

Public Employees Local 71 (LTC)
REQUEST FOR REFERRAL

DEPARTMENT/DIVISION: Corrections/Institutions	PCN: 20-8010
JOB CLASS/TITLE: Maintenance Electronics, Journey II/Lead	WHEN POSITION IS NEEDED: ASAP
WAGE GRADE: 51A	PAY WAGE: \$27.67+DOE (steps)
CITY LOCATION: Seward	
CONTACT: Tracy Smith	PHONE NUMBER: 907-276-7211 Ext 3 FAX NUMBER:907-279-7171 EMAIL ADDRESS: tracy@local71.com
PRE-EMPLOYMENT BACKGROUND <input checked="" type="checkbox"/> YES / <input type="checkbox"/> NO TYPE:	COMMENTS:

JOB DESCRIPTION:

See attached Position Description.

SPECIAL REQUIREMENTS

See attached Position Description.

THIS POSITION REQUIRES THE INCUMBENT TO OPERATE

See attached Position Description.

TYPE OF POSITION

<input checked="" type="checkbox"/>	Permanent Full-Time	<input type="checkbox"/>	Permanent Full-Time Seasonal
<input type="checkbox"/>	Permanent Part-Time	<input type="checkbox"/>	Permanent Part-Time Seasonal
<input type="checkbox"/>	Non-Perm Full-Time	<input type="checkbox"/>	Non-Perm Part-Time
<input type="checkbox"/>	Non-Perm Part-time Sporadic	<input type="checkbox"/>	Seasonal

2. Duties

2.1. In one or two sentences, state the main purpose of the position.

Install, troubleshoot, maintain, and repair all electronic systems in the Spring Creek Correctional Center. These include but are not limited to; perimeter security systems, Closed Circuit Television (CCTV) camera systems, electronic doors and locks, fire protection systems, telephone and telephone voice mail systems, Intercom systems, Heating, Ventilation, and Air Conditioning (HVAC) systems, and computer networking wiring systems.

2.2. Starting from the most to the least important, list the functional areas assigned to the position. Within each functional area, describe the duty statement associated; estimate the percentage of time spent performing the duties; and define each area as essential (E) or marginal (M).

Functional Area Title: Repair and Maintain Perimeter Security System		
E/M	% of Time	Duty Statement
E	10 %	<p>Install, troubleshoot, maintain, and repair the Spring Creek CC perimeter security system.</p> <p>Insure continuous operation of Sentrax perimeter buried cable electromagnetic intrusion detection system. Repair any equipment associated with the system to include control module, power module, data module, transceiver module, touch screen monitor. Make any adjustments to system necessary to compensate for any seasonal weather changes that could desensitize detection capabilities. Maintenance requires extensive knowledge of the principles of radio and electronic theories. Cable splicing techniques must be used for repair of damaged or broken cables to relocate sensors as needed. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and electrical equipment, to include digital and analog diagnostic equipment. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices.</p> <p>Repair, test, replace. adjust and calibrate microwave detection devices. A knowledge of microwave transmission as well as electronic theory a must to ensure proper operation 24 hours a day. Interface detectors with Sentrax system to maintain joint - domain detection to maximize detection capabilities. Knowledge of weather affects, e.g., snow, rain, ice and high winds, on detection devices a must to help reduce nuisance alarms and troubleshoot detectors. Diagnostic meters such as digital voltmeter and RM-82 signal strength meter necessary for diagnostics.</p>

Functional Area Title: Repair and Maintain CCTV Camera System		
E/M	% of Time	Duty Statement
E	20 %	<p>Install, troubleshoot, maintain, and repair indoor and outdoor CCTV cameras and related components and recording systems.</p> <p>Design, install, repair, replace, troubleshoot, produce wiring diagrams to allow continuous operation of an integrated closed circuit television switcher and DVR (Digital Video Recording) system. The type of equipment repaired includes but is not limited to video switching networks, multiplexers, indoor and outdoor cameras and housing equipment, DVR's, analog and IP based wiring systems and video monitors. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and</p>

electrical equipment, to include digital and analog diagnostic equipment. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices.

Bend, shape and install conduits, including plastic mold and wire mold. Insure continuous operation of equipment to monitor approximately 550 inmates 24 hours a day.

