

2011 State of the System Report



Space Coast Transportation Planning Organization

TAC / CAC September 10, 2012
TPO Board September 13, 2012



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TRANSPORTATION ENGINEERING/PLANNING

SOS Report and TPO Priorities

Step 1

Trends & Existing Conditions

Socio-economic
Vehicle miles traveled
Congestion
Transit
Crash history

Step 2

Roadway Segment Ranking

Traffic volume
Congestion
Crash rate
Economic significance

Step 3

Project Strategies / Priorities

PD&E studies
Corridor studies
Local initiatives

Are the TPO's priorities still on target?

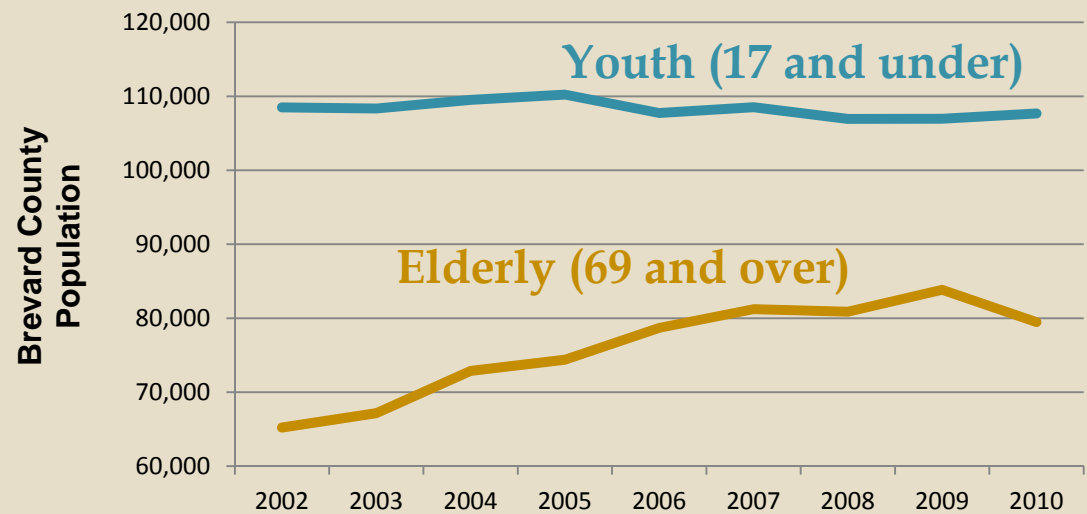
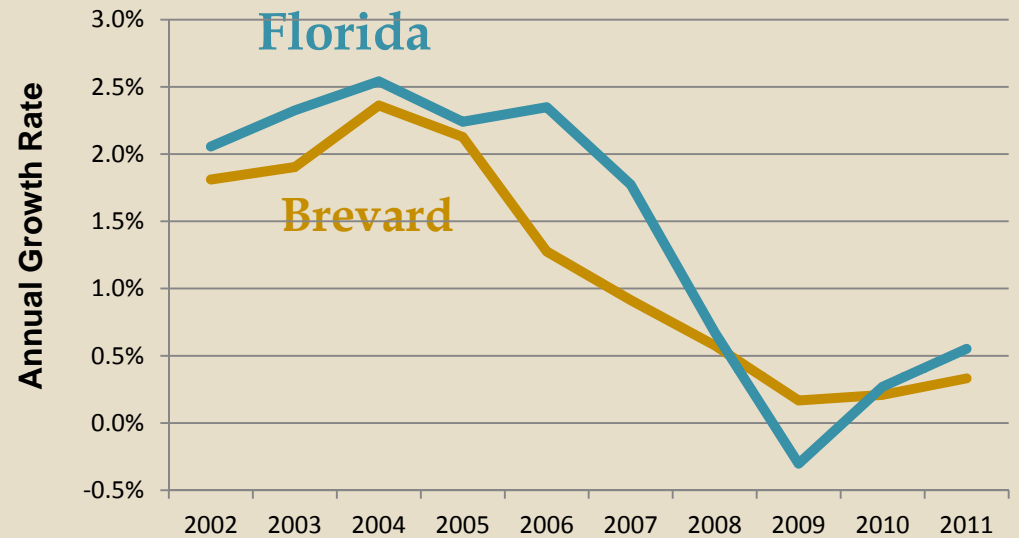
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Trends & Existing Conditions



Socio-Economic Trends

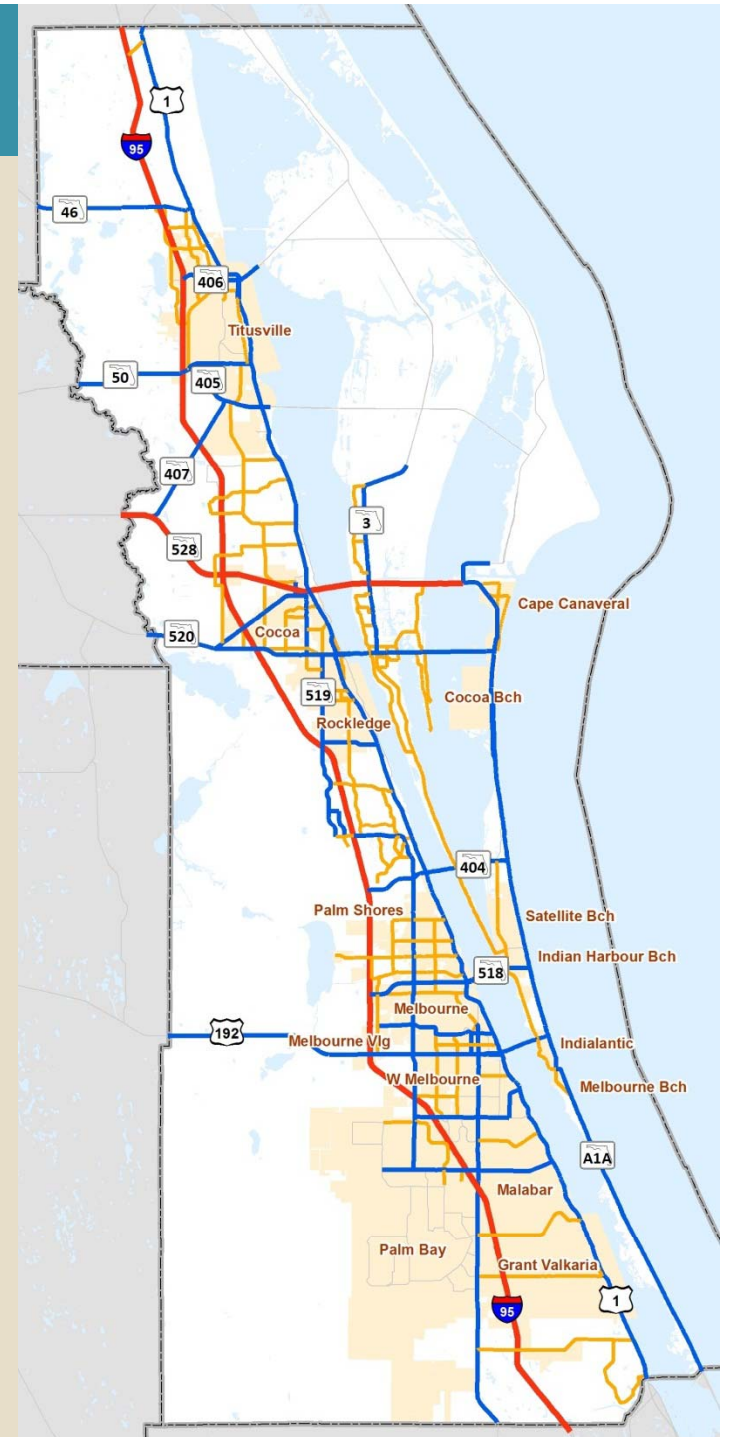
- County had a 0.33% growth rate from 2010 to 2011
- County added 60,500 people in the last decade
- 2nd consecutive year of acceleration in population growth
- Population of 69+ fell back to 2006 levels
- Little change in population of 17 and under



