

InSync Evaluation Before and After Study

Prepared for:

Pinellas County, Florida

Prepared by:

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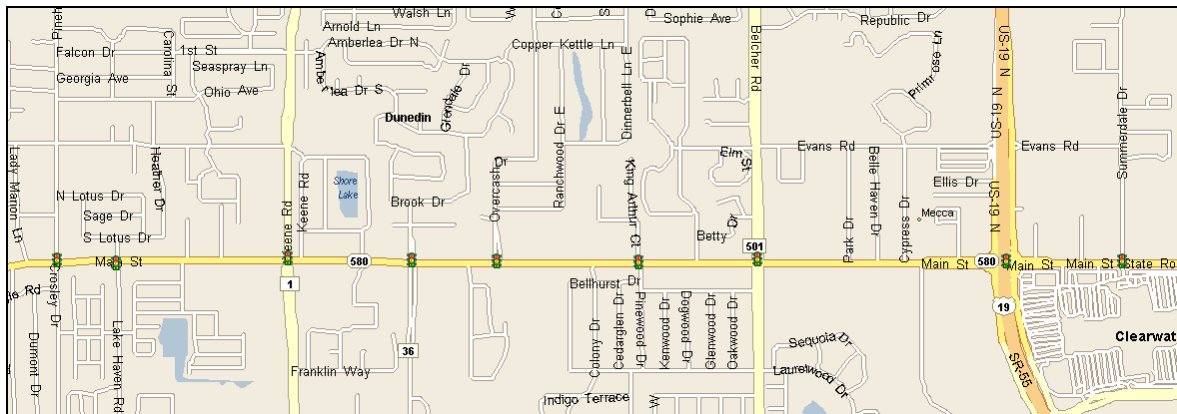
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A INTRODUCTION AND BACKGROUND

Traffic signal systems that respond in real-time to changes in traffic patterns are known as “adaptive.” Adaptive traffic control systems (ATCSs) belong to the latest generation of signalized intersection control. An ATCS is designed to overcome the limitations of pre-timed and pattern matching based control by responding to changes in traffic flow on a continuous basis and adjusting signal timings in accordance with fluctuations in traffic demand. Reacting to these volumes is expected to result in reduced delays, shorter queues, and decreased travel times.

As a proof-of-concept test, Pinellas County installed Rhythm Engineering’s InSync ATCS as a traffic adaptive control system along SR 580 in Pinellas County. SR 580 is an east-west arterial in Pinellas County that runs roughly from the Gulf of Mexico to Tampa Bay. A nine (9) intersection corridor along SR 580 was selected for the installation of Insync. This corridor, approximately 2.3 miles long, spans from Summerdale Drive west to Pinehurst Road. The corridor also includes the signal at the interchange with U.S. 19, a major north-south corridor in the county. SR 580 is a heavily trafficked area with a 2010 AADT of 44,000 vehicles just west of U.S. 19 (according to the Pinellas County Metropolitan Planning Organization). A map of the corridor is provided below.

Map 1. Corridor Location



The goal of this study is to assess the effectiveness of the InSync ATCS relative to the existing traffic control system in place along SR 580. In collaboration with both Pinellas County staff and representatives of Rhythm Engineering, Kimley-Horn has evaluated the traffic operations along SR 580 under the “before” conditions and the “after” conditions, in which the InSync ATCS was in operation. The evaluation considered travel time results, side-street delay results, and emissions results.

B DATA COLLECTION AND METHODOLOGY

For the travel time study and emissions results, the travel time, average speed, and delay studies were conducted in accordance with the procedures given in the *Manual of Transportation Engineering Studies*, published by the Institute of Transportation Engineers. Travel time, average speed, and delay data was collected along SR 580 during the a.m. peak, mid-day, and p.m. peak periods. For the purposes of this study, the AM peak was considered to be from 6:00 a.m. to 9:00 a.m; the mid-day (MD) peak was considered to be from 11:00 a.m. to 1:00 p.m; and the PM peak was considered to be from 4:00 p.m. to 7:00 p.m. A minimum of six runs were made in each direction. The “floating car” technique was used, whereby the driver passes as many cars as pass the driver. The study vehicle was unmarked and operated as inconspicuously as possible. The travel time data was both collected via a GPS unit and processed using the software *PC-Travel*.

The data for the evaluation was collected over a two week period. The “after” runs were completed with InSync in operation. These runs were completed on Tuesday, March 6, 2012 and Wednesday, March 7, 2012. InSync operation was then turned off the following week for the “before” runs. These runs were completed on Tuesday, March 13, 2012 and Wednesday, March 14, 2012. It was determined that two days of travel time data should be collected in order to provide a robust data set.

In addition to collecting the travel time data, side-street delay data was collected at three of the intersections along the corridor: US 19, Belcher Road, and Virginia St. These intersections were selected because they contain a variety of characteristics. US 19 at SR 580 is a major interchange that currently operates as a single-point urban interchange (SPUI) with split phase operation on the side streets. Belcher Road is a major north-south arterial while Virginia Street is a minor arterial on the northbound approach and a neighborhood street on the southbound approach.

Video cameras were set-up at each of these intersections to capture the side-street delay and queuing for both the northbound and southbound approaches. The video footage for the “before” study was collected on Tuesday, March 13, 2012 while the footage for the “after” study was collected on Tuesday, March 6, 2012. Video footage was collected from 7:00 a.m. to 9:00 a.m; 11:00 a.m. to 1:00 p.m; and 4:00 p.m. to 6:00 p.m. in order to capture the peak of traffic operations. The average delay per vehicle was then calculated by watching the collected video footage.

C TRAVEL TIME RESULTS

The following summary shows a comparison of the “before” and “after” average trip speed, travel time, number of stops, and delay recorded at intersections while conducting the studies. Data are shown for each system, time period, and direction of travel. Details of each travel time run are shown in the Appendix.

The results for the overall corridor are listed below in Table 1:

Table 1. SR 580 Travel Time Comparison (Overall Results)

SR 580 Travel Time Comparison (Overall Results)			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	2,127.8	1,914.7	10%
Average Speed (mph)	23.6	26.6	13%
Total Delay (secs)	889.3	675.7	24%
Number of Stops	15.4	9.7	37%

C.1 AM Peak Results

The following summary shows a comparison of the “before” and “after” average trip speed, travel time, number of stops, and delay recorded along SR 580 for the AM peak period (6:00 a.m. to 9:00 a.m.)

Table 2. SR 580 Eastbound Travel During the AM Peak Hour

SR 580 Eastbound Travel during the AM Peak Hour			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	338.3	234.1	31%
Average Speed (mph)	24.5	35.5	45%
Total Delay (secs)	133.2	30.0	77%
Number of Stops	2.7	0.7	74%

Table 3. SR 580 Westbound Travel During the AM Peak Hour

SR 580 Westbound Travel during the AM Peak Hour			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	295.3	282.0	5%
Average Speed (mph)	27.9	29.2	5%
Total Delay (secs)	93.1	80.7	13%
Number of Stops	1.8	1.4	22%

C.2 Mid-Day Peak Results

The following summary shows a comparison of the “before” and “after” average trip speed, travel time, number of stops, and delay recorded along SR 580 for the Mid-day (MD) peak period (11:00 a.m. to 1:00 p.m.)

Table 4. SR 580 Eastbound Travel During the MD Peak Hour

SR 580 Eastbound Travel during the MD Peak Hour			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	358.5	338.3	6%
Average Speed (mph)	23.2	24.5	6%
Total Delay (secs)	149.1	129.2	13%
Number of Stops	2.8	1.6	43%

Table 5. SR 580 Westbound Travel During the MD Peak Hour

SR 580 Westbound Travel during the MD Peak Hour			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	342.5	376.9	- 10%
Average Speed (mph)	24.0	21.9	- 9%
Total Delay (secs)	135.8	168.6	- 24%
Number of Stops	2.1	2.5	- 19%

C.3 PM Peak Results

The following summary shows a comparison of the “before” and “after” average trip speed, travel time, number of stops, and delay recorded along SR 580 for the PM peak period (4:00 p.m. to 7:00 p.m.)

Table 6. SR 580 Eastbound Travel During the PM Peak Hour

SR 580 Eastbound Travel during the PM Peak Hour			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	386.4	350.2	9%
Average Speed (mph)	21.5	23.7	10%
Total Delay (secs)	177.6	140.4	21%
Number of Stops	2.9	1.6	45%

Table 7. SR 580 Westbound Travel During the PM Peak Hour

SR 580 Westbound Travel during the PM Peak Hour			
Performance Metric	Before	After	Percent Improvement
Travel Time (secs)	406.8	333.2	18%
Average Speed (mph)	20.2	24.7	22%
Total Delay (secs)	200.5	126.8	37%
Number of Stops	3.1	1.9	39%

C.4 Travel Time Conclusions

Overall, it appears InSync ATCS offers an increased level of service to the public by reducing travel times, delays, and most notably, number of stops during the peak hours. The westbound traffic during the mid-day peak was the only time period that saw an increase in travel times with InSync in operation.

D SIDE-STREET DELAY STUDY RESULTS

The side-street delay was calculated for three intersections along SR 580. Both the northbound and southbound delay was calculated at US 19, Belcher Road, and Virginia Street. Video footage was utilized to determine the average delay per vehicle at the three sites. This study was completed to ensure that while travel time benefits were being recognized along the main route of SR 580, the benefits were not achieved at the expense of the crossing traffic along the side-streets.

D.1 Average Vehicle Delay at US 19

The following tables show the average delay per vehicle at SR 580 and US 19 for both the northbound and southbound approaches over a thirty-minute period.

Table 8. Northbound US 19 at SR 580 Delay Study

Northbound US 19 at SR 580 Delay Study (Seconds / Vehicle)			
Time of Day	Before	After	Percent Improvement
AM Peak	41.0	46.1	-13%
MD Peak	37.7	47.2	-25%
PM Peak	62.9	55.0	12%

Table 9. Southbound US 19 at SR 580 Delay Study

Southbound US 19 at SR 580 Delay Study (Seconds / Vehicle)			
Time of Day	Before	After	Percent Improvement
AM Peak	36.5	37.5	-3%
MD Peak	31.5	39.9	-27%
PM Peak	37.7	37.3	1%

D.2 Average Vehicle Delay at Belcher Road

The following tables show the average delay per vehicle at SR 580 and Belcher Road for both the northbound and southbound approaches over a thirty-minute period.

Table 10. Northbound Belcher Road at SR 580 Delay Study

Northbound Belcher Road at SR 580 Delay Study (Seconds / Vehicle)			
Time of Day	Before	After	Percent Improvement
AM Peak	46.8	45.7	2%
MD Peak	42.0	57.6	-37%
PM Peak	105.2	114.7	-9%

Table 11. Southbound Belcher Road at SR 580 Delay Study

Southbound Belcher Road at SR 580 Delay Study (Seconds / Vehicle)			
Time of Day	Before	After	Percent Improvement
AM Peak	88.0	83.8	5%
MD Peak	62.8	57.4	9%
PM Peak	85.5	42.9	50%

D.3 Average Vehicle Delay at Virginia Street

The following tables show the average delay per vehicle at SR 580 and US 19 for both the northbound and southbound approaches over a thirty-minute period.

Table 12. Northbound Virginia Street at SR 580 Delay Study

Northbound Virginia Street at SR 580 Delay Study (Seconds / Vehicle)			
Time of Day	Before	After	Percent Improvement
AM Peak	27.1	19.5	28%
MD Peak	30.0	23.9	21%
PM Peak	45.8	30.6	33%

Table 13. Southbound Virginia Street at SR 580 Delay Study

Southbound Virginia Street at SR 580 Delay Study (Seconds / Vehicle)			
Time of Day	Before	After	Percent Improvement
AM Peak	50.0	26.9	46%
MD Peak	46.6	27.3	42%
PM Peak	43.0	22.0	49%

D.4 Side-Street Delay Conclusions

The side-street delay results show mixed results when comparing InSync to the existing timing control. Virginia Street, which carries a relatively low volume of vehicles, shows a marked improvement in side-street delay. For the larger intersections, however, the results are less conclusive and in some cases the delay increases. This may be due in part to the fact that, at each of these intersections, the traffic is more oriented towards the south during the AM peak and the north during the PM peak (roughly 60/40). Furthermore, inconsistencies in driver experience were observed on the side street with InSync. Given the system's adaptive operations, the amount of green time for the side-street traffic varied greatly at times across the peak hour, leading to inconsistent driver expectations.

E EMISSIONS RESULTS

Atmospheric pollutants are emitted from vehicles when they are stopped or idling. Carbon monoxide, oxides of nitrogen, and volatile oxygen compounds (hydrocarbons) are three types of vehicle emissions that are regulated by federal law. New signal timing can reduce these pollutants by reducing the number of stops vehicles make and having vehicles travel at a constant speed. The following summary tables show a comparison of the “before” and “after” emissions for both directions for this project.

Table 14. SR 580 Emission Study AM Peak Hour

SR 580 Emission Study AM Peak Hour Results			
Performance Metric	Before	After	Percent Improvement
CO (grams)	248.9	211.0	15%
NOx (grams)	13.0	10.1	22%
HC (grams)	23.3	18.8	19%

Table 15. SR 580 Emission Study MD Peak Hour

SR 580 Emission Study MD Peak Hour Results			
Performance Metric	Before	After	Percent Improvement
CO (grams)	269.4	240.4	11%
NOx (grams)	15.0	11.9	21%
HC (grams)	26.1	23.5	10%

Table 16. SR 580 Emission Study PM Peak Hour

SR 580 Emission Study PM Peak Hour Results			
Performance Metric	Before	After	Percent Improvement
CO (grams)	280.2	232.4	17%
NOx (grams)	14.8	11.7	21%
HC (grams)	27.5	22.7	17%

As expected because of the reduced travel times, the emissions improve for traffic along SR 580 during the “after” conditions with InSync in operation.

F CONCLUSIONS

During this study, it is clear the operation of the InSync ATCS system yielded an increased level of service to the users of SR 580 during the study period through the overall reduction of travel times, delays, and the number of stops during the peak hours. The only increase in travel time duration was observed for westbound traffic during the mid-day peak time period. Also, due to the overall reduced travel times, there was an associated reduction in the emissions produced by the vehicles traveling along SR 580 during the “after” conditions with InSync in operation.

However, as noted above, during several peak hour periods at two of the studied side streets, a significant increase in side-street delay was observed. Because the operations along the mainline improved but the operations on some of the side-street deteriorated, it is difficult to make a definitive determination as to the overall operational improvement by utilizing InSync. In order to make a definitive determination, vehicle counts would need to be obtained for the mainline traffic. From those counts, the delay from the mainline could be weighted based on number of vehicles with the delay experienced on the side-streets.

Given the data collected for this study, it appears InSync may provide operational improvements along a signalized corridor. However, consideration should be given to each specific corridor to determine if travel time benefits out-weigh side-street delay reductions and if the operational benefits gained out-weigh the variability of fluctuating driver expectations. Ultimately, as signalized corridors begin to operate at or above capacity during the peak hours, it will always be a trade-off between mainline progression and side-street delay.

APPENDIX A

Benefit to Cost Considerations

BENEFIT TO COST CONSIDERATIONS

The economic benefits from implementing new signal timing operations along a corridor are multifaceted. The primary sources of the economic benefit are the reduced road user costs as a result of reduced travel time (delay) and fuel consumption. In addition to reducing time wasted by drivers due to delay and reduced fuel consumption, other benefits are derived from improved signal timing such as fewer accidents and reduced vehicular emissions. However, the economic benefits of fewer accidents and emissions are often difficult to quantify; so, to be conservative, these potential sources of economic benefit were not included as part of the evaluation.

By realizing reductions in delay experienced by the motoring public travelling along SR 580 with the InSync ATCS system, an economic evaluation was made to determine the benefit of the improved signal timing operations in terms of a projected annual dollar value. To calculate the projected cost savings resulting from the reduction in travel time, a dollar value was assigned to the delay. For the purpose of this study, the cost of delay per person was assumed to be \$13.75 per hour, an accepted value of USDOT road user cost.¹

By using the total travel time data obtained from the study, and the above referenced \$13.75 per hour cost of delay, calculations were made to find the annual benefit (or cost) associated with the improved signal timing generated automatically by the InSync ATCS system. To perform this calculation, the following equation was used:

$$S = R \times V \times D \times O \times C$$

Where:

S = Dollars saved

R = Total travel time reduction (Hours)

V = Volume of Traffic (Veh/Hour)

D = Days timing is in effect (Days/Year)

O = Average vehicle occupancy (Persons/Veh)

C = Cost of delay per person (\$/Person)

The reduction in travel time is calculated from seconds per vehicle, and is a direct output of the travel time study. The hourly volume is the rate of vehicles per hour. For analysis purposes, the timing plans are assumed to be in operation for 250 days of the year, which represents the average number of workdays in a given year. Average vehicle occupancy was assumed to be 1.2.

¹ The Value of Travel Time Savings; Revision 2. USDOT, September 2011

A second component to the economic impact is a change in fuel consumption. An analysis was completed to estimate the changes in fuel consumption resulting from the implementation of the new coordinated timing plans. Fuel consumption was summed across all links to arrive at the total fuel consumption for each peak period before and after implementation, and fuel was assumed to cost \$3.50 per gallon for the analysis.

The annual travel time and fuel reduction benefits were calculated for each peak period per direction (e.g.: SR 580, AM peak, westbound). The AM peak period was analyzed from 6:00 AM to 9:00 AM, the mid-day (MD) peak period was analyzed from 11:00 AM to 1:00 PM and the PM peak period was analyzed from 4:00 PM to 7:00 PM. Traffic volumes for each peak hourly time period at four locations along the corridor were utilized.

To find the total benefit for this system, all of the annual travel time and fuel reduction benefits are added together.

Table A1 shows the results of the travel time reduction and fuel consumption analysis from the travel time data collected along the mainline of SR 580. This data was used to capture the annual benefits of the new traffic signal operations.

Table A1: Annual Travel Time and Fuel Consumption Cost Savings

Annual Travel Time and Fuel Consumption Cost Savings					
Time of Day	Travel Time		Fuel Consumption		Total
	Veh-Hrs	Value	Gallons	Value	
Westbound- SR 580					
AM Period (6:00-9:00)	2,867	\$47,307	1,720	\$6,021	\$53,328
MD Period (11:00-13:00)	-(6,267)	-\$103,410	-(3,760)	-\$13,161	-\$116,571
PM Period (16:00-19:00)	23,227	\$383,253	13,936	\$48,778	\$432,031
Eastbound- SR 580					
AM Period (6:00-9:00)	22,508	\$371,381	13,505	\$47,267	\$418,648
MD Period (11:00-13:00)	3,527	\$58,200	2,116	\$7,407	\$65,607
PM Period (16:00-19:00)	10,539	\$173,901	6,324	\$22,133	\$196,034
Total					\$1,049,077

A benefit/cost ratio was obtained by dividing the annual benefit to motorists (in the form of reduced delay and fuel consumption) by the equivalent annual project cost. A ratio value of 1 or greater indicates that annual benefits equal or exceed annual costs.

When determining the annual costs, it should be noted that the InSync ATCS system will be used for a time period longer than one year. For this analysis, a five year horizon was utilized for determining the benefit to cost ratio. Typically, pre-timed timing plans are assumed to be valid for a period of two to three years. Thus over a five period, it is expected that the static timing plans would be updated once.

