

6-C-1

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**AGENDA ITEM SUMMARY**

**Meeting Date:** March 17, 2009  
 Consent  Regular  
 Workshop  Public Hearing

**Department:**  
**Submitted By:** Engineering & Public Works  
**Submitted For:** Traffic Division

**I. EXECUTIVE BRIEF**

**Motion and Title:** Staff recommends motion to:

- A) **adopt** a Resolution to approve Amendment Number Five, for the enhancement of the operation of the Palm Beach County (County) computerized signal system, per Joint Participation Agreement with the Florida Department of Transportation (FDOT) R2000-0744, to increase FDOT's grant for the salaries to \$500,000 per year;
- B) **approve** an additional position of a Professional Engineer.

**SUMMARY:** FDOT is increasing the grant for the salaries from \$400,000 to \$500,000 per year, through the fiscal year (FY) 2009/2010 with this Amendment, which has already been programmed to be funded under the Transportation Improvement Program through FY 2013. Approval of this Amendment will allow the County to avail itself of an additional \$100,000 per year to add a Signal Timing Engineer's position. This will enhance the operation of the computerized signal system in the County. If the grant agreement is not extended to 2013, the additional position will be eliminated. Countywide (MRE)

**Background and Justification:** The County entered into a Joint Participation Agreement with FDOT on July 19, 2000, R2000-0744, which supplemented staff salaries to operate the computerized signal system. This funding was increased from \$300,000 to \$400,000 per year to support staff salaries for six under Amendment Number Three R2005-1610, and extended the term of the Agreement through the FY 2009/2010. FDOT wishes to increase the staff levels from six to seven to support the computerized signal system operations in the County, as described in Exhibit A, and increase the funding from \$400,000 to \$500,000 per year, through the remainder of the term, as shown on Exhibit B of the Agreement attached.

**Attachments:**

1. JPA Amendment Number Five (5 copies) with Exhibit A and Exhibit B.
2. Resolution Authorizing Amendment Number Five (5 copies)

**Recommended by:**

\_\_\_\_\_  
**Division Director** **Date**

**Approved by:**

*D. T. Webb* 2/25/09  
 \_\_\_\_\_  
**County Engineer** **Date**

**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

Fiscal Years	2009	2010	2011	2012	2013
Capital Expenditures	-0-	-0-	-0-	-0-	-0-
Operating Costs	<u>\$620,611</u>	<u>\$637,140</u>	-0-	-0-	-0-
External Revenues	<u>&lt;\$500,000&gt;</u>	<u>&lt;\$500,000&gt;</u>	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
<b>NET FISCAL IMPACT</b>	<b><u>\$120,611</u></b>	<b><u>\$137,140</u></b>	<b><u>-0-</u></b>	<b><u>-0-</u></b>	<b><u>-0-</u></b>

# ADDITIONAL FTE POSITIONS (Cumulative) 1

Is Item Included in Current Budget? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Budget Acct No.: Fund \_\_\_ Dept. \_\_\_ Unit \_\_\_ Object \_\_\_\_\_  
 Program

**B. Recommended Sources of Funds/Summary of Fiscal Impact:**

County Transportation Trust Fund  
 UTCS FDOT Support

Amendment increases the maximum amount per year from \$400,000 to \$500,000 per year (\$125,000 per quarter) for FY 2009 and FY 2010. Average annual cost to the County will be \$128,875.

C. Departmental Fiscal Review: \_\_\_\_\_ *[Signature]*

**III. REVIEW COMMENTS**

**A. OFMB Fiscal and/or Contract Dev. and Control Comments:**

The additional position, after 2010, will be contingent of an extension of the agreement to 2013. If there is no extension of the agreement, the position would be eliminated.

*[Signature]* 3/3/09 OFMB  
*[Signature]* 2/28/09  
*[Signature]* 2/26/09  
*[Signature]* 3/16/09 Contract Dev. and Control  
 to Jones 3/5/09  
 This amendment complies with our review requirements.

**B. Approved as to Form and Legal Sufficiency:**

*[Signature]* 3/10/09  
 Assistant County Attorney

**C. Other Department Review:**

\_\_\_\_\_  
 Department Director

This summary is not to be used as a basis for payment.

