



SunGuide<sup>SM</sup> Disseminator Supplement

FDOT ITS L

# District Progress Reports



Following is a compilation of quarterly progress reports provided by FDOT Districts and the Florida Turnpike Enterprise:

• • *District One* • •

*Advanced Traffic Management Systems*

**Sarasota-Manatee Signal Computer System Update (198127 1, 198127 2)**

This project is a two-part study/design that will prepare an Advanced Traffic Management Systems (ATMS) Master Plan, develop a Concept of Operations, and prepare an Implementation Plan for the Sarasota/Manatee Urban Area. The ATMS upgrade will include phased construction of a new Transportation Management Center (TMC), new central hardware and software, new controllers and cabinets, an updated communications plant, and video monitoring at selected locations. The MPO endorsed the Master Plan and Conceptual Design at its May 24, 2004, Meeting. The project documents need to be finalized, reviewed and approved.

Approx. Completion: February 2005  
 Contact: Chris Birosak (863) 519-2507

**Manatee County Advanced Transportation Management System, Design-Build Requirements Package Development (415227 1 32 01)**

This project will develop a Design-Build Requirements Package to be used by FDOT to secure a Design-Build Team, which will complete the design and construct an upgrade to the existing signal system. The ATMS upgrade will include new central hardware and software, new controllers and cabinets, an updated communications plant, and video monitoring at selected locations. The Notice to Proceed occurred in June, 2004.

Approx. Completion: August 2005  
 Contact: Chris Birosak (863) 519-2507

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**Manatee County Regional Traffic Management Center Building, (415228 1 [38,48,58,68] 01)**

This project will be managed by Manatee County through a Joint Project Agreement with FDOT. This project will determine the site location, define the requirements, and construct the traffic management center building to house the regional signal systems and the future FDOT Satellite Center for I-75.

Approx. Completion: Between December 2006 (early) and June 2007 (late)

Contact: Chris Birozak (863) 519-2507

**City of Punta Gorda/Charlotte County Advanced Transportation Management System, Design Group I, Construction (193821 1 52 01)**

Due to damage from Hurricane Charley, this project has been terminated.

Contact: Chris Birozak (863) 519-2507

**City of Punta Gorda/Charlotte County Advanced Transportation Management System, Design Group II, Design (193824 1 32 01)**

This project is being redefined to incorporate the system elements that were damaged by Hurricane Charley. A Design-Build Criteria Package will be developed which will include new central hardware and software, new controllers and cabinets, updated communications, and video monitoring at selected locations.

Approx. Completion: To Be Determined

Contact: Chris Birozak (863) 519-2507

**Lakeland Signal Computer System Update (197620 2 52 01)**

This is a design-build construction project. The Design-Build Team will complete the design and construct an upgrade to the existing signal system. The ATMS upgrade will include new central hardware and software, new controllers and cabinets, and video monitoring at selected locations. The fiber optic network for the project is being provided by the City of Lakeland through a Local Area Participation (LAP) Agreement. The Notice to Proceed for construction occurred in June 2004.

Approx. Completion: February 2006

Contact: Chris Birozak (863) 519-2507

*Freeway Management Systems*

**I-75 Corridor ITS Freeway Management System and System Integration Project for Collier and Lee Counties (4164131 and 4164121)**

A Design Build Criteria Package and the Preliminary Plans are currently being developed for the equipment, communications, and systems integration requirements for I-75 in Collier and Lee Counties. ITS field equipment subsystems will include closed circuit television cameras (CCTV), detector stations, dynamic message signs (DMSs), road weather information systems (RWIS), and the communications equipment. System integration and RTMC control center elements are also included in this project.

Approx. Completion: December 2004

Contact: Chris Birozak (863) 519-2507

**I-75 Regional Transportation Management Center (4147331)**

A Design-Build Criteria Package and the Preliminary Plans are currently being developed for the regional transportation management center building to be located in Lee County at the Daniels Parkway Rest Area.

Approx. Completion: December 2004

Contact: Chris Birozak (863) 519-2507

*Incident Management*

**Road Rangers Service Contract, Alligator Alley (part of asset management contract)**

This is the service contract for I-75 along Alligator Alley that provides service from the US 27 tollbooth in Broward County through Collier County to Exit 116 in Lee County.

Approx. Completion: Will remain in effect for the 7-year term of the asset management contract.

Contact: David Mills (863) 519-2323

**Road Rangers Service Contract, Lee County (408998 1 72 01)**

This is the service contract for I-75 in Lee County that provides service from Exit 116 to Exit 138.

Approx. Completion: Renewed

Contact: Bill Mendell (941) 656-7811



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## **Road Rangers Service Contract, Charlotte County/Sarasota County (409000 1 72 01)**

This is the service contract for I-75 in Charlotte County and Sarasota County that provides service from Exit 170 to Exit 205.

Approx. Completion: Renewed  
Contact: Bill Mendell (941) 656-7811

## **Road Rangers Service Contract, Polk County (408999 1 72 01)**

This is the service contract for I-4 in Polk County that provides service from the Hillsborough County Line to the Osceola County Line.

Approx. Completion: Renewed  
Contact: David Barthle (863) 519-4315

## **Design-Build Requirements Package Development For An Incident Management System (IMS) For The Edison, Caloosahatchee, Midpoint, and Cape Coral Bridges in Lee County (405462 2 32 01)**

This project will develop a Design-Build Requirements Package to be used by the FDOT to secure a Design-Build Team, which will complete the design and construct the project. The Lee County IMS will consist of an integrated deployment of ITS devices for incident detection and verification, weather monitoring, route diversion, and motorist information dissemination for four bridges: the Edison Bridge (Business US 41), the Caloosahatchee Bridge (US 41), the Midpoint Memorial Bridge, and the Cape Coral Bridge crossing the Caloosahatchee River between Fort Myers and Cape Coral/North Fort Myers, in Lee County. The project is ongoing. Currently, the construction is funded in fiscal year 2007/2008. The county may provide advanced funding to construct the system earlier.

Approx. Completion: March 2005  
Contact: Chris Birosak (863) 519-2507

### *ITS Planning and Project Development*

## **District-wide Intelligent Transportation Systems Planning (412452 1 12 01)**

This ITS General Planning Consultant Project provides a broad range of support to the District ITS Program. Current Tasks include:

- ITS Regional Architecture Update;
- I-75 Median Crossover Study;
- Traffic Incident Management Team Formation and Support;

- Traffic Incident Management training, workshops, notification/resource guide, diversion planning, incident reviews and tracking methodology;
- Fort Myers RTMC Design-Build Criteria Development; and
- Long Range Transportation Plan Guidance for ITS.

Approx. Completion: May 2008  
Contact: Donald Barrett (239) 461-4300

## *• • District Two • •*

### *Advanced Traffic Management Systems*

## **Road Rangers Service Patrol (21481727201)**

The Road Rangers Service Patrol contract was renewed in April 2004. The contract is with Logistical Transportation Company, Inc. Analysis is continually being made to determine if additional funding is necessary to expand this to operation.

Approx. Completion: August 2006  
Contact: Donna Danson (904) 360-5635

### *Emergency Management Systems*

## **Traffic and Travel Management Jacksonville Interstate Surveillance and Control System, Phase 3 (21329613201)**

This design-build project, on I-95 south from I-10 to I-295 south, involves construction/installation of a master communication hub, fiber optic cable, communication equipment, closed-circuit television (CCTV) cameras, traffic detection units, dynamic message signs (DMSs), connection to the Jacksonville Fiber Optic Network, and software integration/enhancements. MasTec is in the construction phase of the project and it is anticipated that the project will be completed by April 2005. The four hurricanes during the summer of 2004 created delays in the project due to emergency response by MasTec.

Approx. Completion: April 2005  
Contact: Peter Vega (904) 360-5463

## **FDOT Pursuit of "Infostructure" Model Deployment (ITN-DOT-04/05-5001MD)**

The iFlorida project team has selected MasTec to do the Command and Control project. Currently, District 5 (Larry Rivera, Tushar Patel and Scott Silva) has linked their transportation



management center (TMC) to District 2's TMC through the microwave tower system located along Interstates 4 and 95. Real-time video (MPEG 4) is being received from District 5. MasTec is on site and is expected to complete the project by January 2005.

Approx. Completion: January 2005.  
Contact: Peter Vega (904) 360-5463

**ITS Partnership Agreement - Florida Department of Transportation and Putnam County (2098825201)**

This Partnership Agreement is provided through a grant from FHWA for the installation of a closed-loop traffic signal system within the City of Palatka in Putnam County. MasTec and Metric Engineering were selected for this project and final acceptance is expected by February 2005. The four hurricanes during the summer of 2004 created delays in the project due to emergency response by MasTec. The county is expected to seek assistance from industry resources (consultants and contractors) to begin deploying ITS devices (CCTV and vehicle detection) within the next year.

