

RSA Efforts in the Tampa Bay Area



Presentation to the RSA Regional Peer Exchange

April 29, 2008 -- Little Rock, Arkansas

Peter Hsu, PE, Florida Department of Transportation – District 7



Overview

INTRO

PROGRAMS

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BENEFITS

QUESTIONS

- Introduction
- District 7 RSA Programs
- Road Safety Audit Efforts
- Road Safety Assessment Efforts
- District 7 RSA Database
- Benefits
- Questions



Where is FDOT District 7? (Tampa Bay, Florida)

INTRO

PROGRAMS

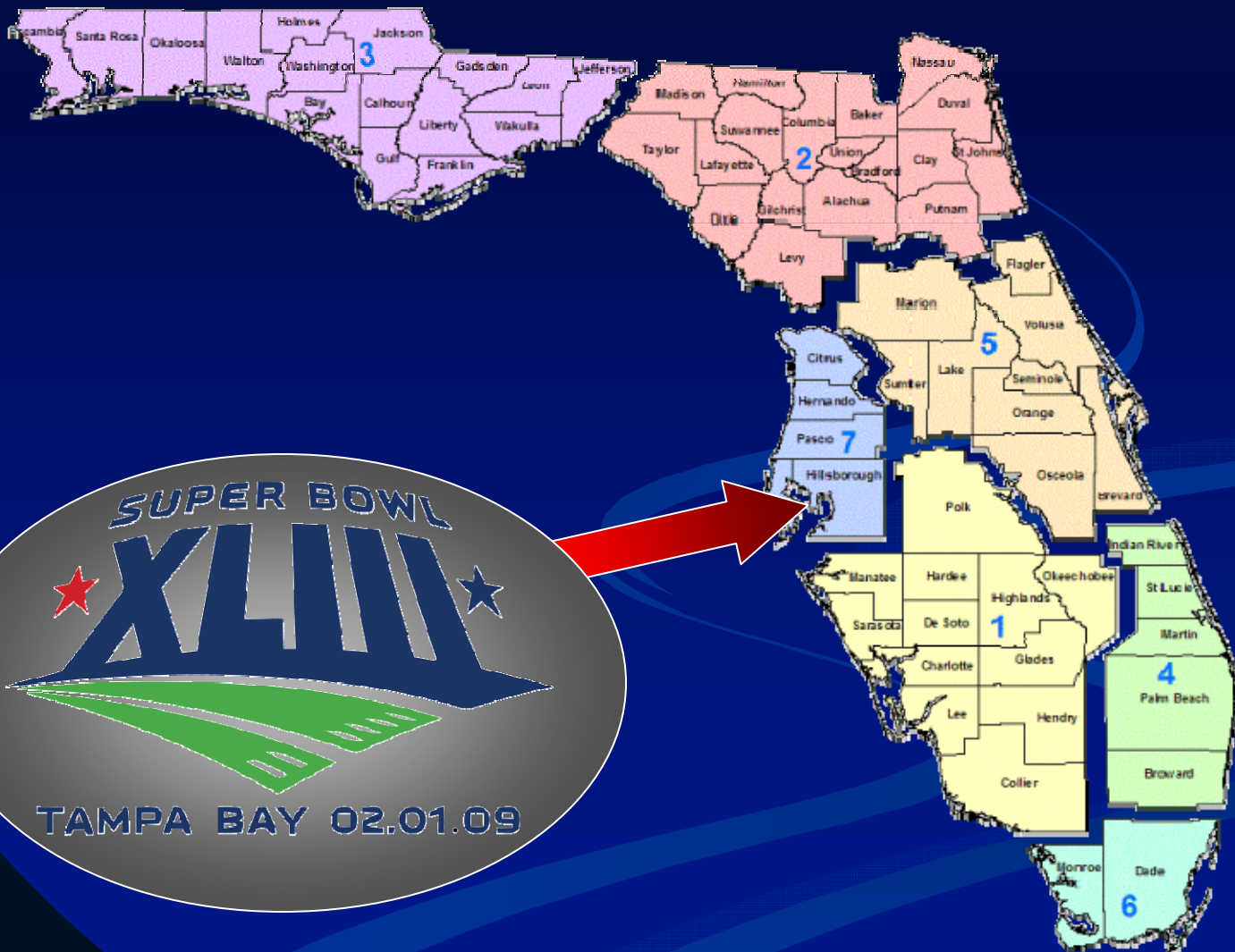
AUDITS

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District 7 PSA Efforts



District 7 Programs

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- Two Tier Approach to RSA:
- Road Safety Audits
 - In compliance with the FHWA Road Safety Audit Guidelines
- Road Safety Assessments
 - Modified approach similar to Road Safety Audits



