

**JOB DESCRIPTION
CITY OF SPRINGFIELD**

**HUMAN RESOURCES DEPARTMENT
EMPLOYMENT AND
COMPENSATION DIVISION**

Job Title	<u>Senior Signal Technician</u>
Sch & Grade	<u>PAT-8</u>
Class Code	<u>CO19</u>
FLSA Status	<u>Non-exempt</u>
Bargain Unit Elig.	<u>AFSCME</u>
Occupational Series	<u>Traffic Signal Repair</u>

PRIMARY PURPOSE:

Performs senior level traffic signal assembly, installation, maintenance and repair work including ITS field hardware, communication system, and other related electrical traffic management and control equipment. Senior level work includes responsibilities that require incumbents to exercise judgment, complete difficult and complex traffic signal repair work, and function with independence in the performance of such work.

SUPERVISION:

Under general supervision of the Supervisor of Signal Operations. Receives direction and instruction from Signal Operations Coordinator. May serve as lead worker to direct and instruct assigned signal crewmembers.

DESCRIPTION OF WORK:

ESSENTIAL FUNCTIONS:

1. Completes and helps coordinate the assembly, installation, troubleshooting, repair, and maintenance of solid state electronic traffic control equipment and related traffic signal equipment. Work includes handling fiber optic termination, computer network communications, video transmission, dynamic message signs, video detection and other traffic detectors.
2. Completes maintenance and repair work for electrical, electronic, and microprocessor based equipment and printed circuit boards to the component level.
3. Operates microprocessor development and emulator system necessary for microcomputer programming.
4. Analyzes, troubleshoots, and performs diagnosis for problems with equipment and controls.
5. Works with manufacturers' representatives and equipment suppliers to insure that hardware and software meet City specifications.
6. Determines when to repair or replace equipment.
7. Serves as lead worker to direct and assign signal crew including temporary employees.
8. Runs skilled diagnostic test equipment and interprets results.
9. Operates computers for access to information provided by the computerized signal system.
10. Utilizes software applications such as word processing, spreadsheets, and database as required.
11. Utilizes a variety of tools and equipment associated with signal maintenance and repair.
12. Reads and interprets blueprints, technical repair manuals, and schematic diagrams.
13. Drives vehicles such as pick-ups, vans, lift trucks, and flatbed trucks to a variety of work sites.
14. Prepares and maintains required records and reports.

IMPORTANT FUNCTIONS:

1. Attends workshops, seminars, and other training for professional development purposes.

2. Performs office administration tasks such as filing, copying, faxing, etc.
3. Cleans tools and maintains a neat and orderly work area.

Performs related work as required.

QUALIFICATIONS REQUIRED:

Any combination of education, training, and experience providing the following knowledge, skills, and abilities:

Knowledge

Principles, methods, and test equipment involved in the troubleshooting, maintenance and repair of solid state electronic traffic signal equipment; component parts of electrical, electronic and microprocessor based equipment used in traffic control systems; solid state and microprocessor circuitry; fiber optic termination; computer network communications; video transmission; dynamic message signs; video detection and other traffic detectors; appropriate safety principles and procedures; mathematics as it relates to electronic and traffic control equipment and systems; word processing, spreadsheets, and database software applications desired but not required.

Abilities

Install, maintain, and repair electronic traffic control equipment and related devices; follow oral and written instructions; ability to read and interpret electrical and electronic blueprints, technical repair manuals, and schematic diagrams; operate computers and utilize software applications; operate electronic test equipment including a microsystem troubleshooter, loop checker, meggar, etc. to troubleshoot and diagnose traffic signal and related equipment malfunctions; utilize a variety of tools associated with traffic signal maintenance and repair such as concrete saws, fusion splicer, OTDR, and hand tools; communicate effectively both verbally and in writing; deal effectively and courteously with associates and the general public; effectively welcome and embrace differences among employees and citizens; perform effectively as a member of a team in carrying out the City’s stated mission and philosophy; perform the essential functions of the job without posing a direct threat to the health and safety of others. Ability to work at heights up to 40 feet above the ground including working out of a raised bucket to repair, remove, or replace signal heads or other traffic related devices.

Experience, Education, and Training

A Bachelor’s Degree from an accredited College or University in Electronics, or a related field plus four years of appropriate experience including two years in assisting with traffic signal maintenance and repair work; or an Associate’s Degree from an accredited College or University in Electronics plus six years of appropriate experience including at least three years of experience in assisting with traffic signal maintenance and repair work; or a combination of college level educations, training or experience in electronics or electrical systems equivalent to eight years appropriate experience with at least four years assisting with traffic signal maintenance and repair work.

Physical Requirements

Bends, climbs, squats, twists, kneels, and reaches both to ground level and overhead; must be able to lift and carry up to 75 pounds as well as push and pull up to 150 pounds; must have ability to operate a computer keyboard and mouse as well as hold and grip objects; subject to periods of prolonged standing and working in awkward positions; must be able to distinguish primary colors associated with wiring for signals.

Working Environment

Both indoor and outdoor working environment with exposure to dust and pollen; subject to all types of weather including extreme conditions; susceptible to electrical and mechanical hazards associated with traffic signal tools and equipment as well as other safety hazards due to working in and around traffic; exposure to cramped working spaces, poor lighting, constant and possible extreme noise, and strong fumes/odors.

Licensing/Certification

Must possess a valid Missouri Motor Vehicle Driver’s License. Must possess International Municipal Signal Association (IMSA) certification as a Traffic Signal Technician – Level II and/or Traffic Signal Electrician–Level II.

Miscellaneous Requirements

Subject to night and/or weekend work as required; subject to emergency call-in.

Last Revision:	February 16, 2012	GENERAL ORDINANCE NO. 4936
Comments:	Updated Abilities	Date: 10/11/99
I have read the foregoing job description in its entirety and understand its contents. I can perform the essential functions outlined with or without reasonable accommodation under the Americans with Disabilities Act.		
Signed: _____	Date: _____	