2017
U.S. 1
ARTERIAL TRAVEL TIME
AND
DELAY STUDY

MONROE COUNTY, FLORIDA

May 2017

Prepared by

URS

URS Project Number 60534136

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U.S. 1 ARTERIAL TRAVEL TIME AND DELAY STUDY MONROE COUNTY FLORIDA

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1. EXECUTIVE SUMMARY

This report contains results and findings of the 2017 Travel Time and Delay Study. The study's primary objective was to monitor the Level of Service (LOS) on U.S. 1 for concurrency management purposes pursuant to Chapter 163, Florida Statutes and Monroe County Land Development Regulations. The methodology adopted for this study was established by the U.S. 1 Level of Service Task Force in 1993 and amended in 1997. The methodology establishes a procedure for using travel speeds as a means of assessing the level of service and reserve capacity of U.S. 1.

Both Monroe County and the FDOT have adopted a LOS C Standard for U.S. 1. Further, 45 mph has been adopted as the LOS C Standard for the entire length of U.S. 1 regardless of the posted speed limits. Under the adopted growth management process if the overall LOS for U.S. 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys.

The 2017 results are presented in the following table:

TABLE 1
AVERAGE TRAVEL SPEEDS AND LEVELS OF SERVICE

Segment	Name of Segment	Beginning Control Point	Ending Control Point	Beginning Mile Marker	Ending Mile Marker	LOS 2015	LOS 2017	Median Speed 2015	Median Speed 2017
1	Stock Island	Cow Key Bridge (N)	Key Haven Boulevard	4.0	5.0	B	B	32.9	29.4
2	Boca Chica	Key Haven Boulevard	Rockland Drive	5.0	9.0	A	A	58.1	59.6
3	Big Coppitt	Rockland Drive	Boca Chica Road	9.0	10.5	B	B	47.2	46.6
4	Saddlebunch	Boca Chica Road	Harris Channel Bridge (N)	10.5	16.5	C	B	51.7	53.3
5	Sugarloaf	Harris Channel Bridge (N)	Bow Channel Bridge (N)	16.5	20.5	A	A	47.5	48.3
6	Cudjoe	Bow Channel Bridge (N)	Spanish Main Drive	20.5	23.0	A	A	46.9	48.2
7	Summerland	Spanish Main Drive	East Shore Drive	23.0	25.0	B	B	44.1	45.0
8	Ramrod	East Shore Drive	Torch-Ramrod Bridge (S)	25.0	27.5	A	B	46.6	46.1
9	Torch	Torch-Ramrod Bridge (S)	N. Pine Channel Bridge (N)	27.5	29.5	A	A	47.5	47.7
10	Big Pine	N. Pine Channel Bridge (N)	Long Beach Drive	29.5	33.0	C	C	38.0	39.4
11	Bahia Honda	Long Beach Drive	7-Mile Bridge (S)	33.0	40.0	B	B	52.1	53.7
12	7-Mile Bridge	7-Mile Bridge (S)	7-Mile Bridge (N)	40.0	47.0	C	B	52.6	53.3
13(1)	Marathon	7-Mile Bridge (N)	Coco Plum Drive	47.0	54.0	A	A	37.9	37.9
14(1)	Grassy	Coco Plum Drive	Toms Harbor Ch Bridge (S)	54.0	60.5	C	C	51.5	51.6
15	Duck	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	60.5	63.0	B	C	50.1	53.3
16(2)	Long	Long Key Bridge (S)	Channel #2 Bridge (N)	63.0	73.0	B	C	48.8	50.5
17(3)	L Matecumbe	Channel #2 Bridge (N)	Lignumvitae Bridge (S)	73.0	77.5	D	C	48.4	49.8
18(3)	Tea Table	Lignumvitae Bridge (S)	Tea Table Relief Bridge (N)	77.5	79.5	D	D	45.7	47.6
19(3)	U Matecumbe	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	79.5	84.0	C	D	38.5	39.2
20(3)	Windley	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	84.0	86.0	C	C	37.9	41.0
21(3)	Plantation	Snake Creek Bridge (N)	Ocean Boulevard	86.0	91.5	C	B	38.5	40.5
22	Tavernier	Ocean Boulevard	Atlantic Boulevard	91.5	99.5	A	A	48.5	47.4
23	Key Largo	Atlantic Boulevard	C-905	99.5	106.0	A	A	44.8	44.4
24	Cross	C-905	County Line Sign	106.0	112.6	B	B	52.0	52.7
Overall				4.0	112.6	C	C	45.1	46.0

(1) - City of Marathon

(2) - Includes City of Layton

(3) - Village of Islamorada

Segments within area of concern

Segments with NO Reserve Capacity

- The overall travel speed on U.S. 1 for 2017 is 46.0 mph;
- Compared to 2015, the median segment speeds in eighteen (18) of the 24 segments increased ranging between 0.1 mph to 3.2 mph;
- Compared to 2015, the median segment speeds in, five (5) of the 24 segments decreased ranging from -0.4 mph to -3.5 mph; majority of the speed reductions were in the middle and upper keys;
- Compared to 2015, the median segment speed for segment 13, Marathon remained the same;
- The largest difference and decrease in speed (-3.5 mph) was recorded on Segment # 1 (Stock Island – MM 4.0 to MM 5.0); however, the LOS remained the same at 'B';
- The largest increase in speed (3.2 mph) was recorded on Segment # 15 (Duck – MM 60.5 to MM 63.0). However, the LOS changed from 'B' to 'C', which is counterintuitive. The increase in speed is expected to be related to the increase in posted speeds observed in this segment. The lower LOS is due to the methodology procedures and not a lower speed. According to the methodology for assessing LOS on US-1/Overseas Highway, the LOS for segments with uninterrupted flow is calculated based on a difference between the segment's weighted posted speed limit and the segment's median speed. Segment #15 had a weighted posted speed of 50.6 mph with a speed difference of -0.50 mph in 2015 and a weighted posted speed of 55 mph with a speed difference of -1.68 mph in 2017. This higher speed difference resulted in a LOS change from 'B' in 2015 to 'C' in 2017 even though the segment observed higher speed than in 2015. However, LOS 'C' is considered an acceptable LOS for the Keys and the higher speed observed throughout Segment #15 in 2017 helps to increase the overall median operating speeds along US-1/Overseas Highway and retain an overall LOS for US-1/Overseas Highway of 'C' or better.
- It should be noted that Segments #15, #16 and #19 have increased median speeds but decreased LOS due to differences in weighted posted speed as explained in the bullet above. For segment #16, the LOS changed from 'B' in 2015 to 'C' in 2017. LOS C is still an acceptable LOS for the Keys and the higher speed observed for Segment #16 in 2017 helps to increase the overall median operating speed along US-1/Overseas Highway.

Segments with reserve speeds of less than or equal to 3 mph should be given particular attention when approving development applications. Big Pine Key (MM 29.5 to MM 33.0) and a 25.5 mile segment on the mid to upper keys (6 segments) starting from Duck Key (MM 60.5) to Windley Key (MM 86.0) are within the 'area of concern'; 2 of the 6 segments have no reserve volumes.

Road widening is a typical capacity improvement remedy exercised by most municipalities. In Monroe County, road widening, specifically along U.S. 1, is restricted by the adopted comprehensive plan policies to preserve and protect the fragile ecological conditions. There are other less intrusive remedies that could be explored and evaluated to improve the traffic flow and the capacity of U.S. 1; they include:

- Identifying strategic locations to add turn lanes.
- Conducting speed studies on selected segment of U.S. 1 to confirm the posted speed limits are correct, if necessary.
- Consolidating driveways/access points to reduce/minimize friction.
- Enhancing signal timing at existing signalized intersections along U.S. 1 to improve the traffic flow.
- Not allowing new signalized intersections along U.S. 1 if a safe alternative access exists or it could be provided to accommodate the turning movements.
- Improving the conditions along the county maintained local streets to minimize U.S. 1 being used as the local street.
- Providing transit service or other than single passenger vehicle modes of transportation to connect the city of Key West and other major origin/destinations in the Keys with the mainland.

U.S. 1 is a state maintained roadway. Therefore, any modifications/ improvements to U.S. 1 have to be developed in collaboration with the Florida Department of Transportation.

2. INTRODUCTION

The U.S. 1 Arterial Travel Time and Delay Study has been undertaken as part of the ongoing contract between URS Corporation and Monroe County to provide Transportation Planning Services to the Monroe County Planning Department.

Monroe County conducted travel time and delay studies of U.S. 1 on an annual basis from 1991 to 2013; and on a biennial basis since 2013. The data collection for years 1991 through 1996 was conducted by the Monroe County Planning Department, with assistance from the Monroe County Engineering Department, and the Florida Department of Transportation (FDOT). URS has collected the data for years 1997 through 2017, on behalf of the Monroe County Planning Department with assistance from the agencies identified above. This report contains the travel time / delay data and findings for the year 2017. It should be noted that a delay study was not conducted for the years 2014 and 2016 per Monroe Country and FDOT agreement.

The U.S. 1 Arterial Travel Time and Delay Study's primary objective is to monitor the level of service on U.S. 1 for concurrency management purposes pursuant to Chapter 163, Florida Statutes and Section 114 of the Monroe County Land Development Regulations. Although predominantly an uninterrupted flow two-lane roadway, U.S. 1's uniqueness warrants an alternative LOS evaluation process to that found in the Highway Capacity Manual (HCM).

The U.S. 1 Level of Service Task Force was formulated in 1992 to develop methodology for U.S. 1 that utilizes an empirical relationship between the volume-based capacities and the speed-based level of service (LOS). The U.S. 1 Level of Service Task Force was a multi-agency group with members from Monroe County, the Florida Department of Transportation, and the Department of Economic Opportunity (formerly known as Florida Department of Community Affairs - DCA). The methodology established by the task force is a procedure for using travel speeds as a means of assessing the level of service and reserve capacity of U.S. 1. Each member organization of the Task Force has endorsed the methodology. A partial copy of this methodology titled "A Methodology to Assess Level of Service on U.S. 1 in the Florida Keys"- January 1993, is contained in Appendix A.

The U.S. 1 Level of Service Task Force last met in 1997 to reevaluate the LOS procedure. After several meetings the Task Force concluded that the Speed Based LOS methodology should be continued to be used to assess the LOS along U.S. 1 in Monroe County with a minor change; the signal delay for LOS C threshold value was increased to 25 seconds from 15 seconds to account for recent changes in the HCM.

Pursuant to Section 114-2(a)(1)(a) of the Land Development Code (LDC), U.S. 1 shall have sufficient available capacity to operate at LOS C for the overall arterial length and the 24 roadway segments of U.S. 1, as measured by the U.S. 1 Level of Service Task Force Methodology, at all intersections and roadway segments. In addition, all segments of U.S. 1, as identified in the U.S. 1 Level of Service Task Force Methodology, which would be impacted by a proposed development's access to U.S. 1, shall have sufficient available capacity to operate at LOS C. Section 114-2(a)(1)(b) of the LDC states, development may be approved, provided that the development in combination with all other permitted development will not decrease travel speed by more than five percent (5%) below LOS C, as measured by the U.S. 1 Level of Service Task Force Methodology. While development may be approved within 5% of LOS C, the proposed development shall be considered to have an impact that needs mitigation. Development mitigation may be in the form of specific improvements or proportioned shared contribution towards improvements and strategies identified by

the County, and/or FDOT to address any level of service degradation beyond LOS C and/or deficiencies.

Although there has never been a countywide development restriction, Big Pine Key between 1994 and 2002 experienced a localized development restriction. Following the 2012 LOS evaluation, the Monroe County Board of County Commissioners (BOCC) directed the planning staff to re-write the LDC to remove the segment based development restriction, but it was not implemented after further coordinated consideration between the BOCC and County staff.

3. MONROE COUNTY LEVEL OF SERVICE (LOS) AND RESERVE CAPACITY ASSESSMENT OVERVIEW

U.S. 1 (Overseas Highway) is the only principal arterial serving people and visitors in the Keys. The unique geography, land use patterns and trip making characteristics of the Florida Keys present a challenge in developing and applying a reasonable and acceptable method to assess LOS.

Although U.S. 1 in the Florida Keys is predominantly an uninterrupted-flow, two-lane roadway, its uniqueness warrants an alternative LOS evaluation process to the methodology provided in the *Highway Capacity Manual.*

A uniform method was developed in 1992 by the U.S. 1 Level of Service Task Force to assess the level of service on U.S. 1, and has not changed since the 1997 amendment. The adopted method considers both the overall level of service from Key West to the mainland, and the level of service on 24 segments (See Table 2). The methodology was developed from basic criteria and principles contained in Chapter 7 (Rural Multilane Highways), Chapter 8 (Rural Two-Lane Highways) and Chapter 11 (Urban and Suburban Arterials) of *Highway Capacity Manual*. The methodology establishes a procedure for using travel speeds as a means of assessing the level of service and reserve capacity of U.S. 1 in the Florida Keys.

TABLE 2
U.S. 1 ROADWAY SEGMENTS

SEG NO.	APPROXIMATE MILE - MARKER		CONTROL POINTS		KEY(S)
	Beginning	Ending	Beginning	Ending	
1	4.0	5.0	Cow Key Bridge (N)	Key Haven Boulevard	Stock Island, Key Haven
2	5.0	9.0	Key Haven Boulevard	Rockland Drive	Boca Chica, Rockland
3	9.0	10.5	Rockland Drive	Boca Chica Road	Big Coppitt
4	10.5	16.5	Boca Chica Road	Harris Channel Bridge (N)	Shark, Saddlebunch
5	16.5	20.5	Harris Channel Bridge (N)	Bow Channel Bridge (N)	Lower Sugarloaf, Upper Sugarloaf
6	20.5	23.0	Bow Channel Bridge (N)	Spanish Main Drive	Cudjoe
7	23.0	25.0	Spanish Main Drive	East Shore Drive	Summerland
8	25.0	27.5	East Shore Drive	Torch-Ramrod Bridge (S)	Ramrod
9	27.5	29.5	Torch-Ramrod Bridge (S)	N. Pine Channel Bridge (N)	Torch
10	29.5	33.0	N. Pine Channel Bridge (N)	Long Beach Drive	Big Pine
11	33.0	40.0	Long Beach Drive	7- Mile Bridge (S)	W. Summerland, Bahia Honda, Ohio
12	40.0	47.0	7- Mile Bridge (S)	7- Mile Bridge (N)	7-Mile Bridge
13	47.0	54.0	7- Mile Bridge (N)	Cocoa Plum Drive	Marathon, Key Colony Beach
14	54.0	60.5	Cocoa Plum Drive	Toms Harbor Ch Bridge (S)	Fat Deer Crawl, Grassy
15	60.5	63.0	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	Duck, Conch
16	63.0	73.0	Long Key Bridge (S)	Channel # 2 Bridge (N)	Long, Fiesta, Craig
17	73.0	77.5	Channel #2 Bridge (N)	Lignum Vitae Bridge (S)	Lower Matecumbe
18	77.5	79.5	Lignum Vitae Bridge (S)	Tea Table Relief Bridge (N)	Fill
19	79.5	84.0	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	Upper Matecumbe
20	84.0	86.0	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	Windley
21	86.0	91.5	Snake Creek Bridge (N)	Ocean Boulevard	Plantation
22	91.5	99.5	Ocean Boulevard	Atlantic Boulevard	Key Largo
23	99.5	106.0	Atlantic Boulevard	C-905	Key Largo
24	106.0	112.5	C-905	County Line Sign	Key Largo, Cross Key

NOTE: (N) and (S) refer to the north and south side of the bridges respectively

The travel speeds for the entire 108-mile stretch of U.S. 1 and the 24 individual segments are established by conducting travel time runs during the peak season. The peak season, for the purpose of this study, has been established by the task force as the six-week window beginning the second week of February and ending the fourth week of March.

Overall speeds are those speeds recorded over the 108-mile length of the Keys between Key West and Miami-Dade County. Overall speeds reflect the conditions experienced by long distance trips or traffic traveling the entire length of the Keys. Given that U.S. 1 is the only principal arterial in unincorporated Monroe County, the movement of long distance traffic is an important consideration.

Both Monroe County and the FDOT have adopted a LOS C Standard for U.S. 1. Regardless of the posted speed limits, 45 mph has been adopted as the LOS C Standard for the entire length of U.S. 1. Under the adopted growth management process if the overall LOS for U.S. 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys.

Segment speeds are the speeds recorded within individual links of U.S. 1. The segments were defined by the Task Force to reflect roadway cross-sections, speed limits, and geographical boundaries. Segment speeds reflect the conditions experienced during local trips. Given that U.S. 1 serves as the "main street" of the Keys, the movement of local traffic is also an important consideration on this multipurpose highway.

A comparison of average posted speed limits and the average travel speeds for individual segments leads to the level of service on the respective segments along U.S. 1. The difference between the segment travel speeds and the LOS C Standard is called reserve speed. The reserve speed is converted to an estimated reserve capacity of additional traffic volumes and corresponding additional development. If the travel speed falls below the LOS C Standard, additional trips equivalent to 5% of LOS C capacity are allowed, to accommodate a limited amount of land development to continue until traffic speeds are measured again the following year or until remedial actions are implemented. While development may be approved within 5% of LOS C, the proposed development shall be considered to have an impact that needs mitigation.

4. DATA COLLECTION

The travel time, delay, and distance data were collected by URS staff. A summary of the data collection methodology and the data collected is presented in Appendices A and B respectively.

The data were recorded by date, day of the week, time of the day, and direction. The field data collection took place between February 26, 2017 and March 11, 2017. The results are included in Appendix B. Fourteen (14) round trips were made to successfully complete the twenty-eight (28) runs. These runs represent a sample of two runs of each day of the week. Every one of the twenty-eight travel time run data sheets was quality checked. The seven-day, 24-hour traffic data were collected in Islamorada, Marathon, and Big Pine Key from March 6, 2017 to March 12, 2017, concurrently with the travel time runs. The volume data is provided in Appendix C.

The field studies employed the staggered schedule of departure times previously approved by the Task Force so as to capture peak hour conditions in as many different locations as possible during the approximately 2.5-hour one-way trip between Key West and the mainland. The staggered schedule of departure time also helps to capture the varied trip purposes and time frames within the Keys. For example, the 1:45 pm departure time from Florida City helps to capture the evening peak traffic condition in the lower keys and non-peak conditions in the rest of the keys. Alternatively, the 3:15 pm departure time from Florida City helps to capture the evening peak traffic conditions in the upper keys and non-peak conditions in the rest of the Keys. The 2017 field data collection timetable is included in Appendix I.

5. FIELD OBSERVATIONS

Traffic Signals

There are 18 traffic signals and one Pedestrian Hybrid Beacon (PHB) in operation along the U.S. 1 study corridor:

LOCATION	MILE MARKER (MM)	SEGMENT
College Road	4.4	1
Cross Street	4.6	1
McDonald Avenue	4.8	1
Crane Boulevard	19.5	5
Key Deer Boulevard	30.3	10
33rd Street / School Crossing	48.5	13
Sombrero Beach Road	50.0	13
107th Street	52.4	13
109th Street	52.5	13
Pedestrian Crossing – 120th Street	53.0	13
Sadowski Causeway	53.5	13
Coco Plum Drive	54.0	13/14
Woods Avenue / School Crossing	90.0	21
Sunshine Road	90.5	21
Ocean Boulevard	91.5	21/22
Atlantic Boulevard	99.5	22/23
Pedestrian Crossing (PHB) – Buttonwood Drive	99.8	23
Tarpon Basin Drive	101.0	23
Pedestrian Crossing – Bowen Drive	105.0	23

As was done in the past, only a partial impact of the signal was considered for the pedestrian signals at MM 53, MM 99.8, and MM 105. The signal delays for segments with signals at the end/beginning, such as Coco Plum Drive, Ocean Boulevard and Atlantic Boulevard intersections, are shared between the two segments.

The three closely spaced traffic signals in Stock Island (Segment 1) were observed to experience additional delay events (45 this year vs. 23 in 2015) with an increase in delay time (22 minutes and 31 seconds vs. 19 minutes and 34 seconds) compared to 2015.

The five traffic signals and the two pedestrian signals in Marathon (Segment 13) were observed to experience more events but less delay compared to 2015. The number of delay events increased to 57 this year vs. 52 in 2015. The delay time caused by these signals was 22 minutes and 6 seconds this year vs. 27 minutes and 6 seconds in 2015.

The traffic signal at the Crane Boulevard intersection (Segment 5) experienced 3 delay events this year compared to 2 in 2015 with a total delay time of 49 seconds vs. 42 seconds in 2015. Two of the delay events recorded at this signal occurred in the northbound direction and one occurred in the southbound direction. In 2015, the 2 events occurred only in the northbound direction.

Segment 1 and Segment 13 are defined as interrupted segments, meaning that interruptions such as signals are expected. The changes in delay time due to these signals may not significantly influence the individual segment operating conditions because they are designated as having interrupted flow conditions; however, it does have an effect on the overall travel speeds.

Traffic Counts

Mechanical traffic counters and hoses were installed on March 6, 2017 at the following locations:

- **Big Pine Key, on the south side of the North Pine Channel Bridge (MM 29);**
- **Marathon, in front of McDonalds (MM 50);**
- **Upper Matecumbe, on the south side of the Whale Harbor Bridge (MM 84).**

The traffic volumes during the 2017 study period were found to be lower than the 2015 study period traffic volumes in Big Pine but higher in Marathon and Upper Matecumbe (see Table 3 on page 11).

On Big Pine Key additional traffic volume data was collected to identify localized differences in traffic volumes throughout U.S. 1 in the island of Big Pine Key.

6. RESULTS AND DISCUSSIONS

Traffic Volumes

U.S. 1 is predominately a four-lane facility in Marathon and a two-lane facility in Upper Matecumbe and Big Pine Key. Seven-day continuous traffic counts recorded at these three locations along U.S. 1 yielded the following average daily traffic (ADT) and annual average daily traffic (AADT) volumes for 2017. The volume data for the 5-day and 7-day is the average of the raw volumes counted. The 7-day averaged volumes have been adjusted using 2015 seasonal and axle factors to estimate the 2017 AADT's. The traffic counts were recorded between March 6 and March 12, 2017. Summaries have been included in Appendix C.

Location	5-Day ADT	7-Day ADT	AADT
Big Pine Key (MM 29)	21,771	21,595	19,047
Marathon (MM 50)	39,673	39,239	34,609
Upper Matecumbe (MM 84)	26,471	26,126	23,043

The AADT has decreased at Big Pine Key, and it has increased at Marathon and Upper Matecumbe. The seasonal factor and axle factor recorded by FDOT have not changed. A detailed historical comparison of the U.S. 1 traffic counts for the period 1993 to 2017 is presented in Appendix D. A comparison of the most recent seven years of data collection is presented on Table 3 and represented graphically in Figure 1.

U.S. 1 historical traffic growth is depicted in a regression analysis graph in Figure 2. A linear regression analysis of the AADT at each of the three locations over the last twenty two years indicates that statistically there is virtually no overall traffic growth within the Marathon and Upper Matecumbe count locations and a slight decreasing trend in traffic volumes for Big Pine Key.

Overall Speeds

For the purpose of this study, overall speeds are those speeds recorded over the 108-mile length of U.S. 1 in the Keys between Key West and the Miami-Dade County line. Overall speeds reflect the conditions experienced during long distance or through trips. Given that U.S. 1 is the only principal arterial in Monroe County, the movement of through traffic is an important consideration.

The levels of service (LOS) criteria for overall speeds on U.S. 1 in Monroe County, as adopted by the Task Force, are as follows:

LOS A	51.0 mph or above
LOS B	50.9 mph to 48 mph
LOS C	47.9 mph to 45 mph
LOS D	44.9 mph to 42 mph
LOS E	41.9 mph to 36 mph
LOS F	below 36 mph

Both Monroe County and the FDOT have adopted a LOS C standard for U.S. 1.

TABLE 3
U.S. 1 TRAFFIC COUNTS – HISTORICAL COMPARISON

	2009		2010		2011		2012		2013		2015		2017	
	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change
Big Pine														
5 – Day Average	21,242	-1.18%	20,651	-2.78%	20,468	-0.88%	21,056	2.87%	20,986	-0.33%	22,833	8.80%	21,915	-4.02%
7 – Day Average	20,656	0.21%	20,115	-2.62%	20,070	-0.22%	20,579	2.53%	20,066	-2.49%	22,106	10.17%	21,595	-2.31%
AADT	16,680	2.28%	17,842	6.97%	17,684	-0.88%	18,011	1.85%	17,943	-0.38%	20,139	12.24%	19,047	-5.42%
Marathon														
5 – Day Average	34,193	-0.64%	31,883	-6.76%	32,156	0.85%	34,145	6.19%	34,097	-0.14%	38,824	13.86%	39,382	1.44%
7 – Day Average	32,298	1.79%	30,548	-5.42%	31,097	1.79%	32,985	6.07%	32,783	-0.61%	38,144	16.35%	39,239	2.87%
AADT	26,081	3.88%	27,547	5.62%	27,782	0.85%	29,208	5.13%	29,153	-0.19%	34,243	17.46%	34,609	1.07%
Upper Matecumbe														
5 – Day Average	23,071	-1.47%	22,588	-2.09%	24,326	7.69%	24,561	0.97%	23,656	-3.68%	26,079	10.24%	25,598	-1.85%
7 – Day Average	23,016	-0.03%	22,634	-1.66%	24,508	8.27%	24,936	1.75%	23,164	-7.11%	25,817	11.45%	26,126	1.20%
AADT	18,585	-2.23%	19,516	5.01%	21,017	7.69%	21,009	-0.04%	20,226	-3.73%	23,002	13.72%	23,043	0.18%

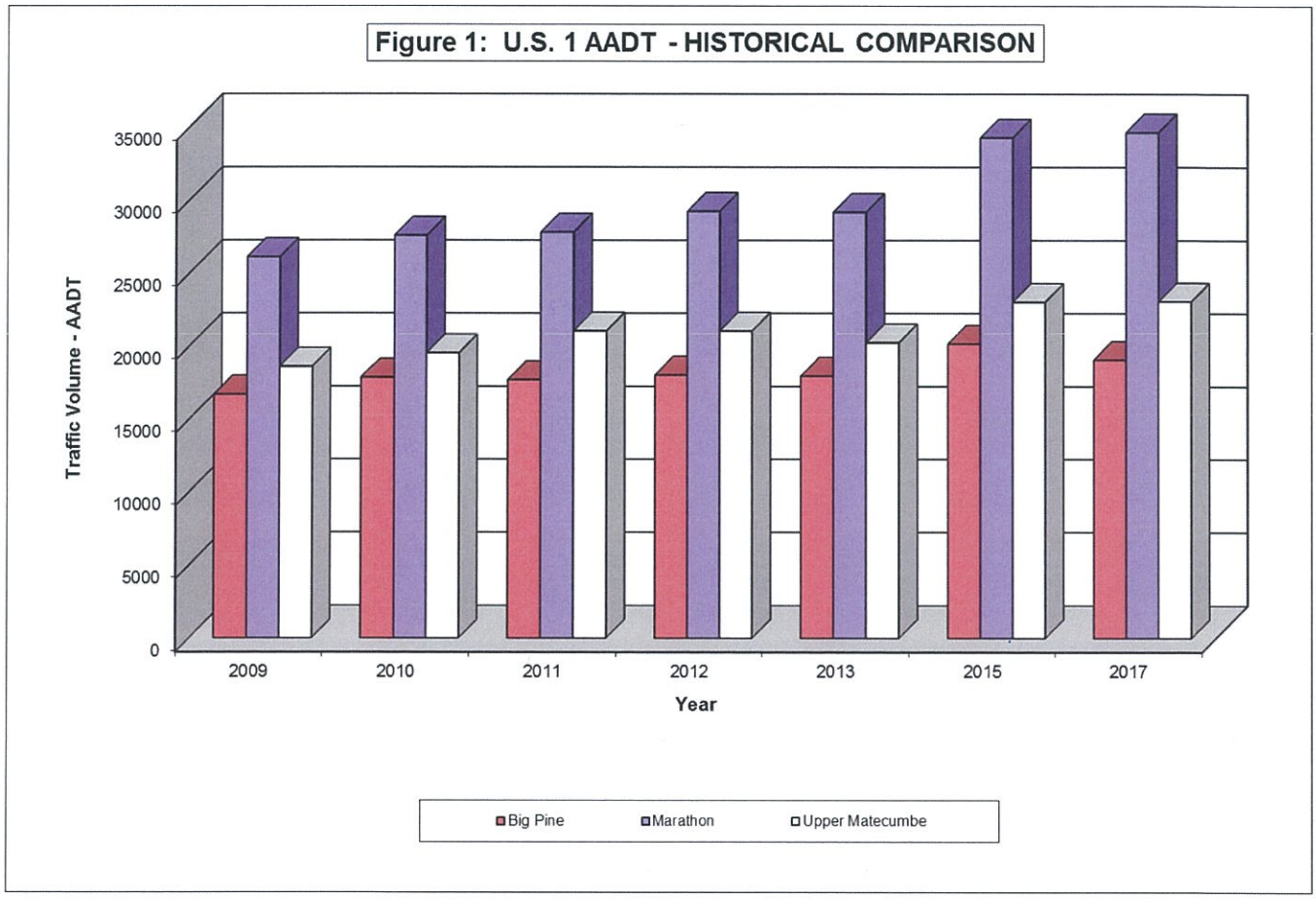
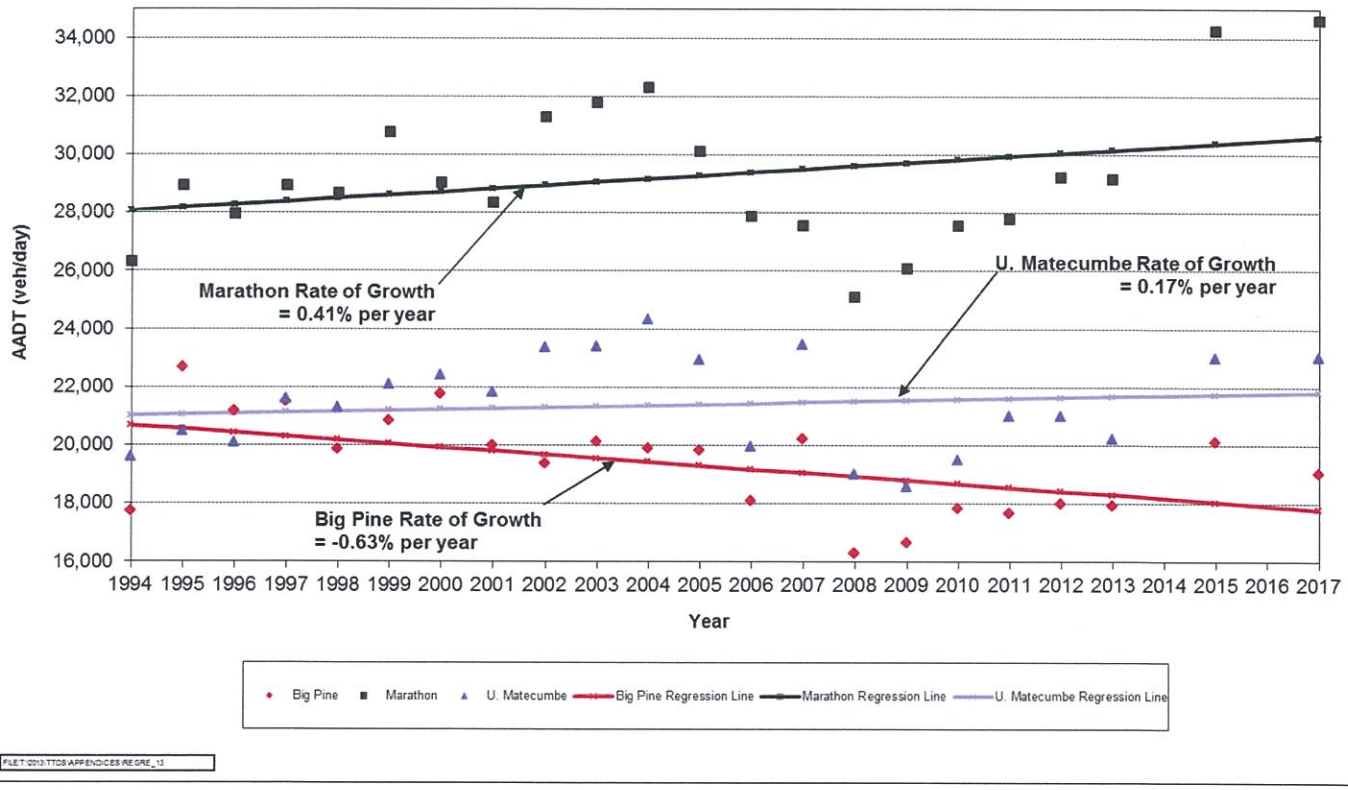


Figure 1: U.S. 1 AADT - HISTORICAL COMPARISON
Traffic Volume - AADT
35000
30000
25000
20000
15000
10000
5000
0
2009
2010
2011
2012
2013
2015
2017
Year
Big Pine
Marathon
Upper Matecumbe

Figure 2: U.S. 1 Historical Traffic Growth
AADT



The median overall speed during the 2017 study was 46.0 mph, which is 0.9 mph higher than the 2015 median speed of 45.1 mph. The mean operating speed was 45.0 mph with a 95% confidence interval of plus or minus 1.3 mph. The median speed corresponds to LOS C conditions. The highest overall speed recorded in the study was 49.4 mph (0.3 mph higher than the 2015 highest overall speed of 49.1 mph), which occurred on Monday, February 27, 2017 between 4:20 p.m. and 6:40 p.m., in the northbound direction. The lowest overall speed recorded was 34.8 mph (4.6 mph lower than the 2015 lowest overall speed of 39.4 mph), which occurred on Saturday, March 11, 2017 between 3:45 p.m. and 7:15 p.m. in the southbound direction. The 2017 travel speed data is summarized in Appendix E. Speed comparisons to previous years are provided in Appendix F.

Segment Speeds

Segment speeds are the speeds recorded within individual links of U.S. 1. The segments were defined by the Task Force to reflect roadway cross-sections, speed limits, and geographical boundaries. Segment speeds reflect the conditions experienced during local trips. Given that U.S. 1 serves as the "main street" of the Keys, the movement of local traffic is also an important consideration on this multipurpose highway.

The level of service criteria for segment speeds on U.S. 1 in Monroe County depends on the flow characteristics and the posted speed limits within the given segment. The criteria, listed by type of flow characteristic, are explained in Appendix A, and summarized below.

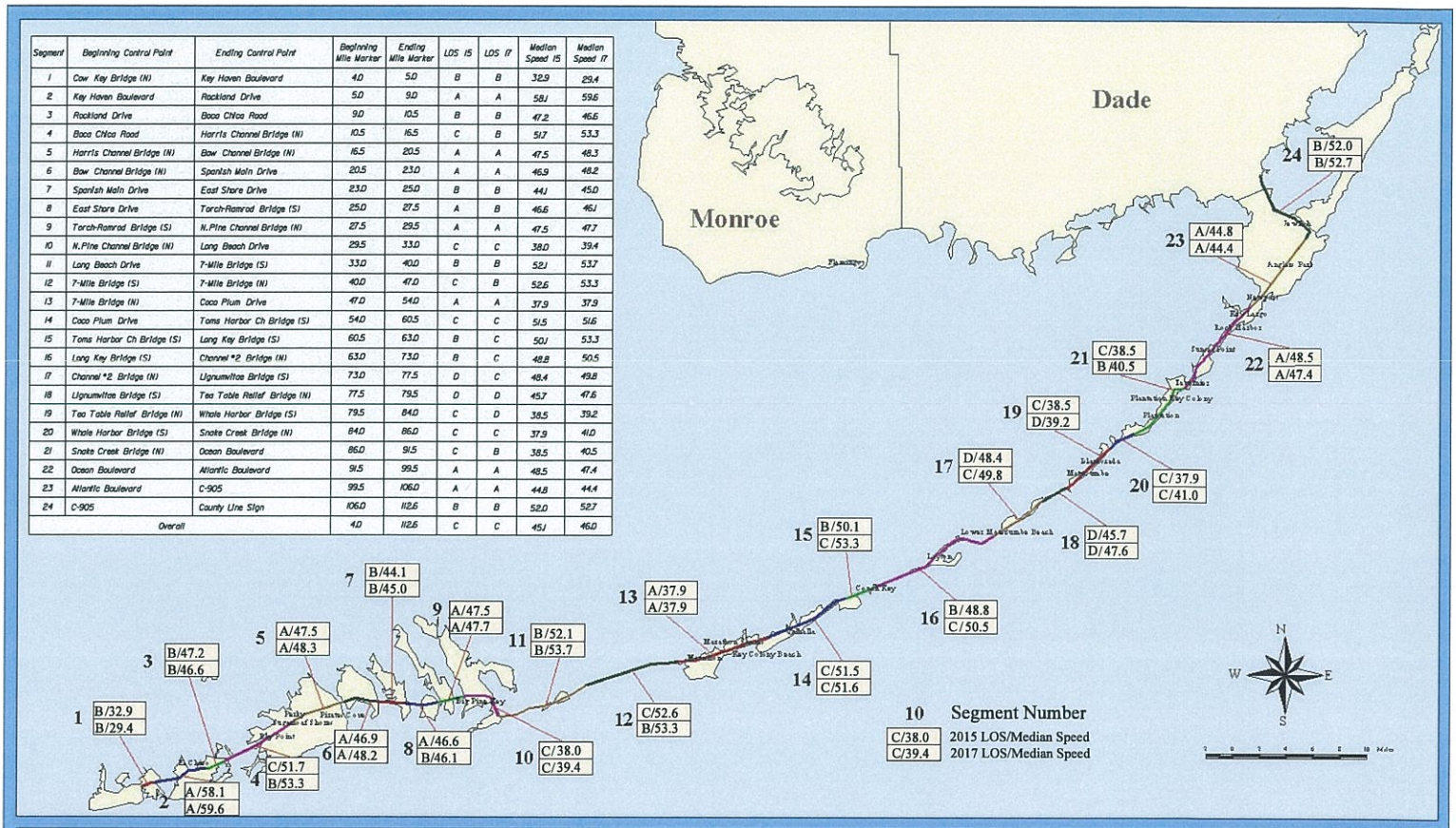
Interrupted Flow
LOS A ≥ 35 mph
LOS B ≥ 28 mph
LOS C ≥ 22 mph
LOS D ≥ 17 mph
LOS E ≥ 13 mph
LOS F < 13 mph

Uninterrupted Flow
LOS A 1.5 mph above speed limit
LOS B 1.5 mph below speed limit
LOS C 4.5 mph below speed limit
LOS D 7.5 mph below speed limit
LOS E 13.5 mph below speed limit
LOS F more than 13.5 mph below speed limit

For all "uninterrupted" segments containing isolated traffic signals, the travel times were reduced by 25 seconds per intersection signal and three (3) seconds per pedestrian signal to account for lost time due to signals. The Marathon and the Stock Island segments are considered "interrupted" flow facilities. Therefore, no adjustments were made to travel times to account for signals on these segments.

The segment limits, the median travel speeds, the 2015 and the 2017 LOS are presented in Appendix G and shown on Figure 3. The median segment speed ranged from 59.6 mph (LOS A) in the Boca Chica segment to 29.4 mph (LOS B) in the Stock Island segment. The level of service determined from the 2017 travel time data yield the following level of service changes as compared to 2015 data:

Segment	Beginning Control Point	Ending Control Point	Beginning Mile Marker	Ending Mile Marker	LOS I5	LOS I7	Median Speed I5	Median Speed I7
1	Cow Key Bridge (N)	Key Haven Boulevard	4.0	5.0	B	B	32.9	29.4
2	Key Haven Boulevard	Rockland Drive	5.0	9.0	A	A	58.1	59.6
3	Rockland Drive	Boca Chica Road	9.0	10.5	B	B	47.2	46.6
4	Boca Chica Road	Harris Channel Bridge (N)	10.5	16.5	C	B	51.7	53.3
5	Harris Channel Bridge (N)	Bow Channel Bridge (N)	16.5	20.5	A	A	47.5	48.3
6	Bow Channel Bridge (N)	Spanish Main Drive	20.5	23.0	A	A	46.9	48.2
7	Spanish Main Drive	East Shore Drive	23.0	25.0	B	B	44.1	45.0
8	East Shore Drive	Torch-Ramrod Bridge (S)	25.0	27.5	A	B	46.6	46.1
9	Torch-Ramrod Bridge (S)	N.Pine Channel Bridge (N)	27.5	29.5	A	A	47.5	47.7
10	N.Pine Channel Bridge (N)	Long Beach Drive	29.5	33.0	C	C	38.0	39.4
11	Long Beach Drive	7-Mile Bridge (S)	33.0	40.0	B	B	52.1	53.7
12	7-Mile Bridge (S)	7-Mile Bridge (N)	40.0	47.0	C	B	52.6	53.3
13	7-Mile Bridge (N)	Coco Plum Drive	47.0	54.0	A	A	37.9	37.9
14	Coco Plum Drive	Toms Harbor Ch Bridge (S)	54.0	60.5	C	C	51.5	51.6
15	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	60.5	63.0	B	C	50.1	53.3
16	Long Key Bridge (S)	Channel #2 Bridge (N)	63.0	73.0	B	C	48.8	50.5
17	Channel #2 Bridge (N)	Lignumvitae Bridge (S)	73.0	77.5	D	C	48.4	49.8
18	Lignumvitae Bridge (S)	Tea Table Relief Bridge (N)	77.5	79.5	D	D	45.7	47.6
19	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	79.5	84.0	C	D	38.5	39.2
20	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	84.0	86.0	C	C	37.9	41.0
21	Snake Creek Bridge (N)	Ocean Boulevard	86.0	91.5	C	B	38.5	40.5
22	Ocean Boulevard	Atlantic Boulevard	91.5	99.5	A	A	48.5	47.4
23	Atlantic Boulevard	C-905	99.5	106.0	A	A	44.8	44.4
24	C-905	County Line Sign	106.0	112.6	B	B	52.0	52.7
Overall			4.0	112.6	C	C	45.1	46.0



Average Travel Speeds And Levels Of Service

2017 Travel Time Delay Study

Figure 3

SOURCE(S): Florida Department of Transportation Transportation Statistics Office; URS Consultants, Inc.

URS

7800 Congress Avenue, Suite 200
Boca Raton, FL 33487-1200
URS Corporation

$FILE$
$TIME$
$DATE$

LOS A (0)	LOS B (4)	LOS C (3)	LOS D (1)	LOS E (0)
	(+) Saddlebunch (4)	(-) Duck (15)	(-) U. Matecumbe (19)	
	(-) Ramrod (8)	(-) Long (16)		
	(+) 7 Mile Bridge (12)	(+) L. Matecumbe (17)		
	(+) Plantation (21)			

Compared to last study year (2015) results, there are level of service changes to eight (8) segments – four (4) of which resulted in positive level of service changes and four (4) of which resulted in negative level of service changes.

- **Saddlebunch segment (4) increase from LOS 'C' to LOS 'B'**
- **Ramrod segment (8) decreased from LOS 'A' to LOS 'B'**
- **7-Mile Bridge segment (12) increased from LOS 'C' to LOS 'B'**
- **Duck segment (15) decreased from LOS 'B' to LOS 'C'**
- **Long segment (16) decreased from LOS 'B' to LOS 'C' - Village of Islamorada**
- **Lower Matecumbe segment (17) increased from LOS 'D' to LOS 'C' - Village of Islamorada**
- **Upper Matecumbe segment (19) decreased from LOS 'C' to LOS 'D'- Village of Islamorada**
- **Plantation segment (21) increased from LOS 'C' to LOS 'B'**

Compared to 2015, the median segment speeds increased in eighteen (18) of the 24 segments ranging between 0.1 mph to 3.2 mph. Five (5) segments experienced a decrease in median speeds, ranging from -0.4 mph to -3.5 mph. Segment 13, Marathon remained the same.

The largest difference and decrease in speed (-3.5 mph) was recorded on Segment # 1 (Stock Island – MM 4.0 to MM 5.0); however, the LOS remained the same at 'B'. The largest increase in speed (3.2 mph) was recorded on Segment # 15 (Duck – MM 60.5 to MM 63.0). However, the LOS changed from 'B' to 'C', which is counterintuitive. The increase in speed is expected to be related to the increase in posted speeds observed in this segment. The lower LOS is due to the methodology procedures and not a lower speed. According to the methodology for assessing LOS on US-1/Overseas Highway, the LOS for segments with uninterrupted flow is calculated based on a difference between the segment's weighted posted speed limit and the segment's median speed. Segment #15 had a weighted posted speed of 50.6 mph with a speed difference of -0.50 mph in 2015 and a weighted posted speed of 55 mph with a speed difference of -1.68 mph in 2017. This higher speed difference resulted in a LOS change from 'B' in 2015 to 'C' in 2017 even though the segment observed higher speed than in 2015. However, LOS 'C' is considered an acceptable LOS for the Keys and the higher speed observed throughout Segment #15 in 2017 helps to increase the overall median operating speeds along US-1/Overseas Highway and retain an overall LOS for US-1/Overseas Highway of 'C' or better.

Detailed summary tables of these measured travel speeds by day, segment, and fourteen-day average are contained in Appendix E.

Delay

A delay event occurs whenever the speed of the test vehicle fell below 5 mph. The delay event continues until the test vehicle's speed rose to 15 mph. During the study, the observers encountered a total of 331 separate delay events (a 36% increase compared to the 2015 study). Thirty-three (33) of these delay events totaling 50 minutes and 20 seconds were excluded from the overall travel times and the segment travel times. The excluded delays were caused by nonrecurring events such as accidents and roadside construction.

A detailed listing of the specific sources of delay is included in Appendix H of this report. A summary of the delay data, compared to last year's data, is provided in Table 4. The mean delay per trip is the total delay recorded for a given source divided by the study's 28 one-way trips. The mean delay per trip is found to be 13 minutes and 36 seconds (a 2 minute and 24 second increase compared to the 2015 data).

TABLE 4
DELAY DATA SUMMARY AND COMPARISON

Delay Source	Number of Events		Total Delay		Excluded Time		Mean Delay Per Event		Mean Delay Per Trip	
	2017	(2015)	2017	(2015)	2017	(2015)	2017	(2015)	2017	(2015)
Traffic Signals	213	152	02:10:29	02:19:44	00:00:00	00:00:00	27:39	0:55	4:30	4:59
Drawbridges	0	3	00:00:00	00:18:46	00:00:00	00:00:00	0:00	6:15	0:00	0:40
Congestion	64	40	03:16:44	01:28:16	00:00:00	00:00:00	3:04	2:12	7:02	3:09
Left Turns	18	12	00:04:44	00:03:15	00:00:00	00:00:00	0:16	0:16	0:10	0:07
Right Turns	3	4	00:00:35	00:00:53	00:00:00	00:00:00	0:12	0:13	0:01	0:02
School Bus	12	3	00:05:09	00:01:29	00:05:09	00:01:29	0:26	0:30	0:11	0:03
Construction	0	18	00:00:00	00:32:20	00:00:00	00:32:20	0:00	6:48	0:00	1:09
Accidents	1	8	00:02:56	00:24:57	00:02:56	00:24:57	2:56	3:07	0:06	0:53
Emergency Vehicles	9	3	00:08:24	00:04:06	00:08:24	00:04:06	0:56	1:22	0:18	0:09
Special Event	11	0	00:33:51	00:00:00	00:33:51	00:00:00	3:05	0:00	1:13	0:00
Total	331	243	06:22:52	05:13:46	00:50:20	01:08:17	18:34	1:17	13:36	11:12

Signal Delays

The largest single recurring delay source along U.S. 1 in Monroe County is traffic signals. During the 2017 study, 213 (64%) out of 331 delay events were caused by signals. The number of traffic signal delay events in 2017 is 40% higher than the 2015 study. The signal delays accounted for 2 hour 10 minutes and 29 seconds (34% of total delays) versus 45% in 2015.

The mean delay per event for signals in Segments # 1, 10, 22 and 23 are higher than the LOS C threshold value of 25 seconds, which is the signal impact discounted in the methodology.

The signal on Big Pine segment (Segment # 10) at Key Deer Boulevard was the most significant, causing 14 signal delay events (same as in 2015) and accounting for 20 minutes and 14 seconds (16% of the total signal delays). However, it is 9 minutes and 15 seconds lower than the 2015 signal delays in this segment. The mean delay per event at the Key Deer Boulevard signal was higher than the 25 seconds threshold at 1 minute and 27 seconds. The mean delay per trip was also higher than the 25 seconds threshold at 43 seconds.

Accident Delay

The accident delays, although nonrecurring, were the least nonrecurring delay events during the 2017 study. There was 1 accident delay recorded during the 2017 study accounting for 2 minutes and 56 seconds. The accident delay accounted for less than 1% of the total delays. The accident delays were excluded from the overall and segment travel time.

Turning Vehicles Delay

There were 18 left-turn and 3 right-turn delay events during this year's study. Left-turn delays accounted for 4 minutes and 44 seconds with a mean delay of 16 seconds. Similarly, right-turn delays accounted for 35 seconds with a mean delay of 12 seconds. In accordance with the Floating Car Method and Passing Score procedure, the test car did not pass on the right side of a left turning vehicle within two-lane segments during this year's study.

Draw Bridge Delay

Since the reconstruction of the Jew Fish Creek Bridge, the bridge across the Snake Creek is the only bridge along the entire length of U.S. 1 in Monroe County that causes drawbridge delays. There were no drawbridge delays during the 2017 study, as compared to 3 drawbridge related delays during the 2015 travel time runs.

Congestion Delay

Congestion delays represent the second largest recurring delay events in this year's study. There were sixty four (64) congestion related delay events this year totaling 3 hours 16 minutes and 44 seconds. The congestion delay events contributed an average of 7 minutes and 2 seconds of delay per trip, which is higher than 2015 average congestion delay per trip of 3 minutes and 9 seconds.

Construction Delay

There were no Construction delays observed during this year's study. During the 2015 study, construction delays accounted for 32 minutes and 20 seconds.

Speed Limit

The posted speed limits affect both the segment and the overall LOS. For instance, a lower speed limit could benefit a segment's LOS by reducing the difference between the travel speed and the posted speed limit. The reduction in the speed limit, however, negatively impacts the overall LOS because motorists are expected to travel at reduced speeds to comply with the speed limits, whereas the overall LOS C threshold is set at 45 mph regardless of the speed limit changes. For these reasons, the posted speed limit is an important component in this study.

