



CLASS SPECIFICATION FOR:

## Traffic Signal Technician II

### General Statement of Duties:

Installs, maintains, programs, troubleshoots and repairs traffic control and traffic detection devices, wired and wireless communications and related components and supporting equipment Countywide; does related work as required.

### Distinguishing Features of Class:

An employee in this job classification proficiently performs all the duties assigned to a Traffic Signal Technician I plus installs and programs flashing yellow arrow signals and related components and equipment; assists in the preparation of new traffic signal plans; assists with updating signal plans to accurately reflect the field; sets-up wiring for new cabinets; inspects work performed by contractors and determines compliance with specifications; operates a variety of maintenance vehicles and equipment; assists with other Traffic division work and projects as assigned; and serves as a lead worker. Work is performed independently and as part of a team as needed in the shop and in the field in varying, including adverse, traffic and weather conditions. Receives general supervision from supervisor.

### Examples of Assigned Duties *(illustrative of the types and scope of duties and responsibilities assigned to positions in this class):*

- Performs skilled shop and field tasks in assembling, programming, installing, servicing, testing, repairing and adjusting electrical, mechanical and programmable components of all traffic signal and traffic detection systems and related components and equipment used Countywide;
- Installs and programs flashing yellow arrow signals and related components and equipment at designated locations;
- Assists in the preparation of new traffic signal plans by reviewing for proper equipment and placement, identifying areas of concern, and staking locations for new signal poles on site;
- Works with Traffic Division staff to update signal plans to reflect changes that have been made in the field;
- Sets up the wiring for controller cabinets for NEMA TS-1 and TS-2 using wiring diagrams and cabinet schematics;
- Performs preventative maintenance and periodic inspections and testing as assigned to ensure functionality;
- Tests, troubleshoots and diagnoses traffic control systems, including related components and equipment, using specialized tools, equipment and programs, and makes necessary adjustments and repairs;
- Installs, programs, and troubleshoots communication issues for the Advanced Traffic Management System involving wireless communication, fiber optic lines, Layer 2 switches, Layer 3 routers, Ethernet ports, server communication, line of sight antennae, and FIOS drops;
- Investigates and responds to complaints and emergency calls relative to traffic signal malfunctions during regular working hours, on call, and specified standby periods, including notifying Dominion Power of power outage;
- Creates and maintains accurate documentation, paper and electronic, as required;
- Maintains records on all signal equipment for signal timing, equipment malfunctions, and equipment inventory;
- Inspects signal installation work performed by contractors to ensure work performed meets the signal design plan sheets and applicable FHA and County standards, includes conducting on-site inspections, documenting daily activities of the contractor, identifying work not performed to proper specifications and standards; identifying and communicating items that need reworked for compliance, and approving payment;
- Tests traffic control equipment upon receipt to ensure functionality;
- Collects and tests concrete samples and determines samples' compliance with established standards;
- Safely operates and maintains a wide variety of meters, diagnostic equipment, hand, power and hydraulic tools and equipment necessary to complete assigned duties, as well as County vehicles including but not limited to platform trucks, bucket trucks, dump trucks, stake body trucks, crash cushion trucks;
- Serves as lead worker, includes assisting with training other technicians and staff as assigned;
- Coordinates work to be completed by other County personnel/departments, contractors and Dominion Power;
- Performs the periodic inventory of shop supplies and materials;
- Attends all scheduled training and meetings;
- Assists with inclement weather cleanups, including driving a snow plow, as assigned;
- Obtains and maintains required licenses and certifications, including a safe driving record;
- Performs other duties as assigned.



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### Required Knowledge, Skills and Abilities:

Considerable knowledge of the principles, practices and operation of computerized traffic control systems; considerable knowledge of the principles of electronic theory, practices, materials, tools, and equipment as related to work assignments; considerable working knowledge of electronic equipment, specifically programmable electronics; demonstrates thorough knowledge of the current traffic signal controller and associated reports and diagnostics for troubleshooting purposes; considerable knowledge of the installation and troubleshooting of wireless communication equipment; basic mechanical aptitude; requires sound understanding of work zone traffic control; thorough knowledge of the occupational hazards of and safety precautions involved in electrical work; knowledge of installation and troubleshooting of wireless communication equipment; ability to read and interpret typical wiring diagrams; ability to read and write and to understand and follow complex oral and written instructions; ability to read and accurately interpret traffic control blueprints and plans as well as wiring diagrams and cabinet schematics; requires sound understanding of work zone traffic control; ability to perceive hazards and to take precautionary measures while working in the County roadways; basic skills in the use and care of hand, power and hydraulic tools, equipment, and materials; physical condition that permits such activities inherent to installing, servicing, repairing and maintaining traffic control and detection equipment and lighting and performing other assigned tasks such as heavy lifting, bending, stooping, moving and carrying equipment, and safely driving and working in/around varying traffic conditions and working under adverse temperature and/or weather conditions; ability to work safely in elevated work sites; ability to successfully complete assigned tasks in accordance with applicable guidelines, blueprints, technical manuals, schematics and other requirements within given deadlines; critical thinking and problem solving skills with the ability to cost-effectively and appropriately solve a variety of problems occurring at work sites; good oral and written communication skills; ability to express ideas clearly and concisely, orally and in writing; ability to establish and maintain good working relationship with County staff, contractors, vendors, customers and the public; ability to accurately track and report detailed information on work assignments; basic computer skills with ability to use computer for timecards, leave slips, and for creating and maintaining accurate records in County systems; demonstrated ability to prepare accurate material estimates; personal accountability including teamwork and establishing and maintaining positive relationships with coworkers, department and other County staff; ability to work independently and as part of a team; excellent customer service skills; tact; and courtesy. Must be able to positively represent the County with the public. Requires ability to work a flexible schedule as needed.

### Minimum Education and Experience:

Education: High school graduation/GED; some coursework or formal training in electrical maintenance or programmable electronics preferred;

Experience: Five (5) years of relevant electric or electronic maintenance, wired or wireless communications, or other relevant experience, with a minimum of two (2) years of experience working on traffic signal equipment;

OR: Any equivalent combination of experience and training which provides the required knowledge, skills and abilities.

### Additional Requirements:

NOTE: Effective 4/1/2009 County Ordinance 1128 requires a criminal history record check and fingerprinting of all employees in authorized and hourly safety sensitive positions.

NOTE: All employees are required to successfully complete National Incident Management System (NIMS) Incident Command System (ICS) 700 (Introduction) training. Successful completion of additional NIMS ICS training courses may be required based on the job classification, level of responsibility, and department. Please refer to Fire's Intranet site for a list of NIMS ICS requirements by job classification.

- Valid driver's license with a safe driving record.
- Valid Class B CDL License with the endorsements necessary to operate County equipment and vehicles.
- Valid Flagger Certification from the Virginia Department of Transportation
- May require a pre-employment physical examination and/or medical tests administered by Henrico County Employee Health Services, the components of which are based on and appropriate to the specific sensory and/or physical demands of the given position.