervisory assistance only when necessary. Special projects are managed with little oversight and assignments may be reviewed upon completion. Performance reviewed periodically.
Technical Skills	Advanced: Work requires advanced skills and knowledge in approaches and systems, which affect the design and implementation of major programs and/or processes organization-wide. Independent judgment and decision-making abilities are necessary to apply technical skills effectively.



Budget Responsibility	Position has major fiscal responsibility. Is responsible for department-wide financial decisions. Assures that appropriate linkages exist between budget requests and departmental goals and objectives. Monitors budget plan, and adjusts as necessary.
Reading	Advanced - Ability to read literature, books, reviews, scientific or technical journals, abstracts, financial reports, and/or legal documents. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Math	Advanced - Ability to apply fundamental concepts of theories, work with advanced mathematical operations methods, and functions of real and complex variables. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Writing	Advanced - Ability to write editorials, journals, speeches, manuals, or critiques. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Certification & Other Requirements	Professional Engineer license in the State of California is required.

<b>KNOWLEDGE</b>
<ul style="list-style-type: none"> <li>• Project management principles, practices, methods, and application.</li> <li>• Construction management principles, practices, methods, and application.</li> <li>• Methods of organization, directing, and managing project team.</li> <li>• Principles of supervision, training, employee development, and effective discipline.</li> <li>• Project scheduling, cost estimating, project control, and document control processes.</li> <li>• Contract management principles.</li> <li>• State, federal, and local funding programs, including application requirements.</li> <li>• Forecasting and trend analysis methodology required for updates to project schedules and estimates.</li> <li>• Construction of civil, track, systems, and structures, including codes and safety regulations.</li> <li>• Quality assurance and quality control methods and practices.</li> <li>• Laws, ordinances, rules, and regulations related to transportation and standards for public works, transit, and/or highway construction.</li> <li>• Public utility relocation requirements and coordination.</li> <li>• Safety certification requirements for opening new facilities/extensions for service.</li> <li>• Electrical, mechanical, and industrial engineering practices.</li> <li>• California Public Utilities Commission General Orders, NEC codes, FTA guidelines, and FRA rules and regulations Specification writing and construction plan development.</li> <li>• Specification writing and construction plan development.</li> </ul>



<b>SKILLS</b>
<ul style="list-style-type: none"> <li>• Advanced word processing, spreadsheet, presentation and database software</li> <li>• Specialized software related to functional area</li> </ul>

<b>ABILITIES</b>
<ul style="list-style-type: none"> <li>• Learn the District’s organizational structure and objectives.</li> <li>• Learn management procedures, policies, and agreements of the District.</li> <li>• Learn transit operations requirements related to rail.</li> <li>• Transit operations requirements related to rail.</li> <li>• Communicate effectively, both orally and in writing.</li> <li>• Prepare and make presentations.</li> <li>• Prepare and conduct effective meetings.</li> <li>• Plan, organize, and direct the work of others.</li> <li>• Prepare monthly status reports addressing project scope, schedule and cost.</li> <li>• Lead a project team of diverse individuals through successful implementation of a project.</li> <li>• Develop, monitor, and manage a budget.</li> <li>• Mentor and motivate staff.</li> <li>• Read, interpret, and modify plans, specifications, and contract documents.</li> <li>• Establish and maintain cooperative working relationships with representatives of federal, state, regional, and local agencies, private contractors, the public, and other stakeholders.</li> <li>• Negotiate contract agreements with other agencies, utilities, consultants, and contractors.</li> <li>• Review and prepare correspondence and complete reports.</li> <li>• Effectively represent District before the Board of Directors, city councils, other federal, state, local, and regional agencies, boards and commissions, and before local citizens in public meetings and hearings.</li> <li>• Select, supervise, train, motivate, assign, evaluate, counsel, and discipline staff.</li> <li>• Define problem areas and evaluate, recommend, and implement alternative solutions to complex issues and problems.</li> <li>• Establish cooperative relations with staff, contractors, consultants, technical committees, community and industry organizations, representatives of federal, state, regional, and city agencies, and the general public.</li> <li>• Design, check, and sign drawings and specifications.</li> <li>• Understand, interpret, and analyze complex legal and technical information, including state and federal laws and regulations.</li> </ul>