A large part of the traffic in Monroe County consists of tourist travelers, who generally tend to have a leisurely driving style. The traffic also tends to include a large number of recreational vehicles. Combined with some slow moving heavy vehicles, the travel speeds tend to go below the speed limits when there are no opportunities for faster moving vehicles to pass. Such impacts are evident on 15 of the 24 segments operating median travel speeds below the weighted average posted speed limits as presented in Appendix G; it is the same as the 2015 data, which also had 15 segments operating at median travel speeds below the speed limit.

Reserve Capacities

The difference between the median speed and the LOS C Standard gives the reserve speed, which in turn can be converted to an estimated reserve capacity of additional traffic volume and corresponding additional development. The median overall speed of 46.0 mph compared to the LOS C standard of 45 mph leaves an overall reserve speed of 1.0 mph. This reserve speed is converted into an estimated number of reserve trips using the formula in the following page.

$$\text{Reserve Volume} = \frac{\text{Reserve Speed x k x Overall Length}}{\text{Trip Length}}$$

$$\text{Reserve Volume} = \frac{\text{1.0 mph x 1656 daily trips/mph x 112 miles}}{\text{10 miles}}$$

Reserve Volume = 18,547 daily trips

The estimated reserve capacity is then converted into an estimated capacity for additional residential development, assuming balanced growth of other land uses, and using the following formula:

$$\text{Residential Capacity} = \frac{\text{Reserve Volume}}{\text{Trip Generation Rate x \% Impact on U.S. 1}}$$

$$\text{Residential Capacity} = \frac{\text{18,547 daily trips}}{\text{8 (daily trips / unit) x 0.8}}$$

Residential Capacity = 2,898 units

Applying the formula for reserve volume to each of the 24 segments of U.S. 1 individually gives maximum reserve volumes for all segments totaling 93,174 trips. These individual reserve volumes may be unobtainable, due to the constraint imposed by the overall reserve volume.

County regulations and FDOT policy allow segments that fail to meet the LOS C standards to receive an allocation not to exceed five percent below the LOS C standard. The so-called five percent allocations were calculated for such segments as follows:

$$\text{5\% Allocation} = \frac{\text{(median speed - 95\% of LOS C) x 1656 x Length}}{\text{Trip Length}}$$

In 2017, there were 2 segments identified to be functioning below the LOS C threshold - U. Matecumbe (Segment # 19) and Tea Table (Segment # 18). Both of these segments are in the Village of Islamorada.

The two segments identified above have depleted their reserve capacities, leaving 522 trips in U. Matecumbe (Segment # 19) and 193 trips in Tea Table (Segment # 18) based on the 5% below LOS C allocation. A detailed summary table displaying level of service and reserve capacity values for each segment is contained in Appendix G.

7. SUMMARY

Following is a summary of the 2017 Travel Time and Delay Study results:

a) **The traffic volumes have decreased by approximately -0.32% compared to 2015.**

b) **The overall travel speed on U.S. 1 for 2017 is 46.0 mph, and 0.9 mph higher compared to the 2015 overall travel speed.**

c) **Compared to 2015 data, the median travel speeds on 18 of the 24 segments have increased. They are:**

- Boca Chica (+1.5 mph)	- Grassy (+0.1 mph)
- Saddlebunch (+1.6 mph)	- Duck (+3.2 mph)
- Sugarloaf (+0.8 mph)	- Long (+1.7 mph)
- Cudjoe (+1.3 mph)	- L. Matecumbe (+1.4 mph) - Village of Islamorada
- Summerland (+0.9 mph)	- Tea Table (+1.9 mph) - Village of Islamorada
- Torch (+0.2 mph)	- U Matecumbe (+0.7 mph) - Village of Islamorada
- Big Pine (+1.4 mph)	- Windley (+3.1 mph)
- Bahia Honda (+1.6 mph)	- Plantation (+2.0 mph)
- 7-Mile Bridge (+0.7 mph)	- Cross (+0.7 mph)

Median travel speeds on 5 segments have decreased. They are:

- Stock Island (-3.5 mph)	- Tavernier (-1.1 mph)
- Big Coppitt (-0.6 mph)	- Key Largo (-0.4 mph)
- Ramrod (-0.5 mph)	

Compared to 2015, the median segment speed for Segment #13, Marathon remained the same.

d) **Compared to 2015 study results, there are LOS changes in eight (8) of the 24 segments; 4 increases and 4 decreases.**

e) **Segment #17 (L Matecumbe – MM 73.0 – MM 77.5) finally went from a LOS 'D' to 'C' this year after having spent the past seven years at LOS 'D'. The change in LOS was due to an increase in speed from 48.4 mph in 2015 to 49.8 mph this year. Segment # 18 (Tea Table – MM 77.5 – MM 79.5) remained at LOS 'D'; although, the travel speeds have increased from 46.8 in 2015 to 47.6 this year. Segment #19 (U. Matecumbe – MM 79.5 – MM 84.0) went from a LOS 'C' to 'D' this year. The decrease in level of service (despite the increase in speed) is due to an increase on the weighted average posted speed, which affects the level of service thresholds. Speed increased from 38.5 in 2015 to 39.2 this year while the weighted average posted speed went from 40.8 in 2015 to 45.0 this year. Special attention should be given to these segments.**

f) **It should be noted that Segments #15, #16 and #19 have increased median speeds but decreased LOS due to differences in weighted posted speed as explained in the bullet above. For segment #16, the LOS changed from 'B' in 2015 to 'C' in 2017. LOS C is still an acceptable LOS for the Keys and the higher speed observed for Segment #16 in 2017 helps to increase the overall median operating speed along US-1/Overseas Highway.**

g) **There were a total of 331 delay events, 33 of which were excluded due to their non-recurring nature. The delays due to traffic signals were the largest recurring delay-causing event this year. The traffic signals caused 213 delays, totaling 2 hours, 10 minutes and 29 seconds. The signals caused on average a 4 minutes and 30 seconds delay per trip, which is 29 seconds less compared to 2015.**

h) There were no draw bridge related delays this year.

i) There were no construction delays this year.

j) There were sixty four (64) congestion related delay events this year totaling 3 hours 16 minutes and 44 seconds compared to 1 hour 28 minutes and 16 seconds in 2015. The congestion delay events contributed on average 7 minutes and 2 seconds of delay per trip, which is significantly higher when compared to the 2015 average congestion delay per trip of 3 minutes and 9 seconds.

k) Segments with reserve speeds of less than or equal to 3 mph should be given particular attention when approving development applications. This year, there are seven segments of U.S. 1 in this category (One segment less than the 2015 study).

- Big Pine (MM 29.5 – MM 33.0)	- Tea Table (MM 77.5 – MM 79.5)
- Duck (MM 60.5 – MM 63.0)	- U. Matecumbe (MM 79.5 – MM 84.0)
- Long (MM 63.0 – MM 73.0)	- Windley (84.0 – 86.0)
- L. Matecumbe (MM 73.0 – MM 77.5)	

The 12.5-mile stretch of Duck Key and Long Key (from MM 60.5 to MM 73.0) has been added this year to make a contiguous 25.5 mile segment of upper keys from Duck (MM 60.5) to Windley (MM 86.0) to be within the Area of Critical County Concern (ACCC). Within the Lower Keys, The Big Pine (MM 29.5 – MM 33.0) segment was identified to be within the ACCC.

Road widening is a typical capacity improvement remedy exercised by most municipalities. In Monroe County, however road widening, specifically along U.S. 1 is restricted by the adopted comprehensive plan policies to preserve and protect the fragile ecological conditions. There are other less intrusive remedies could be explored and evaluated to improve the traffic flow and the capacity of U.S. 1, they include:

- Identifying strategic locations to add turn lanes.
- Conducting speed studies on selected segment of U.S. 1 to confirm the posted speed limits, and correct, if necessary.
- Consolidating driveways/access points to reduce/minimize friction.
- Enhancing signal timing at existing signalized intersections along U.S. 1 to improve the traffic flow.
- Not allowing new signalized intersections along U.S. 1 if there is alternative safe access to accommodate the turning movements.
- Improving the conditions along the county maintained local streets to minimize U.S. 1 being used as the local street.
- Providing transit service or other than single passenger vehicle modes of transportation to connect the city of Key West and other major origin/destinations in the Keys with the mainland.

U.S. 1 is a state maintained roadway. Therefore, any modifications/ improvements to U.S. 1 have to be developed in collaboration with the Florida Department of Transportation.

APPENDIX A

Data Collection Methodology

APPENDIX

A

URS

DATA COLLECTION METHODOLOGY
(Previously Approved by Task Force)

Calibration of the DMI

Prior to beginning the study, the DMI was calibrated over a half-mile course. The calibration procedure set-up by the DMI manufacturer established a calibration factor of 0.682 for the test vehicle, which resulted in measurements within 3 feet of the 5,280-foot distance (0.057%). At this level of accuracy, the DMI would measure the 108 mile distance of U.S. 1 between Stock Island and the Dade County line to within 325 feet, or to within 0.03 mile per hour (mph) of the 45 mph standard for LOS C.

Floating Car Method and Passing Score

The study employed the floating car method, whereby under ideal conditions the test vehicle passes and is passed by an equal number of vehicles (i.e. "goes with the flow"). A passing score was recorded for each segment to document the extent to which this objective was accomplished. Positive scores indicate the number of excess vehicles the test car passed; negative scores indicate the number of excess vehicles that passed the test car; and zero indicates an even balance. The overall passing score consists of the sum of the segment scores.

The passing score provided an objective measure of the traffic flow, allowing the driver to adjust the test car speed accordingly. In the event that the traffic flow was higher than the posted speed limit, as was frequently the case in the Dade County and Boca Chica segments, the test car also traveled above the speed limit. Vehicles turning on or off U.S. 1 were omitted from the passing score.

Employing the floating car method in two-lane segments was fairly straightforward, where the observers frequently encountered platoons of sufficient size to discourage or prohibit passing. When positioned at the rear or in the middle of a platoon, the observers simply traveled with the pack. When positioned as the lead car, the observers avoided delaying the platoon yet kept the platoon within sight.

On two-lane segments the observers occasionally encountered stopped vehicles waiting to turn left, raising the question of whether the test vehicle should leave the lane or paved road surface and pass to the right of the stopped vehicle. When the vehicles ahead of the observers passed to the right of the stopped vehicle, then the observers did also. However, when the test car was the lead car in the platoon, the observers only passed on the right if they could do so without leaving the paved roadway.

Within four-lane segments with light congestion, the observers often encountered traffic traveling in the right lane at or below the posted speed limit, while there was little or no traffic in the left lane. Rather than "floating" below the speed limit in the right lane or traveling at the maximum possible speed in the left lane, the observers traveled at the posted speed limit, which resulted in passing score as high as +10. Thus, in these cases, a passing score of zero is undesirable, since the corresponding speed would fail to reflect the availability of the vacant passing lane.

Within four-lane segments with moderate or heavy congestion, the observers often encountered separate platoons in the right and left lanes, with the left lane typically moving at a faster speed. Rather than continuously changing lanes to achieve a passing score of zero, the test car "floated" in the faster of the two platoons, which also yielded high passing scores.

Platoon Size

To provide a measure of roadway congestion within each segment, the average number of vehicles traveling in the test car's platoon was recorded, including the test car itself. Within four-lane segments, this number represents the average number of vehicles that traveled in the test car's platoon within the test car's lane.

Treatment of Delay

In accordance with the FDOT Manual on Uniform Traffic Studies, the observers began recording delay when the test car's speed fell to 5 mph and terminated the delay event when the test car's speed rose to 15 mph. Each delay entry was identified, in the DMI memory by a sequential code number. The observers recorded the type and location of the delay on a field data sheet.

When computing both segments and overall travel times, delays due to typical events such as turning movements, traffic signals, and certain types of congestion were included. Unusual or non-recurring delays, such as construction, accidents, school bus, and emergency vehicles were excluded. Delays due to drawbridge opening were excluded from the segment travel times, but included in the overall travel times. However, regardless of how a particular type of delay was treated in the analysis, all delays of all types were identified and recorded on the field data sheets.

Occasionally an external event slowed traffic speeds, but not enough to meet the 5 mph criteria for a formal delay. Highway construction and maintenance activities were the most common example of this borderline situation. The decision of whether to record these events was made on a case-by-case basis in the field. As long as the observers were traveling at speeds within 5 to 10 mph of the posted speed limit and the event occurred over a distance of about a mile or less, the event was not recorded. However, if the activity caused speeds slower than this or when the observers witnessed active interference, such as bulldozers or flagman blocking the traffic, the event was recorded and later excluded from the analysis.

A METHODOLOGY TO ASSESS LEVEL-OF-SERVICE ON US-1 IN THE FLORIDA KEYS

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ABSTRACT

This paper presents the methodology developed to assess level-of-service (LOS) on US-1 in the Florida Keys. Although predominantly an uninterrupted flow two-lane roadway in the Keys, US-1's uniqueness warrants all alternative LOS evaluation process to that found in the 1985 Highway Capacity Manual.

U.S.-1 extends from the Key West to the Florida mainland with no major roads intersecting it. Furthermore, no other principal arterial serves the Keys or the Keys' resident and tourist population, over 100,000. Its unique geography, land use patterns, trip making characteristics presented a challenge in developing and applying a reasonable and acceptable method to assess its LOS.

A uniform method was developed to assess LOS on U.S.-1 to cover both its overall arterial length from Key West to the Florida mainland, and 24 roadway segments delineated. The methodology employs average travel speed as the main measure of effectiveness. It was developed from basic criteria and principles contained in Chapters 7 (Rural Multilane Highways), 8 (Rural Two-Lane Highways) and 11 (Urban and Suburban Arterials) of the 1985 Highway Capacity Manual.

The results of the study correlate well with perceived operating conditions on US-1 and over a two-year period the methodology appears to have a good level of reliability. The authors recommend that for uninterrupted flow conditions in developed areas, Chapters 7 and 8 of the Highway Capacity Manual incorporates average travel speed as the main measure of effectiveness to determine LOS.

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A METHOD TO ASSESS LEVEL-OF-SERVICE ON US-1 IN THE FLORIDA KEYS

INTRODUCTION

The purpose of this paper is to present the methodology developed by the Monroe County US-1 level-of-service (LOS) Task Force to assess LOS on US-1 (the Overseas Highway) in the Florida Keys (1). The authors are members of the referenced task force.

US-1 which is mostly two-lanes, has unique geographic and trip characteristics. It extends through the Florida Keys covering approximately 180 kilometers (112 miles) from the City of Key West to the Florida mainland (Figure 1). There are 48 bridges crossing water for a total length of 35 km (22 mi), with the longest bridge approximately 11 km (7 mi) long. There is no other road, to provide vehicular access to the Florida Keys from the rest of Florida or anywhere else. Few local roads are 5 km (3 mi) in length. Consequently, US-1 serves not only as a regional principal arterial which serves intra as well as interstate travel, but also serves as the local road for most of the trips within the Keys. US-1 Annual average daily traffic (AADT) volumes range from a low of 4700 to a high of 34200. The road serves a large tourist demand and is one of the most scenic in the United States. The linear geography with the narrow land width of most of the Florida Keys are further characteristics.

Most of the surrounding land use is rural developed and suburban in nature; however, some areas are totally rural and others are urban, such as the Key West and its suburbs. With the exception of the few completely rural segments and the bridges, strip commercial stores, motels and restaurants are very common throughout the Keys along US-1. Numerous driveways and intersecting local roads provide access to the surrounding residential areas.

The US-1 LOS study encompassed approximately 174 km (108 mi) of US-1 from Key West/Stock Island to the Monroe/Dade County Line, broken down as follows:

- 129 km (80 mi) (74%) two-lane uninterrupted flow;
- 32 km (20 mi) (19 %) four-lane uninterrupted flow; and
- 13 km (8 mi) (7%) four-lane urban/suburban interrupted flow.

Part of the growth management process in Florida is to assess roadway LOS to determine if roadway facilities meet standards established by state regulations. The Transportation Research Board Special Report 209 Highway Capacity Manual (HCM) (2) is extensively used throughout Florida as the source document to determine highway capacities and LOS.

HCM Chapter 7 (Rural Multilane Highways), 8 (Rural Two-Lane Highways) and 11 (Urban and Suburban Arterials) were consulted to determine applicability to the unique conditions and vehicular traffic operations and characteristics of the Florida Keys. Only the 13 km (8 mi) of urban/suburban interrupted flow and the small percentage of the two-lane truly rural portions correlate directly to the HCM Chapters 11 and 8.

Thus, the challenge was to develop a methodology to assess arterial LOS along US-1 without deviating from the principles of the HCM. Towards that end a task force was created consisting of representatives from State and local agencies and an engineering consulting firm.

R.E. De Arazoza
D.S. MaCleod

THE NEED TO DEVELOP A LOS MEASUREMENT METHOD

From a state transportation perspective, the overall operating condition of US-1 is important, not the condition of any smaller segment. With Key West as a major tourist destination at the southern end of the Keys and no alternative routes, the logical analysis section of highway extends from Key West to the mainland. From local transportation and development approval perspectives, shorter segments for analysis are desirable.

Chapter 8 of the HCM presents a methodology which applies to typical rural two-lane highways with basically long stretches of roads, and few side intersecting streets and driveways directly connecting to the roads. Chapter 8 methodology relies mainly on "percent time delay" to assess LOS. The HCM further states that "Percent time delay...is defined as the average percent of time that all vehicles are delayed while traveling in platoons due to inability to pass. Percent time delay is difficult to measure directly in the field. The percent of vehicles traveling at headways less than 5 seconds can be used as a surrogate measure in field studies."

Chapter 8 of the HCM also uses average travel speed and capacity utilization as additional measures of effectiveness to assess LOS. However, the HCM states clearly that percent time delay is the primary measure of service quality. Further inspection of the average speeds for level terrain depicted by Table 8-1 of the HCM do not correspond well with the typical operating speeds of US-1 in the Florida Keys. For instance, Table 8-1 shows average speeds ranging from 58 mph (93 kmh) (LOS A) to 45 mph (72 kmh) (LOS D).

The overall weighted posted speed limit for US-1 in the Florida Keys is 79.7 kmh (49.5 mph). The overall median operating speeds along US-1 according to the 1991 and 1992 field studies (3, 4) were 76.8 and 75.5 kmh (47.7 and 46.9 mph), respectively. The field studies showed, for the most part, the survey vehicle(s) was traveling close to the posted speed limit.

It is believed the average motorist in the Florida Keys is mostly concerned with operating at an acceptable average travel speed rather than being concerned about the ability to pass. This is supported by the physical and traffic characteristics of the Keys (e.g., adjacent land development, sight seeing tourists), local knowledge, and discussions with motorists.

From the above statements, it was clear to the task team that HCM Chapter 8 methodology could not be applied to US-1 for analysis of its two-lane sections.

With regards to the four-lane uninterrupted flow portions of US-1, a similar dilemma occurred. HCM Chapter 7 methodology applies to multi-lane highways with operating characteristics generally unlike those of US-1 through the Florida Keys. For instance, average travel speeds depicted by Table 7-1 of the HCM are also higher than those encountered in the Keys. Further, the methodology inherent in equations (7-1), (7-2) and (7-3)are closely related to those of freeways with their higher service flow rates, which again neither simulate nor resemble those of US-1 in the Keys. The Four-lane portion is found mostly in Key Largo (the northeastern end of the Keys) which has a weighted posted speed limit of 72.5 kmh (45 mph). Key largo is developed with strip commercial and residential development. It has numerous driveway connections and side streets directly accessing US-1.

The remaining 7% of the total US-1 mileage is four-lane interrupted flow. These are the portions encompassing Marathon (in the middle of the Keys) and Stock Island (near Key West). The operating characteristics here are truly urban/suburban and interrupted flow in nature resembling those of HCM Chapter 11. Thus, the methodology of Chapter 11 was employed in assessing LOS on these segments.

From the preceding discussion, it was evident that a distinct method to assess LOS on US-1 had to be developed. The task team's efforts concentrated on keeping consistency with the basic philosophy of the HCM, and yet be sensitive to the Keys uniqueness. Thus, the proposed methodology correlates measured travel speeds along US-1 with LOS speed thresholds developed as part of this study. This is in line with the concept behind the HCM of average travel speed being the main parameter to measure arterial LOS.

METHODOLOGY

Considering the types of trips served by US-1, it was decided to conduct travel time and delay runs to cover both the entire length of US-1 from Key West to the Monroe/Dade County Line (mainland) and for each segment of the highway along the way. Twenty-four segments were selected as depicted by Table 1. Each segment is fairly homogeneous in nature having a uniform roadway cross section and traffic flow.

Travel speeds for the overall length (from Key West to the mainland) provide an indication of the LOS for the regional trips. Travel speeds for each segment also provides an opportunity to assess the impact of local trips. Establishing speed criteria for both the overall length and for each roadway segment satisfies the requirements of the Florida growth management process.

The next step in the process was to determine the number of travel time runs and how, when and to/from where. Runs were started at both ends of US-1. For example, one run started on Stock Island (Key West City limits) and proceeded to the mainland (Dade County). After reaching this point, the vehicle turned back and proceeded to end the run where it started, on Stock Island. On another day the reverse was true (i.e., the run started in Dade County instead of Stock Island). It was decided to perform a total of fourteen two-way runs or twenty-eight in each direction covering the 174 km (108 mi) study portion of US-1. Twenty-eight runs provide enough data for statistical significance. Control points were established at each of the 24 segments to record travel time and speed data specific to each one of those segments. Seven runs were started at Stock Island and seven in Dade County. Each began at staggered hours to cover the varied trip purposes and time frames within the Keys. The surveys were conducted during March, reflecting the area's peak traffic season.

For each run the process provided data, such as running speed and travel speed, in each direction of US-1. Vehicular traffic counts were also collected at three locations covering seven days.

The travel time runs yielded a total of 28 one-way travel speed values for the overall length of US-1 and for each of the 24 segments. The value selected for analysis was the median speed which would reflect a "typical peak period during the peak season." In other developed parts of Florida the typical peak hour of the peak season approximates the 100th highest hour of the year (5).

The median value was also selected, instead of the average, to avoid the influence of extremely high or low speed value at either end of the survey population.

The process up to this point provided median travel speeds. The question then became, what LOS do these speeds represent.

The next step was to develop a set of LOS/Speed threshold values for both the overall length of US-1 and the pertinent segments of the highway. Towards this end, the speed ratios between LOS thresholds from Tables 7-1, 8-1 and 11-1 of the HCM were used in the analysis. These ratios were weighted against actual mileage of US-1 in the Florida Keys to represent the prevailing type of flow; two-lane uninterrupted flow, four-lane uninterrupted flow and four-lane interrupted flow. For example, from the level terrain portion of HCM Table 8-1, the ratio between LOS B speed and LOS A speed is 55/58 = 0.948. The ratio between LOS C/LOS A = 52/58 = 0.897; the ratio between LOS D/LOS A = 50/58 = 0.862 and so on. The same process was applied to Tables 7-1 (96.6 kmh) (60 mph) and 11-1. Then each ratio was weighted to take into account the length of the section of US-1 to which that type of traffic flow applied. Once all the ratios were developed, the weight criteria was applied as in the following example:

TYPE OF FLOW	LOS C/LOS A RATIO	WEIGHT
Two-lane uninterrupted	52/58 = 0.897	74
Four-lane uninterrupted	44/50 = 0.880	19
Four-lane interrupted	22/35 = 0.629	07

Therefore, the overall speed ratio between LOS C and LOS A is:

$$[74(0.897)+19(0.880)+7(0.629)]+100=0.875$$

The above process was applied to develop all the required ratios.
Further observations with reference to Tables 8-1, 7-1 and 11-1 yielded the following. From Table 8-1 the difference between LOS A and LOS B speeds is 4.8 kmh (3 mph), or 4.8 kmh (3 mph) above an assumed posted speed limit of 88 kmh (55 mph). From Tables 7-1 and 11-1 the differences are 3.2 kmh and 11.3 kmh (2 mph and 7 mph), respectively, with LOS lower than assumed speed limits. Therefore, from these observations plus local knowledge, it was determined that the overall US-1 posted speed limit is 79.7 kmh (49.5 mph) reasonably fell between the LOS A and B thresholds. This

assumption is not far away from the premise that if a vehicle is able to sustain a travel speed equal to the posted speed limit, then it will correspond typically with the upper ranges of LOS (i.e., LOS A or B).

With the above speed differentials and LOS range premise in mind, the US-1 overall speed thresholds for LOS A and B became 82.1 kmh (51 mph) (2.4 kmh (1.5 mph) above 79.7 kmh (49.5) and 77.3 kmh (48 mph), respectively. Applying the developed ratio between LOS C/LOS A to the LOS A speed resulted in 72.5 kmh (45 mph), rounded off (i.e., 0.875 x 82.1 kmh (51 mph) = 71.8 kmh (44.6 mph)), which then became the threshold for LOS C. After applying all the ratios the overall LOS criteria for US-1 became:

LOS	Speed
A	≥ 82 kmh (51 mph)
B	≥ 77 kmh (48 mph)
C	≥ 72 kmh (45 mph)
D	≥ 68 kmh (42 mph)
E	≥ 58 kmh (36 mph)
F	< 58 kmh (36 mph)

Inspection of the criteria above indicates a close relationship with the speed differentials of both Tables 8-1 and 7-1 of the HCM. Comparing the median speed data for US-1 from the 1991 and 1992 field studies to the above criteria resulted in an overall LOS of C for both years, i.e., 76.8 kmh (47.7 mph) for 1991 and 75.5 kmh (46.9 mph) for 1992. These speeds are 2.9 kmh (1.8 mph) and 4.2 kmh (2.6 mph) below the overall weighted 79.7 kmh (49.5 mph) speed limit, which would correspond to the upper range of LOS C. The authors also believe that LOS C is the appropriate LOS designation for the whole of US-1 from Key West to the mainland.

A final step was still needed to complete the task of developing LOS/Speed threshold values for the segments of US-1. No further work was needed to cover the 7% mileage of the interrupted portions of US-1 found on Marathon and Stock Island, adjacent to Key West. As discussed earlier, these segments correlate with Chapter 11 of the HCM. Therefore, direct application of Table 11-1 LOS/speed criteria for a Class I arterial was made.

The remaining segments fell within the two-lane and four lane uninterrupted flow criteria. It was decided to make LOS A speed criterion 2.4 kmh (1.5 mph) above the weighted posted speed limit in order to keep consistency with the overall criteria. LOS C speed was set 9.7 kmh (6 mph) below LOS A speed consistent with Tables 7-1 and 8-1 of the HCM. LOS B and D speed criteria were set to provide equal increments between LOS A and LOS D (i.e., LOS B 4.8 kmh (3 mph) below LOS A speed and LOS D 4.8 kmh (3 mph) below LOS C speed). LOS E was set 9.7 kmh (6 mph) below the LOS D Speed. This makes the segmental speed differential between LOS thresholds consistent with the differentials in the overall criteria, except for one consideration. On any segment, intersection delay would be deducted from the segment's travel time to account for the influence of that signal on the segment (i.e., signal delay = 1.0 x 15 seconds average stopped delay). This corresponds to an LOS C delay due to isolated signals. LOS C delay was chosen because LOS C is the state LOS standard for US-1 in the Florida Keys. The rationale behind deducting signal delay from the segment analysis was to recognize for the impact of signals in reducing travel time. This provides the required sensitivity in the segment which is not only to assess the impact of regional vehicular trips, but also those that are local in nature. The following illustrates the concept plus one example for the US-1 Segmental LOS/speed relationship.

- **The uninterrupted flow segment criteria are:**

LOS	SPEED
A	≥ 2.4 kmh (1.5 mph) above the posted speed limit
B	≥ 4.8 kmh (3.0 mph) below LOS A
C	≥ 9.7 kmh (6.0 mph) below LOS A
D	≥ 14.5 kmh (9.0 mph) below LOS A
E	≥ 24 kmh (15.0 mph) below LOS A
F	< 24 kmh (15.0 mph) below LOS A

- **A segment having a weighted posted speed limit of 72 kmh (45 mph) would then have this criteria:**

LOS	SPEED
A	≥ 74.9 kmh (46.5 mph)
B	≥ 70.0 kmh (43.5 mph)
C	≥ 65.2 kmh (40.5 mph)
D	≥ 60.4 kmh (37.5 mph)
E	≥ 50.7 kmh (31.5 mph)
F	< 50.7 kmh (31.5 mph)

- **The LOS/Speed criteria for interrupted flow segments (marathon and Stock Island) are based directly on a Class I arterial from Table 11-1 of the HCM.**

LOS	SPEED
A	≥ 56.4 kmh (35 mph)
B	≥ 45.1 kmh (28 mph)
C	≥ 35.4 kmh (22 mph)
D	≥ 27.4 kmh (17 mph)
E	≥ 20.9 kmh (13 mph)
F	< 20.9 kmh (13 mph)

Speed data from both the overall length of US-1 and the individual segments were compared against the applicable LOS/speed thresholds. This provided for an assessment of the facility LOS plus an indication of reserve speed, if any.

Under Florida's and Monroe County's growth management process if the overall LOS for US-1 fell below the LOS C standard, then no additional land development would be allowed to proceed in the Florida Keys. Unless the proposed new development traffic impact were mitigated. If the overall LOS for US-1 was C or better, then additional development could take place in those segments where there was reserve speed available (i.e., segment's speed was higher than the standard threshold).

Besides meeting highway LOS standards there are numerous other considerations in Florida's growth management process pertaining to the Florida Keys that are beyond the scope of this paper. As mentioned in the introduction, the purpose of this study was to present the methodology to assess LOS on US-1.

APPENDIX B

Travel Time Delay Data

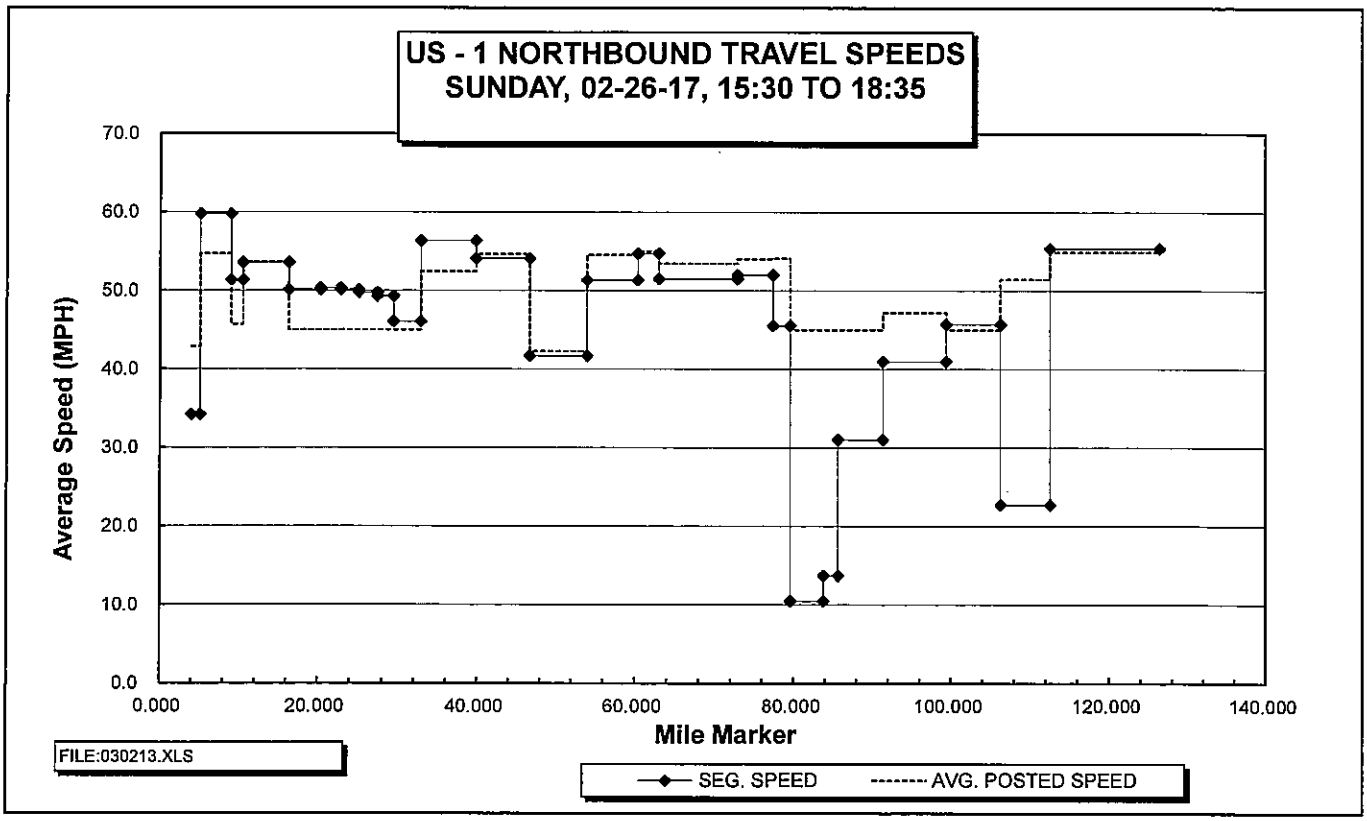
APPENDIX B

URS

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Sunday, February 26, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	03:30:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	06:35:33 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00		0.000	0.000			-			-
Key Haven Blvd	1	00:01:58	00:01:58		1.121	1.121		34.2	N/A	TS	0:00:24	
Rockland Dr	2	00:05:53	00:03:55		5.023	3.902		59.8				-1
Boca Chica Rd	3	00:07:39	00:01:46		6.535	1.512		51.4				
Harris Ch Br (N)	4	00:14:08	00:06:29		12.323	5.788		53.6				
Bow Channel Br (N)	5	00:18:54	00:04:46		16.304	3.981		50.1				
Spanish Main Dr	6	00:21:56	00:03:02		18.847	2.543		50.3				
E Shore Dr	7	00:24:36	00:02:40		21.074	2.227		50.1				
Torch-Ramrod Br (S)	8	00:27:23	00:02:47		23.383	2.309		49.8				
N Pine Ch Br (N)	9	00:29:53	00:02:30		25.437	2.054		49.3				
Long Beach Dr	10	00:34:20	00:04:27		28.852	3.415		46.0				1
7-Mile Br (S)	11	00:41:50	00:07:30		35.897	7.045		56.4				6
7-Mile Br (N)	12	00:49:24	00:07:34		42.717	6.820		54.1				
Coco Plum Dr	13	00:59:52	00:10:28		49.986	7.269		41.7	10+	TS	00:00:22	16
Toms Harbor Ch Br (S)	14	01:07:23	00:07:31		56.417	6.431		51.3				
Long Key Br (S)	15	01:10:17	00:02:54		59.062	2.645		54.7				
Channel #2 Br (N)	16	01:21:48	00:11:31		68.944	9.882		51.5				
Lignum V Br (S)	17	01:26:59	00:05:11		73.433	4.489		52.0				1
Teatable Relf Br (N)	18	01:29:51	00:02:52		75.608	2.175		45.5				
Whale Harbor Br (S)	19	01:53:49	00:23:58		79.791	4.183		10.5	10+	CG	00:21:02	
Snake Creek Br (N)	20	02:02:03	00:08:14		81.672	1.881		13.7	10+	CG	00:07:40	
Ocean Blvd	21	02:13:10	00:11:07		87.420	5.748		31.0	10+	CG(3) TS(	00:02:02	
Atlantic Blvd	22	02:24:58	00:11:48		95.472	8.052		40.9	10+	TS(2)	00:02:17	16
C-905	23	02:33:57	00:08:59		102.316	6.844		45.7	N/A	TS	00:00:30	1
County Line sign	24	02:50:29	00:16:32		108.571	6.255		22.7	10+	CG(3)	00:09:00	
Card Sound Rd	25	03:05:33	00:15:04		122.474	13.903		55.4				
OVERALL			02:50:29	00:00:00		108.571	0.000	38.2				

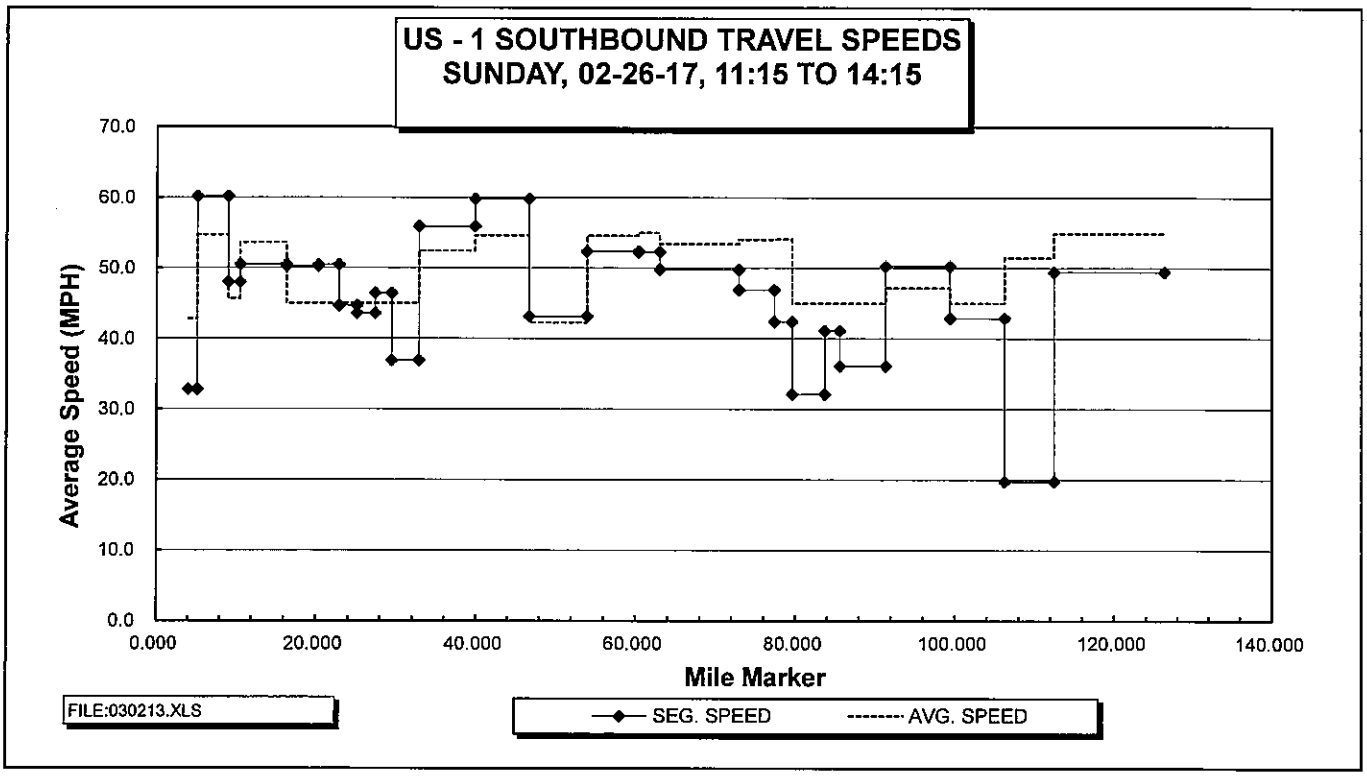
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
SUNDAY, 02-26-17, 15:30 TO 18:35
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Sunday, February 26, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	11:15:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	02:14:19 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	———	0.000	0.000	-----	----	-	--	--------	-
County Line sign	25	1	00:16:52	00:16:52		13.898	13.898		49.4				
C-905	24	2	00:35:50	00:18:58		20.139	6.241		19.7	10+	CG(4)	00:14:52	-1
Atlantic Blvd	23	3	00:45:23	00:09:33		26.965	6.826		42.9	10+	TS, PS	00:00:45	9
Ocean Blvd	22	4	00:54:59	00:09:36		35.009	8.044		50.3				-12
Snake Creek Br (N)	21	5	01:16:20	00:21:21	00:14:50	40.767	5.758	1.839	36.1	10+	LT, SE	00:15:30	-2
Whale Harbor Br (S)	20	6	01:19:04	00:02:44		42.641	1.874		41.1				
Teatable Relf Br (N)	19	7	01:26:45	00:07:41		46.753	4.112		32.1	10+	CG(2)	00:01:06	
Lignum V Br (S)	18	8	01:29:55	00:03:10		48.990	2.237		42.4				
Channel #2 Br (N)	17	9	01:35:39	00:05:44		53.472	4.482		46.9				
Long Key Br (S)	16	10	01:47:34	00:11:55		63.360	9.888		49.8				
Toms Harbor Ch Br (S)	15	11	01:50:37	00:03:03		66.017	2.657		52.3				
Coco Plum Dr	14	12	01:57:57	00:07:20		72.418	6.401		52.4				
7-Mile Br (N)	13	13	02:08:05	00:10:08		79.705	7.287		43.1	1	TS	00:00:18	-6
7-Mile Br (S)	12	14	02:14:55	00:06:50		86.514	6.809		59.8				
Long Beach Dr	11	15	02:22:28	00:07:33		93.546	7.032		55.9				
N Pine Ch Br (N)	10	16	02:28:02	00:05:34		96.968	3.422		36.9	10+	TS	00:00:36	
Torch-Ramrod Br (S)	9	17	02:30:42	00:02:40		99.031	2.063		46.4				
E Shore Dr	8	18	02:33:51	00:03:09		101.318	2.287		43.6				
Spanish Main Dr	7	19	02:36:50	00:02:59		103.538	2.220		44.6				
Bow Channel Br (N)	6	20	02:39:52	00:03:02		106.089	2.551		50.5				
Harris Ch Br (N)	5	21	02:44:37	00:04:45		110.068	3.979		50.3				
Boca Chica Rd	4	22	02:51:30	00:06:53		115.864	5.796		50.5				
Rockland Dr	3	23	02:53:22	00:01:52		117.358	1.494		48.0				
Key Haven Blvd	2	24	02:57:16	00:03:54		121.268	3.910		60.2				
Cow Key Bridge (N)	1	25	02:59:19	00:02:03		122.389	1.121		32.8	10+	TS	00:00:25	3
OVERALL			———	02:42:27	00:14:50	------	108.491	1.839	43.3			00:33:32	-9

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
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Average Speed (MPH)
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20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
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SEG. SPEED
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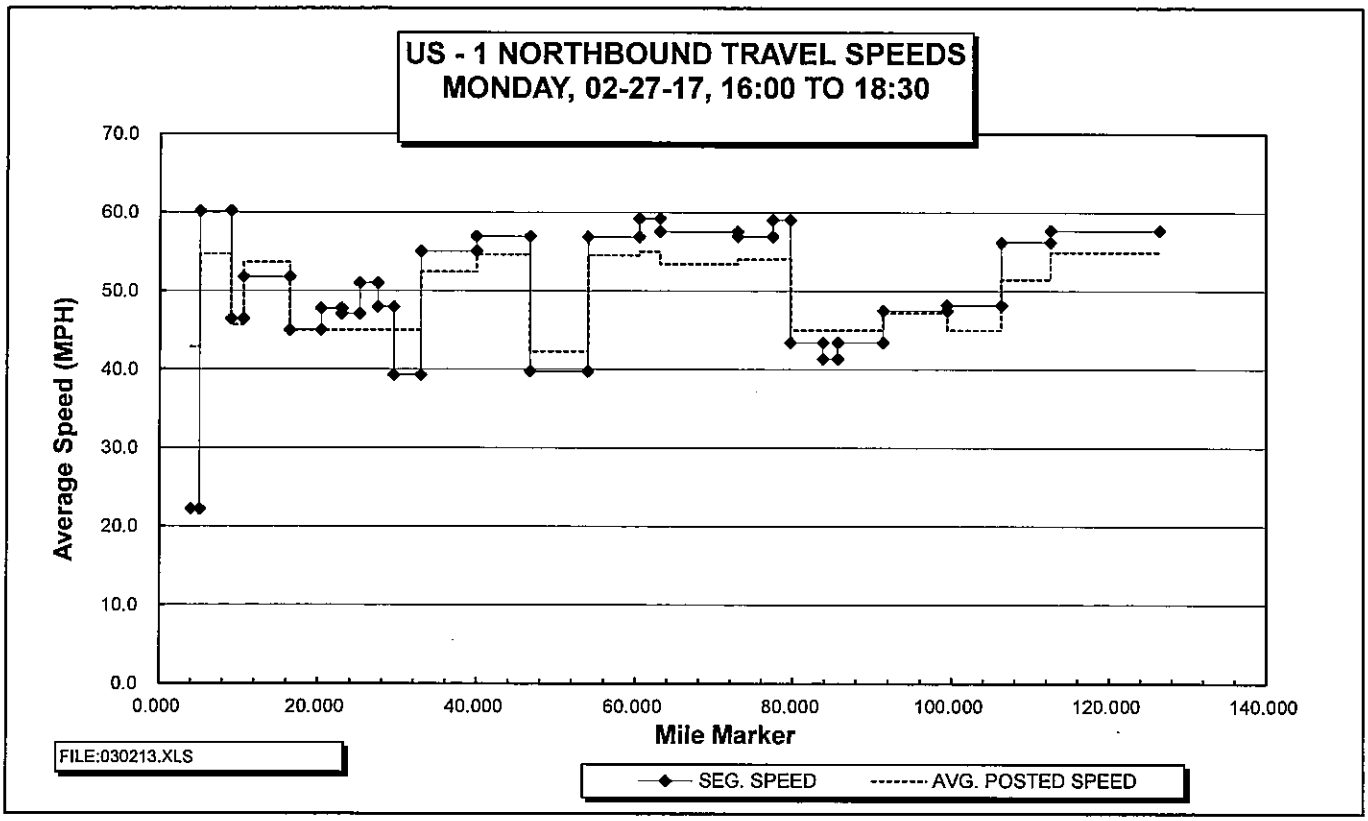
ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Monday, February 27, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	04:20:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	06:53:25 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-------	0.000	0.000	----	---	-	--	------	-
Key Haven Blvd	1	00:03:02	00:03:02		1.123	1.123		22.2	10+	TS(3)	00:01:11	5
Rockland Dr	2	00:06:56	00:03:54		5.035	3.912		60.2				3
Boca Chica Rd	3	00:15:53	00:08:57	00:07:04	6.593	1.558	0.100	46.4		GAS	00:07:04	
Harris Ch Br (N)	4	00:22:36	00:06:43		12.388	5.795		51.8				
Bow Channel Br (N)	5	00:27:53	00:05:17		16.352	3.964		45.0				
Spanish Main Dr	6	00:31:05	00:03:12		18.898	2.546		47.7				
E Shore Dr	7	00:33:55	00:02:50		21.120	2.222		47.1				
Torch-Ramrod Br (S)	8	00:36:38	00:02:43		23.429	2.309		51.0				
N Pine Ch Br (N)	9	00:39:12	00:02:34		25.480	2.051		47.9				
Long Beach Dr	10	00:44:25	00:05:13		28.895	3.415		39.3				1
7-Mile Br (S)	11	00:52:06	00:07:41		35.942	7.047		55.0				3
7-Mile Br (N)	12	00:59:17	00:07:11		42.759	6.817		56.9				
Coco Plum Dr	13	01:10:16	00:10:59		50.034	7.275		39.7	8	TS(4)	00:00:14	8
Toms Harbor Ch Br (S)	14	01:17:03	00:06:47		56.462	6.428		56.9				
Long Key Br (S)	15	01:19:44	00:02:41		59.110	2.648		59.2				
Channel #2 Br (N)	16	01:30:02	00:10:18		68.990	9.880		57.6				
Lignum V Br (S)	17	01:34:45	00:04:43		73.466	4.476		56.9				
Teatable Relf Br (N)	18	01:37:02	00:02:17		75.713	2.247		59.0				
Whale Harbor Br (S)	19	01:42:55	00:05:53	00:00:14	79.824	4.111	0.022	43.4	10+	EV	00:00:14	
Snake Creek Br (N)	20	01:45:38	00:02:43		81.696	1.872		41.3				
Ocean Blvd	21	01:53:35	00:07:57		87.450	5.754		43.4	1	TS	00:00:39	1
Atlantic Blvd	22	02:03:46	00:10:11		95.508	8.058		47.5				6
C-905	23	02:12:17	00:08:31		102.345	6.837		48.2				
County Line sign	24	02:18:57	00:06:40		108.589	6.244		56.2				
Card Sound Rd	25	02:33:25	00:14:28		122.495	13.906		57.7				
OVERALL		------	02:18:57	00:07:18	------	108.589	0.122	49.4			00:09:22	27