Functional Area Title: Repair and Maintain Door Controls and Electronic Locks

E/M	% of Time	Duty Statement
E	10 %	<p>Install, troubleshoot, maintain, and repair door controls and electronic locks.</p> <p>Install, troubleshoot, maintain, and repair gate control circuits</p> <p>Repair, design, modify, replace and build door access control systems to allow free movement of staff but restrict inmate movement. Interface CCTV to door systems to allow for viewing of selected areas as needed. Be able to read wiring diagrams, wiring schematics and blueprint drawings to identify and troubleshoot problems. Extensive knowledge of telephone cable color coding is necessary to track door circuits through cable networks. Use of special tools, e.g., cable splicer, ohmmeter and voltage meter necessary. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and electrical equipment, to include digital and analog diagnostic equipment. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices.</p>

Functional Area Title: Repair and Maintain Fire Protection System

E/M	% of Time	Duty Statement
E	10 %	<p>Troubleshoot, maintain, and repair fire protection system.</p> <p>Fire Alarm - Inspect, repair and test fire alarm detection equipment to include fire alarm panels, detectors, and manual pull stations. Schedule the maintenance of systems in accordance with UFC and NFPA guidelines. Test devices in cells, rooms, duct work and control rooms to insure detection, annunciation and notification of on site staff and local fire department with leased line annunciation devices. Prepare written reports to be kept on file of tested devices and repairs made to systems. Insure yearly professional services contracts to inspect sprinkler systems, smoke and heat detectors, fire panels, Halon fire suppression systems and fire extinguishers are done. Escort contractors when these inspections are being done. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and electrical equipment, to include digital and analog diagnostic equipment. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices.</p>

Functional Area Title: Repair and Maintain Telephone System

E/M	% of Time	Duty Statement
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E	10 %	<p>Install, troubleshoot, maintain, and repair telephone system.</p> <p>Telephone (Staff 100 station) - Repair, replace, modify, troubleshoot, relocate PBX controlled phone equipment. Identify trunks, groups, individual phone drops using electrical blueprints, wiring diagrams, schematics and technical manuals. Insure continuous operation of communications vital to the security and life safety of staff and inmate population 24 hour a day when called. Schedule the repair of communications with local exchange carriers and contract service vendors on outside and contract equipment. Use complex testing instruments to troubleshoot system such as tone generators, oscilloscopes, digital test equipment, telephone diagnostic tools (butt-end).</p> <p>Install conduit, pull telephone cable, install connectors, test cable continuity and label cable. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and electrical equipment, to include digital and analog diagnostic equipment. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices.</p> <p>Install, troubleshoot, maintain, and repair telephone voice mail system.</p> <p>Telephone Voice Mail - Repair, replace, modify, program, and troubleshoot the phone voice mail system. Program and set up phone system tree system for outside individuals to get to the correct staff member through the phone system. Program and set up individual voice mailboxes for staff members to use the system to provide greetings and retrieve messages.</p> <p>Install, troubleshoot, maintain, and repair staff telephone recording system.</p> <p>Staff Telephone Recording System - Repair, replace, modify, program, and troubleshoot the staff telephone recording system. Insert jumper connections to change staff telephone numbers that need to be recorded. Change jumper connections when staff telephone numbers are changed. Insure Eventide Voice Recording system continues to record phone calls. Program and set up staff telephone system to record calls correctly.</p>
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Functional Area Title: Repair and Maintain Intercom Systems		
E/M	% of Time	Duty Statement
E	5 %	<p>Install, troubleshoot, maintain, and repair intercom system.</p> <p>Intercom (Standard) - Repair, replace, inspect and troubleshoot 350 intercom stations. Maintain audio levels on 27 output amplifiers to ensure clear verbal communications in moderate to high security areas. Adjust system activation devices to allow for continuous operation.</p> <p>Install, troubleshoot, maintain, and repair Stenofon system.</p> <p>Intercom (Processor Controlled Stenofon)- Program, repair, rebuild, test and calibrate microprocessor controlled dedicated intercom system. Strong understanding of program language necessary to repair and diagnose system malfunctions. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and electrical equipment, to include digital and analog diagnostic equipment.</p>

Functional Area Title: Repair and Maintain HVAC System Electronics Components		
E/M	% of Time	Duty Statement

E	5 %	<p>Install, troubleshoot, maintain, and repair heating control valves and actuators and electronic components.</p> <p>Heating Ventilation and Air Conditioning (HVAC) - Program, repair, troubleshoot, inspect, rebuild, fabricate, install electronic, mechanical and computer based control systems. Insure temperatures are kept within established parameters to avoid unnecessary litigation from prisoners. Inspect life safety systems to ensure proper function during emergency situations. 24 hours a day, 365 days a year, make modifications to systems using electrical blueprints, schematics, wiring diagrams, technical manuals and other specifications. Fabricate and design brackets, linkages and adapters to modify new equipment with existing equipment.</p>
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Functional Area Title: Repair and Maintain Computer Network cable systems

