

**MAJOR FUNCTION**

This is highly skilled work in the design, installation and maintenance of fiber optic cabling systems, or the maintenance, testing and repair of communications systems, and the physical interfaces to local and wide area networks (LAN/WAN) used in the City communications network for voice/data and video communications. Work is performed in accordance with standard trade practices. An employee in this class is expected to exercise technical independence in determining work methods and procedures. Work is performed under the general direction of higher level supervisory staff who reviews the work through observation, conferences, reports, and by results obtained.

**ESSENTIAL AND OTHER IMPORTANT JOB DUTIES****Essential Duties**

Meets with City departments to gather data for the department's requirements on fiber network. Designs, plans and specifies fiber system from data gathered for Requests For Proposal. Communicates with major fiber vendors and suppliers to determine all fiber capabilities and applications. Evaluates proposals and makes recommendations on fiber cabling and associated equipment best for the City's use. Oversees the installation of fiber cabling. Performs acceptance tests to ensure that cable meets specifications. Installs associated equipment, wiring, and attach network devices and end user equipment. Maintains and repairs fiber optic cabling as required. Performs periodic diagnostic tests on fiber network. Maintains accurate records of all network restoration of fiber optic cable and system. Maintains and repairs or modifies integrated computerized digital communication processors hardware and software. Installs complex computerized communications systems and associated end user devices. Installs physical interfaces for integrated local area networks and wide area networks (LAN/WAN) and associated intelligent wiring hubs, terminal servers, etc. Maintains and makes necessary repairs or modifications to LAN/WAN physical network and associated connections to intelligent wiring hubs and services. Maintains accurate records on all voice/data communication databases, system configurations and technical libraries. Performs daily preventive maintenance routine and system diagnostics to prevent likelihood of system malfunctions and failures. Coordinates with other ISS Divisions. Evaluates requests, designs, and implements telecommunication systems software network applications as required by departments. Performs installations of all types of computerized PBX, CBX, and hybrid key systems. Performs installations of all types of end use devices including personal computer terminals, printers, phones, FAX, TDDs, DCMs, DTIs, modems, video equipment, and etc. Plans and installs wiring and cabling systems to support communication network for voice/data, video communications, and wide area network. Performs moves and changes to various types of communications equipment, wiring and cabling, as required by renovations or relocations at facilities. Performs related work as required.

**Other Important Duties**

Evaluates and recommends new fiber technology as need arises. Orders parts and supplies necessary to keep communications systems and networks on line and functional. Performs related work as required.

**DESIRABLE QUALIFICATIONS****Knowledge, Abilities and Skills**

Considerable knowledge of standard practices associated with communications systems installation, modifications, maintenance and repairs. Knowledge of network electronic devices uses and applications. Considerable knowledge of standard practices associated with communications systems, fiber optic cable, installations and repair. Considerable knowledge of communication system installation, network wiring, and outside plant cabling and system terminology. Ability to isolate, define and resolve failed equipment in the communications systems network. Ability to splice, test, locate faults, and repair fiber optic cable. Considerable knowledge of Southern Building codes as it relates to communications wiring and cabling. Considerable knowledge of central office operations, central office

programming system, phone mail, cost accounting system, and battery AC/DC backup systems. Considerable knowledge of installation and wiring of outside plant cabling and Siemens/ROLM system terminology. Ability to troubleshoot communication equipment hardware and software system problems. Ability to maintain all communications systems. Ability to interpret and work from technical manuals, diagrams, sketches, or blueprints. Ability to understand and effectively carry out oral and written instructions. Skills in the use and operation of communications equipment and computer terminals.

#### Minimum Training And Experience

Graduation from a community college with an AA or AS Degree and three years of experience that includes the installation and maintenance of data and voice communications systems and end user devices such as telephone, fax, TDD, personal computer fiber optics, etc.; or an equivalent combination of training and experience.

#### Necessary Special Requirements

Fiber Optics: Must possess a factory certification in fiber optics technology or possess a certification from a recognized service provider (i.e., operating telephone company or long distance provider, etc.) at the time of application.

Communications Systems: Must possess certificates in Data Communications and computerized PBX or CBX systems at the time of application.

Applicants for all positions must possess a valid class "E" State driver's license at the time of appointment.

Established: 03-06-01  
Revised: 04-23-04\*