Approx. Completion: February 2005.  
Contact: Kamal Munawar (904) 360-5455

**Traffic and Travel Management Jacksonville Interstate Surveillance and Control System, Phase 4 (21327335201, 21327245201 & 21327355201)**

This design-build project, on I-95 north from I-10 to I-295, involves construction/installation of two master communication hubs, fiber optic cable, communication equipment, CCTV cameras, traffic detection units, DMSs, connection to the Jacksonville Fiber Optic Network, and software integration/enhancements. FIE and Metric Engineering were selected and have performed admirably on this project. Currently, the project is ahead of schedule, even with the four hurricanes during the summer of 2004 that created delays on other projects. These two teams have shown that partnering and proactive communication will go a long way toward a successful Design-Build project.

Approx. Completion: May 2005.  
Contact: Peter Vega (904) 360-5463

**Traffic and Travel Management Jacksonville Interstate Surveillance and Control System, Phase 5 (4147261)**

This design-build project, on I-295 north from I-10 to I-295, involves construction/installation of two master communication hubs, fiber optic cable, communication equipment, CCTV cameras, traffic detection units, DMSs, connection to the Jacksonville Fiber Optic Network, and software integration/enhancements. A Systems Manager approach was chosen for this project due to the maturation of the Jacksonville system and undesirable conflicts encountered within the Design-Build construction process. Likewise, a limited amount of discretionary funding was available for this 20 mile project, therefore economies of scale led to the support of this Systems Manager approach. The Central Office Statewide ITS General Consultant, PBS&J, was given the task of designing the project and procurement documentation. Contracts will be let within the next 8 months for the procurement and installation of devices. There will possibly be a CEI contract let for this project, dependent on the remaining funds.

Approx. Completion: May 2006.  
Contact: Peter Vega (904) 360-5463

**Replacement of District Two Legacy Equipment (4177352)**

Florida's ITS offices recently received funding for the replacement of legacy ITS equipment. District 2 has 21 CCTV cameras, 8 DMS and 41 vehicle detectors that will need to be replaced in fiscal year 2006. These projects will require contractors to deploy devices that meet current ITS Standards developed by the Department. No determination has been made on whether Consultants will be utilized for this work.

Approx. Completion: June 2006.  
Contact: Peter Vega (904) 360-5463

**Northeast Florida Regional ITS Master Plan**

The City of Jacksonville received a grant from FHWA to develop a Regional ITS Master Plan. The Jacksonville Transportation Authority will provide the Project Manager; however numerous government agencies within the region will participate in Scope of Work development and selection of the Consultant.



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Advertisement for this project should be made public no later than January 2005.  
Approx. Completion: July 2005.  
Contact: Peter Vega (904) 360-5463

## • • District Three • •

### Advanced Traffic Management Systems

#### **Okaloosa County Computerized Traffic Control System – Phase III (220239-3)**

Okaloosa County has received a \$1.5 million ITS Earmark to fund construction of the final phase of this advance management traffic systems (ATMS) project. This project will expand the current ATMS (Ft. Walton Beach, Destin, and North Shalimar) north to the Niceville and Crestview areas. The county information technology department is currently installing conduit to the Crestview area that will include a spare conduit for this project.  
Approx. Completion: June 2006  
Contact: Cliff Johnson (850) 638-0250 ext. 694

#### **Bay County ITS Integration Project / Congressional Earmark (408412)**

This project includes: ATMS implementation/ Panama City area; real-time monitoring of signal equipment; provision for flexibility to respond to emergency evacuations, traffic incidents, and special events; integration of the Hathaway Bridge incident management system (IMS) with ATMS; and integration of various emergency management systems (EMS) and other agencies within the county. (This includes integration of the Bay District Schools with emergency services for improved emergency management communication during emergency shelter operation. The Bay District Schools will also be utilizing the fiber optic backbone for their Distance Learning Program). The RFP for the design-build of a communications backbone will be advertised in the fall of 2004. Currently, a Request for Proposal is under development to complete the ATMS project including upgrading of the current signal system and the closed-circuit television system, renovation of the existing facility to serve as an interim or permanent transportation management center (TMC), integration of the Hathaway Bridge ITS components, selection of TMC software, and support for local school board.  
Approx. Completion: December 2005  
Contact: Cliff Johnson (850) 638-0250 ext. 694

## • • District Four • •

### Advanced Traffic Management Systems

#### **Interim Traffic Management System (ITMS) (411067 1 32 01)**

This project provides for development of a temporary interim traffic management system (ITMS) for Palm Beach County including 8 years of operations and maintenance for the system. The facility officially opened on July 8, 2003, and, as of August 2004, operates on a 24-hour/7-day a week schedule. Some operational responsibilities include: dispatching of the Palm Beach Road Rangers, and coordination on operational issues with the District 6 Broward County transportation management center (TMC), Florida's Turnpike Enterprise, and SmarTraveler®. The final Operations & Maintenance costs are currently being negotiated.  
Approx. Completion: November 2009 - Completed Operational Use  
Contact: Steven Corbin (954) 847-2791

#### **Broward County ITS Operations Facility (231654-1-52-01)**

The operations facility is a TMC that will serve as the nerve center for ITS projects deployed in Broward County. This will be a showcase facility which will house monitoring and control capabilities for the I-95/595 Dynamic Message Sign System Project, the Freeway Video Monitoring System, the Advanced Traveler Information System, the Broward County Advanced Traffic Management Signal System, and the Advanced Incident Information System. A temporary certificate of occupancy was received in September 2004, and ITS and operational staff have been moved into the new center. The certificate of occupancy should be received sometime in early 2005.  
Approx. Completion: July 2005  
Contact: Steven Corbin (954) 847-2791

#### **I-95/595 Broward County Traffic Management Center Operations (231654-2-82-01 231654-82-02)**

This project is for the management and operations of the Broward County TMC, which was constructed as part of the Broward County ITS Operations Facility project (231654-1-52-01). The project includes operation of the I-



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95/595 Broward County Dynamic Message Sign System on a 24-hour/7-day a week schedule, the dispatching of the Broward Road Rangers, and coordination on operational issues with District 6, Florida's Turnpike Enterprise, the ITMS project, and SmarTraveler. The project will be divided in two contracts. One contract will be for provision of the professional services necessary to manage the TMC and supervise operations staff. The other contract will be for provision of the operations staff through a staffing contractor. The project is scheduled to start in October 2005.

Approx. Completion: September 2008  
Contact: Steven Corbin (954) 847- 2791

### **Districtwide ITS General Consultant (4155291-32-01)**

This project will provide District 4 with a broad-range general consultant allowing support to the District on an as needed basis. The project is expected to last for 2 to 3 years. The project will be task work order based and is federally funded for \$850,000. Gray-Calhoun Associates had been selected as the District 4 ITS General Consultant.

Approx. Completion: March 2007  
Contact: Dong Chen (954) 847-2796

### **Broward County ATMS – LAP Agreement (228089-1)**

This project will replace traffic signal controllers with 2070s, install fiber optics for signal communications, and replace the existing UTCS signal system software. The consultant issued an advertisement inviting vendors to demonstrate software for evaluation on a section of roadway adjacent to the Broward County Traffic Engineering facility. Five vendors applied and the consultant has started testing software based on National Transportation Communications for ITS Protocol (NTCIP). NTCIP testing of software continues.

Approx. Completion date: 2010  
Contact: Marilda Hoover (954) 777-4367

### **Palm Beach County ATMS – LAP Agreement (404825-1)**

This project will replace traffic signal controllers with Naztec Ts2 type2s, install fiber optics for signal communications, and replace the existing UTCS signal system software with Naztec Streetwise. Work continues on this project with

the completion of more then 300 new controllers on line with fiber optics communication.

Approx. Completion date: 2007  
Contact: Marilda Hoover (954) 777-4367

### **City of Boca Raton ATMS – LAP Agreement (408198-1)**

This project will replace traffic signal controllers with Naztec Ts2 type2s, and replace the existing CL-MATS signal system software. Also under this contract, funding will be provided to install a TMC control room with video wall and monitors from which traffic signals can be monitored and controlled. The video wall is complete in the new TMC control room. Work continues with the installation of more intersection surveillance cameras and installation of new controllers.

Approx. Completion date: 2006  
Contact: Marilda Hoover (954) 777-4367

### **Boca Raton Signal Retiming (230017-1)**

This project will retime over 60 intersections in Boca Raton. Work continues on this project. New timing plans are ready and will be implemented. The contract was extended due to the installation of new traffic signal controllers by the agencies. Work was suspended due to hurricane recovery activities by agencies.

