

TRAFFIC IMPACT ANALYSIS

BANNING GENERAL PLAN AMENDMENT CHANGE IN LEVEL OF SERVICE POLICY

CITY OF BANNING

RIVERSIDE COUNTY, CALIFORNIA

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LSA

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EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) has been prepared to assess the proposed amendment to the City of Banning (City) General Plan Circulation Element (adopted January 2006). According to the current General Plan Circulation Element, the City considers Level of Service (LOS) C as the upper limit of satisfactory operation except for intersections along Ramsey Street and interchange intersections along Interstate 10 (I-10), where LOS D is considered satisfactory. The City is proposing to change its existing policy for acceptable LOS criteria from LOS C to LOS D for all intersections within the City.

Traffic conditions were analyzed at eight intersections for a.m. and p.m. peak hours for the following conditions:

- General Plan Buildout with Existing Conditions
- General Plan Buildout with LOS C Improvement Conditions
- General Plan Buildout with LOS D Improvement Conditions

Recommended improvements and conceptual plans are provided in the study for both LOS C and LOS D.

The current LOS criterion within the City of Banning includes two standards: one is LOS D for intersections along Ramsey Street and at all I-10 interchange intersections, and the second is LOS C for the remaining intersections in the City. The benefits of changing the Citywide LOS standard from LOS C (all intersection except the ones on Ramsey Street and I-10 ramps) to LOS D are listed below:

1. Consistent LOS with the City of Beaumont along the common border of Highland Springs Avenue. The City of Beaumont has established LOS D as an acceptable LOS standard, and if the City of Banning adopts the LOS D standard, the same LOS standard will then be applicable to all intersections along Highland Springs Avenue (the border between the two cities). Currently, the intersection configuration required to maintain the LOS standard at each location is different for both Cities since the LOS standard is different. The change in LOS policy (from LOS C to LOS D) will result in uniform intersection configuration at intersections along Highland Springs Avenue.
2. The change in LOS (from LOS C to LOS D) will reduce the Capital Improvement Cost and physical impact for improving an intersection to acceptable LOS per City's General Plan Policy.
3. The reduction in the Capital Improvement Cost will result in lower traffic impact fee.
4. Drivers will experience consistent LOS conditions. Without the LOS policy change, drivers would experience different LOS standards at intersections within the City. For example, if a driver traveling through the City intersections (LOS C standard) reaches an intersection along Ramsey Street or a ramp intersection (along I-10), the minor changes (increases) in delay and congestion levels that are acceptable at these locations (LOS D standard) will appear to be exaggerated (more than they really are) to the driver since he has been experiencing slightly lower levels of delay and congestion at intersections throughout the City. The change in LOS (from C to D) will eliminate this perceived exaggeration from the overall driver experience within the City.

Based on the results of this TIA, it is recommended that the City adopt the proposed change in its existing policy for acceptable LOS criteria from LOS C to LOS D for all intersections within the City. If LOS D is adopted as the acceptable LOS standard, fewer improvements and less right-of-way (ROW) acquisition would be required to improve General Plan Buildout intersection deficiencies.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1.0 INTRODUCTION AND SUMMARY.....	1
1.1 Purpose of Report and Study Objective	1
2.0 STUDY AREA.....	1
2.1 Study Area.....	1
2.2 Intersection Levels of Service: Definition and Criteria.....	3
3.0 GENERAL PLAN BUILDOUT CONDITIONS	4
3.1 General Plan Buildout Conditions Levels of Service.....	4
4.0 GENERAL PLAN IMPROVEMENTS	7
4.1 General Plan Buildout LOS C Improvements	7
4.2 General Plan Buildout LOS D Improvements.....	10
4.3 Conceptual Plans	14
5.0 CONCLUSION	23

