



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
TRAFFIC DESIGN DIVISION
20TH FLOOR, WILLIAM R. SNODGRASS TOWER
312 ROSA L. PARKS AVENUE
NASHVILLE, TENNESSEE 37243
(615) 253-1122

WILL REID
COMMISSIONER

BILL LEE
GOVERNOR

TO: Shane Hester, Chief of Engineering
FROM: Andy Barlow, Director of Traffic Design Division
SUBJECT: **Proprietary Item Request and Justification**
City of Athens

The City of Athens is requesting the following items be used in all signalization projects within their jurisdiction over the next three years where Federal and/or State funding are used.

- 1) **Traffic Signal Controllers:** Yunex Controllers.
- 2) **Cabinet Monitor Units:** Eberle Design Inc. (EDI).
- 3) **Traffic Signal Detection:** Wavetronix Radar Detection.
- 4) **Emergency Pre-Emption System:** Opticom.
- 5) **System Software:** Yunex TATICS System Software.

The above items are essential for synchronization with existing facilities. The City of Athens staff has been extensively trained to install, operate, maintain, program, troubleshoot, and repair these items. This allows technicians to quickly diagnose issues which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to ensure maximum capacity of the synchronized system. By utilizing these items as the standard for the City of Athens, there will be a cost savings in stocking replacement equipment and will result in faster and less costly repair. See attached letter for additional justification details of this request.

Approval of items for proprietary use does not guarantee state or federal reimbursement on the project. The local government agrees to comply with all current, applicable provisions of the Build America Buy America (BABA) requirements established under 23 USC 313 and 23 CFR 635.410.

I, Andy Barlow, Director of Traffic Design Division of the Tennessee Department of Transportation, do hereby certify that in accordance with the requirements of Procedures for Using Patented or Proprietary Products (SOP 1-5) that the patented or proprietary items listed above are essential for the synchronization of existing facilities.

Andrew Barlow (Jun 23, 2026 15:43:29 CDT)

Director of Traffic Design Division

Chief of Engineering

06/23/2026

Date



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June 9, 2026

Stephen K. Bryan, P.E.
Statewide Traffic Signals Engineer
Tennessee Department of Transportation
William R. Snodgrass Tennessee Tower, 20th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

Dear Mr. Bryan:

The City of Athens Department of Public Works respectfully requests proprietary product certification for specific signalized intersection components to be used in all signalization projects within the City over the next three years where Federal and/or State funding is utilized. The systems outlined below have been extensively deployed throughout the City's transportation network and are essential for maintaining system compatibility, operational efficiency, and long-term reliability.

This request is part of the Department's ongoing efforts to modernize technology and standardize the City's signalized network to improve efficiency and safety for both motorists and pedestrians. The City currently maintains 35 signalized intersections, a H.A.W.K. signal located on SR30 at Tennessee Wesleyan University, and two wired advance notification beacons on SR2.

To ensure system continuity and improve coordination across the network, the City requests approval to specify Yunex controllers and Eberle Design, Inc. (EDI) monitors for all applicable projects over the next three years. The City currently utilizes Yunex controllers and EDI monitors at all 35 signalized intersections; consequently, Public Works personnel are extensively trained in their operation, maintenance, and troubleshooting. Continued use of this equipment will support efficient operations, reduce maintenance costs, and minimize the need for additional training and spare parts inventory.

Additionally, the City has budgeted for the implementation of Yunex TACTICS software as part of this initiative, with the long-term goal of establishing a centralized traffic management system. Specifying compatible equipment is essential to ensure seamless integration, system reliability, and long-term functionality.

After evaluating GRIDSMA^{RT} video detection as a potential replacement for the existing combination of Wavetronix radar and in-ground loop detection systems, the City has elected to continue deployment of Wavetronix radar detection due to operational issues encountered during the evaluation of the GRIDSMA^{RT} system. Based on these findings, and considering the operational advantages of overhead



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detection as compared to in-ground loop detection, the City requests approval to specify Wavetronix radar detection equipment, processors, and associated performance management software for use in all signalization projects within the City of Athens over the next three years where Federal and/or State funding is utilized. Wavetronix radar detection equipment is currently in operation at five signalized intersections throughout the system with a sixth intersection scheduled to become operational within the next three months.

As part of the City's traffic signal modernization effort, the City has begun implementing Emergency Vehicle Traffic Signal Preemption within the transportation network. Signalized intersections are being upgraded in conjunction with other intersection improvements, while select high-volume intersections may receive this technology as stand-alone upgrades. The system selected by the City is the Opticom optical-based preemption system.

The City is requesting approval to specify the Opticom system for all applicable projects over the next three years that are funded with Federal and/or State funding. Approval is necessary to maintain system-wide compatibility with equipment currently being deployed at signalized intersections and within City emergency vehicles. The first signal equipped with this technology will come online within the next three months with the installation of a new traffic signal at the intersection of W Madison Avenue and Old Riceville Road. This project is being funded using Section 130 Highway-Rail Grade Crossing Improvement Program funds with timing dependent upon delivery of materials currently on order. Additionally, the Fire Department has ten vehicles equipped with Opticom optical-based transponders and plans to eventually equip all department vehicles with this capability.

Thank you for your consideration of this request. Approval will allow the City of Athens to continue improving the safety, efficiency, and reliability within its transportation network while maintaining consistency and compatibility across existing and future signal infrastructure.

If you have any questions or require additional information, please feel free to contact me at (423) 744-2769.

Respectfully,

Benjamin C. Burchfield
Public Works Director
City of Athens