



**Title: Senior Engineering Analyst**

FLSA Status: Exempt

**BRIEF DESCRIPTION:**

The purpose of this position is to provide advanced journey level analytical and data reporting support for the District’s capital and maintenance programs, including the most complex project and engineering analysis, through scope, cost and schedule management. This is accomplished by developing project schedules and cash flow, reviewing project cost estimates, developing and updating project status reports, developing project work breakdown structure and allocating funding based upon direction from project manager, coordinating project funding updates and budget transfers with Finance staff, performing complex project analysis, assisting project and contract managers in tracking expenditures against approved budget, preparing issue papers and data reporting. Other duties include providing supervision to subordinate staff and informal direction to administrative staff assisting with projects, coordinating interdepartmental projects, participating in project construction meetings, providing project meeting minutes with follow-up action items, observing project field construction progress, tracking contract payments, change orders, requests for information and submittal status.

**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	Develop and review complex project schedules, project work breakdown structures and complex project cash flow and management plans; review project cost estimates; manage project budget information and expenditures; review project cost estimates; coordinate project funding updates and budget transfers; develop project and document control procedures, project management plans and reports for capital projects; develop work breakdown structure for projects; establish project cost and schedule baselines; monitor and track status against the baselines; develop scope of services for procurement of professional consultant services; and assist with updating the Capital Improvement Plan. Perform other related scope, cost and schedule management duties as assigned.	60%
2	S	Manage consultant contracts; evaluate submitted proposals; attend construction and project meetings; and make field observations to track construction progress, as necessary. Perform other related	15%



		construction support duties as assigned.	
3	S	Perform complex analysis and reporting on project data; develop, analyze and update complex project reports detailing status, cost, schedule and forecast; assist in the development of department and division budgets; and develop complex spreadsheets and databases to track project information. Perform other related project data analysis and reporting duties as assigned.	15%
4	S	Prepare and write complex technical reports, issue papers and Requests for Proposals/Qualifications; attend RT Board meetings as required, supervise subordinate Engineering Analyst I/II staff; write, conduct and administer performance evaluations and associated corrective action/performance requirements; and provide informal direction to administrative staff assisting with projects. Perform other related administrative and supervisory duties as assigned.	10%



**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, Business, Construction Management, Business Administration, Public Administration or a closely related field.</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 four (4) years of experience performing complex cost and schedule support and associated data analysis for design and construction projects. Experience in transportation or transit projects is preferred.
Supervision	Work requires supervising and monitoring performance for a regular group of employees or department including providing input on hiring/disciplinary actions and work objectives/ effectiveness, performance evaluations, and realigning work as needed. A first line supervisor typically performs these functions.
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 is reviewed periodically.
Technical Skills	Skilled: Work requires a comprehensive, practical knowledge of a technical field with use of analytical judgment and decision-making abilities appropriate to the work environment of the organization.
Budget Responsibility	Position has moderate fiscal responsibility. May be responsible for the billing, collection and/or accounting of funds. May be responsible for the handling and balancing of cash.
Reading	Advanced: Ability to read literature, books, reviews, scientific or technical journals, abstracts, financial reports and/or legal documents. Ordinarily, such education is obtained 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 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 high school up to college. However, it may be obtained from experience and self-study.
Certification & Other Requirements:

<b>KNOWLEDGE</b>
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| <ul style="list-style-type: none"> <li>• Advanced statistical analysis.</li> <li>• Methods and techniques of tracking, recording and presenting statistical data.</li> <li>• English grammar, punctuation, spelling and usage.</li> <li>• Principles and practices of contract administration.</li> <li>• Project cost and schedule development best practices.</li> <li>• Funding allocation processes.</li> <li>• Federal, State and local agency funding application requirements.</li> <li>• Current/local costs for estimating labor, materials and equipment.</li> <li>• Processes involved in the completion of environmental studies, design, right of way acquisition, construction and construction management.</li> <li>• Federal contracting requirements and cost accounting standards.</li> <li>• Project management and control principles and systems.</li> <li>• Project metrics to develop cost and resource loaded baseline schedules.</li> <li>• Project scheduling practices and principles.</li> <li>• Standardized project reports to monitor schedule progress, expenditures, variances and exceptions.</li> <li>• Project life cycle of conceptualization, planning, execution, and termination.</li> <li>• Construction practices and reporting requirements.</li> <li>• Project budget allocation and budget release processes.</li> <li>• Project status reporting including cost and schedule analysis.</li> <li>• Write reports and business correspondence.</li> </ul> |
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<b>SKILLS</b>
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| <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> |
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<b>ABILITIES</b>
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| <ul style="list-style-type: none"> <li>• Prioritize and deal with conflicting workload requirements.</li> <li>• Learn Enterprise Resource Planning software, DataWarehouse, SAP project system and related modules.</li> <li>• Effectively present information and respond to questions from groups, managers, customers and the general public.</li> <li>• Resolve budget differences between Finance and program control data.</li> <li>• Ensure timely funding and budget transfers.</li> <li>• Work with Division staff to review and update project schedules.</li> </ul> |
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- Ensure timely creation of purchase requisitions and purchase orders.
- Work with Division staff to review and update project cost estimates.
- Manage consultant contracts
- Ensure that proper codes are used consistently
- Learn Division and District business practices and procedures.
- Learn District policies, procedures and practices.
- Deal with difficult people and situations.
- Organize information clearly and precisely.
- Communicate clearly and effectively, both orally and in writing, with internal and external contacts.
- Interact professionally with District employees and outside agency representatives.



**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
Carrying	R	Supplies; files
Pushing/Pulling	R	File drawers; tables and chairs
Reaching	R	For supplies; for files
Handling	O	Paperwork
Fine Dexterity	C	Computer keyboard; telephone keypad; calculator
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	R	From computer to telephone; getting inside vehicle
Climbing	R	Stairs
Balancing	N	
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	R	Driving
Other (specified if applicable)		None

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

Telephone, copier, fax machine, calculator, vehicle, 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	N
Chemical Hazards	N
Electrical Hazards	N
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	N
Noise and Vibration	N
Wetness/Humidity	N
Physical Hazards	N

(1) N/A

**PROTECTIVE EQUIPMENT REQUIRED:**

Safety shoes, protective eyewear, safety vest, hard hat only if performing occasional field observations.

**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	F
Irregular Work Schedule/Overtime	R
Performing Multiple Tasks Simultaneously	F
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	O
Noisy/Distracting Environment	R
Other (see 2 below)	

(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.