



## **City of Phoenix**

# **SIGNAL SYSTEMS SPECIALIST II**

**JOB CODE 21010**

Effective Date: 12/92

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

The fundamental reason this classification exists is to perform highly specialized and complex paraprofessional traffic engineering work or perform professional engineering work at a level of difficulty comparable to that of a Traffic Engineer I. Incumbents direct Signal Systems Specialists I engaged in such technical duties as signal timing and coordination, traffic signal studies and computerized traffic signal programming and control. The factor which distinguishes this classification from Traffic Engineer I is that employees have not acquired the formal, theoretical, and educational requirements for an engineering degree but have acquired knowledge and skills through on-the-job training. Work is performed under the direction of an Engineering Supervisor who makes assignments and checks for compliance with standards and schedules.

### **ESSENTIAL FUNCTIONS:**

- Inspects construction projects involving new traffic signal installations and remodeling of existing signals;
- Makes decisions as to unplanned equipment relocation due to field conflicts with existing utilities;
- Makes and analyzes traffic engineering studies and prepares the signal timing and coordination at new and existing signal locations and oversees their implementation;
- Determines need for new traffic signals or for upgrading existing signals;
- Estimates construction and material costs for proposed traffic signals and for the remodeling or upgrading of existing traffic signals;
- Plans and designs new traffic signals, involving the recommendation of the signal controller type and the type and location of all signal equipment and any geometric roadway design of the intersection and its approaches that will ensure the safest driving conditions possible;
- Serves as a liaison between the City of Phoenix Electrical Maintenance Division, the contractors or agencies involved in the construction of traffic signs;
- Programs and operates the City of Phoenix Computerized Traffic Signal Control System;
- Handles complaints and inquiries from the public on any phase of traffic signal operations such as placement, warrants, or timing;



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- Prepares traffic signal equipment specifications, written traffic engineering reports, and traffic signal design research projects;
- Maintains regular and reliable attendance;
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity;
- Works more than forty hours in a workweek without additional compensation to perform assigned job duties, including weekends, evenings, early morning hours, and holidays as required.

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

Knowledge of:

- Basic computer programming and computerized traffic signal system operation.
- The operation and timing sequences of the many types of traffic control devices and systems available.
- Traffic engineering and signal construction procedures.
- The numerous types of traffic studies that can be conducted to help solve traffic problems.

Ability to:

- Direct the work of others.
- Communicate orally in the English language with customers, clients, and the public using a telephone or in a one-to-one or group setting.
- Produce written documents in the English language with clearly-organized thoughts with proper sentence construction, punctuation, and grammar.
- Enter data or information into a terminal, PC, or other keyboard device.
- Make independent investigations of traffic engineering problems.
- Determine adherence to traffic engineering specifications on construction jobs, and to work effectively with contractors and construction supervisors in securing compliance with specifications.
- Express highly complex technical matters related to traffic engineering and right-of-way problems in terms that are meaningful to non-professional people.
- Work cooperatively with others.
- Work safely without presenting a direct threat to self or others.

### **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 drivers' license and have an acceptable driving record. Use of a personal



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vehicle for City business will be prohibited if the employee is not authorized to 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:**

Six years of experience in paraprofessional engineering work, and including one year of basic computer programming or system analysis experience, college-level courses in traffic engineering or other related engineering fields. Other combinations of experience and education which meet the minimum requirements may be substituted.

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