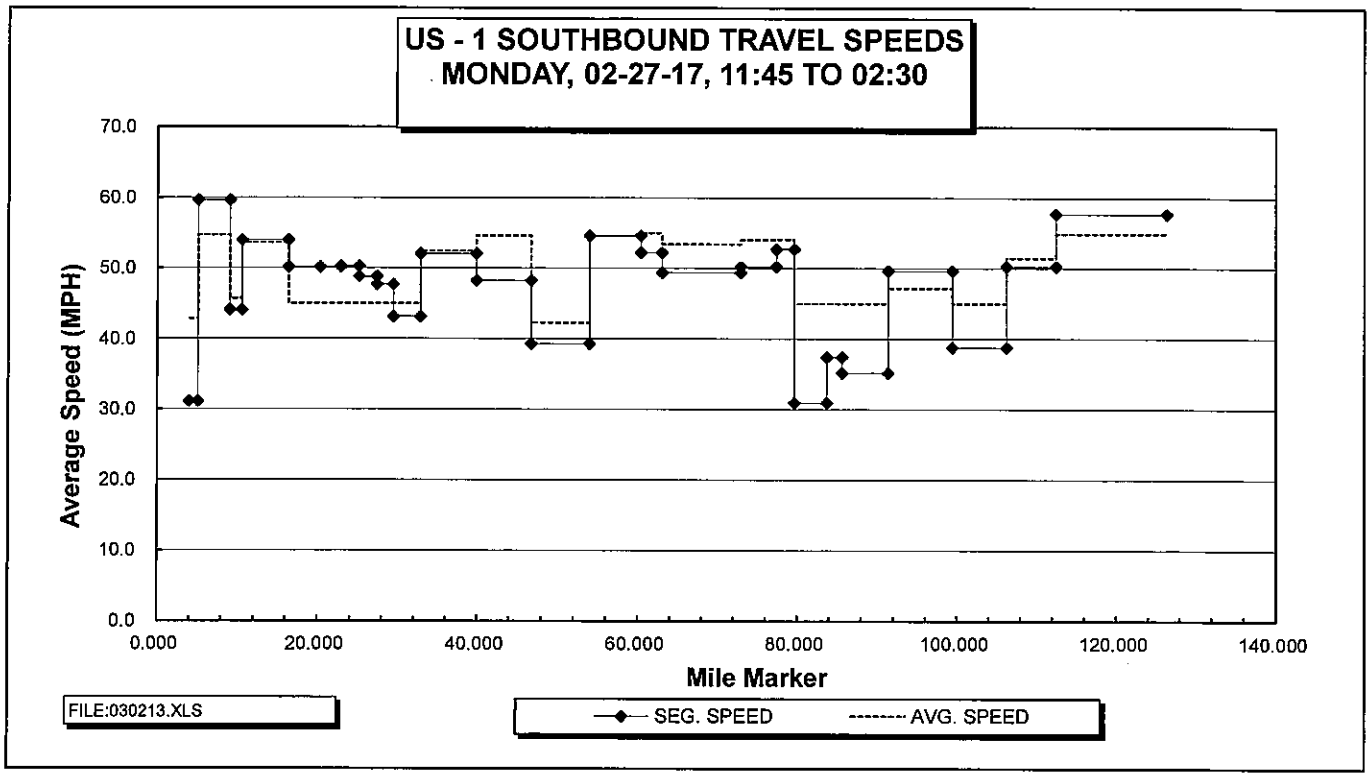
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
MONDAY, 02-27-17, 16:00 TO 18:30
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Average Speed (MPH)
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Monday, February 27, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	11:45:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	02:25:24 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	——	0.000	0.000	——	---	-	--	——	-
County Line sign	25	1	00:14:28	00:14:28		13.912	13.912		57.7				
C-905	24	2	00:21:54	00:07:26		20.139	6.227		50.3				-1
Atlantic Blvd	23	3	00:32:28	00:10:34		26.968	6.829		38.8	10+	TS(3)	00:01:57	8
Ocean Blvd	22	4	00:42:12	00:09:44		35.014	8.046		49.6				3
Snake Creek Br (N)	21	5	00:52:02	00:09:50		40.778	5.764		35.2	10+	TS,CG	00:00:52	5
Whale Harbor Br (S)	20	6	00:55:02	00:03:00		42.648	1.870		37.4				
Teatable Relf Br (N)	19	7	01:03:02	00:08:00		46.771	4.123		30.9	10+	CG(2)	00:01:31	
Lignum V Br (S)	18	8	01:05:34	00:02:32		48.996	2.225		52.7				
Channel #2 Br (N)	17	9	01:10:56	00:05:22		53.489	4.493		50.2				
Long Key Br (S)	16	10	01:22:57	00:12:01		63.375	9.886		49.4				
Toms Harbor Ch Br (S)	15	11	01:26:00	00:03:03		66.029	2.654		52.2				
Coco Plum Dr	14	12	01:33:02	00:07:02		72.431	6.402		54.6				
7-Mile Br (N)	13	13	01:48:38	00:15:36	00:04:32	79.723	7.292	0.048	39.3	10+	TS,RB,L	00:05:09	-1
7-Mile Br (S)	12	14	01:57:07	00:08:29		86.542	6.819		48.2				
Long Beach Dr	11	15	02:05:14	00:08:07		93.580	7.038		52.0				-1
N Pine Ch Br (N)	10	16	02:10:00	00:04:46		97.006	3.426		43.1				
Torch-Ramrod Br (S)	9	17	02:12:35	00:02:35		99.060	2.054		47.7				
E Shore Dr	8	18	02:15:24	00:02:49		101.351	2.291		48.8				
Spanish Main Dr	7	19	02:18:03	00:02:39		103.571	2.220		50.3				
Bow Channel Br (N)	6	20	02:21:07	00:03:04		106.134	2.563		50.1				
Harris Ch Br (N)	5	21	02:25:52	00:04:45		110.101	3.967		50.1				
Boca Chica Rd	4	22	02:32:18	00:06:26		115.891	5.790		54.0				
Rockland Dr	3	23	02:34:21	00:02:03		117.397	1.506		44.1				
Key Haven Blvd	2	24	02:38:19	00:03:58		121.340	3.943		59.6				2
Cow Key Bridge (N)	1	25	02:40:24	00:02:05		122.422	1.082		31.2	10+	TS	00:00:25	2
OVERALL			-------	02:25:56	00:04:32	——	108.510	0.048	46.0			00:09:54	17

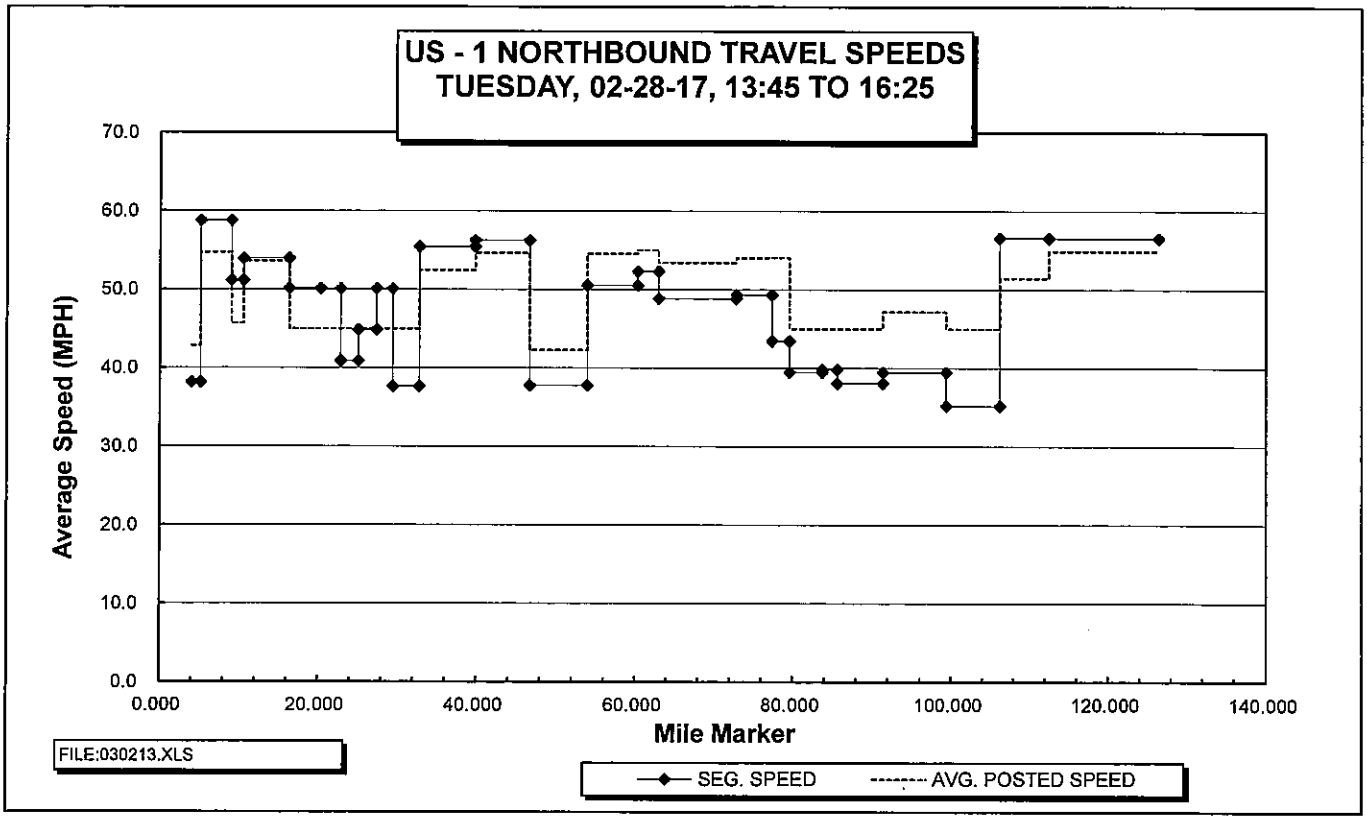
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
MONDAY, 02-27-17, 11:45 TO 02:30
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROADWAY/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Tuesday, February 28, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	01:45:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	04:22:55 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	--------	0.000	0.000	----	----	-	--	------	-
Key Haven Blvd	1	00:01:46	00:01:46		1.124	1.124		38.2				1
Rockland Dr	2	00:05:45	00:03:59		5.026	3.902		58.8				2
Boca Chica Rd	3	00:07:32	00:01:47		6.546	1.520		51.1				
Harris Ch Br (N)	4	00:13:58	00:06:26		12.330	5.784		53.9				
Bow Channel Br (N)	5	00:18:44	00:04:46		16.310	3.980		50.1				
Spanish Main Dr	6	00:21:47	00:03:03		18.856	2.546		50.1				
E Shore Dr	7	00:25:02	00:03:15		21.070	2.214		40.9				
Torch-Ramrod Br (S)	8	00:28:07	00:03:05		23.375	2.305		44.9				
N Pine Ch Br (N)	9	00:30:35	00:02:28		25.434	2.059		50.1				
Long Beach Dr	10	00:36:01	00:05:26		28.843	3.409		37.6	2	TS	00:00:53	1
7-Mile Br (S)	11	00:43:39	00:07:38		35.896	7.053		55.4				
7-Mile Br (N)	12	00:50:55	00:07:16		42.708	6.812		56.2				
Coco Plum Dr	13	01:02:28	00:11:33		49.979	7.271		37.8	5	TS(4)	00:01:31	6
Toms Harbor Ch Br (S)	14	01:10:05	00:07:37		56.394	6.415		50.5		TS	00:00:02	
Long Key Br (S)	15	01:13:08	00:03:03		59.052	2.658		52.3				
Channel #2 Br (N)	16	01:25:17	00:12:09		68.940	9.888		48.8				
Lignum V Br (S)	17	01:30:44	00:05:27		73.419	4.479		49.3				
Teatable Relf Br (N)	18	01:33:50	00:03:06		75.664	2.245		43.5				
Whale Harbor Br (S)	19	01:40:05	00:06:15		79.775	4.111		39.5				
Snake Creek Br (N)	20	01:42:55	00:02:50		81.655	1.880		39.8				
Ocean Blvd	21	01:51:59	00:09:04		87.404	5.749		38.0	10+	TS(2)	00:01:06	2
Atlantic Blvd	22	02:04:14	00:12:15		95.458	8.054		39.4	10+	TS(2)	00:02:36	7
C-905	23	02:16:33	00:12:19	00:00:46	102.310	6.852	0.086	35.1	10+	TS(3),St	00:02:11	-1
County Line sign	24	02:23:10	00:06:37		108.550	6.240		56.6				
Card Sound Rd	25	02:37:55	00:14:45		122.446	13.896		56.5				
OVERALL		--------	02:23:10	00:00:46	----	108.550	0.086	45.7			00:08:19	18

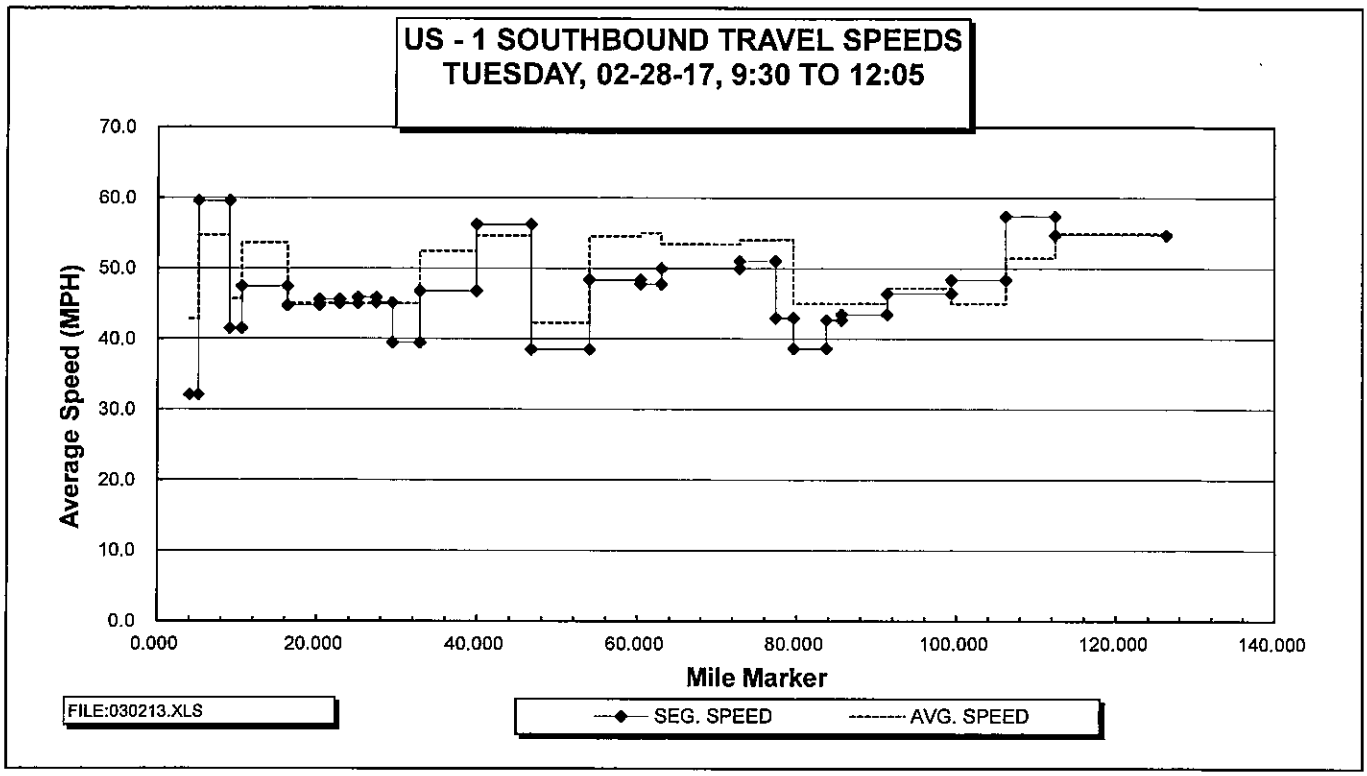
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
TUESDAY, 02-28-17, 13:45 TO 16:25
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Tuesday, February 28, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	09:30:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	12:05:10 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	———	0.000	0.000	-----	---	-	–	--------	-
County Line sign	25	1	00:15:15	00:15:15		13.909	13.909		54.7				
C-905	24	2	00:21:46	00:06:31		20.141	6.232		57.4				
Atlantic Blvd	23	3	00:30:15	00:08:29		26.975	6.834		48.3				3
Ocean Blvd	22	4	00:40:39	00:10:24		35.026	8.051		46.4	5	TS	00:00:34	3
Snake Creek Br (N)	21	5	00:48:36	00:07:57		40.785	5.759		43.5	8	TS	00:00:22	2
Whale Harbor Br (S)	20	6	00:51:14	00:02:38		42.658	1.873		42.7				
Teatable Relf Br (N)	19	7	00:57:38	00:06:24		46.777	4.119		38.6				
Lignum V Br (S)	18	8	01:00:45	00:03:07		49.008	2.231		42.9				
Channel #2 Br (N)	17	9	01:06:01	00:05:16		53.488	4.480		51.0				
Long Key Br (S)	16	10	01:17:53	00:11:52		63.374	9.886		50.0				
Toms Harbor Ch Br (S)	15	11	01:21:12	00:03:19		66.014	2.640		47.8				
Coco Plum Dr	14	12	01:29:10	00:07:58		72.436	6.422		48.4	10+	TS	00:00:07	
7-Mile Br (N)	13	13	01:40:31	00:11:21		79.716	7.280		38.5	10+	TS(2)	00:00:46	17
7-Mile Br (S)	12	14	01:47:47	00:07:16		86.526	6.810		56.2				
Long Beach Dr	11	15	01:57:03	00:09:16	00:00:24	93.559	7.033	0.123	46.8	10+	SE	00:00:24	
N Pine Ch Br (N)	10	16	02:02:16	00:05:13		96.990	3.431		39.5				
Torch-Ramrod Br (S)	9	17	02:05:00	00:02:44		99.046	2.056		45.1				
E Shore Dr	8	18	02:08:00	00:03:00		101.339	2.293		45.9				
Spanish Main Dr	7	19	02:10:58	00:02:58		103.564	2.225		45.0				
Bow Channel Br (N)	6	20	02:14:19	00:03:21		106.108	2.544		45.6				
Harris Ch Br (N)	5	21	02:19:40	00:05:21		110.097	3.989		44.7				
Boca Chica Rd	4	22	02:26:59	00:07:19		115.881	5.784		47.4				
Rockland Dr	3	23	02:29:10	00:02:11		117.391	1.510		41.5				
Key Haven Blvd	2	24	02:33:06	00:03:56		121.295	3.904		59.6				2
Cow Key Bridge (N)	1	25	02:35:10	00:02:04		122.400	1.105		32.1	10+	TS	00:00:34	8
OVERALL			--------	02:19:55	00:00:24	-------	108.491	0.123	46.6			00:02:47	35

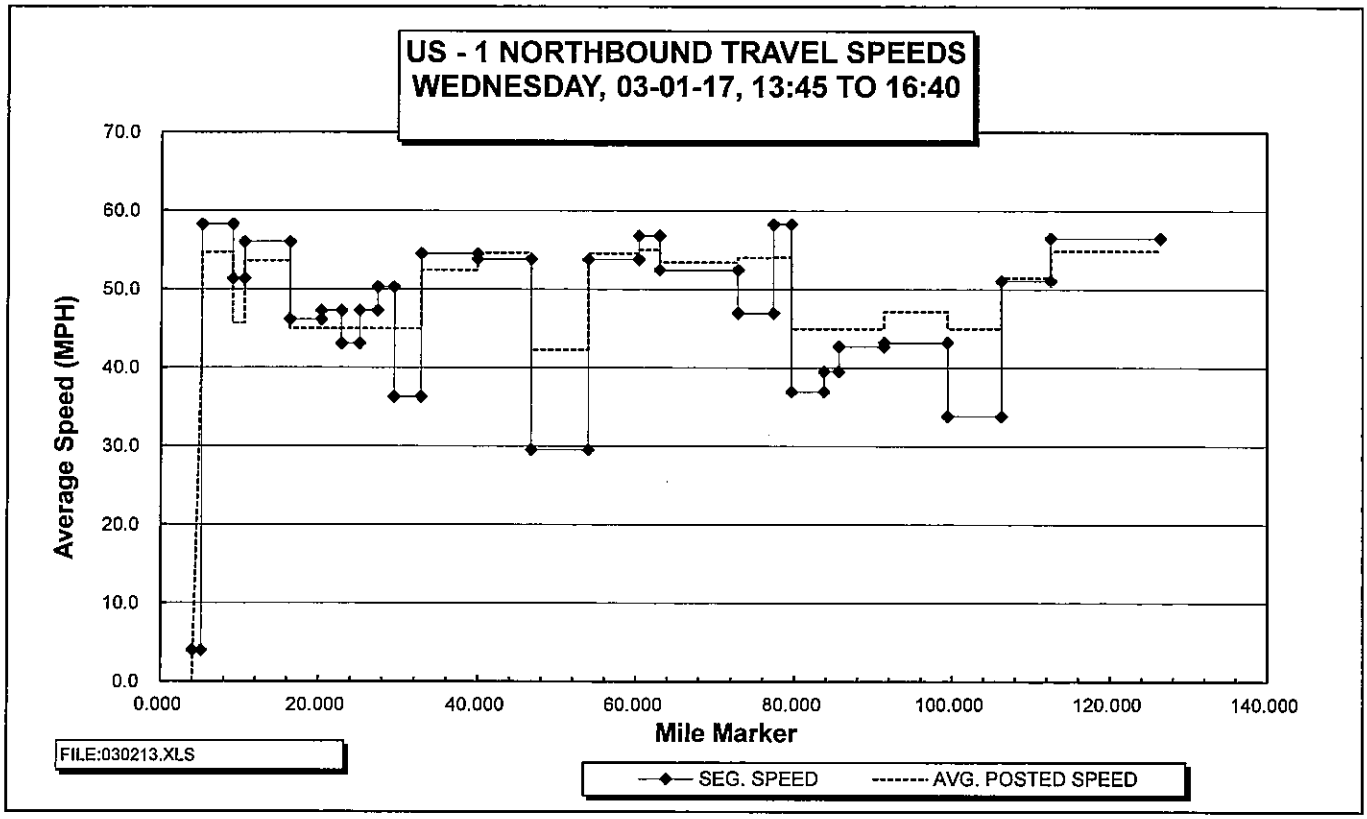
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
TUESDAY, 02-28-17, 9:30 TO 12:05
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIREdTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / dS = donstrudtion
WEATHER/dONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = Sdhool Bus
DAY/DATE:	Wednesday, March 1, 2017	Delay ends @ 15 mph	TS = Traffid Signal / EV = Emergendy Vehidle
START TIME @ dOW KEY BR:	01:45:00 PM		DB = Drawbridge / Ad = Addident
FINISH TIME @ d SOUND RD:	04:41:32 PM		dG = dongestion / * = Spedial Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-------	0.000	0.000	----	----	-	--	------	-
Key Haven Blvd	1	00:17:06	00:17:06		1.131	1.131		4.0	N/A	TS(2)	00:00:20	5
Rockland Dr	2	00:21:07	00:04:01		5.033	3.902		58.3				
Boca Chica Rd	3	00:22:53	00:01:46		6.545	1.512		51.4				
Harris Ch Br (N)	4	00:29:05	00:06:12		12.335	5.790		56.0				
Bow Channel Br (N)	5	00:34:15	00:05:10		16.308	3.973		46.1	N/A	TS	00:00:08	
Spanish Main Dr	6	00:37:29	00:03:14		18.854	2.546		47.2				
E Shore Dr	7	00:40:35	00:03:06		21.079	2.225		43.1				
Torch-Ramrod Br (S)	8	00:43:30	00:02:55		23.378	2.299		47.3				
N Pine Ch Br (N)	9	00:45:58	00:02:28		25.445	2.067		50.3				
Long Beach Dr	10	00:51:35	00:05:37		28.844	3.399		36.3	N/A	TS	00:00:43	2
7-Mile Br (S)	11	00:59:21	00:07:46		35.903	7.059		54.5				2
7-Mile Br (N)	12	01:06:57	00:07:36		42.721	6.818		53.8				
Coco Plum Dr	13	01:23:17	00:16:20	00:02:44	49.993	7.272	0.576	29.5	N/A	LT(2),TS(3),:	00:04:44	14
Toms Harbor Ch Br (S)	14	01:30:27	00:07:10		56.418	6.425		53.8				
Long Key Br (S)	15	01:33:15	00:02:48		59.068	2.650		56.8				
Channel #2 Br (N)	16	01:44:33	00:11:18		68.946	9.878		52.4				
Lignum V Br (S)	17	01:50:38	00:06:05	00:00:30	73.433	4.487	0.117	47.0		SB	00:00:30	
Teatable Relf Br (N)	18	01:52:56	00:02:18		75.668	2.235		58.3				
Whale Harbor Br (S)	19	01:59:37	00:06:41		79.784	4.116		37.0				
Snake Creek Br (N)	20	02:02:28	00:02:51		81.662	1.878		39.5				
Ocean Blvd	21	02:10:52	00:08:24	00:00:22	87.415	5.753	0.032	42.7		SB	00:00:22	2
Atlantic Blvd	22	02:22:04	00:11:12		95.482	8.067		43.2		TS	00:01:20	8
C-905	23	02:34:26	00:12:22	00:00:18	102.321	6.839	0.035	33.8	N/A	TS(3),SB,:	00:03:23	15
County Line sign	24	02:41:46	00:07:20		108.564	6.243		51.1				
Card Sound Rd	25	02:56:32	00:14:46		122.468	13.904		56.5				
OVERALL		------	02:41:46	00:03:54	------	108.564	0.760	41.0			00:11:30	48

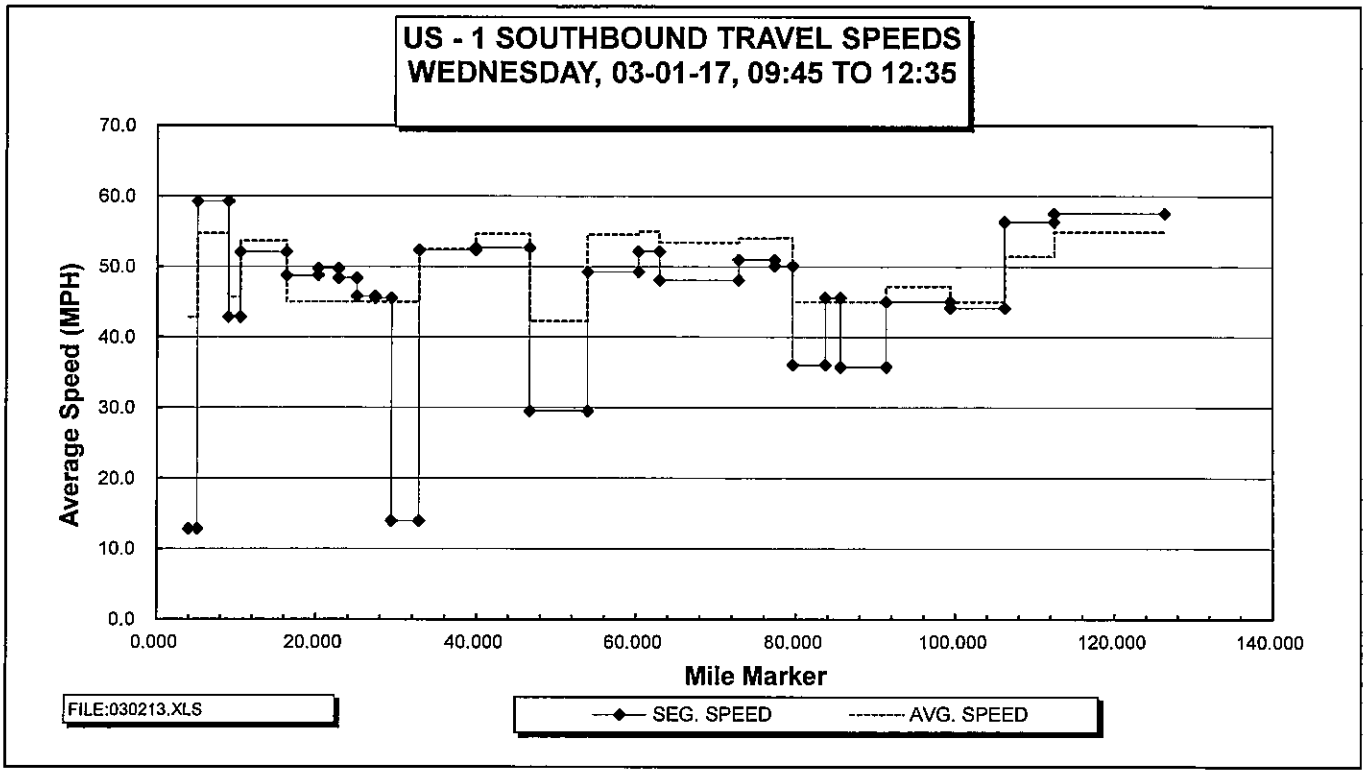
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-01-17, 13:45 TO 16:40
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Wednesday, March 1, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	09:45:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	12:35:56 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	———	0.000	0.000	-----	----	-	—	-------	-
County Line sign	25	1	00:14:30	00:14:30		13.902	13.902		57.5				
C-905	24	2	00:21:09	00:06:39		20.145	6.243		56.3				
Atlantic Blvd	23	3	00:30:27	00:09:18		26.983	6.838		44.1	10+	TS	00:00:45	11
Ocean Blvd	22	4	00:41:11	00:10:44		35.036	8.053		45.0	10+	TS	00:00:35	11
Snake Creek Br (N)	21	5	00:50:50	00:09:39		40.789	5.753		35.8	10+	CG	00:01:03	1
Whale Harbor Br (S)	20	6	00:53:18	00:02:28		42.663	1.874		45.6				
Teatable Relf Br (N)	19	7	01:00:09	00:06:51		46.779	4.116		36.1	10+	CG	00:01:00	
Lignum V Br (S)	18	8	01:02:50	00:02:41		49.018	2.239		50.1				
Channel #2 Br (N)	17	9	01:08:06	00:05:16		53.491	4.473		51.0				
Long Key Br (S)	16	10	01:20:27	00:12:21		63.382	9.891		48.1				
Toms Harbor Ch Br (S)	15	11	01:23:30	00:03:03		66.033	2.651		52.2				
Coco Plum Dr	14	12	01:31:19	00:07:49		72.448	6.415		49.2	3	TS	00:00:08	
7-Mile Br (N)	13	13	01:46:06	00:14:47		79.725	7.277		29.5	10+	TS,CG	00:04:11	8
7-Mile Br (S)	12	14	01:53:52	00:07:46		86.539	6.814		52.6				
Long Beach Dr	11	15	02:01:56	00:08:04		93.576	7.037		52.3				-2
N Pine Ch Br (N)	10	16	02:16:37	00:14:41		96.987	3.411		13.9	10+	TS	00:11:58	
Torch-Ramrod Br (S)	9	17	02:19:20	00:02:43		99.049	2.062		45.5				
E Shore Dr	8	18	02:22:21	00:03:01		101.351	2.302		45.8				
Spanish Main Dr	7	19	02:25:07	00:02:46		103.581	2.230		48.4				
Bow Channel Br (N)	6	20	02:28:11	00:03:04		106.123	2.542		49.7				
Harris Ch Br (N)	5	21	02:33:05	00:04:54		110.104	3.981		48.7				
Boca Chica Rd	4	22	02:39:45	00:06:40		115.890	5.786		52.1				
Rockland Dr	3	23	02:41:52	00:02:07		117.402	1.512		42.9				
Key Haven Blvd	2	24	02:45:49	00:03:57		121.303	3.901		59.3				3
Cow Key Bridge (N)	1	25	02:50:56	00:05:07		122.398	1.095		12.8	10+	TS	00:04:17	-1
OVERALL			———	02:36:26	00:00:00	-------	108.496	0.000	41.6			00:23:57	31

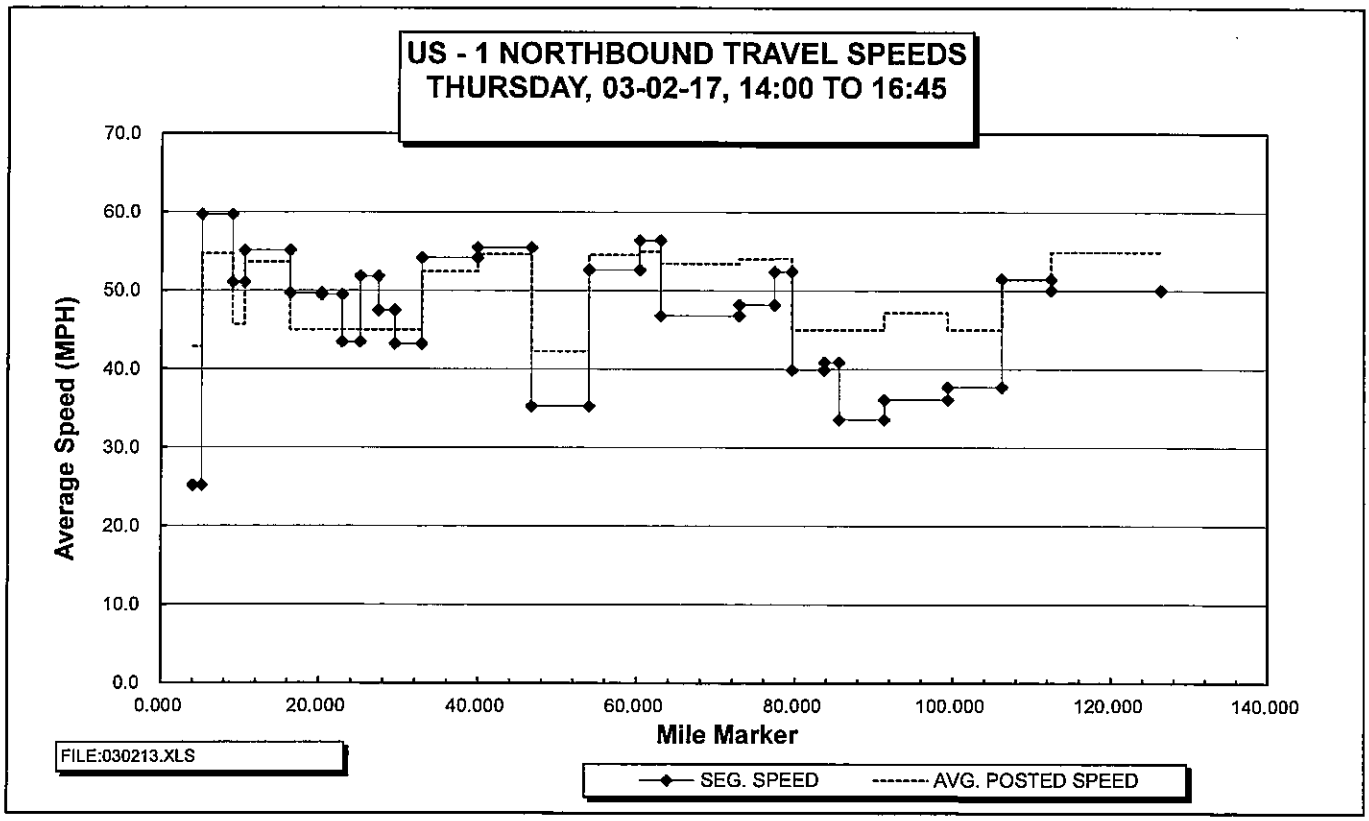
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-01-17, 09:45 TO 12:35
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Thursday, March 2, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	02:00:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	04:42:13 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	——	0.000	0.000	----	----	-	--	-------	-
Key Haven Blvd	1	00:02:41	00:02:41		1.127	1.127		25.2	10+	TS(2)	00:01:04	-1
Rockland Dr	2	00:06:36	00:03:55		5.023	3.896		59.7				2
Boca Chica Rd	3	00:08:23	00:01:47		6.540	1.517		51.0				
Harris Ch Br (N)	4	00:14:41	00:06:18		12.326	5.786		55.1				
Bow Channel Br (N)	5	00:19:29	00:04:48		16.300	3.974		49.7				
Spanish Main Dr	6	00:22:35	00:03:06		18.855	2.555		49.5				
E Shore Dr	7	00:25:39	00:03:04		21.075	2.220		43.4				
Torch-Ramrod Br (S)	8	00:28:19	00:02:40		23.378	2.303		51.8				
N Pine Ch Br (N)	9	00:30:55	00:02:36		25.435	2.057		47.5				
Long Beach Dr	10	00:35:39	00:04:44		28.845	3.410		43.2				
7-Mile Br (S)	11	00:43:28	00:07:49		35.902	7.057		54.2				3
7-Mile Br (N)	12	00:50:50	00:07:22		42.713	6.811		55.5				
Coco Plum Dr	13	01:03:12	00:12:22		49.983	7.270		35.3	N/A	SZ,TS(3)	00:02:15	12
Toms Harbor Ch Br (S)	14	01:10:31	00:07:19		56.400	6.417		52.6				
Long Key Br (S)	15	01:13:21	00:02:50		59.062	2.662		56.4				
Channel #2 Br (N)	16	01:26:39	00:13:18	00:00:57	68.947	9.885	0.253	46.8	10+	RT,SE	00:01:06	
Lignum V Br (S)	17	01:32:13	00:05:34		73.418	4.471		48.2				
Teatable Reif Br (N)	18	01:34:47	00:02:34		75.660	2.242		52.4				
Whale Harbor Br (S)	19	01:40:59	00:06:12		79.784	4.124		39.9	N/A	LT	00:00:11	
Snake Creek Br (N)	20	01:43:44	00:02:45		81.656	1.872		40.8				
Ocean Blvd	21	01:54:00	00:10:16		87.401	5.745		33.6	10+	TS(2)	00:00:57	1
Atlantic Blvd	22	02:07:23	00:13:23		95.451	8.050		36.1	10+	TS	00:03:52	
C-905	23	02:18:17	00:10:54		102.299	6.848		37.7	10+	TS	00:02:24	4
County Line sign	24	02:25:33	00:07:16		108.533	6.234		51.5				
Card Sound Rd	25	02:42:13	00:16:40		122.436	13.903		50.1				
OVERALL		--------	02:25:33	00:00:57	——	108.533	0.253	44.9			00:11:49	21

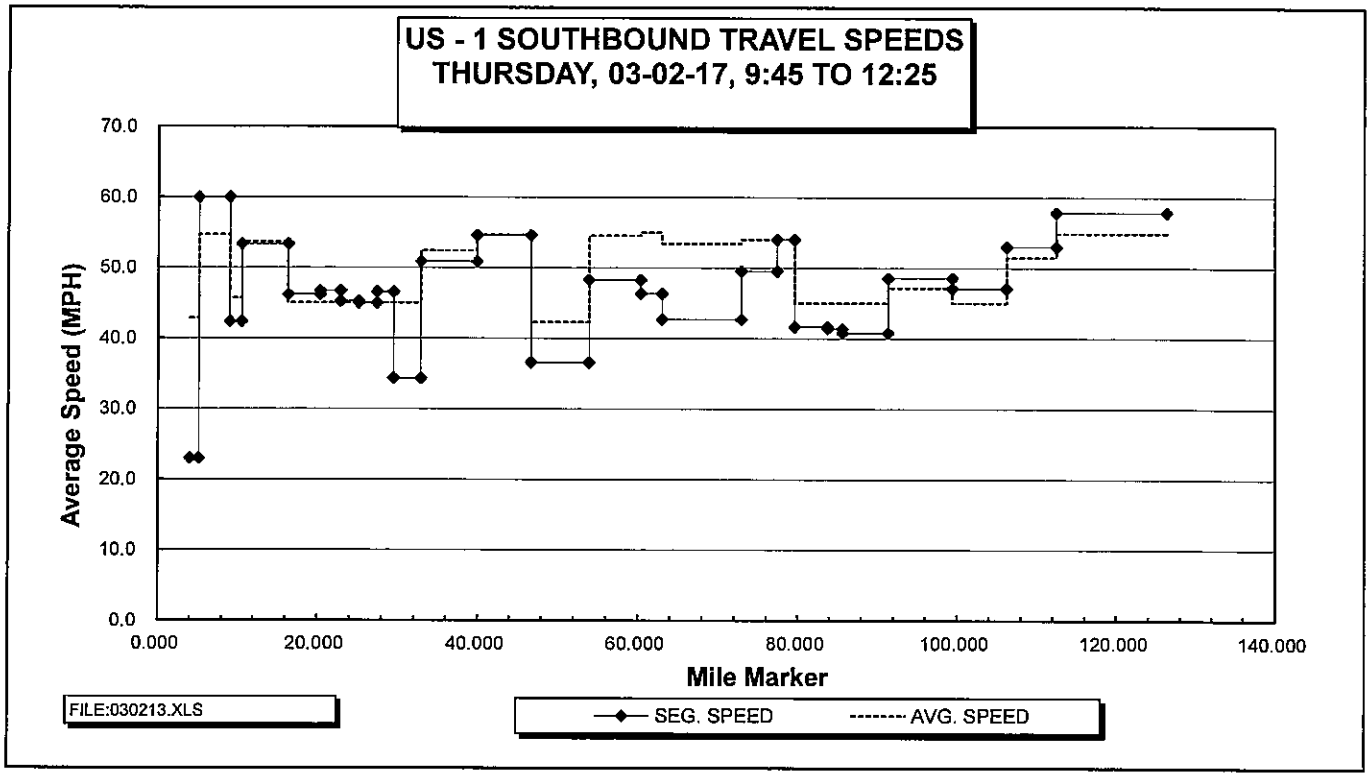
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
THURSDAY, 03-02-17, 14:00 TO 16:45
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Thursday, March 2, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	9:45:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	12:25:51 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00		0.000	0.000						
County Line sign	25	1	00:14:25	00:14:25		13.901	13.901		57.9				
C-905	24	2	00:21:29	00:07:04		20.146	6.245		53.0				
Atlantic Blvd	23	3	00:30:11	00:08:42		26.972	6.826		47.1	10+	TS	00:00:10	13
Ocean Blvd	22	4	00:40:08	00:09:57		35.028	8.056		48.6	5	LT	00:00:05	12
Snake Creek Br (N)	21	5	00:48:36	00:08:28		40.785	5.757		40.8	10+	TS	00:00:17	4
Whale Harbor Br (S)	20	6	00:51:18	00:02:42		42.648	1.863		41.4				
Teatable Reif Br (N)	19	7	00:57:14	00:05:56		46.768	4.120		41.7				
Lignum V Br (S)	18	8	00:59:43	00:02:29		49.004	2.236		54.0				
Channel #2 Br (N)	17	9	01:05:09	00:05:26		53.489	4.485		49.5				
Long Key Br (S)	16	10	01:23:09	00:18:00	00:04:40	63.366	9.877	0.390	42.7	10+	EV(2)	00:04:40	
Toms Harbor Ch Br (S)	15	11	01:26:36	00:03:27		66.029	2.663		46.3	10+	LT	00:00:14	
Coco Plum Dr	14	12	01:34:34	00:07:58		72.437	6.408		48.3				
7-Mile Br (N)	13	13	01:46:31	00:11:57		79.721	7.284		36.6	10+	TS(3),LT	00:01:26	17
7-Mile Br (S)	12	14	01:54:00	00:07:29		86.532	6.811		54.6				
Long Beach Dr	11	15	02:02:18	00:08:18		93.570	7.038		50.9				1
N Pine Ch Br (N)	10	16	02:08:17	00:05:59		96.992	3.422		34.3	10+	TS	00:00:35	
Torch-Ramrod Br (S)	9	17	02:10:56	00:02:39		99.049	2.057		46.6				
E Shore Dr	8	18	02:14:00	00:03:04		101.349	2.300		45.0				
Spanish Main Dr	7	19	02:16:57	00:02:57		103.573	2.224		45.2				
Bow Channel Br (N)	6	20	02:20:13	00:03:16		106.116	2.543		46.7				
Harris Ch Br (N)	5	21	02:25:23	00:05:10		110.093	3.977		46.2	4	TS	00:00:15	
Boca Chica Rd	4	22	02:31:54	00:06:31		115.885	5.792		53.3				
Rockland Dr	3	23	02:34:02	00:02:08		117.391	1.506		42.4				
Key Haven Blvd	2	24	02:37:56	00:03:54		121.290	3.899		60.0				3
Cow Key Bridge (N)	1	25	02:40:51	00:02:55		122.408	1.118		23.0	10+	TS(3)	00:01:05	
OVERALL				02:26:26	00:04:40		108.507	0.390	45.8			00:08:47	50

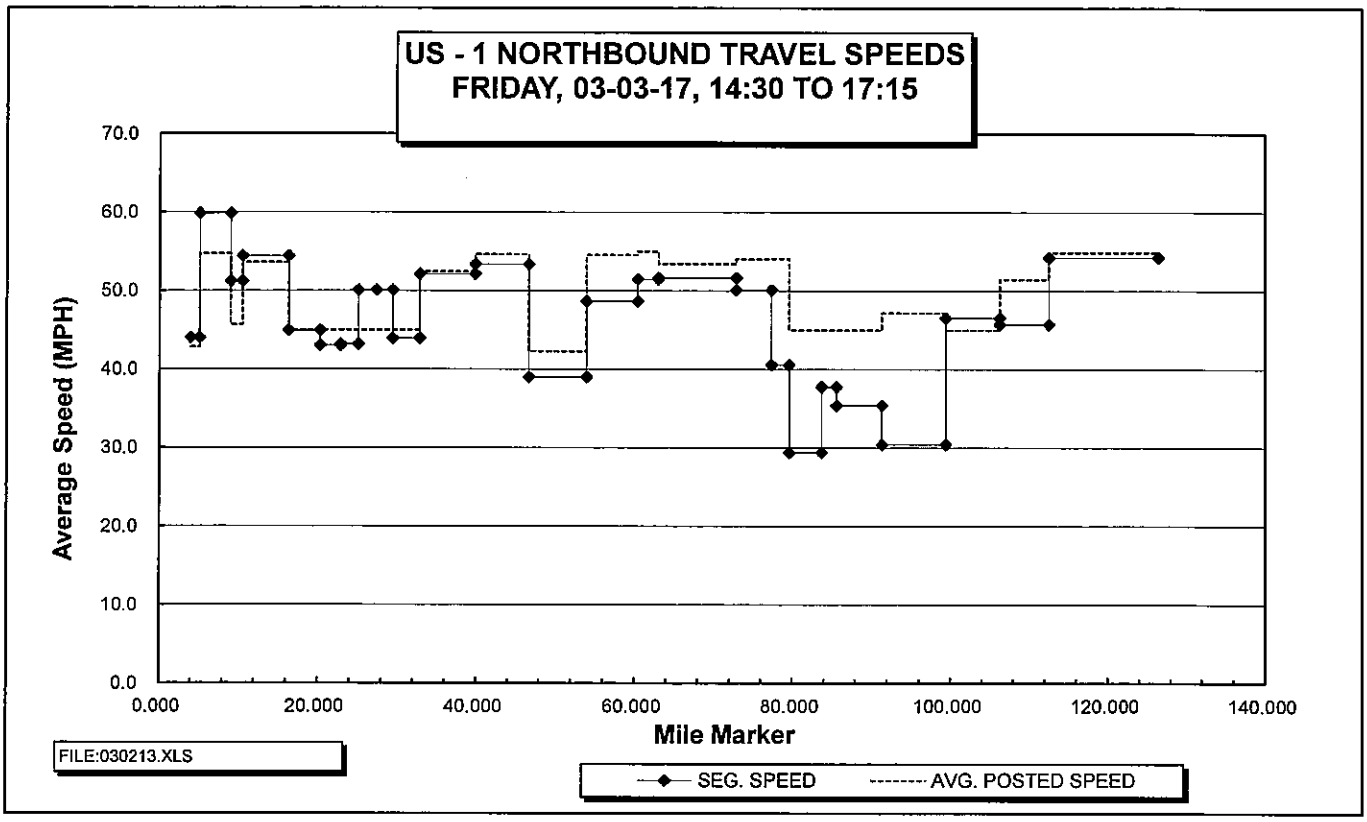
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
THURSDAY, 03-02-17, 9:45 TO 12:25
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny/Rainy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Friday, March 3, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	02:30:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	05:13:43 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-------	0.000	0.000	----	----	-	--	----	-
Key Haven Blvd	1	00:01:32	00:01:32		1.125	1.125		44.0				5
Rockland Dr	2	00:05:27	00:03:55		5.032	3.907		59.9				1
Boca Chica Rd	3	00:07:13	00:01:46		6.540	1.508		51.2				
Harris Ch Br (N)	4	00:13:36	00:06:23		12.329	5.789		54.4				
Bow Channel Br (N)	5	00:18:54	00:05:18		16.298	3.969		44.9				
Spanish Main Dr	6	00:22:27	00:03:33		18.843	2.545		43.0				
E Shore Dr	7	00:25:33	00:03:06		21.074	2.231		43.2	N/A	RT	00:00:07	
Torch-Ramrod Br (S)	8	00:28:18	00:02:45		23.369	2.295		50.1				
N Pine Ch Br (N)	9	00:30:46	00:02:28		25.428	2.059		50.1				
Long Beach Dr	10	00:35:42	00:04:56	00:00:21	28.850	3.422	0.066	43.9	10+	SE	00:00:21	
7-Mile Br (S)	11	00:43:49	00:08:07		35.901	7.051		52.1				4
7-Mile Br (N)	12	00:51:29	00:07:40		42.719	6.818		53.4				
Coco Plum Dr	13	01:02:40	00:11:11		49.985	7.266		39.0	8	SZ,TS(2	00:01:02	9
Toms Harbor Ch Br (S)	14	01:11:02	00:08:22	00:00:29	56.414	6.429	0.036	48.7	10+	SB	00:00:29	-1
Long Key Br (S)	15	01:14:07	00:03:05		59.057	2.643		51.4				
Channel #2 Br (N)	16	01:25:37	00:11:30		68.952	9.895		51.6				
Lignum V Br (S)	17	01:30:58	00:05:21		73.420	4.468		50.1				
Teatable Relf Br (N)	18	01:34:17	00:03:19		75.662	2.242		40.6				
Whale Harbor Br (S)	19	01:42:41	00:08:24		79.776	4.114		29.4	10+	CG(2),LT,	00:02:06	
Snake Creek Br (N)	20	01:45:40	00:02:59		81.653	1.877		37.7				
Ocean Blvd	21	01:55:26	00:09:46		87.412	5.759		35.4	10+	LT,TS	00:00:22	5
Atlantic Blvd	22	02:11:20	00:15:54		95.472	8.060		30.4	10+	TS	00:07:31	1
C-905	23	02:20:09	00:08:49		102.309	6.837		46.5				5
County Line sign	24	02:28:21	00:08:12		108.558	6.249		45.7	10+	CG(2)	00:01:22	
Card Sound Rd	25	02:43:43	00:15:22		122.456	13.898		54.3				
OVERALL		--------	02:28:21	00:00:50	----	108.558	0.102	44.1			00:13:20	29

