



Job Description:
TRAFFIC SIGNAL TECHNICIAN
Department: Engineering

Employment Status: Full-Time
Reports To: City Engineer or Designee

FLSA Status: Non-Exempt
Approved: 09/15/2021

GENERAL STATEMENT OF DUTIES:

Performs journeyman electrician and electronic technician work involving trouble-shooting, maintenance and repair of electronic traffic signal system equipment, traffic signal system hardware and software, street lighting systems, and related computer systems; inspects and maintains records of the work of contractors for capital improvement projects for conformance with plans and specifications; performs utility locating for City-owned underground utilities; other duties as assigned. Work is performed under the general supervision of a Civil Engineer, Assistant City Engineer, or City Engineer.

DISTINGUISHING FEATURES OF THE POSITION:

The work in this class requires high-level skills in the performance of traffic control system related to computer, electrical, electronic and mechanical work on complex traffic control units and systems. The ability and availability to respond promptly to off-duty call-out emergencies is an essential requirement for this position. There will also be responsibility for maintaining and repairing microprocessors and related equipment such as uninterruptable power supply units. Work assignments may be oral, in writing or from work orders, and may include sketches and/or schematics. Work is performed under general supervision with considerable independence required in the technical aspects of the position.. Work is ordinarily evaluated by analysis of the performance of equipment installed, repaired or maintained. This position is in the Non-Competitive Classified Civil Service.

EXAMPLES OF WORK: (Illustrative Only)

- Trouble-shoots and repairs traffic signal controllers and related equipment; diagnoses malfunctions; installs, maintains, and repairs pre-timed, automatic, electro-mechanical, electronic, solid state, microprocessor, and fiber-optic equipment;
- Conducts preventative maintenance programs on traffic signal and street lighting system equipment;
- Participates in the development of new systems or circuits, which may require some electronic design work;
- Replaces lamps & fixtures, repairs flasher mechanisms, and cleans lenses and reflectors on signals;

- Conducts test operations of equipment in shop prior to installation in the field;
- Replaces fuses, verifies continuity, installs grounding hardware, prepares color codes, etc. on cables;
- Maintains signal shop and street light inventories, recommends ordering of equipment and parts;
- Responds to emergency calls on a 24-hour basis and makes necessary field repairs of malfunctioning traffic signal equipment;
- Responds to emergency calls on a 24-hour basis for street lighting damage (pole knocked down, etc.);
- Inspects and coordinates the work of contractors for capital improvement projects for traffic signal, fiber optic, and street lighting system construction;
- Reviews construction plans and specifications, and assists in the practical design of capital improvement projects;
- Responds to utility locating requests by marking City-owned underground utilities, including storm sewer, traffic signal, street lighting, fiber optic, water services to City facilities, electric services to City facilities, and irrigation systems; Utilizes ticket management software to review and provide positive response for utility locate requests;
- Responds to emergency utility locating requests during non-regular work hours;
- Uses desktop and/or laptop to set up, monitor, and test control equipment; maintain inventories; manage utility locating request tickets; maintain maps of underground utility locations;
- Constructs special equipment or modifies existing equipment from oral or written engineering instructions and specifications;
- Undertakes special programs and projects as assigned;
- Maintains complete and accurate daily work logs and reports;
- Regular and predictable on-site attendance required.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Thorough knowledge of the standard tools, materials, methods, and practices of electrical, digital, and solid state electronic repair; thorough knowledge of the component parts of electronic and electro-mechanical devices used in traffic control work; thorough knowledge of the occupational hazards and safety precautions of the electrical trade; ability to use complex electronic traffic signal equipment and software; ability to troubleshoot and repair traffic cameras and associated hardware and software; ability to troubleshoot and repair fiber optic infrastructure; Skill in the care and use of the standard tools, equipment, and testing devices used in electrical and electronic repair work; Ability to use state-of-the-art testing equipment to identify defects in electronic, computerized and mechanical equipment; Attainment of IMSA (“International Municipal Signal Association”) Level II Traffic Signal Technician Certification (Bench, Construction, Design, Field) upon appointment is expected, and must be maintained throughout employment; Ability to interpret and work from technical sketches, construction documents, and maps (both paper and digital); Ability to maintain complete and accurate records and reports; Ability to work effectively with fellow employees, contractors, and the general public; Ability to maintain and repair fiber optic network system equipment; Ability and experience with using desktop and/or laptop computer applications for various uses, including but not limited to Microsoft Office, ESRI GIS programs, and traffic

signal system-specific software; Ability to utilize mapping-grade GPS survey equipment for field data collection; Ability to safely and efficiently operate a variety of motorized equipment and vehicles; must have a valid Ohio Driver's License at the time of appointment, with the ability to obtain and maintain a Class A Commercial Driver's License (CDL) within 6 months of appointment; The employee must maintain the ability to safely respond to off-duty emergencies (both traffic signal and utility locating), from his/her residence, with a response time on-site and ready to work, of less than one-half hour; Must have the ability to grasp, lift, and maneuver hand tools, power tools, equipment and materials, of various weights and sizes, in a manner which is safe and effective in the performance of work; ability to work at heights; ability to distinguish colors; ability to understand and follow written instructions, labels, and hazard notices; knowledge of basic math; ability to understand, follow, and communicate oral and written instructions; ability to exercise alertness and judgment to report possible hazards; ability to work outside in all types of weather; and adequate physical condition to perform position duties.

ACCEPTABLE EXPERIENCE AND TRAINING:

Considerable experience as a journeyman electrician, traffic signal technician, or engineering technician, including experience in the maintenance and repair of electronic equipment, traffic signal system equipment, traffic monitoring camera equipment, and fiber optic system equipment.

High school diploma (or equivalent) required, with specialized training in electronics repair with college level course work in electrical technology preferable; or any equivalent combination of experience and training which provides the required knowledge, skills, and abilities.

Must have the ability to quickly learn, develop, and maintain a thorough knowledge and professional skills and abilities in those areas noted under Required Knowledge, Skills, and Abilities.



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Date: October 25, 2021