



Classification Specification Title: Traffic Signal Systems Engineer

Department	Public Works	Grade: GS.12
Supervision Received	Traffic Signal Systems Manager	FLSA Status: Exempt
Supervisory Responsibility	None	Established: May 15, 2012 Revision: May 5, 2026

CLASSIFICATION SUMMARY:

Incumbents in this classification oversee and manage the planning, grants, design, construction, maintenance, and operation of elements of Chattanooga's Intelligent Transportation System. Additionally, given the City's commitment to the recently launched Smart City Challenge, candidates for this classification will be positioned to lead some or all of Chattanooga's "Smart City" initiatives. Because this position works within the Chattanooga Department of Transportation (CDOT), it includes primarily those activities that relate to the safety and dynamics of our street and public space network. However, because the core of a Smart City approach is innovation and integration, incumbents in this classification must not only be comfortable with, but also embrace and actively pursue, broader notions of the prototype modern city, to include developing Chattanooga-centered solutions for future mobility and public space problems.

SERIES LEVEL: The Traffic Signal Systems Engineer is a stand-alone position.

ESSENTIAL FUNCTIONS: *(The following duties ARE NOT intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.)*

Ensures Chattanooga's streets operate safely and efficiently on a daily basis.

Optimizes traffic signal timing.

Manages vendors supporting the City's transportation network.

Oversees planning, grants, design, construction, maintenance, and operation of the transportation system.

Directs and manages the Intelligent Transportation System (ITS).

Supports telecommunications-related programs of the City. Ensures compliance with City, State, and Federal regulations.

Implements projects to improve transportation operations and expand ITS functionality. Expands and enhances the transit signal prioritization program.

Pursues and implements Advanced Transportation Management Systems (ATMS).

Oversees and improves the City's Closed Circuit Television (CCTV) and signal detection programs.

Supervises contracted vendors supporting program implementation.

Directs and manages the implementation of transportation and ITS programs.

Develops solutions to mobility and public space challenges, and advances Chattanooga's transformation into a Smart City.

Leads strategic planning to address technological and cultural shifts in transportation, transit, and public space.

Analyzes how people and goods move throughout the City. Ensures accurate data collection for transportation modeling and studies.

Identifies and advances opportunities to integrate technology and communications capabilities within the transportation network.

Identifies opportunities for Chattanooga to serve as a testing ground for transit and transportation technologies. Engages with and supports transit providers and transit advocates.

Collaborates with companies and nonprofits to develop innovative transportation solutions. Manages partnerships with transportation-focused organizations.

Engages residents, businesses, and visitors to understand and shape transportation demand management strategies.

Serves as a liaison to the telecommunications and technology community.

Must meet regular attendance requirements.

Must be able to maintain good interpersonal relationships with staff, co-workers, managers, and citizens.

Must accomplish the essential functions of the job, with or without reasonable accommodations, in a timely manner.

Performs other duties as assigned.

This position is deemed essential during inclement weather situations, and must report to or remain at work, even when administrative closings are announced, as determined by the Department Head.

DEPARTMENT SPECIFIC DUTIES (if any):

None

MINIMUM QUALIFICATIONS:

Bachelor's Degree in a related field and six (6) years experience that includes progressively responsible work assignments in Smart City approaches, traffic signal operations, traffic signal network design, communication, and/or technology-based activities associated with transportation or traffic engineering; and/or project management using Tennessee Department of Transportation (TDOT) Local Program guidelines, Federal Highway Administration processes for Information Technology Service

(ITS) implementation and funding mechanisms, demonstrating knowledge of the application of U.S. DOT's Notice of Funding Availability (NOFA) guidelines; or any combination of equivalent experience and education.

LICENSING AND CERTIFICATIONS:

Valid Driver's License

KNOWLEDGE AND SKILLS:

Knowledge of current transportation demand management tools, Intelligent Transportation Systems, traffic engineering principles, procurement procedures, management and leadership tools, relationship building, GIS applications, computer systems and network design, and applicable Federal, State, and Local laws, ordinances, codes, rules, regulations, standards, policies, and procedures.

Skill in implementing technology, overseeing, and ensuring quality work from staff and vendors for design, analysis, and implementation (interpreting and ensuring accuracy of technical information), communicating clearly and effectively (written and verbal), and interpersonal skills. Working with stakeholders and other City government offices to envision and brainstorm ideas for the future of how Chattanooga could implement Smart City techniques. Ability to put ideas and theories into practice.

PHYSICAL DEMANDS:

Positions in this class typically require fingering, grasping, talking, hearing, seeing, and repetitive motions.

WORK ENVIRONMENT:

Light Work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

SPECIAL REQUIREMENTS:

Safety Sensitive: Child Sensitive: Dept of Transportation (CDL):

The City of Chattanooga, Tennessee, is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City will provide reasonable accommodations to qualified individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the employer.

Revision History: 4/04/25; 10/20/23; 8/02/22