RSA Participating Agencies

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QUESTIONS

- Florida DOT – Safety, Maintenance, Design & Traffic Operations
 - Road Safety Assessments for local roads
 - Road Safety Audits for State roads
- FHWA Florida Division
 - Joint Effort with FDOT District 7
- Hillsborough, Pasco, Citrus, Pinellas and Hernando Counties
- City of St. Petersburg



District 7 Programs

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- FDOT District 7 Traffic Operations Safety Office initiates RSA program in 2006.
 - 1st RSA Contract in FDOT history



Road Safety Audits

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QUESTIONS

- Road Safety Audits established by FHWA
 - Proactive
 - Low cost
 - Overall safety improvements to roadways



Road Safety Audits

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QUESTIONS

- Formal safety performance examination
- Existing/future road segment or intersection
- Independent multidisciplinary team





Road Safety Audits

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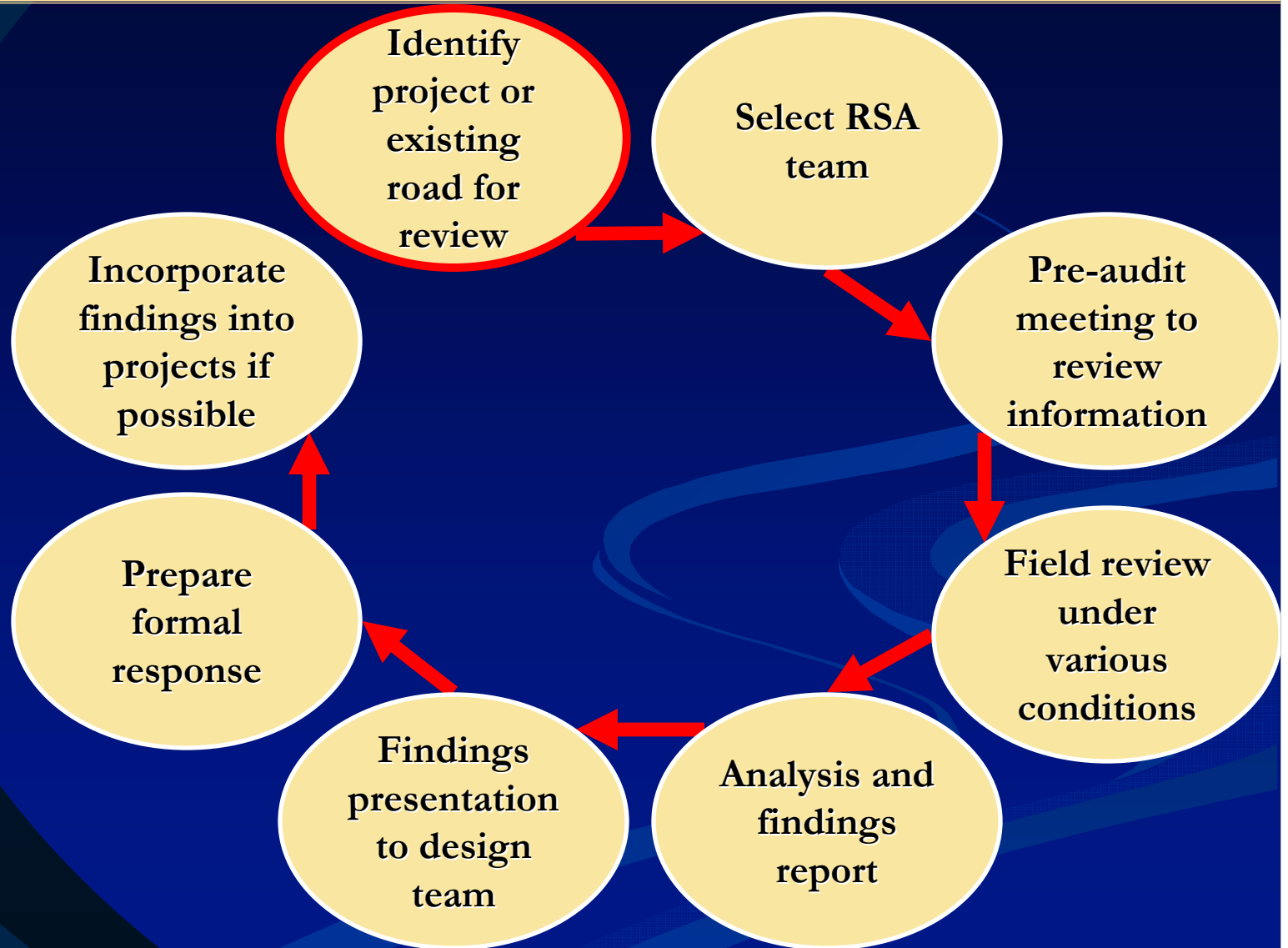
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Road Safety Audit Team