Approx. Completion date: November 2004  
Contact: Marilda Hoover (954) 777-4367

### *Incident Management*

### **Traffic Incident Management Team (230357 1 32 03)**

This project is for a Traffic Incident Management (TIM) Team Facilitator. The current contract is with DMJM + Harris and began in June 2003 and ends in June 2005. Based on the format of the statewide TIM Team, the District 4 TIM Team breaks out into 4 working groups focusing on specific issues. Several work products have already been produced. An *Incident Response Manual* has been developed by the Clearance Team; a ramp ID sign has been created by the Detection, Verification and Response Team which will be deployed through the District 4 Traffic Operations Signing & Marking contract; and the Communications Team developed a Notification List now being used for email notifications of Level 2 and 3 freeway incidents. As a result of issues brought up by TIM Team members, a



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pilot project has been initiated to create a Severe Incident Response Vehicle (SIRV). The SIRV will respond to Level 2 and 3 incidents and will provide a stable Incident Command Post for the duration of the incident, ensure adherence to the Open Roads Policy and serve as an on-scene communications link to the TMC while also providing maintenance of traffic (MOT) support and supervision to the Road Rangers. DMJM + Harris will develop and staff the SIRV for a one-year period through the TIM contract and will provide an evaluation and recommendations at the end of the evaluation period. The goal is to have two permanent SIRV operators dispatched from each TMC in Broward and Palm Beach counties. Another TIM initiative being developed by DMJM + Harris is the Systems Management for Advanced Roadway Technologies (SMART). This is a SQL server based data management system that will provide a means for the Broward and Palm Beach County TMCs, Road Rangers, SIRV operator and ITS maintenance personnel to interact directly through a single, centralized system. The system will allow real-time incident data sharing with adjacent Districts or by others, including the public through a Web-based server.

Approx. Completion: June 2005  
 Contact: Gaetano Francese (954) 777-4366

### **Broward County I-95/595/75 Road Rangers Service Patrol (231723 1 72 01)**

This project provides Road Rangers to patrol the Interstates and help stranded motorists and assist highway patrol with incident management. A new Request for Proposal (RFP) has been advertised and a new contractor will be selected in August 2004. DMS-equipped pickup trucks have been added as part of the RFP. The Broward County Road Rangers will be equipped with wireless handheld person computers (PCs) for data entry of Road Rangers activities which will then be transmitted back to the TMC.

Approx. Completion: Current contract ends August 2004  
 Contact: Gaetano Francese (954) 777-4366

### **Palm Beach County I-95 Road Rangers Service Patrol (2319241-72-01)**

This project provides Road Rangers to patrol the Interstates and help stranded motorists and assist highway patrol with incident management.

A new RFP has been advertised and a new contractor will be selected in February 2005. A DMS-equipped pickup truck has been added as part of the RFP. The Palm Beach County Road Rangers will be equipped with wireless handheld PCs for data entry of Road Rangers activities which will then be transmitted back to the TMC. Approx. Completion: Current contract ends February 2005

Contact: Gaetano Francese (954) 777-4366

### *Advanced Traveler Information Systems*

#### **I-95/I-595 Video Monitoring System Phase I (231739-1-52-01)**

This is a design-build project to install closed-circuit television (CCTV) cameras and vehicle detectors along I-95 and I-595 in Broward County. There will be approximately 45 cameras and 136 detectors. The project is at the 60 percent design stage and is expected to start with installation in December 2004.

Approx. Completion: October 2005  
 Contact: Dong Chen (954) 847-2796

#### **I-75/I-595 Video Monitoring System Phase II (231739-3-52-01)**

The I-75/I-595 Video Monitoring System Phase II project in Broward County is a design-build project including engineering, designing, furnishing, installing, integrating, testing, training, and documenting a fully operational fiber optical/wireless communication network (wireless can only be used on I-595 east of I-95) subsystem on approximately 53 miles of roadway, a CCTV camera surveillance subsystem with approximately 55 cameras, a DMS subsystem with approximately 12 DMSs, a traffic detection subsystem along the I-595 and I-75 corridors in Broward County with approximately 200 detectors, and upgrading of a video wall (approximately 24 X 67" video cubes) subsystem in the Broward TMC. These subsystems will be provided along the entire I-75 Corridor in Broward and the portions of the I-595 Corridor between I-75 and 1000 feet east of the Pine Island Road Interchange and between the interchange with I-95 to the terminus (eastward) of the I-595, along with nine existing DMSs currently using dial-up connections.

Approx. Completion: October 2007  
 Contact: Dong Chen (954) 847-2796



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## **Palm Beach County Dynamic Message Sign System (404827-1-32-01)**

This project is a continuation of the I-95 DMS project in Broward County extending the sign system into Palm Beach County. Sixteen DMSs will be constructed at eight interchanges that connect to the Florida Turnpike, including the future interchange at Southern Boulevard. This project will also include 19 video cameras along I-95 to monitor traffic conditions. This project will be constructed following the Palm Beach County I-95 High Occupancy Vehicle (HOV) expansion projects. The project had been changed to a design-build project.

Approx. Completion: December 2010  
Contact: Dong Chen (954) 847-2796

## **I-95/I-595 Broward County Dynamic Message Sign System Operations (231654-1-82-03)**

This project is the operation of the DMSs constructed under the I-95/I-595 Broward County Dynamic Message Sign System Projects (231659-1-52-01, 231705-1-52-01). This project includes operation of the sign system on a 14-hour/5-day a week (6:00 a.m. to 8:00 p.m., Monday through Friday) schedule, dispatching of the Broward Road Rangers during these hours, and coordination on operational issues with District 6, Florida's Turnpike Enterprise, the ITMS project, and SmarTraveler. Operations began on January 27, 2003, and will continue until October 2005. A migration to a 24-hour/7-day a week schedule began in November 2004 and will be full integrated by early 2005. This project is a supplemental under the Broward County ITS Operations Design Contract.

Approx. Completion: October 2005  
Contact: Steven Corbin (954) 847-2791

## **I-95/I-595 Broward County Dynamic Message Sign System Maintenance (406795-1-8B-01)**

This project is the maintenance of the DMSs constructed under the I-95/I-595 Broward County Dynamic Message Sign System Projects (231659-1-52-01, 231705-1-52-01). The project includes maintenance services necessary to maintain complete functionality and operational status of the I-595/I-95 DMSs. The maintenance services include preventive/routine maintenance, diagnostic work, and major/minor repairs/replacements.

Approx. Completion: September, 2005  
Contact: Steven Corbin (954) 847- 2791

## *• • District Five • •*

### *Advanced Traffic Management Systems*

#### **Orange County Computerized Signal System (404675-1-54-01)**

This is a Local Agency Program Agreement with Orange County to upgrade the signal system. Approx. Completion: Under construction.  
Contact: Larry Rivera (386) 943-5312

#### **ITS Fiber Optic Cocoa Maintenance**

This project provides fiber connection from I-95 to maintenance facility.  
Approx. Completion: Unfunded  
Contact: Larry Rivera (386) 943-5312

#### **ITS Fiber Optic Leesburg and Ocala Maintenance**

This project provides fiber connection from I-75 to maintenance facility.  
Approx. Completion: Unfunded  
Contact: Larry Rivera (386) 943-5312

#### **iFlorida**

This is a statewide project awarded by the FHWA. The following are the bundled project descriptions and status:

##### **Central Florida Field Components**

**Project Description:** This project will provide most of the field elements to be implemented in the Central Florida area as part of iFlorida. Several other projects that are also part of iFlorida are dependent upon the completion and timely execution of this project. This project is broken into six subprojects, as follows: Travel Time Data Collection; Arterial Closed-Circuit Television (CCTV) Cameras; Telecommunication Network Enhancements; Variable Speed Limit Trial; SR 528 Corridor Monitoring System; and Brevard County Agency Integration.

**Project Status:** Construction is underway in all counties. The completion date for this project is February 2005. Final signed and sealed plans were delivered to FDOT District 5. Orange County will be delivered for review by end of October 2004. Fiber tests have been submitted for review. CSI is currently reviewing testing plans.





## Conditions System

**Project Description:** This project, a key component of the iFlorida model deployment program, will be designed and implemented at the FDOT District 5's regional transportation management center (RTMC). The Conditions System is an Internet-based information system designed to collect, fuse, and disseminate transportation system conditions on the Florida Intrastate Highway System (FIHS) throughout the state as well as more detailed and multi-modal conditions in the Central Florida region. The Conditions System shall initially incorporate automated data from FDOT's Surveillance Systems, the Orlando-Orange County Expressway Authority's Travel Time Data Server, and segment weather conditions, alerts, and forecasts to be provided as part of the iFlorida model deployment program. The Conditions System shall include an operator interface to enable appropriate personnel from FDOT, its partner agencies, and approved private contractors and consultants, to enter incident and event reports directly into the information system, both from the RTMC and remotely via a password protected, standard Internet browser.

