



FACILITIES TECHNICIAN II (Electrical)

DEPARTMENT: General Services/Building Maintenance

NATURE OF WORK:

Performs skilled electrical work including installation, maintenance, and repair work on electrical wiring systems, controls, and machinery in all County facilities.

ESSENTIAL FUNCTIONS OF THE JOB:

Assists with the installation of electrical layouts for minor construction and renovation projects for County building structures and facilities.

Assists with electrical installations: installs electrical conduit; connects wiring to lighting fixtures and power equipment; installs control distribution apparatus, such as switches, relays, and circuit breaker panels; connects power cables to equipment and installs grounding leads.

Assists with the diagnosis of electrical malfunctions, using appropriate test instruments and diagnostic procedures. Repairs malfunction by such methods as replacing burnt out elements and fuses, bypassing or replacing defective wiring, filing switch contact points, and cleaning or rewiring motors, using hand tools. Tests electrical equipment for safety and efficiency, using standard test equipment, and by observing functioning.

Tests continuity of circuit to ensure electrical compatibility and safety for all components; observes functioning of installed equipment or system to detect hazards and need for adjustments, relocation, or replacements; repairs faulty equipment or systems; assists with inspections of circuits and wiring for specified shielding and grounding and repairs or rewires system according to building codes and safety regulations.

Performs electrical preventive maintenance tasks.

Works with electrical high reach (bucket truck) for parking lot and ball field high voltage lighting.

Assists in bringing existing electrical systems up to code standards.

Assists in the purchase and pick up of necessary supplies, materials, tools, and equipment.

Responds to emergency calls for electrical and HVAC systems.

Practices continuous learning through individual study, classroom training, seminars, and conferences.

Performs work safely in accordance with department safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work condition or practice to Supervisor.

May be required to report to work to serve customers during emergency conditions. May be assigned to report at a different time and location and to perform different duties as necessary.

Performs related work as required.

JOB LOCATION AND EQUIPMENT OPERATED:

Duties are performed primarily at various County facilities and requires lifting, climbing, and working at varied heights and the operation of various hand and power tools.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Thorough knowledge of connecting, wiring, and devices used in the conduction of electricity.

Thorough knowledge of the safe and effective use of hand and power tools and other equipment of the electrical trade.

Knowledge of the provisions of the national and local electrical codes.

Ability to accurately diagnose and correct electrical power and lighting failures.

Ability to read wiring diagrams and schematics.

Ability to learn County and Departmental policies, procedures, rules, and regulations.

Ability to exercise independent judgement and make independent decisions.

Ability to work harmoniously with other employees and the general public in an effective and courteous manner.

Ability to follow oral and written instructions.

MINIMUM QUALIFICATIONS:

High school diploma or equivalent; and extensive work experience in the electrical trades; or any equivalent combination of acceptable education and experience providing the knowledge, abilities, and skills cited above.

NECESSARY SPECIAL QUALIFICATIONS:

Must possess a valid Virginia driver's license with an acceptable driving record based on James City County's criteria.

Must possess Journeyman Electrical Certification.

Must work in inclement weather.

Must be able to work nights, weekends, and holidays as required.

Requires a post offer physical with a drug test.

IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title: Facilities Technician II Position Number: 276
Department: General Services Division: Building Maintenance

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

I. *Mental Abilities:* General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- Ability to understand and follow oral instruction
- Ability to understand and follow written instruction
- Ability to guide and/or give instructions
- Ability to make decisions in accordance with established procedures and policies
- Not essential to job function

II. *Verbal Abilities:* Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

1. Speaking/Talking:

- Answer telephone, radio or switchboard
- Communicating with County officials
- Communicating with general public
- Communicating with vendors
- Communicating with supervisors and/or with other employees
- Communicating with other _____
- Not essential to job functions

2. Hearing/Listening:

- Ability to distinguish between different tones
- For communication with County officials, public, vendors, supervisors and/or other employees
- Not essential to job function.

