



# Memorandum



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To: The Honorable Carlos A. Gimenez, Mayor of Miami-Dade County  
The Honorable Esteban L. Bovo, Jr., Chairman  
The Honorable Bruno A. Barreiro, Chairman, Transportation & Public Works Cmte  
and Members of the Board of County Commissioners

From: Mary T. Cagle, Inspector General 

Date: June 12, 2017

Subject: Memorandum of OIG Review, Comments and Observations pertaining to the  
*Award of a Bid Waiver in the Amount of \$11,852,000 for Traffic Control  
Modernization Services to Econolite Control Products, Inc.*  
Transportation and Public Works Cmte., June 15, 2017, Agenda Item 3B

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## INTRODUCTION

At the May 11, 2017 meeting, Chairman Bruno Barreiro and the Members of the Transportation and Public Works Committee (TPWC) honored a request from the Office of the Inspector General (OIG) to defer the Bid Waiver Contract for Traffic Control Modernization Services (Contract No. BW9872-1/20). The OIG sincerely appreciates the opportunity to review the complaints received by this office, conduct a series of interviews with knowledgeable individuals in the industry and the County's professional staff,<sup>1</sup> and submit for your consideration the findings of this effort.

Based on the available facts and evidence gathered to date, there are four key issues that the OIG brings to your attention. These issues all involve terms and provisions of the contract, which we believe can be addressed via revisions to the proposed agreement.

1. Software and Documentation Fees should NOT be on an annual basis.
2. The Contract includes the option to purchase Econolite Cabinets that are neither FDOT nor Miami-Dade County approved.
3. The installation of video detection cameras necessitates a high degree of routine maintenance, whose costs should be included in the contract pricing.
4. The arrangement between Miami-Dade County and WAZE is not clear, even though a \$127,100 enhancement to interface with WAZE is included in the price of the BW9872-1/20.

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<sup>1</sup> **OIG Attachment A** includes a chronology of our contract oversight activities and the identities of staff, consultants, and vendor representatives that we have contacted.

A detailed discussion of each of these items, including OIG recommendations, follow after the Background Section. Last, in our conclusion, we provide some miscellaneous observations regarding the overall ATMS upgrade effort.

## **BACKGROUND**

Since July 2015, the Department of Transportation and Public Works (DTPW), and specifically the Traffic Signal and Signs Division (TSSD), has made substantial efforts to alert national traffic controller manufacturers of Miami-Dade County's intentions to upgrade its Advanced Traffic Management System (ATMS) and transition to the new industry standard traffic controllers. This outreach was an important step as the traffic controllers needed to be approved and certified by various agencies, including Miami-Dade County, before they could be installed and put to use here. The staff of TSSD has provided the OIG with substantial documentation of their outreach efforts to the industry. Despite the best efforts of staff, however, only one manufacturer of the Model 2070LX traffic controller has been locally approved and certified.<sup>2</sup>

The Model 2070LX traffic controllers have been endorsed by the American Association of State Highway and Transportation Officials, the Institute of Transportation Engineers, and the National Electrical Manufacturers Association. More importantly, the Model 2070LX has been certified by the California Department of Transportation (Caltrans) and approved for use by the Traffic Engineering Research Lab of the Florida Department of Transportation (FDOT). The Model 2070LX is based on a Caltrans open source, open platform design specification. It is an environmentally-hardened computer platform (i.e., the hardware) that can run all of the latest innovations in adaptive and priority signalization technology (i.e., the software).<sup>3</sup>

Product approval by FDOT is a prerequisite for the installation of any traffic control device in Florida. FDOT conducts a technical evaluation of transportation devices in compliance with Florida Statutes, Section 316.0745 in order to ensure a *safe, uniform and efficient highway system*. The FDOT testing takes place in a research lab that is a joint venture with Florida State University.

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<sup>2</sup> Econolite Control Products, Inc. achieved certification for its Model 2070LX traffic controller on April 7, 2017, thus enabling its inclusion on the County's Qualified Products List (QPL).