Roadway Segments

- The Pineda Causeway Connection to I-95 was added to the SOS network in 2011

- **SIS - Strategic Intermodal System**
 - Statewide, interconnected network
 - Mobility is highest priority
- **Regional Roads**
 - Regionally significant arterials
- **Non-Regional**
 - Other arterials and local collectors



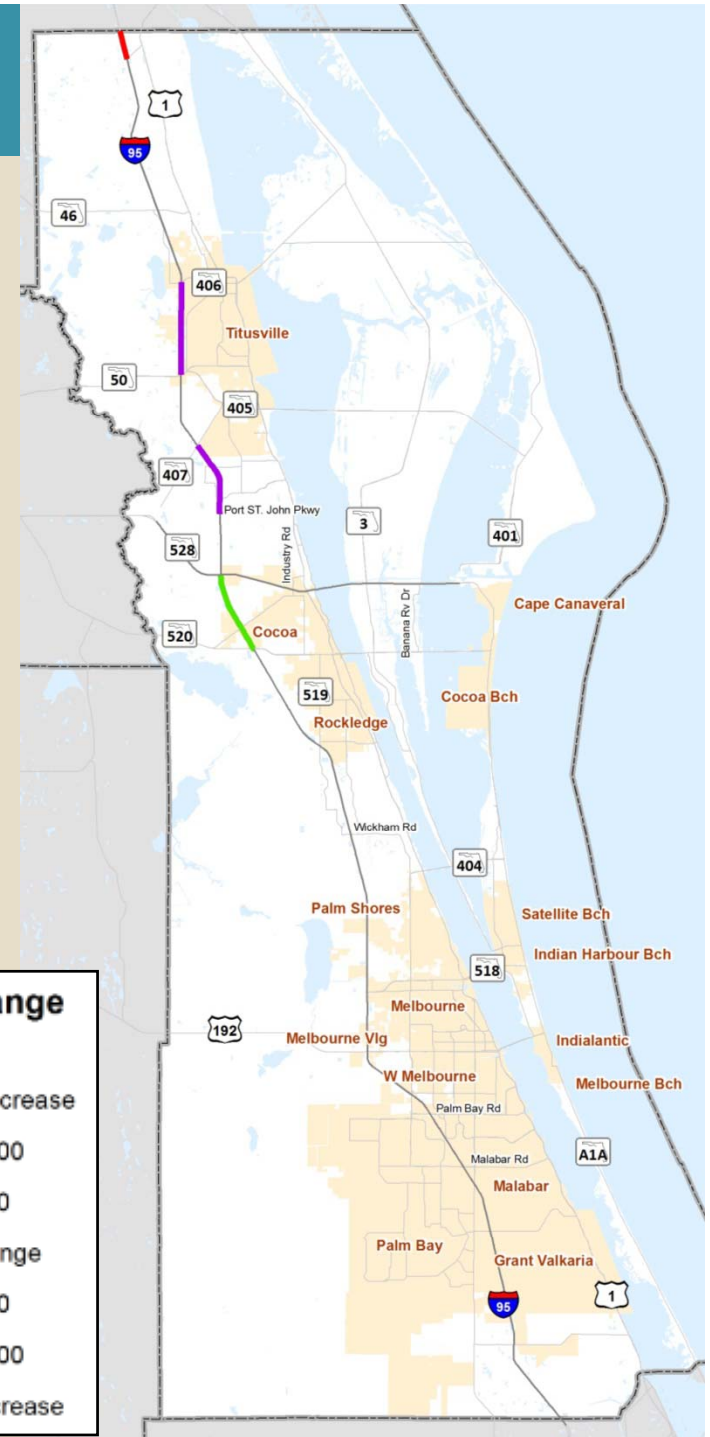
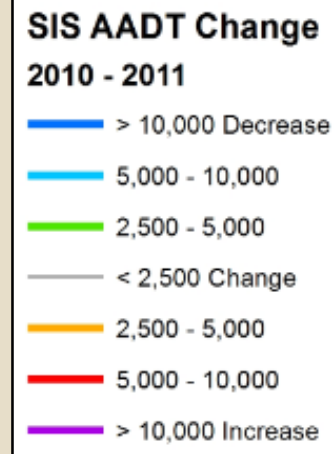
SIS Traffic Volume Change (2010 to 2011)

I-95 Traffic Volume Changes

- Decreased:
 - SR 520 to SR 528: 5%
- Increased:
 - Port St. John Parkway to SR 407: 37%
 - SR 50 to SR 406: 33%
 - Stuck Way to Volusia Co.: 24%

