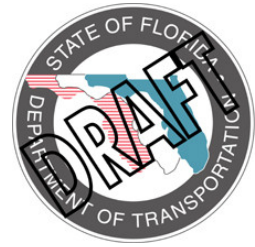


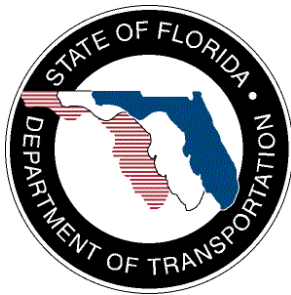
Technical Memorandum



Statewide Advanced Traveler Information System Project

District 2 Concept of Operations

December 13, 2006
Draft Version 3



Prepared for:

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List of Acronyms

ATIS	Advanced Traveler Information System
C2C	Center to Center
CAD	Computer-aided Dispatch
CCTV	Closed-circuit Television
ConOps	Concept of Operations
CR	County Road
DMS	Dynamic Message Sign
Email	Electronic Mail
EOC	Emergency Operations Center
FDOT	Florida Department of Transportation
FHP	Florida Highway Patrol
FIHS	Florida Intrastate Highway System
FTE	Florida's Turnpike Enterprise
HAR	Highway Advisory Radio
I-10	Interstate 10
I-295	Interstate 295
I-75	Interstate 75
I-95	Interstate 95
ITS	Intelligent Transportation System
IVR	Interactive Voice Response
JaxPort	Jacksonville Port Authority
JIA	Jacksonville International Airport
JTA	Jacksonville Transportation Authority
PIO	Public Information Office
RTMC	Regional Transportation Management Center
SIS	Strategic Intermodal System
SR	State Road
SRS	SmartRoute Systems
TEOO	Traffic Engineering and Operations Office
U.S.	United States
VAS	Video Aggregation Subsystem
WZ	Work Zone



1. Introduction

1.1 Purpose

This technical memorandum describes the next-generation statewide advanced traveler information system (ATIS) to be implemented in the 2008 to 2013 timeframe at the District level, and serves as the initial District 2 concept of operations (ConOps).

This report details the current or near-term situation of 511 traveler information in District 2, along with the proposed system in 2008. This report is one of eight District ConOps that further refine the initial *Statewide ATIS Concept of Operations* for each District.¹

1.2 Background

The Florida Department of Transportation (FDOT) currently operates one of the most widely used traveler information programs in the country. Florida 511 services receive roughly 500,000 calls a month from people accessing real-time traveler information. Florida's combined cobranded 511 Web sites also receive roughly 1,000,000 Web hits a month. Hundreds of dynamic messages sign (DMS) devices, and dozens of permanent and portable highway advisory radio (HAR) stations are used throughout the state to inform drivers of congestion, incidents, and construction zones. Millions of travelers rely on static information provided through various means, such as rest areas, welcome centers, the state map, and public service campaigns.

While the FDOT's efforts have proven effective, opportunities remain to improve service to the traveling public. The state's initial regional advanced traveler information projects are scheduled to reach the end of contractual terms in mid-2008. This gives the state both an opportunity to improve and integrate services, and a need to plan and implement follow-up services to ensure continued provision of quality traveler information.

¹ Refer to *Section 2* of this document for information on the *Statewide ATIS ConOps* developed as part of the documentation for this project.



Technical Memorandum – Statewide ATIS Project District 2 Concept of Operations

In late 2003, the FDOT formed the Florida 511 Working Group to support coordination among state traveler information programs.² In early 2004, the 511 Working Group determined that Florida's next-generation traveler information services — or what follows when these first-generation projects end in 2008 — should be far more integrated, consistent, statewide, and seamless than current projects. Further, the FDOT Central Office Traffic Engineering and Operations Office (TEOO) Intelligent Transportation Systems (ITS) Section should take the lead in defining and establishing an integrated telephone and Web site infrastructure that supports state traveler information services in 2008 and beyond. The TEOO ITS Section should also continue working with the 511 Working Group to coordinate the creation of that infrastructure, and to define roles for the FDOT Districts and partner agencies in creating and managing the content provided through the statewide ATIS.

The FDOT Executive Board approved the budget for Florida's next-generation statewide ATIS on July 19, 2006.

1.3 Content

This technical memorandum contains the initial District ConOps, and provides an initial baseline of the project's assumptions, boundaries, and constraints (e.g., roadways covered by each District and data flows within each District).

The topics covered in this report include:

- *Section 1 – Introduction*
- *Section 2 – Referenced Documents*
- *Section 3 – Concept of Operations*

² More information regarding the Florida 511 Working Group is available online at http://www.dot.state.fl.us/TrafficOperations/ITS/Projects_Deploy/511/WGM.htm.



2. Referenced Documents

The documents identified below were referenced during the development of this ConOps. These documents, along with other project information, are available on the project Web site located online at http://floridaitis.com/Travel_Info-ConOps_Dev.htm.

Technical Memorandum

*Statewide Advanced Traveler Information
System (ATIS) Project*

Statewide ATIS Concept of Operations

August 4, 2006
Version 2

Florida Department of Transportation
Traffic Engineering and Operations Office
Intelligent Transportation Systems Section
605 Suwannee Street, M.S. 90
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Technical Memorandum

*Statewide Advanced Traveler Information
System (ATIS) Project*

Environmental Scan

August 16, 2006
Version 2

Florida Department of Transportation
Traffic Engineering and Operations Office
Intelligent Transportation Systems Section
605 Suwannee Street, M.S. 90
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Technical Memorandum

*Statewide Advanced Traveler Information
System Project*

Stakeholder Input and User Needs

August 16, 2006
Version 2

Florida Department of Transportation
Traffic Engineering and Operations Office
Intelligent Transportation Systems Section
605 Suwannee Street, M.S. 90
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Technical Memorandum

*Statewide Advanced Traveler Information
System Project*

Project Concept Report

September 13, 2006
Version 2

Florida Department of Transportation
Traffic Engineering and Operations Office
Intelligent Transportation Systems Section
605 Suwannee Street, M.S. 90
Tallahassee, Florida 32399-0450
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3. Concept of Operations

To understand the impact that the future statewide ATIS, which is planned for implementation in 2008, will have on traveler information in District 2, this ConOps reviews the current situation, discusses the justification for changes, and reviews the potential future state in District 2.