FIGURES

Figure 1: Study Area Intersections	2
Figure 2: Intersection Geometrics	5
Figure 3: General Plan Buildout Peak-Hour Volumes	6
Figure 4: General Plan Buildout with LOS C Improvements Intersection Geometrics	8
Figure 5: General Plan Buildout with LOS D Improvements Intersection Geometrics	11
Figure 6: General Plan Buildout Improvements Intersection Geometrics.....	13
Figure 7: Highland Springs Avenue/Wilson Street Improvements (Conceptual Plan)	15
Figure 8: Highland Springs Avenue/Sun Lakes Boulevard Improvements (Conceptual Plan).....	16
Figure 9: Highland Home Road/Wilson Street Improvements (Conceptual Plan).....	17
Figure 10: Sunset Avenue/Wilson Street Improvements (Conceptual Plan).....	18
Figure 11: Sunset Avenue/Lincoln Street Improvements (Conceptual Plan).....	19
Figure 12: 8th Street/Wilson Street Improvements (Conceptual Plan)	20
Figure 13: 8th Street/Lincoln Street Improvements (Conceptual Plan)	21
Figure 14: Hargrave Street/Lincoln Street Improvements (Conceptual Plan).....	22

TABLES

Table A: General Plan Buildout Intersection LOS Summary	7
Table B: General Plan Buildout with LOS C Improvements Intersection LOS Summary	10
Table C: General Plan Buildout with LOS D Improvements Intersection LOS Summary	12

APPENDIX

A: LEVEL OF SERVICE CALCULATION WORKSHEETS

1.0 INTRODUCTION AND SUMMARY

1.1 Purpose of Report and Study Objective

This traffic impact analysis (TIA) has been prepared to assess the proposed amendment to the City of Banning (City) General Plan Circulation Element (adopted January 2006). According to the current General Plan Circulation Element, the City considers LOS C as the upper limit of satisfactory operation except for intersections along Ramsey Street and interchange intersections along Interstate 10 (I-10), where LOS D is considered satisfactory. The City is proposing to change its existing policy for acceptable LOS criteria from LOS C to LOS D for all intersections within the City.

This report includes analysis of the following three scenarios to satisfy the requirements for the disclosure of potential impacts and improvements per the California Environmental Quality Act (CEQA).

- General Plan Buildout with Existing Conditions
- General Plan Buildout with LOS C Improvement Conditions
- General Plan Buildout with LOS D Improvement Conditions