**Project Status:** All System Requirements have been reviewed by FDOT District 5. A formal review with Castle Rock was scheduled for the end of October 2004.

## FHP CAD Server

**Project Description:** This project will be completed through a Joint Participation Agreement (JPA) between FDOT District 5 and Florida Highway Patrol (FHP). Funding has been provided through FDOT Central Office. Through this JPA, FHP will purchase and install an enterprise data server. This will be a central repository for the computer-aided dispatch (CAD) data generated by all seven FHP communication centers. This server will push real time data to FDOT through an Internet connection.

**Project Status:** The JPA is being written, coordination is underway with FHP, and work is underway to encumber funds.

## RTMC Vulnerability and Speedway Evacuation Assessment

**Project Description:** The primary goal of this assessment is to increase Florida's pool of knowledge for homeland security preparedness. Lessons learned from this assessment will have immediate transferability to FDOT's RTMCs (existing and planned), and use for other special events and major attractions nationwide. It is recognized that planning for, and any response to, terrorist attacks requires a high degree of coordination among (and within) many agencies, including the FDOT. These coordination activities will address many of the broader issues and protocols that are necessary for effective emergency management associated with terrorist attacks, such as continuity of government and operations, collocation, and interoperability of systems. This assessment will identify any associated coordination activities needed to enhance preparedness and response. Within this primary goal are some specific objectives that relate to the two elements of the assessment:

- To better understand the vulnerabilities of an FDOT RTMC, and identify measures that will prevent an RTMC from being shut down through either physical plant disruption (e.g., fire, bomb, etc.) or electronic means (e.g., computer viruses, erroneous data, reprogrammed software, etc.), and mitigate the consequences of any such event. The findings of the vulnerability assessment will be structured such that they can be transferred as security guidelines to other existing and planned RTMCs; and
- To enhance coordination between the Daytona International Speedway, transportation, law enforcement, fire, rescue, and emergency management agencies to support an emergency evacuation during a security threat, and to facilitate response logistics, while minimizing the impact on the surrounding transportation system.

**Project Status:** RTMC Vulnerability Assessment – Greenhorne & O'Mara (G&O) has gathered information on FDOT's RTMCs and has had periodic meeting with the



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District 5 ITS and Facilities Management personnel. G&O presented a draft RTMC Vulnerability Assessment report on October 14, 2004, and feedback was provided to G&O. G&O is now preparing the RTMC Vulnerability Assessment document for review. An amendment was added to this contract to include an assessment of the entire FDOT District 5 Urban Office and the FHP Troop D Headquarters. This amendment was completed and provided to FDOT District 5 on October 15, 2004.

Speedway Evacuation – G&O provided an assessment of the speedway to the various groups (law enforcement, fire rescue, emergency management, speedway management, county/city/FDOT traffic engineers, etc.). All groups have provided their input on this assessment. G&O continues to gather more information and will begin preparing draft documents.

### **Statewide Telemetered Traffic Monitoring System Upgrade (Statewide Corridor Monitoring)**

**Project Description:** The purpose of this initial project was originally to expand FDOT's ability to provide traffic and video images at 54 key locations throughout the state (specifically at telemetered traffic monitoring system (TTMS) sites. The project's goal was to improve communications with each of the sites in order to support real-time data collection and CCTV image collection.

This project has been formally split into two projects: (1) TTMS Video Upgrades and (2) Statewide Corridor Monitoring.

TTMS Video Upgrades – Trans Stats is researching technologies and proceeding with the project development.

Statewide Corridor Monitoring – 30 locations of the microwave tower network have been selected. A contract was issued to conduct field survey for final selection and design. A CCTV has been selected to be encoded in MPEG-4 due to bandwidth constraint and a Microwave detector (Smartsensor) has been chosen for Volume, Occupancy and Speed data collection. The location will be evaluated

for implementing a road weather information system (RWIS). The data and video will be transported via existing FDOT 10 Mbps network (Microwave Network).

**Project Status:** A contract was executed with Traffic Control Devices (TCD). The NTP was issued on October 5, 2004. A preconstruction meeting was held on October 12, 2004.

### **National Evaluation**

**Project Description:** The iFlorida Program Management Support task was developed to assist the FDOT in completing Phase I of iFlorida.

**Project Status:** A meeting was held on October 8, 2004, with FHWA, project managers, contractors, consultants, and the evaluation team to discuss the progress of the iFlorida project.

### **Data Warehouse Expansion**

**Project Description:** This project will expand the existing Central Florida Data Warehouse (CFDW) in several areas. New data sources will be accommodated, including Meteorlogix weather data, FHP CAD data, operator-entered incident and event reports, statewide and Orlando area segment reports from the Conditions System, and LYNX static and CAD/Automatic Vehicle Location (AVL) data, such as routes, stops, schedules, fares, schedule adherence, and automatic passenger count data.

**Project Status:** This project has been issued a supplemental agreement under the iFlorida Conditions System project. The supplemental agreement was signed and the consultant, Castle Rock, Inc., will provide the CFDW at the RTMC.

### **Security**

**Project Description:** This project is for deployment of security application on Fuller Warren and St. Johns River bridges with connection to FHP Troop G, Districts 2 and 5's RTMCs, and Brevard County Emergency Operations Center.

**Project Status:** This project was awarded to Mastec. HNTB Corporation will be the CEI for the project and is in the process of coordinating a kickoff meeting.



## Network Reliability / Traffic Modeling

**Project Description:** This project will use traffic modeling to assess and develop contingency plans should damage to a major bridge make it unusable. This project will also apply either the Florida Reliability Method or a nationally accepted alternative (should one exist) to all road segments in the Central Florida area for which travel time data will be available through iFlorida.

**Project Status:** There is no activity on this project scheduled until 2005 at the earliest. The Network Reliability portion of this project will not be initiated until near the beginning of the operational evaluation period and will be conducted when a full year of segment travel time data is available.

## Broadband Wireless

**Project Description:** The Broadband Wireless project will provide wireless fidelity-(WiFi) like broadband connectivity on strategic/limited access highways in the Orlando area. This project will have private-public partnerships and allow for an in-depth technology assessment of various interested wireless providers/vendors. This project will establish a test bed and provide the proof of concept through the field trial testing. In conjunction the broadband capabilities will support the LYNX wireless video trail.

**Project Status:** This project has been advertised and the short-listed consultants are submitting the technical /price proposals. This is an Invitation to Negotiate. Negotiations began October 21, 2004. NTP was November 19, 2004.

## Metropolitan Data Mining

**Project Description:** This project will enable the region's metropolitan planning organization, METROPLAN, to identify, experiment with, and evaluate how comprehensive multi-modal data can be used to improve regional planning and decision-making.

**Project Status:** There will be no activity associated with this project until late 2004 or the beginning of 2005.

## Probe Vehicle Test

**Project Description:** This project will serve as a test bed for the application of innovative private sector probe vehicle technologies based upon active cooperation with automobile original equipment manufacturers, should FHWA cultivate such a test. This project contains funding originally allocated for "Expanded Arterial Data Collection" and would provide initial support needed to develop and execute a probe vehicle test.

**Project Status:** At the request of FHWA, this project has been put on hold. However, periodic communications will occur with FHWA to maintain an understanding of progress to develop a probe vehicle test within iFlorida.

## Weather

**Project Description:** The iFlorida Weather component will consist of two projects: 1) the installation of a significant number of road weather information stations in the Central Florida area and 2) the incorporation of this specific location data into forecast models produced by both the National Weather Service (NWS) and private sector forecasters. With the additional weather data points from these stations, the NWS and private sector forecasters will be able to improve spatial precision and accuracy of forecasts. This project will demonstrate the integration of weather-related data into both transportation and meteorological databases; and incorporate a locally defined weather response component for specific highway road segments.

Using available NWS observational data sets from approved NWS reporting locations as well as local Florida RWIS, Meteorlogix will utilize a high resolution numerical weather prediction model to develop very specific current conditions and forecasts for each FIHS segment defined in the Conditions System.

The University of North Florida (UNF) will design, procure, and install the additional stations to be implemented in the Central Florida area. UNF will design and provide the network interface for users to acquire the raw RWIS data for ingestion as needed by the various models.



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**Project Status:** UNF has signed a contract with Traffic Control Devices to install their RWIS devices on the towers. Installation at the tower locations is underway. The Web site design is underway.

Meteoroglix – A Draft Design Approach Document is being updated by MX to include dynamic segments and predictive weather elements. MX is communicating with Castle Rock to determine data formats and required data.