<sup>3</sup> A goal of the Caltrans initiative, beyond the primary objective of developing standard specifications for an environmentally-durable traffic controller, is to give jurisdictions the flexibility of selecting traffic management software independently of the manufacturer of the traffic controller device. Despite this stated goal of Caltrans, multiple sources have advised the OIG of the advantage of purchasing the hardware and software from a single business entity. By purchasing the traffic controller and the traffic management software from the same firm, it eliminates the potential for vendor conflicts (finger-pointing) in the event the integrated hardware-software system yields poor performance. The OIG does not find the logic of this discretionary decision by management unreasonable; however, competing firms marketing traffic solutions software may take issue with this business decision.

All traffic signalization devices installed in Miami-Dade County (whether installed by the public agencies or by private parties) must also be tested and, once approved, be on the County's Qualified Products List (QPL). The County's testing takes place at the TSSD and appears to be the direct responsibility of a single employee. Successful completion of the local testing requirements, which includes submitting the device to a series of environmental tests, enables the product's inclusion on the County's QPL.

The OIG recognizes the fact that Econolite is uniquely positioned at this point in time as the only manufacturer to have a Model 2070LX Traffic Controller on the County's QPL. Further, we find it is an appropriate exercise of authority under the Home Rule Charter of Miami-Dade County, and the prerogative of the Mayor, to set forth the timeline for an upgrade of the ATMS. Accordingly, the OIG acknowledges that the decision to proceed with the acquisition of new traffic controller devices need not be delayed while other manufacturers have their products properly certified. This is especially true given the advance notification that TSSD staff provided to the industry.

While there is widespread support for expediting improvements to the ATMS, the waiver of competitive bidding is an exceptional procurement method, as is evidenced by the need for an extraordinary vote to approve the award of the contract. The OIG notes that there are several products bundled within this Bid Waiver Contract that could be acquired through a competitive bid process. Some of these issues and others directly pertaining to suggested contract improvements are detailed below.

## ISSUES AND CONCERNS

### 1) **Software and Documentation Fees should NOT be on an annual basis.**

Appendix B of the proposed contract sets the pricing for the items contained in this contract. It includes \$2,280,709 for the Centracs software and \$987,236 for Installation Documentation, which is described as all the operating instructions and technical materials and other textual or graphic materials to the controllers, Hardware or Software purchased by the County. Article 8. License Fees reads:

License Fee. In consideration of the license rights granted in Article 3 above, the County shall pay the Software License Fees or other consideration for the Software and Documentation as set forth in Appendix B "Price Schedule" attached hereto. ***All amounts payable hereunder by the County shall be payable on an annual basis.***  
(Emphasis added)

During our review, the OIG spoke with Econolite representatives who advised us that these license fees are to be paid only once. Despite their verbal assurances, the OIG believes that it is imperative that this contract term be amended to clarify that the fees for the license and documentation listed in Appendix B are to be made only once.

Moreover, this Bid Waiver Contract includes 60 BlueToad<sup>4</sup> devices, and associated licenses for up to 100 devices. As these are the products of a separate company that are bundled in this proposed contract and being furnished by Econolite, we urge DTPW to obtain a similar written agreement ensuring that the BlueToad licenses are not payable annually.

OIG Recommendation: All software license and documentation fees be amended to be paid only once.

**2) The Contract includes the option to purchase Econolite Cabinets that are neither FDOT nor Miami-Dade County approved.**

The crux of the argument for a Bid Waiver Contract awarded to Econolite is the fact that Econolite is the only manufacturer that has a Model 2070LX Traffic Controller on the County's QPL. However, as mentioned earlier in this memorandum, several other products are included in the contract's overall price tag of almost \$12 million.

