



500 West Big Beaver
Troy, MI 48084
troymi.gov

CITY COUNCIL AGENDA ITEM



Date: August 30, 2021

To: Mark F. Miller, City Manager

From: Robert J. Bruner, Assistant City Manager
Rob Maleszyk, Chief Financial Officer
Lisa Burnham, Controller
Kurt Bovensiepe, Public Works Director
Richard Riesterer, Fire Chief
Peter Hullinger, Assistant Fire Chief
Emily Frontera, Purchasing Manager

Subject: Bid Waiver – Emergency Vehicle Preemption – Opticom GPS System

History

The Troy Fire Department began implementing emergency vehicle preemption (EVP) circa 1975. This was accomplished with electronic, infrared emitters on fire apparatus and staff vehicles, coupled with receivers located at traffic signals, at numerous intersections throughout the city. Additionally, EVP emitters have been added to Paramedic First Response vehicles over the last 15+ years. EVP allows emergency response vehicles, which are equipped with such emitters, to change traffic signals to green in their favor, thereby reducing the likelihood of right angle, broadside collisions. These collisions result when entering the intersection against a red signal. EVP increases the safety of our responders and the motoring public. And, it improves the response time of responders.

Since its inception, EVP in Troy has made use of the Opticom infrared (IR) technology, changing traffic signals one-at-a-time via line of sight IR light waves. While this method has proven effective over the years, the technology is limited in that there must be a clear line of sight between the vehicle emitter and the traffic signal receiver. Receivers require continual maintenance (cleaning and realignment) through efforts provided by the Road Commission for Oakland County (RCOC).

Global Traffic Technologies' Opticom Managed Services offers an improved GPS-based technology to change traffic signals. GPS radio does not require line of sight to operate effectively. It also does not require on-going maintenance to clean and realign receivers. The radio transmitters and receivers are designed to interface with GPS to determine an approaching emergency vehicle's speed. Based upon direction of travel as determined by GPS, the system can anticipate which traffic signal(s) to change next, clearing the intersection of traffic ahead of the emergency vehicle. Such technology also allows for smarter, more efficient, EVP with minimal disruption to traffic. By using the GPS based system, the RCOC is able to more quickly restore the traffic pattern, and efficiently restore traffic flow through our community.

The majority of intersections in the City of Troy have already been upgraded to the new technology, with outstanding results. This purchase would finish the city-wide upgrade from the old infrared system to the new GPS Opticom.



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Purchasing

Staff is recommending the bid process be waived to allow the purchase of the Opticom GPS equipment from *Carrier & Gable, Inc. of Farmington Hills, MI*, the only authorized dealer in Michigan for *Global Traffic Technologies*, the manufacturer of the Opticom GPS equipment, for an estimated total cost of \$281,342 as detailed in the attached quote #36568.

Financial

Funds are budgeted and available in the Fire Department General Equipment Capital Fund under Project Number 2022C0018 for the 2022 fiscal year. Expenditures will be charged to account number 401.336.338.7978.035.

Recommendation

City management recommends waiving the bid process and awarding a contract to *Carrier & Gable, Inc. of Farmington Hills, MI*, the sole source provider of Opticom in Michigan, for the GPS Opticom System for an estimated total cost of \$281,342.00.



CARRIER & GABLE, INC.

24110 Research Drive
Farmington Hills, MI 48335
(248) 477-8700 (248) 473-0730 • FAX

www.carriergable.com

SALES QUOTE

Page: 1

Sales Quote 36568
Sales Quote Date: 7/20/2021
Expires On: 8/20/2021
Customer ID: 2110
SalesPerson: Terry Martin
Terms: NET 30 DAYS

Sell

To: TROY, CITY OF, FIRE DEPARTMENT
PETER HULLINGER
500 W. BIG BEAVER
TROY, MI 48084

Ship

To: TROY, CITY OF, FIRE DEPARTMENT
PETER HULLINGER
500 W. BIG BEAVER
TROY, MI 48084

ALL VALUES STATED IN U.S. DOLLARS

Bid Item No.:
Shipment Within: STOCK TO 6 WEEKS ARO
Shipping Terms:
Project No.:
Intersection: OPTICOM GPS CONTINUATION
Project City:
Project County:
Sheet:
Project Misc.:

Item No.	Description	Cross-Reference No.	Qty.	Unit Price	Total Price
151OPTICOMGPSMICH	OPTICOM GPS ASSEMBLY		41	6,862.00	281,342.00
100-1005	C&G TECH SERVICES - SEE DESCRIPTION BELOW		41		
151-2500	RADIO, OPTICOM GPS MDL 3100		41		
151-3500	AUXILIARY INTERFACE PANEL, MODEL 768		41		
151-0764	PHASE SELECTOR, 4 CH 764		41		
151-0760	CARD RACK, W/ P1 HARNESS 760		41		
151-3400	CABLE, GPS INSTALLATION, 500'		10		
103-7658	FOOT, WD/STL 1.25" HOLE U1158 BLK .75" MH		41		
103-9045P33	BRACKET, SOP, 36" W/REDUCER, BSH, ALM		41		
103-7616	PLUG, 1.25" FOR U1158 FOOT BLACK		41		
***** END of KIT *****					

Amount Subject to Sales Tax 0
Amount Exempt from Sales Tax 281,342.00

Subtotal: 281,342.00
Invoice Discount: 0.00
Total Sales Tax: 0.00
Total: 281,342.00