Contract No.: AI-599  
FM No: 229253-1-54-03  
Vendor No: VF 596-000-785

**STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
AND  
PALM BEACH COUNTY  
JOINT PARTICIPATION AGREEMENT  
AMENDMENT NUMBER FIVE**

**THIS AMENDMENT**, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, by and between the **STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION**, hereinafter called the **DEPARTMENT**, and **PALM BEACH COUNTY**, located at 2300 North Jog Road, West Palm Beach, Florida 33411, hereinafter called the **COUNTY**.

**WITNESSETH**

**WHEREAS**, on July 19, 2000, the parties entered into a Joint Participation Agreement, hereinafter referred to as the **AGREEMENT**, wherein the **COUNTY** agreed to provide certain improvements in connection with the enhancement of the Operations of the Palm Beach County Computerized Traffic Signal System and hereinafter referred to as **FM No. 229253-1-54-03**, and,

**WHEREAS**, the parties amended the Agreement was amended on January 8, 2002 (Amendment Number One), June 28, 2002 (Amendment Number Two), December 19, 2005 (Amendment Number Three), and June 18, 2008 (Amendment Number Four); and

**WHEREAS**, the parties desire to further amend the **AGREEMENT**; and

**WHEREAS**, the parties hereto mutually agree that this Amendment is in their best interest;

**NOW, THEREFORE**, in consideration of the mutual covenants, promises and representations herein, the parties agree to further amend the Joint Participation Agreement dated July 19, 2000, as follows:

1. The recitals set forth above are true and correct and are deemed incorporated herein.
2. The **DEPARTMENT** agrees to pay the **COUNTY** an additional amount of **TWO HUNDRED THOUSAND DOLLARS (\$200,000.00)** for **FM Number 229253-2-54-01** which will make the total compensation to the **COUNTY THREE MILLION SEVEN HUNDRED THOUSAND DOLLARS (\$3,700,000.00)** for all services required under the Agreement and subsequent Amendments. The **DEPARTMENT'S** obligation to make payment is contingent upon an annual appropriation by the Florida Legislature.
3. Amendment Number Three, Exhibit "A" shall be removed in its entirety and replaced with Exhibit A of this Amendment, attached hereto and made a part hereof.

4. Exhibit B of the Agreement (as previously amended in Amendment Number One, Amendment Number Two, and Amendment Number Three) shall be removed in its entirety and replaced with Exhibit B of this Amendment, attached hereto and made a part hereof.

All provisions, covenants, terms and conditions of the AGREEMENT between the parties theretofore entered into on July 19, 2000 and amended on January 8, 2002, June 28, 2002, December 19, 2005, and June 18, 2008 respectively as originally set forth therein, and which are not hereby expressly amended or modified and not in conflict with the terms hereof, are hereby ratified and confirmed and shall remain the same and be unaffected by these presents.

IN WITNESS WHEREOF, this AMENDMENT to be executed by the parties below for the purposes specified herein. Authorization has been give to enter into and execute this Amendment by Resolution No. \_\_\_\_\_, hereto attached.

**PALM BEACH COUNTY, Florida, A**  
Political Subdivision of the State of Florida  
**BOARD OF COUNTY COMMISSIONERS**

**STATE OF FLORIDA**  
**DEPARTMENT OF TRANSPORTATION**

BY: \_\_\_\_\_  
NAME: JOHN F. KOONS  
TITLE: CHAIRMAN  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

BY: \_\_\_\_\_  
ROSIELYN QUIROZ  
DIRECTOR OF TRANSPORTATION SUPPORT

**ATTEST:**  
**SHARON R. BOCK**

**APPROVED: (AS TO FORM)**

\_\_\_\_\_  
**CLERK & COMPTROLLER (SEAL)**  
**CIRCUIT COURT**

BY: \_\_\_\_\_  
DISTRICT GENERAL COUNSEL

**APPROVED AS TO FORM AND**  
**LEGAL SUFFICIENCY**

**APPROVED:**

BY: \_\_\_\_\_  
COUNTY ATTORNEY

BY: \_\_\_\_\_  
PROFESSIONAL SERVICES ADMINISTRATOR

**APPROVED AS TO TERMS AND CONDITIONS:**

BY:   
**DAN WEISBERG, DIRECTOR OF**  
**TRAFFIC ENGINEERING**

**EXHIBIT "A"**  
**PROJECT DESCRIPTION AND RESPONSIBILITIES**

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**PROJECT LOCATION:** Palm Beach County, Florida