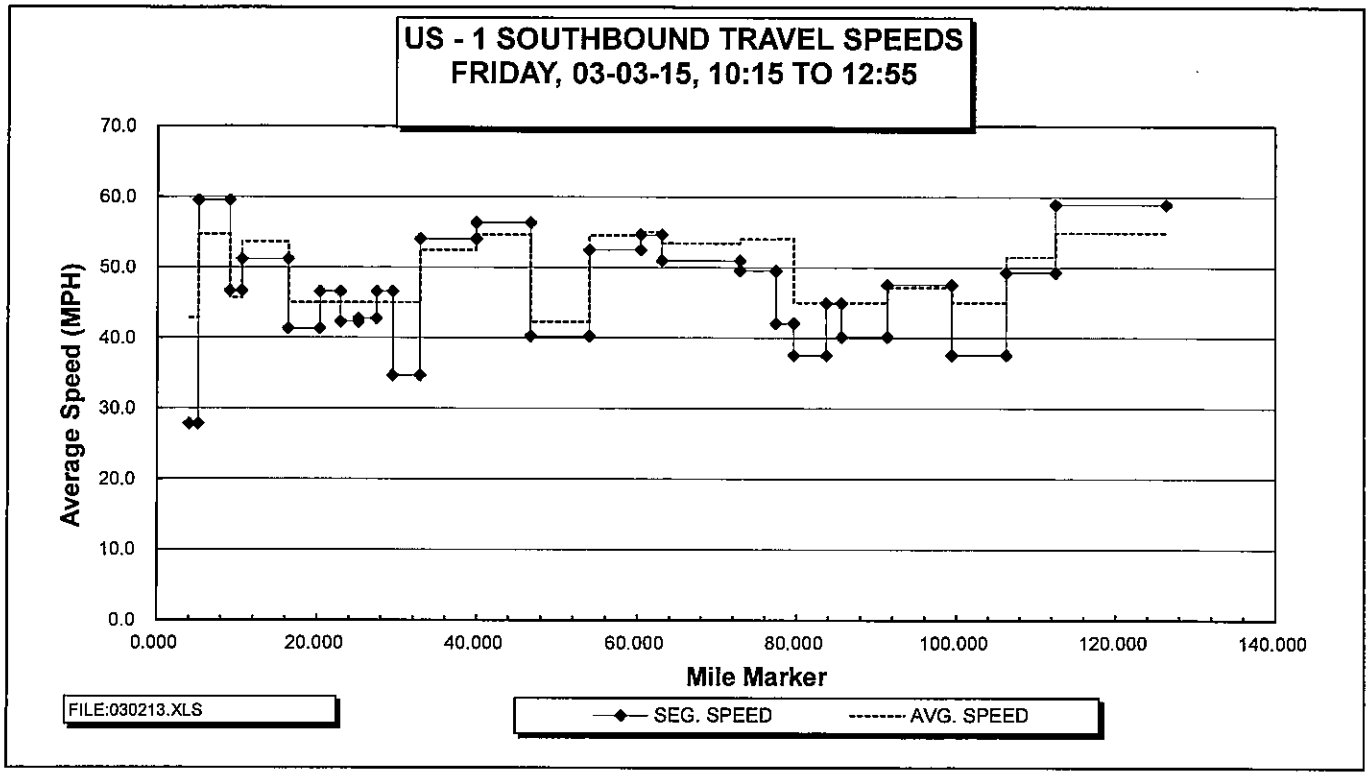
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
FRIDAY, 03-03-17, 14:30 TO 17:15
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Friday, March 3, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	10:15:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	12:53:04 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	——	0.000	0.000	——	---	-	–	——	-
County Line sign	25	1	00:14:09	00:14:09		13.893	13.893		58.9				
C-905	24	2	00:21:45	00:07:36		20.134	6.241		49.3				
Atlantic Blvd	23	3	00:32:41	00:10:56		26.983	6.849		37.6	10+	TS(2)	00:02:37	10
Ocean Blvd	22	4	00:42:50	00:10:09		35.026	8.043		47.5	10+	TS	00:00:15	-4
Snake Creek Br (N)	21	5	00:53:30	00:10:40	00:02:56	40.780	5.754	0.579	40.2	10+	TS,AC	00:03:05	-1
Whale Harbor Br (S)	20	6	00:56:00	00:02:30		42.651	1.871		44.9				
Teatable Relf Br (N)	19	7	01:02:34	00:06:34		46.761	4.110		37.6				
Lignum V Br (S)	18	8	01:05:46	00:03:12		49.004	2.243		42.1				
Channel #2 Br (N)	17	9	01:11:12	00:05:26		53.491	4.487		49.5				
Long Key Br (S)	16	10	01:22:50	00:11:38		63.367	9.876		50.9				
Toms Harbor Ch Br (S)	15	11	01:25:45	00:02:55		66.022	2.655		54.6				
Coco Plum Dr	14	12	01:33:05	00:07:20		72.434	6.412		52.5				
7-Mile Br (N)	13	13	01:43:56	00:10:51		79.715	7.281		40.3	10+	TS	00:00:11	12
7-Mile Br (S)	12	14	01:51:11	00:07:15		86.521	6.806		56.3				
Long Beach Dr	11	15	01:59:01	00:07:50		93.573	7.052		54.0				3
N Pine Ch Br (N)	10	16	02:04:55	00:05:54		96.983	3.410		34.7	10+	TS,LT	00:00:35	
Torch-Ramrod Br (S)	9	17	02:07:34	00:02:39		99.040	2.057		46.6				
E Shore Dr	8	18	02:10:47	00:03:13		101.332	2.292		42.8				
Spanish Main Dr	7	19	02:13:57	00:03:10		103.564	2.232		42.3				
Bow Channel Br (N)	6	20	02:17:14	00:03:17		106.113	2.549		46.6				
Harris Ch Br (N)	5	21	02:23:00	00:05:46		110.085	3.972		41.3	10+	LT	00:00:15	
Boca Chica Rd	4	22	02:29:47	00:06:47		115.871	5.786		51.2				
Rockland Dr	3	23	02:31:43	00:01:56		117.375	1.504		46.7				
Key Haven Blvd	2	24	02:35:39	00:03:56		121.276	3.901		59.5				-1
Cow Key Bridge (N)	1	25	02:38:04	00:02:25		122.396	1.120		27.8	10+	TS(2)	00:00:38	5
OVERALL			——	02:23:55	00:00:00	——	108.503	0.000	45.2			00:07:36	24

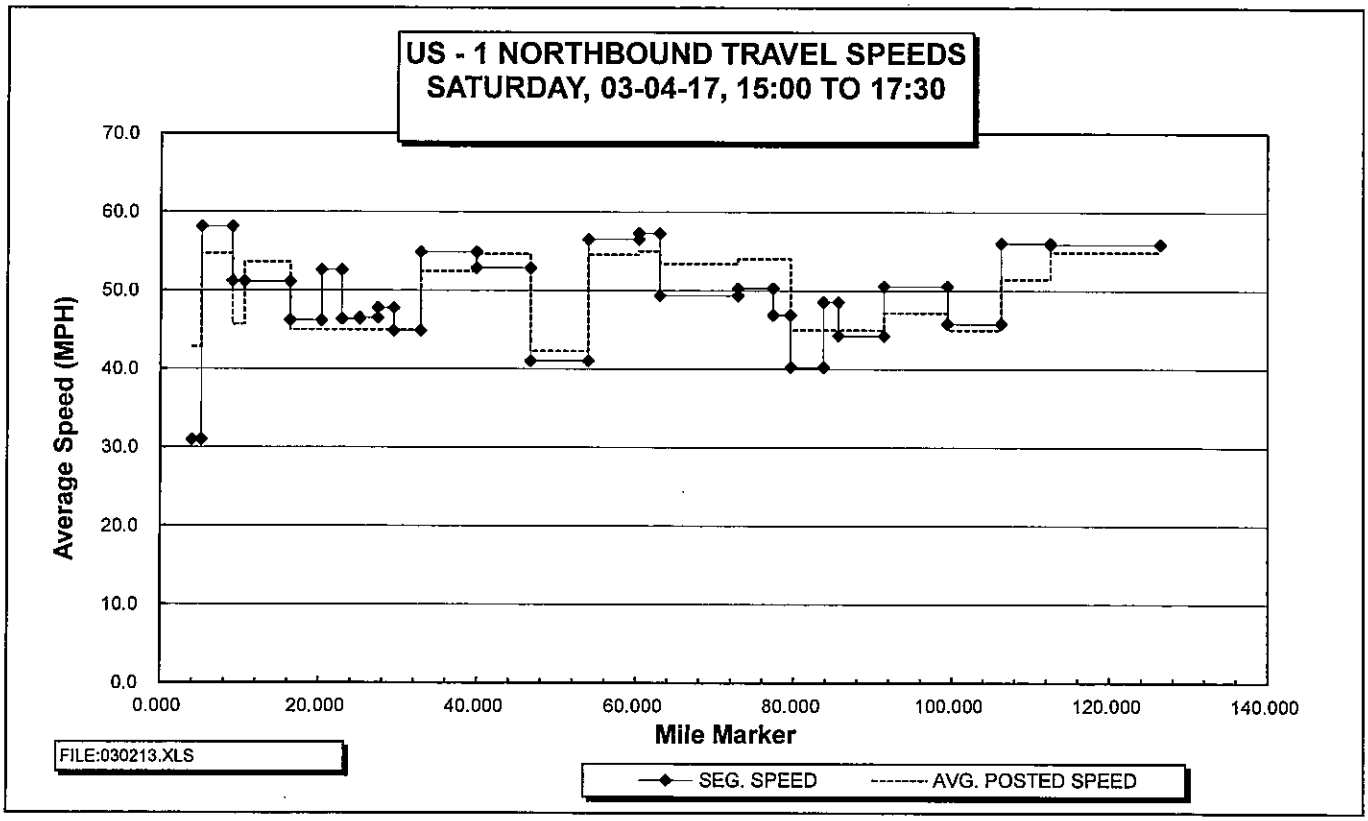
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
FRIDAY, 03-03-15, 10:15 TO 12:55
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROADWDIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Saturday, March 4, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	03:00:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	05:28:10 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	——	0.000	0.000	-----	——	-	—	--------	-
Key Haven Blvd	1	00:02:12	00:02:12		1.136	1.136		31.0	N/A	TS	00:00:31	3
Rockland Dr	2	00:06:13	00:04:01		5.028	3.892		58.1				
Boca Chica Rd	3	00:08:00	00:01:47		6.549	1.521		51.2				
Harris Ch Br (N)	4	00:14:48	00:06:48		12.341	5.792		51.1				
Bow Channel Br (N)	5	00:19:57	00:05:09		16.305	3.964		46.2				
Spanish Main Dr	6	00:22:52	00:02:55		18.863	2.558		52.6				
E Shore Dr	7	00:25:44	00:02:52		21.077	2.214		46.3				
Torch-Ramrod Br (S)	8	00:28:43	00:02:59		23.389	2.312		46.5				
N Pine Ch Br (N)	9	00:31:18	00:02:35		25.445	2.056		47.8				
Long Beach Dr	10	00:35:52	00:04:34		28.861	3.416		44.9				
7-Mile Br (S)	11	00:43:34	00:07:42		35.905	7.044		54.9				-3
7-Mile Br (N)	12	00:51:18	00:07:44		42.717	6.812		52.9				
Coco Plum Dr	13	01:01:57	00:10:39		49.998	7.281		41.0		TS	00:00:38	16
Toms Harbor Ch Br (S)	14	01:08:46	00:06:49		56.419	6.421		56.5				
Long Key Br (S)	15	01:11:32	00:02:46		59.061	2.642		57.3				
Channel #2 Br (N)	16	01:23:34	00:12:02		68.960	9.899		49.4				
Lignum V Br (S)	17	01:28:54	00:05:20		73.431	4.471		50.3				
Teatable Reif Br (N)	18	01:31:46	00:02:52		75.672	2.241		46.9				
Whale Harbor Br (S)	19	01:37:55	00:06:09		79.794	4.122		40.2				
Snake Creek Br (N)	20	01:40:14	00:02:19		81.669	1.875		48.6				
Ocean Blvd	21	01:48:02	00:07:48		87.423	5.754		44.3	5	TS	00:00:16	2
Atlantic Blvd	22	01:57:36	00:09:34		95.482	8.059		50.5				14
C-905	23	02:06:34	00:08:58		102.323	6.841		45.8	10+	TS	00:00:24	
County Line sign	24	02:13:15	00:06:41		108.567	6.244		56.1				
Card Sound Rd	25	02:28:10	00:14:55		122.465	13.898		55.9				
OVERALL		——	02:13:15	00:00:00	------	108.567	0.000	48.9			00:01:49	32

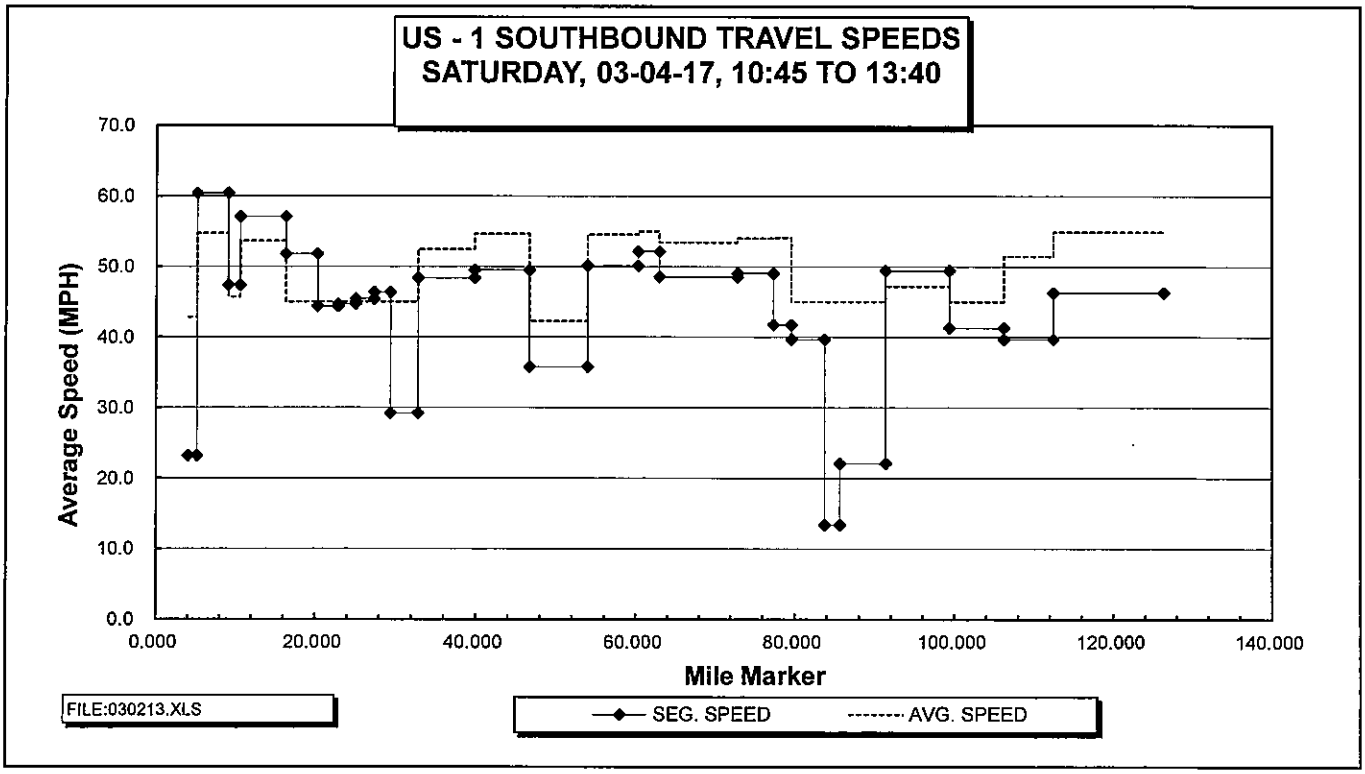
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
SATURDAY, 03-04-17, 15:00 TO 17:30
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Saturday, March 4, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	10:45:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	01:41:43 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	——	0.000	0.000	——	——	-	—	——	-
County Line sign	25	1	00:18:00	00:18:00		13.890	13.890		46.3				
C-905	24	2	00:27:26	00:09:26		20.130	6.240		39.7	10+	CG(2)	00:01:14	
Atlantic Blvd	23	3	00:37:22	00:09:56		26.965	6.835		41.3	10+	TS(2)	00:01:13	18
Ocean Blvd	22	4	00:47:08	00:09:46		35.011	8.046		49.4	8	TS	00:00:16	-1
Snake Creek Br (N)	21	5	01:02:46	00:15:38		40.763	5.752		22.1	10+	TS,CG(3)	00:10:26	2
Whale Harbor Br (S)	20	6	01:11:08	00:08:22		42.632	1.869		13.4	10+	CG	00:08:06	
Teatable Relf Br (N)	19	7	01:17:22	00:06:14		46.755	4.123		39.7				
Lignum V Br (S)	18	8	01:20:35	00:03:13		48.992	2.237		41.7	10+	LT	00:00:19	
Channel #2 Br (N)	17	9	01:26:04	00:05:29		53.473	4.481		49.0				
Long Key Br (S)	16	10	01:38:17	00:12:13		63.351	9.878		48.5				
Toms Harbor Ch Br (S)	15	11	01:41:20	00:03:03		66.001	2.650		52.1				
Coco Plum Dr	14	12	01:49:00	00:07:40		72.403	6.402		50.1				
7-Mile Br (N)	13	13	02:01:13	00:12:13		79.685	7.282		35.8		TS(2), L	00:00:39	1
7-Mile Br (S)	12	14	02:09:29	00:08:16		86.505	6.820		49.5				
Long Beach Dr	11	15	02:18:12	00:08:43		93.533	7.028		48.4				2
N Pine Ch Br (N)	10	16	02:25:14	00:07:02		96.956	3.423		29.2	10+	TS	00:02:25	
Torch-Ramrod Br (S)	9	17	02:27:54	00:02:40		99.016	2.060		46.3				
E Shore Dr	8	18	02:30:56	00:03:02		101.313	2.297		45.4				
Spanish Main Dr	7	19	02:33:55	00:02:59		103.536	2.223		44.7				
Bow Channel Br (N)	6	20	02:37:22	00:03:27		106.087	2.551		44.4				
Harris Ch Br (N)	5	21	02:41:59	00:04:37		110.070	3.983		51.8				
Boca Chica Rd	4	22	02:48:04	00:06:05		115.855	5.785		57.1				
Rockland Dr	3	23	02:49:58	00:01:54		117.355	1.500		47.4				
Key Haven Blvd	2	24	02:53:51	00:03:53		121.263	3.908		60.4				2
Cow Key Bridge (N)	1	25	02:56:43	00:02:52		122.372	1.109		23.2	10+	TS(3)	00:01:11	
OVERALL			——	02:38:43	00:00:00	——	108.482	0.000	41.0			00:25:49	24

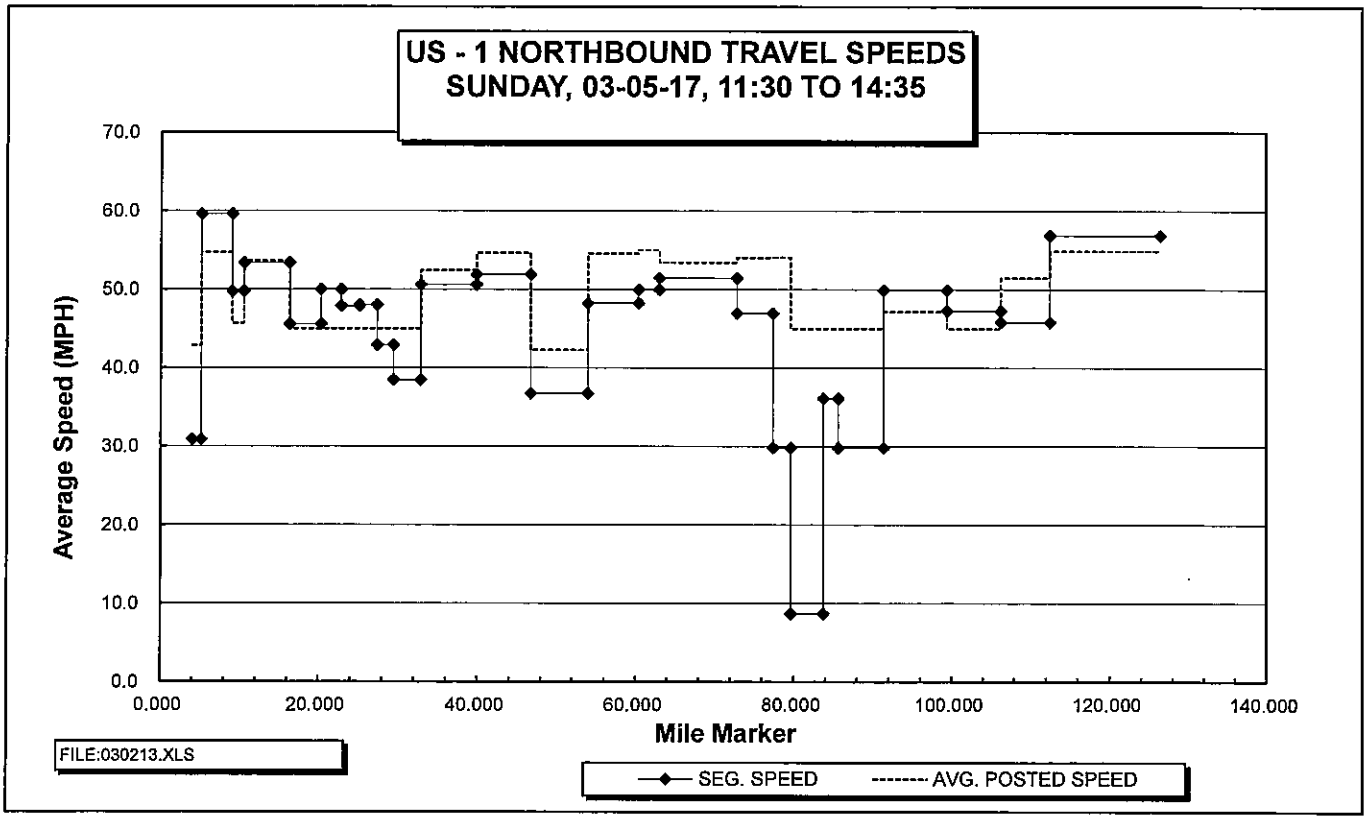
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
SATURDAY, 03-04-17, 10:45 TO 13:40
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Sunday, March 5, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	11:30:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	02:32:40 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	--------	0.000	0.000	----	----	-	--	------	-
Key Haven Blvd	1	00:02:11	00:02:11		1.124	1.124		30.9	N/A	TS	00:00:31	1
Rockland Dr	2	00:06:07	00:03:56		5.030	3.906		59.6				4
Boca Chica Rd	3	00:07:56	00:01:49		6.536	1.506		49.7				
Harris Ch Br (N)	4	00:14:27	00:06:31		12.333	5.797		53.4				
Bow Channel Br (N)	5	00:19:41	00:05:14		16.306	3.973		45.6	N/A	TS	00:00:26	
Spanish Main Dr	6	00:22:44	00:03:03		18.848	2.542		50.0				
E Shore Dr	7	00:25:32	00:02:48		21.081	2.233		47.8				
Torch-Ramrod Br (S)	8	00:28:24	00:02:52		23.375	2.294		48.0				
N Pine Ch Br (N)	9	00:31:17	00:02:53		25.437	2.062		42.9				
Long Beach Dr	10	00:36:37	00:05:20		28.855	3.418		38.5	3	TS	00:00:06	2
7-Mile Br (S)	11	00:44:58	00:08:21		35.895	7.040		50.6				3
7-Mile Br (N)	12	00:53:35	00:08:37	00:00:59	42.717	6.822	0.225	51.9	10+	SE	00:00:59	
Coco Plum Dr	13	01:05:27	00:11:52		49.979	7.262		36.7	10+	TS(2)	00:00:49	4
Toms Harbor Ch Br (S)	14	01:13:26	00:07:59		56.395	6.416		48.2				
Long Key Br (S)	15	01:16:38	00:03:12		59.058	2.663		49.9				
Channel #2 Br (N)	16	01:28:10	00:11:32		68.944	9.886		51.4				
Lignum V Br (S)	17	01:33:53	00:05:43		73.419	4.475		47.0				
Teatable Relf Br (N)	18	01:38:23	00:04:30		75.657	2.238		29.8	10+	CG	00:02:09	
Whale Harbor Br (S)	19	02:06:45	00:28:22		79.769	4.112		8.7	10+	CG	00:28:22	
Snake Creek Br (N)	20	02:09:52	00:03:07		81.645	1.876		36.1	10+	CG	00:01:00	
Ocean Blvd	21	02:21:27	00:11:35		87.398	5.753		29.8	N/A	CG(5),T:	00:04:24	
Atlantic Blvd	22	02:31:08	00:09:41		95.455	8.057		49.9	N/A	TS	00:00:10	8
C-905	23	02:39:50	00:08:42		102.308	6.853		47.3				6
County Line sign	24	02:47:59	00:08:09		108.532	6.224		45.8	N/A	CG	00:00:31	
Card Sound Rd	25	03:02:40	00:14:41		122.444	13.912		56.8				
OVERALL		----	02:47:59	00:00:59	----	108.532	0.225	38.9			00:39:27	28

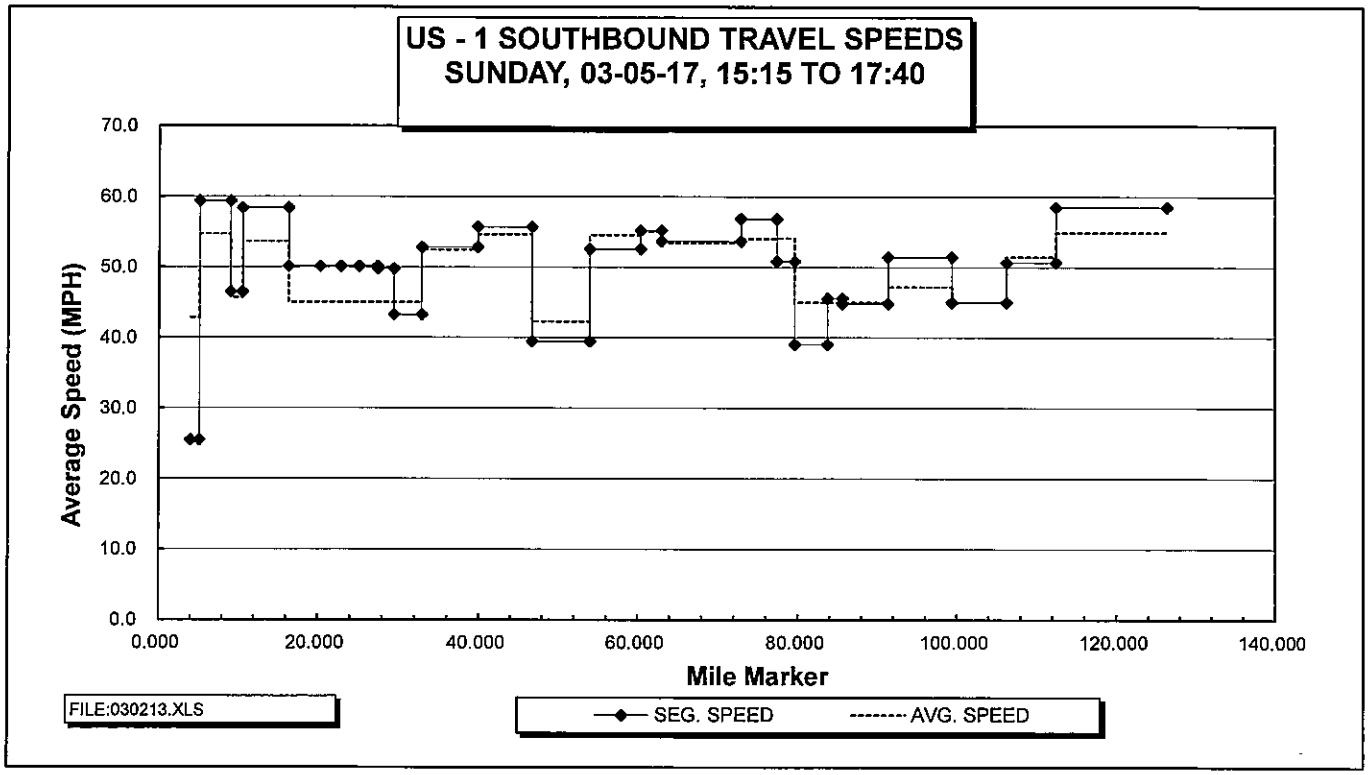
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
SUNDAY, 03-05-17, 11:30 TO 14:35
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Sunday, March 5, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	03:15:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	05:41:35 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00		0.000	0.000						
County Line sign	25	1	00:14:16	00:14:16		13.914	13.914		58.5				
C-905	24	2	00:21:39	00:07:23		20.148	6.234		50.7				
Atlantic Blvd	23	3	00:30:46	00:09:07		26.985	6.837		45.0	10+	TS	00:00:43	-2
Ocean Blvd	22	4	00:40:09	00:09:23		35.025	8.040		51.4				-1
Snake Creek Br (N)	21	5	00:47:52	00:07:43		40.792	5.767		44.8	3	TS	00:00:19	-1
Whale Harbor Br (S)	20	6	00:50:20	00:02:28		42.665	1.873		45.6				
Teatable Relf Br (N)	19	7	00:56:40	00:06:20		46.784	4.119		39.0				
Lignum V Br (S)	18	8	00:59:18	00:02:38		49.014	2.230		50.8				
Channel #2 Br (N)	17	9	01:04:02	00:04:44		53.498	4.484		56.8				
Long Key Br (S)	16	10	01:15:05	00:11:03		63.382	9.884		53.7				
Toms Harbor Ch Br (S)	15	11	01:17:58	00:02:53		66.033	2.651		55.2				
Coco Plum Dr	14	12	01:25:17	00:07:19		72.441	6.408		52.5				
7-Mile Br (N)	13	13	01:36:22	00:11:05		79.731	7.290		39.5	10+	TS,CG	00:00:53	2
7-Mile Br (S)	12	14	01:43:42	00:07:20		86.537	6.806		55.7				
Long Beach Dr	11	15	01:51:42	00:08:00		93.575	7.038		52.8				1
N Pine Ch Br (N)	10	16	01:56:27	00:04:45		96.999	3.424		43.3				
Torch-Ramrod Br (S)	9	17	01:58:56	00:02:29		99.059	2.060		49.8				
E Shore Dr	8	18	02:01:40	00:02:44		101.342	2.283		50.1				
Spanish Main Dr	7	19	02:04:20	00:02:40		103.569	2.227		50.1				
Bow Channel Br (N)	6	20	02:07:23	00:03:03		106.117	2.548		50.1				
Harris Ch Br (N)	5	21	02:12:09	00:04:46		110.099	3.982		50.1				
Boca Chica Rd	4	22	02:18:06	00:05:57		115.890	5.791		58.4				
Rockland Dr	3	23	02:20:02	00:01:56		117.388	1.498		46.5				
Key Haven Blvd	2	24	02:23:59	00:03:57		121.297	3.909		59.4				-1
Cow Key Bridge (N)	1	25	02:26:35	00:02:36		122.402	1.105		25.5	10+	TS(2)	00:00:51	
OVERALL				02:12:19	00:00:00		108.488	0.000	49.2			00:02:46	-2

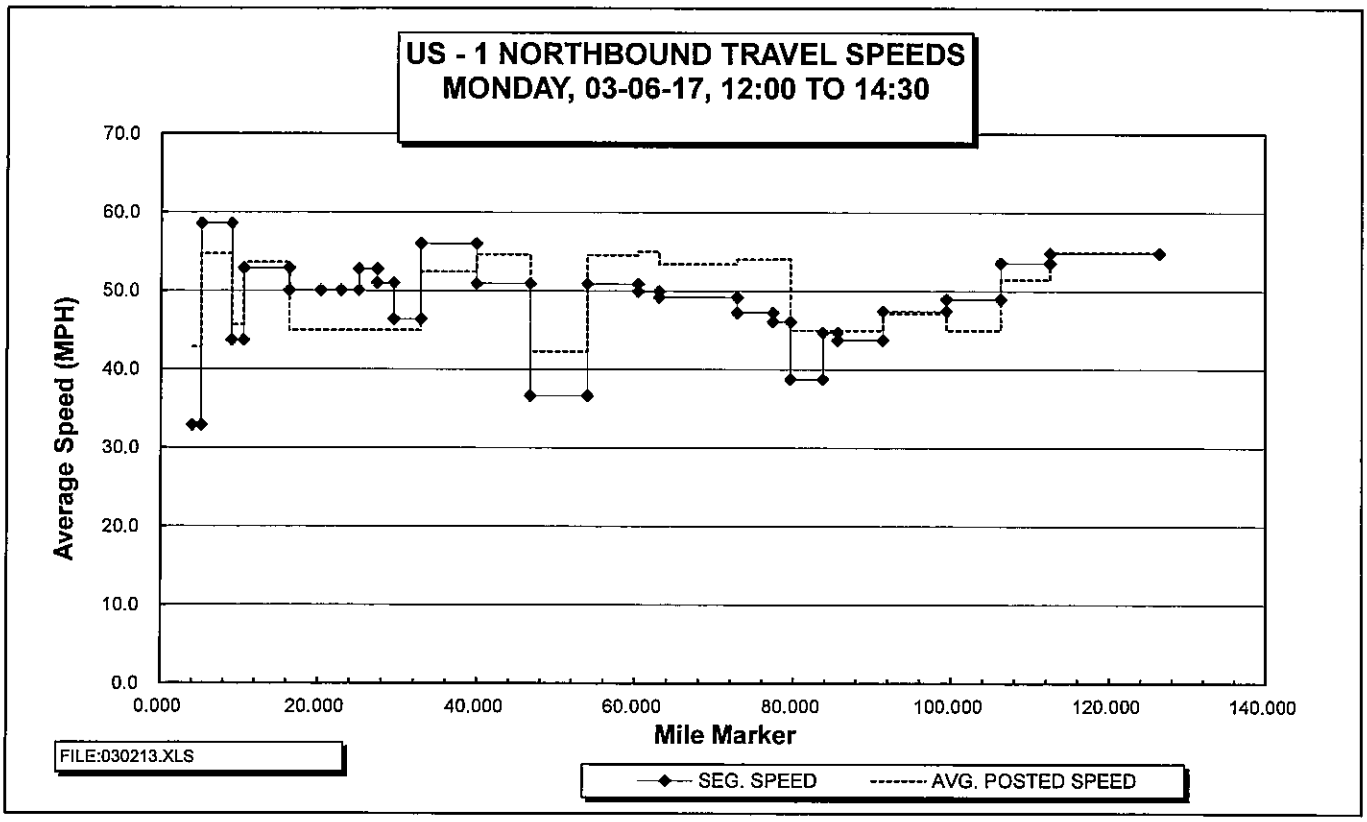
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
SUNDAY, 03-05-17, 15:15 TO 17:40
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Partially Cloudy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Monday, March 6, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	12:00:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	2:31:07 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	——	0.000	0.000	——	——	-	--	——	-
Key Haven Blvd	1	00:02:03	00:02:03		1.124	1.124		32.9	10+	TS	00:00:24	6
Rockland Dr	2	00:06:03	00:04:00		5.029	3.905		58.6				4
Boca Chica Rd	3	00:08:07	00:02:04		6.534	1.505		43.7				
Harris Ch Br (N)	4	00:14:41	00:06:34		12.322	5.788		52.9				
Bow Channel Br (N)	5	00:19:27	00:04:46		16.298	3.976		50.0				
Spanish Main Dr	6	00:22:30	00:03:03		18.843	2.545		50.1				
E Shore Dr	7	00:25:10	00:02:40		21.068	2.225		50.1				
Torch-Ramrod Br (S)	8	00:27:47	00:02:37		23.369	2.301		52.8				
N Pine Ch Br (N)	9	00:30:13	00:02:26		25.436	2.067		51.0				
Long Beach Dr	10	00:34:38	00:04:25		28.851	3.415		46.4				2
7-Mile Br (S)	11	00:42:11	00:07:33		35.900	7.049		56.0				3
7-Mile Br (N)	12	00:50:13	00:08:02		42.718	6.818		50.9				
Coco Plum Dr	13	01:02:08	00:11:55		49.993	7.275		36.6	10+	TS(2)	00:01:13	14
Toms Harbor Ch Br (S)	14	01:09:42	00:07:34		56.409	6.416		50.9				
Long Key Br (S)	15	01:12:53	00:03:11		59.059	2.650		49.9				
Channel #2 Br (N)	16	01:24:56	00:12:03		68.941	9.882		49.2				
Lignum V Br (S)	17	01:30:37	00:05:41		73.417	4.476		47.3				
Teatable Relf Br (N)	18	01:33:32	00:02:55		75.659	2.242		46.1				
Whale Harbor Br (S)	19	01:39:55	00:06:23		79.782	4.123		38.8				
Snake Creek Br (N)	20	01:42:26	00:02:31		81.657	1.875		44.7				
Ocean Blvd	21	01:50:20	00:07:54		87.416	5.759		43.7	4	TS	00:00:12	4
Atlantic Blvd	22	02:00:31	00:10:11		95.466	8.050		47.4	8	TS	00:00:37	2
C-905	23	02:08:55	00:08:24		102.321	6.855		49.0				12
County Line sign	24	02:15:54	00:06:59		108.556	6.235		53.6				
Card Sound Rd	25	02:31:07	00:15:13		122.460	13.904		54.8				
OVERALL		——	02:15:54	00:00:00	——	108.556	0.000	47.9			00:02:26	47

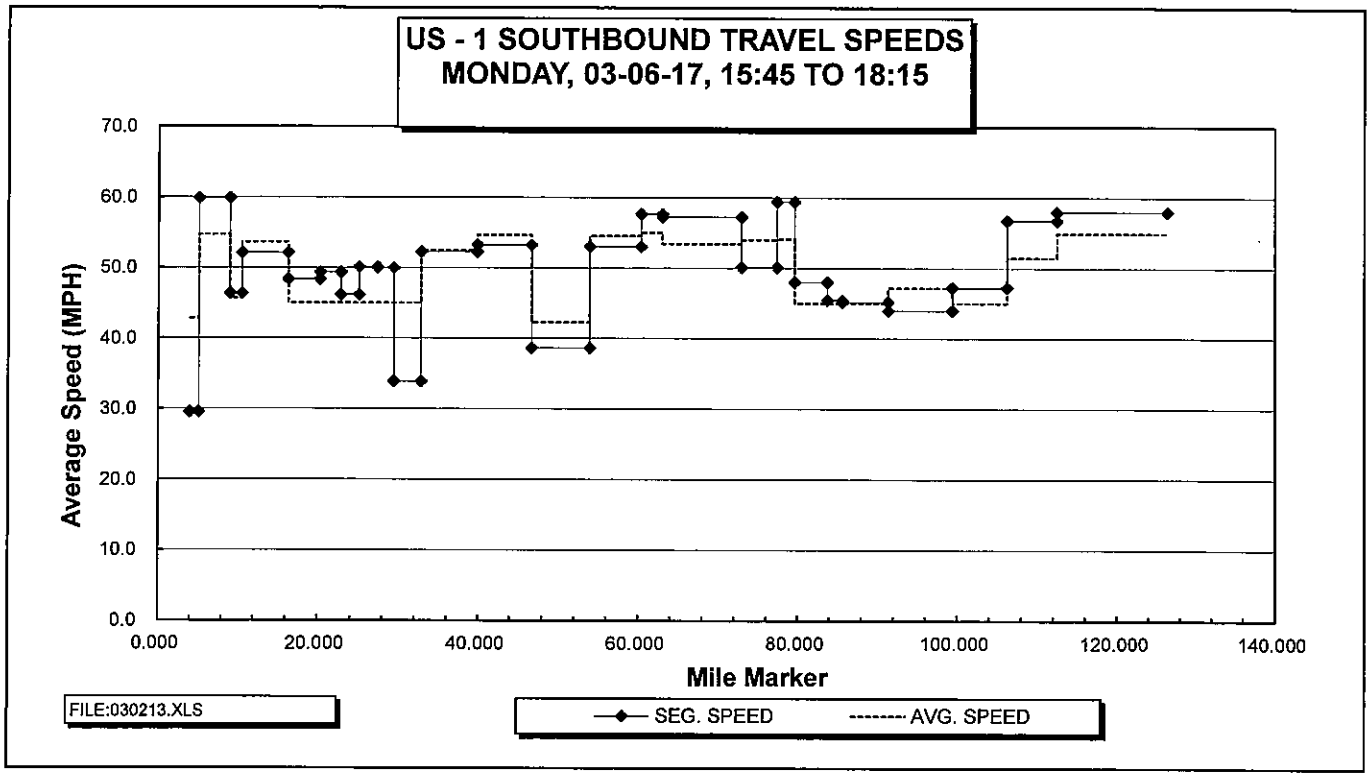
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
MONDAY, 03-06-17, 12:00 TO 14:30
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Cloudy/Rainy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Monday, March 6, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	03:45:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	06:13:00 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	——	0.000	0.000	——	---	-	--	——	-
County Line sign	25	1	00:14:23	00:14:23		13.897	13.897		58.0				
C-905	24	2	00:20:59	00:06:36		20.137	6.240		56.7				
Atlantic Blvd	23	3	00:29:40	00:08:41		26.971	6.834		47.2				8
Ocean Blvd	22	4	00:40:40	00:11:00		35.031	8.060		44.0	10+	TS	00:01:14	-1
Snake Creek Br (N)	21	5	00:48:18	00:07:38		40.780	5.749		45.2				
Whale Harbor Br (S)	20	6	00:50:47	00:02:29		42.662	1.882		45.5				
Teatable Reif Br (N)	19	7	00:55:56	00:05:09		46.783	4.121		46.0				
Lignum V Br (S)	18	8	00:58:11	00:02:15		49.011	2.228		59.4				
Channel #2 Br (N)	17	9	01:03:33	00:05:22		53.491	4.480		50.1				
Long Key Br (S)	16	10	01:13:55	00:10:22		63.378	9.887		57.2				
Toms Harbor Ch Br (S)	15	11	01:16:41	00:02:46		66.036	2.658		57.6				
Coco Plum Dr	14	12	01:23:56	00:07:15		72.441	6.405		53.0				
7-Mile Br (N)	13	13	01:35:14	00:11:18		79.719	7.278		38.6	10+	TS(2)	00:01:00	5
7-Mile Br (S)	12	14	01:42:55	00:07:41		86.536	6.817		53.2				
Long Beach Dr	11	15	01:51:01	00:08:06		93.589	7.053		52.2				-2
N Pine Ch Br (N)	10	16	01:57:03	00:06:02		96.997	3.408		33.9	6	TS	00:00:52	
Torch-Ramrod Br (S)	9	17	01:59:32	00:02:29		99.065	2.068		50.0				
E Shore Dr	8	18	02:02:17	00:02:45		101.361	2.296		50.1				
Spanish Main Dr	7	19	02:05:10	00:02:53		103.579	2.218		46.2				
Bow Channel Br (N)	6	20	02:08:16	00:03:06		106.129	2.550		49.4				
Harris Ch Br (N)	5	21	02:13:12	00:04:56		110.106	3.977		48.4				
Boca Chica Rd	4	22	02:19:52	00:06:40		115.894	5.788		52.1				
Rockland Dr	3	23	02:21:49	00:01:57		117.401	1.507		46.4				
Key Haven Blvd	2	24	02:25:43	00:03:54		121.292	3.891		59.9				-1
Cow Key Bridge (N)	1	25	02:28:00	00:02:17		122.417	1.125		29.6	10+	TS(2)	00:00:34	
OVERALL			——	02:13:37	00:00:00	——	108.520	0.000	48.7			00:03:40	9

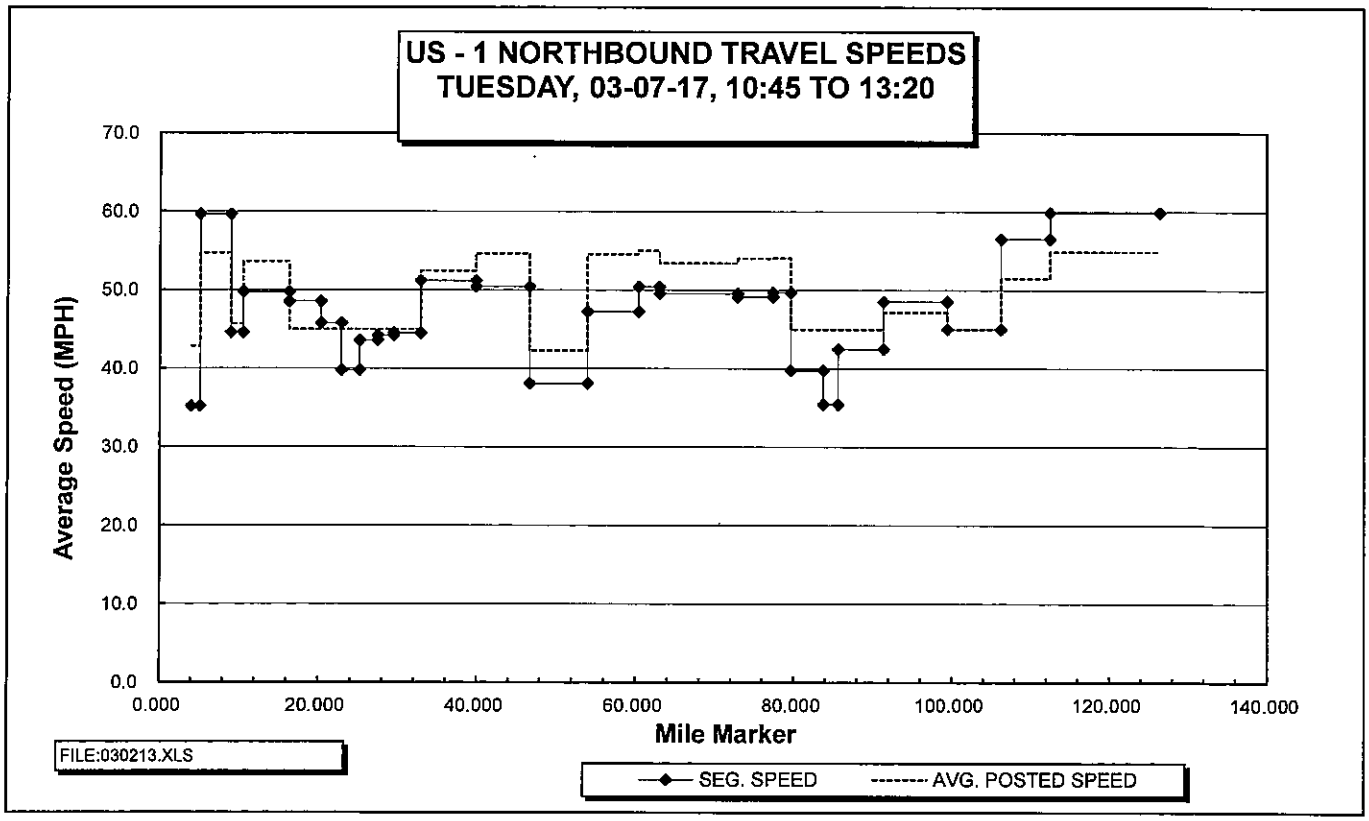
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
MONDAY, 03-06-17, 15:45 TO 18:15
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROADWAY/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Cloudy/Rainy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Tuesday, March 7, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:45:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	01:18:31 PM		CC = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-------	0.000	0.000	—	—	-	--	———	-
Key Haven Blvd	1	00:01:56	00:01:56		1.134	1.134		35.2	10+	TS	00:00:21	6
Rockland Dr	2	00:05:51	00:03:55		5.028	3.894		59.7				
Boca Chica Rd	3	00:07:54	00:02:03		6.551	1.523		44.6				
Harris Ch Br (N)	4	00:14:52	00:06:58		12.327	5.776		49.7				
Bow Channel Br (N)	5	00:19:47	00:04:55		16.306	3.979		48.6				
Spanish Main Dr	6	00:23:08	00:03:21		18.862	2.556		45.8				
E Shore Dr	7	00:26:29	00:03:21		21.082	2.220		39.8				
Torch-Ramrod Br (S)	8	00:29:39	00:03:10		23.381	2.299		43.6				
N Pine Ch Br (N)	9	00:32:27	00:02:48		25.443	2.062		44.2				
Long Beach Dr	10	00:37:03	00:04:36		28.856	3.413		44.5				
7-Mile Br (S)	11	00:45:19	00:08:16		35.906	7.050		51.2				4
7-Mile Br (N)	12	00:53:26	00:08:07		42.728	6.822		50.4				
Coco Plum Dr	13	01:04:53	00:11:27		49.997	7.269		38.1	10+	TS	00:00:28	9
Toms Harbor Ch Br (S)	14	01:13:03	00:08:10		56.427	6.430		47.2				1
Long Key Br (S)	15	01:16:12	00:03:09		59.074	2.647		50.4				
Channel #2 Br (N)	16	01:28:10	00:11:58		68.955	9.881		49.5				
Lignum V Br (S)	17	01:33:38	00:05:28		73.432	4.477		49.1				
Teatable Relf Br (N)	18	01:36:21	00:02:43		75.682	2.250		49.7				
Whale Harbor Br (S)	19	01:42:34	00:06:13		79.799	4.117		39.7				
Snake Creek Br (N)	20	01:45:44	00:03:10		81.669	1.870		35.4	N/A	CG	00:00:14	
Ocean Blvd	21	01:53:52	00:08:08		87.426	5.757		42.5				2
Atlantic Blvd	22	02:03:50	00:09:58		95.489	8.063		48.5	10+	TS	00:00:08	4
C-905	23	02:12:58	00:09:08		102.339	6.850		45.0	10+	TS	00:00:27	6
County Line sign	24	02:19:35	00:06:37		108.573	6.234		56.5				-1
Card Sound Rd	25	02:33:31	00:13:56		122.478	13.905		59.9				
OVERALL		-------	02:19:35	00:00:00	———	108.573	0.000	46.7			00:01:38	31