The total cost over the five year horizon was determined to be \$235,206. Included in this estimate is the InSync installation at \$295,150, the costs incurred by Pinellas County of \$30,056, and the savings of \$90,000 of not having to develop new static timing plans during the five year horizon.²

Similar to traditional static signal timing, there are maintenance costs associated with ATCS systems. The maintenance costs associated with ATCS systems typically include maintaining operational detection and the personnel cost of observing the timing parameters to ensure proper operation. While it is difficult to determine the actual projected maintenance costs for a system that utilized static timing and an ATCS based system, for the purposes of this study, the maintenance costs between the InSync ATCS system and the static signal timing plans were assumed to be equivalent.

The annual benefits to motorists, in the form of reduced travel time and fuel consumption, are \$1,049,077. The annual cost, as assumed from above, was \$51,358.³ The installation of the InSync ATCS system for Pinellas County has a yearly benefit/cost ratio of approximately 20 to 1. Expressed in another way, the new timing plans pay for themselves approximately every 12.5 workdays.

As discussed previously, all of the improvements mentioned in the report are for the eight hours of weekday operation during the AM, mid-day, and PM peak periods. The InSync ATCS also operates during the nighttime off-peak hours and on weekends. However, “before” and “after” studies were not conducted during these time periods. Therefore, the economic impacts associated with these periods could not be quantified.

² Costs provided by Pinellas County

³ Assumes a 3% interest rate

APPENDIX B

Travel Time Results

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

PC-Travel Reports for study: SR 580 Eastbound AM Peak

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Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**

Study Date : **3/29/2012**

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Study Summary

Runs Used in This Study

Run Title	Start Date	Start Time	Length	Before/After	Run Type
30612 After AM-EB-001	03/06/12	06:32	12102	After	Secondary
30612 After AM-EB-002	03/06/12	06:45	12066	After	Secondary
30612 After AM-EB-003	03/06/12	06:55	12094	After	Secondary
30612 After AM-EB-004	03/06/12	07:09	12047	After	Secondary
30612 After AM-EB-005	03/06/12	07:22	12042	After	Secondary
30612 After AM-EB-006	03/06/12	07:36	12037	After	Secondary
30612 After AM-EB-007	03/06/12	07:50	12111	After	Secondary
30612 After AM-EB-008	03/06/12	08:00	12077	After	Secondary
30612 After AM-EB-009	03/06/12	08:12	12044	After	Secondary
30612 After AM-EB-010	03/06/12	08:28	12046	After	Secondary
30612 After AM-EB-011	03/06/12	08:46	12111	After	Secondary
30712 After AM-EB-001	03/07/12	06:39	12134	After	Secondary
30712 After AM-EB-002	03/07/12	06:49	12186	After	Secondary
30712 After AM-EB-003	03/07/12	07:03	12128	After	Secondary
30712 After AM-EB-004	03/07/12	07:14	11977	After	Secondary
30712 After AM-EB-005	03/07/12	07:25	12131	After	Secondary
30712 After AM-EB-006	03/07/12	07:36	12063	After	Secondary
30712 After AM-EB-008	03/07/12	08:03	12147	After	Secondary
30712 After AM-EB-009	03/07/12	08:23	12031	After	Secondary

Node Info

#	Len	Name
1	0	Pinehurst
2	650	Lake Haven
3	1960	CR 1
4	1394	Virginia
5	1024	Overcash
6	1583	King Arthur
7	1377	Belcher
8	2799	US 19
9	1394	Summerdale

Length of Study Route = 12,181 feet

30712 After AM-EB-010	03/07/12	08:40	12234	After	Secondary
30712 After AM-EB-011	03/07/12	08:54	12156	After	Secondary
31312 Before AM-EB-001	03/13/12	06:36	12109	Before	Secondary
31312 Before AM-EB-002	03/13/12	06:47	12163	Before	Secondary
31312 Before AM-EB-003	03/13/12	07:00	12155	Before	Secondary
31312 Before AM-EB-004	03/13/12	07:14	12150	Before	Secondary
31312 Before AM-EB-005	03/13/12	07:32	12128	Before	Secondary
31312 Before AM-EB-006	03/13/12	07:51	12067	Before	Secondary
31312 Before AM-EB-007	03/13/12	08:04	12088	Before	Secondary
31312 Before AM-EB-008	03/13/12	08:19	12110	Before	Secondary
31312 Before AM-EB-009	03/13/12	08:36	12080	Before	Secondary
31312 Before AM-EB-010	03/13/12	08:51	12105	Before	Secondary
31412 Before AM-EB-001	03/14/12	06:41	12152	Before	Secondary
31412 Before AM-EB-002	03/14/12	06:55	12154	Before	Secondary
31412 Before AM-EB-003	03/14/12	07:07	12088	Before	Secondary
31412 Before AM-EB-004	03/14/12	07:37	12185	Before	Secondary
31412 Before AM-EB-005	03/14/12	07:51	12067	Before	Secondary
31412 Before AM-EB-007	03/14/12	08:06	12082	Before	Secondary
31412 Before AM-EB-008	03/14/12	08:20	12108	Before	Secondary
31412 Before AM-EB-009	03/14/12	08:32	12120	Before	Secondary
31412 Before AM-EB-010	03/14/12	08:44	12175	Before	Secondary

Notes:

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Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**

Study Date : **3/29/2012**

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Overall Output Statistics

Node #	Length	Node Name		Travel Time	# of Stops	Avg Speed	Total Delay	Time <= 0 MPH	Time <= 35 MPH	Time <= 55 MPH
1	0	Pinehurst								
2	650	Lake Haven	Before	15.1	0.2	29.4	3.7	0.8	6.6	15.1
			After	14.5	0.0	30.5	3.0	0.4	7.6	14.5
			Change	-0.5	-0.1	1.1	-0.7	-0.4	1.0	-0.5
3	1960	CR 1	Before	63.3	0.5	21.1	30.0	23.9	37.4	63.3
			After	45.7	0.4	29.3	12.0	4.4	21.7	45.7
			Change	-17.6	-0.1	8.1	-18.0	-19.5	-15.7	-17.6
4	1394	Virginia	Before	45.8	0.4	20.8	21.7	17.7	28.1	45.8
			After	33.3	0.0	28.5	9.1	6.0	17.5	33.3
			Change	-12.5	-0.3	7.8	-12.6	-11.7	-10.5	-12.5
5	1024	Overcash	Before	23.2	0.1	30.1	6.2	4.3	9.1	23.2
			After	17.6	0.0	39.6	0.1	0.0	0.6	17.6
			Change	-5.5	-0.1	9.5	-6.1	-4.3	-8.5	-5.5
6	1583	King Arthur	Before	27.3	0.2	39.6	2.1	0.2	3.6	27.3
			After	24.9	0.0	43.3	0.1	0.0	0.5	24.9
			Change	-2.4	-0.2	3.7	-1.9	-0.2	-3.1	-2.4
7	1377	Belcher	Before	45.5	0.5	20.6	22.3	14.4	31.7	45.5
			After	26.0	0.1	36.1	2.9	0.0	6.9	26.0
			Change	-19.5	-0.3	15.5	-19.5	-14.3	-24.8	-19.5
8	2799	US 19	Before	91.4	0.9	20.9	43.6	26.6	62.3	91.4
			After	49.9	0.1	38.2	2.7	0.2	6.8	49.9
			Change	-41.5	-0.8	17.4	-40.9	-26.4	-55.5	-41.5
9	1394	Summerdale	Before	26.8	0.1	35.4	3.5	1.2	8.9	25.9
			After	22.2	0.0	42.8	0.1	0.0	0.6	21.3
			Change	-4.7	-0.1	7.4	-3.4	-1.2	-8.4	-4.6
Totals	12,181		Before	338.3	2.7	24.5	133.2	88.9	187.7	337.4
			After	234.1	0.7	35.5	30.0	11.1	62.2	233.2
			Change	-104.2	-2.0	10.9	-103.2	-77.9	-125.5	-104.1

Stats based on 19 BEFORE runs & 21 AFTER runs.

Stops based on a Stop Speed of 5 MPH.

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**

Study Date : **3/29/2012**

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Fuel Consumption & Emissions

Node #	Length	Node Name		Fuel (gal)	HC (grams)	CO (grams)	NOx (grams)
1	0	Pinehurst					
2	650	Lake Haven	Before	0.0070	0.7475	8.2917	0.5035
			After	0.0068	0.7721	8.5244	0.5412
			Change	-0.0002	0.0245	0.2327	0.0377
3	1960	CR 1	Before	0.0216	1.7850	18.2370	0.7379
			After	0.0180	1.5184	15.1225	0.8034
			Change	-0.0037	-0.2666	-3.1145	0.0655
4	1394	Virginia	Before	0.0174	1.7573	19.0795	1.0009
			After	0.0138	1.3618	15.1506	0.8135
			Change	-0.0035	-0.3956	-3.9289	-0.1874
5	1024	Overcash	Before	0.0119	1.2768	14.2617	0.8961
			After	0.0086	0.7309	9.3149	0.4146
			Change	-0.0033	-0.5459	-4.9468	-0.4815
6	1583	King Arthur	Before	0.0130	0.8458	10.1783	0.3772
			After	0.0128	0.8574	11.2629	0.4032
			Change	-0.0003	0.0116	1.0846	0.0260
7	1377	Belcher	Before	0.0159	1.4218	13.3529	0.7113
			After	0.0119	0.9230	9.7662	0.5078
			Change	-0.0041	-0.4988	-3.5868	-0.2035
8	2799	US 19	Before	0.0320	2.9139	27.4654	1.4870
			After	0.0228	1.6815	19.7487	0.8315
			Change	-0.0091	-1.2324	-7.7167	-0.6554
9	1394	Summerdale	Before	0.0137	1.5179	18.3363	1.0783
			After	0.0108	0.8941	11.6747	0.5045
			Change	-0.0028	-0.6238	-6.6616	-0.5738
Totals	12,181		Before	0.1326	12.2662	129.2028	6.7923
			After	0.1056	8.7391	100.5648	4.8198
			Change	-0.0270	-3.5270	-28.6380	-1.9725

Stats based on 19 BEFORE runs & 21 AFTER runs.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After AM-EB-001
30612 After AM-EB-002
30612 After AM-EB-003
30612 After AM-EB-004
30612 After AM-EB-005
30612 After AM-EB-006
30612 After AM-EB-007
30612 After AM-EB-008

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	19	12	13	13	14	14	13	14
3	1960	CR 1	92	35	35	37	65	47	36	40
4	1394	Virginia	27	26	43	29	26	26	27	25
5	1024	Overcash	18	17	20	19	17	18	18	17
6	1583	King Arthur	24	24	24	24	25	24	26	24
7	1377	Belcher	23	22	24	22	31	23	25	22
8	2799	US 19	63	46	46	44	49	49	53	68
9	1394	Summerdale	25	21	23	21	21	21	23	23
Totals	12181		291	203	228	209	248	222	221	233

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
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Study Name : **SR 580 Eastbound AM Peak**
 Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After AM-EB-009
30612 After AM-EB-010
30612 After AM-EB-011
30712 After AM-EB-001
30712 After AM-EB-002
30712 After AM-EB-003
30712 After AM-EB-004
30712 After AM-EB-005

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	14	14	12	13	14	16	14	30
3	1960	CR 1	53	41	33	37	40	37	77	41
4	1394	Virginia	28	26	23	24	29	27	27	28
5	1024	Overcash	18	17	17	18	17	18	17	18
6	1583	King Arthur	25	25	25	24	24	25	25	26
7	1377	Belcher	22	23	24	22	23	38	36	28
8	2799	US 19	46	46	47	44	47	46	50	50
9	1394	Summerdale	21	21	23	22	22	22	20	23
Totals	12181		227	213	204	204	216	229	266	244

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
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Study Name : **SR 580 Eastbound AM Peak**
 Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After AM-EB-006
30712 After AM-EB-008
30712 After AM-EB-009
30712 After AM-EB-010
31312 Before AM-EB-011
31312 Before AM-EB-001
31312 Before AM-EB-002

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	13	14	14	13	12	13	11	13
3	1960	CR 1	63	39	33	40	38	34	123	85
4	1394	Virginia	27	25	26	29	152	24	26	24
5	1024	Overcash	17	16	18	18	17	16	16	17
6	1583	King Arthur	24	25	26	30	24	25	23	25
7	1377	Belcher	23	39	25	29	22	22	21	22
8	2799	US 19	55	49	50	53	47	43	102	63
9	1394	Summerdale	22	23	21	24	24	21	24	27
Totals	12181		244	230	213	236	336	198	346	276

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

31312 Before AM-EB-004 31312 Before AM-EB-005 31312 Before AM-EB-006 31312 Before AM-EB-007 31312 Before AM-EB-008 31312 Before AM-EB-009 31412 Before AM-EB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Pinehurst								
2	650	Lake Haven	12	12	13	12	22	12	35	11
3	1960	CR 1	34	95	32	129	37	31	37	31
4	1394	Virginia	24	76	72	26	61	26	92	28
5	1024	Overcash	16	22	20	16	20	90	21	45
6	1583	King Arthur	26	24	25	27	25	42	35	25
7	1377	Belcher	23	77	56	38	128	73	51	73
8	2799	US 19	81	96	115	80	54	73	95	109
9	1394	Summerdale	26	25	23	23	23	25	23	25
Totals	12181		242	427	356	351	370	372	389	347

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
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Study Name : **SR 580 Eastbound AM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

31412 Before AM-EB-002
31412 Before AM-EB-003
31412 Before AM-EB-004
31412 Before AM-EB-005
31412 Before AM-EB-007
31412 Before AM-EB-008
31412 Before AM-EB-009
31412 Before AM-EB-

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Pinehurst								
2	650	Lake Haven	11	13	11	12	13	17	13	30
3	1960	CR 1	61	94	37	31	33	52	93	133
4	1394	Virginia	27	26	116	73	72	26	25	26
5	1024	Overcash	16	17	16	24	20	16	16	16
6	1583	King Arthur	24	25	26	25	24	24	25	43
7	1377	Belcher	20	21	31	53	77	25	24	30
8	2799	US 19	78	92	99	134	159	94	90	80
9	1394	Summerdale	25	24	45	28	23	22	26	52
Totals	12181		262	312	381	380	421	276	312	410

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

30612 After AM-EB-001
30612 After AM-EB-002
30612 After AM-EB-003
30612 After AM-EB-004
30612 After AM-EB-005
30612 After AM-EB-006
30612 After AM-EB-007
30612 After AM-EB-008

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	0
3	1960	CR 1	2	0	0	0	1	1	0	0
4	1394	Virginia	0	0	1	0	0	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	0	0	0	0	0	0	0	0
8	2799	US 19	1	0	0	0	0	0	0	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		3	0	1	0	1	1	0	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30612 After AM-EB-009 30612 After AM-EB-010 30612 After AM-EB-011 30712 After AM-EB-001 30712 After AM-EB-002 30712 After AM-EB-003 30712 After AM-EB-004 30712 After AM-EB-005

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	1
3	1960	CR 1	1	0	0	0	0	0	1	0
4	1394	Virginia	0	0	0	0	0	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	0	0	0	0	0	1	1	0
8	2799	US 19	0	0	0	0	0	0	0	0
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		1	0	0	0	0	1	2	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30712 After AM-EB-006 30712 After AM-EB-008 30712 After AM-EB-009 30712 After AM-EB-010
 31312 Before AM-EB-001 31312 Before AM-EB-002 31312 Before AM-EB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	0
3	1960	CR 1	1	0	0	0	1	0	1	1
4	1394	Virginia	0	0	0	0	0	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	0	1	0	0	0	0	0	0
8	2799	US 19	0	0	0	0	0	0	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		1	1	0	0	1	0	2	2

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

31312 Before AM-EB-004
31312 Before AM-EB-005
31312 Before AM-EB-006
31312 Before AM-EB-007
31312 Before AM-EB-008
31312 Before AM-EB-009
31412 Before AM-EB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	1	0
3	1960	CR 1	0	1	0	1	0	0	0	0
4	1394	Virginia	0	1	1	0	1	1	1	0
5	1024	Overcash	0	0	0	0	0	0	0	1
6	1583	King Arthur	0	0	0	0	0	1	1	0
7	1377	Belcher	0	1	1	1	1	1	1	1
8	2799	US 19	1	1	1	1	0	1	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		1	4	3	3	2	4	5	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

31412 Before AM-EB-002 31412 Before AM-EB-003 31412 Before AM-EB-004 31412 Before AM-EB-005
31412 Before AM-EB-007 31412 Before AM-EB-008 31412 Before AM-EB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	1	0	1
3	1960	CR 1	1	1	1	0	0	0	1	1
4	1394	Virginia	0	0	0	1	1	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	1
7	1377	Belcher	0	0	0	1	1	0	0	0
8	2799	US 19	1	1	1	1	1	1	1	1
9	1394	Summerdale	0	0	1	0	0	0	0	1
Totals	12181		2	2	3	3	3	2	2	5

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**

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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After AM-EB-001

30612 After AM-EB-002

30612 After AM-EB-003

30612 After AM-EB-004

30612 After AM-EB-005

30612 After AM-EB-006

30612 After AM-EB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	23.6	40.5	34.9	35.5	33.4	32.2	35.7	33.1
3	1960	CR 1	14.5	37.4	38.7	36.0	20.6	28.6	37.0	33.0
4	1394	Virginia	35.6	37.4	21.9	32.8	35.7	36.1	36.1	38.6
5	1024	Overcash	39.7	41.0	35.9	37.3	41.6	40.8	38.5	41.1
6	1583	King Arthur	43.9	44.8	44.0	44.8	43.8	44.0	41.4	45.1
7	1377	Belcher	41.4	41.9	40.0	43.5	29.6	41.6	37.4	42.7
8	2799	US 19	30.2	41.7	40.9	43.2	39.3	39.2	36.1	28.3
9	1394	Summerdale	37.1	42.5	40.5	41.8	41.3	41.0	40.0	38.8
Totals	12181		28.5	40.8	36.4	39.5	33.3	37.2	37.6	35.5

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After AM-EB-009

30612 After AM-EB-010

30612 After AM-EB-011

30712 After AM-EB-001

30712 After AM-EB-002

30712 After AM-EB-003

30712 After AM-EB-004

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	33.1	33.7	38.8	35.8	34.1	28.1	32.4	14.8
3	1960	CR 1	25.0	32.3	40.8	36.5	33.1	36.6	17.2	33.0
4	1394	Virginia	33.7	36.8	40.8	38.4	33.0	35.4	36.3	34.3
5	1024	Overcash	39.9	40.9	40.8	40.7	41.4	39.1	41.2	37.7
6	1583	King Arthur	43.4	43.4	43.4	44.2	44.2	42.4	43.4	41.7
7	1377	Belcher	42.1	41.7	38.8	42.0	41.5	24.3	25.3	33.6
8	2799	US 19	41.2	41.0	40.9	43.8	40.6	41.9	38.8	38.6
9	1394	Summerdale	42.8	42.5	40.2	42.8	42.7	42.7	41.1	40.2
Totals	12181		36.4	38.8	40.7	40.8	38.5	36.3	30.9	34.1

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**

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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After AM-EB-006