3.1 Current Situation

3.1.1 Introduction

3.1.1.1 Background

In May 2006, SmartRoute Systems (SRS) was selected as the District 2 operations contractor for 511 services and the regional transportation management center (RTMC). The District 2 511 system is anticipated to launch in late October. Currently, the contract with SRS is expected to be extended until June 30, 2009.

3.1.1.2 Overview

As part of its new contract, SRS operates the Jacksonville RTMC and will also operate the 511 system from this location. SmartRoute Systems will collect ATIS information on roadways in the Jacksonville area and will disseminate this data on the central Florida/statewide interactive voice response (IVR) subsystem and a new Jacksonville 511 Web site that will be operated by Maptuit®.³

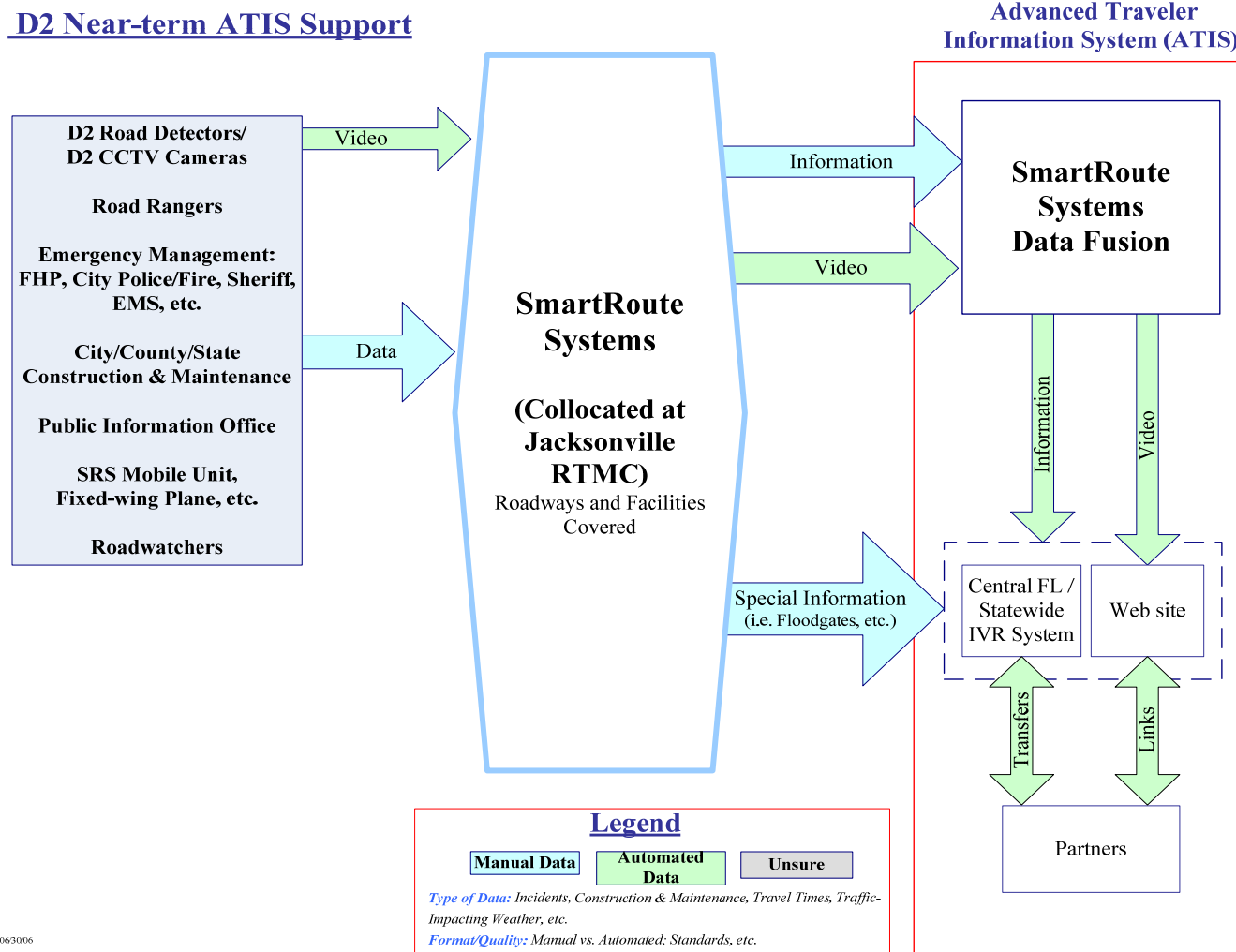
Appendix A shows the list of roadways that will be covered by the Jacksonville 511 system in District 2.

Figure 3.1 shows the near-term ATIS data flows within District 2. In the following sections, we will review the inputs, operations, and outputs shown in the diagram.

³ Maptuit is a registered trademark of Maptuit Corporation in the United States. More information is available online at <http://corporate.maptuit.com/>.



Figure 3.1 – District 2 Near-term Advanced Traveler Information System Support



Version 1.0 063006
 D2 Current District ATIS Support V1.vsd



3.1.2 Inputs

3.1.2.1 Overview

As seen in Figure 3.1, since SRS is both the RTMC and the 511 operator, all inputs for District 2's covered roadways will go directly to SRS. The ATIS operator obtains the data transmitted by these inputs manually from telephone calls and text messages, and by reviewing Web sites, et cetera. Only closed-circuit television (CCTV) cameras and RTMC detectors send data to the RTMC automatically.