E/M	% of Time	Duty Statement
E	5 %	<p>Install, troubleshoot, maintain, and repair computer CAT5 cables and outlets.</p> <p>Install, troubleshoot, maintain, and repair while working with the Micro Computer Tech computer network cable systems. Local Area Network (LAN). Repair - Troubleshoot, repair, inspect and diagnose data system malfunctions. Have knowledge of balanced and unbalanced cabling devices. Perform work to bend, shape and install conduits, including plastic mold and wire mold. Install conduit, pull CAT5 cable, install connectors, test cable continuity and label cable. Use schematic or blueprints to analyze, troubleshoot, locate and diagnose equipment problems using state-of-the-art electronic and electrical equipment, to include digital and analog diagnostic equipment. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices. Uses schematic or blueprint drawings to utilize standard, electrical, electronic, and mechanical systems to plan, layout, fabricate, or assemble electric and electronic equipment and devices.</p>

Functional Area Title: Repair and Maintain Radio Console Equipment

E/M	% of Time	Duty Statement
M	5 %	<p>Troubleshoot and maintain radio console equipment. Initially attempt to repair simple radio equipment problems. If the repair involves anything more than simple troubleshooting then contact Enterprise Technology Services to coordinate repair by trained radio equipment technician.</p>

Functional Area Title: Repair and Maintain Dish Network Television System

E/M	% of Time	Duty Statement
M	5 %	<p>Install, troubleshoot, maintain, and repair Dish Network television system.</p> <p>Video (Satellite TV) - Repair, troubleshoot and adjust satellite TV system. Ensure both video and audio reception is maintained to proper levels using special test equipment such as RF signal strength meter, digital volt meter, video monitors. Adjust signal levels as necessary to ensure 24 hour operation to approximately 340 cable locations. Install, troubleshoot, maintain, and repair all components of the satellite television system.</p>

Functional Area Title: Repair and Maintain Miscellaneous Electronic Equipment		
E/M	% of Time	Duty Statement
M	15 %	<p>Troubleshoot, service and repair of all types of audiovisual equipment, to include obtaining parts, manuals and schematics.</p> <p>Perform preventive maintenance on equipment on a continuing basis.</p> <p>Compile a maintenance record for the department on each item of equipment.</p> <p>Maintain logs and records of equipment construction, purchase, installation, repair, and maintenance.</p> <p>Maintain an inventory of repair parts and supplies sufficient to keep equipment as functional as reasonable within budgetary constraints.</p> <p>Build, install, repair, and maintain electronic and electrical equipment.</p> <p>Design and build equipment in accordance with the requirements of the institution and safe electronic procedure.</p> <p>Install electronic and electrical equipment such as communications and signaling equipment in and on buildings, vehicles, and other property and equipment.</p> <p>Measure operation of such equipment to ensure it remains within normal operating parameters; adjust and calibrate equipment to restore proper operation.</p> <p>Diagnose malfunctions of electronic and electrical equipment using various diagnostic tools and equipment such as oscilloscopes, multi-meters, and other specialized equipment.</p> <p>Maintain the proper operation of electronic and electrical equipment.</p> <p>Repair electronic and electrical equipment, including microprocessor controlled equipment and computers at the component level using small hand tools, soldering and de-soldering equipment, and other tools of the trade.</p> <p>Uses electronic, hand, power, and pneumatic tools</p> <p>Fabricates parts, cables, and test fixtures</p> <p>Schedule and prioritize emergency, urgent, and routine job order requests.</p> <p>Assist with the coordination of projects with other departments and staff.</p> <p>Assist in the development and implementation of procedures and work practices for identifying, reporting, repairing, and inspecting electronic and audiovisual equipment.</p> <p>Disassemble, clean, lubricate, and repair a variety of makes and models of electronic audiovisual equipment including tape recorders, silent and sound projectors, record players, television sets, closed-circuit television equipment, and public address systems.</p>

Percentage Total: 100%

3. Other Work Details

3.1. List the computer software and hardware used to perform the duties described. Estimate how often each is used (e.g. daily, 2-3 times a week, 1-2 times a month, etc.).

Eventide Telephone VR725 Telephone Recording System (2-4 times a month)

Seimens Apogee Insight and DDC and HVAC Control Software (2-4 times a month)

Reparte Active voice Voice mail System (4-8 times a month)

Mitel SX-2000 Telephone System (4-8 times a month)

Senstar StarNet 1000 Perimeter Security System (4-8 times a month)

3.2. List the equipment and materials used to perform the duties described, including machinery, tools, instruments, vehicles, etc. Estimate how often each is used (e.g. daily, 2-3 times a week, 1-2 times a month, etc.).