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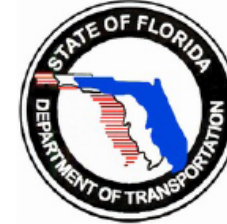
ASSESSMENTS

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FDOT District 7



TBE GROUP

synectics



KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING



Sample Road Safety Audit

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QUESTIONS

- US 301 Road Safety Audit
 - Conducted during design stage
 - Junior level design engineers participated
 - FDOT followed up on safety suggestions
 - School board and transit agencies informed of users' needs
 - Median access controls implemented after business/public comment



Sample Road Safety Audit

■ US 301

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Before...



...After



Sample Road Safety Audit

- Florida Avenue at Waters Avenue

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QUESTIONS



Before...

- Inaccurate Signage



...After



Sample Road Safety Audit

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QUESTIONS

■ Hillsborough Avenue



Before...

- Turning Vehicle Conflicts



...After



Road Safety Assessments

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QUESTIONS

- Similar to Road Safety Audit
- Involves multi-disciplinary participants from Community Traffic Safety Teams
- Involves detailed safety-focused performance evaluation of roadway segment or intersection
- Leads to low-cost safety improvements



Road Safety Assessments

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QUESTIONS

- Safety performance examination
- Existing/future road segment or intersection
- Multidisciplinary team





Road Safety Assessment Team

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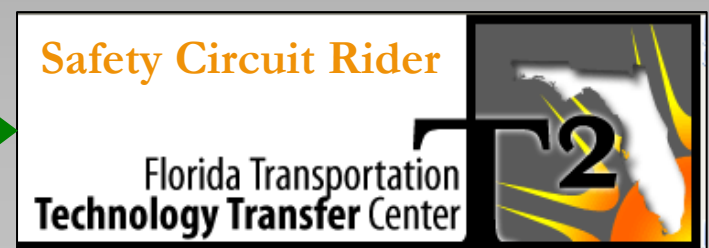
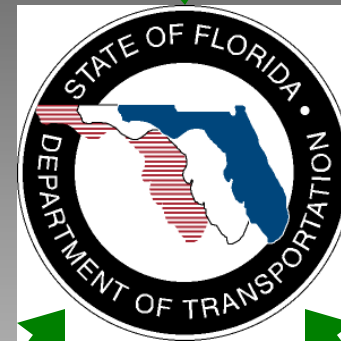
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District 7 RSA Efforts



Road Safety Assessments

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■ Pasco County Assessment Team



Pasco County
Road Safety Assessment
Findings Report
Top 10 Pasco County Locations



Compiled By:



April, 2007



Florida Department of Transportation
Financial ID Number: 254533-32-06
Contract Number: C-8187
Task Assignment: 1



District 7 RSA Efforts



Road Safety Assessments

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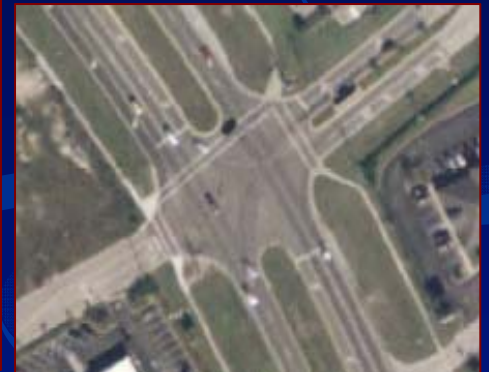
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Sample Road Safety Assessments

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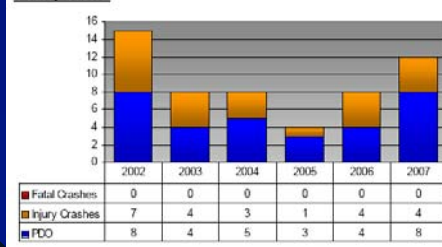
BENEFITS