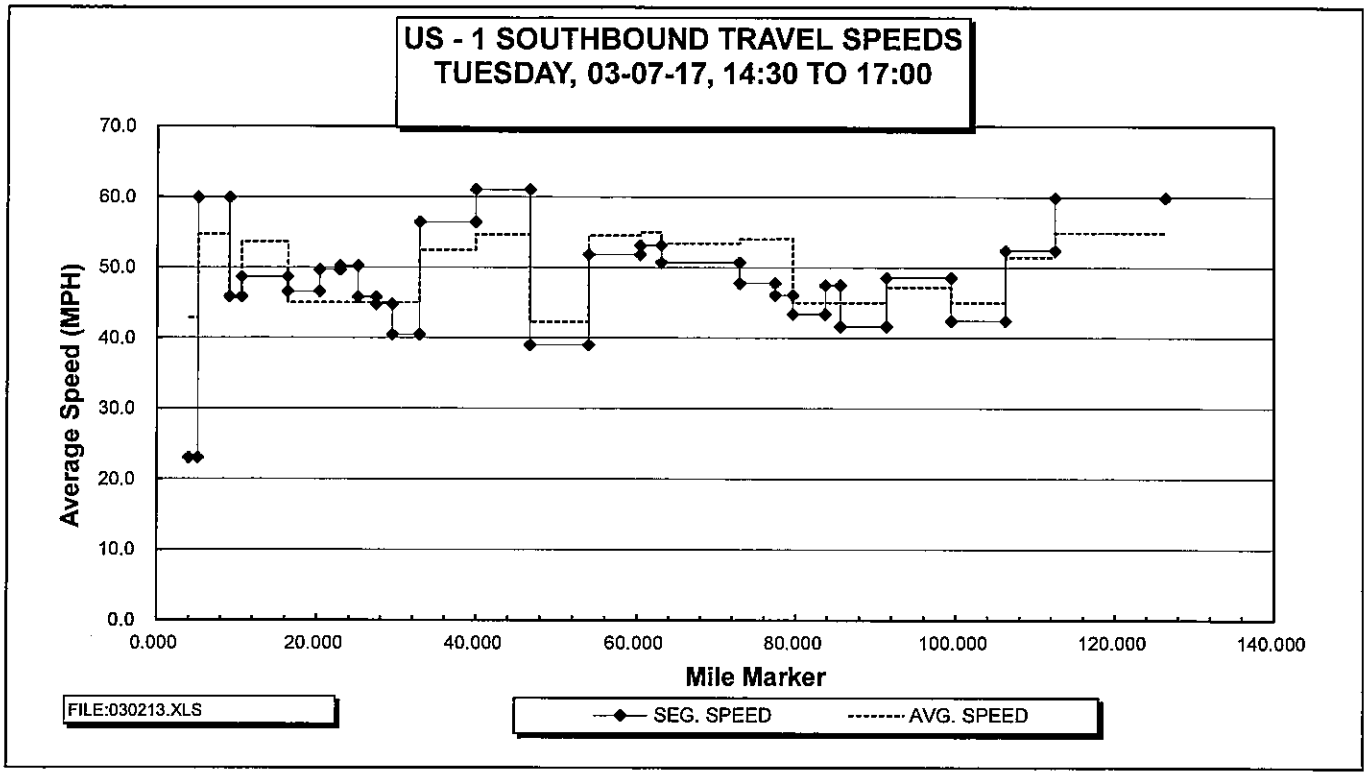
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
TUESDAY, 03-07-17, 10:45 TO 13:20
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Tuesday, March 7, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	02:30:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	05:00:43 PM		CC = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	———	0.000	0.000	———	———	-	--	———	-
County Line sign	25	1	00:13:56	00:13:56		13.908	13.908		59.9				
C-905	24	2	00:21:05	00:07:09		20.153	6.245		52.4				
Atlantic Blvd	23	3	00:30:45	00:09:40		26.988	6.835		42.4	10+	TS(2)	00:01:09	10
Ocean Blvd	22	4	00:40:42	00:09:57		35.037	8.049		48.5	10+	TS	00:00:18	7
Snake Creek Br (N)	21	5	00:49:00	00:08:18		40.797	5.760		41.6	5	TS	00:00:38	4
Whale Harbor Br (S)	20	6	00:51:22	00:02:22		42.670	1.873		47.5				
Teatable Relf Br (N)	19	7	00:57:03	00:05:41		46.781	4.111		43.4				
Lignum V Br (S)	18	8	00:59:58	00:02:55		49.020	2.239		46.1	10+	CG	00:00:14	
Channel #2 Br (N)	17	9	01:05:35	00:05:37		53.493	4.473		47.8				
Long Key Br (S)	16	10	01:17:18	00:11:43		63.390	9.897		50.7				
Toms Harbor Ch Br (S)	15	11	01:20:17	00:02:59		66.031	2.641		53.1				
Coco Plum Dr	14	12	01:27:43	00:07:26		72.449	6.418		51.8	3	TS	00:00:13	
7-Mile Br (N)	13	13	01:38:55	00:11:12		79.730	7.281		39.0	8	TS(3)	00:00:42	4
7-Mile Br (S)	12	14	01:45:37	00:06:42		86.547	6.817		61.0				
Long Beach Dr	11	15	01:53:07	00:07:30		93.597	7.050		56.4				
N Pine Ch Br (N)	10	16	01:58:10	00:05:03		97.003	3.406		40.5				
Torch-Ramrod Br (S)	9	17	02:00:56	00:02:46		99.068	2.065		44.8				
E Shore Dr	8	18	02:03:56	00:03:00		101.357	2.289		45.8				
Spanish Main Dr	7	19	02:06:36	00:02:40		103.587	2.230		50.2				
Bow Channel Br (N)	6	20	02:09:41	00:03:05		106.138	2.551		49.6				
Harris Ch Br (N)	5	21	02:14:48	00:05:07		110.109	3.971		46.6				
Boca Chica Rd	4	22	02:21:56	00:07:08		115.896	5.787		48.7				
Rockland Dr	3	23	02:23:55	00:01:59		117.412	1.516		45.9				
Key Haven Blvd	2	24	02:27:49	00:03:54		121.306	3.894		59.9				6
Cow Key Bridge (N)	1	25	02:30:43	00:02:54		122.419	1.113		23.0	10+	TS(3)	00:01:14	3
OVERALL			———	02:16:47	00:00:00	———	108.511	0.000	47.6			00:04:28	34

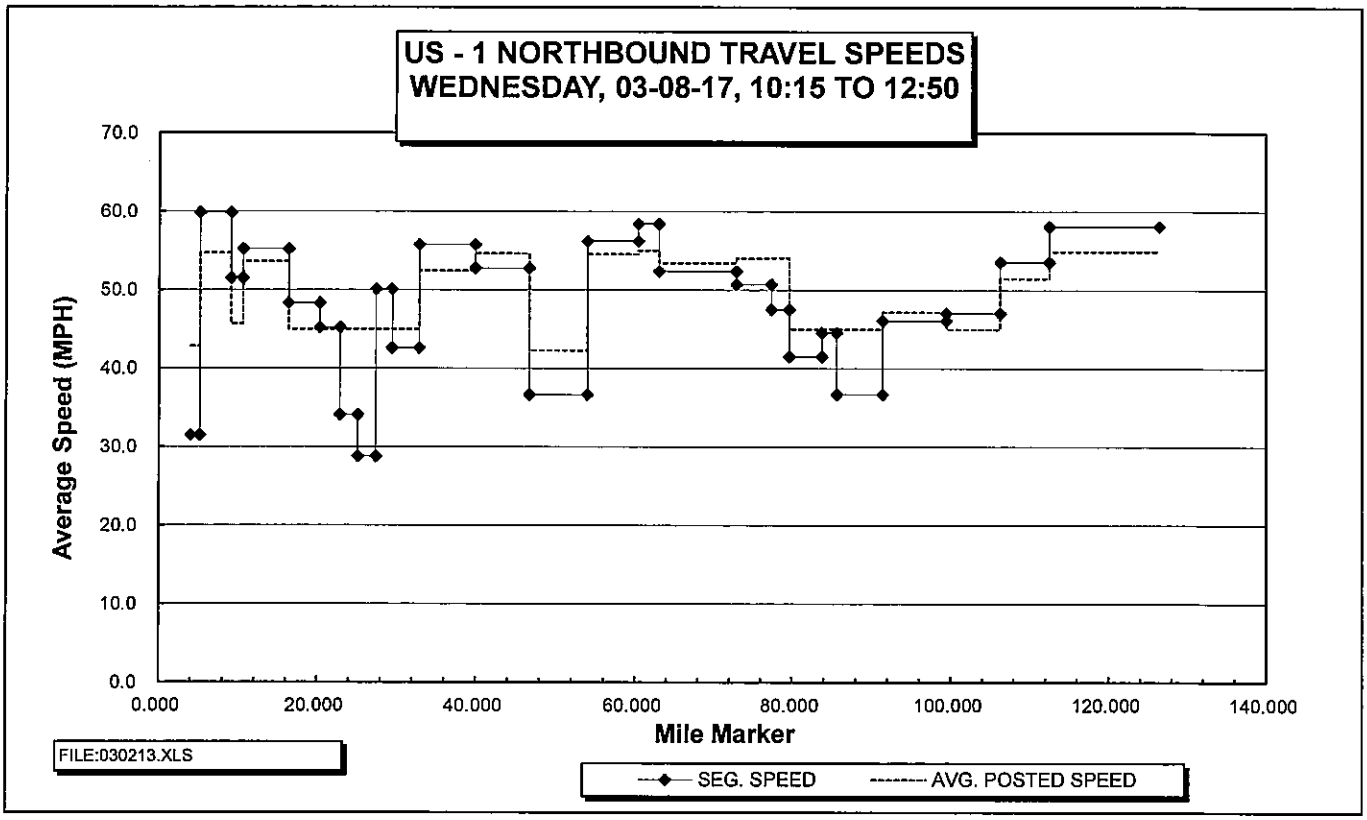
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
TUESDAY, 03-07-17, 14:30 TO 17:00
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Wednesday, March 8, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:15:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	12:48:12 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	———	0.000	0.000	——	——	-	--	———	-
Key Haven Blvd	1	00:02:09	00:02:09		1.128	1.128		31.5		TS	00:00:26	
Rockland Dr	2	00:06:04	00:03:55		5.036	3.908		59.9				1
Boca Chica Rd	3	00:07:49	00:01:45		6.538	1.502		51.5				
Harris Ch Br (N)	4	00:14:07	00:06:18		12.336	5.798		55.2				
Bow Channel Br (N)	5	00:19:03	00:04:56		16.309	3.973		48.3				
Spanish Main Dr	6	00:22:26	00:03:23		18.857	2.548		45.2				
E Shore Dr	7	00:26:21	00:03:55		21.082	2.225		34.1		CG	00:00:46	
Torch-Ramrod Br (S)	8	00:31:09	00:04:48		23.386	2.304		28.8		CG	00:03:21	
N Pine Ch Br (N)	9	00:33:37	00:02:28		25.444	2.058		50.1				
Long Beach Dr	10	00:38:25	00:04:48		28.852	3.408		42.6	2	TS	00:00:07	
7-Mile Br (S)	11	00:46:01	00:07:36		35.915	7.063		55.8				-2
7-Mile Br (N)	12	00:53:46	00:07:45		42.729	6.814		52.8				
Coco Plum Dr	13	01:05:41	00:11:55		50.006	7.277		36.6	6	TS(4)	00:01:45	4
Toms Harbor Ch Br (S)	14	01:12:32	00:06:51		56.424	6.418		56.2				1
Long Key Br (S)	15	01:15:16	00:02:44		59.086	2.662		58.4				
Channel #2 Br (N)	16	01:26:35	00:11:19		68.963	9.877		52.4				
Lignum V Br (S)	17	01:31:53	00:05:18		73.442	4.479		50.7				
Teatable Relf Br (N)	18	01:34:43	00:02:50		75.685	2.243		47.5				
Whale Harbor Br (S)	19	01:40:41	00:05:58		79.811	4.126		41.5		CG	00:00:21	
Snake Creek Br (N)	20	01:43:12	00:02:31		81.680	1.869		44.6				
Ocean Blvd	21	01:52:37	00:09:25		87.436	5.756		36.7	10	CG(2), T	00:01:49	
Atlantic Blvd	22	02:03:07	00:10:30		95.500	8.064		46.1	10	TS	00:00:52	7
C-905	23	02:11:51	00:08:44		102.345	6.845		47.0				8
County Line sign	24	02:18:50	00:06:59		108.578	6.233		53.6				
Card Sound Rd	25	02:33:12	00:14:22		122.492	13.914		58.1				
OVERALL		———	02:18:50	00:00:00	———	108.578	0.000	46.9			00:09:27	19

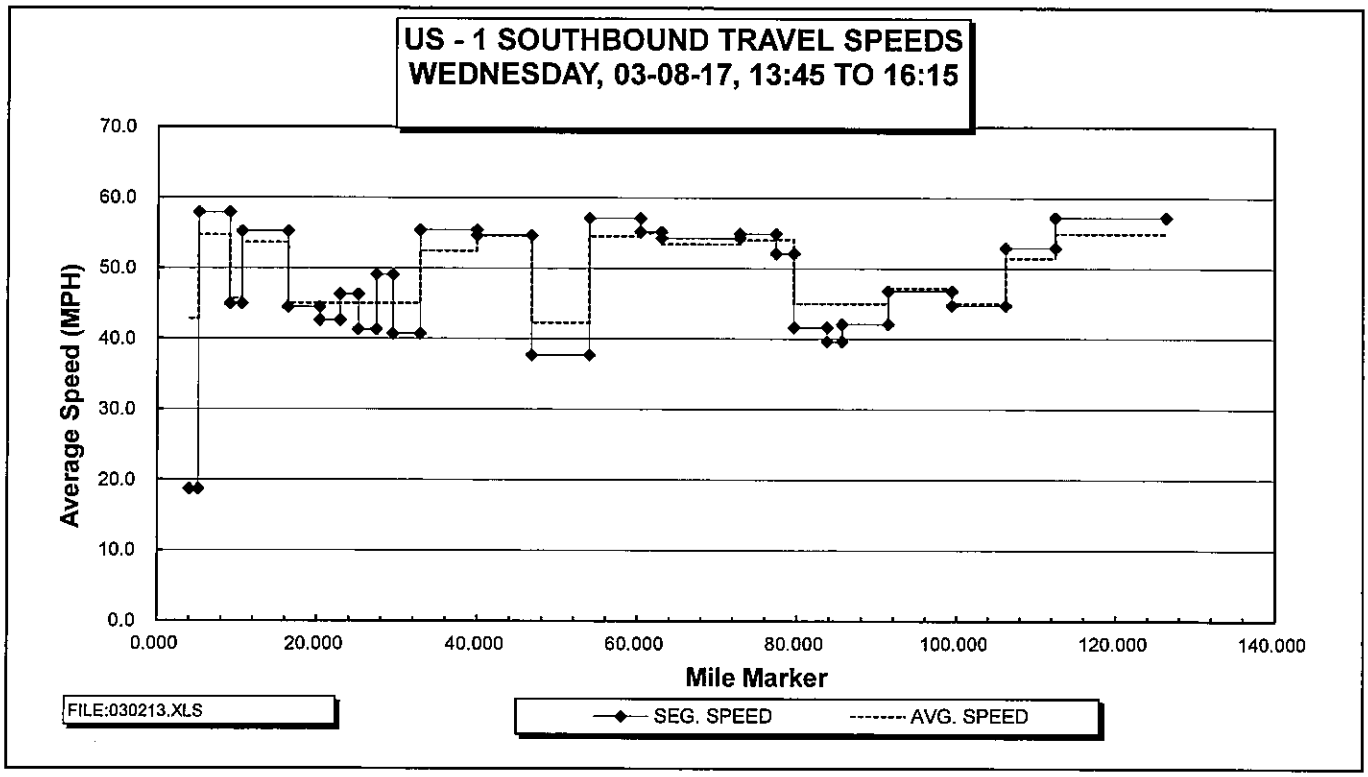
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-08-17, 10:15 TO 12:50
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROADWDIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunnu	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Wednesday, March 8, 2017	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	01:45:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	04:16:31 PM		CG = Congestion * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	——	0.000	0.000	----	—	-	--	-------	-
County Line sign	25	1	00:14:35	00:14:35		13.905	13.905		57.2				
C-905	24	2	00:21:40	00:07:05		20.151	6.246		52.9				
Atlantic Blvd	23	3	00:30:50	00:09:10		26.983	6.832		44.7	10	TS(2)	00:00:49	3
Ocean Blvd	22	4	00:41:09	00:10:19		35.031	8.048		46.8	10	TS(2)	00:00:08	
Snake Creek Br (N)	21	5	00:49:21	00:08:12		40.786	5.755		42.1	7	TS	00:00:09	-2
Whale Harbor Br (S)	20	6	00:52:11	00:02:50		42.657	1.871		39.6				
Teatable Reif Br (N)	19	7	00:58:07	00:05:56		46.772	4.115		41.6				
Lignum V Br (S)	18	8	01:00:42	00:02:35		49.016	2.244		52.1				
Channel #2 Br (N)	17	9	01:05:36	00:04:54		53.498	4.482		54.9				
Long Key Br (S)	16	10	01:16:31	00:10:55		63.372	9.874		54.3				
Toms Harbor Ch Br (S)	15	11	01:19:24	00:02:53		66.022	2.650		55.1				
Coco Plum Dr	14	12	01:26:09	00:06:45		72.444	6.422		57.1				-2
7-Mile Br (N)	13	13	01:37:44	00:11:35		79.721	7.277		37.7	6	TS(2), SZ	00:01:36	8
7-Mile Br (S)	12	14	01:45:13	00:07:29		86.536	6.815		54.6				
Long Beach Dr	11	15	01:52:51	00:07:38		93.585	7.049		55.4				-1
N Pine Ch Br (N)	10	16	01:57:53	00:05:02		96.997	3.412		40.7				
Torch-Ramrod Br (S)	9	17	02:00:24	00:02:31		99.055	2.058		49.1				
E Shore Dr	8	18	02:03:45	00:03:21		101.361	2.306		41.3				
Spanish Main Dr	7	19	02:06:38	00:02:53		103.585	2.224		46.3				
Bow Channel Br (N)	6	20	02:10:13	00:03:35		106.130	2.545		42.6				
Harris Ch Br (N)	5	21	02:15:35	00:05:22		110.109	3.979		44.5				
Boca Chica Rd	4	22	02:21:52	00:06:17		115.892	5.783		55.2				
Rockland Dr	3	23	02:23:54	00:02:02		117.415	1.523		44.9				
Key Haven Blvd	2	24	02:27:56	00:04:02		121.308	3.893		57.9				-2
Cow Key Bridge (N)	1	25	02:31:31	00:03:35		122.424	1.116		18.7	10	TS(3)	00:01:32	2
OVERALL			-------	02:16:56	00:00:00	------	108.519	0.000	47.5			00:04:14	6

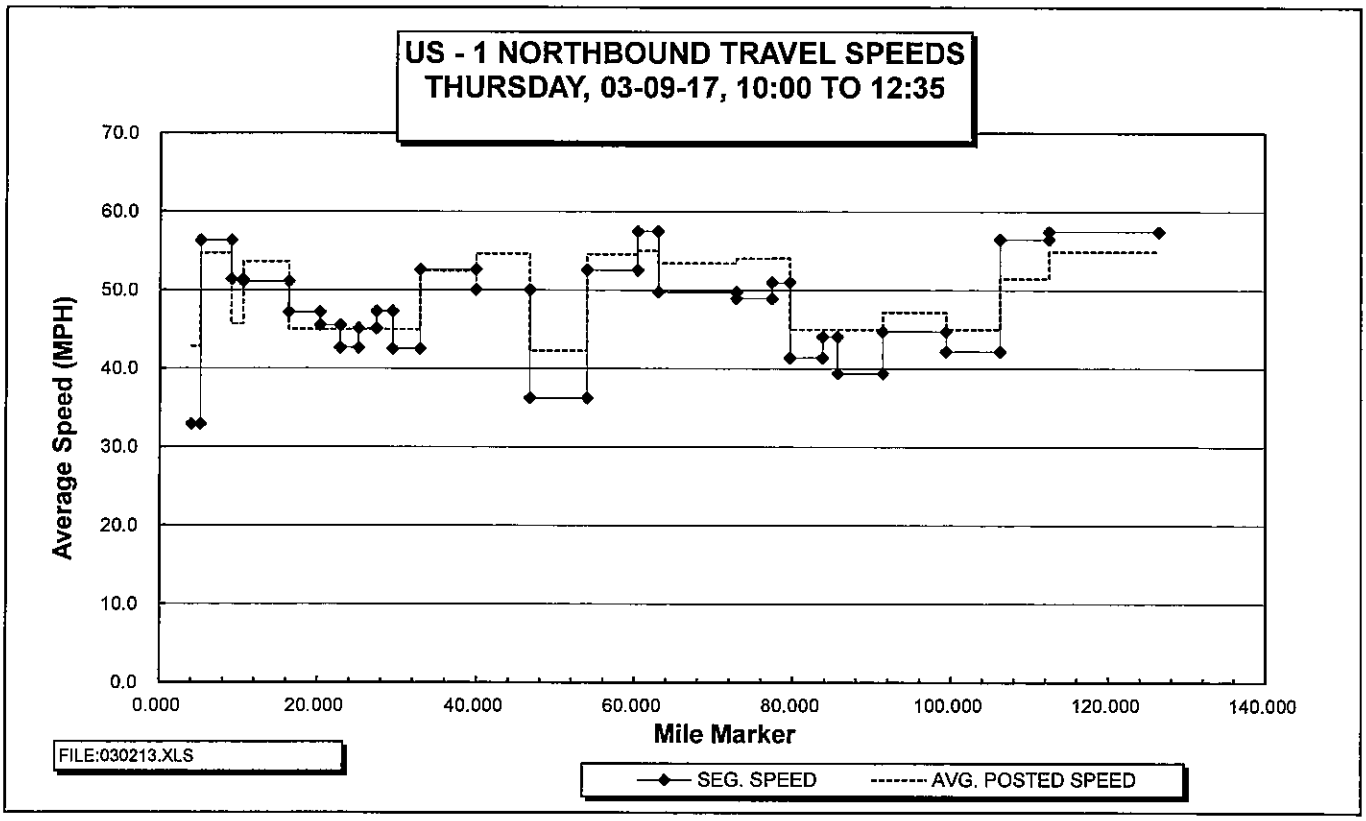
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-08-17, 13:45 TO 16:15
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Thursday, March 9, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:00:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	12:35:13 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	———	0.000	0.000	-----	----	-	–	-------	-
Key Haven Blvd	1	00:02:03	00:02:03		1.125	1.125		32.9	2	TS	00:00:28	1
Rockland Dr	2	00:06:13	00:04:10		5.035	3.910		56.3				1
Boca Chica Rd	3	00:07:59	00:01:46		6.547	1.512		51.4				
Harris Ch Br (N)	4	00:14:47	00:06:48		12.337	5.790		51.1				
Bow Channel Br (N)	5	00:19:50	00:05:03		16.307	3.970		47.2				
Spanish Main Dr	6	00:23:12	00:03:22		18.861	2.554		45.5				
E Shore Dr	7	00:26:20	00:03:08		21.088	2.227		42.6				
Torch-Ramrod Br (S)	8	00:29:23	00:03:03		23.380	2.292		45.1		LT	00:00:05	
N Pine Ch Br (N)	9	00:32:00	00:02:37		25.442	2.062		47.3				
Long Beach Dr	10	00:36:49	00:04:49		28.855	3.413		42.5				
7-Mile Br (S)	11	00:44:51	00:08:02		35.899	7.044		52.6				3
7-Mile Br (N)	12	00:53:18	00:08:27	00:00:33	42.728	6.829	0.241	50.0		EV	00:00:33	1
Coco Plum Dr	13	01:05:51	00:12:33	00:00:43	50.000	7.272	0.126	36.2		EV(2), T:	00:01:14	9
Toms Harbor Ch Br (S)	14	01:13:11	00:07:20		56.421	6.421		52.5				
Long Key Br (S)	15	01:15:57	00:02:46		59.072	2.651		57.5				
Channel #2 Br (N)	16	01:27:52	00:11:55		68.953	9.881		49.8				
Lignum V Br (S)	17	01:33:22	00:05:30		73.440	4.487		48.9				
Teatable Reif Br (N)	18	01:36:00	00:02:38		75.677	2.237		51.0				
Whale Harbor Br (S)	19	01:41:58	00:05:58		79.792	4.115		41.4				
Snake Creek Br (N)	20	01:44:31	00:02:33		81.664	1.872		44.0				
Ocean Blvd	21	01:53:30	00:08:59	00:00:28	87.419	5.755	0.163	39.4	10	EV, TS	00:00:54	1
Atlantic Blvd	22	02:04:19	00:10:49		95.479	8.060		44.7	10	TS	00:01:17	5
C-905	23	02:14:04	00:09:45		102.333	6.854		42.2	10	TS(2)	00:01:15	-6
County Line sign	24	02:20:42	00:06:38		108.575	6.242		56.5				
Card Sound Rd	25	02:35:13	00:14:31		122.477	13.902		57.5				
OVERALL		-------	02:20:42	00:01:44	———	108.575	0.530	46.6			00:05:46	15

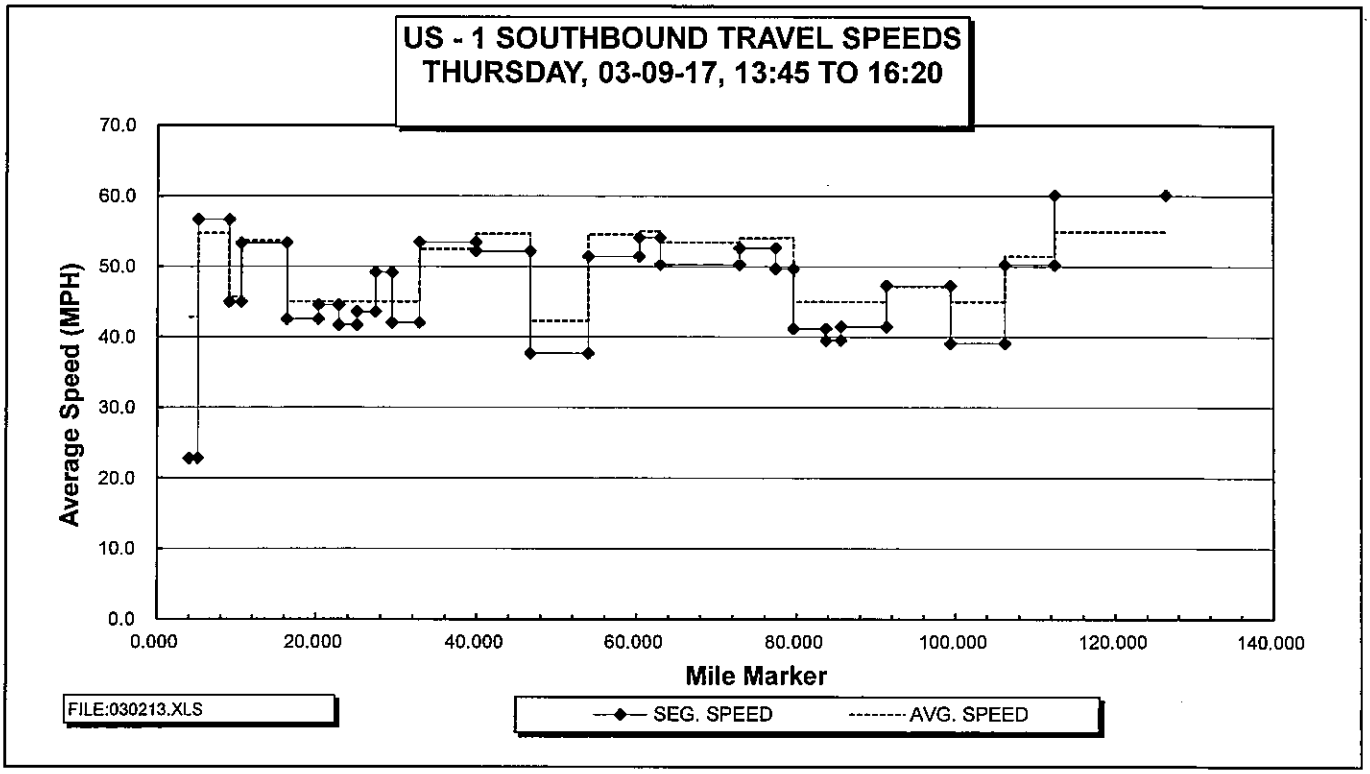
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
THURSDAY, 03-09-17, 10:00 TO 12:35
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROADIDIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Thursday, March 9, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	01:45:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	04:20:43 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	———	0.000	0.000	———	———	-	–	-------	-
County Line sign	25	1	00:13:53	00:13:53		13.909	13.909		60.1				
C-905	24	2	00:22:08	00:08:15	00:01:34	20.146	6.237	0.641	50.2	10	EV	00:01:34	
Atlantic Blvd	23	3	00:32:37	00:10:29		26.978	6.832		39.1	10	TS(2)	00:01:41	5
Ocean Blvd	22	4	00:42:50	00:10:13		35.029	8.051		47.3	10	TS	00:00:46	-1
Snake Creek Br (N)	21	5	00:51:09	00:08:19		40.781	5.752		41.5	10	TS	00:00:14	
Whale Harbor Br (S)	20	6	00:54:00	00:02:51		42.659	1.878		39.5				
Teatable Relf Br (N)	19	7	00:59:59	00:05:59		46.766	4.107		41.2				
Lignum V Br (S)	18	8	01:02:42	00:02:43		49.015	2.249		49.7				
Channel #2 Br (N)	17	9	01:07:48	00:05:06		53.486	4.471		52.6				
Long Key Br (S)	16	10	01:19:36	00:11:48		63.368	9.882		50.2				
Toms Harbor Ch Br (S)	15	11	01:22:32	00:02:56		66.013	2.645		54.1				
Coco Plum Dr	14	12	01:30:02	00:07:30		72.440	6.427		51.4				
7-Mile Br (N)	13	13	01:41:37	00:11:35		79.719	7.279		37.7	5	TS, SZ	00:01:23	9
7-Mile Br (S)	12	14	01:49:27	00:07:50		86.529	6.810		52.2				
Long Beach Dr	11	15	01:57:22	00:07:55		93.578	7.049		53.4				4
N Pine Ch Br (N)	10	16	02:02:14	00:04:52		96.988	3.410		42.0				
Torch-Ramrod Br (S)	9	17	02:04:45	00:02:31		99.051	2.063		49.2				
E Shore Dr	8	18	02:07:55	00:03:10		101.350	2.299		43.6				
Spanish Main Dr	7	19	02:11:06	00:03:11		103.563	2.213		41.7				
Bow Channel Br (N)	6	20	02:14:32	00:03:26		106.112	2.549		44.5				
Harris Ch Br (N)	5	21	02:20:08	00:05:36		110.082	3.970		42.5	10	LT	00:00:19	
Boca Chica Rd	4	22	02:26:39	00:06:31		115.874	5.792		53.3				
Rockland Dr	3	23	02:28:40	00:02:01		117.386	1.512		45.0				
Key Haven Blvd	2	24	02:32:48	00:04:08		121.288	3.902		56.6				1
Cow Key Bridge (N)	1	25	02:35:43	00:02:55		122.396	1.108		22.8	10	TS(2)	00:00:45	-5
OVERALL			———	02:21:50	00:00:00	------	108.487	0.000	45.9			00:06:42	13

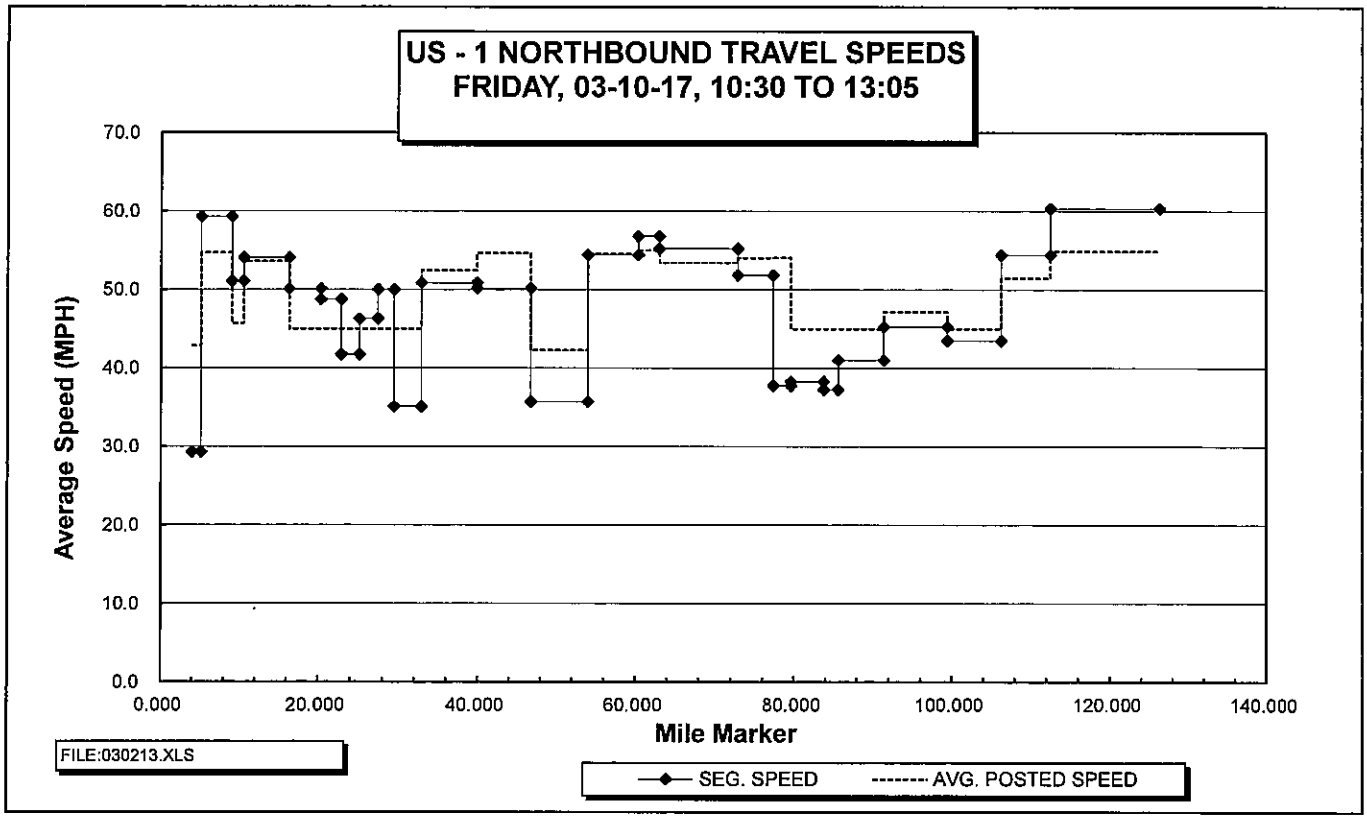
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 SOUTHBOUND TRAVEL SPEEDS
THURSDAY, 03-09-17, 13:45 TO 16:20
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Friday, March 10, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:30:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	01:03:38 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	——	0.000	0.000	——	——	-	—	——	-
Key Haven Blvd	1	00:02:18	00:02:18		1.124	1.124		29.3	10	TS(2)	00:00:44	1
Rockland Dr	2	00:06:15	00:03:57		5.027	3.903		59.3				5
Boca Chica Rd	3	00:08:02	00:01:47		6.545	1.518		51.1				
Harris Ch Br (N)	4	00:14:27	00:06:25		12.329	5.784		54.1				
Bow Channel Br (N)	5	00:19:13	00:04:46		16.309	3.980		50.1				
Spanish Main Dr	6	00:22:21	00:03:08		18.854	2.545		48.7				
E Shore Dr	7	00:25:33	00:03:12		21.080	2.226		41.7				
Torch-Ramrod Br (S)	8	00:28:32	00:02:59		23.381	2.301		46.3				
N Pine Ch Br (N)	9	00:31:00	00:02:28		25.437	2.056		50.0				
Long Beach Dr	10	00:36:51	00:05:51		28.860	3.423		35.1	10	TS	00:00:22	2
7-Mile Br (S)	11	00:45:10	00:08:19		35.907	7.047		50.8				
7-Mile Br (N)	12	00:53:20	00:08:10		42.734	6.827		50.2				
Coco Plum Dr	13	01:05:33	00:12:13		50.003	7.269		35.7	10	TS(3)	00:01:28	7
Toms Harbor Ch Br (S)	14	01:12:37	00:07:04		56.414	6.411		54.4				1
Long Key Br (S)	15	01:15:25	00:02:48		59.065	2.651		56.8				
Channel #2 Br (N)	16	01:26:10	00:10:45		68.962	9.897		55.2				
Lignum V Br (S)	17	01:31:21	00:05:11		73.440	4.478		51.8				
Teatable Reif Br (N)	18	01:34:54	00:03:33		75.674	2.234		37.8	10	CG	00:01:36	
Whale Harbor Br (S)	19	01:41:21	00:06:27		79.788	4.114		38.3				
Snake Creek Br (N)	20	01:44:22	00:03:01		81.660	1.872		37.2	10	CG	00:00:09	
Ocean Blvd	21	01:52:48	00:08:26		87.424	5.764		41.0	5	TS	00:00:37	3
Atlantic Blvd	22	02:03:29	00:10:41		95.485	8.061		45.3	10	TS	00:00:58	5
C-905	23	02:12:56	00:09:27		102.333	6.848		43.5		TS	00:00:39	7
County Line sign	24	02:19:48	00:06:52		108.561	6.228		54.4				
Card Sound Rd	25	02:33:38	00:13:50		122.470	13.909		60.3				
OVERALL		——	02:19:48	00:00:00	------	108.561	0.000	46.6			00:06:33	31

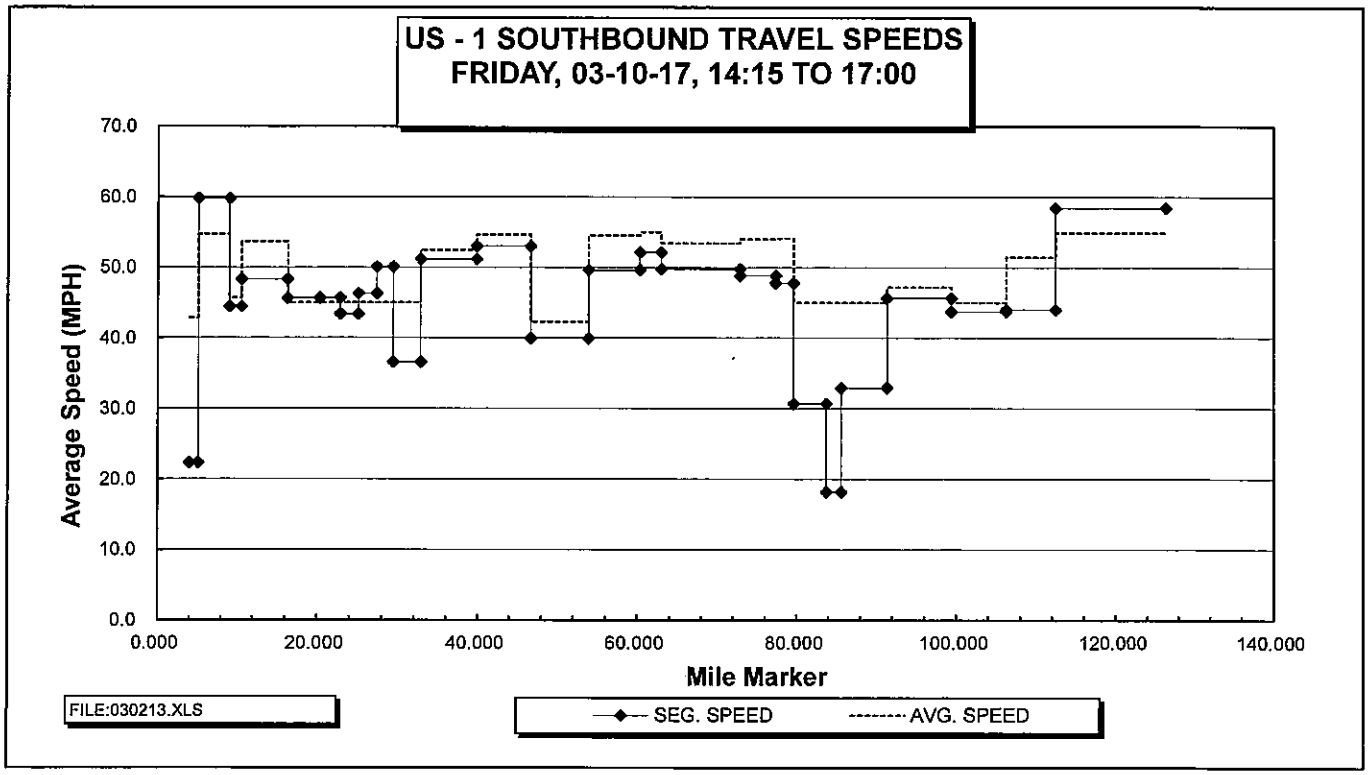
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
FRIDAY, 03-10-17, 10:30 TO 13:05
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED

ROADWDIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Friday, March 10, 2017	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	02:15:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	04:59:16 PM		CG = Congestion * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	———	0.000	0.000	———	———	-	--	———	-
County Line sign	25	1	00:14:17	00:14:17		13.910	13.910		58.4				
C-905	24	2	00:22:46	00:08:29		20.135	6.225		44.0		CG	00:02:01	
Atlantic Blvd	23	3	00:32:09	00:09:23		26.974	6.839		43.7	10	TS	00:00:35	9
Ocean Blvd	22	4	00:42:43	00:10:34		35.013	8.039		45.6	10	TS	00:00:26	7
Snake Creek Br (N)	21	5	00:53:13	00:10:30		40.772	5.759		32.9	10	TS, LT, C	00:02:18	1
Whale Harbor Br (S)	20	6	00:59:24	00:06:11		42.644	1.872		18.2	10	CG(3)	00:05:38	
Teatable Relf Br (N)	19	7	01:07:27	00:08:03		46.762	4.118		30.7	10	CG(2)	00:02:46	
Lignum V Br (S)	18	8	01:10:15	00:02:48		48.991	2.229		47.8				
Channel #2 Br (N)	17	9	01:15:46	00:05:31		53.481	4.490		48.8				
Long Key Br (S)	16	10	01:27:41	00:11:55		63.362	9.881		49.8				
Toms Harbor Ch Br (S)	15	11	01:30:44	00:03:03		66.013	2.651		52.2				
Coco Plum Dr	14	12	01:38:29	00:07:45		72.419	6.406		49.6				
7-Mile Br (N)	13	13	01:49:26	00:10:57		79.704	7.285		39.9	7	TS(2)	00:00:56	8
7-Mile Br (S)	12	14	01:57:09	00:07:43		86.517	6.813		53.0				
Long Beach Dr	11	15	02:05:25	00:08:16		93.561	7.044		51.1				
N Pine Ch Br (N)	10	16	02:11:01	00:05:36		96.973	3.412		36.6	10	TS	00:00:33	
Torch-Ramrod Br (S)	9	17	02:13:29	00:02:28		99.031	2.058		50.1				
E Shore Dr	8	18	02:16:28	00:02:59		101.332	2.301		46.3				
Spanish Main Dr	7	19	02:19:33	00:03:05		103.562	2.230		43.4				
Bow Channel Br (N)	6	20	02:22:53	00:03:20		106.099	2.537		45.7				
Harris Ch Br (N)	5	21	02:28:07	00:05:14		110.081	3.982		45.7				
Boca Chica Rd	4	22	02:35:18	00:07:11		115.863	5.782		48.3				
Rockland Dr	3	23	02:37:21	00:02:03		117.381	1.518		44.4				
Key Haven Blvd	2	24	02:41:15	00:03:54		121.268	3.887		59.8				2
Cow Key Bridge (N)	1	25	02:44:16	00:03:01		122.390	1.122		22.3	10	TS(2)	00:01:18	-4
OVERALL			———	02:29:59	00:00:00	———	108.480	0.000	43.4			00:16:31	23

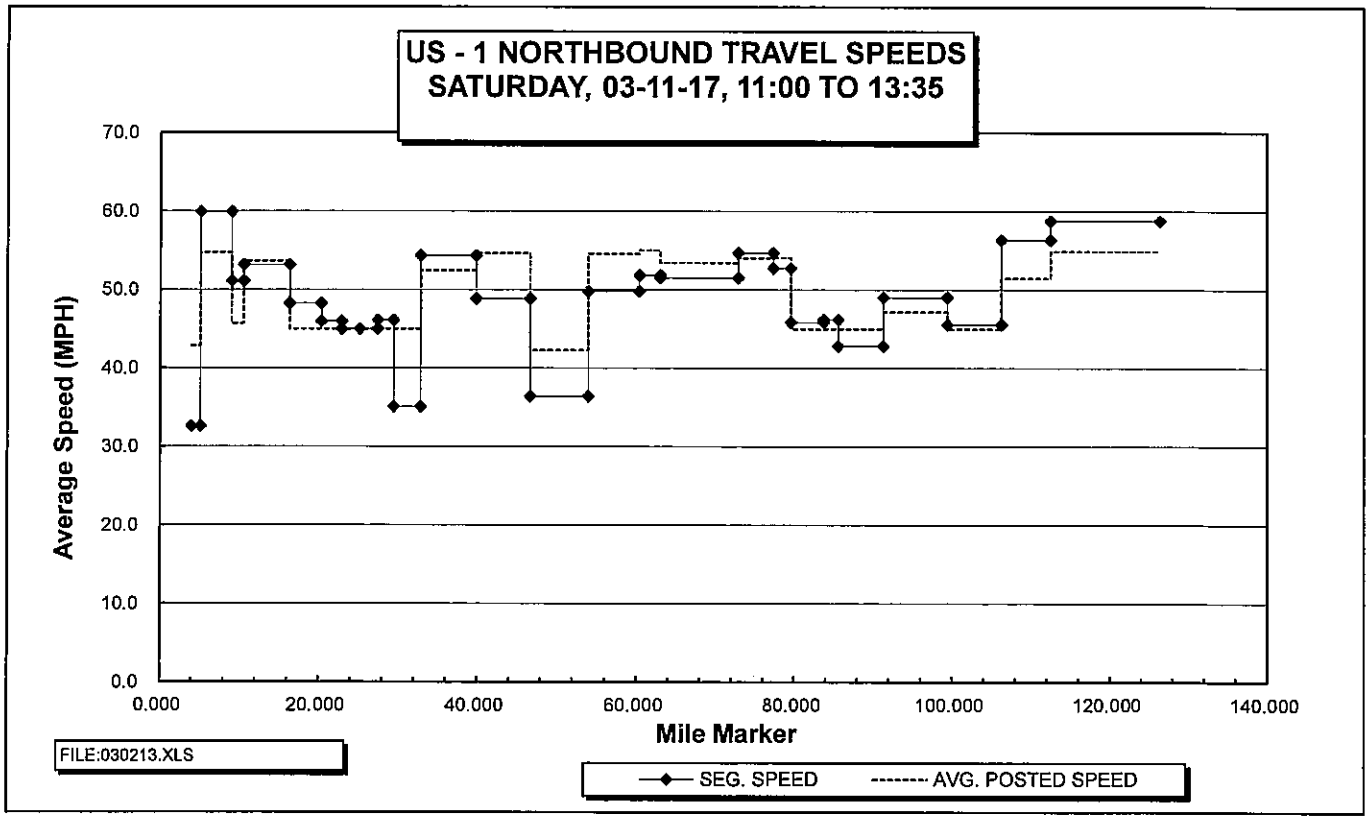
Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

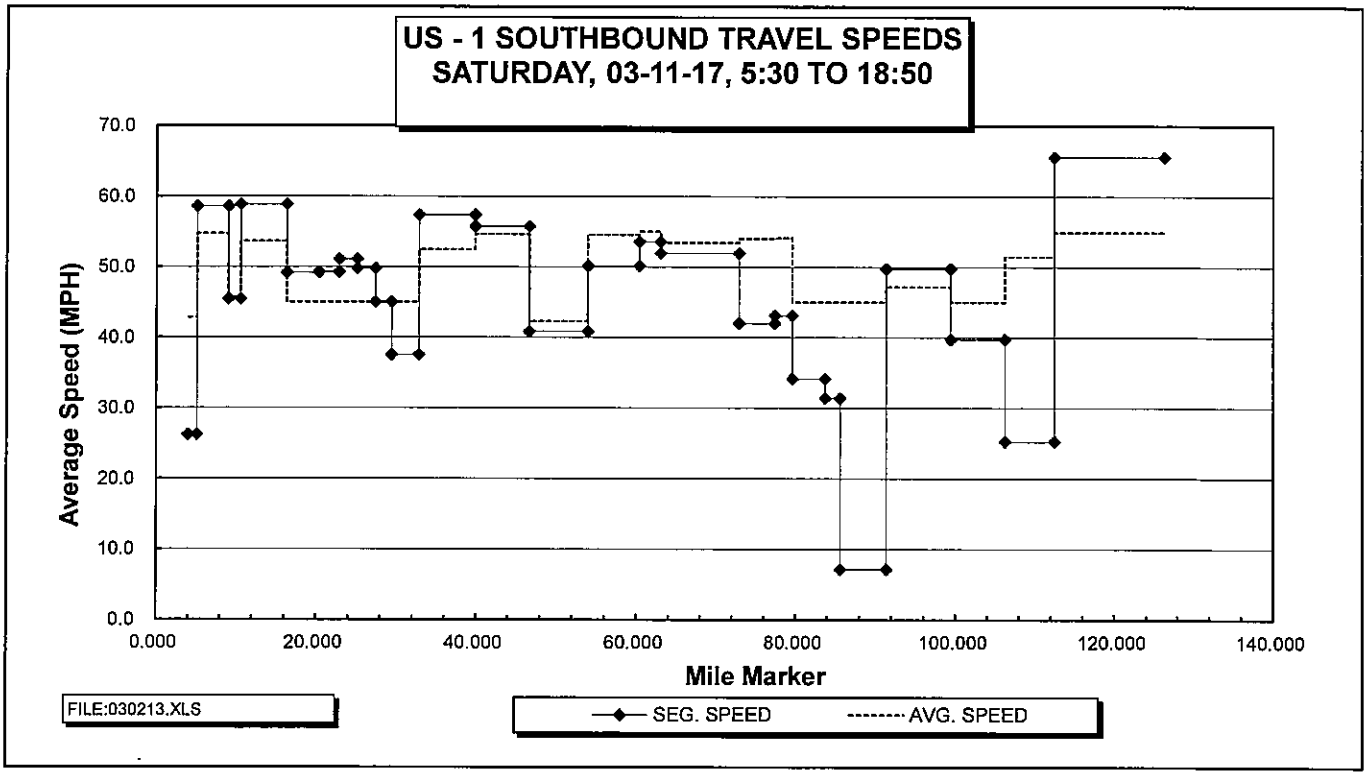

US - 1 SOUTHBOUND TRAVEL SPEEDS
FRIDAY, 03-10-17, 14:15 TO 17:00
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROADWDIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	NH		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Sunny	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Saturday, March 11, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ COW KEY BR:	11:00:00 AM		DB = Drawbridge / AC = Accident
FINISH TIME @ C SOUND RD:	01:32:27 PM		CG = Congestion / * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	———	0.000	0.000	-----	----	-	—	--------	-
Key Haven Blvd	1	00:02:04	00:02:04		1.123	1.123		32.6		TS	00:00:27	5
Rockland Dr	2	00:05:59	00:03:55		5.034	3.911		59.9				
Boca Chica Rd	3	00:07:45	00:01:46		6.538	1.504		51.1				
Harris Ch Br (N)	4	00:14:18	00:06:33		12.340	5.802		53.1				
Bow Channel Br (N)	5	00:19:14	00:04:56		16.305	3.965		48.2	10			
Spanish Main Dr	6	00:22:34	00:03:20		18.858	2.553		46.0				
E Shore Dr	7	00:25:32	00:02:58		21.081	2.223		45.0				
Torch-Ramrod Br (S)	8	00:28:36	00:03:04		23.379	2.298		45.0	10			
N Pine Ch Br (N)	9	00:31:17	00:02:41		25.441	2.062		46.1				
Long Beach Dr	10	00:37:07	00:05:50		28.852	3.411		35.1	10	TS	00:00:45	1
7-Mile Br (S)	11	00:44:54	00:07:47		35.901	7.049		54.3				-1
7-Mile Br (N)	12	00:53:17	00:08:23		42.726	6.825		48.8				
Coco Plum Dr	13	01:07:02	00:13:45	00:02:26	49.995	7.269	0.404	36.4	10	EV, TS(3),	00:03:22	19
Toms Harbor Ch Br (S)	14	01:14:47	00:07:45		56.426	6.431		49.8				
Long Key Br (S)	15	01:17:50	00:03:03		59.061	2.635		51.8				
Channel #2 Br (N)	16	01:29:22	00:11:32		68.959	9.898		51.5				
Lignum V Br (S)	17	01:34:16	00:04:54		73.425	4.466		54.7				
Teatable Reif Br (N)	18	01:36:49	00:02:33		75.667	2.242		52.8				
Whale Harbor Br (S)	19	01:42:13	00:05:24		79.792	4.125		45.8				
Snake Creek Br (N)	20	01:44:39	00:02:26		81.664	1.872		46.2				
Ocean Blvd	21	01:52:43	00:08:04		87.422	5.758		42.8	6	TS	00:00:27	2
Atlantic Blvd	22	02:02:35	00:09:52		95.484	8.062		49.0	10	TS	00:00:10	5
C-905	23	02:11:36	00:09:01		102.331	6.847		45.6	10	TS	00:00:30	5
County Line sign	24	02:18:15	00:06:39		108.576	6.245		56.3				
Card Sound Rd	25	02:32:27	00:14:12		122.486	13.910		58.8				
OVERALL		--------	02:18:15	00:02:26	———	108.576	0.404	47.8			00:05:41	36

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.


