



**Title: Associate Engineer**

FLSA Status: Exempt

**BRIEF DESCRIPTION:**

The purpose of this position is to provide engineering services in support of bus and light rail operations. This is accomplished by acting as project engineer on engineering projects, preparing and reviewing engineering drawings, specifications, calculations, and design products for transit projects.

**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	Prepares engineering designs by reviewing and preparing designs, drawings, and design specifications to ensure compliance with codes, standards, and project requirements, develops effective project plans, analyzing, diagnosing, and resolving engineering problems encountered in projects, performing field verifications, and using engineering design tools.	40%
2	S	Prepares technical contract specifications and cost estimates by reviewing standard technical contract specifications, applying local, state, and federal construction codes and engineering standards, and develops programs and procedures for quality assurance and quality control, analyzing cost and quantity estimates for construction projects and using software tools.	30%
3	S	Provides engineering support to the District's operations and construction functions by coordinating with various governmental agencies, reviewing technical submittals from contractors, providing information and clarifications to contractors, attending construction meetings, conducting field inspections related to construction, establishing and maintaining cooperative working relationships with those contacted in the course of a project, and providing technical support, troubleshooting, and problem-solving for existing facilities.	30%



**JOB REQUIREMENTS:**

-Description of Minimum Job Requirements-	
Formal Education	<p>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 Engineering.</p> <p>Additional directly related experience beyond the minimum requirement may substitute for the required education based on the ratio of one and a half (1.5) years of experience for each (1) year of education.</p>
Experience	A minimum of three (3) years of experience performing engineering related tasks.
Supervision	Work requires functioning as a lead worker performing essentially the same work as those directed, and includes overseeing work quality, training, instructing, and scheduling work.
Human Collaboration Skills	Decisions regarding implementation of policies may be made. Contact may involve support of controversial positions or the negotiation of sensitive issues or important presentations. Contacts may involve stressful, negative interactions with the public requiring high levels of tact and the ability to respond to aggressive interpersonal interactions.
Freedom to Act	The employee normally performs the job by following established standard operating procedures and/or policies. There is a choice of the appropriate procedure or policy to apply to duties. 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 limited fiscal responsibility. May assist in the collection of data in support of recommendation for departmental budget allocations. May monitor division or program/project level budget and expenditures.
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

**KNOWLEDGE**

- Construction materials, methods, and processes.
- Design submittals and proof of design and acceptance testing to validate safety certification.
- Engineering principles, theory, and practices relating to design, specification writing, and estimating.
- Project planning and management principles, theory, and practices.
- Public outreach principles, theory, and practices.
- Teamwork principles, theory and practices.
- Project controls functions.
- Responsibilities of design team members in construction projects.

**SKILLS**

- Advanced word processing, spreadsheet, presentation and database software.
- Specialized software related to functional area.

**ABILITIES**

- Learn civil and systems engineering related to track, OCS, TPSS, train, and bus systems.
- Learn the District’s policies, procedures, plans, programs, and performance criteria.
- Represent the District in meetings with other governmental agencies and the public.
- Coordinate District projects with utilities, governmental agencies and private property owners as required.
- Develop clear, complete, and accurate engineering specifications, drawings, and estimates within mutually established timelines.
- Understand light rail transit systems, facilities, and operations.
- Discuss and identify project problems, analyze situations, recommend solutions, and evaluate outcomes.
- Communicate effectively, both orally and in writing, with various levels of employees, public officials, and outside representatives at all skill levels, position levels, and backgrounds.
- Interpret, review, and approve design submittals, including drawings, descriptions, and schematics.
- Make field and site inspections for problem investigation.
- Monitor and direct consultant/contractor performance to meet project milestones and maintain high quality.
- Manage consultant contracts; including review of invoices for accuracy of work performed vs. billed.
- Draft Issue Papers for presentation to the Board of Directors and write technical reports.



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- Establish and maintain cooperative working relationships.



**OVERALL PHYSICAL STRENGTH DEMANDS:**

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

Sedentary	X	Light	Medium	Heavy	Very Heavy
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
Continuously 2/3 or more of the time.	Frequently From 1/3 to 2/3 of the time.	Occasionally Up to 1/3 of the time.	Rarely Less than 1 hour per week.	Never 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 worksite; observing work duties; communicating with co-workers;
Sitting	C	Desk work; meetings; driving
Walking	O	To other departments/offices; around worksite
Lifting	R	Supplies; equipment; files
Carrying	R	Supplies; equipment; files
Pushing/Pulling	R	File drawers; equipment
Reaching	R	For supplies; for files
Handling	R	Paperwork
Fine Dexterity	F	Computer keyboard; telephone pad; calculator; calibrating equipment
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	R	Under equipment
Bending	R	Filing in lower drawers; retrieving items from lower shelves/ground
Twisting	O	From computer to telephone; getting inside vehicle
Climbing	R	Stairs; ladders; onto equipment
Balancing	R	On ladders; on equipment
Vision	C	Reading; driving; observing worksite; computer screen
Hearing	F	Listening to equipment; communicating via telephone/radio to public/co-workers
Talking	O	Communicating via telephone/radio to public/co-workers
Foot Controls	O	Driving
Other (specified if applicable)		None noted.

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

Telephone, fax machine, calculator, copier, vehicle, Auto CAD, 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	R
Extreme Temperatures	S
Noise and Vibration	R
Wetness/Humidity	S
Physical Hazards	R

(1) N/A

**PROTECTIVE EQUIPMENT REQUIRED:** None

**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	O
Emergency Situation	R
Frequent Change of Tasks	O
Irregular Work Schedule/Overtime	R
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/A

(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.