Fluke digital volt/ohm/ammeter, screwdrivers, pliers, crimper`s, side cutters, conduit benders, wire strippers, wrenches, telephone handset, Cat-5 cable tester. IE: basic hand tools and electronic instruments. All used daily.

Vehicles: Pickup trucks, box truck, flatbed truck. All used 3-5 times a week.

3.3. List the guides and references regularly used to perform the duties described. Examples include federal and state laws and regulations, professional standards, building codes, trade practices, contracts, and policy and procedure manuals. Explain how and why these guides and references are used. Estimate how often each is used (e.g. daily, 2-3 times a week, 1-2 times a month, etc.).

Alaska Statutes, Alaska Administrative Code, Bargaining Unit Agreement, Department of Corrections Policy & Procedures; Spring Creek Correctional Center Standard Operating Procedures. All used to insure the State of Alaska, Department of Corrections and Spring Creek Correctional Center and bargaining Unit Agreement rules are followed. All are used 2-5 times a month.

Uniform Building Codes, NFPA National Electrical Code, NFPA National Alarm & Signaling Code, Technical Manuals, User Manuals. All used to insure repairs are done in accordance with State and U.S. governmental standards. All are used 2-3 times a week.

Occupational Safety and Health Standards 29 CFR 1910, and Spring Creek Correctional Center OSHA safety plans and programs. Used to insure work is done in a safe manner. All are used 1-3 times a week.

State of Alaska Code of Ethics and Standard of Conduct. Used to insure code of ethics and standards of conduct are maintained at the standards required for a State of Alaska Department of Corrections employee. All are used 1-3 times a month.

3.4. Describe the level of authority and independence the incumbent of the position exercises. List the actions the incumbent takes or the decisions the incumbent makes on a regular basis without obtaining prior approval from a higher level employee. For example, explain how the position has the authority to commit the organization, or any parts thereof, to a course of action.

Generally, the technician works under the direct supervision of the Maintenance Foreman. Some exceptions

will occasionally occur, such as when working on security equipment after hours when the Foreman may not be immediately available for decision making. In such cases, the technician will make decisions in the best interest of SCCC security and safety, and in agreement with the Post 1 Officer, Superintendent, Assistant Superintendent, or Administrative Officer. All adjustments, fine tuning, repair and replacement required and ordering of new parts or equipment. Employee is responsible for lining out and obtaining tools and materials for each job. Employee corrects life safety hazards that can be immediately corrected. Direct workload and responsibilities to working staff (intermittently) or prisoner crew under the Maintenance Foreman`s supervision.

3.5. Describe the nature of the contacts the incumbent has with other people in order to perform the duties described. Include who is contacted, the reason for the contact, and how often the contact is made.

Maintenance Foreman: Consult with DAILY for job assignments

Administrative Officer: Work with for long-term and/or critical job assignments

Post 1 Officer: Work with when security issues arise

Maintenance Staff: Work with daily to give or receive assistance

Maintenance Inmates: Assign minor jobs to help alleviate workload issues

Vendors: Phone/Fax/Email to order parts and supplies

Contractors: Set up time and dates of the contracted technical work within the facility

3.6. Describe the consequence of an error made by a prudent employee in the performance of the essential functions assigned to the position. What is the consequence of that error to individuals, operations, and programs?

Errors in judgment can result in the immediate job being done over again, with associated loss of time and money. It can also cause extra personnel to be called in, to support security in the event that it is security equipment that failed. An error could conceivably cause injury to personnel, or an inmate to escape causing a danger to the general public due to improperly maintained or repaired equipment.

3.7. List critical requirements of the position not previously described (e.g., skills in keyboarding, writing, negotiating, communications, etc.).

Basic computer hookup and operation, completion of technical training/school in the field of electronics technology and/or electrical engineering, expertise in soldering, troubleshooting of circuitry to the component level, use of electronic instruments, termination of coaxial and Cat-5 cables, splicing of cables, reading schematics and wiring diagrams, basic maintenance of fire alarm systems, ability to install power and signal wiring, understand safety issues regarding use of chemicals and associated MSDS sheets, basic understanding of CCTV Systems, and ability to work well with others.

Required to use half-face respirator in the performance of some aspects of the job. Must be able to read and interpret Material Safety Data Sheets (MSDS), Fire Safety documentation specifications for equipment and materials for each job.

Must have effective communication skills, writing skills, mathematical skills, and knowledge and must be cognizant of security rules that impact the Spring Creek Correctional Center. Employee must have the ability to maintain cooperative relationships with other employees and prisoners. Employee must have a professional demeanor, especially in difficult or sensitive situations when dealing with staff and prisoners. Employee must be able to communicate effectively in verbal communication to instruct prisoners.

