

CSC Adopted: October 2001, CSC Revised: February 2015

Class Title: **Engineering Technician II**

BRIEF DESCRIPTION OF THE CLASSIFICATION:

Prepares surveys and plats. Performs inspections and manages projects. Produces and updates digital contract and construction drawings, plans and specifications. Provides assistance to the public, contractors, utility companies and consultants. Maintains street inventory, records, and logs. Reviews construction plans. Prepares maps using GIS. Performs administrative functions and related duties as required.

ESSENTIAL FUNCTIONS:

This information is intended to be descriptive of the key responsibilities of the classification. The following examples do not identify all duties performed by any single incumbent. Specific requirements of individual positions are described in the Job Description.

Physical Strength Code		ESSENTIAL FUNCTIONS
1	S	Performs administrative functions by maintaining files and records, recording and maintaining digital drawings, creating and updating intersection sheets, creating records from completed construction drawings, assisting in the resolution of low level computer errors, posting public notices, bid documents, monthly reports and other related information on the departmental web page, preparing graphics for public notification of utility projects, mail inserts, newsletters, brochures and flyers, assisting and performing field investigations, monitoring, ordering and stocking supplies, charting and projecting cost estimates for supplies and services, filling out work orders, job sheets and material orders, generating correspondence, disseminating and distributing information, performing analysis to ensure the validity of information and coordinating with other departments and agencies.
2	S	Provides assistance by furnishing maps, plans, underground utility locations and other information to the public, contractors, utility companies and consultants, storing, retrieving and maintaining digital and hard copy files, assisting with tap fees and water meter costs, assessing and establishing new files, designing and creating art work or graphic presentations, providing technical support, advice and assistance, providing furniture layouts and picking fixtures, finishes and furniture to outfit spaces.
3	S	Prepares surveys and subdivision plats by using computer aided design systems, identifying project requirements, compiling information, researching land records and existing plats, interpreting research material in conjunction with field data, gathering, interpreting and condensing field information, calculating data for verification and drafting in preparation of drawings.
4	S	Performs inspections by investigating sites, compiling information, coordinating with and informing the public and contractors, reviewing site plans for compliance and reviewing, reading, processing and interpreting blue prints, construction grids, maps and utility and smart traffic data communications.

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Physical Strength Code		ESSENTIAL FUNCTIONS
5	S	Maintains street inventory for VDOT reimbursement by researching streets, tracking street closures and new streets, measuring streets, gathering recorded data, monitoring current legislation, preparing maps of street additions or deletions, preparing forms, preparing council resolutions, and meeting with VDOT representatives. Prepares maps using GIS of various projects and proposed projects., for Council presentations, Civic League meetings, and analysis. Performs other duties such as taking field measurements, drafting, providing public assistance and information, maintaining records and logs, and performing weather recovery by assisting in the removal operations for ice, snow and storm debris.
6	S	Produces digital contract or construction drawings, plans and specifications via AutoCAD and associative engineering programs by reviewing engineer's design for construction, gathering and compiling data, researching files, performing field measurements, interviewing clients to determine requirements, resolving issues, creating layouts, choosing timesteps, sizes and colors for architectural graphics, checking data for accuracy, assimilating data into an AutoCAD drawings, producing hard copies for review and processing, finalizing and providing technical support during construction.
7	S	Manages projects by designing and overseeing the design of engineering projects, investigating and evaluating problems revealed by citizen's complaints, field inspections or other departments, determining solutions, generating cost estimates, formulating time lines, monitoring project progress, coordinating projects with agencies, inspectors and contractors and facilitating meetings.
7	L	Attends site plan review meetings. Enforces city code pertaining to utility work in the City right-of-way.
8	M	Inspects residential and commercial driveway entrance construction.
9	L	Investigates traffic conditions by conducting various field surveys. Schedules traffic studies and prepares work orders for the operational division. Supervises the implementing of traffic control devices for special events and emergency road closures.
10	L	Provides support to emergency clean-up teams as needed.