30712 After AM-EB-008

30712 After AM-EB-009

30712 After AM-EB-010

31312 Before AM-EB-011

31312 Before AM-EB-001

31312 Before AM-EB-002

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	34.5	33.1	33.6	34.8	39.3	34.1	41.3	36.6
3	1960	CR 1	21.2	34.3	40.8	33.7	34.6	39.5	10.9	15.6
4	1394	Virginia	36.1	38.3	35.8	32.7	6.4	39.6	37.0	38.8
5	1024	Overcash	41.0	42.4	39.0	39.2	41.8	44.1	44.4	42.4
6	1583	King Arthur	44.5	44.7	42.2	35.7	44.0	43.2	45.7	42.9
7	1377	Belcher	41.2	23.2	36.1	32.6	42.5	43.6	44.5	43.2
8	2799	US 19	34.9	38.9	38.5	35.8	40.4	43.9	18.8	30.0
9	1394	Summerdale	40.1	41.9	41.9	40.9	40.8	44.1	40.5	35.6
Totals	12181		33.9	36.2	38.7	35.4	24.8	41.9	24.1	30.2

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

31312 Before AM-EB-004 31312 Before AM-EB-005 31312 Before AM-EB-006 31312 Before AM-EB-007 31312 Before AM-EB-008 31312 Before AM-EB-009 31412 Before AM-EB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Pinehurst								
2	650	Lake Haven	37.3	40.3	35.7	38.7	20.9	39.4	12.8	41.5
3	1960	CR 1	39.5	13.9	42.1	10.3	36.7	42.8	36.8	43.3
4	1394	Virginia	40.5	12.3	12.8	36.9	15.1	36.1	10.0	33.4
5	1024	Overcash	42.1	33.5	36.1	43.6	36.2	8.2	34.2	16.0
6	1583	King Arthur	43.0	45.0	44.0	40.6	42.9	24.9	30.3	43.8
7	1377	Belcher	40.0	12.0	16.3	24.9	7.2	13.2	18.8	12.5
8	2799	US 19	23.6	19.9	16.7	23.6	35.3	26.0	20.0	17.6
9	1394	Summerdale	36.5	37.1	39.0	40.1	40.7	35.9	39.8	38.4
Totals	12181		34.4	19.4	23.2	23.6	22.4	22.2	21.3	24.0

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

31412 Before AM-EB-002 31412 Before AM-EB-003 31412 Before AM-EB-004 31412 Before AM-EB-005 31412 Before AM-EB-007 31412 Before AM-EB-008 31412 Before AM-EB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Pinehurst								
2	650	Lake Haven	41.3	34.3	41.1	38.7	36.0	26.1	35.1	14.9
3	1960	CR 1	22.0	14.3	36.0	42.7	40.9	25.8	14.4	10.1
4	1394	Virginia	35.8	36.2	8.3	13.0	12.8	37.8	37.9	36.9
5	1024	Overcash	43.4	41.1	43.3	30.2	35.4	43.9	43.4	43.7
6	1583	King Arthur	45.8	44.5	42.5	43.3	44.5	45.0	44.0	25.0
7	1377	Belcher	46.3	43.2	30.5	17.2	12.3	37.0	38.7	31.5
8	2799	US 19	24.1	21.0	19.1	14.4	12.1	20.3	21.2	23.7
9	1394	Summerdale	38.8	37.9	20.8	31.7	39.4	41.5	36.0	18.4
Totals	12181		31.8	26.5	21.8	21.7	19.6	30.0	26.6	20.3

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After AM-EB-001 30612 After AM-EB-002 30612 After AM-EB-003 30612 After AM-EB-004 30612 After AM-EB-005 30612 After AM-EB-006 30612 After AM-EB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	8	0	2	2	2	3	1	2
3	1960	CR 1	58	1	1	3	31	13	2	7
4	1394	Virginia	3	1	19	5	2	2	2	1
5	1024	Overcash	0	0	2	1	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	0	0	0	0	7	0	1	0
8	2799	US 19	15	0	0	0	0	0	5	20
9	1394	Summerdale	2	0	0	0	0	0	0	0
Totals	12181		86	2	24	11	42	18	11	30

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After AM-EB-009
30612 After AM-EB-010
30612 After AM-EB-011
30712 After AM-EB-001
30712 After AM-EB-002
30712 After AM-EB-003
30712 After AM-EB-004
30712 After AM-EB-005

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	2	2	0	1	2	5	3	19
3	1960	CR 1	19	7	0	3	6	3	44	7
4	1394	Virginia	4	2	0	0	5	2	2	3
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	0	0	0	0	0	14	12	4
8	2799	US 19	0	0	0	0	0	0	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		25	11	0	4	13	24	62	34

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After AM-EB-006 30712 After AM-EB-008 30712 After AM-EB-009 30712 After AM-EB-010
 31312 Before AM-EB-001 31312 Before AM-EB-002 31312 Before AM-EB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	2	2	2	2	0	2	0	1
3	1960	CR 1	30	5	0	6	5	0	89	51
4	1394	Virginia	3	1	2	5	128	0	2	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	3	0	0	0	0
7	1377	Belcher	0	15	2	5	0	0	0	0
8	2799	US 19	7	1	2	5	0	0	54	15
9	1394	Summerdale	0	0	0	0	0	0	0	3
Totals	12181		42	24	8	26	133	2	145	70

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31312 Before AM-EB-004 31312 Before AM-EB-005 31312 Before AM-EB-006 31312 Before AM-EB-007 31312 Before AM-EB-008 31312 Before AM-EB-009 31412 Before AM-EB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Pinehurst								
2	650	Lake Haven	1	0	1	0	11	0	24	0
3	1960	CR 1	0	61	0	95	3	0	3	0
4	1394	Virginia	0	52	48	2	37	2	68	4
5	1024	Overcash	0	4	2	0	2	72	3	27
6	1583	King Arthur	0	0	0	0	0	15	8	0
7	1377	Belcher	0	53	32	14	104	49	27	49
8	2799	US 19	33	48	67	32	6	25	47	61
9	1394	Summerdale	2	1	0	0	0	2	0	1
Totals	12181		36	219	150	143	163	165	180	142

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31412 Before AM-EB-002 31412 Before AM-EB-003 31412 Before AM-EB-004 31412 Before AM-EB-005 31412 Before AM-EB-007 31412 Before AM-EB-008 31412 Before AM-EB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Pinehurst								
2	650	Lake Haven	0	2	0	0	1	6	2	19
3	1960	CR 1	27	60	4	0	0	19	59	99
4	1394	Virginia	3	2	92	49	48	1	1	2
5	1024	Overcash	0	0	0	6	2	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	16
7	1377	Belcher	0	0	7	29	53	1	0	6
8	2799	US 19	30	44	51	86	111	45	42	32
9	1394	Summerdale	1	1	21	5	0	0	2	28
Totals	12181		61	109	175	175	215	72	106	202

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

PC-Travel Reports for study: SR 580 Eastbound MD Peak

<u>Report Name</u>	<u>Page</u>
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Overall Output Statistics	3
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Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**

Study Date : **3/29/2012**

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Study Summary

Runs Used in This Study

Run Title	Start Date	Start Time	Length	Before/After	Run Type
30612 After MD-EB-001	03/06/12	11:02	12121	After	Secondary
30612 After MD-EB-002	03/06/12	11:18	12161	After	Secondary
30612 After MD-EB-003	03/06/12	11:33	12177	After	Secondary
30612 After MD-EB-004	03/06/12	11:56	12180	After	Secondary
30612 After MD-EB-005	03/06/12	12:10	12244	After	Secondary
30612 After MD-EB-006	03/06/12	12:25	12210	After	Secondary
30612 After MD-EB-007	03/06/12	12:38	12131	After	Secondary
30712 After MD-EB-001	03/07/12	11:06	12132	After	Secondary
30712 After MD-EB-002	03/07/12	11:19	12149	After	Secondary
30712 After MD-EB-003	03/07/12	11:38	12250	After	Secondary
30712 After MD-EB-004	03/07/12	12:00	12126	After	Secondary
30712 After MD-EB-005	03/07/12	12:17	12176	After	Secondary
30712 After MD-EB-006	03/07/12	12:38	12170	After	Secondary
31312 Before MD-EB-001	03/13/12	11:09	12220	Before	Secondary
31312 Before MD-EB-002	03/13/12	11:24	12141	Before	Secondary
31312 Before MD-EB-003	03/13/12	11:39	12108	Before	Secondary
31312 Before MD-EB-004	03/13/12	12:00	12128	Before	Secondary
31312 Before MD-EB-005	03/13/12	12:14	12234	Before	Secondary
31312 Before MD-EB-006	03/13/12	12:30	12137	Before	Secondary

Node Info

#	Len	Name
1	0	Pinehurst
2	650	Lake Haven
3	1960	CR 1
4	1394	Virginia
5	1024	Overcash
6	1583	King Arthur
7	1377	Belcher
8	2799	US 19
9	1394	Summerdale

Length of Study Route = 12,181 feet

31312 Before MD-EB-007	03/13/12	12:43	12226	Before	Secondary
31412 Before MD-EB-001	03/14/12	11:07	12152	Before	Secondary
31412 Before MD-EB-002	03/14/12	11:22	12115	Before	Secondary
31412 Before MD-EB-003	03/14/12	11:41	12100	Before	Secondary
31412 Before MD-EB-004	03/14/12	12:01	12235	Before	Secondary
31412 Before MD-EB-005	03/14/12	12:20	12181	Before	Secondary
31412 Before MD-EB-007	03/14/12	12:41	12171	Before	Secondary

Notes:

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**

Study Date : **3/29/2012**

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Overall Output Statistics

Node #	Length	Node Name		Travel Time	# of Stops	Avg Speed	Total Delay	Time <= 0 MPH	Time <= 35 MPH	Time <= 55 MPH
1	0	Pinehurst								
2	650	Lake Haven	Before	18.0	0.3	24.6	6.6	1.6	11.5	18.0
			After	17.0	0.1	26.1	5.5	1.0	12.2	17.0
			Change	-1.0	-0.2	1.4	-1.1	-0.6	0.6	-1.0
3	1960	CR 1	Before	73.7	0.7	18.1	40.1	28.4	53.4	73.7
			After	59.7	0.5	22.4	26.2	16.8	43.7	59.7
			Change	-14.0	-0.2	4.3	-13.9	-11.6	-9.7	-14.0
4	1394	Virginia	Before	28.0	0.0	33.9	3.8	0.0	14.0	28.0
			After	59.3	0.3	16.0	35.2	25.1	53.0	59.3
			Change	31.3	0.3	-17.9	31.3	25.1	39.0	31.3
5	1024	Overcash	Before	22.1	0.2	31.6	4.8	2.0	7.8	22.1
			After	21.4	0.0	32.6	3.5	0.8	10.7	21.4
			Change	-0.7	-0.2	1.0	-1.3	-1.2	2.8	-0.7
6	1583	King Arthur	Before	40.6	0.4	26.6	13.5	5.8	21.7	40.6
			After	27.5	0.1	39.2	0.9	0.0	2.5	27.5
			Change	-13.1	-0.3	12.6	-12.6	-5.8	-19.2	-13.1
7	1377	Belcher	Before	50.1	0.3	18.7	26.2	14.9	41.8	50.1
			After	51.5	0.3	18.2	27.8	23.1	33.3	51.5
			Change	1.5	0.0	-0.5	1.7	8.2	-8.5	1.5
8	2799	US 19	Before	99.7	0.9	19.1	51.7	35.5	69.9	99.7
			After	75.2	0.4	25.4	27.2	18.5	38.2	75.2
			Change	-24.5	-0.5	6.3	-24.5	-17.0	-31.7	-24.5
9	1394	Summerdale	Before	26.4	0.0	36.0	2.3	0.0	8.8	25.8
			After	26.7	0.0	35.6	2.8	0.0	10.2	25.9
			Change	0.3	0.0	-0.4	0.5	0.0	1.4	0.2
Totals	12,181		Before	358.5	2.8	23.2	149.1	88.3	228.9	357.9
			After	338.3	1.6	24.5	129.2	85.3	203.8	337.5
			Change	-20.2	-1.2	1.4	-19.9	-3.0	-25.2	-20.4

Stats based on 13 BEFORE runs & 13 AFTER runs.

Stops based on a Stop Speed of 5 MPH.

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**

Study Date : **3/29/2012**

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Fuel Consumption & Emissions

Node #	Length	Node Name		Fuel (gal)	HC (grams)	CO (grams)	NOx (grams)
1	0	Pinehurst					
2	650	Lake Haven	Before	0.0072	0.7279	7.3857	0.4542
			After	0.0069	0.7222	7.0642	0.4688
			Change	-0.0003	-0.0057	-0.3214	0.0146
3	1960	CR 1	Before	0.0242	2.2851	21.8924	1.1140
			After	0.0202	1.8095	18.2017	0.8484
			Change	-0.0040	-0.4756	-3.6907	-0.2656
4	1394	Virginia	Before	0.0135	1.4856	16.3352	1.0502
			After	0.0188	1.8975	17.7822	0.9609
			Change	0.0053	0.4119	1.4470	-0.0894
5	1024	Overcash	Before	0.0097	0.8849	10.0153	0.5237
			After	0.0101	1.0823	11.5275	0.7486
			Change	0.0004	0.1973	1.5122	0.2249
6	1583	King Arthur	Before	0.0159	1.3978	13.7408	0.7706
			After	0.0128	0.9713	12.0768	0.4881
			Change	-0.0030	-0.4265	-1.6640	-0.2825
7	1377	Belcher	Before	0.0168	1.7452	17.1193	0.9631
			After	0.0164	1.3772	13.8844	0.5208
			Change	-0.0004	-0.3680	-3.2349	-0.4423
8	2799	US 19	Before	0.0336	3.1657	30.9420	1.5856
			After	0.0280	2.4336	25.4949	1.2051
			Change	-0.0056	-0.7321	-5.4471	-0.3804
9	1394	Summerdale	Before	0.0138	1.5721	18.6675	1.1422
			After	0.0120	1.1305	12.8032	0.7028
			Change	-0.0018	-0.4416	-5.8643	-0.4395
Totals	12,181		Before	0.1348	13.2643	136.0981	7.6036
			After	0.1253	11.4241	118.8349	5.9435
			Change	-0.0095	-1.8403	-17.2633	-1.6601

Stats based on 13 BEFORE runs & 13 AFTER runs.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After MD-EB-001
30612 After MD-EB-002
30612 After MD-EB-003
30612 After MD-EB-004
30612 After MD-EB-005
30612 After MD-EB-006
30712 After MD-EB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	19	24	14	13	12	15	14	12
3	1960	CR 1	69	42	126	38	35	35	44	145
4	1394	Virginia	32	30	32	147	146	25	31	29
5	1024	Overcash	19	20	19	21	37	17	21	24
6	1583	King Arthur	27	29	26	26	27	25	27	28
7	1377	Belcher	147	26	23	22	24	23	135	24
8	2799	US 19	51	170	55	49	46	51	61	48
9	1394	Summerdale	23	27	29	31	24	23	25	23
Totals	12181		387	368	324	347	351	214	358	333

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After MD-EB-002 30712 After MD-EB-003 30712 After MD-EB-004 30712 After MD-EB-005
 31312 Before MD-EB-006 31312 Before MD-EB-001 31312 Before MD-EB-002 31312 Before MD-EB-003

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	13	13	38	14	20	12	32	32
3	1960	CR 1	42	43	76	38	43	35	114	114
4	1394	Virginia	48	141	29	49	32	25	27	29
5	1024	Overcash	21	19	18	20	22	37	16	16
6	1583	King Arthur	33	27	26	26	31	29	41	32
7	1377	Belcher	51	27	24	117	27	106	27	32
8	2799	US 19	89	55	52	78	172	89	72	81
9	1394	Summerdale	27	24	23	29	39	27	25	27
Totals	12181		324	349	286	371	386	360	354	363

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

31312 Before MD-EB-004 31312 Before MD-EB-005 31312 Before MD-EB-006 31412 Before MD-EB-007
31412 Before MD-EB-001 31412 Before MD-EB-002 31412 Before MD-EB-003 31412 Before MD-EB-004

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	14	12	12	23	14	27	14	17
3	1960	CR 1	58	33	59	44	97	117	38	134
4	1394	Virginia	30	25	29	28	31	27	27	29
5	1024	Overcash	31	18	18	17	17	17	46	17
6	1583	King Arthur	83	33	81	27	36	38	29	45
7	1377	Belcher	112	30	26	38	64	33	25	26
8	2799	US 19	132	64	60	137	165	67	156	74
9	1394	Summerdale	25	26	25	35	28	25	24	23
Totals	12181		485	241	310	349	452	351	359	365

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Travel Time (sec) by Section

31412 Before MD-EB-005
31412 Before MD-EB-007

Node #	Length	Node Name	Run #25	Run #26
1	0	Pinehurst		
2	650	Lake Haven	12	13
3	1960	CR 1	80	35
4	1394	Virginia	30	27
5	1024	Overcash	17	20
6	1583	King Arthur	26	28
7	1377	Belcher	98	34
8	2799	US 19	143	56
9	1394	Summerdale	27	26
Totals	12181		433	239

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

30612 After MD-EB-001 30612 After MD-EB-002 30612 After MD-EB-003 30612 After MD-EB-004 30612 After MD-EB-005 30612 After MD-EB-006 30712 After MD-EB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	0
3	1960	CR 1	1	0	1	0	1	0	0	1
4	1394	Virginia	0	0	0	1	1	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	1	0	0	0	0	0	1	0
8	2799	US 19	0	1	0	0	0	0	1	0
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		2	1	1	1	2	0	2	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

30712 After MD-EB-002 30712 After MD-EB-003 30712 After MD-EB-004 30712 After MD-EB-005
 31312 Before MD-EB-006 31312 Before MD-EB-001 31312 Before MD-EB-002 31312 Before MD-EB-003

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	0	0	1	0	0	0	1	1
3	1960	CR 1	0	1	1	0	0	0	1	1
4	1394	Virginia	1	0	0	1	0	0	0	0
5	1024	Overcash	0	0	0	0	0	1	0	0
6	1583	King Arthur	1	0	0	0	0	0	1	0
7	1377	Belcher	1	0	0	1	0	1	0	0
8	2799	US 19	1	0	0	1	1	1	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		4	1	2	3	1	3	4	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

31312 Before MD-EB-004 31312 Before MD-EB-005 31312 Before MD-EB-006 31412 Before MD-EB-007
31412 Before MD-EB-001 31412 Before MD-EB-002 31412 Before MD-EB-003 31412 Before MD-EB-004

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	1	0	1	0	0
3	1960	CR 1	1	0	1	0	1	1	0	2
4	1394	Virginia	0	0	0	0	0	0	0	0
5	1024	Overcash	0	0	0	0	0	0	1	0
6	1583	King Arthur	1	0	1	0	0	1	0	1
7	1377	Belcher	1	0	0	0	1	0	0	0
8	2799	US 19	1	1	1	1	1	1	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		4	1	3	2	3	4	2	4

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

31412 Before MD-EB-005
31412 Before MD-EB-007

Node #	Length	Node Name	Run #25	Run #26
1	0	Pinehurst		
2	650	Lake Haven	0	0
3	1960	CR 1	1	0
4	1394	Virginia	0	0
5	1024	Overcash	0	0
6	1583	King Arthur	0	0
7	1377	Belcher	1	0
8	2799	US 19	1	0
9	1394	Summerdale	0	0
Totals	12181		3	0