SR 528 maintained volumes

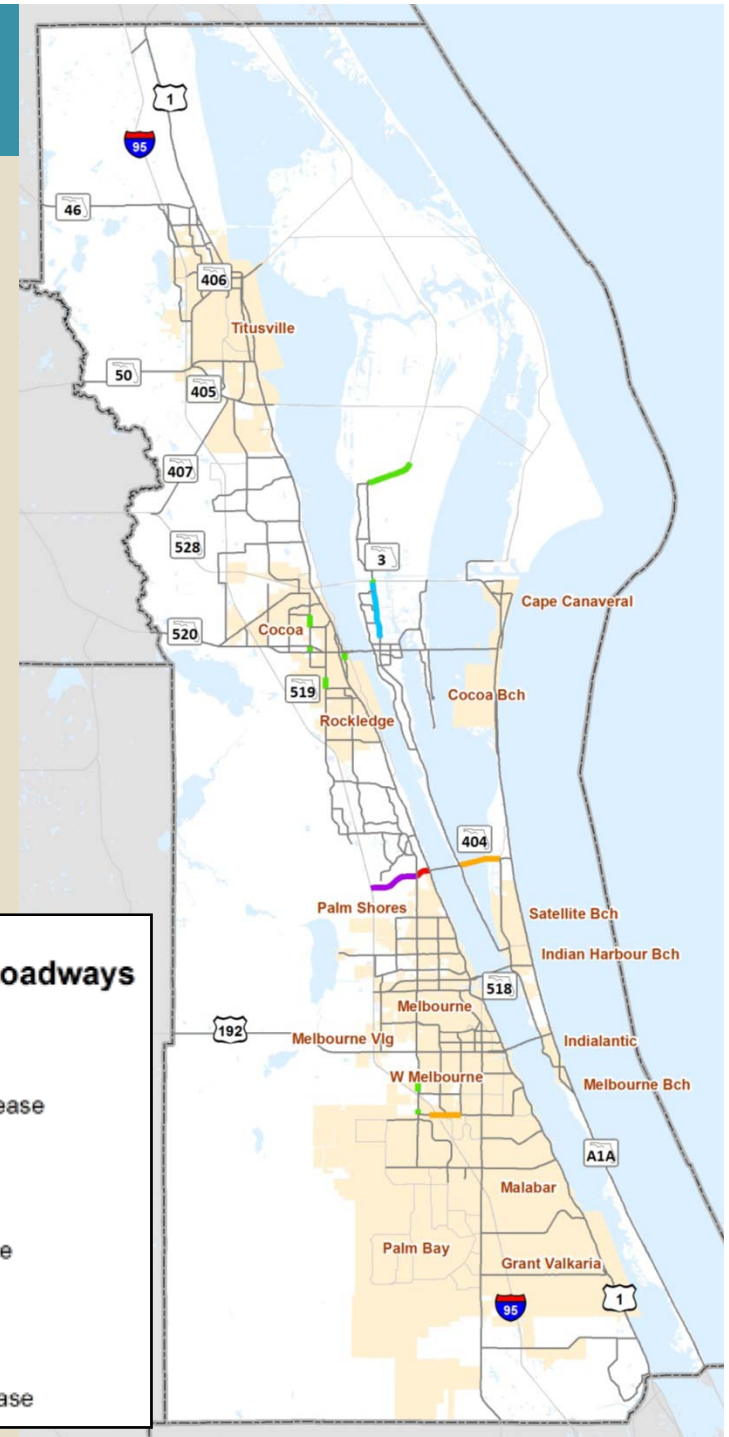
- SR 528 carries 24% fewer vehicles per lane compared to that of I-95.



Regional/Non-Regional Roadways Traffic Volume Change (2010 to 2011)

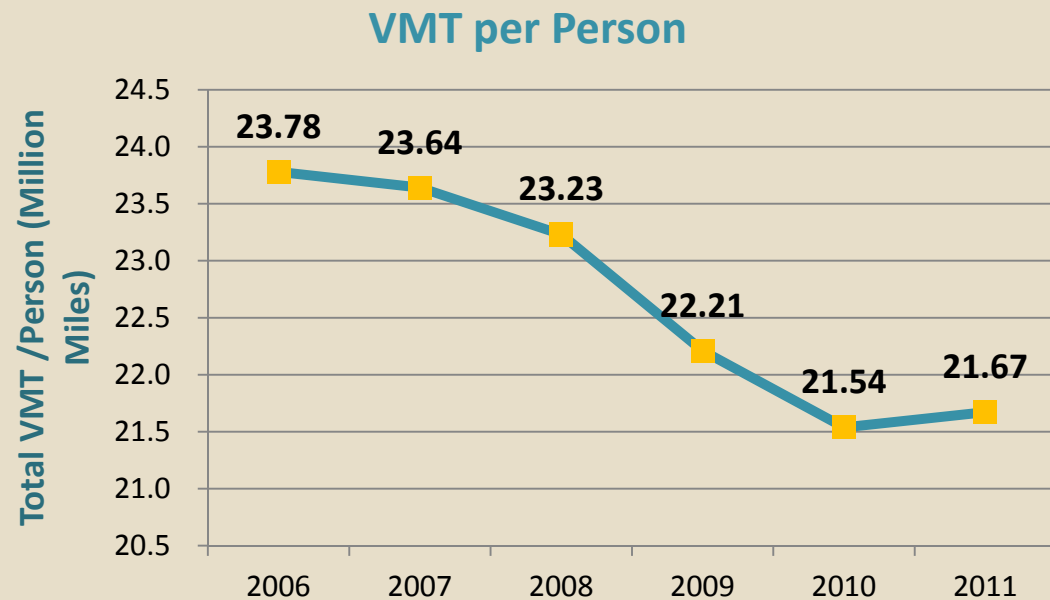
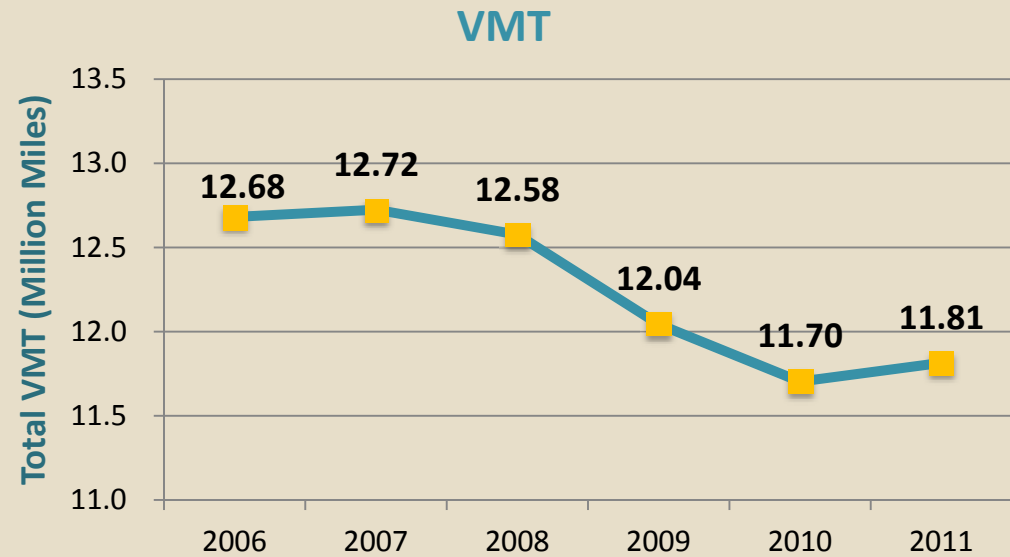
- Traffic volume changed very little on Regional and Non-regional Roadways
 - 0.05% increases on Regional Roadways
 - 0.23% decreases on Non-regional Roadways
- **Pineda Causeway** from I-95 to Wickham had the largest volume increase (243%).
 - 5,509 in 2010 (pre-connection)
 - 18,908 in 2011 (post-connection)