This contract includes \$716,550 for up to 85 cabinets, and the associated installation fee of \$148,495. The scope of work shows that the cabinets specified are Econolite's 332L cabinet, but these cabinets are neither approved by FDOT nor listed on the County's QPL. To bundle the procurement of non-QPL approved Cabinets (\$716,550) in this contract defies the logic of the bid waiver justification. Further, a significant testing objective of the 36<sup>th</sup> Street Pilot Program<sup>5</sup> was to ensure the Model 2070LX Traffic Controller fit in the existing cabinets used by Miami-Dade County. The BCC should be aware there is a valid contract with a vendor who currently provides Miami-Dade County with QPL-approved traffic controller cabinets.<sup>6</sup>

OIG Recommendation: The line item for Econolite cabinets be removed from this contract and that DTPW continue to procure its FDOT-approved cabinets from its existing supplier. The line item for cabinet installation can remain as an optional item, if Econolite is willing to install the FDOT-approved cabinets.

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<sup>4</sup> BlueToad devices detect and track the Bluetooth signals of passing motorists to generate real-time traffic flow data.

<sup>5</sup> We note that the 36<sup>th</sup> Street Pilot Project began on June 10, 2016 and involved the installation and testing of 10 Econolite Model 2070LX controllers. These controllers were installed in the County's existing cabinetry. We also note that at the time of the pilot project, the Econolite Model 2070LX was not on the County's QPL. It had only recently achieved QPL approval on April 7, 2017. Moreover, when the pilot project's contract period started, the BCC's policy regulating compensation for pilot projects was already in place. (See R-230-16 adopted on March 8, 2016.)

<sup>6</sup> Control Technologies, Contract No. Bid 1191-5/18

**3) The installation of video detection cameras necessitates a high degree of routine maintenance, whose costs should be included in the contract pricing.**

Bundled in this contract is the purchase and installation of 675 video detection cameras at a cost of \$6,200 each.<sup>7</sup> Unlike the Model 2070LX controller, there are several manufacturers of approved detection cameras.<sup>8</sup> Without price competition for the cameras, it is difficult to assess the reasonableness of this cost; however at over one-third of the contract's overall price tag (\$4,185,000 of \$11,852,000) it is a significant expense nonetheless.

During our interview of Econolite representatives, it was made very clear that the vendor is not responsible for the routine maintenance of the 675 video detection cameras during the term of the proposed agreement. Other jurisdictions in South Florida have advised the OIG that each camera will require hands-on maintenance (cleaning the lens and making technical adjustments etc.) anywhere from 2 - 4 times a year depending on environmental factors. More than \$4 million will be paid for these capital assets without any provision for the maintenance of this investment. Because much of the maintenance has to do with making technical adjustments, in addition to cleaning the camera lens, and because the purchase of these devices is in support of a larger demonstration project (prior to a large scale procurement and countywide upgrade of its ATMS), we believe the vendor—Econolite—is best positioned to provide the preventative maintenance.

OIG Recommendation: The County should negotiate with Econolite to add preventative and routine maintenance as included in the cost for the video detection cameras.

**4) The arrangement between Miami-Dade County and WAZE is not clear, even though a \$127,100 enhancement to interface with WAZE is included in the price of the BW9872-1/20.**

The County has included provisions in this Bid Waiver Contract that asks the vendor, Econolite, to develop an interface with WAZE, a popular commercial traffic solutions application (app). Although the County is considered a “partner” of WAZE, and commuters in Miami-Dade County who utilize this app will certainly benefit from more robust data, the OIG has not been provided documentation of a business relationship between Miami-Dade County and this commercial business entity. This pass-through benefit of a new interface to WAZE is not without costs to Miami-Dade County. In response to direct inquiries by the Internal Services Department, the contractor has advised that \$127,100 of the Centracs license fee is to cover the cost of this specific

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<sup>7</sup> Some intersections will include more than two cameras.

<sup>8</sup> Before waiving competition for the purchase of Econolite's Autoscope Encore video device, be aware that there are a number of firms with products on the County's QPL for vehicle detection equipment besides Econolite. See <https://www.miamidade.gov/qpl/>

enhancement. The lack of remuneration from WAZE to the County for this benefit should be evaluated.

OIG Recommendation: The County's arrangement with WAZE and other navigational apps should be clarified and, if needed, formalized. Any arrangement should also explore benefits to the County's transportation network, in addition to the benefits enjoyed by individual users of the app.