Approx. Completion: All Florida Deployments — May 2005; Operations and Maintenance — through May 2007  
Contact: Jerry Woods (386) 943-5311

### *Freeway Management Systems*

#### **I-4 SMIS (22 Miles) Phase 3 - St. Johns River Bridge Replacement/Reconstruction (242702-1-52-01)**

The ITS Work Zone Management Project provides for the extension of existing I-4 SMIS from Lake Mary Blvd. to SR 472 in Volusia County. This project includes: 72SM Fiber Optic Communication Network, 19 CCTV, 6 dynamic message signs (DMS), 30 detector stations, and fiber link to the District Office to create a remote emergency operations center (EOC) in DeLand. Approx. Completion: Under Construction, estimated completion December 2004  
Contact: Larry Rivera (386) 943-5312

#### **I-4 SMIS (7 Miles) Phase 4 / I-4 6-Lane Reconstruction Project (242523-1-52-01)**

This project provides for the extension of existing I-4 SMIS from World Drive to US 27 in Polk County. It includes: 72 SM Fiber Optic Network, 8 CCTV, 5 DMS, and 16 detector stations.  
Approx. Completion: Under construction  
Contact: Larry Rivera (386) 943-5312

#### **I-4 Auxiliary Lanes from SR 423 to SR 436 (242499-1-52-01)**

This project provides for relocating and/or replacing the existing I-4 SMIS ITS infrastructure. It includes 72 SM Fiber Optic Communication Network. This creates redundancy in the system.  
Approx. Completion: Operational  
Contact: Larry Rivera (386) 943-5312

#### **I-95 Phase 3 (414715-1)**

This project is for the expansion of DASH in Volusia County north to SR 40, south to tie into existing DASH and I-4 SMIS. Project also expands onto arterial network.  
Approx. Completion: Under Construction.  
Contact: Larry Rivera (386) 943-5312

#### **I-95 Phase 4 (414723-1)**

This project is for the expansion of DASH in north to US 1 in Volusia County.  
Approx. Completion: This project has been awarded to FIE. .  
Contact: Larry Rivera (386) 943-5312

#### **I-95 Phase 5 (414719-1)**

This project is for the expansion of DASH south to SR 44 in Volusia County.  
Approx. Completion: Design-Build funded Fiscal Year 2006  
Contact: Larry Rivera (386) 943-5312

#### **I-95 Phase 6 (414721-1)**

This project builds out the ITS system on I-95 in Brevard and Volusia Counties. The project limits are from SR 514 north to SR 44, tying into the existing system.  
Approx. Completion: Design-Build funded Fiscal Year 2006  
Contact: Larry Rivera (386) 943-5312

#### **I-95 Phase 7**

This project completes the ITS system expansion in District 5 by constructing the remaining devices in Flagler County.  
Approx. Completion: Unfunded  
Contact: Larry Rivera (386) 943-5312

#### **I-4 Road Rangers – Motorist Assistance Program (410957-1-72-04)**

A new contract was executed with LYNX on July 1, 2004. The limits of service are from the Osceola/Polk County Line to I-95 in Volusia County. There are a total of 24 Road Ranger personnel and 12 Road Ranger vehicles. This is a 24-hours/7-days a week service.  
Contact: Jennifer Heller (386) 943-5322



• • District Six • •

Advanced Traffic Management Systems

**I-95 Intelligent Corridor System Package B (2516821-52-01)**

This project consists of the installation of 7 freeway dynamic message signs (DMSs), 8 arterial DMSs, 54 detector stations (42 remote traffic microwave sensors and 12 loops), 22 dynamic and 5 blank out trailblazers, 14 emergency stopping sites (ESS), and 22 ramp signaling sites along I-95 (SR 9A). The first day under contract was October 14, 2002, with a construction time of 1354 calendar days. A no excuse bonus of \$1.5 million will be awarded to the Contractor if the project is finished in 1,200 days (January 25, 2006). Major construction activities include installation of flashing beacons and ramp signals, splicing of fiber optic cable to Broward County, and installation of loop detectors. Expected progress includes installation of ramp signals and detector stations, fiber optic cable, and drilling of shafts and foundations for DMSs. The estimated construction dollar amount is \$9.8 million. Approx. Completion: March 31, 2005 Contact: Jason Chang (305) 470-5331

**SR 826 (Palmetto Expwy) East/West ITS Deployment (249719-2)**

This is a design-build project. It is now being constructed concurrently with the ITS Deployment in the Upper Florida Keys Project. It involves the installation of 50 detector stations, 9 closed-circuit television (CCTV) cameras, and 4 freeway DMSs from NW 122 Street to Golden Glades Interchange. The estimated construction cost is \$6 million (this price includes the Upper Florida Keys ITS Deployment Project). Start date: June 2003 Approx. Completion: March 2005 Contact: Omar Meitin (305) 499-2493

**SR 5 (US 1 Monroe County) ITS Deployment in the Upper Florida Keys [4101743 (Miami-Dade County), 4101741 (Monroe County)]**

This is a design-build project. It is now being constructed concurrently with SR 826 East/West ITS Deployment. The project includes installation of 4 freeway DMSs, 8 CCTV cameras, and 2 remote traffic microwave sensor detector stations from Florida City to Abaco

Road in Key Largo. The construction cost is included in the SR 826 (Palmetto Expressway) East/West ITS Deployment Project. Start date: June 2003 Approx. Completion: March 2005 Contact: Omar Meitin (305) 499-2493

**SR 5 (US 1 Monroe County) ITS Deployment from Key West to Key Largo [4101742 (Monroe County)]**

This is a design-build project that will be constructed concurrently with I-195 and I-75 ITS deployments. Fourteen DMSs, and 48 cameras will be installed (5 of these cameras will be on Card Sound Road). The approximate construction start date is August 2004 at an estimated cost of \$7.5 million. Approx. Completion: April 2006 Contact: Omar Meitin (305) 499-2493

**I-75 (SR 93) ITS Deployment from SR 826/Palmetto Expressway to Miami-Dade/Broward County Line (251685)**

This is a design-build project that will be constructed concurrent with the I-195 and SR 5 (US 1 Monroe County) from Key West to Key Largo ITS Projects. Seven CCTV cameras, 3 DMSs, and 30 microwave vehicle detection stations will be deployed. Project limits are from SR 826 to Miami-Dade/Broward County Line. The project start date is estimated in August 2004 at a cost of \$3.5 million. Approx. Completion: April 2006 Contact: Omar Meitin (305) 499-2493

**I-195 (Julia Tuttle Causeway/SR 112) ITS Deployment from I-95 to Alton Road (251683)**

This is a design-build project that will be constructed concurrent with the SR 5 (US 1 Monroe County) from Key West to Key Largo and the I-75 ITS Deployments. Six CCTV cameras, 4 DMSs, and 22 microwave vehicle detection stations (MVDS) will be installed. Project limits are from NW 11<sup>th</sup> Ave to Alton Road. The project start date is August 2004 at an estimated construction cost of \$3.75 million. Approx. Completion: April 2006 Contact: Omar Meitin (305) 499-2493



**SR 826/Palmetto Expressway ITS Deployment from SR 5/US 1 to NW 122 Street (414760)**

Improvements proposed for this limited access facility are for the deployment of 11 CCTV cameras that will support the management of traffic incidents. Design has been completed. Construction is scheduled to begin in December 2004 at an estimated cost of \$1.0 million.

Approx. Completion: Summer 2005  
Contact: Omar Meitin (305) 499-2493

**I-395 ITS Deployment from NW 7<sup>th</sup> Ave east to Alton Road (251686)**

This is a design-build project. Four cameras, 1 dynamic message sign, and 10 microwave vehicle detection system units will be installed. Preparation of technical specifications is under way. Approximate letting date for this project is April 28, 2005.

Contact: Omar Meitin (305) 499-2493

**I-95/SR 7 Primary Diversion Route (251682)**

This is a design-build project consisting of 1 DMS and 33 tri-message electromechanical prism signs. Preparation of technical specifications is under way. Approximate letting date for this project is April 28, 2005.

Contact: Omar Meitin (305) 499-2493

*Advanced Traveler Information System*

**Traveler Information (405663-1)**

This project provides uniform, multi-modal, real-time traveler and traffic information in South Florida (Palm Beach, Broward, Miami-Dade, and Monroe Counties) under the *SunGuide<sup>SM</sup> Program*. The *SunGuide Program* staff is presently operating (since May 21, 2004) in the Transportation Management Center (TMC) located just off the Florida Turnpike and SR 836 (Dolphin Expressway) junction. Law enforcement agencies; such as, Florida Highway Patrol, and SRS/Westwood One (ATIS Private Partner) will soon operate out of this new building as well. Currently, there is a traveler information center located in the Golden Glades Interchange Area, interactive voice response telephone system, and a Web site ([www.smartraveler.com](http://www.smartraveler.com)) that provides snapshots of real-time traffic conditions. On September 30, 2004 a new website was launched. The 511 service was launched on July

16, 2002. A new 511 voice recognition system is planned by early 2005. During the month of September, close to 200,000 calls were received by the 511 number. Email and fax services are also provided. The Consumer Information Network (CIN) Project will begin in January 2005. The CIN software will provide seamless regional transit trip planning information in three counties (Palm Beach, Broward, and Miami-Dade). The CIN Project will also provide voice recognition for the 511 service.