Regional and Non-Regional Roadways AADT Change 2010 - 2011



VMT Trends

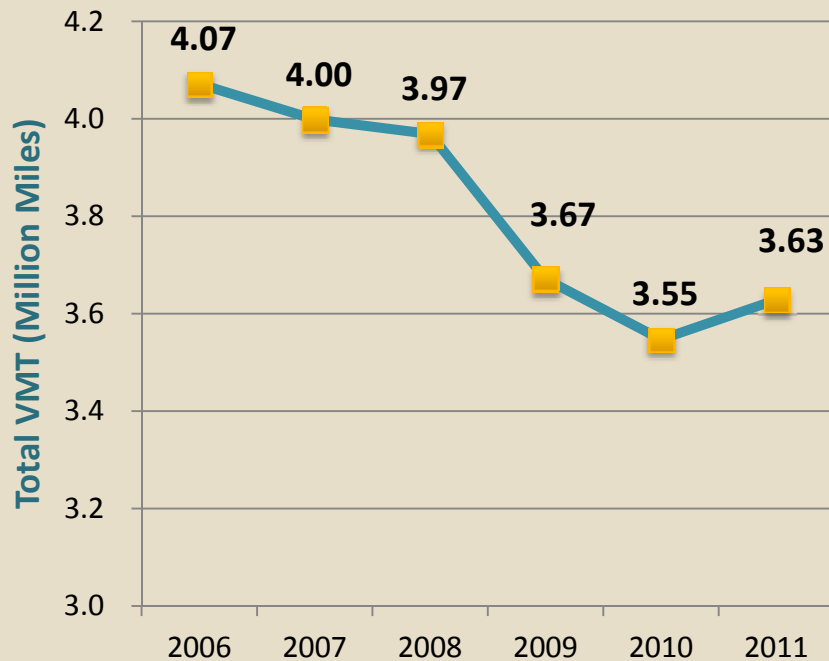
- After several years of trending downward, total VMT and Countywide VMT per person slightly increased in 2011.



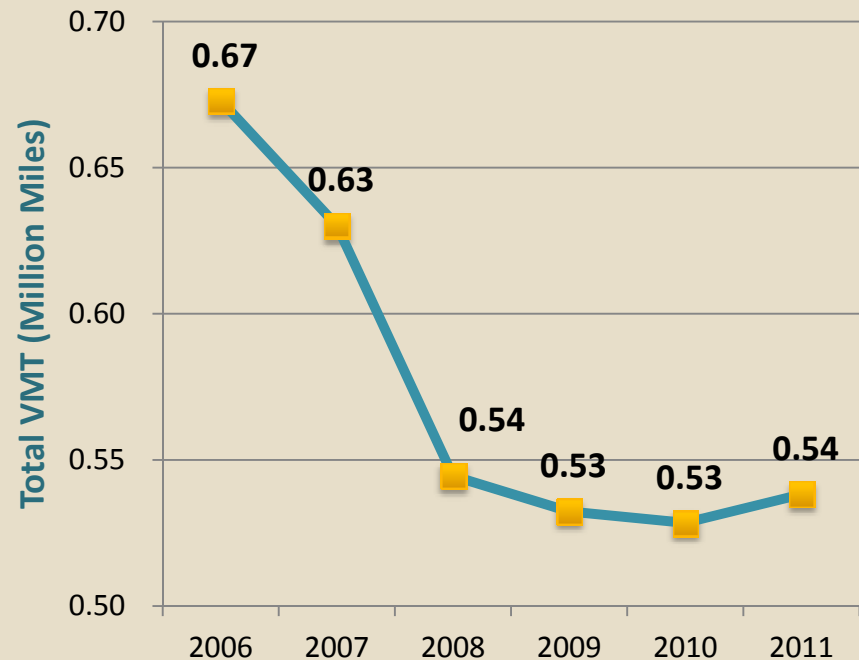
VMT Trends – SIS

- I-95 VMT increased by 2% from 2010 to 2011, compared to previous year's decreases of 3%.
- SR 528 VMT increased by 2% in 2011.
- Total VMT on the SIS is 12% less than peak traffic was in 2006.