3. Reading: (ability to read and understand text)

- Essential to job function
- Not essential to job function

III. Numerical: Ability to perform arithmetic operations quickly and accurately.

- Ability to mentally perform accurate two digit calculations
- Ability to perform accurate calculations aided by a calculator, adding machine or measurement device
- Not essential to job function

IV. Spatial Abilities: Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- Essential function
- Not essential function

V. Motor Coordination: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

1. Manual Dexterity: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use telephone | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard | <input type="checkbox"/> Use postage machine |
| <input checked="" type="checkbox"/> Use radio/console | <input checked="" type="checkbox"/> Use hand tools |
| <input checked="" type="checkbox"/> Use a calculator | <input checked="" type="checkbox"/> Use power tools |
| <input checked="" type="checkbox"/> Use a copy machine | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Use a fax machine | <input type="checkbox"/> Not essential to job function |

2. Finger Dexterity: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- Essential to job function
- Not essential to job function

Explain: _____

VI. Physical Demands:

1. **Strength:** The quality, state or property of being strong. The power to withstand strain, force, or stress.

Please check (✓) in appropriate boxes below.

| | Ability to manipulate materials and/or equipment (lbs) | | | | | | Frequency of Manipulation | | |
|-------------------|--|------|-------|-------|-------|-----|---------------------------|------------|--------------|
| | 5- | 5-10 | 10-15 | 15-25 | 25-50 | 50+ | Occasionally | Frequently | Continuously |
| Lift | | | | | | ✓ | | ✓ | |
| Push/Pull | | | | | | ✓ | | ✓ | |
| Hold/Carry | | | | | | ✓ | | ✓ | |

Manipulation done from: ground to waist waist level waist to shoulder above shoulder
(Check all that apply)

Not essential to job function: Lift Push/Pull Hold/Carry (Check all that apply)

2. **Climbing:** To move up or mount by using the hands or feet.

Ladders

Stairways

Steps

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Step stool | <input checked="" type="checkbox"/> 1 flight | <input type="checkbox"/> 1-2 |
| <input checked="" type="checkbox"/> 8' to 10' step ladder | <input type="checkbox"/> 2 flights | <input type="checkbox"/> 2-3 |
| <input checked="" type="checkbox"/> Extension ladder | <input type="checkbox"/> 3 or more flights | <input checked="" type="checkbox"/> 3-4 |
| <input checked="" type="checkbox"/> Other <u>Scaffolding</u> _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function |

3. **Ability to Stand, Sit, Walk, and Run:**

Please check (✓) in appropriate boxes below.

| | Duration (hours/day) | | | | | | Occasionally | Frequently | Continuously |
|--------------|----------------------|-----|-----|-----|-----|----|--------------|------------|--------------|
| | 0-1 | 1-3 | 3-5 | 5-7 | 7-9 | 9+ | | | |
| Stand | | | ✓ | | | | | ✓ | |
| Sit | | ✓ | | | | | | ✓ | |
| Walk | | ✓ | | | | | | ✓ | |
| Run | | | | | | | | | |

If walking or running, over what type of terrain? flat rough both

Not essential to job function: Stand Sit Walk Run (Check all that apply)

4. Stooping, Kneeling, Crouching, and /or Crawling:

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

Daily Amounts

- 0-5x 5-20x 20-50x 50+x
 Other _____ Not essential to job function

5. Reaching, Handling, Fingering, and/or Feeling:

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

Daily Amounts

- 0-5x 5-20x 20-50x 50+x
 Other _____ Not essential to job function

6. Seeing: To perceive or comprehend by the sense of sight.

Essential to job function: These characteristics are necessary (Check all that apply)

- Peripheral vision
- Night vision
- Focus (distinctness or clarity)
- Color perception (discriminate between colors)
- Depth perception (determine distance relationship between objects)

VII. Driving: The ability to transfer or convey in a vehicle.

| Transmission | Standard | Automatic | Multi-Gears |
|-------------------------------|--------------------------|-------------------------------------|--------------------------|
| Car | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Van | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Small Truck | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Medium Truck | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Large Truck | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Truck w/Equipment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Heavy Bus Equipment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Not essential to job function | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (list) _____ | | | |

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