3.1.2.2 SmartRoute Systems' Inputs

As shown in Figure 3.1, the ATIS inputs that go directly into the District 2 RTMCs include the following:

- **District 2 CCTV Cameras and Detectors** – District 2 has 65 CCTV cameras and 150 detectors located on the roadways shown in *Appendix A*. The system covers Interstate 95 (I-95) from Pecan Park Road south to the I-295 (I-295)/I-95 interchange in southern Duval County, and Interstate 10 (I-10) from I-295 east to the I-95 interchange. Total coverage is approximately 34 miles in length, and varies from four to six travel and auxiliary lanes.
- **Road Rangers** – The FDOT's Road Rangers provide assistance along the freeways in District 2, and are often times the first to arrive on the scene and to provide timely incident information to the RTMCs. The Road Rangers will be a valuable resource for incident information.
- **Emergency Management** – SmartRoute Systems will collect additional travel information in District 2 by:
 - Scanning the Florida Highway Patrol (FHP) computer-aided dispatch (CAD) Web site for incidents
 - Interfacing with local police and fire departments
 - Communicating with emergency operation centers (EOCs)
 - Listening to local police and fire department scanners
- **Construction and Maintenance** – SmartRoute Systems will interface with state, city, and county construction and maintenance offices to obtain up-to-date information on planned construction and maintenance activities.



Technical Memorandum – Statewide ATIS Project District 2 Concept of Operations

- **Public Information Office (PIO)** – SmartRoute Systems will interface with the District 2 PIO to obtain weekly construction and maintenance reports. The District 2 PIO updates the traffic information on a District 2 Web page on a weekly basis.⁴ The Web page is maintained by Earth Tech, a District 2 Consultant, and includes construction information for all 18 counties in District 2.⁵
- **SmartRoute Systems’ Mobile Unit, Fixed-wing Plane** – SmartRoute Systems will have a mobile unit, fixed-wing plane, and will possibly use other sources as necessary to obtain additional traveler information for reporting on the District 2 roadways.
- **Roadwatchers** – Any driver in the area can become a Roadwatcher, by simply calling the District and providing travel information. This information becomes a starting point for 511 information and is disseminated only after further verification/confirmation by operators.

3.1.3 Operations

3.1.3.1 Overview

As seen in Figure 3.1, SRS and the Jacksonville RTMC are the critical elements in the data collection process for the Jacksonville 511 system. As the RTMC and 511 operator, SRS will be able to utilize its operators in an efficient manner to collect ATIS information. SmartRoute Systems will fuse the ATIS information, and then disseminate the data on the central Florida/statewide IVR subsystem and a new Jacksonville 511 Web site.

The Jacksonville RTMC will use the SunGuideSM traffic management software.⁶ This software acts as an interface with ITS field devices and provides center-to-center (C2C) communication — for example, with other District RTMCs. The RTMC also has a video wall control software package developed by Barco that will be utilized by the SRS supervisor.⁷

⁴ District 2 traffic information is available online at <http://www.northfloridaroads.com/>.

⁵ More information regarding Earth Tech is available online at <http://www.earthtech.com/>.

⁶ SunGuide is a service mark of the Florida Department of Transportation. More information regarding the FDOT’s SunGuide software project is available online at <http://sunguide.datasys.swri.edu/>.

⁷ More information regarding Barco is available online at <http://www.barco.com/>.



3.1.3.2 Regional Transportation Management Center Advanced Traveler Information System Staffing

The District 2 RTMC operates 24 hours a day, 7 days per week, and currently maintains a staff that consists of two full-time operators during peak operational times. During the workweek (i.e., 6:00 a.m. to 6:00 p.m.), there will be one RTMC operator and one 511 operator. From 6:00 p.m. to 6:00 a.m., there is one operator performing both ATIS and regular RTMC duties. On weekends, there is one operator and one supervisor.

3.1.4 Outputs

3.1.4.1 Overview

As seen in Figure 3.1, the SRS operations at the Jacksonville RTMC will provide ATIS information and video to the data fusion subsystem, which is also operated by SRS. This data fusion system will utilize two main outputs for traveler information dissemination to the traveling public. These outputs are still a work in progress and are not yet operational. The first output will utilize the central Florida/statewide IVR subsystem that allows users to call in for travel information. The second output will be a 511 Web site created by Maptuit. The IVR subsystem can be reached by dialing 511 from within the Jacksonville coverage area or by dialing (866) 511-3352 from outside the coverage area. The Web site has yet to be developed.

The SRS operators will also provide special information, such as floodgate messages, directly to the IVR subsystem and Web site.

3.1.4.2 Data Fusion Subsystem

The data fusion subsystem to be utilized as part of the Jacksonville 511 traveler information system is a proprietary data fusion engine provided by SRS.

3.1.4.3 Interactive Voice Response Subsystem

Jacksonville's 511 telephone service will be a partition within the existing iFlorida statewide 511 system.⁸ The necessary modifications are still being discussed.

⁸ More information regarding the FDOT's iFlorida Surface Transportation Security and Reliability Information System Model Deployment project is available online at <http://www.iflorida.net/>.



3.1.4.4 Web Site

District 2 will have its own cobranded Web site for the Jacksonville 511 system.

The Web site will be created by Maptuit and is anticipated to launch during the fourth quarter of 2006.

