



City of Tempe

INTELLIGENT TRANSPORTATION SYSTEM SIGNAL TECHNICIAN I+

JOB CLASSIFICATION INFORMATION			
<i>Job Code:</i>	188	<i>Department:</i>	Engineering & Transportation
<i>Supervision Level:</i>	Non-Supervisor	<i>State Retirement Group:</i>	ASRS
<i>Status:</i>	Classified	<i>Market Group:</i>	ITS Signal Technician II+
<i>Safety Sensitive / Drug Screen:</i>	Yes	<i>Physical:</i>	Yes

Click [here](#) for more job classification information including current salary range.

DISTINGUISHING CHARACTERISTICS

This is the entry level class in the Intelligent Transportation System (ITS) Signal Technician series. This class is distinguished from the ITS Signal Technician II+ by the performance of the more routine tasks and duties assigned to positions within the series.

REPORTING RELATIONSHIPS

Receives supervision from higher level supervisory and management staff. Receives functional and technical direction from crew lead.

MINIMUM QUALIFICATIONS	
<i>Experience:</i>	Two (2) years of experience in the installation, maintenance and repair of electronic control devices, preferably including traffic signal systems.
<i>Education:</i>	High school diploma, GED or equivalency, supplemented by specialized training in electronics or degree related to the core functions of this position. An associate degree in electronics is preferred.
<i>License / Certification:</i>	<ul style="list-style-type: none"> • Possession of a valid driver’s license. • Possession of, or required to obtain within twelve (12) months of hire, a Work Zone Safety Certificate, Electronic or Electrical Technician Certificate and a Level I International Municipal Signal Association (IMSA) Certification.

ESSENTIAL JOB FUNCTIONS

Essential job functions are the fundamental duties of a position: the things a person holding the job absolutely must be able to do.

To actively support and uphold the City's stated mission and values. To perform highly technical work in the installation, operation and maintenance of electrical, electronic and digital controlled traffic signal control devices and lighting systems.

OTHER DUTIES AS ASSIGNED

Please note this job description is not designed to cover or contain a comprehensive listing of all activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

- Troubleshoot, repair and maintain traffic signal control devices, ITS/Communication systems and auxiliary equipment including analog, digital, wireless, electronic, and microprocessors.
- Repair or replace damaged signal equipment such as signal poles, signal and pedestrian heads, and push buttons.
- Perform a variety of preventive maintenance duties including changing signal bulbs, cleaning reflectors and refractors, painting poles, and cleaning signal control cabinets.
- Install, maintain and repair pre-timed, semi-automatic, fully automatic, electro-mechanical, electronic and digital controllers, auxiliary equipment, and similar devices.
- Assist in wiring new intersections according to wiring specifications.
- Install and test solid state digital electronic devices in cabinets according to system schematics.
- Repair roadway lighting systems at signal intersections and various other locations.
- Coordinate signal related repairs and installations with other City divisions and departments as well as outside agencies and contractors; work with Fire Department in installing and testing new and existing fire preemption circuits; work with phone company to troubleshoot central system communication circuits.
- Design, build, test and install electronic auxiliary timing circuits and auxiliary circuits.
- Develop, implement and document preventive maintenance programs to minimize future problems and to keep the traffic signal system in optimum operating condition.
- Test, recertify and/or replace ITS and traffic signal components to industry standards including MMU's, BIU'S, signal controllers, and light rail components.
- Participate in the scheduling of traffic signal and lighting construction projects by coordinating personnel, materials and equipment.
- Perform aerial work and repair malfunctioning traffic signals, CCTV, wireless radio, and street lights.
- Create and close electronic work orders.
- Install traffic cones and barricades; direct and control traffic during normal work schedule, evenings, weekends and special events.
- Maintain computerized time, material and equipment use records.
- Blue stake traffic signal systems, including fiber optic cable, traffic signal cable, and communication system cables.
- Maintain, troubleshoot, and repair current and future ITS infrastructures such as CCTV cameras, fiber optics, vehicle detection, and microwave communications systems and devices.
- Maintain light rail transportation systems including Pier to Pier communication, LRT priority pre-emption, and train operator signals.

