



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS DIVISION
SUITE 1800, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 253-1122

CLAY BRIGHT
COMMISSIONER

BILL LEE
GOVERNOR

TO: Will Reid, Assistant Chief Engineer of Operations

FROM: Brad Freeze, Director of Traffic Operations

SUBJECT: **Proprietary Item Request and Justification**
City of Columbia

- 1) **Traffic Signal Controllers**
- 2) **Traffic Signal Conflict Monitors**
- 3) **Traffic Signal Emergency Vehicle Preemption System**

- 1) **Traffic Signal Controllers:** The City of Columbia is requesting that Siemens controllers be used in all signalization projects within these jurisdictions over the next three years where Federal and/or State funding are used. This request includes Siemens SE-PAC 2070 ATC controllers. The following are justification items for this request:

The City of Columbia currently operates and maintains 46 signalized intersections. Of these 46 signalized intersections, the Siemens controllers is currently operating at 32 signalized intersections. In addition, Siemens controllers will be installed at three more signalized intersections later this year. The City of Columbia staff has been extensively trained to install, operate, maintain, program, and troubleshoot Siemens controllers. This allows the technicians to quickly diagnose problems with field units which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to insure maximum capacity of the synchronized system. By utilizing the Siemens controller as the standard for the City, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

- 2) **Traffic Signal Conflict Monitors:** The City of Columbia is requesting that Eberle Design Inc. (EDI) conflict monitors be used in all signalization projects within these jurisdictions over the next three years where Federal and/or State funding are used. This request includes EDI 2010ECL-ip conflict monitors. The following are justification items for this request:

The City of Columbia currently operates and maintains EDI conflict monitors at 32 signalized intersections of the 46 total signalized intersections. In addition, EDI conflict monitors will be installed at three more signalized intersections later this year. The City of Columbia staff has been extensively trained to install, operate, maintain, and troubleshoot EDI conflict monitors. This allows the technicians to quickly diagnose problems with field units which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to insure maximum capacity of the synchronized system. By utilizing the EDI conflict monitor as the standard for the City, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

- 3) **Traffic Signal Emergency Vehicle Preemption System:** The City of Columbia is requesting that the Applied Information emergency vehicle preemption system be used in all signalization projects within these jurisdictions over the next three years where Federal and/or State funding are used. This request includes Applied Information AI 500-086-02 Cabinet Monitoring/ Preemption Units. The following are justification items for this request:

The City of Columbia currently operates and maintains the Applied Information emergency vehicle preemption system at 11 signalized intersections of the 46 total signalized intersections. In addition, the Applied Information emergency vehicle preemption system will be installed at three more signalized intersections later this year. The Fire Department has also purchased five of these unit devices for their emergency vehicles. The City of Columbia staff has been extensively trained to install, operate, maintain, and troubleshoot the Applied Information emergency vehicle preemption system. This allows the technicians to quickly diagnose problems with field units which reduces the time required to maintain the system overall and helps keep the system operational during heavy traffic times to insure maximum capacity of the synchronized system. By utilizing the Applied Information emergency vehicle preemption system as the standard for the City, there will be a cost savings in stocking replacement equipment which will result in faster and less costly repair.

I, Brad Freeze, Director of the Traffic Operations Division of the Tennessee Department of Transportation, do hereby certify that in accordance with the requirements of 23 CFR 635.411(a) (2) that the patented or proprietary items listed above are essential for the synchronization of existing facilities.

Assistant Chief Engineer of Operations

Date



Development Services

May 8, 2020

Stephen Bryan, P.E.
Traffic Engineer/Section Manager – Signal Design
1200 James K. Polk Building
505 Deaderick St., Nashville, TN 37243

Re: Proprietary items product certification request for the City of Columbia

Mr. Bryan

The City of Columbia is requesting proprietary item product certification of the following products. These items will be used in the signalization components of Federal and/or State funded projects over the next three years. Below are the items requested for TDOT approval and certification:

- **Controller:** Siemens SE-PAC 2070 ATC
- **Preemption:** Applied Information AI 500-086-02 Cabinet Monitoring/Preemption Unit
- **Signal Monitor:** EDI 2010ECL-ip

The City of Columbia maintains all traffic signals within the corporate city limits. These proprietary items are necessary for maintenance and synchronization purposes and the specifications noted above are posted on the City's webpage (www.columbiatn.com). This request for equipment is also to continue the standardization of the traffic signal system to ensure that the comprehensive maintenance and spare equipment programs can continue to be managed efficiently. The City of Columbia currently operates 46 signalized intersections, 32 of which have been upgraded with 2070 controllers and EDI 2010ECL conflict monitors. There are 3 more being upgraded with 2070 controllers and EDI 2010ECL conflict monitors within the next few months. Among these, 11 intersections are complete with Applied Information (AI) Units installed and upgraded EDI 2010ECL-ip conflict monitors. The Fire Department has purchased 5 vehicle units to go in their trucks and all are installed and in full operation.

Thank you in advance for your attention in this matter. Please contact me if you need any further justification or information regarding this project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Glenn Harper", is written over a horizontal line.

Glenn Harper, P.E.
City Engineer