I-95 VMT



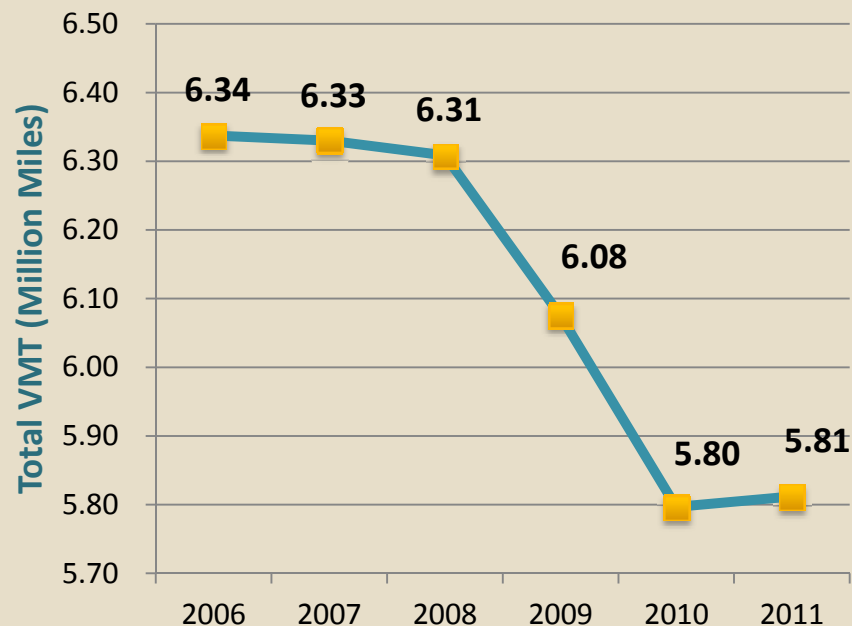
SR 528 VMT



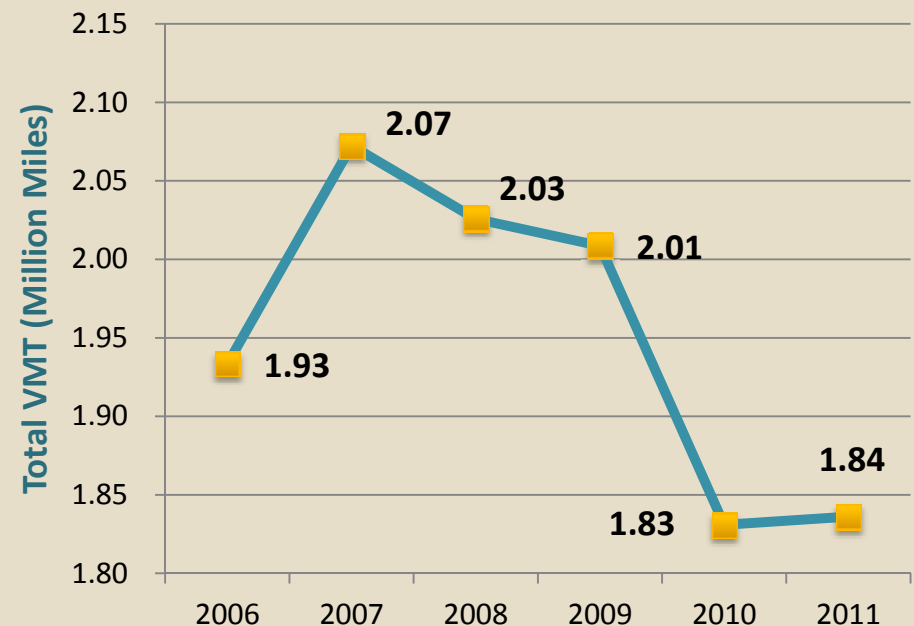
VMT Trends- Regional/Non-regional Roadways

- **VMT on Regional Roads increased overall**
 - 15,000 miles slight increase (.3%) from 2010
 - 525,000 miles less (8% decrease) from the peak in 2006
- **VMT on Non-regional Roads increased overall**
 - 5,000 miles slight increase (.3%) from 2010
 - 236,000 miles less (11% decrease) from the peak in 2007

Regional Roadway VMT



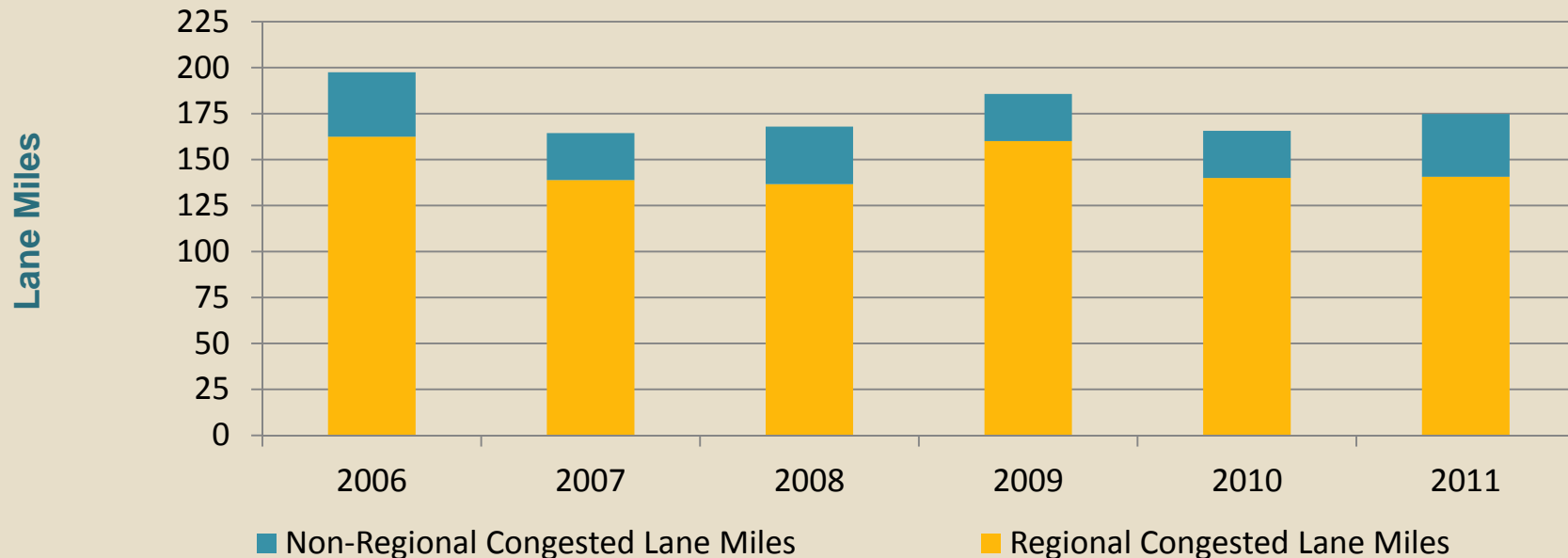
Non-Regional Roadway VMT



Lane Miles of Congestion

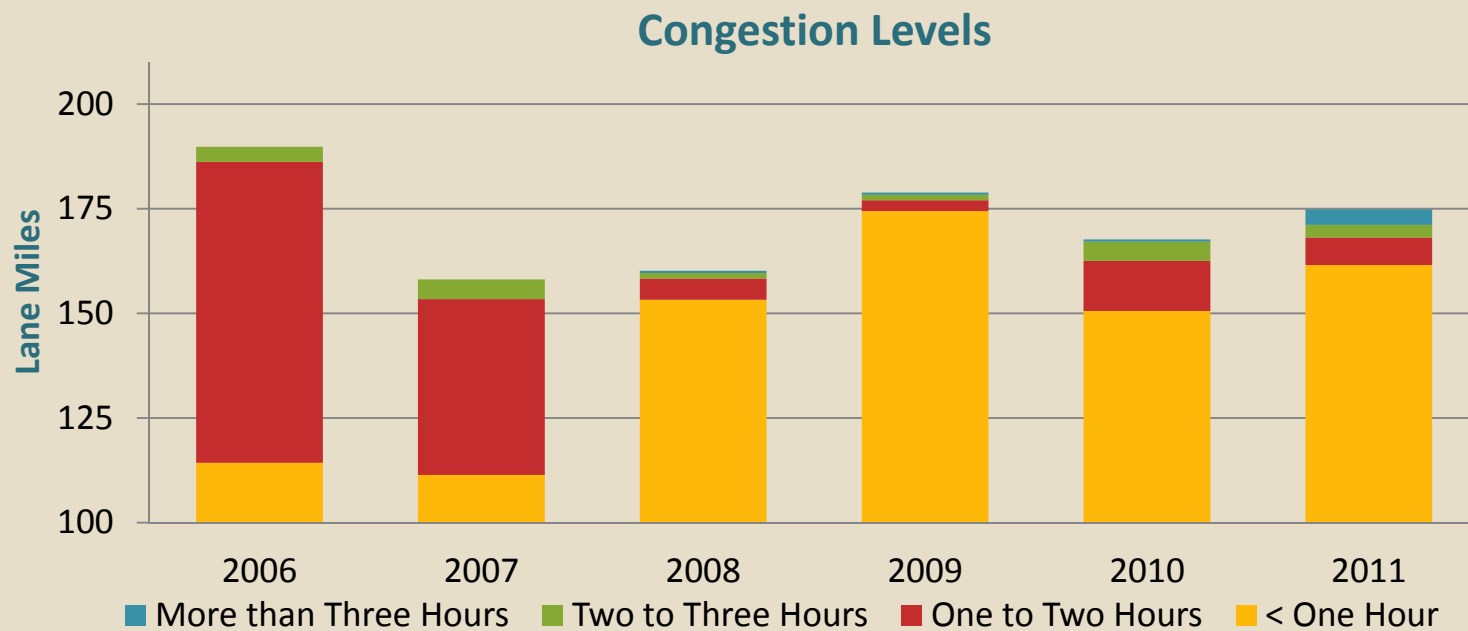
- Congested lane miles increased on the Regional Roadway network by 5%
- Top congested segments are at:
 - One-way pair on SR 520 in Cocoa
 - Babcock between Foundation to Malabar
 - Clearlake between Wal-Mart to SR 524
 - Malabar between Jupiter and Minton
 - US 192 between Dayton to Windover Sq. Ent.
 - Wickham between I-95 to Wal-Mart/Target Ent. (signal)
- Congested lane miles as a proportion of total lane miles increased:
 - 9% in 2010
 - 10% in 2011