US - 1 NORTHBOUND TRAVEL SPEEDS
SATURDAY, 03-11-17, 11:00 TO 13:35
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. POSTED SPEED


US - 1 SOUTHBOUND TRAVEL SPEEDS
SATURDAY, 03-11-17, 5:30 TO 18:50
Average Speed (MPH)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0.000
20.000
40.000
60.000
80.000
100.000
120.000
140.000
Mile Marker
FILE:030213.XLS
SEG. SPEED
AVG. SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	AE		LT = Left Turn / CS = Construction
WEATHER/CONDITIONS:	Clear	Delay begins @ 5 mph	RT = Right Turn / SB = School Bus
DAY/DATE:	Saturday, March 11, 2017	Delay ends @ 15 mph	TS = Traffic Signal / EV = Emergency Vehicle
START TIME @ C SOUND RD:	03:30:00 PM		DB = Drawbridge / AC = Accident
FINISH TIME @ COW KEY BR:	06:50:29 PM		CG = Congestion / * = Special Event

Control Point	End Segment #		Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin		00:00:00	00:00:00	——	0.000	0.000	——	——	-	--	--------	-
County Line sign	25	1	00:12:43	00:12:43		13.897	13.897		65.6				
C-905	24	2	00:27:33	00:14:50		20.137	6.240		25.2	10	CG(3)	00:08:12	
Atlantic Blvd	23	3	00:37:53	00:10:20		26.984	6.847		39.8	10	TS(2)	00:01:05	10
Ocean Blvd	22	4	00:47:35	00:09:42		35.027	8.043		49.8	10	TS	00:00:07	6
Snake Creek Br (N)	21	5	01:35:42	00:48:07		40.772	5.745		7.2	10	CG(3)	00:46:01	
Whale Harbor Br (S)	20	6	01:39:17	00:03:35		42.648	1.876		31.4		CG	00:01:02	
Teatable Relf Br (N)	19	7	01:46:31	00:07:14		46.765	4.117		34.2	10	CG	00:00:45	
Lignum V Br (S)	18	8	01:49:37	00:03:06		48.992	2.227		43.1				
Channel #2 Br (N)	17	9	01:56:02	00:06:25		53.483	4.491		42.0	10	LT	00:00:08	
Long Key Br (S)	16	10	02:07:27	00:11:25		63.365	9.882		51.9				
Toms Harbor Ch Br (S)	15	11	02:10:25	00:02:58		66.012	2.647		53.5				
Coco Plum Dr	14	12	02:18:06	00:07:41		72.431	6.419		50.1				1
7-Mile Br (N)	13	13	02:29:48	00:11:42	00:01:30	79.718	7.287	0.343	40.8	10	TS, SE	00:01:36	13
7-Mile Br (S)	12	14	02:37:08	00:07:20		86.529	6.811		55.7				
Long Beach Dr	11	15	02:44:30	00:07:22		93.569	7.040		57.3				2
N Pine Ch Br (N)	10	16	02:49:58	00:05:28		96.988	3.419		37.5	10	TS	00:00:22	
Torch-Ramrod Br (S)	9	17	02:52:43	00:02:45		99.052	2.064		45.0				
E Shore Dr	8	18	02:55:29	00:02:46		101.346	2.294		49.7				
Spanish Main Dr	7	19	02:58:06	00:02:37		103.575	2.229		51.1				
Bow Channel Br (N)	6	20	03:01:12	00:03:06		106.119	2.544		49.2				
Harris Ch Br (N)	5	21	03:06:04	00:04:52		110.107	3.988		49.2				
Boca Chica Rd	4	22	03:11:58	00:05:54		115.894	5.787		58.9				
Rockland Dr	3	23	03:13:57	00:01:59		117.397	1.503		45.5				
Key Haven Blvd	2	24	03:17:57	00:04:00		121.302	3.905		58.6				4
Cow Key Bridge (N)	1	25	03:20:29	00:02:32		122.410	1.108		26.2	10	TS(2)	00:00:51	5
OVERALL			--------	03:07:46	00:01:30	——	108.513	0.343	34.8			01:00:09	41

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

APPENDIX C

2017 Traffic Volume Summary

APPENDIX C

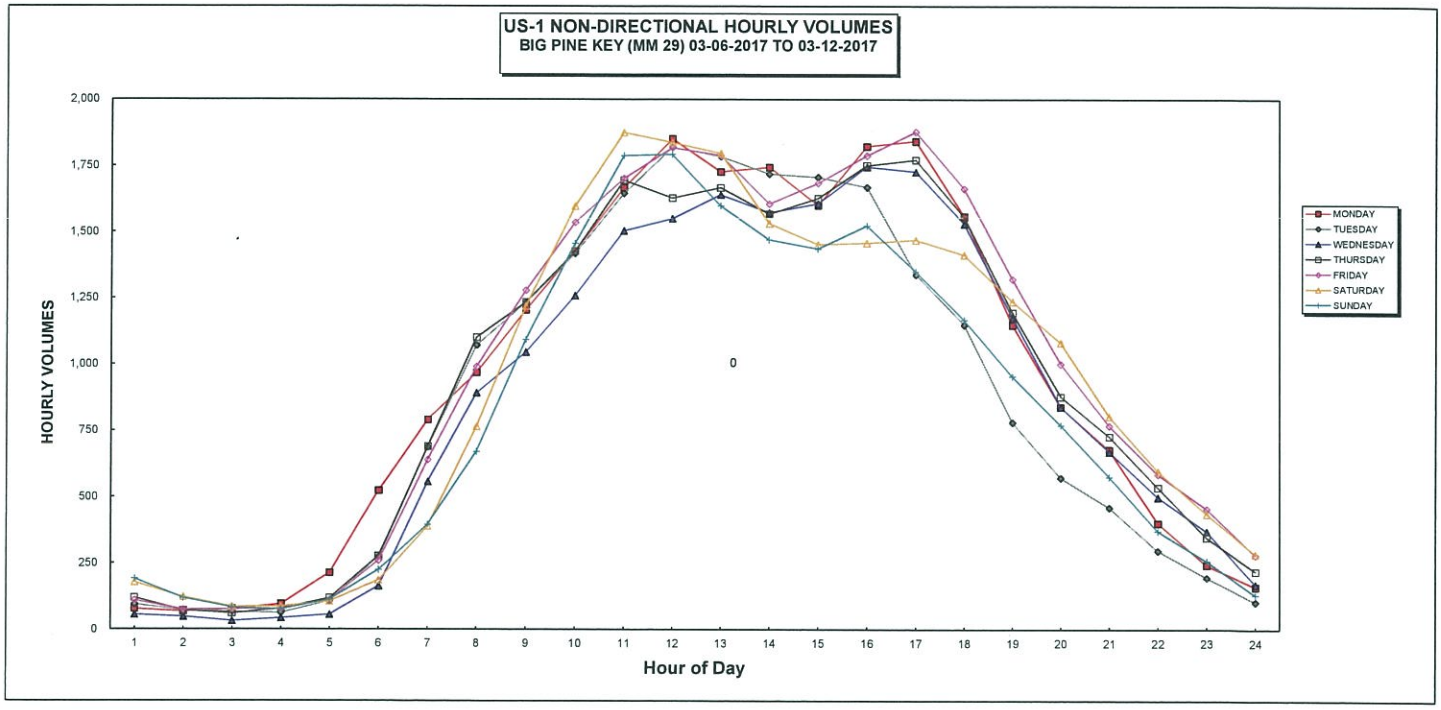
URS

2017 TRAFFIC VOLUME SUMMARY
BIG PINE KEY (MM 29): NORTH PINE CHANNEL BRIDGE

Hour Ending	Monday 03/06/2017			Tuesday 03/07/2017			Wednesday 03/08/2017			Thursday 03/09/2017			Friday 03/10/2017			Saturday 03/11/2017			Sunday 03/12/2017		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	40	37	77	45	49	94	52	3	55	58	61	119	52	57	109	88	89	177	115	76	191
2 AM	34	33	67	47	24	71	44	3	47	46	25	71	42	32	74	68	54	122	70	48	118
3 AM	43	33	76	28	37	65	27	4	31	33	27	60	40	35	75	35	50	85	37	45	82
4 AM	46	49	95	35	27	62	35	7	42	44	34	78	50	26	76	46	40	86	43	32	75
5 AM	89	124	213	61	45	106	51	4	55	57	60	117	62	48	110	66	39	105	66	46	112
6 AM	205	318	523	135	138	273	135	27	162	145	131	276	150	109	259	112	72	184	127	97	224
7 AM	338	452	790	287	400	687	293	263	556	279	410	689	290	349	639	228	160	388	259	136	395
8 AM	475	493	968	515	556	1,071	518	373	891	533	568	1,101	497	493	990	473	291	764	451	219	670
9 AM	626	578	1,204	617	615	1,232	659	386	1,045	675	558	1,233	701	577	1,278	756	462	1,218	648	445	1,093
10 AM	773	654	1,427	733	685	1,418	789	469	1,258	800	626	1,426	850	685	1,535	920	676	1,596	877	579	1,456
11 AM	855	811	1,666	839	806	1,645	880	623	1,503	892	802	1,694	970	731	1,701	1041	833	1,874	1010	777	1,787
12 NOON	865	985	1,850	849	970	1,819	829	720	1,549	826	801	1,627	948	869	1,817	888	949	1,837	893	899	1,792
1 PM	747	979	1,726	777	1007	1,784	767	872	1,639	774	892	1,666	872	916	1,788	765	1030	1,795	753	845	1,598
2 PM	766	977	1,743	739	979	1,718	739	833	1,572	745	822	1,567	761	844	1,605	653	878	1,531	636	834	1,470
3 PM	740	859	1,599	811	895	1,706	775	831	1,606	801	825	1,626	829	854	1,683	589	863	1,452	620	816	1,436
4 PM	824	998	1,822	817	851	1,668	850	895	1,745	829	921	1,750	834	953	1,787	587	870	1,457	658	865	1,523
5 PM	840	1002	1,842	895	444	1,339	893	833	1,726	912	859	1,771	884	993	1,877	645	824	1,469	614	736	1,350
6 PM	832	726	1,558	863	286	1,149	838	692	1,530	853	702	1,555	845	818	1,663	646	767	1,413	583	584	1,167
7 PM	673	475	1,148	635	146	781	679	498	1,177	697	498	1,195	662	659	1,321	544	693	1,237	487	467	954
8 PM	505	333	838	516	56	572	488	351	839	513	365	878	511	490	1,001	498	583	1,081	433	337	770
9 PM	441	236	677	449	11	460	409	261	670	421	307	728	419	349	768	414	389	803	338	237	575
10 PM	253	148	401	289	8	297	305	194	499	297	239	536	324	261	585	342	255	597	216	155	371
11 PM	142	101	243	190	6	196	215	155	370	203	144	347	230	225	455	261	175	436	143	115	258
12 MID-NIGHT	90	71	161	103	1	104	107	64	171	121	99	220	139	142	281	167	118	285	65	66	131
Daily Total	11,242	11,472	22,714	11,275	9,042	20,317	11,377	9,361	20,738	11,554	10,776	22,330	11,962	11,515	23,477	10,832	11,160	21,992	10,142	9,456	19,598
AADT*	9,915	10,118	20,034	9,945	7,975	17,920	10,035	8,256	18,291	10,191	9,504	19,695	10,550	10,156	20,707	9,554	9,843	19,397	8,945	8,340	17,285

* AADT = Raw Count*Seasonal Factor*Axle Factor

5-Day ADT	21,915
7-Day ADT	21,595
2015 Seasonal Factor	0.90
2015 Axle Factor	0.98
5-Day AADT	19,329
7-Day AADT	19,047

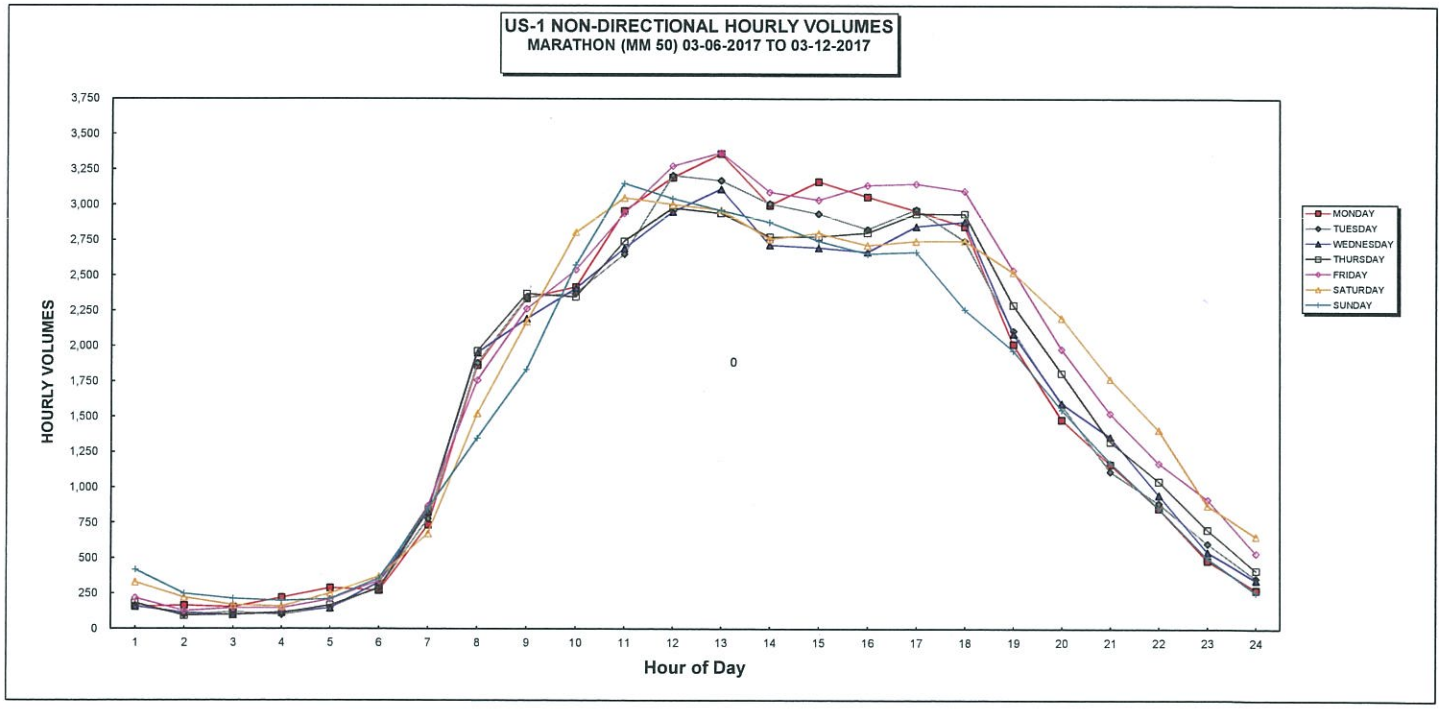

US-1 NON-DIRECTIONAL HOURLY VOLUMES
BIG PINE KEY (MM 29) 03-06-2017 TO 03-12-2017
HOURLY VOLUMES
2,000
1,750
1,500
1,250
1,000
750
500
250
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
Hour of Day
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
SUNDAY

2017 TRAFFIC VOLUME SUMMARY
MARATHON (MM 50): NORTH OF SOMBRERO BEACH ROAD

Hour Ending	Monday 03/06/2017			Tuesday 03/07/2017			Wednesday 03/08/2017			Thursday 03/09/2017			Friday 03/10/2017			Saturday 03/11/2017			Sunday 03/12/2017		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	85	71	156	110	56	166	89	68	157	107	76	183	114	104	218	183	146	329	270	148	418
2 AM	102	63	165	53	46	99	69	45	114	58	35	93	65	61	126	109	113	222	154	94	248
3 AM	91	61	152	48	71	119	47	50	97	39	61	100	88	57	145	92	75	167	134	79	213
4 AM	131	89	220	58	40	98	62	55	117	61	50	111	85	60	146	105	53	158	125	72	197
5 AM	145	144	289	63	85	148	56	89	145	86	80	166	119	89	208	160	90	250	108	104	212
6 AM	112	159	271	131	163	294	136	191	327	117	168	285	183	156	339	230	140	370	184	172	356
7 AM	326	407	733	345	432	777	379	447	826	375	466	841	421	448	869	368	305	673	475	374	849
8 AM	829	1034	1,863	831	1048	1,879	848	1103	1,951	870	1093	1,963	851	906	1,757	845	675	1,520	726	620	1,346
9 AM	1131	1207	2,338	1099	1244	2,343	1117	1075	2,192	1142	1227	2,369	1105	1157	2,262	1113	1058	2,171	971	863	1,834
10 AM	1172	1244	2,416	1153	1220	2,373	1153	1254	2,407	1142	1204	2,346	1289	1251	2,540	1398	1406	2,804	1378	1194	2,572
11 AM	1406	1551	2,957	1275	1375	2,650	1247	1443	2,690	1320	1422	2,742	1509	1430	2,939	1435	1613	3,048	1639	1512	3,151
12 NOON	1519	1674	3,193	1500	1707	3,207	1405	1545	2,950	1474	1502	2,976	1759	1515	3,274	1490	1512	3,002	1491	1552	3,043
1 PM	1600	1760	3,360	1537	1634	3,171	1475	1635	3,110	1432	1508	2,940	1801	1567	3,368	1468	1494	2,962	1549	1410	2,959
2 PM	1409	1587	2,996	1395	1612	3,007	1275	1439	2,714	1312	1459	2,771	1575	1514	3,089	1409	1347	2,756	1631	1245	2,876
3 PM	1519	1644	3,163	1387	1549	2,936	1352	1343	2,695	1370	1405	2,775	1568	1446	3,034	1504	1294	2,798	1472	1271	2,743
4 PM	1505	1551	3,056	1446	1381	2,827	1385	1281	2,666	1434	1368	2,802	1613	1524	3,137	1460	1252	2,712	1495	1158	2,653
5 PM	1553	1403	2,956	1583	1383	2,966	1502	1345	2,847	1542	1394	2,936	1704	1443	3,147	1467	1276	2,743	1594	1071	2,665
6 PM	1488	1359	2,847	1477	1267	2,744	1507	1372	2,879	1585	1350	2,935	1673	1424	3,097	1374	1370	2,744	1342	917	2,259
7 PM	1123	891	2,014	1169	940	2,109	1193	895	2,088	1259	1032	2,291	1437	1100	2,537	1321	1201	2,522	1237	732	1,969
8 PM	932	548	1,480	936	649	1,585	955	639	1,594	1056	753	1,809	1179	799	1,978	1245	954	2,199	982	568	1,550
9 PM	714	451	1,165	685	429	1,114	852	506	1,358	828	497	1,325	919	605	1,524	1187	580	1,767	781	397	1,178
10 PM	539	313	852	557	332	889	566	382	948	650	395	1,045	660	513	1,173	1016	391	1,407	555	299	855
11 PM	279	205	484	357	247	604	303	241	544	423	279	702	509	407	916	552	321	873	317	183	500
12 MID-NIGHT	152	124	276	213	148	361	214	132	346	258	157	415	302	236	538	432	225	657	151	109	260
Daily Total	19,852	19,540	39,402	19,408	19,058	38,466	19,187	18,575	37,762	19,940	18,981	38,921	22,549	19,812	42,361	21,953	18,891	40,854	20,762	16,144	36,906
AADT*	17,518	17,234	34,753	17,118	16,809	33,927	16,923	16,383	33,306	17,587	16,741	34,328	19,888	17,474	37,362	19,371	16,662	36,033	18,312	14,239	32,551

* AADT = Raw Count*Seasonal Factor*Axle Factor

5-Day ADT	39,382
7-Day ADT	39,239
2015 Seasonal Factor	0.90
2015 Axle Factor	0.98
5-Day AADT	34,735
7-Day AADT	34,609

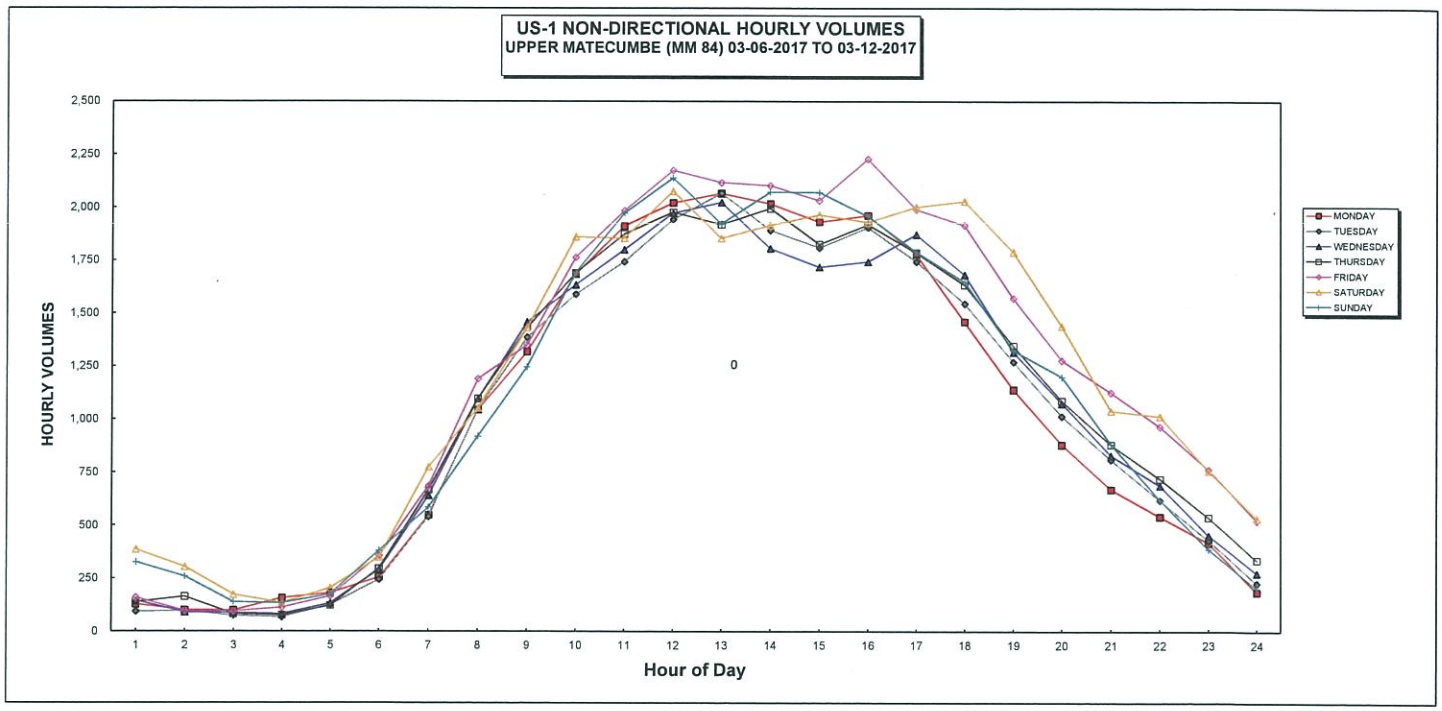

US-1 NON-DIRECTIONAL HOURLY VOLUMES
MARATHON (MM 50) 03-06-2017 TO 03-12-2017
HOURLY VOLUMES
3,750
3,500
3,250
3,000
2,750
2,500
2,250
2,000
1,750
1,500
1,250
1,000
750
500
250
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
Hour of Day
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
SUNDAY

2017 TRAFFIC VOLUME SUMMARY
UPPER MATECUMBE (MM 84): WHALE HARBOR CHANNEL BRIDGE

Hour Ending	Monday 03/06/2017			Tuesday 03/07/2017			Wednesday 03/08/2017			Thursday 03/09/2017			Friday 03/10/2017			Saturday 03/11/2017			Sunday 03/12/2017		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	68	59	127	57	36	93	75	70	145	78	60	138	73	86	159	213	172	385	178	148	326
2 AM	46	54	100	36	60	96	36	53	89	105	58	163	36	60	96	184	119	303	151	107	258
3 AM	46	52	98	32	42	74	39	47	86	36	45	81	52	42	94	89	83	172	80	58	138
4 AM	85	71	156	33	34	67	35	46	81	27	49	76	57	55	112	66	67	133	67	66	133
5 AM	85	95	180	51	73	124	61	71	132	51	70	121	87	78	165	95	109	204	61	113	174
6 AM	84	170	254	77	166	243	63	227	290	85	211	296	121	235	356	149	199	348	132	248	380
7 AM	175	372	547	157	383	540	172	467	639	188	478	666	206	478	684	245	529	774	219	365	584
8 AM	371	673	1,044	362	684	1,046	426	669	1,095	420	677	1,097	433	757	1,190	415	637	1,052	405	514	919
9 AM	552	765	1,317	565	821	1,386	561	897	1,458	563	868	1,431	551	799	1,350	622	808	1,430	556	690	1,246
10 AM	811	873	1,684	700	889	1,589	689	944	1,633	773	917	1,690	820	943	1,763	767	1093	1,860	745	947	1,692
11 AM	885	1026	1,911	803	940	1,743	838	961	1,799	899	974	1,873	939	1044	1,983	862	991	1,853	972	1000	1,972
12 NOON	951	1069	2,020	903	1039	1,942	940	1032	1,972	951	1025	1,976	1030	1144	2,174	940	1135	2,075	1072	1066	2,138
1 PM	960	1105	2,065	948	1118	2,066	917	1105	2,022	933	985	1,918	1047	1069	2,116	762	1091	1,853	977	945	1,922
2 PM	895	1121	2,016	871	1020	1,891	869	936	1,805	877	1117	1,994	1048	1054	2,102	816	1099	1,915	973	1099	2,072
3 PM	853	1078	1,931	865	944	1,809	793	925	1,718	909	916	1,825	977	1054	2,031	817	1147	1,964	975	1095	2,070
4 PM	986	975	1,961	991	914	1,905	933	810	1,743	977	941	1,918	1053	1174	2,227	856	1073	1,929	957	1000	1,957
5 PM	994	784	1,778	1004	740	1,744	1071	801	1,872	1031	755	1,786	1043	947	1,990	939	1062	2,001	1023	766	1,789
6 PM	787	673	1,460	905	641	1,546	970	712	1,682	931	703	1,634	1048	867	1,915	938	1090	2,028	1019	629	1,648
7 PM	716	424	1,140	758	513	1,271	837	480	1,317	819	528	1,347	878	693	1,571	813	976	1,789	821	504	1,325
8 PM	545	334	880	660	355	1,015	709	366	1,075	681	406	1,087	695	583	1,278	906	533	1,439	866	334	1,200
9 PM	375	295	670	507	303	810	498	332	830	522	359	881	580	546	1,126	647	393	1,040	589	295	884
10 PM	356	185	541	361	258	619	423	265	688	445	275	720	470	496	966	707	307	1,014	406	215	621
11 PM	276	142	418	268	162	430	299	154	453	316	222	538	389	375	764	521	236	757	273	115	388
12 MID-NIGHT	127	59	186	156	72	228	174	102	276	210	127	337	292	231	523	358	176	534	110	94	204
Daily Total	12,030	12,454	24,484	12,070	12,207	24,277	12,428	12,472	24,900	12,826	12,767	25,593	13,925	14,810	28,735	13,727	15,125	28,852	13,627	12,413	26,040
AADT*	10,610	10,984	21,595	10,646	10,767	21,412	10,961	11,000	21,962	11,313	11,260	22,573	12,282	13,062	25,344	12,107	13,340	25,447	12,019	10,948	22,967

* AADT = Raw Count*Seasonal Factor*Axle Factor

5-Day ADT	25,598
7-Day ADT	26,126
2015 Seasonal Factor	0.90
2015 Axle Factor	0.98
5-Day AADT	22,577
7-Day AADT	23,043


US-1 NON-DIRECTIONAL HOURLY VOLUMES
UPPER MATECUMBE (MM 84) 03-06-2017 TO 03-12-2017
HOURLY VOLUMES
2,500
2,250
2,000
1,750
1,500
1,250
1,000
750
500
250
0
1
2
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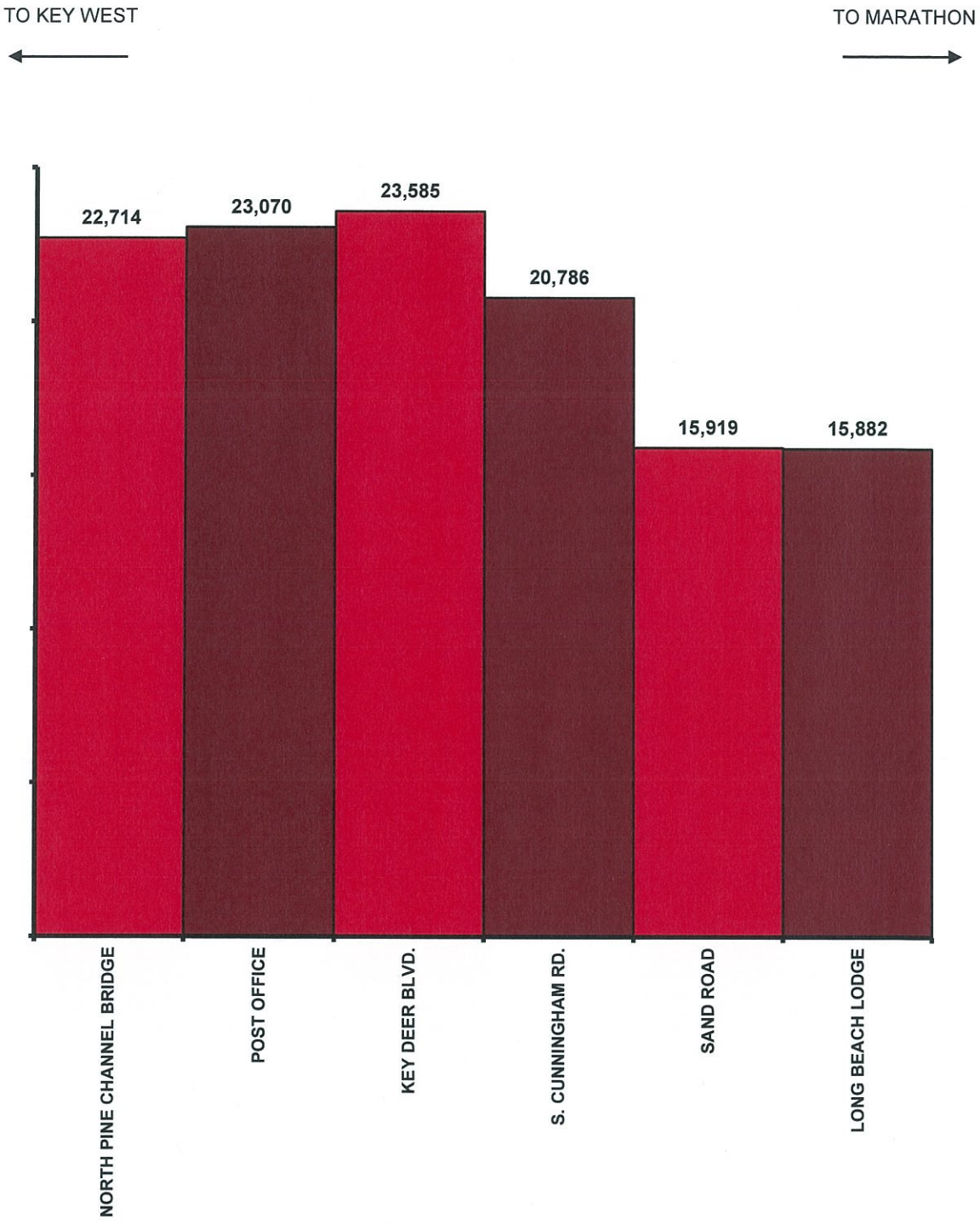
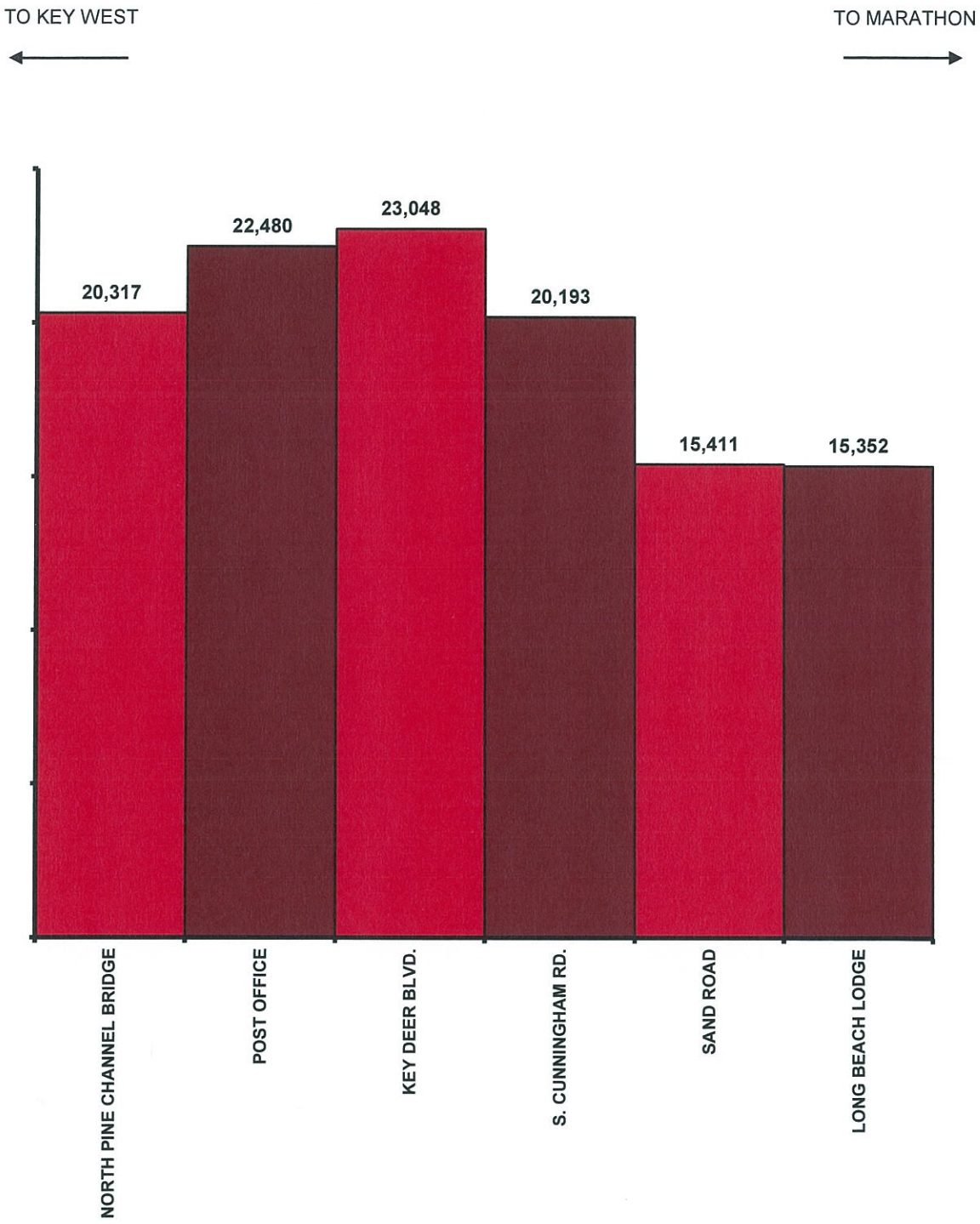
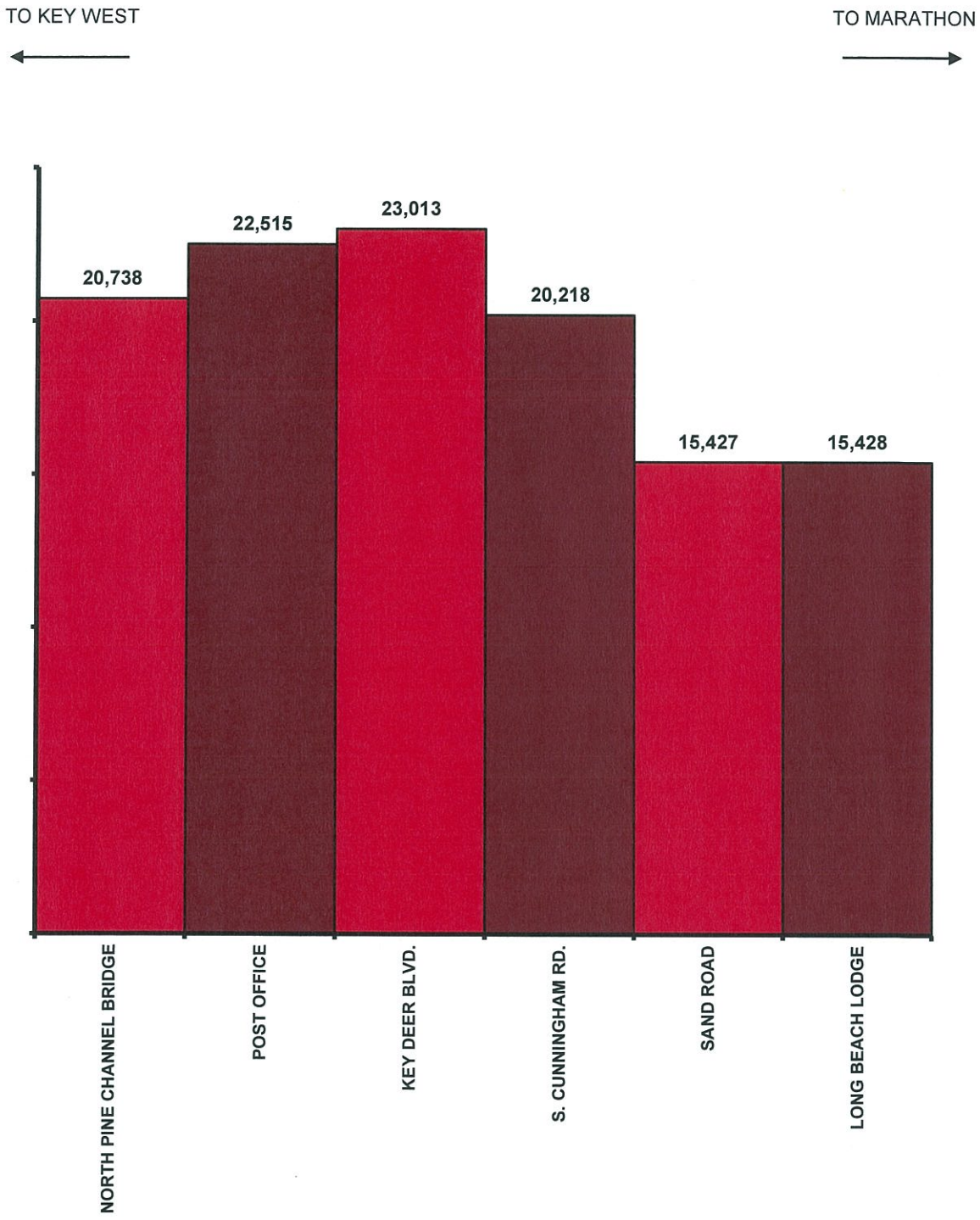
23
24
Hour of Day
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
SUNDAY



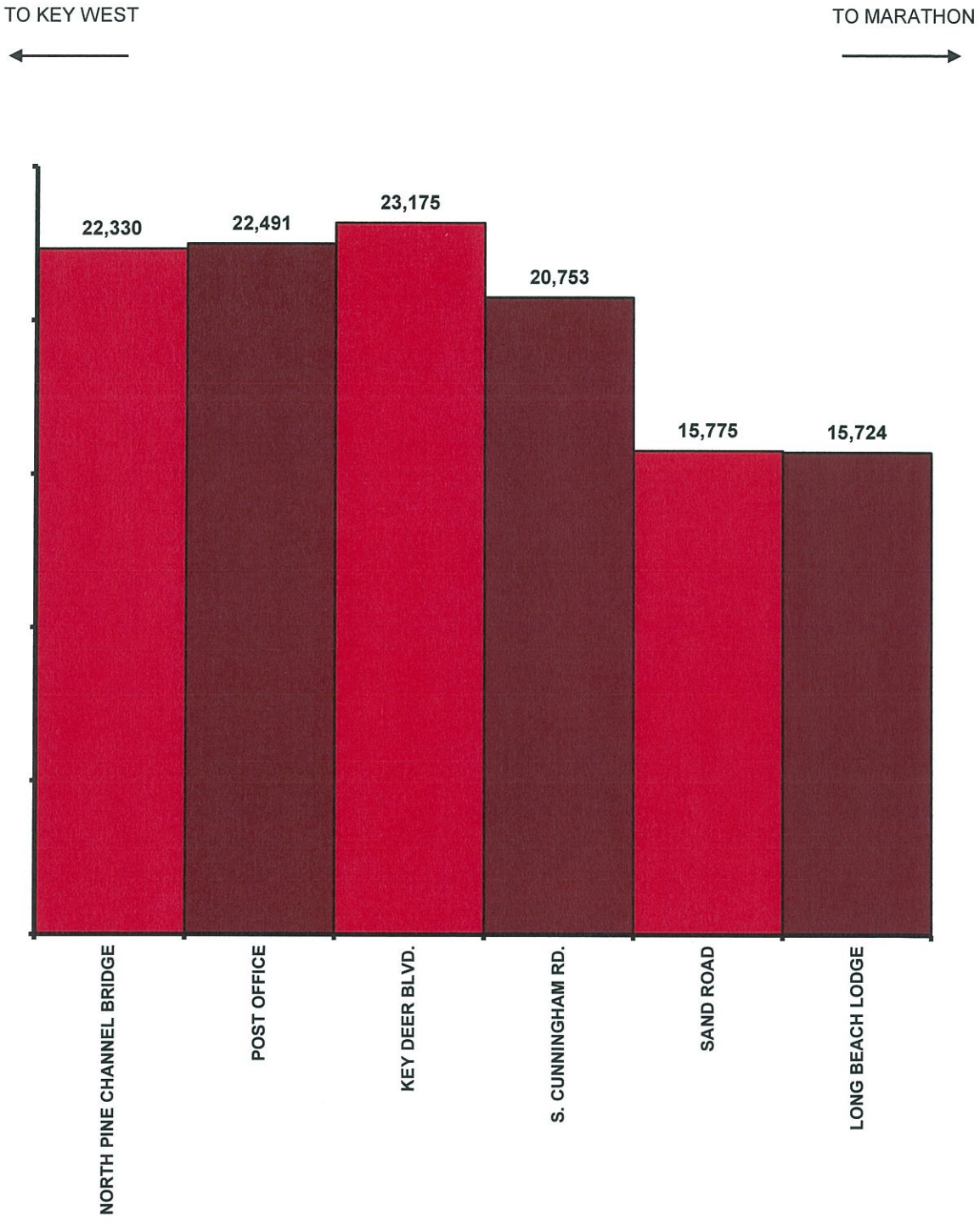
URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-1 TWO-WAY DAILY VOLUMES US 1 - MONDAY



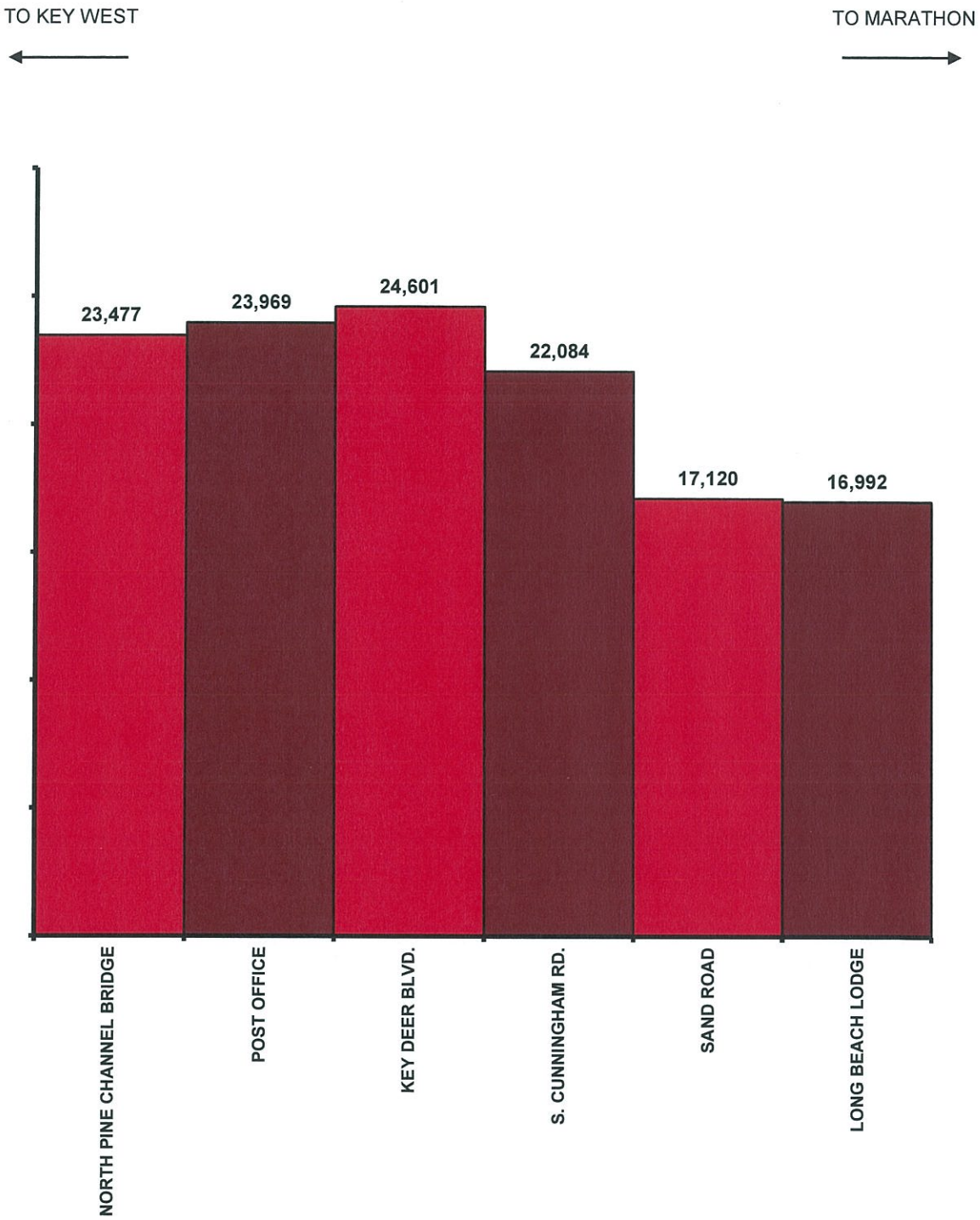
URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-2 TWO-WAY DAILY VOLUMES US 1 - TUESDAY