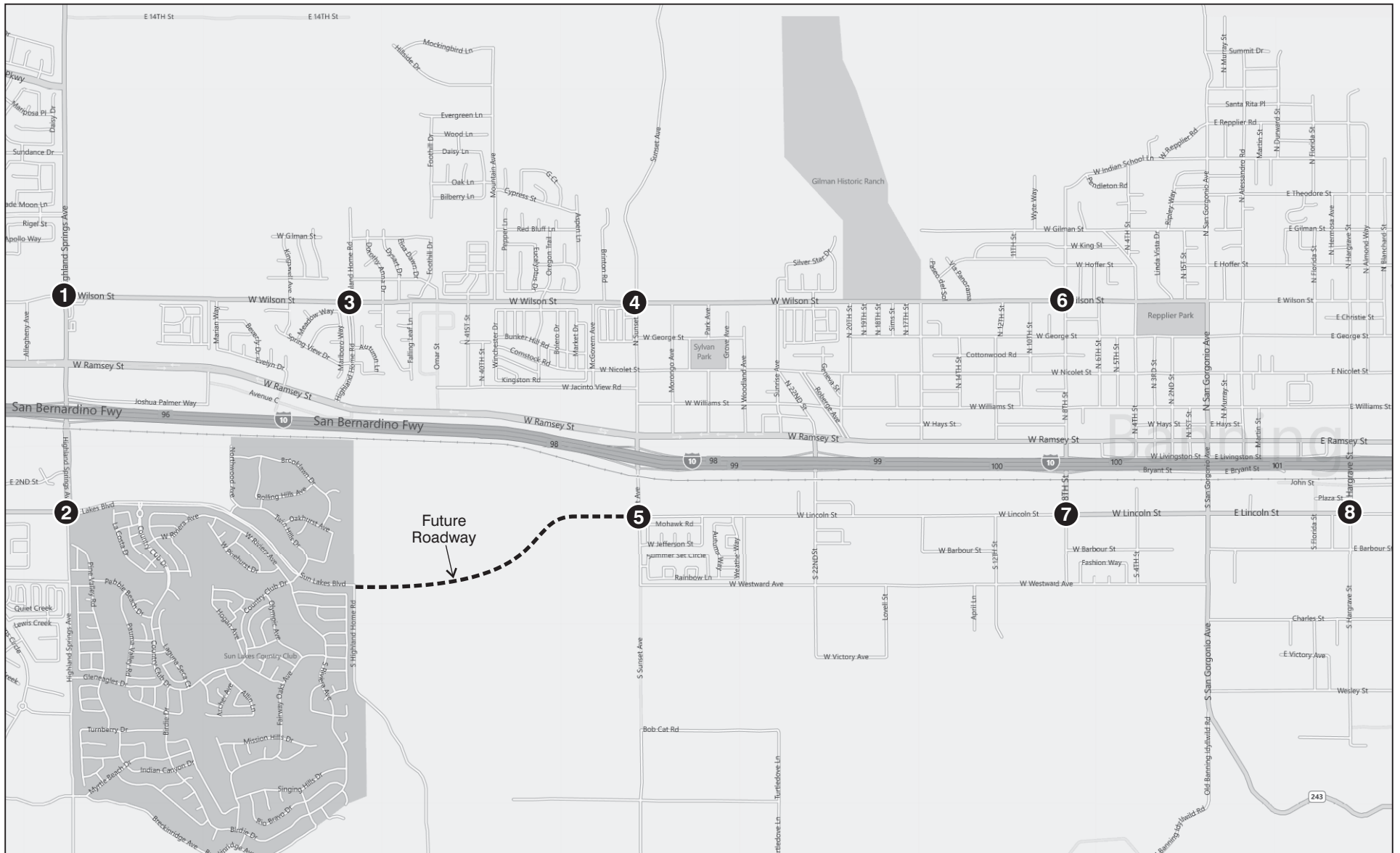
This study analyzes General Plan Buildout conditions for the a.m. and p.m. peak hours.

2.0 STUDY AREA

2.1 Study Area

The study area was defined based on the study area analyzed in the TIA included in the adopted General Plan. The intersections that were categorized under LOS C criteria in the adopted General Plan were selected as the study area intersections. The study area includes the following intersections, as illustrated in Figure 1:

1. Highland Springs Avenue/Wilson Street
2. Highland Springs Avenue/Sun Lakes Boulevard
3. Highland Home Road/Wilson Street
4. Sunset Avenue/Wilson Street
5. Sunset Avenue/Lincoln Street
6. 8th Street/Wilson Street
7. 8th Street/Lincoln Street
8. Hargrave Street/Lincoln Street



LSA



0 1300 2600
FEET

SOURCE: Bing Maps

LEGEND

③ - Study Area Intersection

FIGURE 1

*Banning General Plan Amendment
Change in LOS Policy
Study Area Intersections*

2.2 Intersection Levels of Service: Definition and Criteria

Intersection operations and the relationship between capacity and traffic volumes are generally expressed in terms of LOS, which are defined using the letter grades A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such conditions, congestion is experienced. There is general instability in the traffic flow, which means that relatively small incidents (e.g., a momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will then form and continue to expand in length until the demand volume again declines.

A complete description of the meaning of LOS can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual*. The Manual establishes levels of service A through F. Brief descriptions of the six levels of service, as abstracted from the Manual, are provided below.

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

LOS = level of service

The LOS criteria for unsignalized and signalized intersections is shown below.

LOS	Unsignalized Intersection Average Delay per Vehicle (seconds)	Signalized Intersection Average Delay per Vehicle (seconds)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

LOS = level of service

Consistent with Riverside County guidelines, all study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Intersection LOS was calculated using Traffix software.