**PROJECT DESCRIPTION:** The project funds provide for enhancement of the Palm Beach County Computerized Traffic Signal System with Salary and Compensation for Two (2) Signal System Engineer Technicians and One (1) Signal System Operations and Timing Engineer, One (1) Signal System Utility and Communications Specialist, One (1) ITS and Signal System Control Room Supervisor, One (1) ITS and Signal System Control Room Operator, and One (1) Signal Timing Engineer. Priority will be given to development of system timing plans for intersections on the State Highway System (SHS) and to the communications network serving the SHS. No. less than sixty percent (60%) of the total number of signals retimed associated with this contract will be performed on the SHS or on County road segments that carry no less than 30,000 AADT. The Technical staff will permit increased staffed hours for the system's control center which will enhance the system operation and maintenance. All specialized equipment and signal analysis software will be utilized to facilitate effective system control and communications as the system is expanded and is integrated into a regional ITS (Intelligent Transportation System).

**SPECIAL CONSIDERATIONS BY AGENCY:**

The County shall provide a summary detail of technical work which will include the road segments on which signal coordination and retiming was performed, the total numbers of signals retimed in those road segments, the percent of signals retimed on SHS, the percent of signals retimed on the non-SHS roads, and the percent of expected delay reduction.

**AUDIT REPORTS:** The COUNTY shall provide to the DEPARTMENT for each of its fiscal years for which the project account remains open, an audit report prepared either by its office auditor or audit agency or any independent certified public accountant, reflecting the use of the funds of the DEPARTMENT, the COUNTY, and those from any other source with respect to the project. Audits shall be performed in accordance with the generally accepted government auditing standards contained in the Standards of Audit of Governmental Organizations, Programs, Activities and Functions, issued by the U. S. General Accounting Office and OMB Circulars A-128 or A-133 where applicable. The COUNTY shall require its auditors to include in their report a schedule of project assistance that will reflect the DEPARTMENT'S Contract Number, Project FM Number and the Federal Identification Number, where applicable, and the amount of state and/or federal funding actions (receipt and disbursement of funds) with respect to the project.

**TECHNICAL WORK:** The COUNTY shall obtain written approval of any signal system software enhancement from the DEPARTMENT prior to initiating such enhancement. The COUNTY shall also obtain written approval from the DEPARTMENT prior to affecting any modifications to the communication network serving the State Highway System, including installation of fiber optic communication facilities. All specialized equipment shall be approved by the DEPARTMENT prior to purchase by the COUNTY. The Signal System Operations and Timing Engineers shall enhance the operations and efficiency of the State Highway System by performing the following duties:

1. Signal System Operations and Timing Engineers (SSOTE) must be a Florida Professional Engineer.
2. SSOTE must develop system control section and isolated timing plans. Such functions must be the primary function of the SStOE and must be limited to traffic control on the State Highway System (SHS).
3. Data collection to be performed by the COUNTY as required to develop timings. Anticipated data needed includes traffic counts and condition diagrams.
4. The COUNTY must submit status of work performed with each invoice submitted for payment.
5. SStOE may perform other functions relating to operation of the Traffic Signal System and other ITS related systems. As a minimum, the SStOE must spend 75% of his time working on signal timing on the SHS. The remaining 25% may be spent on ITS related projects.

In addition to the SStOE, the following position descriptions would define the activities of other personnel listed in this Agreement:

**DETAILED POSITION DESCRIPTIONS AND JOB FUNCTIONS:**

**1. Signal System Operations Engineers and Technicians:**

- *Develop and analyze signal timing plans for coordinated intersections for various times-of-day from the view points of progression, delay, stops and fuel efficiency.*
- *Develop and analyze signal timing for isolated intersections that best suit the variations in traffic demand.*
- *Implement newly developed signal timing plans and fine tune to suit the field conditions; related to queuing, speed and offsets.*
- *Prepare back-up timing plans for select arterials with "Time Based Coordination (TBC)".*
- *Identify the arterials with congestion and delay problems and conduct before and after travel time-delay studies, fine tune, and optimize the timings for improved progression.*
- *Respond to public complaints on problem intersections, investigate, analyze and take necessary actions to alleviate the problem, depending on the existing facility and the standard operational procedures.*
- *Document the complaints and the actions taken, and design new databases when required.*
- *Software used for undertaking the above tasks: Synchro, Transyt-7F, Streetwise (2070 Controllers), HCS, Simulation package – NETSIM, TBC programming packages – Smartways and LM System, and MVRAP.*