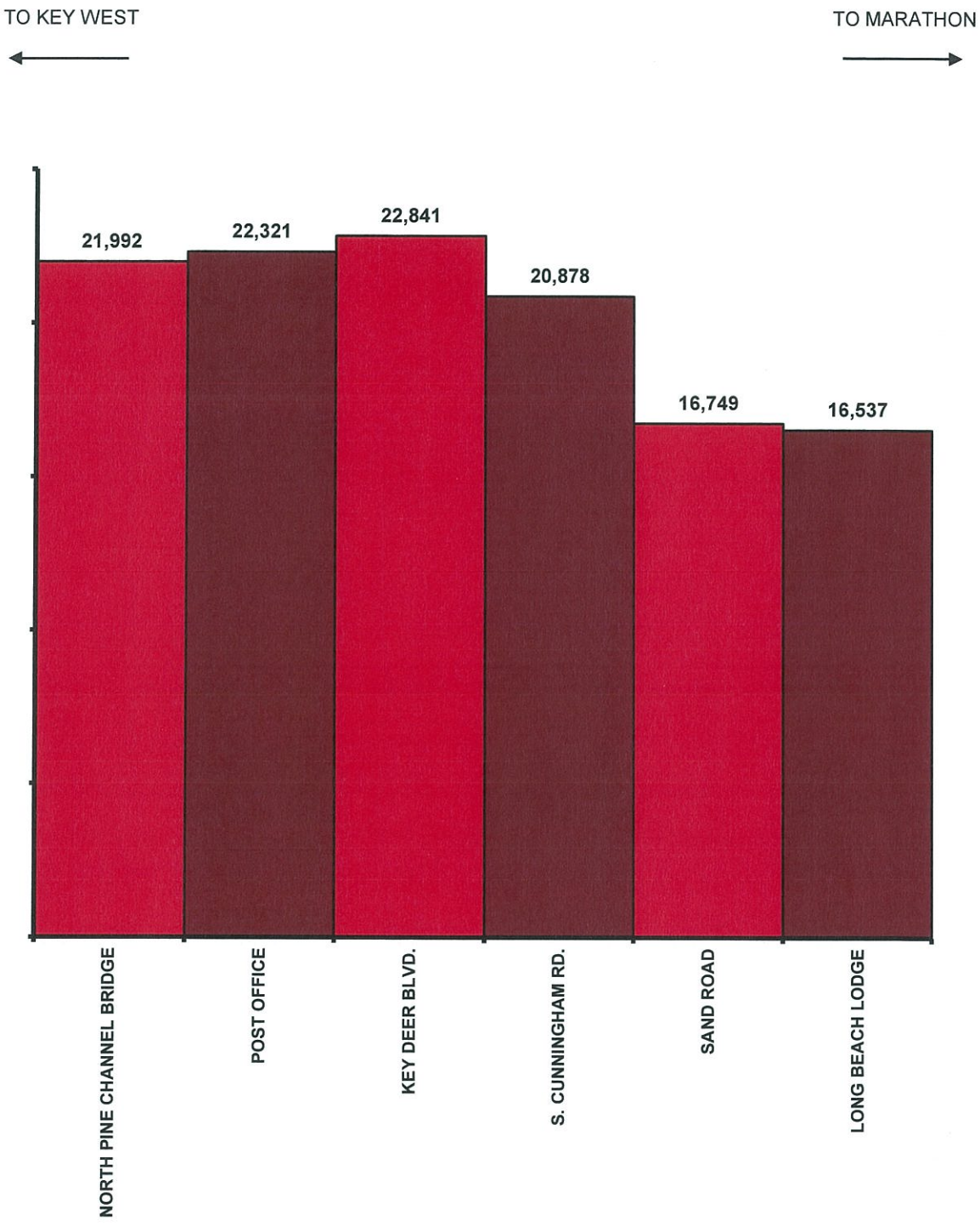
URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-3 TWO-WAY DAILY VOLUMES US 1 - WEDNESDAY



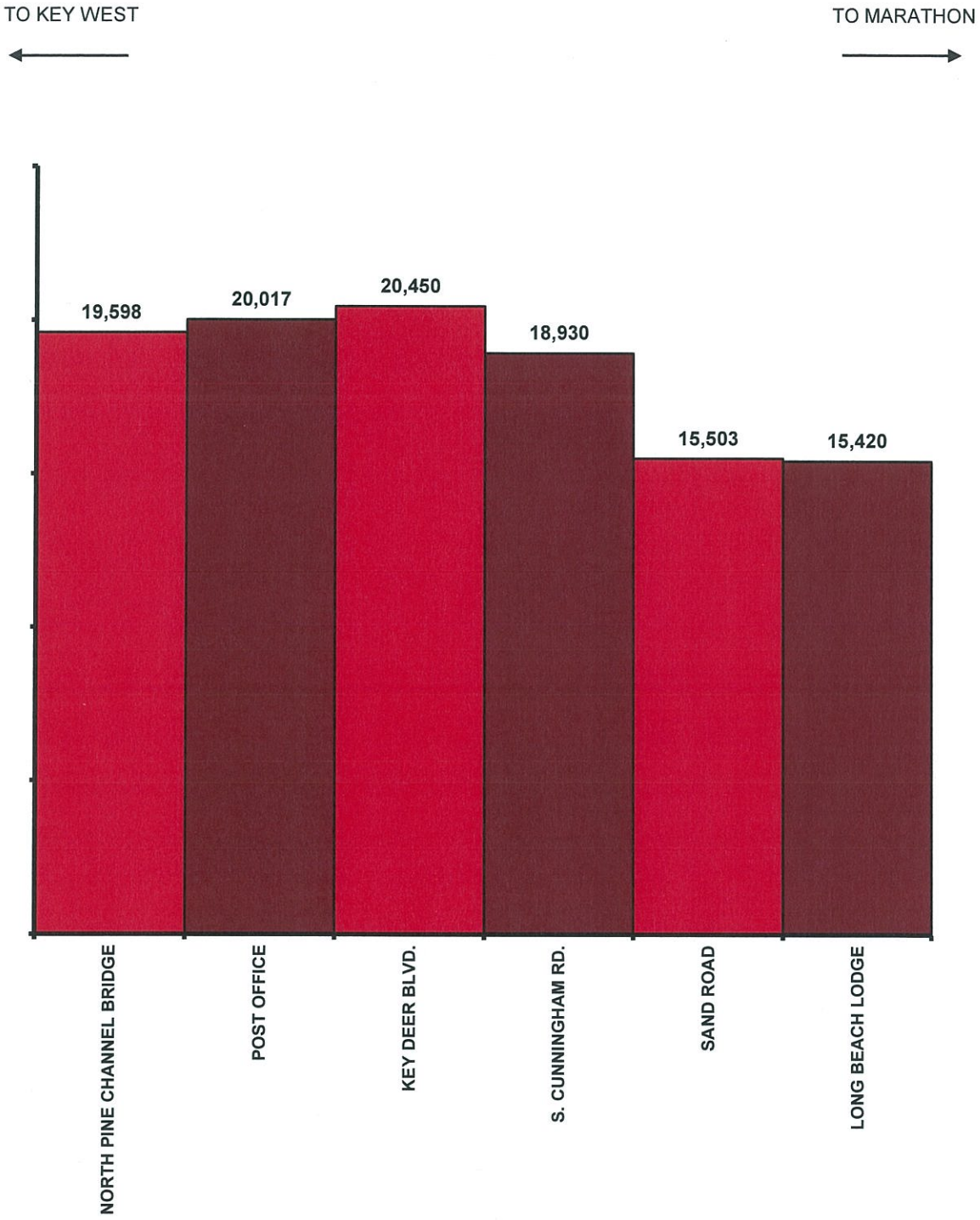
URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-4 TWO-WAY DAILY VOLUMES US 1 - THURSDAY



URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-5 TWO-WAY DAILY VOLUMES US 1 - FRIDAY



URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-6 TWO-WAY DAILY VOLUMES US 1 - SATURDAY



URS		2017 TRAVEL TIME DELAY STUDY MONROE COUNTY, FLORIDA	EXHIBIT C-7 TWO-WAY DAILY VOLUMES US 1 - SUNDAY

APPENDIX D

Historical Count Data

APPENDIX D

URS

HISTORICAL COUNT DATA

		1993	1994		1995		1996		1997		1998		1999		2000		2001		2002		2003	
		Count	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change
Big Pine																						
5 – Day Average		23,811	20,604	-13.47%	27,533	33.63	24,270	11.85%	25,295	4.22%	24,224	-4.23%	25,819	6.58%	26,846	3.98%	23,403	-12.38%	22,812	-3.35%	23,341	3.22%
7 – Day Average		23,893	20,545	-14.01%	26,885	30.86%	23,476	-12.68%	24,371	3.81%	23,788	-2.40%	24,955	4.91%	26,070	4.47%	22,648	-13.13%	21,937	-3.14%	22,788	3.88%
AADT		-	17,743	-10.11%	22,688	27.87%	21,186	-6.62%	21,496	1.46%	19,868	-7.58%	20,843	4.92%	21,774	4.47%	19,991	-8.19%	19,364	-3.14%	20,115	3.88%
Marathon																						
5 – Day Average		34,515	31,484	-8.78%	35,771	13.62%	33,620	-6.01%	34,528	2.70%	35,417	-2.57%	38,619	9.04%	36,431	-5.67%	33,777	-7.29%	36,989	9.51%	36,817	-0.47%
7 – Day Average		33,517	30,449	-9.15%	34,278	12.58%	31,919	-6.88%	32,800	2.76%	34,305	-4.59%	36,818	7.33%	34,742	-5.64%	32,106	-7.59%	35,442	10.39%	35,984	1.53%
AADT		27,688	26,297	-5.02%	28,927	10.00%	27,924	-3.47%	28,930	3.60%	28,651	-0.96%	30,750	7.33%	29,017	-5.64%	28,340	-2.33%	31,285	10.39%	31,763	1.53%
Upper Matecumbe																						
5 – Day Average		22,312	21,929	-1.72%	24,028	9.56%	22,987	-4.32%	24,539	6.75%	24,988	1.83%	26,512	6.10%	26,642	0.49%	24,177	-9.25%	26,589	9.98%	26,759	0.64%
7 – Day Average		23,358	22,687	-2.87%	24,260	6.93%	22,826	-5.91%	24,489	7.29%	25,504	4.14%	26,465	3.77%	26,831	1.38%	24,719	-7.87%	26,475	7.10%	26,514	0.15%
AADT		19,296	19,593	1.54%	20,473	4.49%	20,063	-1.90%	21,599	7.65%	21,301	-1.38%	22,103	3.77%	22,410	1.39%	21,819	-2.64%	23,359	7.10%	23,404	0.15%

HISTORICAL COUNT DATA (Continued)

	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	count	% change	Count	% Change	Count	% Change
Big Pine																						
5 – Day Average	23,341	3.22%	23,108	-0.0101	24,304	5.17%	22,451	-7.62%	25,235	12.40%	21,495	-14.82%	21,242	-1.18%	20,651	-2.78%	20,468	-0.88%	21,056	2.87%	20,986	-0.33%
7 – Day Average	22,788	3.88%	22,538	-1.10%	23,788	5.55%	21,691	-8.82%	25,550	17.79%	20,612	-19.33%	20,656	0.21%	20,115	-2.62%	20,070	-0.22%	20,579	2.53%	20,068	-2.49%
AADT	20,115	3.88%	19,894	-1.10%	19,844	-0.25%	18,095	-8.81%	20,215	11.72%	16,308	-19.33%	16,680	2.28%	17,842	6.97%	17,684	-0.88%	18,011	1.85%	17,943	-0.38%
Marathon																						
5 – Day Average	36,817	-0.47%	37,604	2.14%	37,405	-0.53%	35,388	-5.39%	36,742	3.83%	34,414	-6.34%	34,193	-0.64%	31,883	-6.76%	32,156	0.85%	34,145	6.19%	34,097	-0.14%
7 – Day Average	35,984	1.53%	36,563	1.61%	36,085	-1.32%	33,414	-7.40%	34,811	4.18%	31,731	-8.85%	32,298	1.79%	30,548	-5.42%	31,097	1.79%	32,985	6.07%	32,783	-0.61%
AADT	31,763	1.53%	32,274	1.61%	30,102	-7.22%	27,874	-7.40%	27,542	-1.19%	25,106	-8.84%	26,081	3.88%	27,547	5.62%	27,782	0.85%	29,208	5.13%	29,153	-0.19%
Upper Matecumbe																						
5 – Day Average	26,759	0.64%	27,184	1.63%	27,980	2.89%	23,982	-14.29%	27,933	16.47%	23,416	-16.17%	23,071	-1.47%	22,588	-2.09%	24,326	7.69%	24,561	0.97%	23,656	-3.68%
7 – Day Average	26,514	0.15%	27,561	3.95%	27,693	0.48%	23,916	-13.64%	28,410	18.79%	23,024	-18.96%	23,016	-0.03%	22,634	-1.66%	24,508	8.27%	24,938	1.75%	23,164	-7.11%
AADT	23,404	0.15%	24,328	3.95%	22,927	-6.11%	19,951	-12.98%	23,455	17.56%	19,008	-18.96%	18,585	-2.23%	19,516	5.01%	21,017	7.69%	21,209	-0.04%	20,225	-3.73%

HISTORICAL COUNT DATA (Continued)

	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025	
	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% Change	Count	% change	Count	% Change	Count	% change
Big Pine																						
5 – Day Average	22,833	8.80%			21,915	-4.02%																
7 – Day Average	22,106	10.17%			21,595	-2.31%																
AADT	20,139	12.24%			19,047	-5.42%																
Marathon																						
5 – Day Average	38,824	13.85%			39,382	1.44%																
7 – Day Average	38,144	16.35%			39,239	2.87%																
AADT	34,243	17.48%			34,609	1.07%																
Upper Matecumbe																						
5 – Day Average	26,079	10.24%			25,598	-1.85%																
7 – Day Average	25,817	11.45%			26,126	1.20%																
AADT	23,002	13.72%			23,043	0.18%																

Note: For the years that the Travel Time Delay study is not scheduled (2014, 2016), volumes where obtained from the nearest FDOT PTI count site which may only have three (3) days of data.

APPENDIX E

2017 Travel Speed Summary Data and Statistics

APPENDIX

E

URS

2017 TRAVEL SPEED DATA

	Stock Island 1.0	Boca Chica 2.0	Big Coppitt 3.0	Saddlebunch 4.0	Sugarloaf 5.0	Cudjoe 6.0	Summerland 7.0	Ramrod 8.0	Torch 9.0	Big Pine 10.0	Bahia Honda 11.0	7-Mile Bridge 12.0	Marathon 13.0	Grassy 14.0	Duck 15.0	Long 16.0	L. Matecumbe 17.0	Tea Table 18.0	U. Matecumbe 19.0	Windley 20.0	Plantation 21.0	Tavernier 22.0	Largo 23.0	Cross 24.0	Dade 25.0	
Sunday 02-26-17																										
Northbound	34.2	59.8	51.4	53.6	50.1	50.3	50.1	49.8	49.3	46.0	56.4	54.1	41.7	51.3	54.7	51.5	52.0	45.5	10.5	13.7	31.0	40.9	45.7	22.7	55.4	38.2
Southbound	32.8	60.2	48.0	50.5	50.3	50.5	44.6	43.6	46.4	36.9	55.9	59.8	43.1	52.4	52.3	49.8	46.9	42.4	32.1	41.1	38.1	50.3	42.9	19.7	49.4	43.3
Monday 02-27-17																										
Northbound	22.2	60.2	46.4	51.6	45.0	47.7	47.1	51.0	47.9	39.3	55.0	56.9	39.7	56.9	59.2	57.6	58.9	59.0	43.4	41.3	43.4	47.5	48.2	56.2	57.7	49.4
Southbound	31.2	59.6	44.1	54.0	50.1	50.1	50.3	48.8	47.7	43.1	52.0	48.2	39.3	54.6	52.2	49.4	50.2	52.7	30.9	37.4	35.2	49.6	39.8	50.3	57.7	46.0
Tuesday 02-28-17																										
Northbound	38.2	58.8	51.1	53.9	50.1	50.1	40.9	44.9	50.1	37.6	55.4	58.2	37.6	50.5	52.3	48.8	49.3	43.5	39.5	39.8	38.0	39.4	35.1	56.8	56.5	45.7
Southbound	32.1	59.6	41.5	47.4	44.7	45.6	45.0	45.9	45.1	39.5	46.6	58.2	38.5	48.4	47.8	50.0	51.0	42.9	38.6	42.7	43.5	46.4	48.3	57.4	54.7	46.6
Wednesday 03-01-17																										
Northbound	4.0	58.3	51.4	56.0	46.1	47.2	43.1	47.3	50.3	36.3	54.5	53.8	29.5	53.8	56.8	52.4	47.0	58.3	37.0	39.5	42.7	43.2	33.8	51.1	56.5	41.0
Southbound	12.8	59.3	42.9	52.1	48.7	49.7	48.4	45.8	45.5	13.9	52.3	52.6	29.5	49.2	52.2	48.1	51.0	50.1	36.1	45.6	35.8	45.0	44.1	56.3	57.5	41.8
Thursday 03-02-17																										
Northbound	25.2	59.7	51.0	55.1	49.7	49.5	43.4	51.8	47.5	43.2	54.2	55.5	35.3	52.6	56.4	46.8	48.2	52.4	39.9	40.8	33.8	36.1	37.7	51.5	50.1	44.9
Southbound	23.0	60.0	42.4	53.3	48.2	46.7	45.2	45.0	46.6	34.3	50.9	54.6	36.6	48.3	46.3	42.7	49.5	54.0	41.7	41.4	40.8	48.6	47.1	53.0	57.9	45.8
Friday 03-03-17																										
Northbound	44.0	59.9	51.2	54.4	44.9	43.0	43.2	50.1	50.1	43.9	52.1	53.4	39.0	48.7	51.4	51.6	50.1	40.6	29.4	37.7	35.4	30.4	46.5	45.7	54.3	44.1
Southbound	27.8	59.5	46.7	51.2	41.3	46.6	42.3	42.8	46.6	34.7	54.0	56.3	40.3	52.5	54.8	50.9	49.5	42.1	37.6	44.9	40.2	47.5	37.6	49.3	56.9	45.2
Saturday 03-04-17																										
Northbound	31.0	58.1	51.2	51.1	46.2	52.6	46.3	46.5	47.8	44.9	54.9	52.9	41.0	56.5	57.3	49.4	50.3	46.9	40.2	48.6	44.3	50.5	45.8	56.1	55.9	48.9
Southbound	23.2	60.4	47.4	57.1	51.8	44.4	44.7	45.4	46.3	29.2	48.4	49.5	35.8	50.1	52.1	48.5	49.0	41.7	39.7	13.4	22.1	49.4	41.3	39.7	46.3	41.0
Sunday 03-05-17																										
Northbound	30.9	59.6	49.7	53.4	45.6	50.0	47.8	48.0	42.9	38.5	50.6	51.9	36.7	48.2	49.9	51.4	47.0	29.8	8.7	36.1	29.8	49.9	47.3	45.8	56.8	38.9
Southbound	25.5	59.4	46.5	58.4	50.1	50.1	50.1	50.1	49.8	43.3	52.8	55.7	39.5	52.5	55.2	53.7	56.8	50.8	39.0	45.6	44.8	51.4	45.0	50.7	58.5	49.2
Monday 03-06-17																										
Northbound	32.9	58.8	43.7	52.9	50.0	50.1	50.1	52.8	51.0	46.4	56.0	50.9	36.6	50.9	49.9	49.2	47.3	46.1	38.8	44.7	43.7	47.4	49.0	53.6	54.8	47.9
Southbound	29.6	59.9	46.4	52.1	48.4	49.4	48.2	50.1	50.0	33.9	52.2	53.2	38.6	53.0	57.6	57.2	50.1	59.4	48.0	45.5	45.2	44.0	47.2	56.7	58.0	48.7
Tuesday 03-07-17																										
Northbound	35.2	59.7	44.6	49.7	48.6	45.8	39.8	43.6	44.2	44.5	51.2	50.4	38.1	47.2	50.4	49.5	49.1	49.7	39.7	35.4	42.5	48.5	45.0	56.5	59.9	46.7
Southbound	23.0	59.9	45.9	48.7	48.6	49.6	50.2	45.8	44.8	40.5	58.4	61.0	39.0	51.8	53.1	50.7	47.8	46.1	43.4	47.5	41.6	48.5	42.4	52.4	59.9	47.6
Wednesday 03-08-17																										
Northbound	31.5	59.9	51.5	55.2	48.3	45.2	34.1	28.8	50.1	42.6	55.8	52.8	38.8	56.2	58.4	52.4	50.7	47.5	41.5	44.6	36.7	46.1	47.0	53.6	58.1	46.9
Southbound	18.7	57.9	44.9	55.2	44.5	42.6	46.3	41.3	48.1	40.7	55.4	54.8	37.7	57.1	55.1	54.3	54.9	52.1	41.6	39.6	42.1	46.8	44.7	52.8	57.2	47.5
Thrusday 03-09-17																										
Northbound	32.9	58.3	51.4	51.1	47.2	45.5	42.6	45.1	47.3	42.5	52.6	50.0	36.2	52.5	57.5	49.8	48.9	51.0	41.4	44.0	39.4	44.7	42.2	56.5	57.5	46.6
Southbound	22.8	56.6	45.0	53.3	42.5	44.5	41.7	43.8	49.2	42.0	53.4	52.2	37.7	51.4	54.1	50.2	52.6	49.7	41.2	39.5	41.5	47.3	39.1	50.2	60.1	45.9
Friday 03-10-17																										
Northbound	29.3	59.3	51.1	54.1	50.1	48.7	41.7	46.3	50.0	35.1	50.6	50.2	35.7	54.4	56.8	55.2	51.8	37.6	38.3	37.2	41.0	45.3	43.5	54.4	60.3	46.6
Southbound	22.3	59.8	44.4	48.3	45.7	45.7	43.4	46.3	50.1	36.6	51.1	53.0	39.9	49.6	52.2	49.8	46.8	47.6	30.7	18.2	32.9	45.6	43.7	44.0	58.4	43.4
Saturday 03-11-17																										
Northbound	32.6	59.9	51.1	53.1	48.2	46.0	45.0	45.0	46.1	35.1	54.3	48.8	36.4	49.8	51.8	51.5	54.7	52.8	45.8	46.2	42.8	49.0	45.6	56.3	58.8	47.8
Southbound	26.2	58.6	45.5	58.9	49.2	49.2	51.1	49.7	45.0	37.5	57.3	55.7	40.8	50.1	53.5	51.9	42.0	43.1	34.2	31.4	7.2	49.8	39.8	25.2	65.6	34.8
Highest Speed	**44.0**	**60.4**	**51.5**	**58.9**	**51.8**	**52.6**	**51.1**	**52.8**	**51.0**	**46.4**	**57.3**	**61.0**	**43.1**	**57.1**	**59.2**	**57.6**	**56.9**	**59.4**	**48.0**	**48.6**	**45.2**	**51.4**	**49.0**	**57.4**	**65.6**	**49.4**
Lowest Speed	**4.0**	**56.3**	**41.5**	**47.4**	**41.3**	**42.6**	**34.1**	**28.8**	**42.9**	**13.9**	**46.8**	**48.2**	**29.5**	**47.2**	**46.3**	**42.7**	**42.0**	**29.8**	**8.7**	**13.4**	**7.2**	**30.4**	**33.8**	**19.7**	**46.3**	**34.8**

2017 TRAVEL SPEED DATA

	Stock Island 1.0	Boca Chica 2.0	Big Coppitt 3.0	Saddlebunch 4.0	Sugarloaf 5.0	Cudjoe 6.0	Summerland 7.0	Ramrod 8.0	Torch 9.0	Big Pine 10.0	Bahia Honda 11.0	7-Mile Bridge 12.0	Marathon 13.0	Grassy 14.0	Duck 15.0	Long 16.0	L. Matecumbe 17.0	Tea Table 18.0	U. Matecumbe 19.0	Windley 20.0	Plantation 21.0	Tavernier 22.0	Largo 23.0	Cross 24.0	Dade 25.0	OVERALL
TRAVEL SPEED ANALYSIS																									
Mean	27.7	59.2	47.4	53.1	47.5	47.7	45.2	46.2	47.7	38.6	53.3	53.6	37.7	51.8	53.6	50.9	50.1	47.7	36.7	38.7	37.6	46.1	43.4	49.1	56.9	45.0
Median	29.4	59.6	46.6	53.3	48.3	48.2	45.0	46.1	47.7	39.4	53.7	53.3	37.9	51.6	53.3	50.5	49.8	47.6	39.2	41.0	40.5	47.4	44.4	52.7	57.6	46.0
Standard Deviation	7.9	1.0	3.3	2.8	2.6	2.6	3.9	4.5	2.2	6.5	2.5	3.1	3.0	2.8	3.2	3.0	3.2	6.6	8.8	9.3	8.0	4.7	4.1	10.3	3.7	3.6
Highest Speed	44.0	60.4	51.5	58.9	51.8	52.6	51.1	52.8	51.0	46.4	57.3	61.0	43.1	57.1	59.2	57.6	56.9	59.4	48.0	48.6	45.2	51.4	49.0	57.4	65.6	49.4
Lowest Speed	4.0	56.3	41.5	47.4	41.3	42.6	34.1	28.8	42.9	13.9	46.8	48.2	29.5	47.2	46.3	42.7	42.0	29.8	8.7	13.4	7.2	30.4	33.8	19.7	46.3	34.8
95% Confidence Interva	2.9	0.4	1.2	1.0	1.0	1.0	1.4	1.7	0.8	2.4	0.9	1.1	1.1	1.0	1.2	1.1	1.2	2.5	3.3	3.4	3.0	1.7	1.5	3.8	1.4	1.3
Upper Speed	30.6	59.6	48.7	54.1	48.5	48.7	46.6	47.9	48.6	41.0	54.3	54.7	38.9	52.8	54.8	52.0	51.3	50.2	40.0	42.1	40.6	47.8	44.9	52.9	58.2	46.4
Lower Speed	24.8	58.9	46.2	52.0	46.5	46.8	43.7	44.6	46.9	36.3	52.4	52.4	36.6	50.8	52.4	49.7	49.0	45.3	33.5	35.3	34.6	44.3	41.9	45.3	55.5	43.7
LOS ANALYSIS																										
Posted Speed	42.8	54.7	45.7	53.6	45.0	45.0	45.0	45.0	45.0	45.0	52.4	54.6	42.3	54.5	55.0	53.4	54.0	54.1	45.0	45.0	45.0	47.2	45.0	51.4	54.9	50.0
Signal Adjustment	N/A	N/A	N/A	N/A	4.5	N/A	N/A	N/A	N/A	3.4	N/A	N/A	N/A	1.5	N/A	N/A	N/A	N/A	N/A	N/A	3.4	2.0	3.2	N/A	N/A	N/A
Level of Service Median	B	A	B	B	A	A	B	B	A	C	B	B	A	C	C	C	C	D	D	C	B	A	A	B	N/A	C
95% Upper	F	A	A	B	A	A	A	A	A	B	A	B	A	C	B	B	C	C	D	C	B	A	A	B	N/A	C
95% Lower	B	A	B	C	A	A	B	B	A	D	B	C	A	C	C	C	D	E	E	E	D	B	B	D	N/A	D
LOS C Standard	22.0	50.2	41.2	49.1	36.0	40.5	40.5	40.5	40.5	37.1	47.9	50.1	22.0	48.5	50.5	48.9	49.5	49.6	40.5	40.5	37.1	40.7	37.3	46.9	N/A	45.0
Reserve	7.4	9.4	5.4	4.2	12.3	7.7	4.5	5.6	7.2	2.3	5.8	3.2	15.9	3.1	2.8	1.5	0.3	-1.9	-1.3	0.5	3.4	6.7	7.1	5.7	N/A	1.0

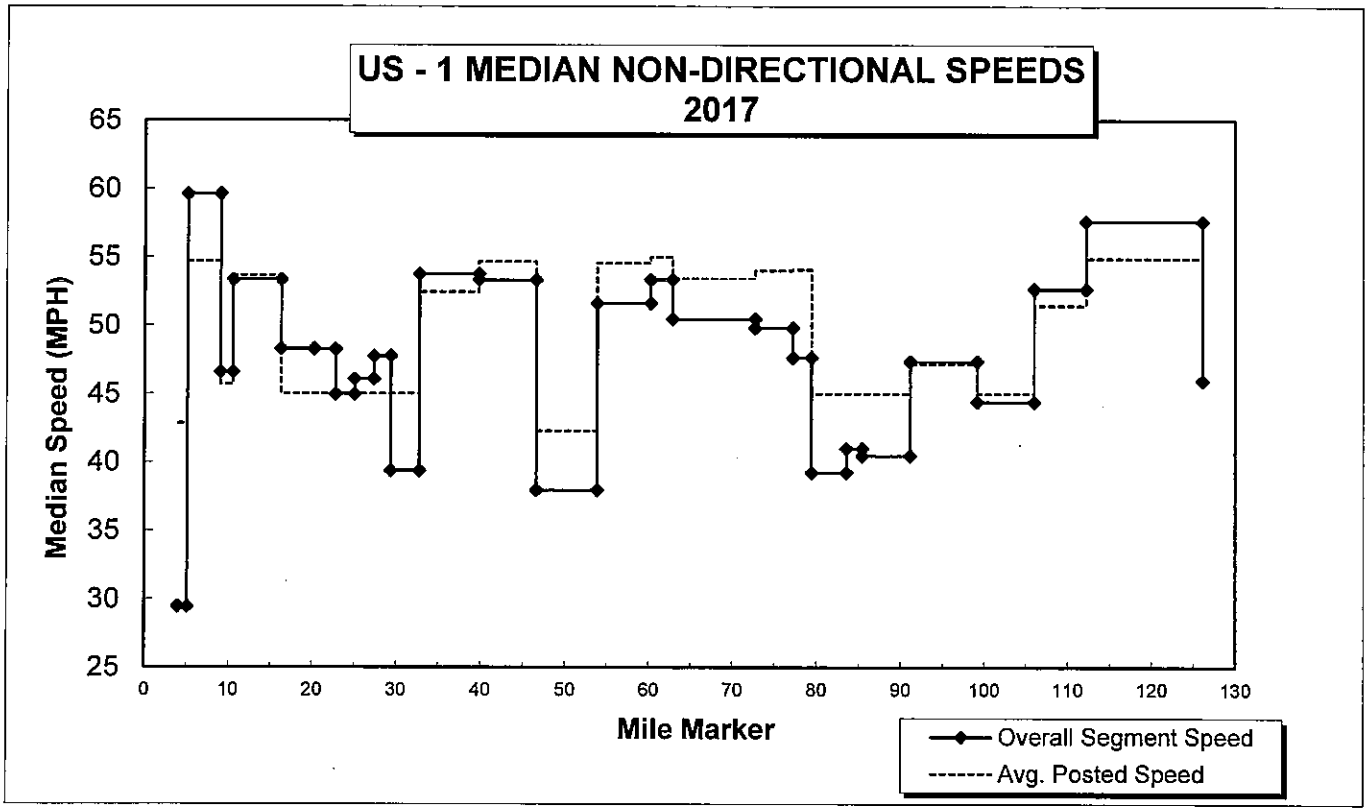
APPENDIX F

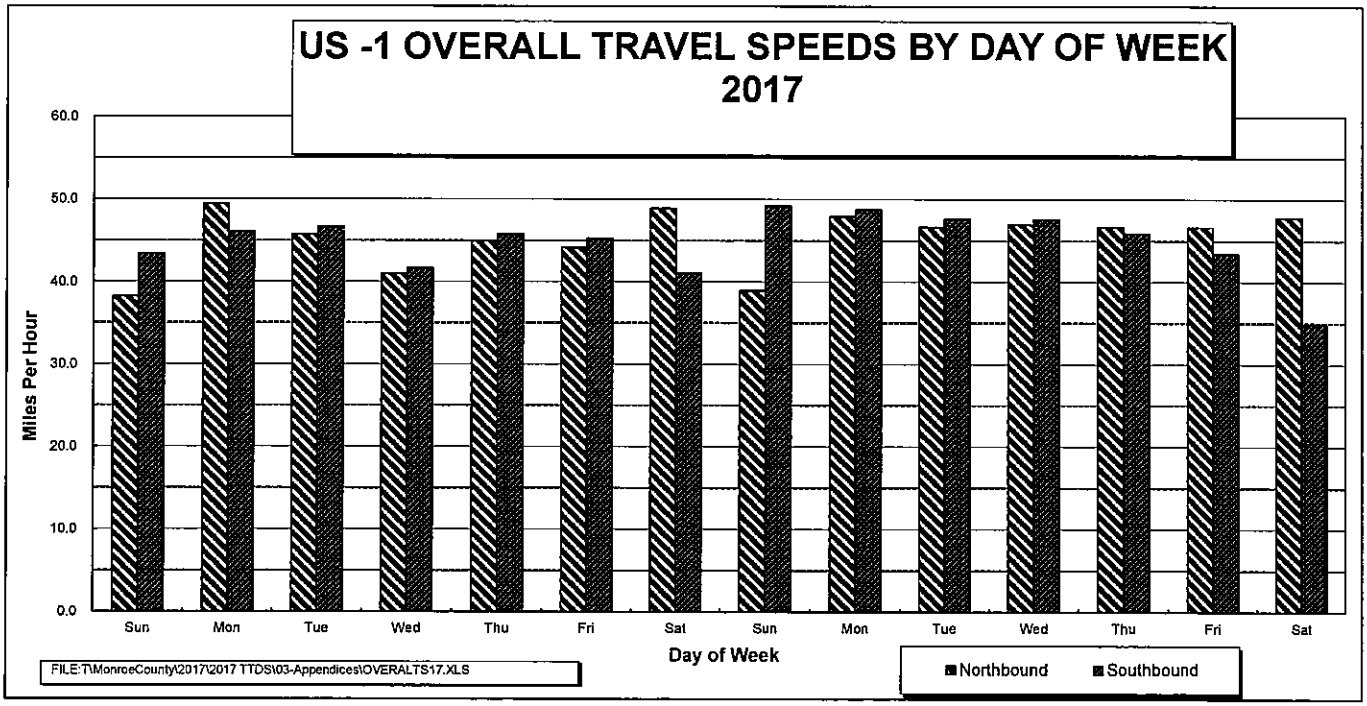
Comparisons of Historical Travel Speed Data

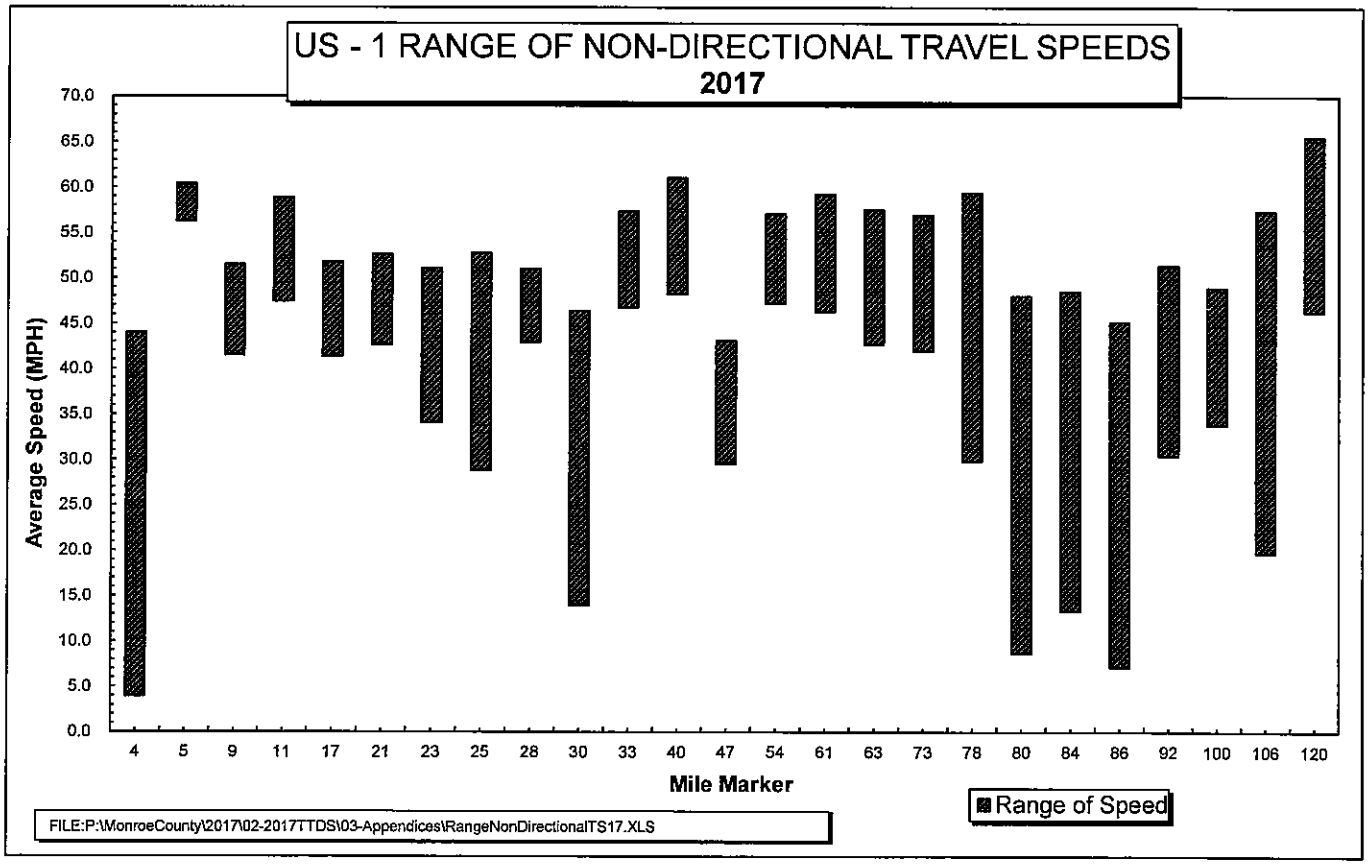
APPENDIX

F

URS


US - 1 MEDIAN NON-DIRECTIONAL SPEEDS
2017
Median Speed (MPH)
65
60
55
50
45
40
35
30
25
0
10
20
30
40
50
60
70
80
90
100
110
120
130
Mile Marker
Overall Segment Speed
Avg. Posted Speed


US -1 OVERALL TRAVEL SPEEDS BY DAY OF WEEK
2017
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Miles Per Hour
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Day of Week
Northbound
Southbound
FILE:T\MonroeCounty\2017\2017 TTDS\03-Appendices\OVERALTS17.XLS


US - 1 RANGE OF NON-DIRECTIONAL TRAVEL SPEEDS
2017
Average Speed (MPH)
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
4
5
9
11
17
21
23
25
28
30
33
40
47
54
61
63
73
78
80
84
86
92
100
106
120
Mile Marker
Range of Speed
FILE:P:\MonroeCounty\2017\02-2017TTDS\03-Appendices\RangeNonDirectionalTS17.XLS

COMPARISON OF HISTORICAL TRAVEL SPEED DATA (SHEET 1 OF 2)

	1 Stock Island	2 Boca Chica	3 Big Coppitt	4 Saddlebunch	5 Sugarloaf	6 Cudjoe	7 Summerland	8 Ramrod	9 Torch	10 Big Pine	11 Bahia Honda	12 7-Mile Bridge	13 Marathon
Mean (mph)													
2017	27.7	59.2	47.4	53.1	47.5	47.7	45.2	46.2	47.7	38.6	53.3	53.6	37.7
2015	33.1	57.7	46.8	52.2	47.7	46.4	44.4	46.5	47.2	35.2	51.8	52.3	37.6
2013	33.0	58.4	45.5	52.1	47.1	47.4	44.9	45.9	47.0	39.9	53.6	53.5	35.9
2012	33.5	56.8	44.9	52.3	46.0	46.4	43.8	46.5	46.6	37.4	52.4	54.1	36.7
2011	32.9	58.1	44.8	52.5	47.3	47.3	48.1	48.8	47.7	37.6	53.1	55.3	36.5
2010	32.7	57.4	45.1	51.6	47.9	47.2	45.6	46.4	46.2	39.2	53.8	53.9	36.6
2009	34.7	56.7	42.2	51.6	46.4	47.4	45.0	47.5	47.5	35.3	51.7	55.2	38.4
2008	31.4	54.7	44.3	51.7	46.9	46.8	45.5	47.1	46.6	35.0	52.1	54.9	37.8
2007	33.6	58.3	46.1	52.0	47.1	49.9	45.7	47.9	46.8	38.9	54.3	55.3	37.9
2006	31.8	57.2	46.5	52.6	46.1	48.3	46.2	48.0	47.5	37.8	53.3	54.2	36.4
2005	29.5	54.4	44.3	49.7	48.4	47.2	45.4	47.5	46.8	35.1	51.7	54.5	34.4
2004	31.8	57.5	46.2	52.5	48.1	47.5	48.3	46.2	48.4	37.2	52.5	52.7	34.9
Change(1)	-5.4	1.5	0.6	0.9	-0.2	1.3	0.8	-0.3	0.5	3.4	1.5	1.3	0.1
Change(2)	-7.9	2.5	2.1	1.6	-2.3	4.5	0.5	-1.6	1.3	0.5	-0.1	0.7	-2.0
Median (mph)													
2017	29.4	59.6	46.6	53.3	48.3	48.2	45.0	46.1	47.7	39.4	53.7	53.3	37.9
2015	32.9	56.1	47.2	51.7	47.5	46.9	44.1	46.6	47.5	38.0	52.1	52.6	37.9
2013	33.1	57.1	46.5	51.2	47.4	48.0	44.9	45.8	47.9	40.1	53.7	54.9	35.8
2012	32.0	57.0	45.3	52.6	46.4	45.4	44.7	45.6	47.4	39.2	53.5	53.5	36.7
2011	33.7	58.4	45.9	52.6	46.7	46.8	46.0	46.4	48.0	38.7	53.4	55.1	36.4
2010	34.0	57.3	43.8	52.3	48.0	47.1	45.9	45.4	48.5	39.7	53.8	53.8	36.7
2009	34.2	56.7	42.3	52.4	46.6	47.0	44.7	47.6	47.9	37.9	51.7	55.4	36.2
2008	31.7	55.5	45.7	51.6	47.2	47.7	46.4	47.7	46.6	35.7	52.3	56.1	37.3
2007	34.6	57.9	45.2	52.2	47.6	48.5	45.6	48.1	47.1	39.0	54.1	55.1	37.7
2006	31.2	57.7	46.2	52.1	46.1	48.1	45.7	46.3	48.2	38.0	54.3	53.8	36.0
2005	30.2	55.8	44.7	50.9	48.8	47.8	45.7	47.8	46.8	36.4	52.6	56.6	35.2
2004	32.0	58.2	46.1	53.7	48.3	48.1	46.4	48.4	47.6	38.4	52.5	53.1	35.2
Change(1)	-3.5	1.5	-0.6	1.6	0.6	1.3	0.9	-0.5	0.2	1.4	1.6	0.7	0.0
Change(2)	-6.7	3.5	-0.1	1.5	-2.0	5.2	0.2	-2.2	1.2	0.5	0.4	0.9	-1.8
Highest (mph)													
2017	44.0	60.4	51.5	58.9	51.8	52.6	51.1	52.8	51.0	48.4	57.3	61.0	43.1
2015	47.1	59.9	55.8	57.5	52.0	51.3	50.8	50.2	52.3	44.8	59.4	58.0	48.5
2013	45.2	61.0	53.4	58.1	51.6	50.5	49.0	53.4	55.9	58.6	57.0	59.2	42.6
2012	47.8	64.5	52.7	58.8	51.3	54.8	49.7	51.6	53.1	45.0	59.6	59.9	50.8
2011	42.0	62.5	53.1	57.6	55.3	55.9	52.1	52.0	52.3	45.4	57.1	61.3	41.1
2010	48.3	61.5	54.5	58.5	60.9	51.9	52.6	57.8	51.8	48.4	58.0	61.0	42.6
2009	41.8	61.7	49.9	56.9	53.2	52.6	51.0	52.6	52.4	45.1	58.3	59.3	44.0
2008	45.4	59.1	49.5	56.2	50.6	51.1	49.2	50.6	52.4	42.9	54.9	58.9	44.4
2007	47.3	65.9	58.8	57.0	56.5	56.0	54.6	56.7	53.3	55.6	58.0	65.4	43.9
2006	44.4	60.2	54.7	59.3	57.5	54.0	53.6	53.4	52.2	44.6	58.7	61.0	47.4
2005	40.9	58.5	49.7	56.1	51.2	51.6	51.9	53.2	53.3	44.4	59.4	64.8	40.3
2004	59.7	62.4	56.9	61.4	54.0	51.8	63.5	52.8	65.2	45.4	59.0	59.5	41.5
Change(1)	-3.1	0.5	-4.3	1.4	-0.2	1.3	0.3	2.6	-1.3	1.8	-2.1	3.0	-3.4
Change(2)	-1.0	-2.2	-2.3	3.7	-1.9	1.9	-0.8	0.4	-1.8	1.2	-1.7	0.3	-0.6
Lowest (mph)													
2017	4.0	56.3	41.5	47.4	41.3	42.6	34.1	28.8	42.9	13.9	46.8	48.2	29.5
2015	8.6	50.9	39.2	47.3	44.1	41.1	37.8	41.4	35.9	15.2	47.1	43.2	27.6
2013	22.0	45.6	28.5	47.8	42.7	41.6	36.8	35.3	36.7	22.6	48.0	34.5	30.1
2012	21.3	40.1	34.0	43.6	40.4	42.2	34.8	41.1	31.4	20.2	13.9	48.4	25.6
2011	20.1	52.4	16.7	45.6	41.0	43.1	41.6	41.1	42.7	16.5	48.3	49.1	31.2
2010	11.9	53.6	34.1	38.2	43.2	42.8	40.8	41.0	39.9	32.0	49.9	46.8	29.3
2009	24.6	51.1	35.1	44.4	28.0	43.1	35.3	42.5	43.4	12.9	47.9	49.4	33.5
2008	20.8	46.6	33.1	44.4	37.2	30.0	23.0	35.0	37.0	8.9	46.9	48.3	31.1
2007	14.5	51.3	40.0	43.6	36.6	46.1	38.6	40.3	30.3	9.9	49.7	49.8	30.0
2006	22.0	53.2	34.8	45.0	41.8	44.8	42.3	31.7	39.0	27.8	31.0	45.9	30.1
2005	7.4	36.8	35.9	36.8	36.8	36.8	36.8	36.6	36.8	22.1	36.8	36.8	17.1
2004	19.5	48.9	22.9	25.7	41.5	26.3	31.0	30.6	43.7	9.6	34.1	45.3	28.9
Change(1)	-4.6	5.4	2.3	0.1	-2.8	1.5	-3.7	-12.6	7.0	-1.3	-0.3	5.0	1.9
Change(2)	-23.3	2.2	20.8	3.3	-1.6	6.4	-4.7	-12.8	1.0	-10.7	-2.1	3.0	-7.0
Level of Service													
2017	B	A	B	B	A	A	B	B	A	C	B	B	A
2015	B	A	B	C	A	A	B	A	A	C	B	C	A
2013	B	A	B	C	A	A	B	B	A	B	B	B	A
2012	B	A	C	B	C	B	B	B	A	C	B	C	A
2011	B	A	C	B	B	B	B	B	A	C	B	B	A
2010	B	A	D	C	C	A	B	B	A	C	A	B	A
2009	B	A	D	C	D	B	B	A	A	C	B	B	A
2008	B	B	C	C	D	A	B	A	A	D	B	B	A
2007	B	A	C	C	C	A	B	A	A	C	A	B	A
2006	B	A	C	C	C	A	B	B	A	C	A	B	A
2005	B	A	D	C	D	A	B	A	A	D	B	A	A
2004	B	A	C	B	C	A	B	B	A	C	B	C	A
Reserve (mph)													
2017	7.4	9.4	5.4	4.2	12.3	7.7	4.5	5.6	7.2	2.3	5.8	3.2	15.9
2015	10.9	8.0	5.2	2.6	11.4	6.4	3.6	6.1	7.0	0.7	4.7	2.4	15.9
2013	11.1	7.0	4.5	2.1	11.3	7.5	4.4	5.3	7.4	3.2	5.8	4.9	13.8
2012	10.0	7.4	0.2	3.0	2.9	4.4	4.2	5.3	6.9	2.1	5.8	3.0	14.7
2011	11.7	8.8	0.7	3.2	3.2	5.6	5.5	5.9	7.5	1.5	5.8	4.6	14.4
2010	12.0	7.7	-1.3	2.7	0.3	6.0	5.4	4.9	6.0	2.7	6.2	3.3	14.7
2009	12.2	7.1	-2.8	2.6	-0.9	5.9	4.2	7.1	7.4	0.6	4.1	4.9	16.2
2008	9.7	5.9	0.6	2.0	-0.4	6.6	5.9	7.2	6.1	-2.0	4.7	5.6	15.3
2007	12.6	8.3	0.1	2.8	0.2	7.5	5.1	7.6	6.8	2.0	6.5	4.6	15.7
2006	9.2	8.1	1.1	2.5	0.5	7.1	5.2	5.6	7.7	1.0	6.7	3.4	14.0
2005	6.2	6.2	-0.5	1.3	-1.1	6.8	5.2	7.3	6.3	-0.6	5.0	6.1	13.2
2004	10.0	8.6	1.0	4.1	0.7	7.0	6.9	5.9	7.1	1.4	4.9	2.6	13.2
Change(1)	-3.5	1.4	0.2	1.6	0.9	1.3	0.9	-0.5	0.2	1.6	1.1	0.8	0.0
Change(2)	-6.7	3.6	4.2	2.9	10.5	5.2	0.2	-2.2	1.2	2.0	1.7	-3.7	-1.8