QUESTIONS

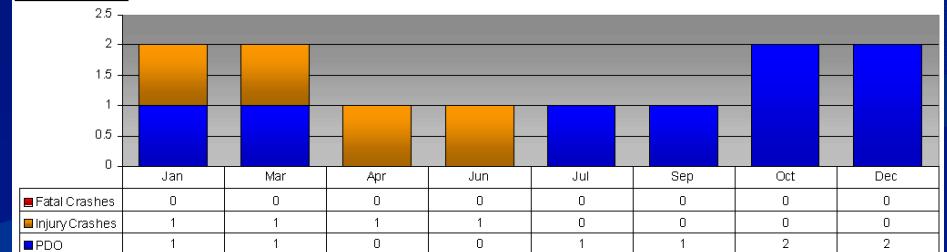
Ridge Rd (CR 587) @ Leo Kidd Ave



Yearly Trend



Monthly Trend



Only 2007 crashes shown in monthly trend
District 7 RSA Efforts



Sample Road Safety Assessments

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Ridge Rd (CR 587) @ Leo Kidd Ave



Before:

- “Congested” overhead street name advance sign, route markers and lane use signs
- Close signal spacing

Before...

After

- Improved visibility of signals with reflective back plates & simplified overhead sign
- Pavement lane use arrows



...After



Sample Road Safety Assessments

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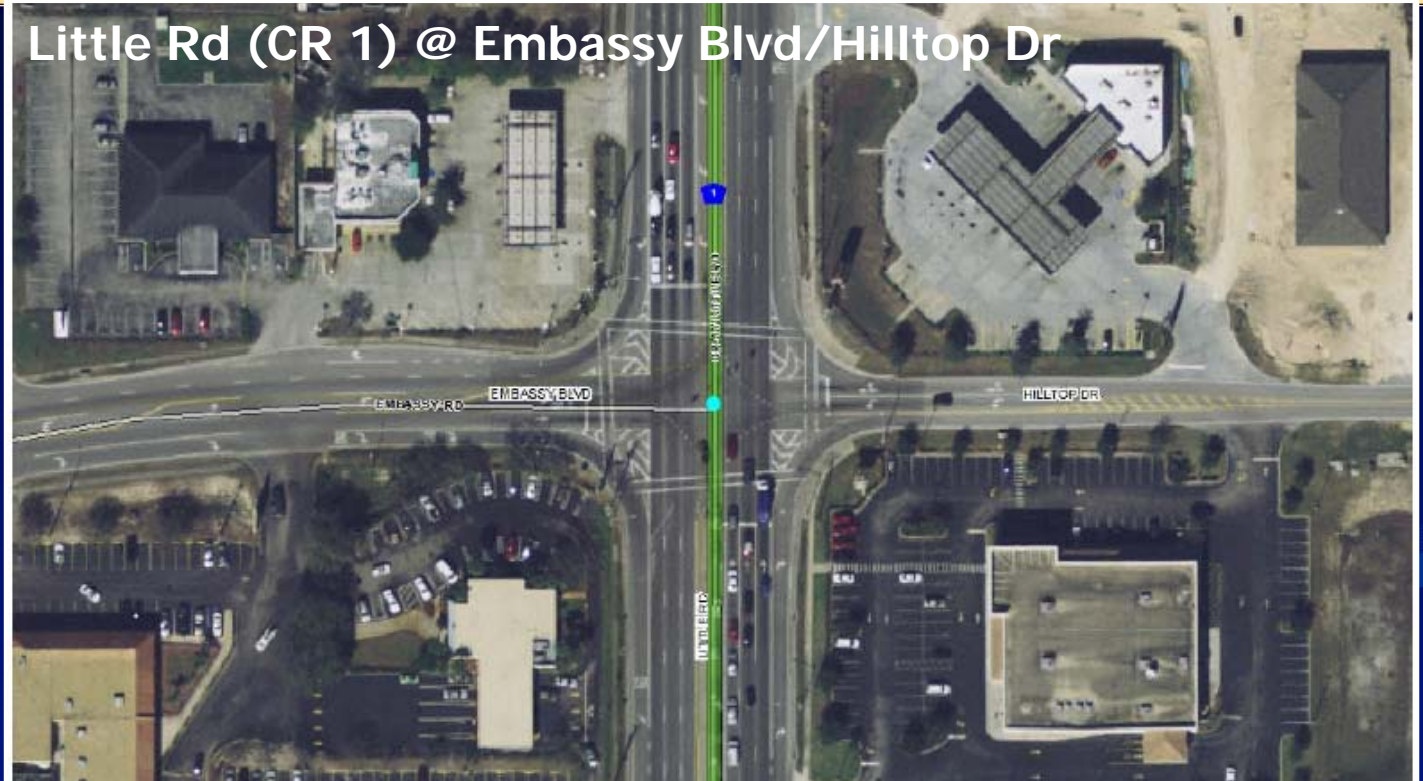
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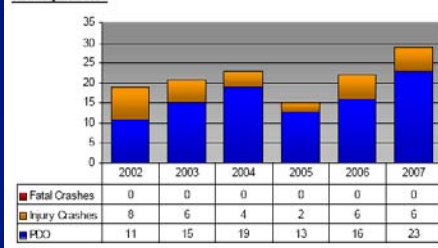
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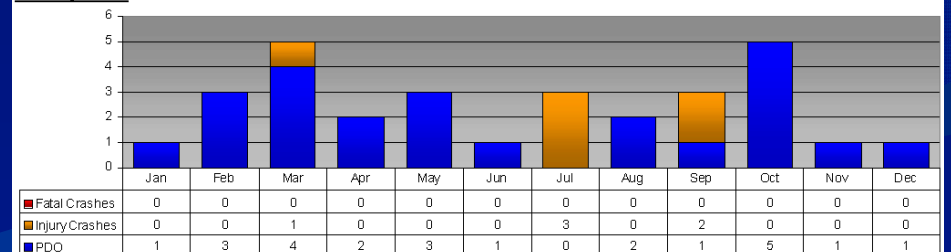
Little Rd (CR 1) @ Embassy Blvd/Hilltop Dr