According to the current City General Plan Circulation Element, LOS C is considered the upper limit of satisfactory operation except for intersections along Ramsey Street and interchange intersections along I-10, where LOS D is considered satisfactory.

3.0 GENERAL PLAN BUILDOUT CONDITIONS

Consistent with the approach used in the previous TIA included in the adopted General Plan, the future General Plan Buildout conditions at all study area intersections were analyzed using existing intersection configurations illustrated in Figure 2. The traffic volumes for the General Plan Buildout conditions were obtained from the adopted General Plan TIA. The General Plan Buildout peak-hour volumes are shown in Figure 3.

3.1 General Plan Buildout Conditions Levels of Service

An LOS analysis was conducted in the General Plan TIA as part of the City General Plan Circulation Element to evaluate General Plan Buildout a.m. and p.m. peak-hour traffic operations at the study area intersections. The LOS analysis worksheets are provided in Attachment A. Table A summarizes the results of the LOS analysis. As shown in this table, all study area intersections exceed LOS thresholds during both peak hours (LOS F), with the exception of Highland Springs Avenue/Wilson Street and Highland Springs Avenue/Sun Lakes Boulevard. These two intersections were previously all-way stop-controlled (AWSC) intersections during preparation of the General Plan TIA. However, the existing geometrics at Highland Springs Avenue/Wilson Street and Highland Springs Avenue/Sun Lakes Boulevard have since been improved and are currently signalized.