Contact: Jesus Martinez (305) 499-2446

• • *District Seven* • •

*Advanced Traffic Management Systems*

**US 19 Advance Traffic Management System for Pasco County, Stages II and III (405165-2 and 3)**

This project will complete the entire US 19 advanced traffic management system (ATMS) project in Pasco County. It runs from Main Street to County Line Road. The adaptive signal system, SCATS, will be installed to control traffic on an area basis on 16 additional intersections. On an area basis, SCATS selects combinations of cycle time, splits, and offsets from pre-determined sets of parameters and on-line calculations. SCATS, then, directly optimizes traffic parameters for each sub-system based on measured activity, and then applies offsets to achieve coordination as appropriate across the network in the corridor to optimize traffic flow. 19 closed-circuit television (CCTV) cameras and possibly 2 dynamic message signs (DMSs) will be installed at strategic locations. A dedicated fiber optic communications network will be installed along US 19 in Pasco County and routed to the transportation management center (TMC). The project leverages the system manager contracting strategy.

Approx. Completion: March 2006

Contact: Bijan Behzadi (813) 975-6733

**Pinellas Countywide ATMS/Clearwater SR 60 ATMS, Stage I (406255-1 / 408419-1)**

Pinellas Countywide ATMS deals with the development of an integrated ATMS focusing on four corridors identified by the MPO. One of the four corridors is SR 60 (Gulf to Bay Blvd.) for which the preliminary design study was completed under the *Clearwater SR 60 ATMS*



*Feasibility Study.* The other three corridors for development are the full length of US 19 in Pinellas County, McMullen Booth Road (CR 611), and Ulmerton Road (SR 688). The major ITS components to be deployed are an adaptive signal system using advance traffic controllers (ATC), CCTV cameras at intersections and mid blocks, DMSs, vehicle identification detectors (VIDs), and installation of a fiber optic backbone. In addition to the corridor type work, the project will work toward integrated operation of the three separate jurisdictional traffic control centers in the county, i.e. cities of Clearwater and St. Petersburg, and Pinellas County. The feasibility study was completed in May 2002 and identified three phases for implementing ATMS on the four corridors. The system manager has completed the preparation of construction plans and procurement documents for the first phase which is funded for construction. The single design project promotes the targeted systems integration as well as accounting for the adaptive signal system to be implemented on the four corridors which use a suite of two algorithms which are Optimized Policies for Adaptive Control (OPAC) and Real-time, Hierarchical, Optimized, Distributed, Effective System (RHODES). FDOT, with the aid of the system manager, is currently in the process of procuring all field devices as well as the specified adaptive traffic control operating software. The project was let in September 2003. The ITS devices procurement is complete. The software development and delivery is scheduled by September 2004.

Approx. Completion: October 2005  
 Contact: Bijan Behzadi (813) 975-6733

**Pinellas Countywide ATMS, Stage II (406255-2)**

This project is to complete the remaining portion of US 19 ATMS project in Pinellas County from Haines/Bayshore to 54<sup>th</sup> Avenue North. An additional 15 intersections will be under the MIST/OPAC adaptive traffic control. Thirteen CCTV cameras and four DMSs will be installed at strategic locations. A dedicated fiber optic cable will be installed on US 19. The construction project will be advertised for April 2005 letting. The project leverages the system manager contracting strategy.

Approx. Completion: October 2007.  
 Contact: Bijan Behzadi (813) 975-6733

**Plant City Feasibility Study for ATMS (258372-1: Task Work Order #4)**

The *Plant City Feasibility Study for ATMS (Study)* will establish the design parameters for updating the existing Plant City traffic signal system for compatibility with the Tampa Bay Regional ITS Architecture (TBRIA) and current ITS standards, such as National Transportation Communications for ITS Protocol (NTCIP). The *Study* will also define the measures to create an ATMS for Plant City. The measures to be evaluated are signal controllers, operating signal systems software, CCTV system, use of DMSs, and establishment/location for a Plant City traffic management center. The FDOT District-wide ITS Consultant, Gray-Calhoun & Associates, has been authorized to begin this *Study*. The *Study* will define the contract limits and scope for project FPN 414990-1, which has been postponed as a Local Agency Project (LAP).

Approx. Completion: August 2004  
 Contact: Bijan Behzadi (813) 975-6733

**City of Tampa Traffic Video Monitoring System (405521-1)**

This project is for the development of an integrated traffic video monitoring system to be deployed along three corridors within the City of Tampa. The three corridors are SR 60 (Kennedy Blvd), SR 580 (Busch Boulevard), and SR 597 (Dale Mabry Hwy). A feasibility study on the three corridors to determine the limits of the video system and the communications requirements was completed in October 2002. Plans are being developed to place video cameras along the corridors, establish the communications links from the field to Tampa's regional transportation management (RTMC) and modify the RTMC to integrate the video. Viasys has received the contract. Notice to Proceed is expected in August 2004.

Approx. Completion: April 2006  
 Contact: Bijan Behzadi (813) 975-6733

*Freeway Management Systems*

**Tampa Bay SunGuide<sup>SM</sup> Center (407232-1)**

This project is for the development of a RTMC in Tampa for freeway management on sections of I-275, I-75, and I-4. A system manager will: design the building and operating equipment, procure and integrate the operating equipment,



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and perform CEI services for construction projects to build the RTMC. The prime system manager, TEI, was selected in June 2002, with DMJM+HARRIS and PBS&J as sub-consultants. The building will be located at the District 7 Headquarters on McKinley Drive in north Tampa. The Letting Date occurred in October 2004 and the low bidder is American Bridge Company.

Approx. Completion: April 2006  
Contact: Bill Wilshire (813) 975-6612

### **Tampa Bay SunGuide<sup>SM</sup> Freeway Management System, PHASE I (407233-1, 407233-2, 407233-3, 409366-1, 258643-2, 258401-2)**

These projects are for construction of ITS field devices for the freeway management system (FMS) on various roadway segments in Tampa Bay on I-275 and I-4 (31 miles of ITS-managed highways). These field devices (vehicle detectors, video cameras, and DMSs) will connect to and be managed from the Tampa Bay SunGuide Center, which is being built. The first roadway section is I-275 in north Tampa from MLK Blvd. to Bearss Avenue with a fiber communications link from I-275 to the Tampa Bay SunGuide Center located at the District 7 Headquarters. System manager, TEI, has submitted construction plans for this first roadway segment, which was let in September 2004. Successful bids were received.

Approximate Operational date: April 2006  
Contact Bill Wilshire (813) 975-6612

### **Tampa Bay SunGuide<sup>SM</sup> Freeway Management System, PHASE II (255844-2, 407233-4, 409366-2, 410909-1)**

This is the second phase on the Tampa Bay Interstate highways for the deployment of ITS field devices for the FMS. Phase II consists of four projects on various roadway segments on I-75, I-275, I-4, and SR 60 (37 miles of ITS-managed highways). These field devices (vehicle detectors, video cameras, and DMSs) will connect to and be managed from the Tampa Bay SunGuide Center, which is being built under the Tampa Bay SunGuide FMS Phase I. TBE Group, Inc. was selected in January 2004, as the system manager for Phase II. The first segment of this project is expected to be online in January 2007.

Approximate Operational Date: January 2007

Contact Bill Wilshire (813) 975-6612  
*Advanced Traveler Information Systems*

### **Tampa Intelligent Transportation Infrastructure Program (ITIP) (414645-1)**

A project agreement between Mobility Technologies, the pre-selected private partner per a Federal Task Order, and FDOT was completed in August 2003. It resulted in approximately 100 vehicle detection sensors being installed on Tampa Bay Interstates. These sensors are Remote Traffic Monitoring Sensors (RTMS) and provide volume and speed data by lane on the Interstates. This data is used for various purposes, such as traffic monitoring information to FHWA/FDOT and traffic reports to the public on real-time traffic conditions of travel time, speed, and congestion levels.

Approx. Installation Date: July 2004  
Contact: Bill Wilshire (813) 975-6612

### **Tampa Bay Advanced Traveler Information System (ATIS) (412543-1)**

After completion of an Invitation to Negotiate, an ATIS Information Service Provider (ISP) for the Tampa Bay region has been selected. Mobility Technologies was the ISP contractor awarded the contract in June 2003. Mobility Technologies submitted a Program Management Plan which was approved by FDOT in October 2003, marking the beginning of a five-year contract providing 511 telephone service and an Internet-based traveler information service to the Tampa Bay traveling public. These services were launched on September 2, 2004. 511 Tampa Bay is now available via the web at [www.511tampabay.com](http://www.511tampabay.com) or by dialing 511 in the Tampa Bay region. The first month of service recorded approximately 550,000 web hits and 83,000 telephone calls to the 511 system.