- Perform related duties as assigned.

COMPETENCIES

<i>CLASSIFICATION LEVEL</i>	<i>INCLUDES</i>	<i>COMPETENCIES</i>
Foundational	All Employees	Inclusion, Communication, Interpersonal Skills, Integrity, Professionalism, and Willingness to Learn
Non-Supervisory	In Addition >	Teamwork, Customer Service, Initiative, and Dependability / Reliability
Supervisory	In Addition >	Staffing, Monitoring Work, Delegating, Development / Mentoring, and Support Others
Manager	In Addition >	Preparing / Evaluating Budgets, Monitoring / Controlling Resources, and Motivating / Inspiring
Deputy Director	In Addition >	Entrepreneurship and Networking
Director	In Addition >	Organizational Vision
<p><i>For more information about the City of Tempe's competencies for all classifications:</i> City of Tempe, AZ : Competencies</p>		

JOB DESCRIPTION HISTORY

Effective November 1988

Reviewed October 1995

Revised August 2003 (revised duties)

Revised December 2005

Revised April 2017 (revised job title, job duties, & min quals)

Revised May 2017 (added physical/mental activities)

Revised March 2019 (PW Reorg – moved to Engineering & Transportation Department)

PHYSICAL DEMANDS AND WORK ENVIRONMENT

Job Title: ITS Signal Technician I

Job Code: 188

VEHICLE OPERATION	YES	NO
Will this position drive a City vehicle?	X	
Will this vehicle require a Commercial Drivers License?		X

	Never	Occas.	Freq.	Contin.
	0% of time	1-35% of time	36-65% of time	66-100% of time

WORK WITH OR EXPOSURE TO THE FOLLOWING				
Machinery*		X		
Electrical*		X		
Power Tools*		X		
Hand Tools*		X		
Personal Protective Equipment*		X		
Computer Software		X		
Fumes	X			
Chemicals	X			

ENVIRONMENT				
Indoors		X		
Outdoors		X		
Working in or around water		X		
Extreme Heat		X		
Extreme Cold	X			
Office Setting		X		
Confined Spaces	X			
Excessive Noise**		X		
Heights		X		
Sewage Exposure	X			
Bodily Fluid Exposure	X			

ENDURANCE				
Sit		X		
Stationary / Stand		X		
Traverse / Move		X		

VISION REQUIREMENTS	YES	NO
Close (clear vision at 20 inches or less)	X	
Distance (clear vision at 20 feet or more)	X	
Color (ability to identify and distinguish colors)		X
Depth Perception (three-dimensional vision, ability to judge distances and spatial relationships)		X
Peripheral (ability to observe an area that can be seen up and down or to the left and right while eyes are fixed on a given point)		X
Ability to adjust focus (ability to adjust the eye to bring an object into sharp focus)		X
No Special Vision Requirements		X

Maximum LIFT / CARRY	Lift	Carry	Maximum PUSH / PULL	Push	Pull
5-25lbs			5-25lbs		
26-50lbs			26-50lbs		
51-75lbs			51-75lbs		
76-100lbs			76-100lbs		

MOVEMENT	YES	NO
Bend / Stoop / Twist	X	
Crouch / Squat	X	
Kneel / Crawl		X
Above Shoulder Level	X	
Below Shoulder Level		X
Repetitive Arm Use		X
Repetitive Wrist Use		X
Repetitive Hand Use		X
Neck Range of Motion	X	
Climb Stairs / Ladders	X	
Traverse Uneven Surface	X	
Traverse Even Surface	X	

ADDITIONAL CONSIDERATIONS:
<ul style="list-style-type: none"> - May require working extended hours. - May work alone for extended periods of time.

*DEFINITIONS/EXAMPLES
Machinery: bucket truck, riding mowers, backhoe etc.
Electrical: wiring, outlets, fuses etc.
Power Tools: push mowers, jackhammers, drills, chainsaw etc.
Hand Tools: hammers, wrenches, shovels, wheel barrels, saws etc.
Personal Protective Equipment: respirators, Tyvek coveralls, hard hats, fall protection harness etc.

**** Hearing test is required**