3.8. List licenses, certifications, registrations, physical or other standards required by state or federal law or regulation to perform the duties described. Cite the specific authority (e.g. law or regulation, such as the OSHA Bloodborne Pathogens Act).

National Institute of Certification in Engineering Technologies (NICET) AK Class Level (Class IA) 13 AAC
50-55 Alaska Fire and Life Safety Regulations

4. Work Demands

The following identifies some of the physical and mental demands and potential hazards typically encountered by this position. These are job demands which can be ***reasonably anticipated and are an expectation of the job***.

Keeping in mind the essential functional areas and duty statements described in section 2, select the rating that best matches the requirement of this position according to the following descriptions:

Rating **Description**

Not Required (N): Not required of this position.

Present (P): Requirement **is** present, but **is not** essential to the position. (For example, a receptionist may encounter aggressive or angry people, but this is not an essential assignment.)

Occasional (O): Required 33 percent of the time or less **and** essential to the position. (For example, a lifeguard swims only occasionally, but it is essential that a lifeguard be able to swim; a correctional officer must control aggressive/angry people who are life threatening.)

Frequent (F): Required over 33 percent of the time **and** essential to the position.

Items checked below must be consistent with the duty statements listed in section 2.

4.1 Physical Requirements

Title	Rating			
	N	P	O	F
Sitting			O	
Walking				F
Standing				F
Running		P		
Jumping	N			
Bending or twisting			O	
Squatting or kneeling			O	
Crawling		P		
Reaching above shoulder level			O	
Reaching below shoulder level			O	
Ascending or descending using a ladder or other conveyance			O	
Climbing stairs				F
Driving cars, light duty trucks			O	
Driving heavy duty vehicles	N			
Using floor mounted foot controls to operate equipment (e.g., not driving a car)	N			
Repetitive motion of hands/fingers (e.g., keyboarding, turning pages)		P		
Fine manipulation with fingers				F
Pinching with fingers			O	
Grasping with hand, gripping			O	
Load, unload, aim, and fire handguns, shotguns or other firearms	N			

Lifting/carrying up to 25 pounds			O	
Lifting/carrying 26-50 pounds			O	
Lifting/carrying more than 50 pounds			O	
Pushing/pulling up to 25 pounds			O	
Pushing/pulling 26-50 pounds			O	
Pushing/pulling more than 50 pounds			O	
Balancing on moving surfaces	N			
Balancing on narrow surfaces		P		
Balancing on slippery surfaces		P		
Balancing on uneven surfaces		P		
Restraining/grappling with people in a public protection environment	N			
Seeing objects at a distance			O	
Seeing objects peripherally		P		
Using depth perception			O	
Seeing close work (e.g., typed print)				F
Distinguishing colors			O	
Hearing conversations or sounds			O	
Hearing via radio or telephone				F
Communicating through speech				F
Communicating by writing/reading			O	
Distinguishing odors by smell		P		
Distinguishing tastes	N			

4.2 Work Environment

Title	Rating			
	N	P	O	F
Work in/exposure to inclement weather			O	
Work in/exposure to cold water	N			
Work/live in remote field sites	N			
Work in confined areas (under desks, in heating vents, etc.)		P		
Exposure to dust, chemicals, or fumes		P		
Exposure to hazardous equipment (e.g., guns, chainsaws, explosives)		P		
Exposure to electrical current (not outlets)			O	
Swimming/scuba diving	N			
Work at heights up to 25 feet (e.g., towers, poles)			O	
Work at heights over 25 feet (e.g., towers, poles)		P		
Work in urban or highway traffic (other than driving)	N			
Work around moving machinery or mobile equipment		P		
Work around moving mechanical parts		P		
Work on and off moving equipment	N			
Work on slippery or uneven surfaces		P		
Work/travel in boat/small aircraft/helicopters	N			

Exposure to high noise levels		P		
Exposure to infection, germs, or contagious diseases (e.g., hospital, lab, clinic, etc.)		P		
Exposure to blood, body fluid, or materials potentially contaminated by blood or body fluids (e.g., hospital, lab, clinic, public protection environment)	N			
Exposure to needles or sharp implements (e.g., hospital, kitchens)	N			
Use of hot equipment (e.g., kitchen ovens, lab equipment)	N			
Exposure to wild/dangerous animals	N			
Exposure to insect bites or stings	N			
Exposure to aggressive/angry people in a public protection environment				F

4.3 Other Work Demands

Title	Rating			
	N	P	O	F
There are no other work demands.				

4.4. Explain any special physical, mental, or behavioral requirements of the position that have not already been addressed.