Approx. Completion: July 2008  
Contact: Bill Wilshire (813) 975-6612

### **Road Rangers Service Patrol (400594-1-72-01 & 408206-1-8B-01)**

Road Rangers Service Patrol in Hillsborough and Pinellas Counties was initially established in October 2000, and provides highway assistance to motorists stranded with disabled vehicles in Hillsborough and Pinellas counties. Road Rangers patrol in Hillsborough County on portions of I-4, I-275, and SR 60 (approximately 50 centerline miles). Road Rangers provide a





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“free service” to stranded motorists and they operate 24 hours a day, 7 days a week, 365 days a year. Currently, the Road Rangers are averaging 2,700 stops per month. They also perform roadway debris removal, limited traffic control during traffic incidents, and assist highway patrol and other law enforcement personnel in the quick clearance of traffic incidents/accidents in order to restore smooth and efficient operation of our roadway system. Each Road Rangers vehicle is equipped with auto fluids, unleaded gasoline, toolboxes, first aid kits, and cellular phones. Road Rangers vehicle operators can change/replace flat tires, but they do not repair, or provide repair kits to repair tires. The two existing Road Rangers contracts covering Hillsborough and Pinellas counties were revised and consolidated into one single contract which began on January 4, 2004. Significant changes to the new contract include: an automated vehicle location system and the requirements for mandatory operator training in Basic Maintenance of Traffic, CPR, and First Aid.

The Road Rangers, in cooperation with FDOT Maintenance and Traffic Operations, proved to be a valuable program during the recent four hurricanes experienced in Florida. They were able to assist in keeping traffic moving and assisting with the relocation of stranded motorists during the evacuations of many of Florida residents passing through the West Florida area. They were able to assist during the initial evacuation as well as on the return trips home. Their efforts kept the evacuation routes clear of abandoned vehicles, debris, and stranded motorists to keep the roads open and clear for traffic to move through. The small wrecker units were most valuable in relocating stranded motorists who were evacuating and taking what personal belongings they could grab from their homes. With these wreckers, it became possible to get motorists, pets, and personal belongings to safe havens. The Road Rangers also patrolled the construction areas on I-75 which allowed them to check for any hazardous material in construction areas and to check storm drains to assure that they were clear. Road Rangers demonstrated their value to all of the residents of Florida during this unique time of four hurricanes.

Approx. Notice to Proceed: January 2004

Contact: Denny Pedrick (813) 975-6259

• • *Florida's Turnpike* • •  
• • *Enterprise* • •

*Advanced Traffic Management Systems*

### **Traffic Management Centers (190717-1-52-03/04/05/08)**

The Pompano and Turkey Lake TMC facilities are staffed 24-hours a day, 7-days a week. Incident management is accomplished utilizing 24 closed-circuit television (CCTV) cameras, 9 highway advisory radios (HARs) and 24 dynamic message signs (DMSs) along the Turnpike mainline. Transportation management center (TMC) operators work closely with FHP Troop K and other agencies to detect, verify, and mitigate incidents. Advanced traveler information system (ATIS) operators at each facility work in close coordination with Turnpike Road Rangers through an AVL system and Nextel radio communications. The TMC's Traffic Operations Incident Coordinator works closely with Roadway Maintenance and Construction. The Florida's Turnpike Enterprise is also part of the SunGuide<sup>SM</sup> 511 ATIS partnership in Monroe, Miami-Dade, Broward, and Palm Beach Counties. SunGuide 511 ATIS partnership announced that coverage will be extended to Martin, St. Lucie, and Indian River counties.

The TMC, in its role as 24-hour communications center for the Turnpike, plays a key role in the new Roadway Incident Scene Clearance (RISC) program as timekeeper of milestones and communications hub. This program serves as an innovative way to help Florida's Turnpike Enterprise achieve the Open Roads Policy goals by significantly reducing the time it takes to clear major incidents through providing an incentive for the use of specialized vehicle recovery equipment and procedures. Selected recovery contractors are assigned specific sections of the Turnpike and are required to respond to and clear the travel lanes within a pre-determined period, making the contractor eligible for an incentive bonus. If travel lanes are not cleared within a period of three hours from notice-to-proceed, the contractor will be assessed liquidated damages. The TMC's role in administering the program is in conjunction with



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the TMC being FHP's primary contact for Emergency Roadway Maintenance response.  
Approx. Completion: Operations Ongoing  
Contact: Mike Washburn (407) 532-3999 ext. 3312

### **SunNav<sup>SM</sup> Software Development and Integration (190766-1-32)**

SunNav<sup>SM</sup> Release 1.2 was completed at the first of November 2004. Release 1.2 adds a NTCIP driver for DMS signs and some additional diagnostic utilities for the DMS to the features that existed in Release 1.1. Testing and acceptance of the release will occur over the first couple of weeks of November as the only NTCIP signs available to test against are the two signs by Daktronics being installed by the OCCC on the Beeline. These signs are being given to the Turnpike for control and operation. However, the signs have not yet been accepted by the OCCC. Release 1.1 was completed and accepted March 3<sup>rd</sup>, 2004. Software development on Release 1.1 began in July 2002. The Release built upon the previous releases which mostly covered incident management. There were three minor releases and one final release associated with SunNav Release 1.1. SunNav Release 1.01 provided DMS control. SunNav Release 1.02 added drivers for CCTV cameras, providing the ability to pan, tilt, and zoom cameras in the field from SunNav control windows in the TMC in July 2003. SunNav Release 1.03 provided video wall control to select the number of video windows and the patterns on the video wall. Release 1.03 also provided enhanced CCTV controls and the ability to switch CCTV video feeds being displayed in individual windows on the video wall. Release 1.1 also included integrated control for: other video devices such as video multiplexors, VCRs, and tuners; additional DMS diagnostic screens; and response plans for automated incident responses for specific scenarios. Functional requirements development is currently under way for the next release. Areas under consideration are NTCIP drivers for CCTV, center-to-center communications for multi-TMC control of devices, an XML/WEB page client, and integration of various detection devices. Completion of the requirement process was in June 2004. Development of the next release begins in November 2004.

Approx. Completion: Ongoing  
Contact: Ranzy Whiticker (407) 532-3999 ext. 3485

### **Automated Vehicle Location (AVL) System**

The existing Turnpike Road Rangers' AVL system is integrated with both TMC facilities. The current AVL system provides the Turnpike TMC with Road Rangers location information enabling more efficient response to incidents on the Turnpike by dispatching the closest available mobile asset(s). The AVL system also provides the TMC with accurate vehicle speed of Turnpike monitored vehicles to help determine traffic flow. The AVL system collects vital information and delivers this information to the TMC in "real time." AVL has been installed and implemented at both the Turkey Lake and Pompano TMC facilities. The Turnpike TMC is currently reviewing AVL software upgrades to make the system more efficient and provide additional information fields to the TMC with minimal effort on the part of the service patrol.

Approx. Completion: On-going  
Contact: Mike Washburn (407) 532-3999 ext. 3312

### **Portable Roadside Readers**

The Turnpike's portable roadside reader (PRR) is a self-contained, trailer-mounted SunPass<sup>TM</sup> transponder reader. This equipment was designed for SunPass transponder data collection and extraction at specified geographical locations. In September 2001, four PRRs were provided to the Turnpike. Two of the PRRs are based at the Pompano Beach Maintenance Yard, and two are based at the Orlando South Maintenance Yard. Turnpike Traffic Operations has made the PRRs available to other agencies that require traffic data. The units have been actively deployed since January 2002.

Approx. Completion: On-going  
Contact: Michele Gustafson (407)532-3999 ext. 3395

### **SunNav<sup>SM</sup> Phase II Fiber Project (406122-1-52-01)**

This project will install 80 miles of fiber optic communications infrastructure and a camera approximately every mile from MP 75 to MP 155 along the Turnpike mainline. The project will integrate six DMSs within the project limits with the Pompano TMC. The project will also provide



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communications to the FHP Lake Worth Regional Dispatch Center. The project will be designed to accommodate future VDS within the project limits. Project selection occurred in May 2004 using the Adjusted-Score Design-Build procurement method and the project was awarded to Miller Electric Inc. through this process. The project is currently in the design phase, with 90% plans for one phase of the project already having been reviewed.