3.1.4.5 Partners

Besides the public transit agencies, the Jacksonville 511 system will transfer and link to other partners. The Jacksonville 511 IVR system will transfer to the following:

- Jacksonville Transportation Authority (JTA)
- Jacksonville International Airport (JIA)
- Jacksonville Port Authority (JaxPort)
- Florida Highway Patrol
- Other 511 systems, including the central Florida 511, Tampa Bay 511, and statewide 511 systems

The Jacksonville 511 Web site will link to:

- Florida Department of Transportation
- Jacksonville Transportation Authority
- Jacksonville International Airport
- Jacksonville Port Authority
- City of Jacksonville Web sites
- Florida Highway Patrol
- Other 511 Web sites, including the central Florida 511, Tampa Bay 511, and statewide 511 sites

3.2 Justification for Changes

Distinct traveler information systems currently exist within Florida, each differing slightly in what, where, when, and how they provide traveler information. As noted previously, the Florida 511 Working Group determined in early 2004 that the next generation of Florida's traveler information services should be far more integrated, consistent, statewide, and seamless than current projects.



Technical Memorandum – Statewide ATIS Project District 2 Concept of Operations

The *Stakeholder Input and User Needs Technical Memorandum* confirmed this assessment. Stakeholders want, and users expect, a future Florida ATIS that improves the current situation and provides high-quality information that is accurate, timely, reliable, complete, accessible, and relevant in a manner that is quick and easy to understand and use. Stakeholders also desire a future ATIS that is both consistent and accountable while built on a common platform.

In 2008, the current contracts for all the regional 511 services in Florida end — an opportune moment to introduce a new way of providing 511 services across the state. The proposed model, a statewide approach, maintains a decentralized data collection system in each FDOT District while introducing a centralized data fusion and data dissemination subsystem.

This new statewide approach attempts to provide the best of both worlds. By continuing decentralized data collection, each District maintains control over the 511 content and keeps some of the flexibility and autonomy inherent in a decentralized system. By introducing a centralized data fusion and data dissemination subsystem, the statewide approach provides more consistency and efficiency. By utilizing risk management and systems engineering, the potential disadvantages of centralizing the data fusion and data dissemination subsystems can be overcome.

A new statewide approach to 511 will:

- Avoid redundant spending on multiple regional 511 services
- Eliminate the current inconsistency of service delivery across the state
- Eliminate call routing issues
- Lower operating and maintenance costs
- Simplify implementation of a statewide video aggregation subsystem (VAS)
- Enhance District coordination
- Better meet stakeholder needs —
 - High quality information (i.e., accurate, reliable, timely)
 - Quick and easy to use
 - Consistent
 - Accountable

This new statewide approach to 511 will affect each District differently. The following section describes the likely future state in District 2 that will come about due to this new statewide approach to traveler information. Specifically, the new data flows (i.e., inputs, operations, and outputs) and roadway coverage will be examined.



3.3 Future State

3.3.1 Introduction

3.3.1.1 Vision

The envisioned structure for the future statewide ATIS as it relates to each District is discussed in this section. The goal of this next generation statewide ATIS is to provide users with a far more integrated, consistent, statewide, and seamless traveler information system. To achieve this goal, the future statewide ATIS will rely on data reported by the seven Districts, Florida's Turnpike Enterprise (FTE), and their partners for traveler information.

Each District and FTE shall manage the content (i.e., traveler information) being reported on the statewide ATIS. This management includes the responsibility of collecting and verifying the information on incidents, traffic flow, construction, maintenance, et cetera, for their particular coverage area (i.e., District).

3.3.1.2 Basic Model

The basic model for the data flow in each District is very similar. In this model, the RTMC acts as the information hub for traveler information on the covered roadways. The covered roadways consist, at a minimum, of Florida's Strategic Intermodal System (SIS) and emerging SIS roadways within each District.⁹

The traveler information gathered at the RTMC can be categorized into ITS and non-ITS inputs. Intelligent transportation system inputs, such as data from sensors and CCTV cameras, are directly controlled by the RTMC. Non-ITS inputs, such as data from PIOs; construction and maintenance offices; emergency management agencies; police scanners; mobile units; et cetera, will supplement this information. Quality standards/metrics need to be established for when traveler information from these inputs meets a "good" level of quality and can be disseminated. The RTMC will be responsible for performing all functions of data collection, verification, and validation. The RTMC will also be responsible for coordination (i.e., no double reporting of incidents) with other reporting agencies (i.e., other District RTMCs).

⁹ More information regarding Florida's SIS and emerging SIS roadways is available online at <http://www.dot.state.fl.us/planning/SIS/default.htm>.



Technical Memorandum – Statewide ATIS Project District 2 Concept of Operations

To minimize the RTMC workload, there will be automated interfaces between the data fusion subsystem and the RTMC operating software (e.g., SunGuide, SunNav, et cetera). Note that while this interface will be automated, human intervention will still be needed to verify and validate this information. The video from each RTMC will be handled automatically by the VAS. Some special information, such as bilingual floodgate messages, will still be required and will probably not be automated.

Consistency in data collection and reporting will be key to the success of the future statewide ATIS. Each District and FTE is unique (e.g., status of the current ATIS, methods of collecting ATIS data, et cetera) and needs to be analyzed in detail.

The following section reviews the future 511 system for District 2. This will help clarify the impact a future statewide ATIS will have on District 2.