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After MD-EB-001 30612 After MD-EB-002 30612 After MD-EB-003 30612 After MD-EB-004 30612 After MD-EB-005 30612 After MD-EB-006 30712 After MD-EB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	23.4	18.8	34.1	34.1	39.3	31.5	33.2	38.2
3	1960	CR 1	19.3	31.6	10.4	35.2	37.5	38.4	29.9	9.2
4	1394	Virginia	30.6	32.0	29.9	6.4	6.5	38.2	30.8	33.5
5	1024	Overcash	36.9	34.5	36.4	33.1	18.9	39.8	34.1	28.6
6	1583	King Arthur	40.1	38.2	41.6	43.0	40.5	43.5	39.2	38.4
7	1377	Belcher	6.2	35.3	41.1	42.5	39.6	40.4	7.1	40.1
8	2799	US 19	37.4	11.2	34.7	38.5	41.5	38.0	31.2	39.8
9	1394	Summerdale	41.1	35.5	33.7	31.1	39.0	40.7	37.7	40.3
Totals	12181		21.4	22.6	25.7	24.0	23.7	39.0	23.2	25.0

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**

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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After MD-EB-002

30712 After MD-EB-003

30712 After MD-EB-004

30712 After MD-EB-005

31312 Before MD-EB-006

31312 Before MD-EB-001

31312 Before MD-EB-002

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	35.3	36.0	12.2	31.9	22.8	39.0	14.4	14.1
3	1960	CR 1	31.4	30.6	17.5	35.3	30.7	38.7	11.6	11.8
4	1394	Virginia	19.9	6.9	32.9	19.5	30.0	37.7	35.6	33.4
5	1024	Overcash	33.1	36.4	39.6	34.0	32.3	18.2	43.4	42.9
6	1583	King Arthur	32.5	40.1	41.0	41.7	34.4	38.0	26.3	33.5
7	1377	Belcher	18.5	35.6	38.5	8.0	35.4	8.7	34.7	29.5
8	2799	US 19	21.4	34.6	36.6	24.6	11.0	21.5	26.4	23.6
9	1394	Summerdale	35.3	38.9	41.6	33.1	24.8	36.1	38.3	34.3
Totals	12181		25.6	23.9	29.0	22.4	21.6	23.2	23.4	22.8

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
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Detailed Statistics By Run

Average Speed (MPH) by Section

31312 Before MD-EB-004 31312 Before MD-EB-005 31312 Before MD-EB-006 31412 Before MD-EB-007 31412 Before MD-EB-001 31412 Before MD-EB-002 31412 Before MD-EB-003 31412 Before MD-EB-004

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	32.1	38.3	37.4	19.7	34.1	16.9	34.3	26.2
3	1960	CR 1	23.3	40.7	22.6	30.8	13.5	11.4	34.8	10.0
4	1394	Virginia	31.0	37.8	33.7	33.3	30.8	35.7	35.2	33.2
5	1024	Overcash	22.9	40.1	38.6	41.4	41.3	41.9	15.1	40.9
6	1583	King Arthur	12.9	32.2	13.2	40.5	30.1	27.9	37.1	24.1
7	1377	Belcher	8.5	31.7	36.6	24.7	14.7	27.7	37.6	36.2
8	2799	US 19	14.6	29.7	31.7	13.9	11.5	28.5	12.2	26.0
9	1394	Summerdale	37.2	37.3	38.0	26.8	34.5	37.7	38.3	41.7
Totals	12181		17.1	34.7	26.8	23.8	18.4	23.6	23.1	22.9

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**

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Detailed Statistics By Run

Average Speed (MPH) by Section

31412 Before MD-EB-005
31412 Before MD-EB-007

Node #	Length	Node Name	Run #25	Run #26
1	0	Pinehurst		
2	650	Lake Haven	39.9	34.9
3	1960	CR 1	16.3	39.0
4	1394	Virginia	32.5	35.1
5	1024	Overcash	39.2	35.4
6	1583	King Arthur	42.7	37.6
7	1377	Belcher	9.3	27.7
8	2799	US 19	13.4	34.0
9	1394	Summerdale	35.1	37.4
Totals	12181		19.2	34.9

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After MD-EB-001 30612 After MD-EB-002 30612 After MD-EB-003 30612 After MD-EB-004 30612 After MD-EB-005 30612 After MD-EB-006 30712 After MD-EB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	8	13	2	2	0	3	2	1
3	1960	CR 1	36	9	92	4	2	1	10	111
4	1394	Virginia	8	6	8	123	122	0	7	4
5	1024	Overcash	1	2	1	3	19	0	3	6
6	1583	King Arthur	0	1	0	0	0	0	0	1
7	1377	Belcher	123	2	0	0	0	0	111	0
8	2799	US 19	3	122	7	1	0	2	13	0
9	1394	Summerdale	0	3	4	6	0	0	1	0
Totals	12181		179	158	114	139	143	6	147	123

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After MD-EB-002 30712 After MD-EB-003 30712 After MD-EB-004 30712 After MD-EB-005
 31312 Before MD-EB-006 31312 Before MD-EB-001 31312 Before MD-EB-002 31312 Before MD-EB-003

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	2	1	26	3	9	0	20	21
3	1960	CR 1	9	10	42	4	10	1	81	80
4	1394	Virginia	24	117	5	25	8	1	3	5
5	1024	Overcash	3	1	0	3	4	20	0	0
6	1583	King Arthur	6	0	0	0	4	1	14	5
7	1377	Belcher	27	3	0	93	3	82	3	8
8	2799	US 19	41	7	4	30	124	41	24	33
9	1394	Summerdale	3	0	0	4	15	3	1	3
Totals	12181		115	139	77	162	177	149	146	155

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
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Detailed Statistics By Run

Total Delay (sec) by Section

31312 Before MD-EB-004 31312 Before MD-EB-005 31312 Before MD-EB-006 31412 Before MD-EB-007
31412 Before MD-EB-001 31412 Before MD-EB-002 31412 Before MD-EB-003 31412 Before MD-EB-004

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	3	1	1	12	2	16	2	6
3	1960	CR 1	24	0	26	10	64	83	4	101
4	1394	Virginia	6	1	4	4	7	3	3	5
5	1024	Overcash	13	0	0	0	0	0	28	0
6	1583	King Arthur	56	6	54	0	9	10	2	18
7	1377	Belcher	88	6	2	14	40	10	1	2
8	2799	US 19	84	16	12	89	117	19	108	26
9	1394	Summerdale	1	1	1	11	4	1	0	0
Totals	12181		275	31	100	140	243	142	148	158

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound MD Peak**
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Detailed Statistics By Run

Total Delay (sec) by Section

31412 Before MD-EB-005
31412 Before MD-EB-007

Node #	Length	Node Name	Run #25	Run #26
1	0	Pinehurst		
2	650	Lake Haven	0	2
3	1960	CR 1	46	1
4	1394	Virginia	5	3
5	1024	Overcash	0	2
6	1583	King Arthur	0	1
7	1377	Belcher	74	10
8	2799	US 19	95	8
9	1394	Summerdale	3	1
Totals	12181		223	28

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

PC-Travel Reports for study: SR 580 Eastbound PM Peak

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Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Study Summary

Runs Used in This Study

Run Title	Start Date	Start Time	Length	Before/After	Run Type
30612 After PM-EB-007	03/06/12	18:57	12218	After	Secondary
30612 After PM-EB-008	03/06/12	19:09	12172	After	Secondary
30612 After PM-EB-009	03/06/12	19:23	12203	After	Secondary
30612 After PM-EB-010	03/06/12	19:40	12113	After	Secondary
30712 After PM-EB-002	03/07/12	16:13	12174	After	Secondary
30712 After PM-EB-003	03/07/12	16:38	12166	After	Secondary
30712 After PM-EB-004	03/07/12	17:01	12163	After	Secondary
30712 After PM-EB-005	03/07/12	17:16	12112	After	Secondary
30712 After PM-EB-006	03/07/12	17:34	12141	After	Secondary
30712 After PM-EB-007	03/07/12	17:49	12132	After	Secondary
30712 After PM-EB-008	03/07/12	18:09	12161	After	Secondary
30712 After PM-EB-009	03/07/12	18:24	12130	After	Secondary
30712 After PM-EB-010	03/07/12	18:40	12218	After	Secondary
30712 After PM-EB-011	03/07/12	18:53	12104	After	Secondary
31312 Before PM-EB-001	03/13/12	16:13	12135	Before	Secondary
31312 Before PM-EB-002	03/13/12	16:30	12122	Before	Secondary
31312 Before PM-EB-003	03/13/12	16:47	12138	Before	Secondary
31312 Before PM-EB-004	03/13/12	17:11	12180	Before	Secondary
31312 Before PM-EB-005	03/13/12	17:29	12210	Before	Secondary

Node Info

#	Len	Name
1	0	Pinehurst
2	650	Lake Haven
3	1960	CR 1
4	1394	Virginia
5	1024	Overcash
6	1583	King Arthur
7	1377	Belcher
8	2799	US 19
9	1394	Summerdale

Length of Study Route = 12,181 feet

31312 Before PM-EB-006	03/13/12	17:48	12076	Before	Secondary
31312 Before PM-EB-007	03/13/12	18:06	12153	Before	Secondary
31312 Before PM-EB-008	03/13/12	18:19	12090	Before	Secondary
31312 Before PM-EB-009	03/13/12	18:41	12194	Before	Secondary
31312 Before PM-EB-010	03/13/12	18:56	12106	Before	Secondary
31412 Before PM-EB-004	03/14/12	17:55	12130	Before	Secondary
31412 Before PM-EB-005	03/14/12	17:13	12174	Before	Secondary
31412 Before PM-EB-006	03/14/12	18:35	12110	Before	Secondary
31412 Before PM-EB-007	03/14/12	18:51	12092	Before	Secondary

Notes:

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**

Study Date : **3/29/2012**

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Overall Output Statistics

Node #	Length	Node Name		Travel Time	# of Stops	Avg Speed	Total Delay	Time <= 0 MPH	Time <= 35 MPH	Time <= 55 MPH
1	0	Pinehurst								
2	650	Lake Haven	Before	14.3	0.1	31.0	2.9	0.0	7.3	14.3
			After	16.1	0.1	27.5	4.5	0.1	12.1	16.1
			Change	1.9	0.0	-3.6	1.6	0.1	4.9	1.9
3	1960	CR 1	Before	78.1	0.8	17.1	44.2	31.4	58.3	78.1
			After	72.9	0.6	18.3	39.1	23.7	59.2	72.9
			Change	-5.2	-0.2	1.2	-5.1	-7.6	0.9	-5.2
4	1394	Virginia	Before	29.0	0.1	32.8	4.6	0.0	12.4	29.0
			After	37.2	0.1	25.5	13.2	6.6	29.8	37.2
			Change	8.2	-0.1	-7.2	8.6	6.6	17.4	8.2
5	1024	Overcash	Before	17.1	0.0	40.7	0.2	0.0	0.1	17.1
			After	20.4	0.0	34.2	2.5	0.0	8.4	20.4
			Change	3.3	0.0	-6.6	2.3	0.0	8.3	3.3
6	1583	King Arthur	Before	33.4	0.3	32.3	7.0	0.9	13.0	33.4
			After	27.0	0.0	40.0	0.4	0.0	1.3	27.0
			Change	-6.4	-0.3	7.7	-6.6	-0.9	-11.7	-6.4
7	1377	Belcher	Before	79.2	0.7	11.9	55.2	39.7	71.6	79.2
			After	65.3	0.4	14.4	41.5	34.8	48.0	65.3
			Change	-13.9	-0.3	2.5	-13.7	-4.9	-23.6	-13.9
8	2799	US 19	Before	110.5	0.9	17.3	62.4	41.2	81.8	110.5
			After	84.1	0.5	22.7	36.1	21.1	58.3	84.1
			Change	-26.4	-0.4	5.4	-26.4	-20.1	-23.5	-26.4
9	1394	Summerdale	Before	24.8	0.0	38.3	1.1	0.0	6.4	23.9
			After	27.2	0.0	34.9	3.1	0.0	9.6	26.4
			Change	2.4	0.0	-3.4	2.1	0.0	3.2	2.5
Totals	12,181		Before	386.4	2.9	21.5	177.6	113.1	250.9	385.6
			After	350.2	1.6	23.7	140.4	86.4	226.6	349.4
			Change	-36.2	-1.3	2.2	-37.1	-26.7	-24.2	-36.1

Stats based on 14 BEFORE runs & 14 AFTER runs.

Stops based on a Stop Speed of 5 MPH.

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**

Study Date : **3/29/2012**

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Fuel Consumption & Emissions

Node #	Length	Node Name		Fuel (gal)	HC (grams)	CO (grams)	NOx (grams)
1	0	Pinehurst					
2	650	Lake Haven	Before	0.0067	0.7171	8.1899	0.4836
			After	0.0066	0.6935	6.7747	0.4550
			Change	-0.0001	-0.0236	-1.4151	-0.0286
3	1960	CR 1	Before	0.0244	2.1738	19.9181	0.9376
			After	0.0228	2.1023	19.3509	0.9582
			Change	-0.0015	-0.0714	-0.5672	0.0206
4	1394	Virginia	Before	0.0140	1.5615	17.2476	1.1024
			After	0.0142	1.4486	14.7132	0.8681
			Change	0.0001	-0.1128	-2.5344	-0.2343
5	1024	Overcash	Before	0.0083	0.6571	8.3970	0.3495
			After	0.0094	0.9257	10.0738	0.5999
			Change	0.0011	0.2686	1.6768	0.2505
6	1583	King Arthur	Before	0.0139	1.0427	10.5344	0.5207
			After	0.0126	0.9045	11.1468	0.4268
			Change	-0.0013	-0.1382	0.6124	-0.0939
7	1377	Belcher	Before	0.0221	2.2037	19.9370	0.9466
			After	0.0182	1.5371	15.4513	0.4345
			Change	-0.0039	-0.6665	-4.4858	-0.5120
8	2799	US 19	Before	0.0368	3.6545	35.2174	1.9126
			After	0.0299	2.7241	26.1654	1.4042
			Change	-0.0069	-0.9304	-9.0520	-0.5084
9	1394	Summerdale	Before	0.0135	1.5340	18.9713	1.1179
			After	0.0122	1.2096	13.4721	0.7800
			Change	-0.0013	-0.3243	-5.4992	-0.3379
Totals	12,181		Before	0.1396	13.5443	138.4127	7.3709
			After	0.1259	11.5456	117.1481	5.9268
			Change	-0.0137	-1.9987	-21.2646	-1.4441

Stats based on 14 BEFORE runs & 14 AFTER runs.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After PM-EB-007

30612 After PM-EB-008

30612 After PM-EB-009

30712 After PM-EB-010

30712 After PM-EB-002

30712 After PM-EB-003

30712 After PM-EB-004

30712 After PM-EB-005

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	19	20	12	13	14	15	15	28
3	1960	CR 1	71	47	35	139	51	195	42	70
4	1394	Virginia	27	32	27	35	33	32	29	32
5	1024	Overcash	19	24	20	23	20	20	28	19
6	1583	King Arthur	27	30	25	25	27	28	27	28
7	1377	Belcher	24	25	24	24	136	48	120	135
8	2799	US 19	71	54	55	53	113	177	75	83
9	1394	Summerdale	30	26	24	24	27	39	28	27
Totals	12181		288	258	222	336	421	554	364	422

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After PM-EB-006 30712 After PM-EB-007 30712 After PM-EB-008 30712 After PM-EB-009 30712 After PM-EB-010 30712 After PM-EB-011 31312 Before PM-EB-001 31312 Before PM-EB-002

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	13	21	14	12	13	17	13	13
3	1960	CR 1	37	80	46	129	40	38	41	126
4	1394	Virginia	27	30	31	28	128	30	30	26
5	1024	Overcash	19	19	20	18	18	19	18	15
6	1583	King Arthur	28	29	27	26	25	26	40	26
7	1377	Belcher	141	142	24	24	24	23	28	33
8	2799	US 19	92	68	175	53	54	54	180	67
9	1394	Summerdale	26	28	27	25	25	25	24	24
Totals	12181		383	417	364	315	327	232	374	330

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

31312 Before PM-EB-003 31312 Before PM-EB-004 31312 Before PM-EB-005 31312 Before PM-EB-006 31312 Before PM-EB-007 31312 Before PM-EB-008 31312 Before PM-EB-009

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	12	11	11	11	18	20	13	12
3	1960	CR 1	98	59	131	110	38	51	113	39
4	1394	Virginia	29	53	25	27	25	28	27	30
5	1024	Overcash	18	20	17	17	16	16	17	17
6	1583	King Arthur	26	53	29	43	27	42	25	26
7	1377	Belcher	119	36	165	67	28	69	135	25
8	2799	US 19	113	206	86	152	53	157	108	65
9	1394	Summerdale	25	29	25	22	23	24	24	24
Totals	12181		440	467	489	449	228	407	462	238

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

31412 Before PM-EB-004
31412 Before PM-EB-005
31412 Before PM-EB-006
31412 Before PM-EB-007

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Pinehurst				
2	650	Lake Haven	13	22	17	14
3	1960	CR 1	122	67	63	35
4	1394	Virginia	28	26	27	25
5	1024	Overcash	17	17	18	17
6	1583	King Arthur	33	25	26	47
7	1377	Belcher	132	142	24	106
8	2799	US 19	108	85	61	106
9	1394	Summerdale	28	26	24	25
Totals	12181		481	410	260	375

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

30612 After PM-EB-007 30612 After PM-EB-008 30612 After PM-EB-009 30612 After PM-EB-010 30712 After PM-EB-002 30712 After PM-EB-003 30712 After PM-EB-004 30712 After PM-EB-005

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	1
3	1960	CR 1	1	0	0	1	1	2	0	1
4	1394	Virginia	0	0	0	0	0	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	0	0	0	0	1	1	1	1
8	2799	US 19	1	0	0	0	1	1	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		2	0	0	1	3	4	2	4

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

30712 After PM-EB-006 30712 After PM-EB-007 30712 After PM-EB-008 30712 After PM-EB-009 30712 After PM-EB-010
 31312 Before PM-EB-011 31312 Before PM-EB-001

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	0
3	1960	CR 1	0	1	0	1	0	0	0	1
4	1394	Virginia	0	0	0	0	1	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	0	0	0	0	0	0	0
7	1377	Belcher	1	1	0	0	0	0	0	0
8	2799	US 19	1	0	1	0	0	0	2	0
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		2	2	1	1	1	0	2	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

31312 Before PM-EB-003
31312 Before PM-EB-004
31312 Before PM-EB-005
31312 Before PM-EB-006
31312 Before PM-EB-007
31312 Before PM-EB-008
31312 Before PM-EB-009

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	0	0	0	0
3	1960	CR 1	1	2	1	1	0	1	1	0
4	1394	Virginia	0	2	0	0	0	0	0	0
5	1024	Overcash	0	0	0	0	0	0	0	0
6	1583	King Arthur	0	1	0	1	0	1	0	0
7	1377	Belcher	1	0	2	1	0	2	1	0
8	2799	US 19	1	2	1	1	0	1	1	1
9	1394	Summerdale	0	0	0	0	0	0	0	0
Totals	12181		3	7	4	4	0	5	3	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