Approx. Completion: October 2005

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **SunNav<sup>SM</sup> ITS Phase III Sawgrass Expressway Fiber Project (406119-1-52-01, 406119-3-52-01 and 406119-4-52-01)**

This project will provide a fiber optic communications system along with a video monitoring system, a vehicle detection system, and a DMS system along the entire Sawgrass Expressway from MP 0 to MP 21.8. The project may also require the construction of 1 to 2 communications hubs and communications connectivity to the Florida's Turnpike Enterprise microwave towers and toll plazas within the project limits. The ITS communications infrastructure for the segments will consist of installing a conduit along one side of the roadway with a 96-fiber cable for communications backbone/distribution and three additional conduits for future uses. The fiber optic communication system will be installed along both sides of the Sawgrass Expressway to provide redundancy for the Office of Toll Operations. Development of the conceptual plans is complete. The project has been broken into three parts for bidding purposes. Two of the three sections will be let as a part of design build roadway widening projects. The Turnpike is currently in the process of hiring design build contractors for two of the three projects. The third part of the project will be let in mid 2006.

Approx. Completion: 2006

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **SunNav<sup>SM</sup> ITS Phase IV Turnpike Mainline from MP 155-227 and MP 227-309 (406120-1-52-01 and 406120-3-52-01)**

This project has been broken into two segments and will provide a fiber optic communications system with video monitoring cameras along the

Florida's Turnpike Enterprise mainline from MP 155 to MP 227 and MP 227 to MP 309. The goals for this project are to complete the Turnpike mainline communications deployment and to provide 100 percent video coverage of the roadway by installing CCTV cameras at approximately one-mile intervals.

The communications infrastructure for this project will consist of installing conduit along one side of the roadway with a 96-fiber cable for communications backbone/distribution and three additional conduits for future uses. The project will integrate eight DMSs with the Pompano and Turkey Lake TMC facilities, the toll plazas, and the microwave towers within the project limits. The concept report development is complete and conceptual plans development began in July 2004. The Turnpike will be hiring a design build contractor to begin this project in mid 2005.

Approx. Completion: 2007

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **SunNav<sup>SM</sup> ITS South Florida Part A ITS Improvements (406119-2-32-01)**

This project will include fiber optic cable, DMS, CCTV, vehicle detection, and HAR deployment on the southern portion of the HEFT from MP 0 to MP 7 and on the Golden Glades Spur from MP 0X to MP 4X. The project will also deploy vehicle detection technologies in Miami-Dade, Broward, and Palm Beach counties and will complete the CCTV installation in the Phase I project limits within Palm Beach and Miami-Dade counties. The Turnpike is currently working through the design consultant procurement process.

Approx. Completion: 2007

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **SunNav<sup>SM</sup> ITS Central and West Florida ITS Improvements (406120-2-32-01)**

This project is planned to be broken into two sections. The off mainline facilities in the Orlando area will be grouped into one project and the facilities in Lakeland and Tampa will be grouped into a second project. The projects will install a fiber optic communications system along one side of each roadway along with various ITS devices. It is anticipated that a fiber optic communications system, CCTV cameras,



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DMSs, and vehicle detection devices will be installed on all of the facilities. The projects will also incorporate the needs of other Turnpike groups, such as tolls. The Turnpike is currently working through the design consultant procurement process.

Approx. Completion: 2007

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **Vehicle Detector Station (VDS) System (406123-1-52-01)**

The goal of this project is to install a vehicle detection technology throughout the Florida's Turnpike Enterprise roadway system to determine vehicle vehicular speeds, density, and volumes. This information will assist the TMC facilities in identifying congested areas and allowing them to take appropriate actions such as posting DMS or HAR messages. Although a single detection technology has not yet been chosen due to the rapid changes in available technologies, the objective of the VDS System is to provide maximum coverage throughout the Florida's Turnpike Enterprise roadway system. This will be accomplished through designing and installing new vehicle detector stations along roadways where they do not exist. The concept report development is in process and will be complete in November 2004. The Turnpike will be hiring a system designer in early 2005 and a contractor in early 2007.

Approx. Completion: 2007

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **Dynamic Message Sign Project (406124-1-52-01)**

The objective of the DMS project is to design and install additional DMS in those areas along the Turnpike Mainline that do not already have DMS coverage. In addition, the project will include some arterial DMS approaching the Turnpike Mainline. The concept report development is in process and will be complete in November 2004. The Turnpike will be hiring a system designer in early 2005 and a contractor in early 2007.

Approx. Completion: 2007

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **Broward County Camera Project (417121-1-52-01)**

The project will provide approximately 33 CCTV cameras at 1 mile spacing along the Turnpike mainline in Broward County from MP 40-73. The recent installation of fiber optic cable (FOC) in the proposed project limits would provide the communication link from the CCTV cameras to the Pompano TMC. The concept report development is in process and will be complete in November 2004. Preliminary plan development has begun and will be complete in early 2005. The Turnpike will be hiring a design-build team to complete the project in mid 2005.

Approx. Completion: 2006

Contact: Ingrid Birenbaum (954) 975-4855 ext. 1293

### **Leesburg Traffic Management System**

This project will install CCTV cameras to monitor traffic at the Leesburg Toll Plaza at MP 288. The system will transport streaming video images over a wireless link to Florida's Turnpike Enterprise TMC. This project will serve as a pilot for other similar deployments. The images viewed will be used to monitor traffic, enhance safety, and address congestion at this mainline toll plaza. The design phase was completed by the end of August 2003. Construction was expected to be completed by September 2003, but was put on hold waiting for the structural support upgrades to be done to the microwave tower so it could be utilized as part of the project. The camera and additional dish were installed in February 2004 at the Leesburg microwave tower. The camera and pole installation at the Mainline Toll Plaza is now scheduled to be completed by November 19th.

Approx. Completion: July 2004

Contact: Ranzy Whiticker (407) 532-3999 ext. 3485

### **Microwave Camera Project**

This project expanded upon the microwave communication part of the Leesburg Traffic Management System project. This project installed cameras on 8 additional Turnpike microwave towers between southern Miami-Dade County and the Orlando area. The microwave system is used to transport video feed and CCTV control to and from the Pompano and Turkey Lake TMC facilities. Fiber links at two of the towers (Sunrise and Orlando



West) were used to connect the TMC facilities to the microwave system. This brings the total number of cameras installed on the Turnpike's Microwave System to ten.

Completion: June 2004

Contact: Ranzy Whiticker (407) 532-3999 ext. 3485

### **Traffic Management FHP Lake Worth Dispatch Center Operator**

Florida's Turnpike Enterprise TMC is staffing Turnpike TMC dispatch operators at the FHP Troop K, Lake Worth Dispatch Center between 6:00 a.m. and 10:00 p.m., five days a week. Turnpike TMC dispatch operators work in conjunction with the existing Turnpike TMC facilities in Pompano Beach and Turkey Lake by facilitating sharing of incident status information between FHP and the TMCs. The coordination between Turnpike TMC dispatch operators and FHP dispatchers and troopers enables the TMC to assume a more proactive role in the management of incidents along its roadways in terms of emergency verification and response, dissemination of traveler information, and other agency notifications. This accurate and timely exchange of information has resulted in the enhanced operation of the Turnpike's ITS devices and more efficient resource sharing. It is important to note that the project has been well-received by both Turnpike Operations and FHP. The FHP Lake Worth Dispatch Center expansion plans are currently being developed with the intent that the TMC will have up to two assigned console positions and video wall control.

Approx. Completion: Ongoing

Contact: Michael Washburn (407) 532-3999 ext. 3312

### **Traffic Management Vehicle**

The Traffic Management Vehicle (TMV) provides live real-time video monitoring of traffic conditions, incidents, special events, construction activities and weather disasters. The TMV project is the result of a unique public/public/private partnership between Florida's Turnpike Enterprise, Center for Urban Transportation Resource (CUTR) and Eye In The Sky, Inc. (EITS). The unique partnership utilizes CUTR to administer and document the pilot project. The TMV is a state-of-the-art

vehicle equipped with a satellite communications system and 45 foot high camera, thus allowing streaming video to be sent from anywhere at any time. This is especially useful when monitoring traffic conditions in areas of limited ITS resource deployment (i.e. lack of permanent CCTV coverage). The vehicle can be dispatched to any location along the Turnpike, park in a safe location, and send, via satellite communications and the internet, live video back to the TMC (or to other FDOT/public safety officials via secure website). The video can be archived by the vehicle, thus providing an opportunity to review the images at a later date. Some practical applications of the TMV are: monitoring major traffic incidents; monitoring traffic conditions in areas where ITS resources have not been deployed; providing live traffic incident video via secure website to FHP, fire rescue or other responding agencies, special events (sporting events, concerts), emergency situations (such as homeland security), natural disasters (such as hurricane evacuation/recovery), or turnpike Traffic Engineering studies.

Approx. Completion: Ongoing

Contact: Michael Washburn (407) 532-3999 ext. 3312