



**PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION**

2300 West Commercial Boulevard • Fort Lauderdale, Florida 33309 • 954-847-2600 • FAX 954-847-2700

DATE: September 18, 2014
TO: Brenda J. Billingsley, Director
Purchasing Division
FROM: Scott Brunner, P.E., Director
Traffic Engineering Division



72092214X20

SUBJECT: Request for ☐ Sole Source ☐ Sole Brand ☒ Both (Check the applicable box)
☒ Modification To Previous Standardization
RQM/RQS No. ____; Date approved in Advantage ____

GLOBAL TRAFFIC TECHNOLOGIES (GTT)

I have reviewed the following sole source justification and concur with subject request, fully understanding the implications of Section 838.22 of the Florida Statutes:

- (2) "It is unlawful for a public servant, with corrupt intent to obtain a benefit for any person or to cause unlawful harm to another, to circumvent a competitive bidding process required by law or rule by using a sole source contract for commodities or services."
(5) "Any person who violates this section commits a felony of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084."

☒ This requirement has previously been discussed with Connie Mangan of the Purchasing Division on January 9, 2014

SOLE BRAND / PRODUCT STANDARDIZATION REQUEST

The Global Traffic Technologies (GTT) Priority-One preemption is a patented signal priority control system that enables a signalized intersection to provide several different kinds of priority functions, including emergency pre-emption for fire-rescue vehicles, and Transit Signal Priority (TSP) for improving bus route performance. The GTT system has been deployed by Broward County at over 625 signalized intersections over the past decade, and had demonstrated a very high degree of reliability and compatibility with both our legacy signal control system and our new regional signal software platform. The same system has also been adopted by the Florida Department of Transportation, District Four for expanding TSP capability on State arterial corridors within Broward County as part of its advanced arterial management initiative. Based on the GTT system's proven high reliability and compatibility with both of the County's signal systems, and the fact that the patented system is not interchangeable with other priority systems, the Traffic Engineering Division is requesting sole source procurement for the GTT system (equipment and software) in order to continue procuring components that are only available from GTT.

BACKGROUND AND STANDARDIZATION JUSTIFICATION

Broward County Board of County Commissioners
Barbara Shanef • Tim Ryan • Sue Gunzburger • Dale V.C. Holness • Kristin D. Jacobs • Martin David Kiar • Chip LaMarca • Stacy Ritter • Lois Wexler
www.broward.org

On July 11, 2000, Item #30, the Board approved the Minnesota Mining & Manufacturing, Inc. ("3M") as the sole source provider for the implementation of Global Positioning System (GPS) and Radio Based Traffic Signal Priority (TSP) Control System for authorized emergency and transit vehicles. Subsequently, Global Traffic Technologies, Inc. ("GTT") purchased the technology rights of the signal priority control system from 3M, and became the sole source provider of the system.

The patented signal priority control system is comprised of specialized equipment and software that enables a signalized intersection to provide two types of priority functions. The first type of priority function provides for a signal override feature known as "preemption", which allows the signal to quickly display a green indication for approaching emergency vehicles while holding all other directions of traffic with a red indication. This system uses a combined radio-emitter/GPS-based positioning system that accurately detects the location and direction of the fire-rescue vehicle and assigns the appropriate green indication using a phase-selector at the signal controller. The second type of control allows transit vehicles to be provided with an early return of the traffic signal green phase, or an extension of the green phase if the bus is approaching or is still dwelling at a transit stop in advance of a signalized intersection. This feature allows buses to maintain better schedule adherence and reduce route travel times for better transit user performance and reliability.

Since 2000, the GTT system has been installed at over 625 intersections along major roadway corridors based on an emergency route plan developed by the Broward Fire Chiefs Association. The preemption function is used daily by hundreds of specially equipped emergency vehicles from the Broward Sheriff's Office Fire Rescue Division and other municipal fire-rescue departments. Fire-rescue vehicles responding to an emergency call or transporting victims to the nearest medical center use the system to change and hold the green phase for approaching traffic signals along their route. The system is also sophisticated enough to predict and select the correct traffic signal green turn-arrow based on turn-signal input received from the emergency vehicle. The system's auto-release function deactivates the preemption command once the emergency vehicle arrives at the scene and the vehicle doors are opened, or if the vehicle is otherwise detected to have remained in the same position for a pre-determined amount of time. This system is a very sophisticated GPS-based locational system, and is not a strobe or infrared beam system that simply triggers the traffic signal to change by an approaching vehicle.

The TSP option of the GTT equipment is currently being utilized on the Hollywood/Pines Boulevard Corridor by the Transit Division's "95 Express" bus service, which is a limited stop express service that transports passengers along the route to and from Miami-Dade County along I-95. The "95 Express" uses the extended green function of the GTT system's TSP capability. Any of the 625+ intersections throughout the County currently equipped with the GTT equipment for fire-rescue pre-emption can be made TSP operable with minor programming updates to the system firmware as the key field components of the system are already in place.

Part of the system's success is due to its compatibility with the County's deployment of Naztec 2070 Advanced Traffic Controllers and migration to the new Naztec (Trafficware) regional traffic signal software. The emergency vehicle preemption functionality and Naztec 2070 controller equipment is fully compatible with our 23-year-old analog-based Urban Traffic Control System (UTCS).

Although the majority of the preemption system deployment is based on the route deployment plan developed by the Broward Fire Chief's Association, the Division maintains the existing 625+ intersection system, and installs additional intersections or route segments to further enhance the system on an as needed basis.