Congested Lane Miles



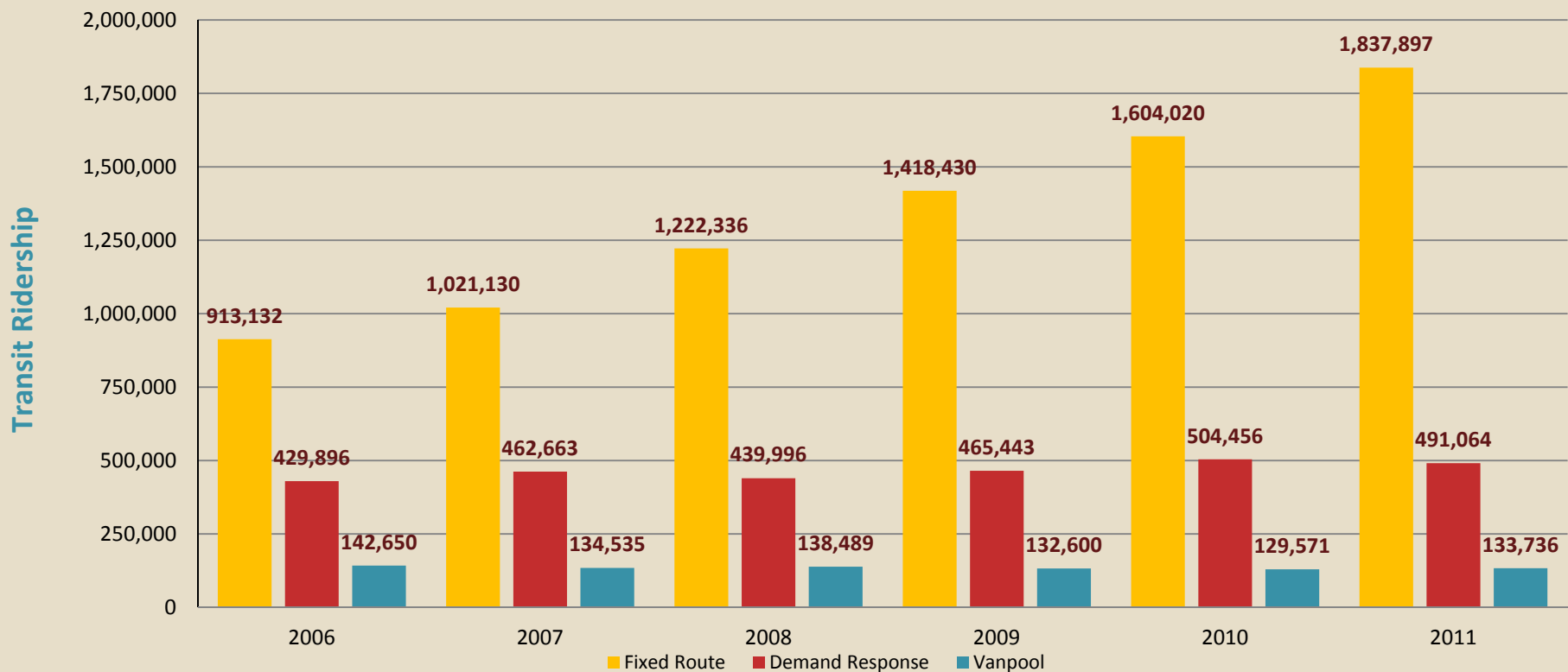
Duration of Congestion

- 92% of the congestion on the network is less than 1 hour.
- Number of segments experiencing congestion of 1 to 2 hours has decreased by 45%.
- However, segments experiencing congestion of more than 3 hours has increased from 2006 to 2011.