- ***Individual Intersections Evaluation / Investigation***

*These require database evaluations, along with field review and inspections during AM, Midday and PM peak periods, with before and after field reviews to evaluate results of changes made. Reports of all intersections evaluated are also compiled on a monthly basis.*

- ***Arterial Retiming***

*This includes field evaluation of each intersection along the arterial to determine that each location is functioning properly before arterial analysis can begin. If any intersections involved in an arterial segment for retiming are not functioning properly, then extensive review and research takes place to determine and resolve problems. Database computer programming of each intersection is created to establish proper arterial timing evaluations. Timing runs are performed along arterials before changes are made and "multiple" time consuming runs are performed as timing changes are made in order to achieve the best possible timing results.*

- ***Reviews and Inspections of new intersections:***

- *Reviewing requests by citizens, county commissioners, consultants and other agencies for traffic signal installations, modifications, and other traffic related operations.*
- *Inspecting new and/or rebuilt intersections coordinating with all the relevant organizations to bring those into operation.*

**3. *Signal System Database Management Engineers***

- *Compile the data base coding for new intersections, modifying the existing ones as and when required, and monitoring the operation of the computer controlled intersections for proper operation.*
- *Create the arterial files and sets up real time, time-space diagrams, for the purpose of monitoring the progression on the arterials on a countywide basis.*

**4. *ITS Signal System Control Room Supervisors and Operators***

- *Employee monitors control room console, responds to requests from office and field personnel on status of intersections, reports any major communications failures, runs analysis and plots of signal operations.*

**5. *Signal System Utility and Communications Specialists***

- *Employee responds to any of the following communications problems:*
  - *No communications due to a bad RCU (modem)*
  - *No communications due to lack of power*
  - *Reset of RCU due to power surges*
  - *No communications due to a cable cut caused by construction*
  - *No communications due to an accident which destroyed the equipment*
  - *Incorrect timing settings*
  - *No communications due to BellSouth problems*
  - *Bad communications due to noise*

- *Faulty protectors on communications line*
  - *Missing or incorrect green returns*
  - *Provide an explicit description of the exact location cable cuts*
  - *Provide descriptions of the cause of damage*
  - *Provide the approximate length of the damaged cable, size of cable and type of cable*
  - *Take pictures of cable cuts and the general area to include equipment on site, locates markings, flags, etc.*
  - *Provide prime Contractor's company name, mailing address, email address, project manager's name and telephone number*
  - *Provide sub-Contractor's company name, mailing address, email address, project manager's name and telephone number*
  - *Perform temporary repairs if possible. Record time spent and material used*
- *Inspections of new communication lines:*
    - *Inspect communications cable and conduit provided*
    - *Inspect pull and junction boxes provided*
    - *Inspect and ensure that the correct depth is used for the communications cable*
    - *Inspect proper grounding*
    - *Inspect proper location of all communications hardware*
    - *Inspect and ensure that the correct installation procedures were followed*
    - *File reports and perform follow-ups to ensure corrective action is taken to rectify all non-compliant items on the punch list*

**PROGRESS REPORT:** The COUNTY shall prepare quarterly progress reports for submission to the DEPARTMENT along with its request for payment. These reports should be presented in a format which is acceptable to the DEPARTMENT and shall identify the progress of technical work as described herein that has been undertaken, the work products produced, and key events.

**INVOICING:** In order to obtain payment for services under this Agreement, the COUNTY shall submit the following:

1. Quarterly progress report(s) reflecting the invoice period.
2. Quarterly Invoice in Department Approved Format.
3. Documentation supporting the invoice amount. Supporting documentation shall include copies of employee timesheets and payroll information, invoices for purchases, training, etc.

Pursuant to section 6 of the Agreement, the DEPARTMENT shall have ten (10) working days to inspect and approve the progress report(s), invoice and documentation supporting the invoice prior to processing a given invoice for payment.

