



## Human Resources

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DATE: July 6, 2021  
TO: Civil Service Board  
FROM: Laura Dahl  
Human Resources Generalist  
SUBJECT: New Job Classification of Communications Infrastructure Technician

**RECOMMENDATION:  
APPROVAL OF THE JOB DESCRIPTION FOR THE NEW CLASSIFICATION OF COMMUNICATIONS INFRASTRUCTURE  
TECHNICIAN.**

### **Background Information**

HR is updating all job descriptions that are 10 years old or older; this classification is one of them. The updated job description is in a new format, including new standard language.

This new classification will be replacing the old title of Electronics Technician. The new title and updated language throughout the job description will hopefully help attract more candidates to this unique skill set.

This job description has been discussed with the union and they agree to the changes.

### **Outline of Duties**

To ensure the stability of two-way, point-to-point, radio, wireless and other electronic communication services and equipment for all departments within the City of Duluth. This involves participating with the installation, monitoring, maintenance, support, and optimization of all radio communication hardware and connectivity; analyzing and resolving hardware problems in a timely and accurate fashion, and providing end user support as required.

### **Recommendation**

Based on the above information, and in accordance with Section 13-7 of the Civil Service Code, I recommend that the Civil Service Board approve the new job classification and description for Communications Infrastructure Technician.

## **Communications Infrastructure Technician**

### **SUMMARY/PURPOSE**

To ensure the stability of two-way, point-to-point, radio, wireless and other electronic communication services and equipment for all departments within the City of Duluth. This involves participating with the installation, monitoring, maintenance, support, and optimization of all radio communication hardware and connectivity; analyzing and resolving hardware problems in a timely and accurate fashion, and providing end user support as required.

### **SUPERVISION RECEIVED**

For both one-of-a-kind and repetitive tasks, the supervisor makes specific assignments that are accompanied by clear, detailed, and specific instructions. Incumbents work as instructed and consult with the supervisor.

### **SUPERVISION GIVEN**

Does not supervise.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Installation, assistance and management of electronic, radio and wireless equipment such as wireless access points, IP Cameras, radio consoles, antennas, base stations, microwaves, multiplexors, mobile two-way radios, electronic relays, GPS devices, amplifiers, BDAs, and signaling equipment in and on buildings, vehicles, radio towers and other City owned or leased property.
2. Configure, monitor, maintain, analyze and test proper and reliable operation of supported equipment to fulfill business objectives and processes.
3. Create and maintain documentation as it relates to radio and wireless network configuration, electronics mapping, processes, and service records.
4. Participate in the development, implementation and maintenance of policies, procedures, and associated training plans for radio communication administration, usage, and disaster recovery.
5. Coordinate, conduct and attend radio communication meetings as needed.
6. Assist in the development and testing of disaster recovery procedures to protect against catastrophic circumstances or other hardware failures in emergency communication components.
7. Conduct research on radio and wireless communication products, services, protocols, and standards to remain abreast of developments in the communications industry.
8. Interact and negotiate with vendors, outsourcers, and contractors to secure communication products and services.
9. Recommend, schedule, and perform improvements to communication systems including upgrades and repairs.
10. Provide asset management of radio and wireless communication equipment, including maintenance of electronic and component inventory and related documentation and technical specifications information.
11. Assist users with questions and/or problems regarding communication resources.
12. Assist in the development and provide training on the methods, practices, policies and procedures applicable to communication systems.
13. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
14. Other duties may be assigned.

### **JOB REQUIREMENTS**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements

- A. Associate's Degree in Computer Science, CIS controls, Electronics, or a related professional field; OR a minimum of two years of related education and/or full-time, verifiable professional experience in radio, electronics or communications system support including component-level electronics diagnosis and repair and two-way radiotelephone communications equipment.
  - B. Certification by a nationally recognized electronics certification program such as NABER, NICET, NARATE, APCO or equivalent technical certification preferred.
2. License Requirements
- A. Possess and maintain a valid Minnesota Class D driver's license or privilege.
  - B. Possess and maintain a valid Power Limited License preferred.
  - C. Possess and maintain a valid Commercial Radio Operators License preferred.
3. Knowledge Requirements
- A. Comprehensive knowledge of electronic theory and practice, including solid state and digital electronics.
  - B. Thorough knowledge radio and electronics management and analysis tools.
  - C. Radio, wireless communications and/or electronics hardware, software, and connection troubleshooting experience.
  - D. General knowledge of FCC rules and regulations.
  - E. General knowledge of mathematics at an advanced algebraic and trigonometric level.
  - F. Working knowledge of testing tools and procedures for voice and data circuits.
  - G. Knowledge of problem solving and conflict resolution techniques.
  - H. Knowledge of applicable safety requirements.
  - I. Knowledge of, or the ability to learn, City policies and procedures.
4. Skill Requirements
- A. Skill at installing, diagnosing, maintaining and repairing diverse electronic and electrical equipment at the component level.
  - B. Skill at analyzing equipment malfunctions using logic, experience, and advanced diagnostic equipment.
  - C. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.
  - D. Skill in managing one's own time.
  - E. Skill in completing assignments accurately and with attention to detail.
5. Ability Requirements
- A. Ability to conduct research into radio communication issues and products as required.
  - B. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
  - C. Ability to communicate and interact effectively with members of the public.
  - D. Ability to communicate effectively both orally and in writing.
  - E. Ability to understand and follow instructions.
  - F. Ability to problem-solve a variety of situations.
  - G. Ability to set priorities and complete assignments on time.
  - H. Ability to attend work as scheduled and/or required.

#### Physical Demands

The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as record boxes. The work may require specific, but common, physical characteristics and abilities such as above.

#### Work Environment

The work environment involves moderate risks or discomforts requiring special safety precautions (e.g., working around moving parts, carts, or machines, or with contagious diseases or irritant chemicals). Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

HR: LD	Union: Basic	EEOC:	CSB:	Class No:
WC:	Pay:	EEOF:	CC:	Resolution: