



## **City of Phoenix**

# **SIGNAL SYSTEMS SPECIALIST I**

**JOB CODE 21000**

Effective Date: 10/11

### **DISTINGUISHING FEATURES OF THE CLASS:**

The fundamental reason this classification exists is to perform specialized and moderately complex work in such technical duties as signal timing and coordination, traffic engineering studies, computerized traffic signal programming and control, and gathering data for conversion to a usable format. Work involves the application of precise traffic signal operation knowledge, gained through training and experience, to a variety of traffic signal operation problems in the field or office. Work is performed under the direction of a Signal Systems Specialist II who assigns and checks for compliance with standards, operation guidelines and schedules. Incumbents exercise oversight of Traffic Signal Technicians.

### **ESSENTIAL FUNCTIONS:**

- Programs and operates the City of Phoenix Computerized Traffic Signal Controllers and Control System, ITS systems and equipment, and communications equipment used by the City;
- Conducts and analyzes traffic engineering studies and prepares and installs the signal timing and coordination at new and existing locations and reviews their results after implementation;
- Handles complaints and inquiries from the public on any phase of traffic signal operations such as placement, warrants, records or timings;
- Participates in the inspection of construction projects involving new emergency vehicle preemption, wireless radio communication and traffic monitoring camera installations, traffic signal installation and the remodeling of existing traffic control systems;
- Reviews need for new emergency vehicle preemption, wireless radio communication and traffic monitoring camera installation or upgrading of existing traffic control systems;
- Participates in the ITS processes that specify, select, and deploy devices in accordance with project requirements;
- Makes estimates of construction and material costs for proposed emergency vehicle preemption, wireless radio communication and traffic monitoring camera installation and for the remodeling or upgrading of existing traffic control systems;
- Maintains regular and reliable attendance.



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- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity.

### **Required Knowledge, Skills and Abilities:**

#### Knowledge of:

- The operation, programming and timing sequences of the many types of signalized intersections, traffic control devices and systems available.
- Traffic engineering, basic traffic signal timing and signal construction procedures.
- Basic computer programming and computerized traffic signal system operation.
- Basic fiber optics, Ethernet and serial communication devices wiring standards, programming and applications.

#### Ability to:

- Work safely without presenting a direct threat to self or others.
- Independently manage own time and responsibilities.
- Enter data or information into a terminal, PC, or other keyboard device.
- Express complex technical matters related to traffic engineering concerns and signal timing issues in terms that are meaningful to non-professional people.
- Follow written and verbal instructions.
- Work cooperatively with the general public.
- Use graphic instructions such as blueprints, schematic drawings, layouts, or other visual aids.
- Make independent investigations of traffic engineering problems.
- Communicate verbally and in writing in the English language with customers, clients, and the public using a telephone, email, business letter, or in a one-to-one or group setting.
- Observe or monitor people's behavior and objects to determine compliance with prescribed operating and safety standards.
- Determine adherence to traffic engineering specifications on construction jobs, and to work effectively with contractors and construction supervisors in securing compliance with specifications.

### **Additional Requirements:**

- Some positions require the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. Use of a personal vehicle for City business will be prohibited if the employee is not authorized to



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drive a City vehicle or if the employee does not have personal insurance coverage.

- Some positions will require the performance of other essential or marginal functions depending upon work assignment, location, or shift.

### **ACCEPTABLE EXPERIENCE AND TRAINING:**

Three years experience in paraprofessional engineering work, including one year of traffic engineering work, supplemented by college level courses in traffic engineering, basic computer programming and systems analysis, or a related field. Other combinations of experience and education which meet the minimum requirements may be substituted.