**OVERALL PHYSICAL STRENGTH DEMANDS:**

-Physical strength for this position is indicated below with "X"-

Sedentary	Light	Medium	Heavy	Very Heavy
<b>X</b>				
Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree.	Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly.	Exerting 50-100 lbs. occasionally, 10-25 lbs. frequently, or up to 10-20 lbs. constantly.	Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

**PHYSICAL DEMANDS:**

C	F	O	R	N
<b>Continuously</b> 2/3 or more of the time.	<b>Frequently</b> From 1/3 to 2/3 of the time.	<b>Occasionally</b> Up to 1/3 of the time.	<b>Rarely</b> Less than 1 hour per week.	<b>Never</b> Never occurs.

Note: This is intended as a description of the way the job is currently performed. It does not address the potential for accommodation.

-Physical Demand-	-Frequency-	-Brief Description-
Standing	O	Making presentations; observing work site; observing work duties; communicating with co-workers
Sitting	C	Desk work; meetings; driving
Walking	O	To other departments/offices; around work site
Lifting	R	Supplies; files, equipment
Carrying	R	Supplies; files, equipment
Pushing/Pulling	R	File drawers, Tables and chairs
Reaching	R	For supplies; for files
Handling	O	Paperwork
Fine Dexterity	F	Computer keyboard; telephone keypad
Kneeling	R	Filing in lower drawers; retrieving items from lower shelves/ground
Crouching	R	Filing in lower drawers; retrieving items from lower shelves/ground
Crawling	N	
Bending	R	Filing in lower drawers; retrieving items from lower shelves/ground
Twisting	O	From computer to telephone, Getting inside vehicle
Climbing	R	Ladders, Stairs
Balancing	R	Ladders
Vision	C	Reading; computer screen; driving; observing work site
Hearing	F	Communicating via telephone/radio; to co-workers/public
Talking	O	Communicating via telephone/radio; to co-workers/public
Foot Controls	O	Driving
Other (specified if applicable)	N	

**MACHINES, TOOLS, EQUIPMENT, SOFTWARE, AND HARDWARE:**

Telephone, fax machine, copier, vehicle, radio, computer and associated hardware and software.



**ENVIRONMENTAL FACTORS:**

<b>C</b> Continuously	<b>F</b> Frequently	<b>O</b> Occasionally	<b>R</b> Rarely	<b>N</b> Never
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<b>D</b> Daily	<b>W</b> Several Times Per Week	<b>M</b> Several Times Per Month	<b>S</b> Seasonally	<b>N</b> Never
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-Health and Safety Factors-	
Mechanical Hazards	R
Chemical Hazards	N
Electrical Hazards	R
Fire Hazards	N
Explosives	N
Communicable Diseases	N
Physical Danger or Abuse	N
Other (see 1 below)	N

-Environmental Factors-	
Respiratory Hazards	N
Extreme Temperatures	S
Noise and Vibration	N
Wetness/Humidity	N
Physical Hazards	N

(1) N/A

**PROTECTIVE EQUIPMENT REQUIRED:**

Hard hat, safety glasses, and steel-toed shoes

**NON-PHYSICAL DEMANDS:**

<b>F</b> Frequently From 1/3 to 2/3 of the time	<b>O</b> Occasionally Up to 1/3 of the time	<b>R</b> Rarely Less than 1 hour per week	<b>N</b> Never Never occurs
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-Description of Non-Physical Demands-	-Frequency-
Time Pressure	F
Emergency Situation	R
Frequent Change of Tasks	F
Irregular Work Schedule/Overtime	O
Performing Multiple Tasks Simultaneously	F
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	R
Noisy/Distracting Environment	O
Other (see 2 below)	N

(2) N/A

**PRIMARY WORK LOCATION:**

Office Environment	X	Vehicle	
Warehouse		Outdoors	
Shop		Other (see 3 below)	
Recreation/Neighborhood Center			

(3)N/A

The above statements are intended to describe the general nature and level of work being performed by individuals assigned to this position. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required. This description is subject to modification as the needs and requirements of the position change.