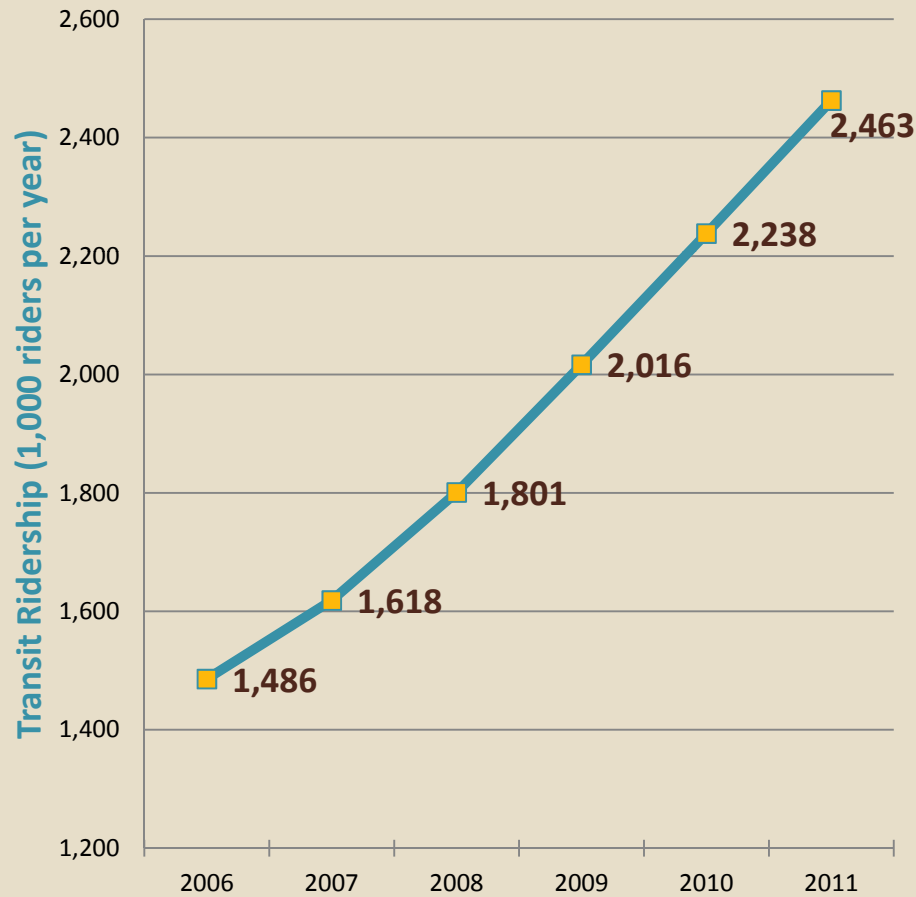
Transit Use

- Overall ridership continues to increase with 10% rise in 2011
- Fixed Route Transit ridership increased since 2005 with more than 15% increase in 2011
- Demand Response ridership was similar to 2005 levels
- Van Pool ridership recovered losses from 2010

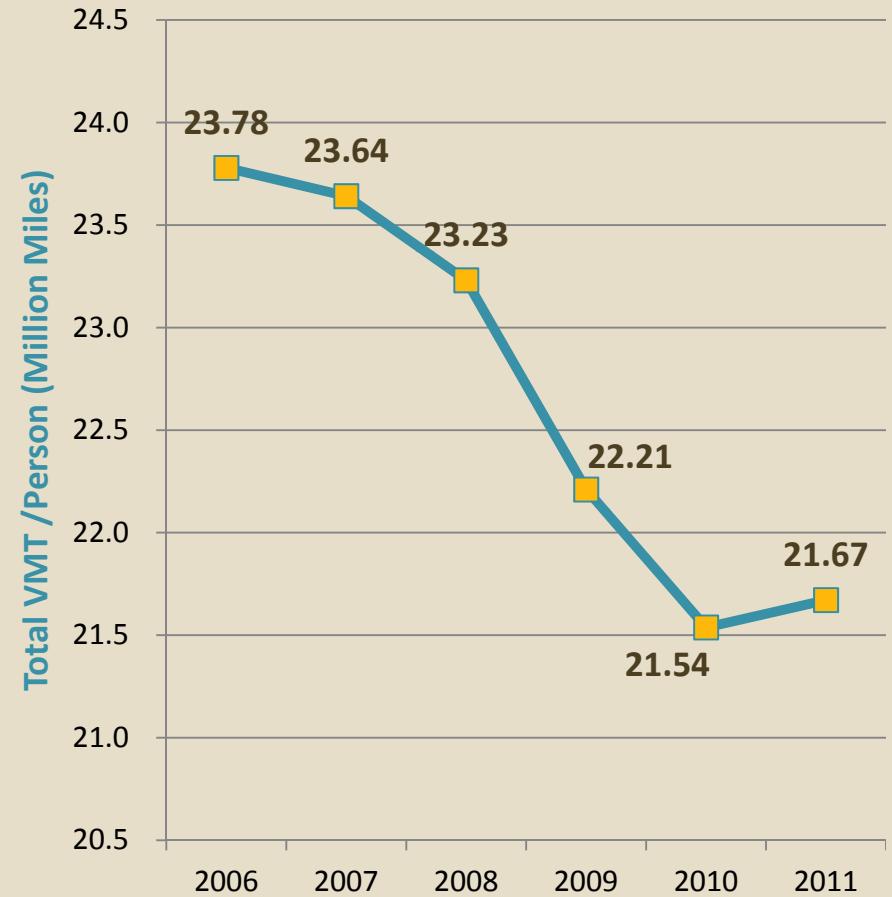


Transit Use has increased as VMT has Stabilized

Total Ridership



VMT per Person

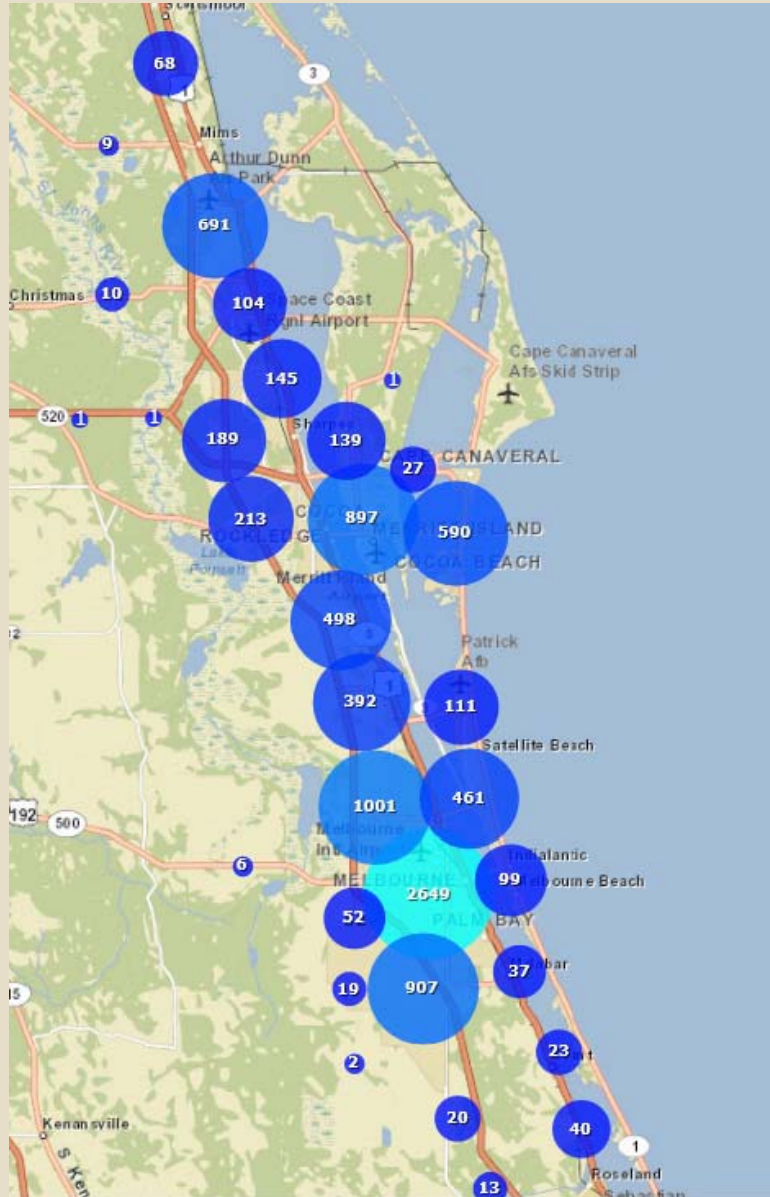


Crash History

- The TPO's crash data location system was used for crashes this year
- 2009 and 2010 data from the new source were compared
- 14 segments had the top 20 crash rates in both analysis years
- Eau Gallie has 4 segments in the top 20
- SR A1A has 3 segments in the top 20
- Crash Rates (crash per million miles traveled) by Roadway Type:
 - SIS Roadways: 0.53
 - Regional Roadways: 2.43
 - Non-Regional Roadways: 2.43