31412 Before PM-EB-004
31412 Before PM-EB-005
31412 Before PM-EB-006
31412 Before PM-EB-007

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Pinehurst				
2	650	Lake Haven	0	1	0	0
3	1960	CR 1	1	1	1	0
4	1394	Virginia	0	0	0	0
5	1024	Overcash	0	0	0	0
6	1583	King Arthur	0	0	0	1
7	1377	Belcher	1	1	0	1
8	2799	US 19	1	1	0	1
9	1394	Summerdale	0	0	0	0
Totals	12181		3	4	1	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After PM-EB-007 30612 After PM-EB-008 30612 After PM-EB-009 30712 After PM-EB-010
30712 After PM-EB-002 30712 After PM-EB-003 30712 After PM-EB-004 30712 After PM-EB-005

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	24.6	23.0	39.1	36.2	32.0	30.7	31.3	16.1
3	1960	CR 1	18.8	28.3	37.6	9.5	26.1	6.9	31.6	19.1
4	1394	Virginia	35.2	30.1	35.6	26.9	29.1	29.4	32.7	29.6
5	1024	Overcash	36.7	28.6	35.8	31.0	35.0	34.7	24.7	36.5
6	1583	King Arthur	40.1	36.1	42.0	43.1	39.7	39.2	39.6	39.5
7	1377	Belcher	39.2	37.4	39.2	40.1	6.9	19.5	7.9	6.8
8	2799	US 19	26.9	35.6	35.1	35.8	17.1	10.7	25.7	23.1
9	1394	Summerdale	31.6	36.8	39.4	38.5	35.6	24.5	33.8	34.0
Totals	12181		28.9	32.3	37.5	24.7	19.8	15.0	22.8	19.6

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After PM-EB-006 30712 After PM-EB-007 30712 After PM-EB-008 30712 After PM-EB-009 30712 After PM-EB-010 31312 Before PM-EB-011 31312 Before PM-EB-001

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	35.8	21.2	31.7	37.3	35.8	27.1	35.8	34.8
3	1960	CR 1	36.4	16.7	29.0	10.5	33.1	34.8	32.0	10.6
4	1394	Virginia	34.9	31.9	31.3	33.8	7.5	32.3	32.7	37.3
5	1024	Overcash	35.7	37.4	33.9	38.4	39.9	37.1	38.6	45.1
6	1583	King Arthur	39.3	37.8	41.3	41.7	41.8	41.5	26.4	41.6
7	1377	Belcher	6.5	6.4	38.0	39.1	40.3	41.0	33.7	29.2
8	2799	US 19	20.9	28.1	11.0	36.3	35.1	35.3	10.7	28.3
9	1394	Summerdale	36.6	33.6	35.5	37.7	38.5	36.3	39.1	39.0
Totals	12181		21.7	19.9	22.8	26.4	25.5	35.8	22.2	25.1

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

31312 Before PM-EB-003
31312 Before PM-EB-004
31312 Before PM-EB-005
31312 Before PM-EB-006
31312 Before PM-EB-007
31312 Before PM-EB-008
31312 Before PM-EB-009

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	40.3	40.3	44.0	40.9	24.6	22.5	35.9	37.8
3	1960	CR 1	13.4	22.9	10.1	12.2	35.8	26.2	11.8	34.6
4	1394	Virginia	32.2	17.7	38.0	35.7	38.5	35.0	35.5	32.1
5	1024	Overcash	38.8	36.6	39.9	40.7	41.9	42.9	42.3	40.5
6	1583	King Arthur	42.3	20.0	37.5	25.1	40.6	25.8	43.1	42.0
7	1377	Belcher	7.7	25.8	5.7	13.9	33.9	13.4	6.7	36.6
8	2799	US 19	17.1	9.3	22.3	12.6	36.0	12.2	17.7	29.3
9	1394	Summerdale	37.4	33.6	38.0	41.0	41.0	38.7	39.5	39.0
Totals	12181		18.9	17.8	17.0	18.4	36.5	20.3	18.0	34.9

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Average Speed (MPH) by Section

31412 Before PM-EB-004
31412 Before PM-EB-005
31412 Before PM-EB-006
31412 Before PM-EB-007

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Pinehurst				
2	650	Lake Haven	35.8	20.4	27.2	33.8
3	1960	CR 1	10.8	20.3	21.3	38.0
4	1394	Virginia	35.1	36.0	35.4	37.9
5	1024	Overcash	40.2	40.6	37.7	41.0
6	1583	King Arthur	32.8	44.4	41.6	22.9
7	1377	Belcher	7.0	6.5	40.2	8.9
8	2799	US 19	17.8	22.4	31.1	17.9
9	1394	Summerdale	33.2	37.8	38.4	36.9
Totals	12181		17.2	20.3	31.9	22.1

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After PM-EB-007 30612 After PM-EB-008 30612 After PM-EB-009 30712 After PM-EB-010
30712 After PM-EB-002 30712 After PM-EB-003 30712 After PM-EB-004 30712 After PM-EB-005

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Pinehurst								
2	650	Lake Haven	7	8	0	1	3	3	3	17
3	1960	CR 1	37	13	1	105	18	161	8	36
4	1394	Virginia	3	8	3	11	9	8	5	8
5	1024	Overcash	1	6	2	5	2	2	10	1
6	1583	King Arthur	0	3	0	0	0	1	0	0
7	1377	Belcher	0	1	0	0	113	24	96	111
8	2799	US 19	23	6	7	5	65	129	27	35
9	1394	Summerdale	6	1	0	0	2	15	4	3
Totals	12181		77	46	13	127	212	343	153	211

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After PM-EB-006 30712 After PM-EB-007 30712 After PM-EB-008 30712 After PM-EB-009 30712 After PM-EB-010 30712 After PM-EB-011 31312 Before PM-EB-001 31312 Before PM-EB-002

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Pinehurst								
2	650	Lake Haven	1	10	3	1	1	5	1	2
3	1960	CR 1	3	47	13	95	7	4	8	92
4	1394	Virginia	3	6	7	4	104	6	5	2
5	1024	Overcash	1	1	3	0	0	1	0	0
6	1583	King Arthur	0	1	0	0	0	0	13	0
7	1377	Belcher	117	118	0	1	0	0	4	9
8	2799	US 19	44	20	127	5	6	6	132	19
9	1394	Summerdale	2	4	3	1	1	2	0	0
Totals	12181		171	207	156	107	119	24	163	124

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31312 Before PM-EB-003 31312 Before PM-EB-004 31312 Before PM-EB-005 31312 Before PM-EB-006 31312 Before PM-EB-007 31312 Before PM-EB-008 31312 Before PM-EB-009

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Pinehurst								
2	650	Lake Haven	0	0	0	0	7	9	1	1
3	1960	CR 1	64	25	97	76	4	18	79	5
4	1394	Virginia	5	29	1	3	0	3	3	5
5	1024	Overcash	1	2	0	0	0	0	0	0
6	1583	King Arthur	0	26	2	16	0	15	0	0
7	1377	Belcher	95	12	141	43	4	45	111	1
8	2799	US 19	65	158	38	104	4	109	60	17
9	1394	Summerdale	1	4	1	0	0	1	0	0
Totals	12181		231	256	280	242	19	200	254	29

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
 Travel Time Analysis: SR 580

Study Name : **SR 580 Eastbound PM Peak**
 Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31412 Before PM-EB-004
31412 Before PM-EB-005
31412 Before PM-EB-006
31412 Before PM-EB-007

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Pinehurst				
2	650	Lake Haven	1	11	5	2
3	1960	CR 1	88	33	29	1
4	1394	Virginia	3	2	2	1
5	1024	Overcash	0	0	0	0
6	1583	King Arthur	6	0	0	20
7	1377	Belcher	108	118	0	82
8	2799	US 19	60	37	13	58
9	1394	Summerdale	4	1	1	2
Totals	12181		270	202	50	166

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

PC-Travel Reports for study: SR 580 Westbound AM Peak

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Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

Study Date : **3/29/2012**

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Study Summary

Runs Used in This Study

Run Title	Start Date	Start Time	Length	Before/After	Run Type
30612 After AM-WB-001	03/06/12	06:38	12147	After	Secondary
30612 After AM-WB-002	03/06/12	06:49	12113	After	Secondary
30612 After AM-WB-003	03/06/12	07:01	12109	After	Secondary
30612 After AM-WB-004	03/06/12	07:16	12129	After	Secondary
30612 After AM-WB-005	03/06/12	07:30	12142	After	Secondary
30612 After AM-WB-006	03/06/12	07:42	12125	After	Secondary
30612 After AM-WB-007	03/06/12	07:55	12163	After	Secondary
30612 After AM-WB-008	03/06/12	08:06	12183	After	Secondary
30612 After AM-WB-009	03/06/12	08:21	12200	After	Secondary
30612 After AM-WB-010	03/06/12	08:35	12179	After	Secondary
30612 After AM-WB-011	03/06/12	08:50	12132	After	Secondary
30712 After AM-WB-001	03/07/12	06:43	12100	After	Secondary
30712 After AM-WB-002	03/07/12	06:58	12155	After	Secondary
30712 After AM-WB-003	03/07/12	07:08	12147	After	Secondary
30712 After AM-WB-004	03/07/12	07:20	12104	After	Secondary
30712 After AM-WB-005	03/07/12	07:30	12097	After	Secondary
30712 After AM-WB-006	03/07/12	07:44	12150	After	Secondary
30712 After AM-WB-007	03/07/12	07:58	12173	After	Secondary
30712 After AM-WB-008	03/07/12	08:09	12116	After	Secondary

Node Info

#	Len	Name
1	0	Summerdale
2	1326	US 19
3	2821	Belcher
4	1339	King Arthur
5	1614	Overcash
6	1006	Virginia
7	1388	CR 1
8	1932	Lake Haven
9	655	Pinehurst

Length of Study Route = 12,081 feet

30712 After AM-WB-009	03/07/12	08:29	12128	After	Secondary
30712 After AM-WB-010	03/07/12	08:45	12132	After	Secondary
31312 Before AM-WB-001	03/13/12	06:30	12135	Before	Secondary
31312 Before AM-WB-002	03/13/12	06:40	12123	Before	Secondary
31312 Before AM-WB-003	03/13/12	06:53	12127	Before	Secondary
31312 Before AM-WB-004	03/13/12	07:07	12144	Before	Secondary
31312 Before AM-WB-005	03/13/12	07:24	12152	Before	Secondary
31312 Before AM-WB-006	03/13/12	07:43	12133	Before	Secondary
31312 Before AM-WB-007	03/13/12	07:58	12186	Before	Secondary
31312 Before AM-WB-008	03/13/12	08:11	12189	Before	Secondary
31312 Before AM-WB-009	03/13/12	08:27	12203	Before	Secondary
31312 Before AM-WB-010	03/13/12	08:44	12131	Before	Secondary
31412 Before AM-WB-001	03/14/12	06:34	12167	Before	Secondary
31412 Before AM-WB-002	03/14/12	06:48	12147	Before	Secondary
31412 Before AM-WB-003	03/14/12	07:00	12154	Before	Secondary
31412 Before AM-WB-004	03/14/12	07:13	12119	Before	Secondary
31412 Before AM-WB-005	03/14/12	07:44	12213	Before	Secondary
31412 Before AM-WB-006	03/14/12	07:59	12176	Before	Secondary
31412 Before AM-WB-008	03/14/12	08:14	12120	Before	Secondary
31412 Before AM-WB-009	03/14/12	08:27	12154	Before	Secondary
31412 Before AM-WB-010	03/14/12	08:39	12204	Before	Secondary
31412 Before AM-WB-011	03/14/12	08:52	12170	Before	Secondary

Notes:

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

Study Date : **3/29/2012**

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Overall Output Statistics

Node #	Length	Node Name		Travel Time	# of Stops	Avg Speed	Total Delay	Time <= 0 MPH	Time <= 35 MPH	Time <= 55 MPH
1	0	Summerdale								
2	1326	US 19	Before	60.7	0.8	14.9	37.8	24.0	51.0	60.7
			After	81.2	0.9	11.1	58.2	42.5	72.0	81.2
			Change	20.5	0.1	-3.8	20.5	18.5	21.0	20.5
3	2821	Belcher	Before	71.1	0.5	27.1	22.8	11.6	37.0	71.1
			After	54.0	0.2	35.7	5.7	0.0	16.1	54.0
			Change	-17.1	-0.3	8.6	-17.1	-11.5	-20.9	-17.1
4	1339	King Arthur	Before	25.0	0.1	36.6	1.9	0.0	7.1	25.0
			After	23.1	0.0	39.5	0.4	0.0	2.3	23.1
			Change	-1.9	-0.1	2.9	-1.5	0.0	-4.8	-1.9
5	1614	Overcash	Before	26.7	0.0	41.3	1.2	0.0	4.1	26.7
			After	25.5	0.0	43.1	0.1	0.0	0.5	25.5
			Change	-1.1	0.0	1.8	-1.1	0.0	-3.6	-1.1
6	1006	Virginia	Before	17.0	0.0	40.5	0.5	0.0	1.9	17.0
			After	22.0	0.1	31.2	5.4	3.5	7.2	22.0
			Change	5.0	0.1	-9.3	4.9	3.5	5.3	5.0
7	1388	CR 1	Before	42.2	0.3	22.5	19.1	14.2	23.2	42.2
			After	33.4	0.2	28.3	10.4	7.1	15.2	33.4
			Change	-8.7	-0.1	5.9	-8.7	-7.1	-8.0	-8.7
8	1932	Lake Haven	Before	32.5	0.0	40.6	0.8	0.0	3.4	32.5
			After	31.9	0.0	41.3	0.4	0.0	1.2	31.9
			Change	-0.6	0.0	0.8	-0.4	0.0	-2.1	-0.6
9	655	Pinehurst	Before	20.4	0.3	21.9	9.2	4.5	14.0	20.4
			After	11.0	0.0	40.8	0.0	0.0	0.0	11.0
			Change	-9.4	-0.3	18.8	-9.1	-4.5	-14.0	-9.4
Totals	12,081		Before	295.3	1.8	27.9	93.1	54.2	141.6	295.3
			After	282.0	1.4	29.2	80.7	53.1	114.6	282.0
			Change	-13.2	-0.4	1.3	-12.4	-1.1	-27.0	-13.2

Stats based on 20 BEFORE runs & 21 AFTER runs.

Stops based on a Stop Speed of 5 MPH.

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

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Fuel Consumption & Emissions

Node #	Length	Node Name		Fuel (gal)	HC (grams)	CO (grams)	NOx (grams)
1	0	Summerdale					
2	1326	US 19	Before	0.0187	1.7864	15.3727	0.8592
			After	0.0234	2.3369	20.3370	1.0655
			Change	0.0048	0.5504	4.9643	0.2063
3	2821	Belcher	Before	0.0303	2.9823	31.4389	1.8627
			After	0.0261	2.4602	27.5623	1.5859
			Change	-0.0042	-0.5221	-3.8766	-0.2767
4	1339	King Arthur	Before	0.0135	1.4815	17.9262	1.0542
			After	0.0119	1.0806	13.8299	0.6638
			Change	-0.0016	-0.4008	-4.0963	-0.3904
5	1614	Overcash	Before	0.0134	0.9663	12.1935	0.4980
			After	0.0130	0.8471	10.9360	0.3870
			Change	-0.0004	-0.1192	-1.2575	-0.1110
6	1006	Virginia	Before	0.0083	0.6358	7.7550	0.3411
			After	0.0090	0.6316	6.7341	0.2658
			Change	0.0007	-0.0041	-1.0209	-0.0753
7	1388	CR 1	Before	0.0152	1.2716	13.8601	0.5678
			After	0.0137	1.1534	12.6331	0.6002
			Change	-0.0016	-0.1182	-1.2270	0.0325
8	1932	Lake Haven	Before	0.0166	1.3026	15.8412	0.7384
			After	0.0164	1.2362	15.2234	0.6701
			Change	-0.0002	-0.0664	-0.6178	-0.0683
9	655	Pinehurst	Before	0.0069	0.5882	5.2999	0.2807
			After	0.0049	0.2767	3.2223	0.0882
			Change	-0.0020	-0.3116	-2.0776	-0.1925
Totals	12,081		Before	0.1229	11.0146	119.6876	6.2020
			After	0.1183	10.0227	110.4782	5.3265
			Change	-0.0046	-0.9919	-9.2094	-0.8755

Stats based on 20 BEFORE runs & 21 AFTER runs.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After AM-WB-001 30612 After AM-WB-002 30612 After AM-WB-003 30612 After AM-WB-004 30612 After AM-WB-005 30612 After AM-WB-006 30612 After AM-WB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	135	79	42	129	90	26	98	95
3	2821	Belcher	55	51	50	53	52	49	54	48
4	1339	King Arthur	23	22	22	25	23	25	24	21
5	1614	Overcash	26	24	24	26	25	25	25	24
6	1006	Virginia	34	16	41	20	16	17	16	17
7	1388	CR 1	26	22	24	28	37	26	24	28
8	1932	Lake Haven	32	30	30	35	33	31	33	33
9	655	Pinehurst	11	11	11	12	10	11	11	12
Totals	12081		342	255	244	328	286	210	285	278

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After AM-WB-009 30612 After AM-WB-010 30612 After AM-WB-011 30712 After AM-WB-001 30712 After AM-WB-002 30712 After AM-WB-003 30712 After AM-WB-004 30712 After AM-WB-005

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	33	45	101	95	73	114	71	100
3	2821	Belcher	50	49	62	56	49	51	56	48
4	1339	King Arthur	22	23	23	23	23	23	24	21
5	1614	Overcash	26	29	31	24	26	24	25	25
6	1006	Virginia	16	16	17	16	17	16	16	17
7	1388	CR 1	156	21	25	22	21	23	22	29
8	1932	Lake Haven	39	32	32	31	30	29	30	33
9	655	Pinehurst	12	11	11	11	11	10	11	10
Totals	12081		354	226	302	278	250	290	255	283

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After AM-WB-006

30712 After AM-WB-007

30712 After AM-WB-008

30712 After AM-WB-009

30712 After AM-WB-010

31312 Before AM-WB-001

31312 Before AM-WB-002

31312 Before AM-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	108	89	90	57	36	78	38	43
3	2821	Belcher	47	57	59	67	70	47	80	55
4	1339	King Arthur	21	25	21	29	22	21	24	24
5	1614	Overcash	23	26	26	27	25	24	25	28
6	1006	Virginia	16	16	17	89	16	16	17	18
7	1388	CR 1	22	22	25	78	21	22	24	41
8	1932	Lake Haven	30	30	32	34	30	29	34	35
9	655	Pinehurst	11	11	11	10	11	11	41	16
Totals	12081		278	276	281	391	231	248	283	260

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

31312 Before AM-WB-004
31312 Before AM-WB-005
31312 Before AM-WB-006
31312 Before AM-WB-007
31312 Before AM-WB-008
31312 Before AM-WB-009
31412 Before AM-WB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	126	36	72	85	56	40	78	83
3	2821	Belcher	50	68	70	58	57	149	119	72
4	1339	King Arthur	21	25	25	23	23	27	44	23
5	1614	Overcash	25	25	23	25	25	35	42	31
6	1006	Virginia	16	17	16	16	16	20	23	18
7	1388	CR 1	24	22	102	21	22	146	36	22
8	1932	Lake Haven	33	31	39	30	31	35	35	31
9	655	Pinehurst	12	10	12	51	13	11	12	51
Totals	12081		307	234	359	309	243	463	389	331

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
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Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

