

**Class Title: Engineering Technician IV**

**BRIEF DESCRIPTION OF THE CLASSIFICATION:**

Monitors and maintains the traffic computer system and network systems. Creates and updates timing plans at intersections to maintain a safe and efficient traffic flow for pedestrian and vehicular traffic. Performs field reviews locations for proposed school flashing light locations and creates complex computer graphics.

**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	L	Monitors and maintains traffic flow by updating, generating, installing, testing, maintaining, tuning, and simulating of traffic signal timing plans, reviewing sight plans and traffic plans, counting and entering data, calculating new information, viewing camera monitor and maps to spot trouble spots, and reviewing proposed special events the impact on traffic conditions, and preparing new timing plans for special events.
2	L	Manages projects by reviewing field locations for proposed lights, ordering new equipment, preparing and forwarding sketches, and preparing correspondence of Freedom of Information Act for traffic signal engineer signature.
3	S	Maintains traffic management system computer network by installing, testing, maintaining and tuning computer system on a wide area network, coordinating with servers and workstations, and platform-specific software for each on a twisted pair and fiber optic network, maintaining a CCTV system, monitoring performance of network system devices and software, investigating and analyzing systems problems and installing corrective measures and providing constant stand by assistance in resolving system hardware and software maintenance.
4	S	Performs administrative functions by creating computer graphics for professional presentation, training, and traffic signal construction, maintaining and upgrading computer modem connections with underground utility damage prevention call center and archiving records, developing CAD drawings for traffic signal engineer for construction projects, performing quantity takeoffs and estimates, and designing preliminary signal design for review by traffic signal engineer or others.

**CSC Adopted: October 2001, CSC Revised: \_\_\_\_\_**

**CLASS REQUIREMENTS:**

<b>CLASS REQUIREMENTS</b>	
Formal Education / Knowledge	Work requires knowledge of a specific vocational, administrative, or technical nature which may be obtained with six months/one year of advanced study or training past the high school equivalency. Junior college, vocational, business, technical or correspondence schools are likely sources. Appropriate certification may be awarded upon satisfactory completion of advanced study or training.
Experience	Eight years experience in a traffic engineering field and with some UNIX operating language.
Certifications and Other Requirements	Valid Driver’s License may be required depending on assignment. System Administrator I, Network Administrator I
Reading	Work requires the ability to read technical manuals, charts, correspondence, software updates, and bulletins.
Math	Work requires the ability to perform general math calculations such as addition, subtraction, multiplication and division.
Writing	Work requires the ability to write correspondence, specifications, timing information, and technical data.
Managerial	Managerial responsibilities include planning for the installation of traffic signal devices, and the retiming of signals throughout the city.
Budget Responsibility	N/A
Supervisory / Organizational Control	Work requires the occasional direction of helpers, assistants, seasonal employees, interns, volunteers or temporary employees.
Complexity	Work is governed by broad instructions, objectives, and policies. Work requires the exercise of considerable initiative and independent analytical and evaluative judgment.
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.

CSC Adopted: **October 2001**, CSC Revised: \_\_\_\_\_

**OVERALL PHYSICAL STRENGTH DEMANDS:**

Sedentary	Light X	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	F	Field work, observations
Sitting	F	Computer, desk work, driving
Walking	O	Field work, to/from intersections
Lifting	O	Computer equipment, cameras, traffic signal equipment
Carrying	O	Computer equipment, cameras, traffic signal equipment
Pushing/Pulling	O	Opening/closing traffic control cabinets, chair, desk drawer
Reaching	O	Cables
Handling	F	Computer equipment, cameras, traffic signal equipment
Fine Dexterity	F	Computer keyboard, installing computer components, telephone keypad, sketching
Kneeling	O	Cabinet inspection
Crouching	O	Cabinet inspection
Crawling	R	Pulling cables
Bending	O	Cabinet inspection
Twisting	R	Cabinet inspection
Climbing	R	Stairs
Balancing	R	Stairs
Vision	C	Computer, desk work, driving, reading
Hearing	C	Staff, supervisor, radio, telephone
Talking	F	Staff, supervisor, radio, telephone
Foot Controls	O	Driving
Other (specify)	N	

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**MACHINES, TOOLS, EQUIPMENT, AND WORK AIDS:**

Multimeter, screwdriver, side cutter, crimpers, stopwatch, cellular phone, digital cameras, electrical multimeter, hand held radio, CCTV cameras and monitors, digital projectors, computer, Unix, ArcView, GIS, Autocad, laser or inkjet printer, Standard Microsoft Windows and Office software, telephone, Internet

**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	M
Electrical Hazards	W	Noise and Vibration	M
Fire Hazards	N	Fumes and Odors	N
Explosives	N	Wetness/Humidity	M
Communicable Diseases	N	Darkness or Poor Lighting	N
Physical Danger or Abuse	N		
Other (see 1 below)	N		

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

- (1)
- (2)

**PROTECTIVE EQUIPMENT REQUIRED:**

Safety vest, hard hat

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

- (3)