## **IN CONCLUSION: FINAL OIG OBSERVATIONS & COMMENTS**

This Bid Waiver Contract for ATMS upgrades along the 10 most-congested corridors in Miami-Dade County is an interim effort. This phase follows the Pilot Project on the 36<sup>th</sup> Street corridor, and precedes the competitive solicitation to award a countywide contract to upgrade the ATMS for all 2900 intersections. Rather than wait for another year, or longer, to award a competitive contract for the entire County, this phase is intended to provide a measure of relief for commuters. The scope of work from Atkins, the consultant selected to develop the competitive Request for Proposals (RFP), is currently being evaluated. Once approved, Atkins should be able to deliver a draft RFP within six (6) months.<sup>9</sup>

A second vendor of the Model 2070LX (McCain) has now been approved by Caltrans and FDOT and is currently undergoing tests by Miami-Dade County. Based on the limited resources within the TSSD, the McCain Model 2070LX is not likely to appear on the County's QPL for at least six to nine (6-9) months from now. In order to expand the competitive field, the future RFP may have to authorize competition among firms with QPL approval pending for critical traffic management products. (Note: The 36<sup>th</sup> Pilot Project was conducted prior to the April 7, 2017 QPL-approval letter to Econolite being issued.)

Additionally, efforts to bolster the County's QPL testing resources are strongly recommended. As earlier explained, traffic management products (including cabinets, cameras, and the controllers themselves) all must be approved by Miami-Dade County, in addition to being vetted and certified by the FDOT lab. Heightened product standards for our tropical climate and urban environment ensure the investments made on behalf of County taxpayers are durable. The commitment to higher standards must be backed up with a commitment to appropriately staff the testing facility to evaluate products. Without a permanent dedicated staff to fulfill these obligations, the County may be inadvertently limiting the field of competitors capable of delivering an upgraded traffic management system. As mentioned above, a competitive RFP is currently being developed for a countywide upgrade to the ATMS. To ensure the RFP is truly competitive, the testing facility needs additional resources and personnel.

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<sup>9</sup> Interview with Bo Gao, Senior Project Manager, South Florida ITS Manager, Atkins, May 30, 2017

To bolster the performance of the ATMS, the County is currently soliciting firms to provide fiber optic cable systems along the major transit corridors. The upgrade to a fiber optic infrastructure will improve the communications capacity and reliability between the signalized intersections and the centralized traffic control operations center. The advertisement of RFP-00569-Fiber Optic Cable System was posted on May 23, 2017. And while this solicitation is currently under the Cone of Silence, we wanted to highlight to you that the 10 most-congested corridors—identified for the new ATMS upgrades pursuant to the contract before the Board—are identified as a priority for the upgrade to fiber optic.

Finally, during the conduct of this review, a lack of timely adherence to the rules established by the Board of County Commissioners governing the registration of lobbyists was noted. Representatives of any business entity, prior to entering into negotiations with staff for compensation by the County should be properly registered to lobby. These matters will be referred to the Commission on Ethics and Public Trust.

The OIG has already presented our observations, comments and suggestions to the DTPW Director. Efforts are underway to seek additional clarification and revise certain contract terms and provisions. While this proposed bid waiver contract award works its way through the TPW Committee and to the BCC for final approval, the OIG will continue in our contract oversight efforts to provide the Board with relevant and timely information.

cc: Alina Hudak, Deputy Mayor  
Alice Bravo, Director, Department of Transportation and Public Works  
Tara C. Smith, Director, Internal Services Department (ISD)  
Miriam Singer, Sr. Assistant Director, ISD Procurement Management  
Neil R. Singh, Interim Commission Auditor