31412 Before AM-WB-002
31412 Before AM-WB-003
31412 Before AM-WB-004
31412 Before AM-WB-005
31412 Before AM-WB-006
31412 Before AM-WB-008
31412 Before AM-WB-009
31412 Before AM-WB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Summerdale								
2	1326	US 19	50	90	64	23	66	93	27	44
3	2821	Belcher	61	57	67	84	57	111	57	55
4	1339	King Arthur	25	23	24	23	25	26	24	26
5	1614	Overcash	25	24	25	25	23	27	24	24
6	1006	Virginia	16	16	17	16	16	16	15	15
7	1388	CR 1	28	84	22	112	22	23	23	22
8	1932	Lake Haven	32	33	30	37	28	30	31	31
9	655	Pinehurst	19	35	11	13	11	10	35	15
Totals	12081		256	362	260	333	248	336	236	232

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

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Detailed Statistics By Run

Travel Time (sec) by Section

31412 Before AM-WB-011

Node #	Length	Node Name	Run #41
1	0	Summerdale	
2	1326	US 19	22
3	2821	Belcher	47
4	1339	King Arthur	23
5	1614	Overcash	28
6	1006	Virginia	19
7	1388	CR 1	25
8	1932	Lake Haven	34
9	655	Pinehurst	18
Totals	12081		216

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Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30612 After AM-WB-001
30612 After AM-WB-002
30612 After AM-WB-003
30612 After AM-WB-004
30612 After AM-WB-005
30612 After AM-WB-006
30612 After AM-WB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	1	1	1	1	1	0	1	1
3	2821	Belcher	0	0	0	0	0	0	0	0
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	1	0	1	0	0	0	0	0
7	1388	CR 1	0	0	0	0	1	0	0	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	0	0	0	0	0	0
Totals	12081		2	1	2	1	2	0	1	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30612 After AM-WB-009 30612 After AM-WB-010 30612 After AM-WB-011 30712 After AM-WB-001 30712 After AM-WB-002 30712 After AM-WB-003 30712 After AM-WB-004 30712 After AM-WB-004

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	0	1	1	1	1	1	1	1
3	2821	Belcher	0	0	1	0	0	0	0	0
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	2	0	0	0	0	0	0	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	0	0	0	0	0	0
Totals	12081		2	1	2	1	1	1	1	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30712 After AM-WB-006 30712 After AM-WB-007 30712 After AM-WB-008 30712 After AM-WB-009
 30712 After AM-WB-010 31312 Before AM-WB-001 31312 Before AM-WB-002 31312 Before AM-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	1	1	1	1	0	1	0	1
3	2821	Belcher	0	0	1	1	1	0	1	0
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	1	0	0	0	0
7	1388	CR 1	0	0	0	1	0	0	0	1
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	0	0	0	0	1	0
Totals	12081		1	1	2	4	1	1	2	2

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
 Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

31312 Before AM-WB-004
31312 Before AM-WB-005
31312 Before AM-WB-006
31312 Before AM-WB-007
31312 Before AM-WB-008
31312 Before AM-WB-009
31412 Before AM-WB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	1	0	1	1	1	1	1	1
3	2821	Belcher	0	1	1	0	0	1	1	1
4	1339	King Arthur	0	0	0	0	0	0	1	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	0	0	1	0	0	1	0	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	0	1	0	0	0	1
Totals	12081		1	1	3	2	1	3	3	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Number of Stops by Section

31412 Before AM-WB-002
31412 Before AM-WB-003
31412 Before AM-WB-004
31412 Before AM-WB-005
31412 Before AM-WB-006
31412 Before AM-WB-008
31412 Before AM-WB-009
31412 Before AM-WB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Summerdale								
2	1326	US 19	1	1	1	0	1	1	0	1
3	2821	Belcher	1	0	1	1	0	1	0	0
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	0	1	0	1	0	0	0	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	1	0	0	0	0	1	0
Totals	12081		2	3	2	2	1	2	1	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

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Detailed Statistics By Run

Number of Stops by Section

31412 Before AM-WB-011

Node #	Length	Node Name	Run #41
1	0	Summerdale	
2	1326	US 19	0
3	2821	Belcher	0
4	1339	King Arthur	0
5	1614	Overcash	0
6	1006	Virginia	0
7	1388	CR 1	0
8	1932	Lake Haven	0
9	655	Pinehurst	0
Totals	12081		0

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After AM-WB-001
30612 After AM-WB-002
30612 After AM-WB-003
30612 After AM-WB-004
30612 After AM-WB-005
30612 After AM-WB-006
30612 After AM-WB-007
30612 After AM-WB-

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	6.8	11.4	22.0	7.0	10.3	36.1	9.5	9.6
3	2821	Belcher	34.7	38.2	38.3	36.2	36.6	38.9	35.6	40.3
4	1339	King Arthur	39.8	41.6	43.0	37.6	41.0	37.8	38.8	44.7
5	1614	Overcash	43.7	45.9	45.5	42.5	43.8	43.8	43.4	44.7
6	1006	Virginia	19.1	42.9	16.3	34.1	41.8	40.0	41.8	41.8
7	1388	CR 1	37.3	43.1	39.8	33.2	26.1	36.1	39.5	32.9
8	1932	Lake Haven	41.0	43.9	43.6	38.3	40.0	43.0	40.2	40.2
9	655	Pinehurst	40.0	40.8	41.1	38.1	41.7	40.8	40.6	38.8
Totals	12081		24.1	32.4	33.8	25.2	28.8	39.4	29.0	29.8

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After AM-WB-009 30612 After AM-WB-010 30612 After AM-WB-011 30712 After AM-WB-001 30712 After AM-WB-002 30712 After AM-WB-003 30712 After AM-WB-004 30712 After AM-WB-005

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	27.7	20.4	9.2	9.6	12.4	8.0	12.9	9.3
3	2821	Belcher	38.9	39.4	31.1	34.5	39.4	38.0	34.2	40.3
4	1339	King Arthur	41.5	39.9	39.0	41.0	40.1	41.0	38.9	42.7
5	1614	Overcash	42.5	39.0	35.5	45.3	42.4	45.2	44.3	44.1
6	1006	Virginia	42.6	42.3	40.1	43.1	40.8	43.8	42.3	41.9
7	1388	CR 1	5.9	44.1	38.4	42.1	43.8	41.2	43.5	32.0
8	1932	Lake Haven	33.9	41.7	41.6	42.9	43.9	44.4	43.4	40.6
9	655	Pinehurst	37.5	40.9	41.1	40.0	41.5	43.5	40.6	41.9
Totals	12081		23.3	36.7	27.4	29.7	33.0	28.4	32.4	29.2

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After AM-WB-006 30712 After AM-WB-007 30712 After AM-WB-008 30712 After AM-WB-009 30712 After AM-WB-010
31312 Before AM-WB-001 31312 Before AM-WB-002 31312 Before AM-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	8.6	10.2	10.1	16.2	25.3	11.8	24.3	21.3
3	2821	Belcher	40.9	34.0	32.9	28.7	27.6	40.9	24.0	35.0
4	1339	King Arthur	43.2	37.5	42.9	31.8	41.0	44.5	39.0	38.7
5	1614	Overcash	47.0	41.3	43.2	40.4	45.0	44.7	43.3	39.1
6	1006	Virginia	43.9	42.8	40.6	7.6	41.8	43.3	40.4	38.4
7	1388	CR 1	42.9	44.1	37.0	12.1	44.8	44.0	39.0	22.5
8	1932	Lake Haven	43.3	43.9	41.1	39.9	44.7	45.0	39.5	37.9
9	655	Pinehurst	41.3	41.3	41.5	43.6	41.0	41.5	10.3	28.0
Totals	12081		29.7	30.0	29.4	21.2	35.8	33.3	29.1	31.8

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
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Detailed Statistics By Run

Average Speed (MPH) by Section

31312 Before AM-WB-004
31312 Before AM-WB-005
31312 Before AM-WB-006
31312 Before AM-WB-007
31312 Before AM-WB-008
31312 Before AM-WB-009
31412 Before AM-WB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	7.2	25.7	12.6	10.7	16.5	23.1	11.6	11.0
3	2821	Belcher	38.6	28.2	27.9	33.6	33.6	12.8	16.3	27.0
4	1339	King Arthur	44.2	37.4	36.2	39.5	39.7	34.3	20.9	38.7
5	1614	Overcash	43.7	44.0	47.0	43.7	45.0	31.5	26.1	36.2
6	1006	Virginia	42.6	40.4	43.4	43.1	41.8	35.0	29.3	37.4
7	1388	CR 1	39.8	43.2	9.3	46.2	42.4	6.4	26.9	43.2
8	1932	Lake Haven	40.3	42.6	33.9	43.7	42.9	37.6	37.0	43.2
9	655	Pinehurst	36.1	41.5	38.6	8.3	36.3	43.1	40.2	8.1
Totals	12081		26.9	35.3	23.1	26.7	34.1	17.9	21.3	24.9

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

31412 Before AM-WB-002 31412 Before AM-WB-003 31412 Before AM-WB-004 31412 Before AM-WB-005 31412 Before AM-WB-006 31412 Before AM-WB-008 31412 Before AM-WB-009 31412 Before AM-WB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Summerdale								
2	1326	US 19	18.5	10.3	14.3	40.1	14.0	10.0	34.2	20.9
3	2821	Belcher	31.4	33.3	28.9	22.9	33.5	17.2	33.9	34.8
4	1339	King Arthur	37.2	41.3	37.7	39.4	37.2	36.3	38.2	36.7
5	1614	Overcash	43.4	44.2	43.4	45.0	46.5	40.4	46.6	45.6
6	1006	Virginia	42.4	43.0	42.2	41.9	42.9	41.4	43.1	44.5
7	1388	CR 1	33.9	11.3	43.0	8.3	44.4	42.0	42.1	43.3
8	1932	Lake Haven	42.1	40.7	44.1	36.6	47.0	44.3	42.3	42.6
9	655	Pinehurst	22.3	12.1	39.9	33.4	40.2	44.5	12.9	29.6
Totals	12081		32.3	22.8	31.8	24.8	33.3	24.6	35.0	35.6

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Average Speed (MPH) by Section

31412 Before AM-WB-011

Node #	Length	Node Name	Run #41
1	0	Summerdale	
2	1326	US 19	42.8
3	2821	Belcher	40.7
4	1339	King Arthur	39.5
5	1614	Overcash	39.7
6	1006	Virginia	36.4
7	1388	CR 1	37.6
8	1932	Lake Haven	38.7
9	655	Pinehurst	23.5
Totals	12081		38.2

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After AM-WB-001 30612 After AM-WB-002 30612 After AM-WB-003
 30612 After AM-WB-004 30612 After AM-WB-005 30612 After AM-WB-006
 30612 After AM-WB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	112	56	19	106	67	3	75	72
3	2821	Belcher	7	2	2	5	4	1	5	0
4	1339	King Arthur	0	0	0	1	0	1	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	17	0	23	2	0	0	0	0
7	1388	CR 1	2	0	0	4	13	2	0	4
8	1932	Lake Haven	0	0	0	2	0	0	0	0
9	655	Pinehurst	0	0	0	0	0	0	0	0
Totals	12081		138	58	44	120	84	7	80	76

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After AM-WB-009 30612 After AM-WB-010 30612 After AM-WB-011 30712 After AM-WB-001 30712 After AM-WB-002 30712 After AM-WB-003 30712 After AM-WB-004 30712 After AM-WB-005

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	10	22	78	72	50	91	48	77
3	2821	Belcher	1	1	13	8	1	3	8	0
4	1339	King Arthur	0	0	0	0	0	0	1	0
5	1614	Overcash	0	0	3	0	0	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	132	0	1	0	0	0	0	5
8	1932	Lake Haven	6	0	0	0	0	0	0	0
9	655	Pinehurst	1	0	0	0	0	0	0	0
Totals	12081		150	23	95	80	51	94	57	82

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After AM-WB-006 30712 After AM-WB-007 30712 After AM-WB-008 30712 After AM-WB-009
 31312 Before AM-WB-010 31312 Before AM-WB-001 31312 Before AM-WB-002 31312 Before AM-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	85	66	67	34	13	55	15	20
3	2821	Belcher	0	9	10	18	21	0	31	7
4	1339	King Arthur	0	1	0	5	0	0	0	1
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	72	0	0	0	0
7	1388	CR 1	0	0	1	54	0	0	0	17
8	1932	Lake Haven	0	0	0	0	0	0	0	2
9	655	Pinehurst	0	0	0	0	0	0	30	5
Totals	12081		85	76	78	183	34	55	76	52

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31312 Before AM-WB-004
31312 Before AM-WB-005
31312 Before AM-WB-006
31312 Before AM-WB-007
31312 Before AM-WB-008
31312 Before AM-WB-009
31412 Before AM-WB-010

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	103	13	49	62	33	17	55	60
3	2821	Belcher	2	19	21	9	9	101	70	23
4	1339	King Arthur	0	1	2	0	0	4	21	0
5	1614	Overcash	0	0	0	0	0	7	14	3
6	1006	Virginia	0	0	0	0	0	2	6	1
7	1388	CR 1	0	0	78	0	0	122	12	0
8	1932	Lake Haven	0	0	6	0	0	2	2	0
9	655	Pinehurst	1	0	0	40	1	0	0	40
Totals	12081		106	33	156	111	43	255	180	127

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31412 Before AM-WB-002
31412 Before AM-WB-003
31412 Before AM-WB-004
31412 Before AM-WB-005
31412 Before AM-WB-006
31412 Before AM-WB-008
31412 Before AM-WB-009
31412 Before AM-WB-009

Node #	Length	Node Name	Run #33	Run #34	Run #35	Run #36	Run #37	Run #38	Run #39	Run #40
1	0	Summerdale								
2	1326	US 19	27	67	41	0	43	70	4	21
3	2821	Belcher	13	9	18	36	9	63	8	7
4	1339	King Arthur	2	0	1	0	1	2	1	2
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	4	60	0	88	0	0	0	0
8	1932	Lake Haven	0	0	0	3	0	0	0	0
9	655	Pinehurst	8	24	0	1	0	0	23	3
Totals	12081		54	160	60	128	53	135	36	33

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound AM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Total Delay (sec) by Section

31412 Before AM-WB-011

Node #	Length	Node Name	Run #41
1	0	Summerdale	
2	1326	US 19	0
3	2821	Belcher	0
4	1339	King Arthur	0
5	1614	Overcash	0
6	1006	Virginia	1
7	1388	CR 1	1
8	1932	Lake Haven	0
9	655	Pinehurst	7
Totals	12081		9

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

PC-Travel Reports for study: SR 580 Westbound MD Peak

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Overall Output Statistics	3
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Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**

Study Date : **3/29/2012**

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Study Summary

Runs Used in This Study

Run Title	Start Date	Start Time	Length	Before/After	Run Type
30612 After MD-WB-001	03/06/12	11:09	12134	After	Secondary
30612 After MD-WB-002	03/06/12	11:25	12178	After	Secondary
30612 After MD-WB-003	03/06/12	11:40	12112	After	Secondary
30612 After MD-WB-004	03/06/12	12:03	12100	After	Secondary
30612 After MD-WB-005	03/06/12	12:17	12064	After	Secondary
30612 After MD-WB-006	03/06/12	12:31	12102	After	Secondary
30612 After MD-WB-007	03/06/12	12:53	12147	After	Secondary
30712 After MD-WB-001	03/07/12	11:00	12180	After	Secondary
30712 After MD-WB-002	03/07/12	11:12	12124	After	Secondary
30712 After MD-WB-004	03/07/12	11:45	12107	After	Secondary
30712 After MD-WB-005	03/07/12	12:07	12116	After	Secondary
30712 After MD-WB-006	03/07/12	12:25	12137	After	Secondary
30712 After MD-WB-007	03/07/12	12:47	12111	After	Secondary
31312 Before MD-WB-001	03/13/12	11:03	12134	Before	Secondary
31312 Before MD-WB-002	03/13/12	11:16	12166	Before	Secondary
31312 Before MD-WB-003	03/13/12	11:32	12147	Before	Secondary
31312 Before MD-WB-004	03/13/12	11:49	12149	Before	Secondary
31312 Before MD-WB-005	03/13/12	12:09	12117	Before	Secondary
31312 Before MD-WB-006	03/13/12	12:23	12121	Before	Secondary

Node Info

#	Len	Name
1	0	Summerdale
2	1326	US 19
3	2821	Belcher
4	1339	King Arthur
5	1614	Overcash
6	1006	Virginia
7	1388	CR 1
8	1932	Lake Haven
9	655	Pinehurst

Length of Study Route = 12,081 feet

31312 Before MD-WB-007	03/13/12	12:37	12135	Before	Secondary
31312 Before MD-WB-008	03/13/12	12:52	12091	Before	Secondary
31412 Before MD-WB-001	03/14/12	11:02	12128	Before	Secondary
31412 Before MD-WB-002	03/14/12	11:16	12158	Before	Secondary
31412 Before MD-WB-003	03/14/12	11:32	12209	Before	Secondary
31412 Before MD-WB-004	03/14/12	11:48	12153	Before	Secondary
31412 Before MD-WB-005	03/14/12	12:08	12092	Before	Secondary
31412 Before MD-WB-007	03/14/12	12:32	12139	Before	Secondary
31412 Before MD-WB-008	03/14/12	12:47	12202	Before	Secondary

Notes:

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**

Study Date : **3/29/2012**

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Overall Output Statistics

Node #	Length	Node Name		Travel Time	# of Stops	Avg Speed	Total Delay	Time <= 0 MPH	Time <= 35 MPH	Time <= 55 MPH
1	0	Summerdale								
2	1326	US 19	Before	56.1	0.3	16.1	33.1	23.6	47.3	56.1
			After	84.4	0.9	10.7	61.4	41.3	79.9	84.4
			Change	28.3	0.6	-5.4	28.3	17.7	32.7	28.3
3	2821	Belcher	Before	84.2	0.5	22.8	36.0	18.7	56.3	84.2
			After	66.5	0.2	28.9	17.9	7.4	37.5	66.5
			Change	-17.7	-0.4	6.1	-18.1	-11.3	-18.7	-17.7
4	1339	King Arthur	Before	31.7	0.2	28.8	8.2	0.3	19.3	31.7
			After	25.6	0.0	35.6	2.4	0.0	9.0	25.6
			Change	-6.1	-0.2	6.8	-5.8	-0.3	-10.3	-6.1
5	1614	Overcash	Before	32.5	0.1	33.8	5.2	1.6	11.5	32.5
			After	33.8	0.2	32.6	6.5	3.8	7.6	33.8
			Change	1.2	0.2	-1.2	1.3	2.2	-3.9	1.2
6	1006	Virginia	Before	19.1	0.0	35.8	1.7	0.0	8.5	19.1
			After	25.9	0.2	26.5	8.6	3.8	14.4	25.9
			Change	6.8	0.2	-9.4	6.9	3.8	5.9	6.8
7	1388	CR 1	Before	54.4	0.4	17.4	30.7	22.5	38.2	54.4
			After	71.9	0.7	13.2	47.8	32.3	58.2	71.9
			Change	17.5	0.3	-4.2	17.1	9.8	20.0	17.5
8	1932	Lake Haven	Before	39.1	0.1	33.7	6.5	1.1	16.9	39.1
			After	45.2	0.1	29.2	11.8	7.8	21.9	45.2
			Change	6.0	-0.1	-4.5	5.3	6.7	5.1	6.0
9	655	Pinehurst	Before	25.3	0.4	17.6	14.3	5.2	21.9	25.3
			After	23.6	0.2	18.9	12.1	8.4	17.1	23.5
			Change	-1.7	-0.2	1.3	-2.2	3.2	-4.8	-1.8
Totals	12,081		Before	342.5	2.1	24.0	135.8	73.1	219.8	342.5
			After	376.9	2.5	21.9	168.6	104.8	245.7	376.8
			Change	34.4	0.4	-2.2	32.8	31.7	25.9	34.3

Stats based on 15 BEFORE runs & 13 AFTER runs.