3.3.2 Inputs

3.3.2.1 Overview

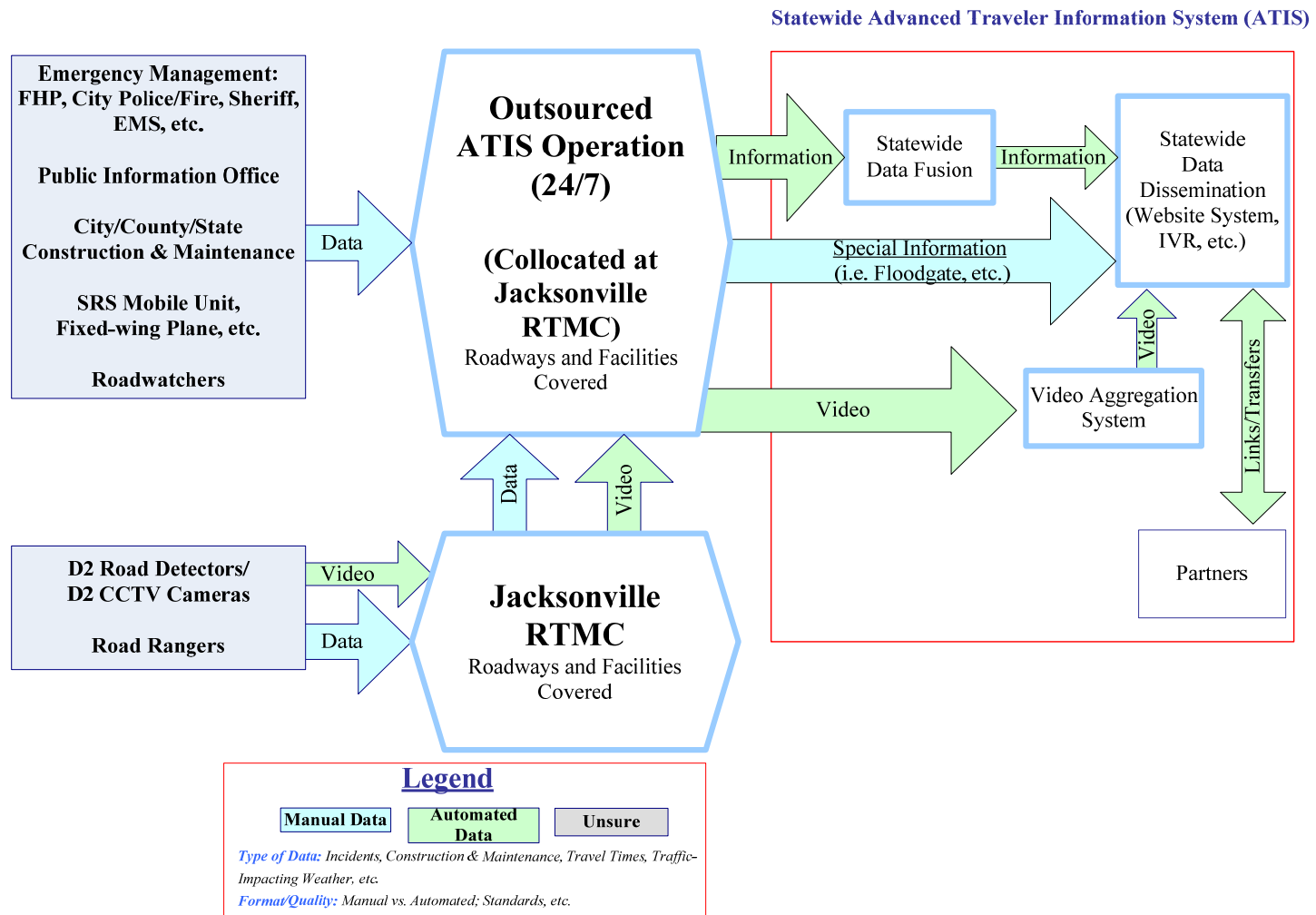
In the future state (2008), District 2 will manage all the content within their District. There will potentially be an increased responsibility to collect data on more roadways, and to verify and validate data from more sources. The District 2 RTMC plans to continue to outsource ATIS operations and the RTMC will not be the sole information hub. The ATIS information will still be disseminated to the next-generation centralized statewide data fusion and dissemination subsystems.

Appendix A shows the list of roadways that will be covered by the District 2 RTMC in the future system.

Figure 3.2 depicts the current expectation of what the future state in District 2 may be. The figure shows the data flows (i.e., inputs, operations, and outputs) that will occur in District 2 with respect to the new statewide approach to ATIS in 2008. The following sections provide more detail on these flows and the expected roadway coverage for District 2.



Figure 3.2 – District 2 Future Advanced Traveler Information System Support



Version 1.0 0731.06

D2 Future District ATIS Support V1.vsd



3.3.2.2 District 2 Regional Transportation Management Center Inputs

As seen in Figure 3.2, the ATIS inputs into District 2's RTMCs will essentially be the same as the current inputs. The one change is that the outsourced ATIS operation will be more distinct from the RTMC operators, which is why the detectors/cameras and Road Rangers are shown going directly to the RTMC first. The interface between the future outsourced ATIS and the RTMC is still to be determined. This concept is explained further in *Section 3.3.3*.

3.3.3 Operations

3.3.3.1 Overview

As seen in Figure 3.2, the RTMC will not act as the sole information hub for all traveler information within the District. The District still plans to outsource the ATIS operations within the collocated RTMC and to separate staff resources for ATIS operators versus everyday RTMC operators. The outsourced ATIS operations staff within the RTMC will assume all verification and validation responsibilities for the ATIS information in District 2. The outsourced ATIS operation will also have to coordinate with other Districts with respect to ATIS information and will be responsible for outputs to the statewide ATIS, such as for bilingual (i.e., English/Spanish) floodgate messages to the IVR subsystem. This outsourced ATIS operation will operate 24 hours a day, 7 days a week.

3.3.3.2 Staffing

After discussions with District 2, it is believed that District 2 will require a separate staff to handle the 24 hours a day, 7 days a week, ATIS operation.

Ideally, there will need to be at least one person responsible for ATIS operations 24 hours a day, 7 days a week. This amounts to 168 total hours or 4.2 full-time equivalent staff positions.

Supervisory/Consultant support for the ATIS operation is estimated at a minimum of 60 hours per week. Also, there will potentially be a need for an additional 40-hour-per-week operator (i.e., one full-time equivalent position) to assist with peak hour information.