	14 Grassy	15 Duck	16 Long	17 L. Matecumbe	18 Tea Table	19 U. Matecumbe	20 Windley	21 Plantation	22 Tavernier	23 Key Largo	24 Cross	25 Dade	Overall
Mean (mph)													
2017	51.8	53.8	50.9	50.1	47.7	38.7	38.7	37.8	48.1	43.4	49.1	58.9	45.0
2015	50.8	50.1	48.3	48.5	45.6	37.0	35.1	36.3	47.2	44.8	50.0	55.1	44.8
2013	48.9	44.1	50.8	49.3	47.6	40.5	38.3	39.4	47.4	43.6	52.1	57.5	45.7
2012	51.4	53.3	52.4	49.1	46.4	40.4	41.4	38.2	48.1	45.9	50.9	55.9	46.1
2011	51.4	53.8	51.8	49.7	49.4	40.8	41.8	41.7	48.8	44.7	52.1	56.2	46.9
2010	46.3	54.6	52.2	48.6	49.0	40.7	43.4	40.2	47.5	46.1	51.0	49.1	46.6
2009	49.8	50.4	51.4	51.0	47.8	39.9	38.4	39.2	47.8	46.0	50.7	51.5	46.3
2008	50.7	53.5	51.8	50.5	49.6	41.9	44.1	41.4	48.8	43.7	38.2	52.0	45.5
2007	50.9	53.0	51.6	51.2	49.3	41.0	41.0	40.1	49.4	46.4	37.7	54.0	45.6
2006	50.3	54.6	52.4	49.2	49.5	39.5	40.8	41.7	49.2	45.9	42.6	56.5	45.9
2005	49.3	51.2	49.4	49.1	47.9	39.8	40.4	38.7	46.6	44.2	43.9	56.0	44.2
2004	50.1	54.1	52.7	50.1	48.6	41.4	39.4	38.5	48.1	45.2	45.7	57.6	45.1
Change(1)	1.0	3.5	2.6	1.6	2.1	-0.3	3.6	1.3	-1.1	-1.4	-0.9	1.8	0.2
Change(2)	0.7	1.5	0.1	0.4	-1.7	-3.6	-3.0	-0.9	-2.7	-3.7	-0.6	0.4	-1.9
Median (mph)													
2017	51.6	53.3	50.5	49.8	47.6	39.2	41.0	40.5	47.4	44.4	52.7	57.6	46.0
2015	51.5	50.1	48.8	48.4	45.7	38.5	37.9	38.5	48.5	44.6	52.0	55.8	45.1
2013	51.0	47.8	51.2	49.9	47.4	40.2	41.2	41.3	46.9	43.9	52.9	58.3	45.9
2012	51.0	53.0	52.6	49.2	45.2	40.7	41.3	41.9	48.7	46.9	52.2	57.2	47.0
2011	51.3	53.7	52.2	49.6	49.2	41.9	42.7	41.5	48.8	44.6	52.4	55.5	47.1
2010	47.2	54.0	53.1	49.2	49.6	41.4	45.6	41.3	47.7	45.6	50.7	48.9	46.9
2009	50.3	51.3	51.3	51.4	48.5	40.6	42.2	39.6	48.2	46.0	52.1	51.1	46.6
2008	50.7	54.4	52.3	51.0	50.0	42.1	43.8	41.8	47.6	44.4	38.3	52.0	46.4
2007	50.9	52.9	51.3	51.1	49.8	41.4	42.4	41.8	49.9	45.7	37.1	53.9	45.7
2006	50.3	53.9	52.1	49.0	50.1	40.6	41.4	42.2	49.0	45.9	44.0	56.5	45.9
2005	49.5	53.6	50.8	50.0	49.9	39.1	41.8	39.4	47.7	44.7	44.4	57.5	45.3
2004	50.3	54.4	52.9	50.5	49.0	40.9	41.8	40.0	48.3	45.5	45.0	58.4	45.4
Change(1)	0.1	3.2	1.7	1.4	1.9	0.7	3.1	2.0	-1.1	-0.4	0.7	1.8	0.9
Change(2)	0.5	0.7	-0.2	-0.6	-2.1	-0.9	-2.4	1.6	-0.6	-2.4	1.5	0.8	-0.9
Highest (mph)													
2017	57.1	59.2	57.6	58.9	59.4	48.0	48.6	45.2	51.4	49.0	57.4	65.6	49.4
2015	55.0	57.3	53.9	57.8	55.4	43.4	46.7	48.4	51.9	49.3	57.1	61.4	49.1
2013	55.0	66.6	56.7	55.7	54.2	45.7	48.6	55.7	63.5	49.9	56.5	62.6	48.4
2012	57.4	61.2	60.4	56.2	54.1	45.1	82.8	47.5	53.1	51.9	59.4	61.0	49.2
2011	60.1	64.8	58.4	57.0	59.4	47.4	49.4	54.9	55.3	50.8	58.3	60.0	48.7
2010	50.5	78.5	57.1	54.8	55.9	45.4	49.3	53.6	51.9	51.0	58.3	53.4	48.4
2009	54.3	60.4	56.0	55.7	54.4	45.8	55.2	45.2	50.9	51.8	59.2	55.9	48.4
2008	54.6	57.4	54.8	54.6	59.0	47.5	56.3	48.5	50.7	54.0	50.8	57.4	48.2
2007	58.4	62.0	80.6	58.0	56.8	47.3	52.0	48.5	54.5	60.0	54.5	62.6	48.3
2006	57.0	61.8	60.0	58.3	61.5	48.2	51.1	51.0	65.3	52.9	46.7	61.4	48.3
2005	58.5	57.7	56.1	57.6	57.3	45.5	46.7	45.7	50.2	49.2	55.6	61.0	48.4
2004	55.8	58.9	56.8	56.8	56.2	48.5	50.9	43.9	52.8	53.4	55.6	62.4	47.9
Change(1)	2.1	1.9	3.7	-0.9	4.0	4.6	1.9	-1.2	-0.5	-0.3	0.3	4.2	0.3
Change(2)	-0.9	1.5	-0.4	1.1	3.3	-0.1	-0.7	1.2	-6.8	-4.4	1.0	2.5	0.6
Lowest (mph)													
2017	47.2	46.3	42.7	42.0	29.8	6.7	13.4	7.2	30.4	33.8	19.7	48.3	34.8
2015	42.3	45.1	42.9	44.3	39.2	14.7	14.4	16.1	35.6	39.0	26.2	25.6	39.4
2013	21.2	18.9	41.0	42.0	38.1	33.9	12.2	25.2	38.4	31.7	35.5	50.5	41.2
2012	44.1	48.2	46.6	36.2	38.6	34.5	27.7	2.6	33.2	34.8	38.1	38.1	35.6
2011	46.0	44.4	43.1	42.5	36.2	31.9	28.7	22.7	41.1	39.1	41.0	48.9	41.9
2010	32.5	49.5	45.1	45.2	41.7	23.7	16.9	16.0	41.8	42.6	47.1	45.3	42.7
2009	44.3	38.9	46.8	42.1	39.2	31.2	15.3	30.1	42.8	40.2	38.1	46.3	42.6
2008	44.0	47.7	47.6	45.6	40.9	35.2	37.6	25.8	37.0	33.7	22.0	48.1	38.5
2007	45.8	45.5	47.2	45.3	35.4	30.3	21.9	24.0	31.4	38.6	24.9	45.5	41.1
2006	42.5	50.1	47.5	42.5	40.9	15.5	11.6	29.6	45.1	39.5	32.0	49.1	40.8
2005	36.8	21.5	36.8	36.8	36.8	35.7	15.1	30.9	36.8	36.8	20.7	36.8	36.8
2004	43.2	47.5	48.1	37.9	41.2	31.4	26.7	21.8	43.4	32.3	29.0	49.8	39.3
Change(1)	4.9	1.2	-0.2	-2.3	-9.4	-8.0	-1.0	-8.9	-5.2	-6.2	-6.5	20.7	-4.6
Change(2)	9.5	0.7	-2.6	-0.7	-12.8	-27.0	-14.9	-25.9	-14.7	-7.0	-15.4	-5.7	-8.6
Level of Service													
2017	C	C	C	C	D	D	C	B	A	A	B	N/A	C
2015	C	B	B	D	D	C	C	C	A	A	B	N/A	C
2013	C	D	C	D	E	D	C	B	A	A	B	N/A	C
2012	C	C	B	D	E	C	C	B	A	A	A	N/A	C
2011	C	B	B	D	D	C	C	B	A	A	A	N/A	C
2010	D	B	B	D	D	C	A	B	A	A	A	N/A	C
2009	C	C	C	C	D	C	A	C	A	A	A	N/A	C
2008	C	B	B	C	D	C	A	B	A	A	E	N/A	C
2007	C	C	C	C	D	C	A	B	A	A	E	N/A	C
2006	C	B	B	D	C	C	A	B	A	A	C	N/A	C
2005	D	B	C	D	D	D	A	C	A	A	D	N/A	C
2004	C	B	B	C	D	C	A	C	A	A	D	N/A	C
Reserve (mph)													
2017	3.1	2.8	1.5	0.3	-1.9	-1.3	0.5	3.4	6.7	7.1	5.7	N/A	1.0
2015	3.1	4.0	3.6	-1.2	-1.1	2.2	1.2	1.1	7.9	7.6	4.8	N/A	0.1
2013	2.5	-2.7	2.3	-0.6	-3.1	-1.7	0.7	4.4	6.2	6.6	5.9	N/A	0.9
2012	2.6	2.5	3.8	-1.3	-4.9	0.2	0.8	5.1	6.2	10.6	4.9	N/A	2.0
2011	2.9	3.2	3.2	-0.9	-0.9	1.4	2.2	4.6	8.4	8.2	5.2	N/A	2.1
2010	-2.8	3.5	4.2	-1.3	-0.5	0.9	5.1	3.0	7.2	8.1	3.5	N/A	1.9
2009	0.4	0.8	2.3	0.9	-1.6	0.3	1.7	1.1	7.7	8.4	4.8	N/A	1.5
2008	0.8	3.9	3.3	0.5	-0.1	1.6	3.3	3.6	7.1	6.8	-9.0	N/A	1.4
2007	1.0	2.4	2.3	0.6	-0.2	0.9	1.9	4.9	9.6	9.1	-10.1	N/A	0.7
2006	0.4	3.4	3.1	-1.5	0.1	0.1	8.6	5.3	6.7	9.3	-3.3	N/A	0.9
2005	-0.4	3.1	1.8	-0.5	-0.2	-1.4	9.0	2.5	7.4	8.1	-2.8	N/A	0.3
2004	0.4	3.9	4.0	0.0	-1.1	0.4	9.0	3.1	8.0	8.9	-2.3	N/A	0.4
Change(1)	0.0	-1.2	-2.1	1.5	-0.8	-3.5	-0.7	2.3	-1.2	-0.5	1.1	0.0	0.9
Change(2)	1.5	0.7	0.3	0.4	-1.1	-0.9	-2.4	4.1	0.2	0.1	0.9	0.0	-0.9

(1) - Change = 2017 - 2015 (2) - Change = 2017 - 1992

COMPARISON OF HISTORICAL TRAVEL SPEED DATA (SHEET 1 OF 2)

	Stock Island 1	Boca Chica 2	Big Coppitt 3	Saddlebunch 4	Sugarloaf 5	Cudjoe 6	Summerland 7	Ramrod 8	Torch 9	Big Pine 10	Bahia Honda 11	7-Mile Bridge 12	Marathon 13	Grassy 14	Duck 15	Long 16	L. Matecumbe 17	Tea Table 18	U. Matecumbe 19	Windley 20	Plantation 21	Tavernier 22	Key Largo 23	Cross 24	Dade 25	Overall
Mean (mph)																										
2003	35.7	56.8	45.3	52.4	47.8	47.2	45.4	46.7	47.1	38.2	54.4	54.2	36.8	50.0	52.6	51.5	49.5	48.6	41.1	39.6	40.5	50.1	48.3	47.4	57.9	45.9
2002	34.0	56.6	45.8	51.5	48.0	47.9	44.4	44.3	44.2	32.3	51.1	51.8	36.1	50.3	54.3	52.4	50.7	49.2	41.6	38.9	40.1	48.9	46.1	48.3	55.3	45.8
2001	35.3	59.4	48.2	53.5	49.0	46.4	44.7	47.3	47.0	31.5	54.7	53.9	37.9	50.8	53.8	54.4	51.4	50.4	40.5	37.5	41.3	49.8	47.4	46.4	58.1	48.4
2000	31.9	58.8	47.0	53.2	48.8	49.0	45.0	47.4	45.4	35.1	52.7	52.8	38.0	51.0	53.8	52.2	50.7	50.2	39.9	37.7	37.5	48.9	48.4	42.3	57.6	45.7
1999	28.5	57.1	45.8	52.7	51.0	47.5	44.9	47.1	46.8	34.1	52.7	52.5	37.4	49.8	53.1	51.4	50.5	49.8	41.0	37.5	42.2	49.0	46.8	49.1	57.9	46.2
1998	28.8	57.3	46.4	52.1	50.0	48.2	44.7	47.1	46.3	33.3	52.7	52.8	38.2	51.6	52.1	50.9	50.2	48.8	40.8	36.7	38.4	48.9	47.2	48.4	58.2	45.9
1997	32.4	58.4	47.2	53.1	50.2	48.9	45.6	47.1	46.2	35.4	53.5	51.7	40.5	52.0	53.0	52.2	50.8	49.5	41.7	35.0	40.5	49.9	48.6	45.8	58.4	46.7
1996	31.5	57.2	48.2	52.9	50.1	47.8	44.9	48.1	46.9	35.8	53.7	52.4	39.1	51.7	53.6	50.3	51.0	48.9	41.2	35.4	40.5	49.6	48.4	47.7	56.2	46.8
1995	35.5	57.8	47.4	52.6	50.9	47.5	44.4	46.8	46.4	34.6	53.5	52.2	39.5	51.3	51.1	51.5	50.9	49.2	41.8	40.2	41.7	49.7	49	50.6	57.9	47.4
1994	35.9	57.7	47.2	51.7	50.9	49.0	45.4	47.5	46.8	35.0	53.2	52.1	39.3	50.9	53.5	51.2	50.2	50.1	41.6	39.3	41.6	49.7	48.6	49.3	57.2	48.7
1993	36.7	57.9	47.8	53.0	50.8	49.1	44.9	48.8	47.3	35.4	53.0	51.2	40.4	52.0	53.2	52.0	50.9	49.6	41.8	41.1	42.2	49.3	47.5	49.7	57.3	47.2
1992	35.6	56.7	45.3	51.5	49.8	43.2	44.7	47.8	46.4	38.1	53.4	52.9	39.7	51.1	52.1	50.8	49.7	49.4	40.3	41.7	38.5	48.8	47.1	49.7	56.5	46.9
Change(1)	-5.4	1.5	0.6	0.9	-0.2	1.3	0.8	-0.3	0.5	3.4	1.5	1.3	0.1	1.0	3.5	2.6	1.6	2.1	-0.3	3.6	1.3	-1.1	-1.4	-0.9	1.8	0.2
Change(2)	-7.9	2.5	2.1	1.6	-2.3	4.5	0.5	-1.6	1.3	0.5	-0.1	0.7	-2.0	0.7	1.5	0.1	0.4	-1.7	-3.8	-3.0	-0.8	-2.7	-3.7	-0.8	0.4	-1.9
Median (mph)																										
2003	35.6	58.0	46.1	52.3	48.3	47.5	45.3	46.7	47.2	39.7	54.2	54.3	38.2	50.9	53.0	52.3	50.1	49.2	41.4	42.2	41.3	49.9	48.4	47.7	56.9	46.1
2002	33.3	57.1	45.7	51.3	47.9	48.1	45.6	47.3	48.7	35.4	53.2	52.4	35.8	50.7	54.0	52.5	51.5	50.0	41.2	41.2	42.3	48.6	45.4	51.1	57.5	47.1
2001	34.6	59.6	48.6	53.0	49.2	47.6	44.9	47.5	47.8	32.9	54.7	53.2	37.7	51.3	55.1	54.5	51.3	50.0	41.2	39.6	42.5	49.7	47.5	48.9	58.5	46.9
2000	30.5	58.4	46.9	53.5	48.4	46.7	45.3	47.1	47.1	35.8	53.0	52.4	38.2	50.6	53.5	52.5	50.7	50.3	41.2	39.5	39.0	48.8	48.8	47.7	58.2	46.4
1999	27.3	57.0	45.5	52.8	51.4	47.6	45.2	47.8	47.7	34.1	52.1	52.6	37.4	50.7	53.1	52.1	50.4	49.8	41.6	38.4	42.0	49.1	45.7	50.5	57.8	46.7
1998	30.1	57.3	46.0	52.6	50.0	48.2	45.0	47.0	48.5	33.9	52.6	52.6	37.6	52.3	52.5	51.4	50.2	48.6	40.6	38.3	41.4	48.8	47.3	52.7	58.4	45.7
1997	32.6	58.5	46.1	53.4	49.9	48.5	45.1	47.6	48.8	36.7	53.2	52.8	40.1	51.9	52.4	52.3	51.3	50.7	42.0	36.4	41.6	50.5	47.4	49.1	58.8	46.5
1996	30.7	57.3	48.0	52.4	49.3	47.7	45.0	48.8	48.7	37.0	53.9	52.5	38.9	52.0	53.7	51.0	51.6	48.6	41.2	41.2	42.6	49.3	48.0	50.7	58.8	47.1
1995	34.7	57.3	47.5	52.2	50.9	47.4	44.5	47.3	46.4	35.1	53.6	51.8	39.3	51.0	51.5	51.2	51.9	49.5	41.7	41.1	43.1	49.6	48.6	52.2	58.2	47.6
1994	36.2	57.6	47.5	52.4	51.4	48.9	45.6	46.9	47.3	36.0	53.0	52.1	39.2	51.8	52.4	51.6	50.3	50.3	42.0	40.9	42.8	49.9	48.7	50.2	57.8	47.3
1993	37.1	57.9	48.2	53.3	51.1	49.2	45.3	49.4	47.4	37.7	53.5	51.3	40.5	52.7	53.9	51.4	50.7	48.1	41.9	41.4	43.7	49.2	47.6	50.6	57.3	47.4
1992	36.1	56.1	46.7	51.8	50.3	43.0	44.8	48.3	46.5	38.9	53.3	52.4	39.7	51.1	52.6	50.7	50.4	49.7	40.1	43.4	38.7	48.2	46.8	51.2	56.8	46.9
Change(1)	-3.5	1.5	-0.6	1.6	0.8	1.3	0.9	-0.5	0.2	1.4	1.6	0.7	0.0	0.1	3.2	1.7	1.4	1.9	0.7	3.1	2.0	-1.1	-0.4	0.7	1.6	0.9
Change(2)	-6.7	3.5	-0.1	1.5	-3.0	5.2	0.2	-2.2	1.2	0.5	0.4	0.9	-1.8	0.5	0.7	-0.2	-0.6	-2.1	-0.9	-2.4	1.8	-0.6	-2.4	1.5	0.8	-0.9
Highest (mph)																										
2003	44.7	65.4	58.6	59.1	52.9	55.1	49.2	51.7	63.6	45.9	57.7	64.8	44.2	53.4	61.4	61.8	56.1	58.1	45.7	50.7	47.0	59.2	55.9	59.0	64.7	49.0
2002	44.8	64.1	59.2	56.2	55.2	53.6	51.4	52.1	52.4	43.8	56.9	58.5	51.7	54.5	61.8	58.3	56.7	57.8	52.1	53.6	53.2	53.7	50.9	55.0	64.4	49.3
2001	57.8	69.0	57.3	68.7	54.1	55.8	52.8	54.8	62.2	40.4	64.1	61.7	44.8	56.9	58.3	58.7	59.0	62.5	48.6	47.0	74.0	55.6	52.4	61.3	62.8	49.4
2000	45.5	68.8	57.2	61.1	54.8	57.7	51.0	56.6	54.0	44.7	57.5	57.3	43.6	56.1	69.0	58.0	56.1	71.7	44.3	50.5	46.0	53.9	52.6	55.5	64.5	49.0
1999	45.1	64.2	53.2	60.5	57.2	54.7	49.2	52.3	52.9	41.4	58.1	59.3	43.9	59.4	60.1	58.1	55.7	58.5	44.5	50.2	50.8	52.4	51.8	59.3	63.1	48.4
1998	37.6	66.1	57.1	59.2	57.0	55.5	49.8	53.5	53.7	43.9	58.6	59.9	45.7	58.2	56.8	57.3	56.9	57.6	47.2	47.8	51.5	52.0	51.7	59.1	62.4	48.8
1997	51.8	62.1	68.0	61.1	58.9	57.4	52.1	60.6	52.6	49.6	59.5	60.3	46.2	61.0	61.4	58.1	54.0	55.8	45.1	59.9	60.4	52.5	48.9	61.1	63.0	50.7
1996	42.4	64.9	55.7	61.6	58.5	54.5	50.5	52.2	54.9	42.9	60.3	61.5	45.8	56.5	59.9	57.0	55.1	58.0	45.8	48.8	47.1	53.9	50.8	63.1	62.4	49.7
1995	48.3	63.0	53.6	61.8	63.1	54.6	50.4	53.7	51.9	44.0	57.1	60.4	44.7	56.9	59.2	56.8	56.8	65.1	46.2	47.8	48.0	54.2	55.3	59.1	63.4	50.1
1994	48.2	61.5	54.7	57.9	55.5	54.4	49.5	56.7	54.5	41.2	56.7	59.1	44.5	55.2	59.8	56.4	57.3	56.5	45.0	48.6	48.1	53.4	52.7	58.6	63.5	50.1
1993	44.1	63.2	55.3	58.9	55.9	56.3	49.6	54.5	55.2	44.9	58.5	58.6	45.1	55.8	58.2	57.0	59.1	60.4	45.5	47.3	47.5	53.2	51.1	56.9	61.2	49.7
1992	45.0	62.6	53.8	55.2	53.7	50.7	51.9	52.4	52.6	45.2	59.0	60.7	43.7	58.0	57.7	58.0	55.8	56.1	45.1	49.3	44.0	58.2	53.4	58.4	63.1	48.8
Change(1)	-3.1	0.5	-4.3	1.4	-0.2	1.3	0.3	2.8	-1.3	1.8	-2.1	3.0	-3.4	2.1	1.9	3.7	-0.9	4.0	4.6	1.9	-1.2	-0.5	-0.3	0.3	4.2	0.3
Change(2)	-1.0	-2.2	-2.3	3.7	-1.9	1.9	-0.8	0.4	-1.6	1.2	-1.7	0.3	-0.8	-0.9	1.5	-0.4	1.1	3.3	-0.1	-0.7	1.2	-6.8	-4.4	1.0	2.5	0.6
Lowest (mph)																										
2003	26.1	44.6	31.8	45.5	40.8	37.3	40.8	40.5	31.4	24.8	46.7	42.2	28.1	42.6	42.5	42.8	40.7	26.2	27.8	21.2	25.7	44.3	40.6	23.7	48.4	41.5
2002	23.5	46.0	37.9	48.7	38.5	42.3	23.1	7.6	8.0	8.5	20.4	43.8	25.8	44.0	47.9	46.4	39.7	28.6	32.6	19.3	27.9	44.3	38.7	17.9	19.9	39.2
2001	21.2	53.0	38.5	46.6	42.8	42.1	38.5	38.7	8.0	16.2	48.8	46.8	32.4	44.5	43.7	47.2	43.7	43.1	26.1	16.2	12.8	44.8	41.5	32.3	50.8	40.3
2000	21.5	54.2	28.5	43.2	38.3	43.3	38.0	39.9	10.4	21.6	47.7	47.5	31.3	46.5	48.9	46.4	44.5	35.8	29.8	15.7	23.1	44.1	36.8	17.5	47.6	40.2
1999	19.7	50.6	37.4	41.4	41.7	37.8	39.1	38.9	38.3	23.2	48.0	44.0	29.6	14.9	43.1	31.6	44.4	43.1	32.9	18.5	30.2	42.5	42.0	37.0	51.9	39.3
1998	12.6	51.1	40.2	45.7	44.9	42.5	37.5	41.9	33.0	11.6	48.4	46.1	31.7	42.5	45.5	41.9	42.8	39.9	31.9	7.6	23.4	45.6	40.8	22.8	49.6	41.5
1997	8.1	54.3	33.5	42.4	42.4	42.1	40.3	37.0	35.7	14.2	49.9	42.4	35.0	46.8	47.9	47.8	44.3	34.1	35.8	11.6	23.1	46.3	41.3	23.9	49.4	42.9
1996	17.0	51.8	40.2	46.0	44.3	42.9	39.3	40.2	40.5	20.3	42.1	44.6	34.7	47.5	47.4	36.3	41.7	41.3	38.9	13.7	19.9	43.4	42.5	29.3	43.2	42.5
1995	25.2	54.0	41.2	43.0	45.6	40.1	35.9	30.5	40.3	0.0	49.3	46.5	34.2	48.8	37.8	46.9	42.0	38.7	34.6	19.2	30.9	39.1	45.6	34.4	49.7	42.7
1994	27.3	53.0	40.1	39.0	42.8	42.0	41.5	42.7	19.0	13.6	48.4	43.6	31.4	37.1	47.4	45.1	44.2	40.7	35.6	28.6	28.5	45.4	44.5	40.3	50.6	40.1
1993	27.4	53.2	34.3	48.6	42.8	39.7	36.7	39.5	26.3	8.5	48.3	41.2	35.7	46.5	47.0	47.1	43.9	42.7	37.6	31.6	25.7	46.6	44.1	39.1	53.0	40.9
1992	27.3	54.1	20.7	44.1	42.9	38.2	38.8	41.6	41.9	24.6	48.9	45.2	35.5	37.7	45.6	45.3	42.7	42.8	35.7	28.3	33.1	45.1	40.8	35.1	52.0	43.4
Change(1)	-4.6	5.4	2.3	0.1	-2.8	1.5	-3.7	-12.8	7.0	-1.3	-0.3	5.0	1.9	4.9	1.2	-0.2	-2.3	-9.4	-6.0	-1.0	-8.9	-5.2	-5.2	-6.5	20.7	-4.5
Change(2)	-23.3	2.2	20.8	3.3	-1.6	8.4	-4.7	-12.8	1.0	-10.7	-2.1	3.0	-7.0	9.5	0.7	-2.6	-0.7	-12.8	-27.0	-14.9	-25.9	-14.7	-7.0	-15.4	-5.7	-8.8
Level of Service																										
2003	A	A	C	C	C	A	B	A	A	C	A	B	A	C	C	B	D	D	C	A	B	A	A	D	N/A	C
2002	B	A	C	C	C	A	B	A	A	D	B	C	A	C	B	B	C	D	C	A	B	A	A	B	N/A	C
2001	B	A	B	B	C	A	B	A	A	E	A	A	A	C	B	B	C	D	C	B	B	A	A	C	N/A	C
2000	B	A	C	B	C	A	B	A	A	D	B	A	A	C	C	B	C	C	C	B	C	A	A	C	N/A	C
1999	C	A	C	B	B	A	B	A	A	E	B	A	A	C	C	B	D	D	C	B	B	A	A	B	N/A	C
1998	B	A	C	C	C	A	B	A	A	E	B	A	A	C	C	C	D	D	C	B	B	A	A	B	N/A	C
1997	B	A	B	B	B	A	B	A	A	D	B	A	A	C	C	B	C	C	C	B	B	A	A	B	N/A	C
1996	B	A	A	C	B	A	B	A	A	D	A	A	A	C	B	C	C	C	C	C	C	A	B	B	N/A	C
1995	B	A	C	C	C	A	B	A	B	E	B	A	A	C	C	C	C	D	C	C	C	A	A	B	N/A	C
1994	A	A	C	C	C	A	B	A	A	E	B	A	A	C	C	C	D	D	C	C	C	A	A	B	N/A	C
1993	A	A	C	C	C	A	B	A	A	D	B	B	A	B	B	C	C	D	C	C	B	A	A	B	N/A	C
1992	A	B	C	C	C	C	B	A	A	C	B	A	A	C	C	C	D	D	D	C	D	A	A	B	N/A	C
Reserve (mph)																										
2003	13.8	8.4	0.9	2.7	0.6	6.5	4.8	6.2	6.7	2.7	6.6	3.8	16.2	1.0	2.5	3.3	-0.4	-0.9	0.9	9.4	4.4	9.6	11.6	0.4	N/A	1.1
2002	11.3	7.5	0.5	1.7	0.3	7.1	5.1	6.8	6.2	-2.3	5.8	1.9	13.8	0.8	3.5	3.6	1.0	-0.1	0.7	8.0	5.6	8.1	8.3	3.8	N/A	2.1
2001	12.6	10.0	3.4	3.4	1.5	8.5	4.4	7.0	7.1	-5.2	7.1	7.7	15.7	1.4	4.6	5.5	0.8	-0.1	0.7	5.7	5.8	9.3	10.7	1.8	N/A	1.9
2000	8.5	8.8	1.7	3.9	1.7	7.8	4.8	6.6	6.6	-1.9	5.4	6.9	16.2	0.9	3.0	3.6	0.2	0.2	0.7	5.7	1.7	8.4	9.9	0.5	N/A	1.4
1999	5.3	7.4	0.3	3.2	3.8	6.5	4.7	7.3	7.2	-3.6	4.4	7.1	15.4	0.8	2.8	3.2	-0.1	-0.5	1.1	4.2	5.2	8.7	8.6	3.2	N/A	1.7
1998	8.1	7.7	0.8	3.0	2.3	7.1	4.5	6.5	6.1	-4.1	4.9	7.1	15.8	2.4	2.0	2.4	-0.3	-1.5	0.1	3.1	4.4	11.1	11.2	5.4	N/A	0.7
1997	10.6	8.0	5.6	3.7	5.6	8.0	4.6	7.1	6.3	-0.8	5.3	7.3	16.1	2.9	1.9	3.3	0.8	2.7	1.5	4.2	3.6	8.6	10.6	3.2	N/A	1.5
1996	8.7	6.8	7.5	2.7	6.0	7.2	4.5	8.3	6.2	-1.7	6.0	7.0	15.9	3.0	3.2	2.0	1.1	0.6	0.7	2.4	4.3	6.9	7.5	4.8	N/A	2.1
1995	12.7	6.8	2.0	1.7	2.4	6.9	4.0	6.8	5.9	-3.8	5.7	6.3	17.3	1.5	1.0	1.7	1.4	-1.0	1.2	0.6	4.0	7.9	8.8	5.8	N/A	2.8
1994	14.2	7.1	2.0	1.9	2.9	8.4	5.1	6.4	5.8	-2.7	5.1	6.6	17.2	2.3	1.9	2.1	-0.2	-0.2	1.5	0.4	6.0	8.2	8.9	3.8	N/A	2.3
1993	15.1	7.4	2.7	2.8	2.6	8.7	4.6	8.9	6.9	-1.0	4.3	5.8	16.5	3.2	3.4	1.9	0.2	-1.4	1.4	0.9	4.6	7.5	7.8	4.2	N/A	2.4
1992	14.1	5.6	1.2	1.3	1.8	2.5	4.3	7.8	6.0	0.3	4.1	6.9	17.7	1.6	2.1	1.2	-0.1	-0.8	-0.4	2.9	-0.7	6.5	7.0	4.8	N/A	1.9
Change(1)	-3.5	1.4	0.2	1.6	0.9	1.3	0.9	-0.5	0.2	1.6	1.1	0.8	0.0	0.0	-1.2	-2.1	1.5	-0.8	-3.5	-0.7	2.3	-1.2	-0.5	1.1	0.0	0.9
Change(2)	-6.7	3.8	4.2	2.9	10.5	5.2	0.2	-2.2	1.2	2.0	1.7	-3.7	-1.8	1.5	0.7	0.3	0.4	-1.1	-0.9	-2.4	4.1	0.2	0.1	0.9	0.0	-0.9

(1) - Change = 2017 - 2015   (2) - Change = 2017 - 1992

APPENDIX G

2017 Level of Service and Reserve Capacity

APPENDIX G

URS

2017 LEVEL OF SERVICE AND RESERVE CAPACITY

SEGMENT	LENGTH (miles)	FACILITY TYPE	POSTED SPEED		ADJ. FOR SIGNAL (mph)	ADJUSTED LOS C CRITERIA (mph)	MEDIAN TRAVEL SPEED (mph)	LOS	RESERVE SPEED (mph)	2017		2015	
			Limits (mph)	Average (mph)						MAXIMUM RESERVE DAILY VOLUME (trips)	5% ALLOCATION BELOW LOS C (trips)	MAXIMUM RESERVE DAILY VOLUME (trips)	5% ALLOCATION BELOW LOS C (trips)
1 Stock Island (4.0 - 5.0)	1.10	4-L/D	30/45	42.8	N/A	22.0	29.4	B	7.4	1,348	N/A	1,986	N/A
2 Boca Chica (5.0- 9.0)	3.9	4-L/D	45/55	54.7	N/A	50.2	59.6	A	9.4	6,071	N/A	5,167	N/A
3 Big Coppitt (9.0- 10.5)	1.5	2-L/U	45/55	45.7	N/A	41.2	46.6	B	5.4	1,341	N/A	1,292	N/A
4 Saddlebunch (10.5- 16.5)	5.8	2-L/U	45/55	53.6	N/A	49.1	53.3	B	4.2	4,034	N/A	2,497	N/A
5 Sugarloaf (16.5- 20.5)	3.9	2-L/U	45	45.0	4.5	36.0	48.3	A	12.3	7,944	N/A	7,363	N/A
6 Cudjoe (20.5- 23.0)	2.5	2-L/U	45	45.0	N/A	40.5	48.2	A	7.7	3,188	N/A	2,650	N/A
7 Summerland (23.0- 25.0)	2.2	2-L/U	45	45.0	N/A	40.5	45.0	B	4.5	1,639	N/A	1,312	N/A
8 Ramrod (25.0- 27.5)	2.3	2-L/U	45	45.0	N/A	40.5	46.1	B	5.6	2,133	N/A	2,323	N/A
9 Torch (27.5- 29.5)	2.1	2-L/U	45	45.0	N/A	40.5	47.7	A	7.2	2,504	N/A	2,434	N/A
10 Big Pine (29.5- 33.0)	3.4	2-L/U	45	45.0	3.4	37.1	39.4	C	2.3	1,295	N/A	394	N/A
11 Bahia Honda (33.0- 40.0)	7.0	2-L/U (70%) 4-L/D (30%)	45/50/55	52.4	N/A	47.9	53.7	B	5.8	6,723	N/A	5,448	N/A
12 7-Mile Bridge (40.0- 47.0)	6.8	2-L/U	45/50/55	54.6	N/A	50.1	53.3	B	3.2	3,603	N/A	2,703	N/A
13 Marathon (47.0- 54.0)	7.3	2-L/U (13%) 4-L/D (87%)	35/45	42.3	N/A	22.0	37.9	A	15.9	19,221	N/A	19,221	N/A
14 Grassy (54.0- 60.5)	6.4	2-L/U	45/55	54.5	1.5	48.5	51.6	C	3.1	3,286	N/A	3,286	N/A
15 Duck (60.5- 63.0)	2.7	2-L/U	55	55.0	N/A	50.5	53.3	C	2.8	1,252	N/A	1,788	N/A
16 Long (63.0- 73.0)	9.9	2-L/U	40/45/50/55	53.4	N/A	48.9	50.5	C	1.5	2,459	N/A	5,902	N/A
17 L Matecumbe (73.0- 77.5)	4.5	2-L/U	50/55	54.0	N/A	49.5	49.8	C	0.3	224	N/A	(894)	967
18 Tea Table (77.5- 79.5)	2.2	2-L/U	45/55	54.1	N/A	49.6	47.6	D	-1.9	(692)	193	(401)	459
19 U Matecumbe (79.5- 84.0	4.1	2-L/U	30/40/45	45.0	N/A	40.5	39.2	D	-1.3	(883)	522	1,494	N/A
20 Windley (84.0- 86.0)	1.9	2-L/U	30/40/45	45.0	N/A	40.5	41.0	C	0.5	157	N/A	378	N/A
21 Plantation (86.0- 91.5)	5.8	2-L/U	45	45.0	3.4	37.1	40.5	B	3.4	3,266	N/A	1,057	N/A
22 Tavernier (91.5- 99.5)	8.0	4-L/D	45/50	47.2	2.0	40.7	47.4	A	6.7	8,876	N/A	10,466	N/A
23 Key Largo (99.5- 106.0)	6.8	4-L/D	45	45.0	3.5	37.0	44.4	A	7.4	8,333	N/A	8,558	N/A
24 Cross (106.0- 112.5)	6.2	2-L/U	45/55	51.4	N/A	46.9	52.7	B	5.7	5,852	N/A	4,723	N/A
Overall	108.3					45.0	46.0	C	1.0	18,547			

APPENDIX H

Summary of Delay Events

APPENDIX H

URS

2017 TTDS DELAY DATA SUMMARY

Seg #	Day 1 Sun Feb 26 2017			Day 2 Mon Feb 27 2017			Day 3 Tue Feb 28 2017			Day 4 Wed Mar 01 2017			Day 5 Thu Mar 02 2017			Day 6 Fri Mar 03 2017			Day 7 Sat Mar 04 2017			Day 8 Sun Mar 05 2017			Day 9 Mon Mar 06 2017			Day 10 Tue Mar 07 2017			Day 11 Wed Mar 08 2017			Day 12 Thu Mar 09 2017			Day 13 Fri Mar 10 2017			Day 14 Sat Mar 11 2017			TOTAL
№	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	
1	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	GAS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	RT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	LT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	EV	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	TS	[illegible]	[illegible]	TS(4)	[illegible]	[illegible]	TS(4)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(4)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	RT, SE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	CG	[illegible]	[illegible]	EV	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LT	[illegible]	[illegible]	CG(3),LT,RT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	CG(3) TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	SS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	LT,TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	CG(3),TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG(2), TS	[illegible]	[illegible]	EV, TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
22	TS(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
23	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS(3),SB	[illegible]	[illegible]	TS(3),SB,SZ	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
24	CG(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL =		00:43:17	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
SB		[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]			[illegible]		TOTAL
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	CG(4)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	EV	[illegible]	[illegible]	CG	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	[illegible]
[illegible]	TS, PS	[illegible]	[illegible]	TS(3)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	LT	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
21	LT, SE	[illegible]	[illegible]	TS,CG	[illegible]	[illegible]	TS	[illegible]	[illegible]	CG	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS,AC	[illegible]	[illegible]	TS,CG(2)	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS,LT,CG	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	CG(2)	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG(2)	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LT	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	EV(2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	TS	[illegible]	[illegible]	TS,RB,LT	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS,CG	[illegible]	[illegible]	TS(3),LT	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(2), LT	[illegible]	[illegible]	TS,CG	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2), SE	[illegible]	[illegible]	TS, SE	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS, SE	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS,LT	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	TS	[illegible]	[illegible]	LT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS	[illegible]	[illegible]	TS(3)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(3)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	TS(2)	[illegible]	[illegible]	[illegible]
TOTAL =		00:13:37	00:14:50		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

HR	EXCLUDED FROM OVERALL TIME	EXCLUDED FROM INCIDENT TIME	TOTAL DELAY TIME	TR DELAY	# OF TR EVENTS	DB DELAY	# OF DB EVENTS	AC DELAY	# OF AC EVENTS	LT DELAY	# OF LT EVENTS	SPECIAL EVENT DELAY	# OF SE EVENTS	RT DELAY	# OF RT EVENTS	DR DELAY	# OF DR EVENTS	SR DELAY	# OF SR EVENTS	CR DELAY	# OF CR EVENTS	EV DELAY	# OF EV EVENTS	TOTAL # OF EVENTS
1	[illegible]	[illegible]	[illegible]	[illegible]	17																			17
2	[illegible]	[illegible]	[illegible]																					0
3	[illegible]	[illegible]	[illegible]									[illegible]	1											1
4	[illegible]	[illegible]	[illegible]																					0
5	[illegible]	[illegible]	[illegible]	[illegible]	2																			2
6	[illegible]	[illegible]	[illegible]																					0
7	[illegible]	[illegible]	[illegible]											[illegible]	1	[illegible]	1							2
8	[illegible]	[illegible]	[illegible]													[illegible]	1							1
9	[illegible]	[illegible]	[illegible]									[illegible]	1											1
10	[illegible]	[illegible]	[illegible]	[illegible]	6							[illegible]	1											7
11	[illegible]	[illegible]	[illegible]																					0
12	[illegible]	[illegible]	[illegible]									[illegible]	1									[illegible]	1	2
13	[illegible]	[illegible]	[illegible]	[illegible]	36					[illegible]	2	[illegible]	3					[illegible]	2			[illegible]	3	54
14	[illegible]	[illegible]	[illegible]	[illegible]	1													[illegible]	1					2
15	[illegible]	[illegible]	[illegible]																					0
16	[illegible]	[illegible]	[illegible]									[illegible]	1	[illegible]	1									2
17	[illegible]	[illegible]	[illegible]															[illegible]	1					1
18	[illegible]	[illegible]	[illegible]													[illegible]	2							2
19	[illegible]	[illegible]	[illegible]							[illegible]	2			[illegible]	1	[illegible]	1					[illegible]	1	5
20	[illegible]	[illegible]	[illegible]													[illegible]	4							4
21	[illegible]	[illegible]	[illegible]	[illegible]	15					[illegible]	1					[illegible]	10	[illegible]	1			[illegible]	1	28
22	[illegible]	[illegible]	[illegible]	[illegible]	14																			14
23	[illegible]	[illegible]	[illegible]	[illegible]	26													[illegible]	2					47
24	[illegible]	[illegible]	[illegible]													[illegible]	6							6
25	[illegible]	[illegible]	[illegible]																					0
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	126	[illegible]	0	[illegible]	0	[illegible]	6	[illegible]	7	[illegible]	3	[illegible]	29	[illegible]	10	[illegible]	0	[illegible]	6	189
02																								0
29	[illegible]	[illegible]	[illegible]																					0
26	[illegible]	[illegible]	[illegible]													[illegible]	12					[illegible]	1	11
23	[illegible]	[illegible]	[illegible]	[illegible]	21																			21
22	[illegible]	[illegible]	[illegible]	[illegible]	11					[illegible]	1													12
21	[illegible]	[illegible]	[illegible]	[illegible]	13			[illegible]	1	[illegible]	2	[illegible]	1			[illegible]	9							23
20	[illegible]	[illegible]	[illegible]													[illegible]	5							5
19	[illegible]	[illegible]	[illegible]													[illegible]	6							6
18	[illegible]	[illegible]	[illegible]							[illegible]	1					[illegible]	1							2
17	[illegible]	[illegible]	[illegible]							[illegible]	1													1
16	[illegible]	[illegible]	[illegible]							[illegible]	1											[illegible]	2	2
15	[illegible]	[illegible]	[illegible]							[illegible]	1													1
14	[illegible]	[illegible]	[illegible]	[illegible]	3																			3
13	[illegible]	[illegible]	[illegible]	[illegible]	25					[illegible]	3	[illegible]	2			[illegible]	2							32
12	[illegible]	[illegible]	[illegible]																					0
11	[illegible]	[illegible]	[illegible]									[illegible]	1											1
10	[illegible]	[illegible]	[illegible]	[illegible]	6					[illegible]	1													8
9	[illegible]	[illegible]	[illegible]																					0
8	[illegible]	[illegible]	[illegible]																					0
7	[illegible]	[illegible]	[illegible]																					0
6	[illegible]	[illegible]	[illegible]																					0
5	[illegible]	[illegible]	[illegible]	[illegible]	1					[illegible]	2													3
4	[illegible]	[illegible]	[illegible]																					0
3	[illegible]	[illegible]	[illegible]																					0
2	[illegible]	[illegible]	[illegible]																					0
1	[illegible]	[illegible]	[illegible]	[illegible]	28																			28
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	127	[illegible]	0	[illegible]	1	[illegible]	12	[illegible]	4	[illegible]	0	[illegible]	38	[illegible]	0	[illegible]	0	[illegible]	3	185
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	213	[illegible]	0	[illegible]	1	[illegible]	18	[illegible]	11	[illegible]	3	[illegible]	64	[illegible]	12	[illegible]	0	[illegible]	9	331
Mean Delay per Event			[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		
Mean Delay per Trip			[illegible]	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		

SUMMARY OF DELAY EVENTS

2017 TTDS

Delay Source	Segment Number	Segment Limits From	Segment Limits To	Length (miles)	Number of Events	Total Delay	Mean Delay Per Event	Mean Delay Per Trip
Traffic Signal								
	1	Cow Key Bridge (N) - MM 4.0	Key Haven Blvd - MM 5.0	1.1	45	00:22:31	00:00:30	00:00:48
	5	Harris Channel Bridge (N) - MM 16.5	Bow Channel Bridge (N) -MM 20.5	4.0	3	00:00:49	00:00:16	00:00:02
	10	N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.5	14	00:20:14	00:01:27	00:00:43
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.0	61	00:25:24	00:00:22	00:00:47
	14	Cocoa Plum Dr - MM 54.0	Toms Harbor Ch Br (S) - MM 60.5	6.5	4	00:00:30	00:00:08	00:00:01
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	25	00:10:26	00:00:25	00:00:22
	22	Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8.0	25	00:26:27	00:01:03	00:00:57
	23	Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.5	36	00:24:08	00:00:40	00:00:52
				Subtotal	213	02:10:29	00:27:39	00:04:30
Congestion								
	7	Spanish Main Drive -MM 23.0	East Shore Drive - MM 25.0	2.0	1	00:00:46	00:00:46	00:00:02
	8	East Shore Drive -MM 25.0	Torch-Ramrod Bridge (S) -27.5	2.5	1	00:03:21	00:03:21	00:00:07
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.0	2	00:03:59	00:01:59	00:00:09
	18	Lignumvitae Bridge (S) -MM 77.5	Tea Table Relief Bridge (N) -MM 79.5	2.0	3	00:03:59	00:01:20	00:00:09
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.5	13	00:58:32	00:04:30	00:02:05
	20	Whale Harbor Br (S) - MM 84.0	Snake Creek Br (N) - MM 86.0	2.0	9	00:23:49	00:02:39	00:00:51
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	19	01:05:06	00:03:26	00:02:19
	24	C-905 - MM 106.0	County Line Sign - MM 112.5	6.5	16	00:37:12	00:02:20	00:01:20
				Subtotal	64	03:16:44	00:03:04	00:07:02
Left Turn/Right Turn								
	5	Harris Channel Bridge (N) - MM 16.5	Bow Channel Bridge (N) -MM 20.5	4.0	2	00:00:34	00:00:17	00:00:01
	7	Spanish Main Drive -MM 23.0	East Shore Drive - MM 25.0	2.0	1	00:00:07	00:00:07	00:00:00
	8	East Shore Drive -MM 25.0	Torch-Ramrod Bridge (S) -27.5	2.5	1	00:00:05	00:00:05	00:00:00
	10	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.0	1	00:00:17	00:00:17	00:00:01
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.0	5	00:01:30	00:00:18	00:00:03
	15	Toms Harbor Ch Br (S) - MM 60.5	Long Key Br (S) - MM 63.0	2.5	1	00:00:14	00:00:14	00:00:00
	16	Long Key Br (S) - MM 63.0	Channel #2 Br (N) - MM 73.0	10.0	1	00:00:09	00:00:09	00:00:00
	17	Channel #2 Br (N) - MM 73.0	Lignum V Br (S) - MM 77.5	4.5	1	00:00:08	00:00:08	00:00:00
	18	Lignumvitae Bridge (S) - MM 77.5	Tea Table Relief Bridge (N) - MM 79.5	2.0	1	00:00:19	00:00:19	00:00:01
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.5	3	00:00:38	00:00:13	00:00:01
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	3	00:01:13	00:00:24	00:00:03
	22	Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8.0	1	00:00:05	00:00:05	00:00:00
				Subtotal	21	00:05:19	00:00:15	00:00:11
Construction / Accident / School Bus / Emergency Vehicle / Special Events								
	3	Rockland Drive -MM 9.0	Boca Chica Road -MM 10.5	1.5	1	00:07:04	00:07:04	00:00:15
	10	N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.5	1	00:00:21	00:00:21	00:00:01
	11	Long Beach Dr - MM 33.0	7-Mile Bridge (N) - MM 47.0	14.0	1	00:00:24	00:00:24	00:00:01
	12	7-Mile Bridge (S) -MM 40.0	7-Mile Bridge (N) -MM 47.0	7.0	2	00:01:32	00:00:46	00:00:03
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.0	15	00:12:55	00:00:52	00:00:28
	14	Cocoa Plum Dr - MM 54.0	Toms Harbor Ch Br (S) - MM 60.5	6.5	1	00:00:29	00:00:29	00:00:01
	16	Long Key Br (S) - MM 63.0	Channel #2 Br (N) - MM 73.0	10.0	3	00:05:37	00:01:52	00:00:12
	17	Channel #2 Br (N) - MM 73.0	Lignum V Br (S) - MM 77.5	4.5	1	00:00:30	00:00:30	00:00:01
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.5	1	00:00:14	00:00:14	00:00:01
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.5	4	00:18:36	00:04:39	00:00:40
	23	Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.5	2	00:01:04	00:00:32	00:00:02
	24	C-905 (Flashing Light) - MM 106.0	County Line Sign - MM 112.5	6.5	1	00:01:34	00:01:34	00:00:03
				Subtotal	33	00:50:20	00:01:32	00:01:48
All Sources				TOTAL	331	06:22:52	00:18:34	00:13:36

APPENDIX I

2017 Data Collection Schedule

APPENDIX

I

URS

Schedule 2017

2017 Monroe County Travel Time & Delay Study 2017

February / March

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
19 Feb	20 Feb	21 Feb	22 Feb	23 Feb	24 Feb	25 Feb
26 Feb 1 - HS 11:15 AM 2 - KW 3:30 PM	27 Feb 3 - HS 11:45 AM 4 - KW 4:00 PM	28 Feb 5 - HS 9:30 AM 6 - KW 1:45 PM	1 Mar 7 - HS 9:45 AM 8 - KW 1:30 PM	2 Mar 9 - HS 9:45 AM 10 - KW 2:00 PM	3 Mar 11 - HS 10:15 AM 12 - KW 2:30 PM	4 Mar 13 - HS 10:45 AM 14 - KW 3:00 PM
5 Mar 15 - KW 11:30 AM 16 - HS 3:15 PM	6 Mar 17 - KW 12:00 AM 18 - HS 3:45 PM	7 Mar 19 - KW 10:45 AM 20 - HS 2:30 PM	8 Mar 21 - KW 10:15 AM 22 - HS 1:45 PM	9 Mar 23 - KW 10:00 AM 24 - HS 1:45 PM	10 Mar 25 - KW 10:30 AM 26 - HS 2:15 PM	11 Mar 27 - KW 11:00 AM 28 - HS 2:45 PM
12 Mar	13 Mar	14 Mar	15 Mar	16 Mar	17 Mar	18 Mar

Notes:
1. Data should be downloaded from the DMI and QCd immediately after every travel run.
2. A copy of the raw data sheet should be faxed/emailed to the office every day.
3. Vehicle tire pressure should be checked before every run and maintained as constant.
4. HS - Start at Homestead; KW - Start at Key West.

URS

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