The Traffic Engineering Division also expects to integrate a GIS map-based emergency preemption and TSP management system into our central Traffic Management Center operations, which can be facilitated by implementation of the signal priority central management software developed by GTT. This real-time, area-wide management system is desired in order to be able to remotely and comprehensively monitor fire-rescue pre-emption and TSP operations simultaneously throughout the County. Currently, such information must be polled one-by-one from individual intersections.

strong competitor of the GTT system. However, both GTT and EMTRAC have been involved in federal patent infringement litigation. Recently, the United States District Court, District of Minnesota, ruled in favor of GTT and granted a Preliminary and Permanent Injunction (Docket No. 333) against EMTRAC's manufacturers to prevent them from continued patent infringement of GTT's proprietary system through the manufacturer, sale, or distribution of EMTRAC to new customers. It is staff's opinion that due to this ruling, the EMTRAC system would be legally prevented from deployment within a jurisdiction already utilizing GTT equipment, and is therefore not a viable alternative system for consideration by Broward County at this time.

CERTIFICATION: I have thoroughly researched the sole source or sole brand justification and fully understand the implications of Section 838.22 of the Florida Statutes:

(2) "It is unlawful for a public servant, with corrupt intent to obtain a benefit for any person or to cause unlawful harm to another, to circumvent a competitive bidding process required by law or rule by using a sole source contract for commodities or services."

(5) "Any person who violates this section commits a felony of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084."

Ed Gariboldi


REQUESTOR/EVALUATOR
PRINT NAME


REQUESTOR/EVALUATOR
SIGN NAME

9/18/14
DATE

Scott Brunner

DEPT./DIV. DIRECTOR OR
DESIGNEE
PRINT NAME


DEPT./DIV. DIRECTOR OR
DESIGNEE
SIGN NAME

9/18/2014
DATE

cc: Andrew Sebo, Assistant Director, Traffic Engineering Division
Edward Gariboldi, Traffic Operations Superintendent, Traffic Engineering Division
Jeannine Conte, Administrative Manager II, Traffic Engineering Division

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Global Traffic Technologies

This request is to standardize and create an open-end contract for Global Traffic Technologies (GTT) preemption traffic control system that enables a signalized intersection to provide several different kinds of signal timing priority functions which includes emergency preemption for fire-rescue vehicles and Transit Signal Priority for improving bus route performance. There are presently in excess of 643 GTT systems deployed throughout the County that have been installed over the past 10 years. This patented system has been adopted by the Florida Department of Transportation, District 4, for expanding Transit Signal Priority (TSP) on their State arterial corridors within Broward County. This system is not interchangeable with any other system, neither hardware nor software.

On July 1, 2000 Item #30, the Board of County Commissioners approved Minnesota Mining & Manufacturing, INC. (3M) as the sole source provider for the Global Positioning System and Radio Based Transit Signal Priority (TSP) Control System for transit vehicles as well as for authorized emergency vehicles based upon their technology and patents. GTT has subsequently acquired the 3M Company's preemptive equipment line. Since July 1, 2000, over 643 intersections throughout the County and other municipalities have been so equipped.

The Traffic Engineering Division expects to integrate a GIS map-based preemption and TSP management system into the Traffic Management Center. This real-time, area-wide preemption is desired for remote monitoring of the fire-rescue and TSP preemption operations simultaneously throughout the County.

In an effort to determine what other preemptive traffic control systems are being utilized by other entities, this agent solicited a Request for Information through BidSync and solicited members of NIGP for their input. There were no responses to either solicitation.

I, John A. Kunzman, concur with the above request, which has been examined by me, and the required due diligence has been performed (See Procurement Code Section 21.34 Sole Source Procurement, and 21.35 Sole Brand Procurement).

Date: 11/12/14

Estimated Amount: \$ 305,920/annually

☐ Only one source

☐ Sole Brand

☒ Only one reasonable source /Standardization ☐ RFI Attached

☐ Rejected – See additional information

Additional Information: This request is to standardize as a sole source/sole brand Global Traffic Technologies for the Traffic Engineering Division. The Board standardized 3M on July 11, 2000, Item #30; however, subsequently, 3M sold their technology rights of the signal priority system to Global Traffic Technologies (GTT) and as such has become the sole source. Since 2000, over 634 intersections through out Broward County have been equipped with the GTT system. The system is comprised of specialty hardware and software that pre-empts traffic signals when approached by

EXHIBITS: (Attach Supporting Documentation)

emergency vehicles. Some Broward County busses are equipped as well.

Additional intersections will be added based upon emergency route plans developed by the Broward Fire Chief's Association. A strong competitor of GTT, Emtrac, has been involved in federal patent infringement litigation and has been issued a permanent and preliminary and permanent injunction from distribution to current GTT customers. This agent conducted independent research by surveying thru NIGP what systems they use. Also, RFI #J1287501F1 was issued to determine if other providers of this system existed. There were no responses to either. It is therefore recommended to put the issue of sole source/sole brand to the

Signature _____
Approved by the appropriate Award Authority

Board.

Title

Date

Brenda J.
Billingsley

Digitally signed by Brenda J. Billingsley
DN: cn=Brenda J. Billingsley, o=Broward
County, ou=Purchasing Division,
email=bbillingsley@broward.org, c=US
Date: 2014.12.15 13:53:43 -05'00'

JOHN
KUNZMAN

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DN: dc=city, dc=broward, dc=bc,
ou=Organization, ou=BCC, ou=PU,
ou=Users, cn=JOHN KUNZMAN,
Date: 2014.11.13 13:07:20 -05'00'