Yearly Trend



Monthly Trend



Only 2007 crashes shown in monthly trend

District 7 RSA Efforts





Sample Road Safety Assessments

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Little Rd (CR 1) @ Embassy Blvd/Hilltop Dr



Before...

Before

- Signal visibility limited
- High vehicle approach speed

After

- 24/7 solar flashers on approach
- One signal head per approach



...After



RSA Tracking Database

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Main

RSA Tracking D7

- Add New Project Entry
- Open RSA Tracking Form
- View Complete RSA Report
- Close



RSA Tracking Database

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Open RSA Tracking Form

RSA_TRACKING			
RSA_Project Florida at Waters			
Check_List Traffic Signals	Observation Intersection Queuing	Suggestion Reassess existing signal timings. Review potential to increase eastbound left turn storage area or provide dual-left-turn lanes.	Section MP 10020000 5.362
Sub_Item Operations			
Intersection Florida at Waters	Detailed_Observation A significant amount to queuing of eastbound traffic was observed by the RSA team in the west leg of the intersection. The problem was particularly acute in the afternoon peak hour period, although it was also observed prior to the afternoon peak hour an	Short_Term Short term: Reassess existing signal timings	Long_Term
Location Waters Ave. - West Leg			
Contact	Agency_Response_Comment	Status	Estimated_Completion_Date Completion_Date

Record: 127 of 276



RSA Tracking Database

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View Complete RSA Report

Summary Report

RSA Project: Florida at Waters		Observation	Suggestion	Contact
Intersection: Florida at Waters	Observation: Southbound Right Turn Lane Signing	Suggestion: Consider placing overhead signing to identify mandatory right-turn lane	Contact:	
Check List: Auxiliary Lanes	Detailed Observation: The southbound right-most lane becomes a mandatory turn lane. North of the intersection the road is six lanes wide and one lane is dropped as the road reduces to four lanes, Fig. 14. The right lane is a "trap" for motorists. It was observed that some m	Short Term Suggestion:	Estimated Date:	Completion Date:
Sub Item: Turning traffic			Agency Response Comment:	
Location: North Florida Ave. - North Leg, Right Turn Lane		Long Term Suggestion:	Status:	
Section: 10020000	MP: 5.362			
Intersection: Florida at Waters	Observation: Eastbound to Northbound Left-Turning Radius	Suggestion: Assess potential for improvements to the turning radius.	Contact:	
Check List: Auxiliary Lanes	Detailed Observation: The RSA team identified that part of the restriction on eastbound left turn capacity for the previously identified issue was being caused by the relatively tight turning radius for the eastbound to northbound left turn movement. The existing radius for t	Short Term Suggestion:	Estimated Date:	Completion Date:
Sub Item: Turning traffic			Agency Response Comment:	
Location: North Florida Ave. - North leg		Long Term Suggestion:	Status:	
Section: 10020000	MP: 5.362			
Intersection: Florida at Waters	Observation: Pedestrian Tripping Hazards.	Suggestion: Repair tripping hazards.	Contact:	
Check List: Pedestrians and Bicyclists	Detailed Observation: There is a broken guy-wire from the existing utility pole on the northwest corner of the intersection. The presence of the guy-wire and its remaining anchorage could present a tripping hazard for pedestrians and an obstacle to bicyclists or persons in mo	Short Term Suggestion:	Estimated Date:	Completion Date:
Sub Item: General issues			Agency Response Comment:	
Location: Sidewalk, Southeast Corner Utility Pole Guy-Wire, Northwest corner		Long Term Suggestion:	Status:	
Section: 10020000	MP: 5.362			