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**EXHIBIT B**  
**PROJECT COST AND CASH FLOW PROJECTION**

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**PROJECT COSTS:**

**I. PERSONNEL: Seven (7) Employees**

a. Salary Compensation/Wages & Benefits:	\$500,000.00
<b>Sub-Total:</b>	<b>\$500,000.00</b>

**PARTICIPATION:**

1. Maximum Federal Participation (FHWA) Surface Transportation Program Funds (50%) Annually	=	\$250,000.00
2. Maximum State Participation (50% match) Annually	=	\$250,000.00
3. County Participation (0%) Annually	=	<u>\$ 0.00</u>

**TOTAL PROJECT COSTS: \$500,000.00 / ANNUALLY**

**ESTIMATED CASH FLOW:** The following cash flow projection is expected for the Project (\$ x 1000) and Contingent Upon Legislative Budget Approval for each Fiscal Year.

<u>Fiscal Year</u>	<u>1<sup>st</sup> Qtr</u>	<u>2<sup>nd</sup> Qtr</u>	<u>3<sup>rd</sup> Qtr</u>	<u>4<sup>th</sup> Qtr</u>	<u>Annual Total</u>
00/01	75.00	75.00	75.00	75.00	300.00
01/02	75.00	75.00	75.00	75.00	300.00
02/03	75.00	75.00	75.00	75.00	300.00
03/04	75.00	75.00	75.00	75.00	300.00
04/05	75.00	75.00	75.00	75.00	300.00
05/06	100.0	100.0	100.0	100.0	400.00
06/07	100.0	100.0	100.0	100.0	400.00
07/08	100.0	100.0	100.0	100.0	400.00
08/09	125.0	125.0	125.0	125.0	500.00
09/10	125.0	125.0	125.0	125.0	500.00

**RESOLUTION NO. R-2009-**

**A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF PALM BEACH COUNTY FLORIDA, AUTHORIZING EXECUTION OF THE FIFTH AMENDMENT TO A JOINT PARTICIPATION AGREEMENT WITH THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF FLORIDA AND PROVIDING WHEN THIS RESOLUTION WILL TAKE EFFECT.**

**WHEREAS**, the State of Florida Department of Transportation (FDOT) and Palm Beach County (County) desire to amend a Joint Participation Agreement (JPA) entered into on July 19, 2000 by both parties, and;

**WHEREAS**, the Agreement provides funding assistance to the County to operate the Computerized Traffic Signal System at the Vista Center ITS Facility, and;

**WHEREAS**, this Amendment increases the annual funding from \$400,000 to \$500,000 through the Fiscal Year 2009/2010, and;

**WHEREAS**, the State of Florida has requested the County execute and deliver to the State of Florida, Department of Transportation, Amendment Number Five to the Agreement.

**NOW, THEREFORE** be it resolved by the Board of County Commissioners of Palm Beach County, Florida, that the Chairperson is hereby authorized to execute, and deliver to the State of Florida Department of Transportation, Amendment Number Five to the aforementioned JPA.

1. The recitations set forth herein above are true, accurate and correct and are incorporated herein, and will take effect upon adoption.
2. This resolution will take effect upon its adoption.

The foregoing resolution was offered by Commissioner \_\_\_\_\_ who moved its adoption. The motion was seconded by Commissioner \_\_\_\_\_ and upon being put to a vote, was as follows:

- COMMISSIONER JOHN F. KOONS, CHAIRMAN -
- COMMISSIONER BURT AARONSON, VICE CHAIR -
- COMMISSIONER KAREN MARCUS -
- COMMISSIONER SHELLEY VANA -
- DISTRICT 4 -
- COMMISSIONER JESS R. SANTAMARIA -
- COMMISSIONER ADDIE L. GREENE -

The Chair thereupon declared the Resolution duly passed and adopted this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

PALM BEACH COUNTY,  
FLORIDA, BY ITS BOARD OF  
COUNTY COMMISSIONERS

APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY

SHARON R. BOCK,  
CLERK & COMPTROLLER  
CIRCUIT COURT

By: \_\_\_\_\_  
Assistant County Attorney

By: \_\_\_\_\_  
Deputy Clerk