



Title: Engineering Technician

FLSA Status: Non-Exempt

BRIEF DESCRIPTION:

The purpose of this position is to provide drafting and technical support services to the District’s Engineering and Construction Division. This is accomplished by performing drafting work, assisting engineers and architects to gather field data, assisting with field surveys, and producing graphics for public presentation.

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.

(S) Sedentary Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	(L) Light Exerting up to 20 lbs. occasionally; 10 lbs. frequently; or negligible amounts constantly; OR requires walking or standing to a significant degree.	(M) Medium Exerting 20-50 lbs. occasionally; 10-25 lbs. frequently; or up to 10 lbs. constantly.	(H) Heavy Exerting 50-100 lbs. occasionally; 10-25 lbs. frequently; or up to 10-20 lbs. constantly.	(V) Very Heavy 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	Completes drafting and design functions for the preparation of contract drawings, creating new or modify existing drawings using AutoCAD, assisting engineers and architects in mathematical calculations, incorporating accurate electronic reference drawings and digital image files, embedding spreadsheets into AutoCAD drawing files, and preparing presentation graphics and/or exhibits from verbal instruction or markups.	75 %
2	S	Tracks and maintains the drawing files by creating, maintaining, and archiving current electronic and hard copy drawings and reference files, creating and maintaining a document control systems for drawings and drawing files, and coordinating, monitoring, and reproducing electronic and hard copy information for all engineering drawing requests.	15 %
3	S	Assist with project utility coordination through notification to utilities and organization of utility maps needed to identify potential utility conflicts, using horizontal level and other measurement tools for surveying to verify object locations in proposed construction fields, and transcribing into the AutoCAD software survey information to be used in construction drawings.	10 %



JOB REQUIREMENTS:

-Description of Minimum Job Requirements-	
Formal Education	<p>Work requires knowledge of a specific vocational, administrative, or technical nature which may be obtained with a two (2) year associate's degree, diploma or equivalent from an accredited college, technical, business, vocational, or correspondence school in Engineering, Construction Technology or a closely related field. Appropriate certification may be awarded upon satisfactory completion of advanced study or training.</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 one (1) year of experience in an engineering capacity using computer aided design and graphics software. Field survey experience is preferred.
Supervision	Job has no responsibility for the direction or supervision of others.
Human Collaboration Skills	Work may require providing advice to others outside direct reporting relationships on specific problems or general policies. Contacts may require the consideration of different points of view to reach agreement. Elements of persuasion may be necessary to gain cooperation and acceptance of ideas.
Freedom to Act	The employee normally performs the duty assignment after receiving general instructions as to methods, procedures, and desired end results. There is some opportunity for discretion when making selections among a few, easily identifiable choices. The assignment is usually reviewed upon completion.
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 no fiscal responsibility.
Reading	Intermediate - Ability to read papers, periodicals, journals, manuals, dictionaries, thesauruses, and encyclopedias. Ordinarily, such education is obtained in high school up to college. However, it may be obtained from experience and self-study.
Math	Intermediate - Ability to deal with system of real numbers; practical application of fractions, percentages, ratios/proportions and measurement. Ordinarily, such education is obtained in high school up to college. However, it may be obtained from experience and self-study.
Writing	Intermediate - Ability to write reports, prepare business letters, expositions, and summaries with proper format, punctuation, spelling, and grammar, using all parts of speech. Ordinarily, such education is obtained in high school up to college. However, it may be obtained from



experience and self-study.
Certification & Other Requirements

KNOWLEDGE
<ul style="list-style-type: none"> • Civil, electrical, and mechanical engineering and architectural design drafting practices. • Drafting terminology and application of reproduction techniques. • Math through trigonometry. • Different image and drawing formats. • Graphic-type software, including setup. • Computers, printers, and plotters in reproducing graphics. • Acceptable graphic layout. • Different methods of field measurement to determine exact location. • Basic surveying equipment use and procedures. • Electronic document control (create, delete, storage and retrieval, archive to CD, object and hyper linking). • Relationships between various engineering disciplines. • Print reproduction from electronic files, microfiche, and hardcopy via plotter, printer, blueprint machine, copier, and scanner. • Legal description and appraisal plat format. • APN books and numbers.

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

ABILITIES
<ul style="list-style-type: none"> • Coordinate and plan work in a fast paced, constantly changing environment. • Locate and retrieve drawings and documents in electronic and manual systems. • Set up and maintain drafting standards. • Extract, plot, and file drawing files produced by consultants. • Maintain overall consistent drafting standards. • Establish good quality assurance practices. • Print and plot from different operating systems within the department and maintain consistency and accuracy. • Provide AutoCAD support. • Interpret and plot utility information. • Interpret and understand engineer notes and comments.



- Retain the latest drafting software updates.
- Learn PUC guidelines, layout, and standards (MUTCD).
- Learn Railway and LRT track safety.
- Learn District policies and procedures.
- Communicate effectively, both orally and in writing.
- 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	R	Observing work site; observing work duties; communicating with co-workers
Sitting	C	Desk work; meetings; driving
Walking	R	To other departments/offices; around work site
Lifting	R	Supplies; equipment; files
Carrying	R	Supplies; equipment; files
Pushing/Pulling	R	File drawers
Reaching	R	For supplies; for files
Handling	O	Paperwork
Fine Dexterity	C	Computer keyboard; 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	N	
Bending	R	Filing in lower drawers; retrieving items from lower shelves/ground
Twisting	R	Getting inside vehicle
Climbing	R	Stairs, step stool
Balancing	R	Step stool
Vision	C	Reading; computer screen; driving
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, fax machine, copier, large format plotter, large format scanner, vehicle, computer and associated hardware and software.



ENVIRONMENTAL FACTORS:

C Continuously	F Frequently	O Occasionally	R Rarely	N Never
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D Daily	W Several Times Per Week	M Several Times Per Month	S Seasonally	N 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	S
Noise and Vibration	N
Wetness/Humidity	N
Physical Hazards	N

(1) N/A

PROTECTIVE EQUIPMENT REQUIRED:

Reflective safety vest, hard hat, safety eyewear, and safety shoes.

NON-PHYSICAL DEMANDS:

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