2010 Rank	2009 Rank	Segment	From / To	2009 Crashes	2009 Crash Rate	2010 Crashes	2010 Crash Rate
1	3	SR 406 (Garden)	Hopkins – Washington	7	50.3	6	42.3
2	1	EAU GALLIE (WB Only)	Pineapple – Highland	23	57.8	11	29.5
3	4	SR 520 (US 1-Causeway EB)	Brevard – Delannoy	12	29.7	11	26.6
4	7	SR A1A	Marion – SR 520	43	25.5	40	23.5
5	8	SR A1A	St Lucie – Marion	53	24.7	47	21.9
6	2	CLEARLAKE	Otterbein – N Wal-Mart Ent	35	51.0	14	21.0
7	9	EAU GALLIE (EB Only)	Highland – Pineapple	11	22.9	10	20.8
8	20	EAU GALLIE (EB Only)	US 1 – Highland	21	14.2	26	18.6
9	6	SR 520 (Causeway-US 1 WB)	Delannoy – Brevard	13	27.0	9	18.6
10	16	EAU GALLIE (WB Only)	Highland – US 1	22	16.7	22	16.6
11	11	US 1	SR 520 – Peachtree	24	20.4	18	16.2
12	18	PALM BAY	Lipscomb – Troutman	15	16.5	15	15.7
13	5	S COURTENAY	Magnolia – SR 520	17	28.2	9	15.3
14	19	SR A1A	S Banana – Fisher	36	15.5	35	15.0
15	44	FLORIDA	Rosa Jones – SR 520	15	10.4	14	14.5
16	23	US 192	Waverly – US 1	23	13.5	22	13.5
17	24	FORREST	SR 520 – Peachtree	9	13.5	8	13.3
18	40	OCEAN BEACH	Volusia – Young	11	10.8	13	13.2
19	46	BABCOCK	Fee – Hibiscus	21	10.4	26	12.8
20	22	MERRITT	N Tropical – N Courtenay	5	14.0	5	12.7

2010 Crash Clusters



- Highest overall crash activity in Melbourne

Cluster output derived from TPO
Crash Location Tool

Summary of Trends

- Changing demographics indicate a potential plateau in senior population
- Total VMT increased slightly from 2010. This is the first annual increase since volumes peaked in 2007
- VMT per person has shown signs of stabilization
- Transit ridership has consistently increased over the last 5 years
- The total number of congested facilities and the severely congested facilities have increased from 2010

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Roadway Segment Ranking



Technical Ranking Factors

- Existing and Projected (2035) congestion
- Existing Traffic Volumes
- Economic significance
- Safety (crash history)
- Hurricane evacuation
- Prior funding commitment

Top Ranked SIS Roads

- 8 of 2010 top ranked SIS segments are in 2011 top ranked segments
- No SR 528 segments are in top 10 ranked segments
- Increased I-95 volumes between Port St. John Parkway and SR 407 as well as Stuck Way and the county line have increased segment ranks

2011 Rank	2010 Rank	Change	ROAD	SEGMENT	Total Score	LRTP Strategy
1	8	7	I-95	Port St. John Parkway-SR 407	76.2	
2	5	3	I-95	SR 50-SR 406	75.4	
3	6	3	I-95	Indian River County - Malabar (SR 514)	71.2	Widen to 6L
4	7	3	I-95	SR 406-SR 46	66.7	Widen to 6L
5	1	-4	I-95	US 192 - Eau Gallie (SR 518)	66.6	
6	2	-4	I-95	Palm Bay - US 192	66.1	
7	14	7	I-95	Stuck Way-Volusia Co.	65.0	Widen to 6L
8	8	0	I-95	SR 407-SR 50	62.5	
9	10	1	I-95	SR 528-Port St. Johns	60.6	
10	11	1	I-95	SR 46-Stuck Way	59.1	Widen to 6L

Top Ranked Regional Road Segments

- Babcock moved up in rank because of prior year funding
- 9 of previous year's top 10 remain in the top 10

2011 Rank	2010 Rank	Change	ROAD	SEGMENT	Total Score	L RTP Strategy
1	1	0	US 192	Dayton – Windover Sq	90.1	Widen to 6L
2	5	3	BABCOCK	Foundation Park – Malabar	90.1	Widen to 4L
3	6	3	SR 520	Delannoy – Brevard	88.2	Operations / ITS
4	3	-1	US 192	Windover Sq – Hollywood	84.8	Widen to 6L
5	4	-1	US 192	Wickham – Dayton	83.1	Widen to 6L
6	2	-4	SR 520	Delannoy – Riveredge	83.1	Operations / ITS
7	13	6	BABCOCK	Malabar – Charles	82.9	Multimodal Emphasis (w/ ITS)
8	8	0	US 192	Sunset – Dairy	81.2	Widen to 6L
9	9	0	US 192	Hollywood – McClain	79.9	Widen to 6L
10	7	-3	US 1	Sarno – Eau Gallie	79.4	Operations / ITS

Top Ranked Non-Regional Roads

- All top 10 are in last year's top 20
- Hollywood and Wickham increased in rank due to number of crashes
- SR 405 advanced due to volume increase

2011 Rank	2010 Rank	Change	ROAD	SEGMENT	Total Score	L RTP Strategy
1	1	0	WICKHAM	I-95-Wal-Mart/Target Ent. (signal)	69.2	
2	2	0	SARNO	Eau Gallie – Wickham	58.9	
3	7	4	SAN FILLIPPO	Jupiter – Malabar	57.1	
4	20	16	HOLLYWOOD	Henry – US 192	56.4	Widen to 4L
5	9	2	SARNO	Garfield – Apollo	55.8	
6	17	11	SR 405	SR 50 – Fox Lake	54.4	Widen to 4L
7	19	12	WICKHAM	Wal-Mart – Lake Andrew	53.8	
8	15	7	SARNO	Croton – Garfield	53.1	
9	6	-3	SUNTREE	Wickham – US 1	51.9	
10	16	6	VIERA	Holiday Springs – US 1	50.4	

Top Ranked Segments

- Top 10 SIS**
 - Statewide, interconnected network
 - Mobility is highest priority
- Top 25 Regional Roads**
 - Regionally significant arterials
- Top 25 Non-Regional**
 - Other arterials and local collectors



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Questions ?