## OIG ATTACHMENT A

### Case Chronology – IG 17-21 Traffic Controller Bid Waiver (BW9872-1/20)

April 24, 2017	Anonymous Complaint Received by OIG (CR-1171-1617-M)
May 9, 2017	Complaint received by OIG (CR-1187-1617-M)
May 11, 2017	OIG Memo Requesting Deferral of the Bid Waiver Agenda Item
May 16, 2017	Case Opening (IG17-21)
May 17, 2017	Interview Frank Aira, Chief of Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Operations
May 18, 2017	Meeting with Amos Roundtree and staff, Internal Services Department, Procurement Division – Background on Bid Waiver Justification
May 18, 2017	Interview Nahum Fernandez, Standards and Specification Coordinator, Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Technical Aspects of Equipment
May 19, 2017	Interview Carlos Vasquez, Traffic Engineer Manager, Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Econolite Equipment and Pilot Program on the 36th Street Corridor
May 22, 2017	Interview Radames Iribar, Traffic Engineer 2, Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Econolite Equipment and Pilot Program on the 36th Street Corridor
May 22, 2017	Interview Martha Oliva, Infrastructure Systems Manager, Information Technology Department assigned to the Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on IT Concerns Pertaining to the Econolite Pilot Program on the 36th Street Corridor
May 22, 2017	Interview Raynier Curras, Traffic Engineer 2, Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Econolite Equipment and Pilot Program on the 36th Street Corridor
May 23, 2017	Interview Herasmo Iniguez, Traffic Operations Director, California Department of Transportation (Caltrans) – Background on the Open Architecture Specifications of the Model 2070LX Controller
May 24, 2017	Interview Frank Aira, Chief of Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Alternative Proposals for Pilot Project on 58 <sup>th</sup> Street in the City of Doral and Technical Aspects
May 25, 2017	Telephone conference with Jon Newhard, CEO, Trafficware and Ivette Arango O’Doski, Consultant - Background on Software Compatibility with the Model 2070LX Controller
May 26, 2017	Telephone conference with Jose Pagan-Otero, Project Manager, Atkins – Background on Technical Report for the Econolite Pilot Program on the 36th Street Corridor

## OIG ATTACHMENT A

### Case Chronology – IG 17-21 Traffic Controller Bid Waiver (BW9872-1/20)

May 26, 2016 Telephone Conversation with Tiondra Wright, Procurement Contracting Officer II, Internal Services Department, Procurement Division – Requesting Pricing Breakdown of Bid Waiver Contract Enhancements

May 30, 2017 Interview Bo Gao, Senior Project Manager, South Florida ITS Manager, Atkins – Discussion about Future RFP Development and Review of Bid Waiver Pricing

June 1, 2017 Telephone conference with Jon Ringler, Regional Vice President, Aegis ITS and Connie Braithwaite, Account Manager, Econolite – Background of Business Interactions with Miami-Dade County Leading to the Bid Waiver

June 1, 2017 Telephone discussion with Scott Brunner, Director, Broward County Traffic Engineering Department – Background on Detection Devices and Controllers used by Broward County/City of Weston

June 5, 2017 Meeting with DTPW Director Alice Bravo – Discussion regarding OIG issues and concerns

June 6, 2017 Telephone discussion with Rich Gilligan Ethics Officer, Serco and follow-up email correspondence – Background on employment and investigative efforts pertaining to Jon Ringler

June 6, 2017 Telephone discussion with Deborah Wallace, Inspector General, Georgia Office of the Inspector General - Background on Report of Investigation pertaining to Jon Ringler

June 7, 2017 Interview, Pablo Ojeda, former Systems Analyst/Programmer 2, Information Technology Department assigned to the Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Pilot Program on the 36th Street Corridor and the Econolite Bid Waiver

June 7, 2017 OIG Memorandum to Alice Bravo requesting substitution of Jon Ringler, as the designated Project Manager on Contract No. BW9872-1/20 Traffic Signal System Modernization, based on information learned and shared with the DTWP Director

June 9, 2017 Interview , Albert Fernandez, Network Manager 2, Information Technology Department assigned to the Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Pilot Program on the 36th Street Corridor, Security and Communications

June 9, 2017 Interview , Nasif Alshaier, Assistant Support Manager, Information Technology Department assigned to the Department of Transportation and Public Works, Traffic Signals and Signs Division – Background on Econolite Products and the Bid Waiver