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RSA Tracking Database

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RSA Comments April 2008			
Status	On-System	Off-System	Total
No Response	8	66	74
Closed	29	42	71
Pending	12	29	41
Project currently under design	35		35
Referred	27	21	48
N/A	7		7
Total	118	158	276



RSA Tracking Database

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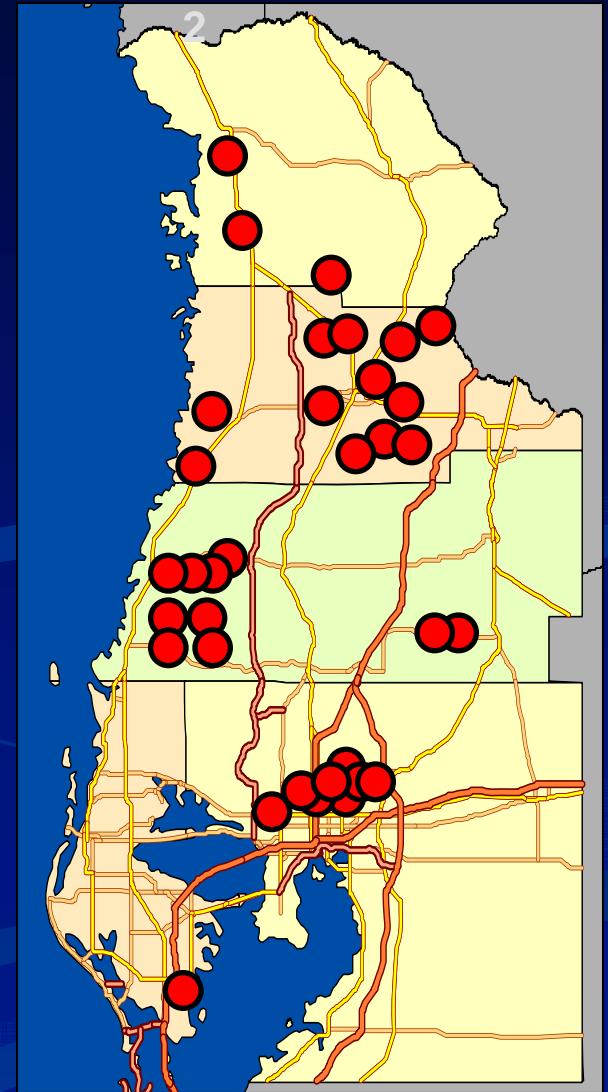
DATABASE

BENEFITS

QUESTIONS

■ 35+ RSAs since December 2006 in District 7 (Tampa Bay)

- Citrus
- Hernando
- Pasco
- Pinellas
- Hillsborough





Benefits of RSAs

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“My recent participation in the Pasco County Roadway Safety Assessment was very rewarding. It has allowed Law Enforcement to complete the Triad of the "Three E's." I direct enforcement and educational activities on a daily basis. The RSA's allow me to participate with engineering related concerns in traffic safety. I expect great success in vehicle crash reduction when our suggestions are implemented.”

Sgt. Erik Anthes

Pasco Sheriff's Office

Pasco County CTST Chair





Benefits of RSAs

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The Road Safety Audit report was an excellent resource for evaluating safety improvements in developing the design of the project.

US 301 Design PM



Benefits of RSAs

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QUESTIONS

- Road Safety Audits are a great tool!
- Road Safety Assessments are a great tool!
- We do what we can, with what we have.
- All have a part, no one has the whole.



Questions?

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