To sum this up, the following is the anticipated minimum labor outlook for operations personnel only. It does not include network support, a project manager, equipment, or other factors that often arise in operations.

- 5.2 Full-time Equivalent Operator Positions = 208 hours per week
- 1.5 Full-time Equivalent Supervisor Positions = 60 hours per week



Some of the additional tasks that the RTMC will have to perform because of the new statewide approach will be:

- Verification and validation of District 2's travel information in the data fusion and data dissemination subsystems
- Coordination with other Districts and partner agencies
- Bilingual floodgate messages (i.e., English/Spanish) into the IVR subsystem
- Additional roadways, including SIS and emerging SIS roadways

3.3.3.3 Roadway Changes

To meet the need to provide travel information for the District's SIS and emerging SIS roadways as identified by the FDOT, District 2 will need to provide travel information for the following roads not currently covered by the existing ATIS. Coverage of these roads may be accomplished either through installation of ITS equipment or alternate types of coverage.

- Interstate 295 (entire length)
- Jacksonville Eastern Beltway (State Road [SR] 9B)
- United States (U.S.) Highway 1 from I-295 to the Georgia State Line
- U.S. Highway 19 from SR 44 to the Georgia State Line
- U.S. Highway 27 / U.S. Highway 27A from U.S. Highway 19 to Interstate 75 (I-75)
- U.S. Highway 17 from I-4 to I-295
- SR 100 / SR 100A / U.S. Highway 41 from I-95 to I-10

3.3.4 Outputs

3.3.4.1 Overview

As seen in Figure 3.3.2, a statewide data fusion subsystem will fuse all data from District 2 along with data from other sources, such as other Districts, FTE, et cetera. After integrating national, state, and District data, the statewide data fusion subsystem sends information to the statewide 511 IVR subsystem, the statewide 511 Web site, and a third party feed. These user interfaces will be supplied with the same information to provide consistent, relevant, and complementary information — that is, one voice, one visual — to the user. The statewide 511 IVR subsystem and the 511 Web site will be bilingual. The statewide 511 system will cover, at a minimum, the SIS and emerging SIS roadways for the entire state.

The current concept for the next generation statewide ATIS also includes a VAS that will gather the video from District 2 along with the video from other Districts and FTE. For more information on the statewide system, refer to the *Statewide ATIS Concept of Operations* referenced in *Section 2*.



*Technical Memorandum – Statewide ATIS Project
District 2 Concept of Operations*

3.3.4.2 Data Fusion Subsystem

The future data fusion subsystem will be a centralized system and will fuse data from across the state. It will have to perform the following functions.

- Gather data from a variety of sources, including:
 - Automated traffic detection systems
 - Construction management systems
 - Law enforcement systems
 - Weather reporting systems
 - Other District systems
- Match data with the appropriate source
- Ensure that all data is represented in the same temporal and geographic frames of reference
- Address and repair anomalies or inconsistencies between data sources
- Put the data from various sources into one standard output stream
- Estimate the current state of the system from the available data
- Provide a way to assess the quality of the fused data and the fusion processes

3.3.4.3 Interactive Voice Response Subsystem

The future statewide 511 IVR subsystem will be a centralized system and will have to support the total call volumes from across the state. It is estimated that this could potentially be as high as 10 million calls per year, which will require approximately 400 ports to handle this volume.

In the future statewide IVR subsystem, all callers entering the system will have immediate access to all information at the main menu. In this new statewide system, users will no longer have to transfer to regional systems to obtain detailed information for a particular region or District as they do today.

The future statewide IVR subsystem will continue to provide information on:

- Covered roadways
- Public transit
- Other services that will be determined in the future



3.3.4.4 Web Site

The future statewide 511 Web site will be a centralized system with separate page views for each District. It is estimated that the Web site will have to support total Web hits that may be as high as 20 million Web hits per year.

The future statewide 511 Web site will continue to provide:

- Traveler information on covered roadways
- Personalization
- Video
- Public transit information

3.3.4.5 Video Aggregation Subsystem

The future statewide VAS will receive disaggregated video from all seven District RTMCs, FTE RTMCs and, potentially, other partners. While there will be almost 1,600 CCTVs available from the FDOT RTMCs in 2008, the current thought is that only 600 of these will be utilized. The VAS would translate/convert and aggregate selected video streams to a format that can be displayed as video on the statewide Web site.

3.3.4.6 Third Party Feed

The statewide system will have a third party feed. This third party feed will have a published interface, and will be used by both the public and private sector.

3.3.4.7 Partners

It is assumed that the partners listed in the current state will continue for the most part.

The Jacksonville 511 IVR system will transfer to the following:

- Jacksonville Transportation Authority
- Jacksonville International Airport
- Jacksonville Port Authority
- Florida Highway Patrol
- Other 511 systems, such as the central Florida 511, Tampa Bay 511, and statewide 511 systems

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District 2 Concept of Operations*



The Jacksonville 511 Web site will link to:

- Florida Department of Transportation
- Jacksonville Transportation Authority
- Jacksonville International Airport
- Jacksonville Port Authority
- City of Jacksonville Web sites
- Florida Highway Patrol
- Other 511 Web sites, including the central Florida 511, Tampa Bay 511, and statewide 511 systems
- Jacksonville Event Facility Directions
(Available online at http://www.jaxevents.com/x_directions.html.)
- Jacksonville Downtown Parking
(Available online at http://www.downtownjacksonville.org/content/?page_id=42.)



Appendix A

District 2 Roads Covered by the Current Advanced Traveler Information System



Table A.1 lists the roads currently covered by District 2's existing ATIS. The table shows the type of coverage that the District uses to obtain traveler information on each particular roadway. These coverage types are explained below.

