



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

BUREAU OF ENGINEERING
SUITE 700, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
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JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

TO: Chuck Rychen
Assistant Chief Engineer of Operations

FROM: Brad Freeze, Director of Traffic Operations

SUBJECT: **Proprietary Item Request and Justification
Metropolitan Government of Nashville**

- 1) **Traffic Signal Controllers**
- 2) **Traffic Signal Network Switches**

- 1) **Traffic Signal Controllers:** The Metropolitan Government of Nashville is requesting that Econolite Cobalt-C controllers be used in all signalization projects within the City including Davidson County over the next three years where Federal and/or State funding are used. The following are justification items for this request:

The Metropolitan Government of Nashville in a competitive bidding process has begun a change out of traffic signal control equipment City-wide to standardize signal equipment and operate and maintain a central software system (Centracs). At this point the City has 103 traffic signal controllers changed out to the new Econolite Cobalt-C traffic signal controllers, with an additional 66 of the previous Econolite ASC/3 series traffic signal controllers already operating in the field. The City expects to have approximately 500 of the 850 signalized intersections operating with the Econolite Cobalt-C traffic signal controllers by the end of calendar year 2016. The City has projects underway that will require this type of controller to insure full functionality of the traffic signal controllers and central software system (Centracs). This full functionality is needed to provide for our new central software as part of our traffic signal management program and transit signal priority project in conjunction with the Nashville Metropolitan Transit Authority. This allows our staff to diagnose problems over the central software prior to leaving our shops 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.

The Metropolitan Government of Nashville staff has been extensively trained to install, operate, maintain, program, and troubleshoot Econolite Cobalt-C controllers. This allows our 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 Econolite Cobalt-C 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 Network Switches:** The Metropolitan Government of Nashville is requesting that Etherwan 3575 network switches be used in all signalization projects within the City including Davidson County over the next three years where Federal and/or State funding are used. The following are justification items for this request:

The Metropolitan Government of Nashville in a competitive bidding process has begun a change out of traffic signal control equipment City-wide to standardize signal equipment. At this point the City has 103 traffic signal controllers changed out to the new Econolite Cobalt-C traffic signal controllers with Etherwan 3575 network switches. The City expects to have approximately 500 of the 850 signalized intersections operating with the Econolite Cobalt-C traffic signal controllers with Etherwan 3575 network switches by the end of calendar year 2016. The City has projects underway that will require this type of controller and type of network switch to insure full functionality of the traffic signal controllers and central software system (Centracs). This full functionality is needed to provide for our new central software as part of our traffic signal management program and transit signal priority project in conjunction with the Nashville Metropolitan Transit Authority. This allows our staff to diagnose problems over the central software prior to leaving our shops 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.

The Metropolitan Government of Nashville staff has been extensively trained to install, program, and maintain Etherwan 3575 network switches. This allows our 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 Etherwan 3575 network switches 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

MEGAN BARRY
MAYOR



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

DEPARTMENT OF PUBLIC WORKS
750 SOUTH FIFTH STREET
NASHVILLE, TENNESSEE 37208

July 25, 2016

Stephen K. Bryan, P.E., PTOE
Tennessee Department of Transportation
Traffic Operations Division
James K. Polk Bldg., 12th Floor
505 Deaderick St., Nashville, TN 37243

Request for Proprietary Traffic Signal Products Certification: Traffic Signal Controllers and Network Switches

Mr. Bryan:

The Public Works Engineering Department of the Metropolitan Government of Nashville and Davidson County would like to request a proprietary product certification for the Econolite Cobalt-C Traffic Signal Controller and Etherwan 3575 network switch over the next three years. Currently Econolite controllers operate at 169 intersections owned by the City.

The City of Nashville in a competitive bidding process has begun a change out of traffic signal control equipment City-wide to standardize signal equipment and operate and maintain a central software system (Centracs). At this point the City has 103 traffic signal controllers changed out to the new Econolite Cobalt-C traffic signal controllers with Etherwan 3575 network switches, with an additional 66 of the previous Econolite ASC/3 series traffic signal controllers already operating in the field. The City expects to have approximately 500 of the 850 signalized intersections operating with the Econolite Cobalt-C traffic signal controllers by the end of calendar year 2016. The City has projects underway that will require this type of controller and network switch to insure that we have full functionality of the traffic signal controllers and central software system (Centracs). This full functionality is needed to provide for our new central software as part of our traffic signal management program and transit signal priority project in conjunction with the Nashville Metropolitan Transit Authority. This allows our staff to diagnose problems over the central software prior to leaving our shops 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.

Additionally, the 730-N specification will be revised to reflect the change to the Econolite Cobalt-C traffic signal controller and Etherwan 3575 network switch.

Also, as part of the City-wide change over to the new traffic signal control equipment our staff has been exclusively trained on the programming, maintenance, and troubleshooting of the Econolite Cobalt-C traffic signal controllers and Etherwan 3575 network switch. By keeping with these proprietary products the City of Nashville can better maintain Nashville's Traffic Management System and reduce system down time.

Thank you for consideration of this request.

Respectfully,
The Department of Public Works

A handwritten signature in black ink that reads "Kristen D. Rice". The signature is written in a cursive style with a small star-like mark above the letter 'i' in "Kristen".

Kristen D. Rice, PE
Metropolitan Government of Nashville
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Nashville, TN 37206
615.880.2401