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CLASS REQUIREMENTS:

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Formal Education / Knowledge	Work requires knowledge of a specific vocational, administrative, or technical nature which may be obtained with at least six months/ one year of advanced study or equivalent experience. Appropriate certification may be awarded upon satisfactory completion of advanced study or training.
Experience	One year experience in drafting, GIS, sub-professional engineering or a directly related field.
Certifications and Other Requirements	Valid Driver's License may be required depending on assignment. May require ability to be certified as a Special Police Officer and /or obtain a Fiber Optic Certification for Installation.
Reading	Work requires the ability to read City standards, specifications and legal documents.
Math	Work requires the ability to perform general math calculations such as addition, subtraction, multiplication and division as well as basic geometry.
Writing	Work requires the ability to write correspondences, project notifications, bid invitations and notes.
Managerial	N/A
Budget Responsibility	N/A
Supervisory / Organizational Control	Job has no responsibility for the direction or supervision of others with exception of field crews during special events and road closures.
Complexity	Work requires analysis and judgment in accomplishing diversified duties. Work requires the exercise of independent thinking within the limits of policies, standards, and precedents.
Interpersonal / Human Relations Skills	Contacts others within the organization. These contacts may involve similar work units or departments within the City which may be involved in decision making or providing approval or decision making authority for purchases or projects. Works with individuals outside the City who may belong to professional or peer organizations. Working with various state and federal agencies may also be required. Vendors and suppliers may also be called upon for information on purchases, supplies or products. Meetings and discussions may be conducted with customers, brokers and sales representatives.

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OVERALL PHYSICAL STRENGTH DEMANDS:

Sedentary	X	Light	Medium	Heavy	Very Heavy
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, 25-50 lbs. frequently, or up to 10-20 lbs. constantly.	VH = Very Heavy Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

PHYSICAL DEMANDS:

C = Continuously 2/3 or more of the time.	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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This is a description of the way the job is currently performed; it does not address the potential for accommodation.

PHYSICAL DEMANDS	FREQUENCY CODE	DESCRIPTION
Standing	O	Assisting customers, filing, during field investigations
Sitting	F	Desk work, driving
Walking	O	During field investigations, to other offices
Lifting	O	Computer equipment and supplies, Junction box covers
Carrying	O	Computer equipment and supplies
Pushing/Pulling	O	Moving office furniture
Reaching	O	For supplies on shelves
Handling	O	Paperwork, measuring equipment
Fine Dexterity	C	Computer keyboard
Kneeling	R	Setting up computers, under desk
Crouching	R	Setting up computers, retrieving items on lower shelves
Crawling	N	
Bending	R	Reading measuring equipment
Twisting	R	Moving office equipment
Climbing	N	
Balancing	N	
Vision	C	Reading, computer monitor, driving, Seeing color codes for underground utility marks
Hearing	C	Communicating with personnel and on telephone, Hearing construction equipment tones.
Talking	F	Communicating with personnel and on telephone
Foot Controls	O	Driving
Other (specify)	N	

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MACHINES, TOOLS, EQUIPMENT, AND WORK AIDS:

Scales, drafting equipment, measuring tape or wheel, vehicle, triangles, utility knife, spray adhesive, foam core board, hand tools, Computer, large format plotter, printers, calculator, scanner, copier, fax machine, AutoCAD, ArcView, Word, Excel, Access, Hansen, Coreldraw, multimeter, “hot” stick underground electrical locating equipment.

ENVIRONMENTAL FACTORS:

D = Daily	W = Several Times Per Week	M = Several Times Per Month	S = Seasonally	N = Never
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HEALTH AND SAFETY		ENVIRONMENTAL FACTORS	
Mechanical Hazards	N	Dirt and Dust	M
Chemical Hazards	N	Extreme Temperatures	S
Electrical Hazards	N	Noise and Vibration	N
Fire Hazards	N	Fumes and Odors	N
Explosives	N	Wetness/Humidity	S
Communicable Diseases	N	Darkness or Poor Lighting	N
Physical Danger or Abuse	N		
Other (see 1 below)	M		

PRIMARY WORK LOCATION	
Office Environment	X
Warehouse	--
Shop	--
Vehicle	X
Outdoors	X
Other (see 2 below)	--

- (1) Traffic hazards
- (2)

PROTECTIVE EQUIPMENT REQUIRED:

Hard hat, steel toe boots, safety vest, seat belt, ear protection

NON-PHYSICAL DEMANDS:

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NON-PHYSICAL DEMANDS	
Time Pressures	F
Emergency Situations	R
Frequent Change of Tasks	O
Irregular Work Schedule/Overtime	R
Performing Multiple Tasks Simultaneously	O
Working Closely with Others as Part of a Team	O
Tedious or Exacting Work	F
Noisy/Distracting Environment	R
Other (see 3 below)	--

- (3)