- **Closed-circuit Television** — Closed-circuit television cameras allow ATIS operators to monitor roadway travel conditions.
- **Automated ITS Sensors** — Sensors on roadways allow ATIS operators to monitor roadway travel conditions,
- **Incident-related CAD Data** — Data is obtained by ATIS operators from emergency management agencies' CAD Web sites to monitor roadway incidents.
- **Agency Calls / Electronic Mails (Emails) on Incidents** — Calls or emails are made to or by ATIS operators to emergency management and other agencies to monitor roadway incidents.
- **Scanner Monitoring** — Incident information is obtained by ATIS operators from monitoring frequency scanners on frequencies used by emergency management and other agencies.
- **Internet Construction / Work Zone (WZ) Reports** — Information is obtained by ATIS operators on scheduled construction and WZs on roadways by monitoring county or city construction office Web sites.
- **County / City Construction / WZ Calls and Emails** — Reports are obtained by ATIS operators from county or city construction offices that provide regular updates via telephone calls or emails to scheduled construction/WZs on roadways.
- **Road Ranger Reports** — Incident or travel information reports are received by ATIS operators from Road Rangers that have been contracted to drive the covered roadways; respond to certain types of incidents; and report incidents or travel information on a regular basis to the RTMC.
- **Mobile Data Collection and Tip Line** — Information are received by ATIS operators either from drivers contracted to drive the roadways to monitor incidents and travel conditions on roadways, or by noncontracted roadway users who volunteer information through a tip line setup for traveler feedback.
- **Permits** — Information is received by ATIS operators through the District permitting office on permits issued for events that would impact roadway travel conditions.

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In 2003, the FDOT established Florida's SIS, which identifies specific ports, terminals, and roadways as high priority transportation facilities throughout the state. As part of the vision for the future statewide system, it was determined that each District would cover, at a minimum, the SIS and emerging SIS roadways in their District.

To assist with that, Table A.1 identifies the SIS and emerging SIS roadways that belong to the District. Those SIS roadways that are not currently being covered by the District's ATIS are highlighted in yellow.



Table A.1 – District 2 Roads Covered by the Current Advanced Traveler Information System

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	County Road (CR) 125												
	CR 329												
Columbia	I-10												
Duval	I-10	I-295 East											
	I-295		I-95 Interchange										
Alachua	I-75												
	I-75												
	I-95	Pecan Park Road South	I-295 / I-95 Interchange										
Nassau	I-95												
St. Johns	I-95												
	SR 10												
	SR 10												
	SR 10												
	SR 10												
	SR 10												
	SR 100												
	SR 100												
	SR 100												
	SR 100												
	SR 100												
	SR 101												
	SR 102												
	SR 103												
	SR 104												
	SR 105												
	SR 105												
	SR 107												
	SR 109												
	SR 10A												
	SR 10A												
	SR 111												
	SR 113												
	SR 114												
	SR 115												
	SR 115												
	SR 115A												
	SR 116												
SR 117													
SR 120													
SR 121													
SR 121													
SR 121													



Table A.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	SR 121												
	SR 121												
	SR 122												
	SR 124												
	SR 126												
	SR 128												
	SR 129												
	SR 13												
	SR 13												
	SR 134												
	SR 136												
	SR 136												
	SR 136												
	SR 139												
	SR 14												
	SR 143												
	SR 145												
Clay	SR 15												
	SR 15												
	SR 15												
Putnam	SR 15												
	SR 152												
Bradford	SR 16												
	SR 16												
	SR 16												
Union	SR 16												
	SR 163												
	SR 18												
	SR 18												
	SR 19												
Baker	SR 2												
	SR 2												
	SR 20												
	SR 20												
Lafayette	SR 20												
	SR 20												
	SR 20												
	SR 20												



Table A.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS	
Taylor	SR 20													
	SR 200													
	SR 200													
	SR 200													
	SR 200													
	SR 200													
	SR 202													
	SR 206													
	SR 207													
	SR 207													
	SR 208													
	SR 21													
	SR 21													
	SR 21													
	SR 21													
	SR 211													
	SR 212													
	SR 222													
	SR 224													
	SR 226													
	SR 228													
	SR 228													
	SR 228A													
	SR 23													
	SR 230													
	SR 230													
	SR 235													
	SR 235													
SR 238														
SR 24														
Levy	SR 24													
	SR 247													
	SR 247													
	SR 249													
	SR 25													
	SR 25													
	SR 25													
	SR 25A													
SR 26														



Table A.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Gilchrist	SR 26												
	SR 26												
	SR 26A												
	SR 3												
	SR 30												
	SR 312												
	SR 320												
	SR 331												
	SR 349												
	SR 349												
	SR 45												
	SR 45												
	SR 47												
	SR 47												
	SR 49												
	SR 49												
	SR 49												
	SR 5												
	SR 5												
SR 5													
SR 500													
Dixie	SR 51												
	SR 51												
	SR 51												
	SR 51												
	SR 51												
	SR 53												
	SR 55												
	SR 55												
	SR 55												
	SR 55												
	SR 55												
SR 5A													
Hamilton	SR 6												
Madison	SR 6												
	SR 8												
	SR 8												
	SR 8												



Table A.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Suwannee	SR 8												
	SR 9												
	SR 9												
	SR 9												
	SR 93												
	SR 93												
	SR 93												
	SR 93												
	SR 9A												
	SR A1A												
	SR A1A												
	SR A1A												
U.S. 221													
SIS and Emerging SIS Highways													
SIS Roads that Meet Adopted Criteria and Thresholds													
Interstates	I-10 (entire lengths)												
	I-75 (entire lengths)												
	I-95 (entire lengths)												
	I-295 (entire lengths)												
Turnpikes and Expressways	Jacksonville Eastern Beltway (SR 9A)												
	Jacksonville Eastern Beltway (SR 9B) (provisional)												
Other Florida Intrastate Highway System (FIHS) Facilities	U.S. 301 / SR A1A from SR 326 to I-95												
	SR 26, SR 331, SR 20 and SR 207 from U.S. 19 / 98 to I-95												
	U.S. 1 from I-295 to the Georgia State Line												
Emerging SIS Roads that Meet Adopted Criteria and Thresholds													
FIHS Facilities	U.S. 19 from SR 44 to the Georgia State Line												
	U.S. 27 / U.S. 27A from U.S. 19 to I-75												
Non-FIHS Routes	U.S. 17 from I-4 to I-295												
	SR 100 / SR 100A / U.S. 41 from I-95 to I-10												