Stops based on a Stop Speed of 5 MPH.

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**

Study Date : **3/29/2012**

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Fuel Consumption & Emissions

Node #	Length	Node Name		Fuel (gal)	HC (grams)	CO (grams)	NOx (grams)
1	0	Summerdale					
2	1326	US 19	Before	0.0177	1.7372	16.3668	0.8501
			After	0.0233	2.3732	20.3636	1.0603
			Change	0.0057	0.6360	3.9968	0.2103
3	2821	Belcher	Before	0.0315	3.1424	31.6270	1.8334
			After	0.0268	2.5511	27.0363	1.4923
			Change	-0.0047	-0.5913	-4.5907	-0.3411
4	1339	King Arthur	Before	0.0143	1.6240	16.9395	1.1469
			After	0.0115	1.0531	12.0710	0.6221
			Change	-0.0028	-0.5709	-4.8686	-0.5248
5	1614	Overcash	Before	0.0148	1.3518	15.3592	0.8220
			After	0.0139	1.0203	11.8456	0.4434
			Change	-0.0009	-0.3315	-3.5136	-0.3786
6	1006	Virginia	Before	0.0087	0.8397	9.9918	0.5201
			After	0.0094	0.7718	7.8087	0.3567
			Change	0.0007	-0.0678	-2.1830	-0.1634
7	1388	CR 1	Before	0.0175	1.6200	16.4057	0.7378
			After	0.0214	2.1173	19.4403	0.9798
			Change	0.0038	0.4973	3.0346	0.2421
8	1932	Lake Haven	Before	0.0182	1.7314	19.6052	1.0962
			After	0.0182	1.6037	17.5520	0.8490
			Change	0.0000	-0.1277	-2.0532	-0.2472
9	655	Pinehurst	Before	0.0082	0.8065	6.9670	0.4379
			After	0.0070	0.5667	5.4419	0.1832
			Change	-0.0011	-0.2397	-1.5251	-0.2546
Totals	12,081		Before	0.1309	12.8530	133.2622	7.4442
			After	0.1314	12.0573	121.5595	5.9868
			Change	0.0005	-0.7957	-11.7027	-1.4574

Stats based on 15 BEFORE runs & 13 AFTER runs.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After MD-WB-001

30612 After MD-WB-002

30612 After MD-WB-003

30612 After MD-WB-004

30612 After MD-WB-005

30612 After MD-WB-006

30712 After MD-WB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	131	126	38	95	74	170	143	25
3	2821	Belcher	66	64	54	52	55	58	66	49
4	1339	King Arthur	29	26	23	26	24	26	28	22
5	1614	Overcash	28	27	27	28	27	30	28	25
6	1006	Virginia	21	18	20	17	19	20	19	16
7	1388	CR 1	29	36	167	24	140	25	137	24
8	1932	Lake Haven	141	42	36	33	35	35	35	31
9	655	Pinehurst	12	19	13	12	12	12	11	12
Totals	12081		457	358	378	287	386	376	467	204

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
 Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
 Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After MD-WB-002
30712 After MD-WB-004
30712 After MD-WB-005
30712 After MD-WB-006
30712 After MD-WB-007
31312 Before MD-WB-001
31312 Before MD-WB-002
31312 Before MD-WB-003

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	68	75	65	32	55	118	44	132
3	2821	Belcher	54	55	181	53	58	63	73	81
4	1339	King Arthur	28	28	24	24	25	29	27	26
5	1614	Overcash	29	29	25	109	27	36	30	26
6	1006	Virginia	18	87	18	23	41	21	21	18
7	1388	CR 1	25	69	48	93	118	22	118	22
8	1932	Lake Haven	33	40	40	48	38	30	32	38
9	655	Pinehurst	11	16	80	84	13	11	14	43
Totals	12081		266	399	481	466	375	330	359	386

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
 Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
 Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

31312 Before MD-WB-004
31312 Before MD-WB-005
31312 Before MD-WB-006
31312 Before MD-WB-007
31412 Before MD-WB-008
31412 Before MD-WB-001
31412 Before MD-WB-002
31412 Before MD-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	34	25	30	29	103	35	35	24
3	2821	Belcher	59	58	64	67	58	82	52	151
4	1339	King Arthur	25	24	26	29	50	26	29	35
5	1614	Overcash	36	27	26	29	74	25	28	32
6	1006	Virginia	20	16	19	19	20	17	20	18
7	1388	CR 1	121	24	33	25	23	53	24	32
8	1932	Lake Haven	36	38	36	54	32	37	30	66
9	655	Pinehurst	43	17	12	14	10	16	11	20
Totals	12081		374	229	246	266	370	291	229	378

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
 Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
 Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

31412 Before MD-WB-004
31412 Before MD-WB-005
31412 Before MD-WB-007
31412 Before MD-WB-008

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Summerdale				
2	1326	US 19	35	31	137	30
3	2821	Belcher	147	88	81	139
4	1339	King Arthur	42	27	25	55
5	1614	Overcash	30	26	30	33
6	1006	Virginia	19	18	22	19
7	1388	CR 1	46	119	122	32
8	1932	Lake Haven	44	37	39	38
9	655	Pinehurst	84	37	17	31
Totals	12081		447	383	473	377

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Number of Stops by Section

30612 After MD-WB-001
30612 After MD-WB-002
30612 After MD-WB-003
30612 After MD-WB-004
30612 After MD-WB-005
30612 After MD-WB-006
30712 After MD-WB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	1	1	0	1	1	3	1	0
3	2821	Belcher	0	0	0	0	0	0	0	0
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	0	0	2	0	2	0	1	0
8	1932	Lake Haven	1	0	0	0	0	0	0	0
9	655	Pinehurst	0	1	0	0	0	0	0	0
Totals	12081		2	2	2	1	3	3	2	0

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Number of Stops by Section

30712 After MD-WB-002

30712 After MD-WB-004

30712 After MD-WB-005

30712 After MD-WB-006

30712 After MD-WB-007

31312 Before MD-WB-001

31312 Before MD-WB-002

31312 Before MD-WB-003

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	1	1	1	0	1	1	1	1
3	2821	Belcher	0	0	2	0	0	0	1	1
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	3	0	0	0	0
6	1006	Virginia	0	1	0	0	1	0	0	0
7	1388	CR 1	0	1	1	1	1	0	1	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	1	1	0	0	0	1
Totals	12081		1	3	5	5	3	1	3	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Number of Stops by Section

31312 Before MD-WB-004 31312 Before MD-WB-005 31312 Before MD-WB-006
31312 Before MD-WB-007 31412 Before MD-WB-008 31412 Before MD-WB-001
31412 Before MD-WB-002

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	0	0	0	0	1	0	0	0
3	2821	Belcher	0	0	0	0	0	1	0	1
4	1339	King Arthur	0	0	0	0	1	0	0	0
5	1614	Overcash	0	0	0	0	1	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	1	0	0	0	0	1	0	0
8	1932	Lake Haven	0	0	0	1	0	0	0	1
9	655	Pinehurst	1	0	0	0	0	0	0	0
Totals	12081		2	0	0	1	3	2	0	2

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Number of Stops by Section

31412 Before MD-WB-004
31412 Before MD-WB-005
31412 Before MD-WB-007
31412 Before MD-WB-008

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Summerdale				
2	1326	US 19	0	0	1	0
3	2821	Belcher	1	1	1	1
4	1339	King Arthur	1	0	0	1
5	1614	Overcash	0	0	0	0
6	1006	Virginia	0	0	0	0
7	1388	CR 1	1	1	1	0
8	1932	Lake Haven	0	0	0	0
9	655	Pinehurst	2	1	0	1
Totals	12081		5	3	3	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After MD-WB-001 30612 After MD-WB-002 30612 After MD-WB-003 30612 After MD-WB-004 30612 After MD-WB-005 30612 After MD-WB-006 30712 After MD-WB-007

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	6.9	7.3	24.3	9.7	12.3	5.4	6.4	36.8
3	2821	Belcher	29.2	30.2	35.9	37.2	35.1	33.4	29.3	39.5
4	1339	King Arthur	32.0	35.0	38.8	34.4	39.0	34.5	32.9	40.9
5	1614	Overcash	39.0	40.7	41.0	39.8	39.9	36.7	38.4	44.2
6	1006	Virginia	32.4	38.8	34.1	41.1	37.4	34.0	36.3	42.1
7	1388	CR 1	32.4	26.3	5.7	39.8	6.6	38.7	6.9	41.1
8	1932	Lake Haven	9.4	31.3	36.9	39.9	37.7	37.4	37.8	42.0
9	655	Pinehurst	39.3	22.2	33.3	35.7	38.9	36.7	39.8	35.9
Totals	12081		18.1	23.0	21.9	28.8	21.4	21.9	17.7	40.5

Kimley-Horn and Associates, Inc.

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Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After MD-WB-002 30712 After MD-WB-004 30712 After MD-WB-005 30712 After MD-WB-006 30712 After MD-WB-007
31312 Before MD-WB-001 31312 Before MD-WB-002 31312 Before MD-WB-002

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	13.6	12.3	14.1	28.9	16.9	7.7	21.0	6.9
3	2821	Belcher	35.4	34.9	10.6	36.3	33.1	30.5	26.1	23.8
4	1339	King Arthur	33.5	32.8	38.0	38.1	37.0	32.4	34.6	36.7
5	1614	Overcash	38.0	38.2	44.3	10.0	40.3	30.1	37.0	41.5
6	1006	Virginia	37.3	7.9	38.3	29.3	16.7	33.7	32.3	38.4
7	1388	CR 1	38.4	13.7	19.9	10.5	7.9	41.4	7.9	42.5
8	1932	Lake Haven	40.0	33.1	32.8	27.3	35.1	44.3	41.1	34.4
9	655	Pinehurst	40.7	27.5	5.3	5.2	34.2	43.1	32.2	10.6
Totals	12081		31.1	20.7	17.1	17.7	22.0	25.1	23.0	21.4

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
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Study Name : **SR 580 Westbound MD Peak**

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Detailed Statistics By Run

Average Speed (MPH) by Section

31312 Before MD-WB-004
31312 Before MD-WB-005
31312 Before MD-WB-006
31312 Before MD-WB-007
31412 Before MD-WB-008
31412 Before MD-WB-001
31412 Before MD-WB-002
31412 Before MD-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	26.8	36.4	30.2	31.6	8.8	25.9	26.6	38.9
3	2821	Belcher	32.5	33.4	30.1	29.0	33.2	23.8	36.8	12.6
4	1339	King Arthur	38.0	38.1	35.1	31.3	18.5	35.1	32.1	25.8
5	1614	Overcash	29.9	40.6	42.3	38.1	14.9	44.0	38.8	35.3
6	1006	Virginia	33.9	42.4	37.5	34.8	34.4	39.3	34.0	36.8
7	1388	CR 1	7.8	41.2	28.2	38.2	41.7	17.6	40.1	30.0
8	1932	Lake Haven	37.1	34.2	36.9	24.3	41.4	36.1	43.3	19.6
9	655	Pinehurst	10.0	26.5	37.3	31.3	42.1	26.8	41.8	22.3
Totals	12081		22.0	36.1	33.6	31.0	22.3	28.3	36.1	21.8

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Pinellas County, Florida

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Detailed Statistics By Run

Average Speed (MPH) by Section

31412 Before MD-WB-004
31412 Before MD-WB-005
31412 Before MD-WB-007
31412 Before MD-WB-008

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Summerdale				
2	1326	US 19	25.9	29.8	6.7	30.6
3	2821	Belcher	13.1	21.7	23.7	13.8
4	1339	King Arthur	21.9	34.5	37.4	16.6
5	1614	Overcash	36.7	42.5	35.6	33.5
6	1006	Virginia	36.1	38.6	31.9	35.2
7	1388	CR 1	20.7	7.9	7.6	29.6
8	1932	Lake Haven	30.2	35.6	34.0	34.4
9	655	Pinehurst	5.1	11.6	25.7	14.5
Totals	12081		18.5	21.5	17.4	21.8

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After MD-WB-001

30612 After MD-WB-002

30612 After MD-WB-003

30612 After MD-WB-004

30612 After MD-WB-005

30612 After MD-WB-006

30712 After MD-WB-007

30712 After MD-WB-008

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	108	103	15	72	51	147	120	2
3	2821	Belcher	18	15	5	3	6	9	17	0
4	1339	King Arthur	6	3	0	3	0	3	4	0
5	1614	Overcash	0	0	0	0	0	2	0	0
6	1006	Virginia	4	0	3	0	1	3	2	0
7	1388	CR 1	5	12	143	0	116	1	113	0
8	1932	Lake Haven	108	8	2	0	2	2	2	0
9	655	Pinehurst	0	8	1	1	0	0	0	1
Totals	12081		249	149	169	79	176	167	258	3

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After MD-WB-002
30712 After MD-WB-004
30712 After MD-WB-005
30712 After MD-WB-006
30712 After MD-WB-007
31312 Before MD-WB-001
31312 Before MD-WB-002
31312 Before MD-WB-003

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	45	52	42	9	32	95	21	109
3	2821	Belcher	6	7	133	4	10	15	25	33
4	1339	King Arthur	4	5	1	1	1	5	4	2
5	1614	Overcash	1	1	0	81	0	8	2	0
6	1006	Virginia	0	69	0	6	24	3	3	0
7	1388	CR 1	1	45	24	68	94	0	94	0
8	1932	Lake Haven	0	6	6	14	4	0	0	5
9	655	Pinehurst	0	4	69	72	1	0	3	32
Totals	12081		57	189	275	255	166	126	152	181

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Total Delay (sec) by Section

31312 Before MD-WB-004
31312 Before MD-WB-005
31312 Before MD-WB-006
31312 Before MD-WB-007
31412 Before MD-WB-008
31412 Before MD-WB-001
31412 Before MD-WB-002
31412 Before MD-WB-003

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	11	2	7	6	80	12	12	1
3	2821	Belcher	11	10	16	18	10	33	4	103
4	1339	King Arthur	1	1	3	5	27	2	5	12
5	1614	Overcash	8	0	0	1	46	0	0	4
6	1006	Virginia	3	0	1	2	2	0	3	1
7	1388	CR 1	97	0	9	1	0	29	0	8
8	1932	Lake Haven	3	5	2	21	0	4	0	33
9	655	Pinehurst	32	5	0	3	0	5	0	9
Totals	12081		166	23	38	57	165	85	24	171

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound MD Peak**
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Detailed Statistics By Run

Total Delay (sec) by Section

31412 Before MD-WB-004
31412 Before MD-WB-005
31412 Before MD-WB-007
31412 Before MD-WB-008

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28
1	0	Summerdale				
2	1326	US 19	12	8	114	7
3	2821	Belcher	99	40	32	91
4	1339	King Arthur	19	4	1	32
5	1614	Overcash	2	0	2	5
6	1006	Virginia	2	0	4	2
7	1388	CR 1	22	95	98	8
8	1932	Lake Haven	11	3	6	5
9	655	Pinehurst	73	26	6	20
Totals	12081		240	176	263	170

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

PC-Travel Reports for study: SR 580 Westbound PM Peak

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Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

Study Date : **3/29/2012**

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Study Summary

Runs Used in This Study

Run Title	Start Date	Start Time	Length	Before/After	Run Type
30612 After PM-WB-001	03/06/12	16:10	12080	After	Secondary
30612 After PM-WB-003	03/06/12	16:46	12143	After	Secondary
30612 After PM-WB-004	03/06/12	17:06	12126	After	Secondary
30612 After PM-WB-006	03/06/12	18:03	12089	After	Secondary
30612 After PM-WB-007	03/06/12	18:14	12182	After	Secondary
30612 After PM-WB-008	03/06/12	18:28	12119	After	Secondary
30612 After PM-WB-009	03/06/12	18:48	12172	After	Secondary
30712 After PM-WB-001	03/07/12	16:07	12135	After	Secondary
30712 After PM-WB-002	03/07/12	16:28	12075	After	Secondary
30712 After PM-WB-003	03/07/12	16:52	12117	After	Secondary
30712 After PM-WB-004	03/07/12	17:08	12131	After	Secondary
30712 After PM-WB-005	03/07/12	17:24	12101	After	Secondary
30712 After PM-WB-006	03/07/12	17:42	12154	After	Secondary
30712 After PM-WB-007	03/07/12	18:03	12096	After	Secondary
30712 After PM-WB-008	03/07/12	18:16	12115	After	Secondary
30712 After PM-WB-009	03/07/12	18:32	12114	After	Secondary
30712 After PM-WB-010	03/07/12	18:48	12143	After	Secondary
31312 Before PM-WB-001	03/13/12	16:04	12153	Before	Secondary
31312 Before PM-WB-002	03/13/12	16:23	12114	Before	Secondary

Node Info

#	Len	Name
1	0	Summerdale
2	1326	US 19
3	2821	Belcher
4	1339	King Arthur
5	1614	Overcash
6	1006	Virginia
7	1388	CR 1
8	1932	Lake Haven
9	655	Pinehurst

Length of Study Route = 12,081 feet

31312 Before PM-WB-003	03/13/12	16:37	12053	Before	Secondary
31312 Before PM-WB-005	03/13/12	17:19	12055	Before	Secondary
31312 Before PM-WB-006	03/13/12	17:41	12137	Before	Secondary
31312 Before PM-WB-007	03/13/12	17:57	12136	Before	Secondary
31312 Before PM-WB-008	03/13/12	18:11	12135	Before	Secondary
31312 Before PM-WB-009	03/13/12	18:33	12199	Before	Secondary
31312 Before PM-WB-010	03/13/12	18:51	12125	Before	Secondary
31412 Before PM-WB-001	03/14/12	16:14	12131	Before	Secondary
31412 Before PM-WB-002	03/14/12	17:02	12193	Before	Secondary
31412 Before PM-WB-003	03/14/12	17:39	12128	Before	Secondary
31412 Before PM-WB-004	03/14/12	18:05	12127	Before	Secondary
31412 Before PM-WB-005	03/14/12	18:24	12168	Before	Secondary
31412 Before PM-WB-006	03/14/12	18:41	12151	Before	Secondary

Notes:

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

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Overall Output Statistics

Node #	Length	Node Name		Travel Time	# of Stops	Avg Speed	Total Delay	Time <= 0 MPH	Time <= 35 MPH	Time <= 55 MPH
1	0	Summerdale								
2	1326	US 19	Before	98.9	1.0	9.1	75.9	54.7	94.7	98.9
			After	69.6	0.9	13.0	46.6	25.4	67.5	69.6
			Change	-29.3	-0.1	3.8	-29.3	-29.3	-27.3	-29.3
3	2821	Belcher	Before	102.0	0.9	18.9	53.7	34.6	75.7	102.0
			After	73.5	0.4	26.2	25.1	13.4	43.4	73.5
			Change	-28.5	-0.6	7.3	-28.5	-21.2	-32.3	-28.5
4	1339	King Arthur	Before	30.0	0.1	30.4	6.5	2.3	17.5	30.0
			After	25.3	0.0	36.1	2.4	0.0	8.7	25.3
			Change	-4.7	-0.1	5.7	-4.2	-2.3	-8.8	-4.7
5	1614	Overcash	Before	32.7	0.1	33.7	6.1	2.1	12.0	32.7
			After	28.8	0.1	38.3	2.1	1.1	2.5	28.8
			Change	-3.9	-0.1	4.6	-4.0	-1.0	-9.5	-3.9
6	1006	Virginia	Before	19.7	0.1	34.9	2.3	0.0	7.5	19.7
			After	22.3	0.1	30.8	4.9	2.5	7.6	22.3
			Change	2.6	0.1	-4.1	2.6	2.5	0.2	2.6
7	1388	CR 1	Before	65.6	0.5	14.4	41.9	33.5	51.2	65.6
			After	61.0	0.5	15.5	37.4	32.1	43.1	61.0
			Change	-4.6	0.0	1.1	-4.5	-1.4	-8.1	-4.6
8	1932	Lake Haven	Before	34.8	0.1	37.9	2.1	0.0	7.8	34.8
			After	41.3	0.0	31.9	8.2	6.4	11.2	41.3
			Change	6.5	-0.1	-6.0	6.1	6.4	3.4	6.5
9	655	Pinehurst	Before	23.1	0.3	19.3	12.0	7.0	16.2	23.0
			After	11.5	0.0	38.9	0.1	0.0	0.4	11.4
			Change	-11.7	-0.3	19.6	-11.9	-7.0	-15.8	-11.6
Totals	12,081		Before	406.8	3.1	20.2	200.5	134.3	282.5	406.7
			After	333.2	1.9	24.7	126.8	80.9	184.5	333.1
			Change	-73.6	-1.2	4.5	-73.7	-53.3	-98.1	-73.5

Stats based on 15 BEFORE runs & 17 AFTER runs.
 Stops based on a Stop Speed of 5 MPH.
 Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida

Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

Study Date : **3/29/2012**

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Fuel Consumption & Emissions

Node #	Length	Node Name		Fuel (gal)	HC (grams)	CO (grams)	NOx (grams)
1	0	Summerdale					
2	1326	US 19	Before	0.0265	2.7335	23.2598	1.1822
			After	0.0210	2.2256	18.2178	1.1966
			Change	-0.0055	-0.5079	-5.0420	0.0144
3	2821	Belcher	Before	0.0355	3.5581	34.8345	1.9546
			After	0.0286	2.7782	28.8756	1.6090
			Change	-0.0068	-0.7799	-5.9589	-0.3456
4	1339	King Arthur	Before	0.0134	1.4503	16.2141	0.9666
			After	0.0115	1.0447	12.0536	0.6202
			Change	-0.0019	-0.4055	-4.1605	-0.3464
5	1614	Overcash	Before	0.0147	1.2473	14.1115	0.7115
			After	0.0131	0.8819	10.4458	0.3794
			Change	-0.0016	-0.3654	-3.6657	-0.3321
6	1006	Virginia	Before	0.0088	0.8127	8.9970	0.4960
			After	0.0090	0.6944	7.4539	0.3274
			Change	0.0002	-0.1184	-1.5431	-0.1686
7	1388	CR 1	Before	0.0196	1.8433	18.6763	0.7612
			After	0.0182	1.6006	16.5642	0.5683
			Change	-0.0014	-0.2428	-2.1121	-0.1929
8	1932	Lake Haven	Before	0.0176	1.6185	19.1247	1.0311
			After	0.0188	1.6499	18.1096	0.9624
			Change	0.0011	0.0314	-1.0151	-0.0687
9	655	Pinehurst	Before	0.0077	0.7096	6.6104	0.3584
			After	0.0049	0.2996	3.4998	0.1030
			Change	-0.0029	-0.4100	-3.1105	-0.2554
Totals	12,081		Before	0.1439	13.9733	141.8282	7.4616
			After	0.1251	11.1748	115.2204	5.7663
			Change	-0.0188	-2.7985	-26.6079	-1.6952

Stats based on 15 BEFORE runs & 17 AFTER runs.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30612 After PM-WB-001 30612 After PM-WB-003 30612 After PM-WB-004 30612 After PM-WB-006 30612 After PM-WB-007 30612 After PM-WB-008 30712 After PM-WB-009

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	46	79	60	70	72	40	64	135
3	2821	Belcher	54	59	55	59	177	59	56	63
4	1339	King Arthur	25	24	23	25	25	27	22	26
5	1614	Overcash	25	28	25	29	26	28	25	28
6	1006	Virginia	17	17	17	17	41	18	17	18
7	1388	CR 1	22	29	29	25	26	140	23	26
8	1932	Lake Haven	31	34	151	34	33	36	35	32
9	655	Pinehurst	12	11	12	12	12	11	12	11
Totals	12081		232	281	372	271	412	359	254	339

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After PM-WB-002
30712 After PM-WB-003
30712 After PM-WB-004
30712 After PM-WB-005
30712 After PM-WB-006
30712 After PM-WB-007
30712 After PM-WB-008
30712 After PM-WB-

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	52	53	77	30	52	59	151	64
3	2821	Belcher	56	69	54	182	49	73	59	74
4	1339	King Arthur	35	29	24	25	22	25	27	24
5	1614	Overcash	59	30	26	26	25	26	29	27
6	1006	Virginia	20	71	18	17	19	17	21	17
7	1388	CR 1	110	88	141	23	145	23	141	22
8	1932	Lake Haven	40	37	34	34	38	31	38	31
9	655	Pinehurst	12	12	11	11	11	12	11	11
Totals	12081		384	389	385	348	361	266	477	270

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Travel Time (sec) by Section

30712 After PM-WB-010
31312 Before PM-WB-001
31312 Before PM-WB-002
31312 Before PM-WB-003
31312 Before PM-WB-005
31312 Before PM-WB-006
31312 Before PM-WB-007

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	80	116	111	33	177	46	188	28
3	2821	Belcher	51	104	104	105	47	100	95	98
4	1339	King Arthur	22	27	25	26	41	26	26	27
5	1614	Overcash	27	33	26	40	60	26	30	35
6	1006	Virginia	17	19	18	25	19	19	19	20
7	1388	CR 1	24	131	32	118	95	22	36	127
8	1932	Lake Haven	33	36	35	35	40	31	34	35
9	655	Pinehurst	11	10	52	11	13	25	44	11
Totals	12081		265	476	403	393	492	295	472	381

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
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Detailed Statistics By Run

Travel Time (sec) by Section

31312 Before PM-WB-009
31312 Before PM-WB-010
31412 Before PM-WB-001
31412 Before PM-WB-002
31412 Before PM-WB-003
31412 Before PM-WB-004
31412 Before PM-WB-005

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	135	33	165	168	38	45	60	141
3	2821	Belcher	113	103	75	104	102	146	90	144
4	1339	King Arthur	30	26	32	27	25	65	23	24
5	1614	Overcash	25	26	28	27	26	61	25	22
6	1006	Virginia	16	18	32	18	19	20	17	16
7	1388	CR 1	23	23	29	27	149	31	23	118
8	1932	Lake Haven	30	30	34	45	35	37	31	34
9	655	Pinehurst	15	24	45	49	12	12	14	10
Totals	12081		387	283	440	465	406	417	283	509

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30612 After PM-WB-001 30612 After PM-WB-003 30612 After PM-WB-004 30612 After PM-WB-006 30612 After PM-WB-007 30612 After PM-WB-008 30712 After PM-WB-009

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	1	1	1	1	1	1	1	1
3	2821	Belcher	0	0	0	0	2	0	0	0
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	0	0	0	0	0	0	0	0
6	1006	Virginia	0	0	0	0	1	0	0	0
7	1388	CR 1	0	0	1	0	0	1	0	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	0	0	0	0	0	0
Totals	12081		1	1	2	1	4	2	1	1

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

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Detailed Statistics By Run

Number of Stops by Section

30712 After PM-WB-002
30712 After PM-WB-003
30712 After PM-WB-004
30712 After PM-WB-005
30712 After PM-WB-006
30712 After PM-WB-007
30712 After PM-WB-008
30712 After PM-WB-

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	1	1	1	0	1	1	1	1
3	2821	Belcher	0	1	0	1	0	1	0	1
4	1339	King Arthur	0	0	0	0	0	0	0	0
5	1614	Overcash	1	0	0	0	0	0	0	0
6	1006	Virginia	0	1	0	0	0	0	0	0
7	1388	CR 1	1	1	1	0	2	0	1	0
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	0	0	0	0	0	0
Totals	12081		3	4	2	1	3	2	2	2

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
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Detailed Statistics By Run

Number of Stops by Section

30712 After PM-WB-010
31312 Before PM-WB-001
31312 Before PM-WB-002
31312 Before PM-WB-003
31312 Before PM-WB-005
31312 Before PM-WB-006
31312 Before PM-WB-007

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	1	1	1	0	2	1	2	0
3	2821	Belcher	0	1	1	1	0	1	1	1
4	1339	King Arthur	0	0	0	0	1	0	0	0
5	1614	Overcash	0	0	0	0	1	0	0	0
6	1006	Virginia	0	0	0	0	0	0	0	0
7	1388	CR 1	0	1	0	1	1	0	0	1
8	1932	Lake Haven	0	0	0	0	0	0	0	0
9	655	Pinehurst	0	0	1	0	0	1	1	0
Totals	12081		1	3	3	2	5	3	4	2

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
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Detailed Statistics By Run

Number of Stops by Section

31312 Before PM-WB-009
31312 Before PM-WB-010
31412 Before PM-WB-001
31412 Before PM-WB-002
31412 Before PM-WB-003
31412 Before PM-WB-004
31412 Before PM-WB-005
31412 Before PM-WB-006

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	1	0	1	1	1	1	2	1
3	2821	Belcher	1	1	1	1	1	1	1	1
4	1339	King Arthur	0	0	0	0	0	1	0	0
5	1614	Overcash	0	0	0	0	0	1	0	0
6	1006	Virginia	0	0	1	0	0	0	0	0
7	1388	CR 1	0	0	0	0	2	0	0	1
8	1932	Lake Haven	0	0	0	1	0	0	0	0
9	655	Pinehurst	0	1	1	0	0	0	0	0
Totals	12081		2	2	4	3	4	4	3	3

Stops based on a Stop Speed of 5 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

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Detailed Statistics By Run

Average Speed (MPH) by Section

30612 After PM-WB-001

30612 After PM-WB-003

30612 After PM-WB-004

30612 After PM-WB-006

30612 After PM-WB-007

30612 After PM-WB-008

30612 After PM-WB-009

30712 After PM-WB-

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	19.9	11.4	15.2	13.2	12.8	23.3	14.4	6.8
3	2821	Belcher	35.6	32.6	35.1	32.5	10.8	32.7	34.3	30.7
4	1339	King Arthur	38.2	37.9	39.6	36.6	36.9	32.6	41.2	35.3
5	1614	Overcash	42.9	40.0	43.9	38.4	42.0	40.1	43.8	39.4
6	1006	Virginia	42.0	39.4	41.5	40.1	17.2	38.2	41.8	38.6
7	1388	CR 1	42.0	32.7	32.0	37.4	36.0	6.7	40.4	36.5
8	1932	Lake Haven	42.3	39.3	8.9	39.5	39.9	37.1	38.5	41.4
9	655	Pinehurst	39.6	39.5	38.5	35.3	39.6	41.0	36.5	41.0
Totals	12081		35.7	29.4	22.3	30.4	20.1	23.0	32.6	24.4

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After PM-WB-002 30712 After PM-WB-003 30712 After PM-WB-004 30712 After PM-WB-005 30712 After PM-WB-006 30712 After PM-WB-007 30712 After PM-WB-008

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	17.8	17.5	11.9	30.2	18.0	15.3	6.1	14.5
3	2821	Belcher	34.4	27.6	35.7	10.6	39.3	26.5	32.5	26.0
4	1339	King Arthur	25.4	32.1	38.6	36.6	41.0	37.0	33.6	37.7
5	1614	Overcash	18.6	37.1	42.0	43.0	43.5	42.3	38.3	41.7
6	1006	Virginia	35.4	9.5	38.1	40.7	35.9	41.2	33.2	40.8
7	1388	CR 1	8.5	10.7	6.6	41.3	6.6	40.4	6.5	41.8
8	1932	Lake Haven	33.8	36.1	39.1	38.8	35.4	42.0	35.6	42.9
9	655	Pinehurst	37.4	37.0	42.0	39.0	38.9	38.1	39.4	41.2
Totals	12081		21.5	21.2	21.5	23.7	22.9	31.0	17.3	30.6

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Average Speed (MPH) by Section

30712 After PM-WB-010
31312 Before PM-WB-001
31312 Before PM-WB-002
31312 Before PM-WB-003
31312 Before PM-WB-005
31312 Before PM-WB-006
31312 Before PM-WB-007
31312 Before PM-WB-007

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	11.6	8.0	8.3	27.7	5.2	20.1	4.8	32.9
3	2821	Belcher	37.4	18.5	18.5	18.2	41.2	19.2	20.4	19.6
4	1339	King Arthur	41.3	33.6	36.6	35.8	21.8	35.6	35.2	34.2
5	1614	Overcash	41.9	33.3	43.3	27.0	18.3	41.7	37.1	31.2
6	1006	Virginia	38.9	35.4	37.1	27.6	36.5	36.9	35.5	34.3
7	1388	CR 1	39.6	7.2	29.6	8.1	9.9	42.3	26.1	7.3
8	1932	Lake Haven	40.1	37.6	37.4	38.3	33.1	42.9	38.5	38.5
9	655	Pinehurst	39.7	42.1	8.8	40.0	34.5	16.9	10.3	41.6
Totals	12081		31.1	17.3	20.5	21.0	16.7	27.9	17.5	21.7

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

Study Date : **3/29/2012**

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Detailed Statistics By Run

Average Speed (MPH) by Section

31312 Before PM-WB-009
31312 Before PM-WB-010
31412 Before PM-WB-001
31412 Before PM-WB-002
31412 Before PM-WB-003
31412 Before PM-WB-004
31412 Before PM-WB-005
31412 Before PM-WB-006

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	6.7	27.8	5.6	5.5	24.3	20.4	15.5	6.5
3	2821	Belcher	17.1	18.7	25.5	18.5	18.9	13.1	21.3	13.4
4	1339	King Arthur	31.3	36.0	29.4	34.7	35.6	14.0	38.9	39.2
5	1614	Overcash	43.8	42.2	38.9	40.3	42.9	18.0	45.3	48.5
6	1006	Virginia	41.3	36.2	21.6	37.8	36.5	34.4	38.7	42.4
7	1388	CR 1	42.9	42.1	32.7	34.9	6.2	30.5	41.6	8.1
8	1932	Lake Haven	42.7	43.3	38.0	29.1	38.1	36.6	43.3	39.5
9	655	Pinehurst	29.5	18.8	9.9	9.1	38.8	36.9	29.8	42.7
Totals	12081		21.3	29.1	18.7	17.7	20.4	19.8	29.1	16.2

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30612 After PM-WB-001 30612 After PM-WB-003 30612 After PM-WB-004 30612 After PM-WB-006 30612 After PM-WB-007 30612 After PM-WB-008 30712 After PM-WB-009

Node #	Length	Node Name	Run #1	Run #2	Run #3	Run #4	Run #5	Run #6	Run #7	Run #8
1	0	Summerdale								
2	1326	US 19	23	56	37	47	49	17	41	112
3	2821	Belcher	6	11	7	11	129	10	7	14
4	1339	King Arthur	1	1	0	2	2	4	0	3
5	1614	Overcash	0	0	0	1	0	0	0	0
6	1006	Virginia	0	0	0	0	23	0	0	0
7	1388	CR 1	0	5	5	1	2	116	0	2
8	1932	Lake Haven	0	1	118	0	0	2	1	0
9	655	Pinehurst	0	0	0	1	0	0	0	0
Totals	12081		30	74	167	63	205	149	49	131

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**

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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After PM-WB-002
30712 After PM-WB-003
30712 After PM-WB-004
30712 After PM-WB-005
30712 After PM-WB-006
30712 After PM-WB-007
30712 After PM-WB-008
30712 After PM-WB-

Node #	Length	Node Name	Run #9	Run #10	Run #11	Run #12	Run #13	Run #14	Run #15	Run #16
1	0	Summerdale								
2	1326	US 19	29	30	54	7	29	36	128	41
3	2821	Belcher	7	21	5	134	0	25	11	26
4	1339	King Arthur	12	6	0	2	0	2	4	1
5	1614	Overcash	31	2	0	0	0	0	1	0
6	1006	Virginia	2	53	0	0	2	0	3	0
7	1388	CR 1	86	64	117	0	121	0	117	0
8	1932	Lake Haven	6	3	1	0	4	0	4	0
9	655	Pinehurst	0	0	0	0	0	1	0	0
Totals	12081		173	179	177	143	156	64	268	68

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

30712 After PM-WB-010
31312 Before PM-WB-001
31312 Before PM-WB-002
31312 Before PM-WB-003
31312 Before PM-WB-005
31312 Before PM-WB-006
31312 Before PM-WB-007

Node #	Length	Node Name	Run #17	Run #18	Run #19	Run #20	Run #21	Run #22	Run #23	Run #24
1	0	Summerdale								
2	1326	US 19	57	93	88	10	154	23	165	5
3	2821	Belcher	3	55	56	57	0	51	46	49
4	1339	King Arthur	0	4	2	3	18	2	3	3
5	1614	Overcash	0	5	0	12	32	0	2	7
6	1006	Virginia	0	2	0	8	1	1	1	2
7	1388	CR 1	0	107	8	94	71	0	12	103
8	1932	Lake Haven	0	2	2	1	7	0	1	1
9	655	Pinehurst	0	0	40	0	1	14	33	0
Totals	12081		60	268	196	185	284	91	263	170

Total Delay based on a Normal Speed of 40 MPH.

Kimley-Horn and Associates, Inc.

Pinellas County, Florida
Travel Time Analysis: SR 580

Study Name : **SR 580 Westbound PM Peak**
Study Date : **3/29/2012**
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Detailed Statistics By Run

Total Delay (sec) by Section

31312 Before PM-WB-009
31312 Before PM-WB-010
31412 Before PM-WB-001
31412 Before PM-WB-002
31412 Before PM-WB-003
31412 Before PM-WB-004
31412 Before PM-WB-005

Node #	Length	Node Name	Run #25	Run #26	Run #27	Run #28	Run #29	Run #30	Run #31	Run #32
1	0	Summerdale								
2	1326	US 19	112	10	142	145	15	22	37	118
3	2821	Belcher	65	55	27	56	53	98	41	96
4	1339	King Arthur	6	2	8	3	2	42	0	0
5	1614	Overcash	0	0	0	0	0	33	0	0
6	1006	Virginia	0	1	14	0	1	3	0	0
7	1388	CR 1	0	0	5	3	125	7	0	94
8	1932	Lake Haven	0	0	1	12	2	3	0	0
9	655	Pinehurst	4	13	34	38	0	0	3	0
Totals	12081		187	81	231	257	198	208	81	308

Total Delay based on a Normal Speed of 40 MPH.