Appendix B

District 2 Roads to be Covered by the Future Statewide Advanced Traveler Information System

*Technical Memorandum – Statewide ATIS Project
District 2 Concept of Operations*



Table B.1 lists the roads that will be covered by the District 2 future statewide ATIS. The table shows the type of coverage that the District will use to obtain traveler information on each particular roadway. These coverage types are explained in *Appendix A*.

In 2003, the FDOT established Florida's SIS, which identifies specific ports, terminals, and roadways as high priority transportation facilities throughout the state. As part of the vision for the future statewide system, it was determined that each District would cover, at a minimum, the SIS and emerging SIS roadways in their District.

To assist with that, Table B.1 identifies the SIS and emerging SIS roadways that belong to the District.



Table B.1 – District 2 Roads to be Covered by the Future Statewide Advanced Traveler Information System

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Alachua	I-75												
	SR 20												
	SR 24												
	SR 25												
	SR 26												
	SR 26A												
	SR 45												
	SR 93												
	SR 120												
	SR 121												
	SR 200												
	SR 222												
	SR 226												
	SR 235												
	SR 331												
CR 329													
Baker	SR 2												
	SR 8												
	SR 10												
	SR 121												
	SR 228												
	CR 125												
Bradford	SR 16												
	SR 18												
	SR 21												
	SR 100												
	SR 200												
	SR 230												
Clay	SR 15												
	SR 16												
	SR 21												
	SR 100												
	SR 200												
	SR 224												
SR 230													



Table B.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Columbia	I-10												
	I-75												
	SR 2												
	SR 8												
	SR 10												
	SR 10A												
	SR 20												
	SR 25												
	SR 25A												
	SR 47												
	SR 93												
	SR 100												
	SR 136												
	SR 247												
Dixie	SR 51												
	SR 55												
	SR 349												
Duval	I-10	I-295 East	I-95 Interchange										
	I-95	Pecan Park Road South	I-295 / I-95 Interchange										
	I-295												
	SR A1A												
	SR 5												
	SR 8												
	SR 9												
	SR 9A												
	SR 10												
	SR 10A												
	SR 13												
	SR 15												
	SR 21												
	SR 23												
	SR 101												
	SR 102												
	SR 103												
	SR 104												
	SR 105												
SR 109													
SR 111													
SR 113													



Table B.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	SR 114												
	SR 115												
	SR 115A												
	SR 116												
	SR 117												
	SR 122												
	SR 124												
	SR 126												
	SR 128												
	SR 129												
	SR 134												
	SR 139												
	SR 152												
	SR 163												
	SR 200												
	SR 202												
	SR 208												
	SR 211												
	SR 212												
	SR 228												
	SR 228A												
Gilchrist	SR 26												
	SR 47												
	SR 49												
	SR 55												
Hamilton	SR 6												
	SR 25												
	SR 51												
	SR 93												
	SR 136												
	SR 143												
Lafayette	SR 20												
	SR 51												
	SR 349												
Levy	SR 24												
	SR 45												
	SR 49												
	SR 55												
	SR 121												
	SR 320												



Table B.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	SR 500												
Madison	SR 6												
	SR 8												
	SR 10												
	SR 14												
	SR 20												
	SR 53												
	SR 55												
	SR 145												
	Nassau	I-95											
SR A1A													
SR 5													
SR 9													
SR 10													
SR 15													
SR 105													
SR 107													
SR 115													
SR 121													
SR 200													
Putnam	SR 15												
	SR 19												
	SR 20												
	SR 21												
	SR 26												
	SR 100												
	SR 207												
St. Johns	I-95												
	SR A1A												
	SR 3												
	SR 5												
	SR 5A												
	SR 9												
	SR 13												
	SR 16												
	SR 206												
	SR 207												
SR 312													
Suwannee	SR 8												
	SR 10												



Table B.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	SR 20												
	SR 49												
	SR 51												
	SR 93												
	SR 136												
	SR 247												
	SR 249												
Taylor	SR 20												
	SR 30												
	SR 51												
	SR 55												
	U.S. 221												
Union	SR 16												
	SR 18												
	SR 100												
	SR 121												
	SR 238												
SIS and Emerging SIS Highways													
SIS Roads that Meet Adopted Criteria and Thresholds													
Interstates	I-10, I-75, I-95, I-295 (entire lengths)												
Turnpikes and Expressways	Jacksonville Eastern Beltway (SR 9A)												
	Jacksonville Eastern Beltway (SR 9B) (provisional)												
Other FIHS Facilities	U.S. 301 / SR A1A from SR 326 to I-95												
	SR 26, SR 331, SR 20 and SR 207 from U.S. 19 / 98 to I-95												
	U.S. 1 from I-295 to the Georgia State Line												



Table B.1
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	INTERNET CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Emerging SIS Roads that Meet Adopted Criteria and Thresholds													
FIHS Facilities	U.S. 19 from SR 44 to the Georgia State Line												
	U.S. 27 / U.S. 27A from U.S. 19 to I-75												
Non-FIHS Routes	U.S. 17 from I-4 to I-295												
	SR 100 / SR 100A / U.S. 41 from I-95 to I-10												