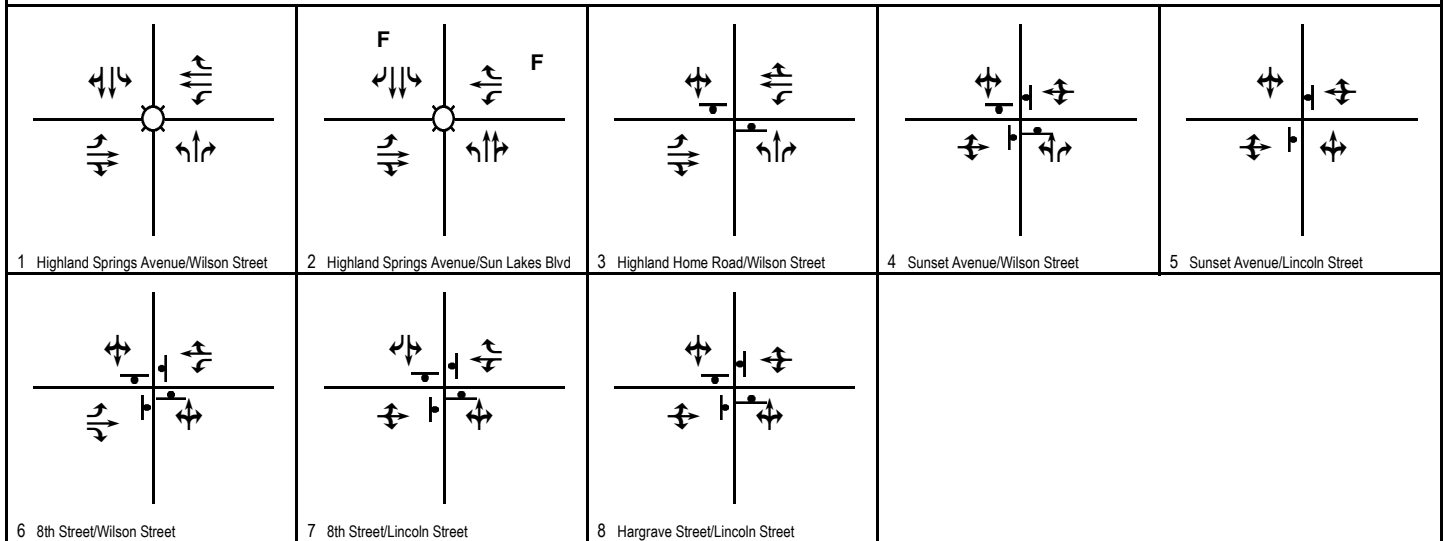
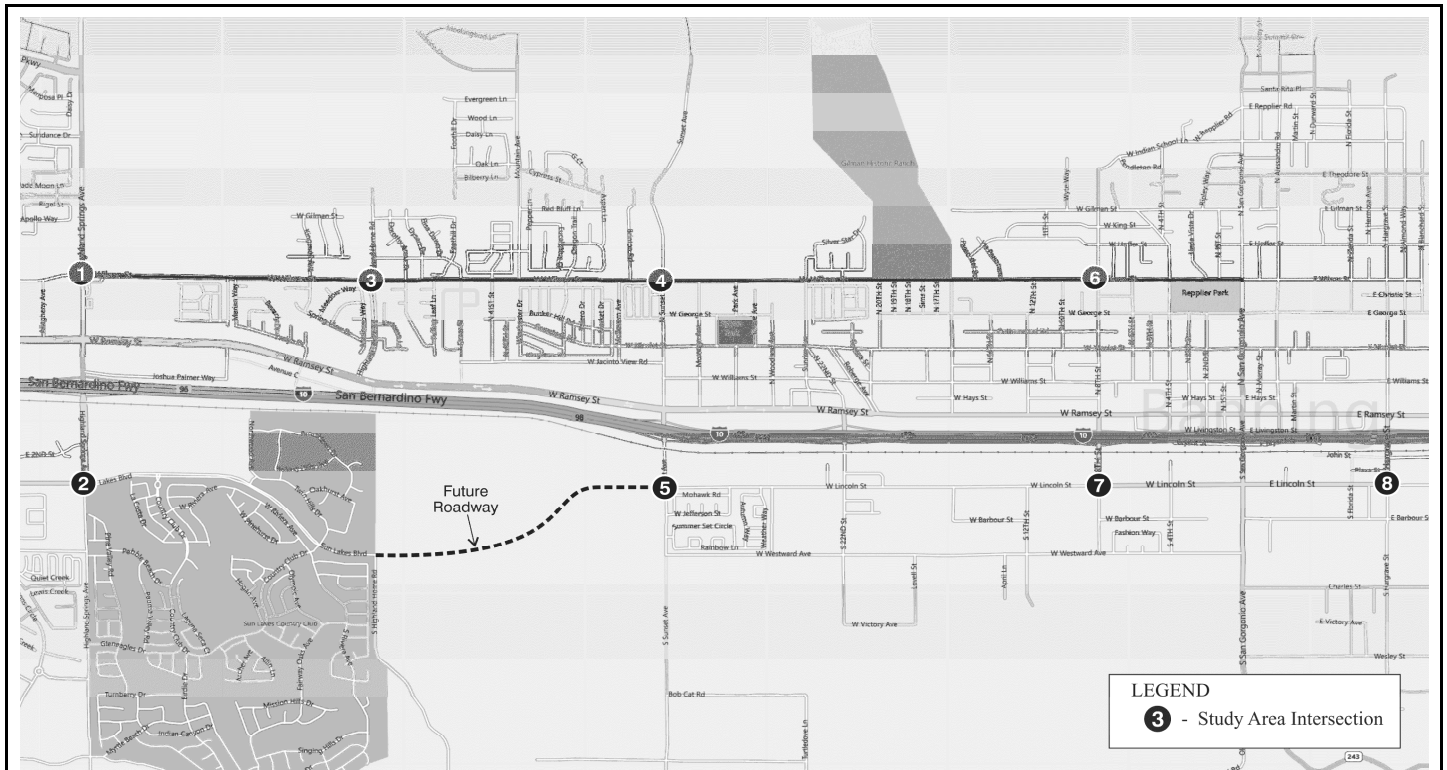


FIGURE 2

Legend

- Signal
- Stop Sign
- Free Right
- Overlap

Banning General Plan Amendment
Change in LOS Policy
 Existing Intersection Geometrics

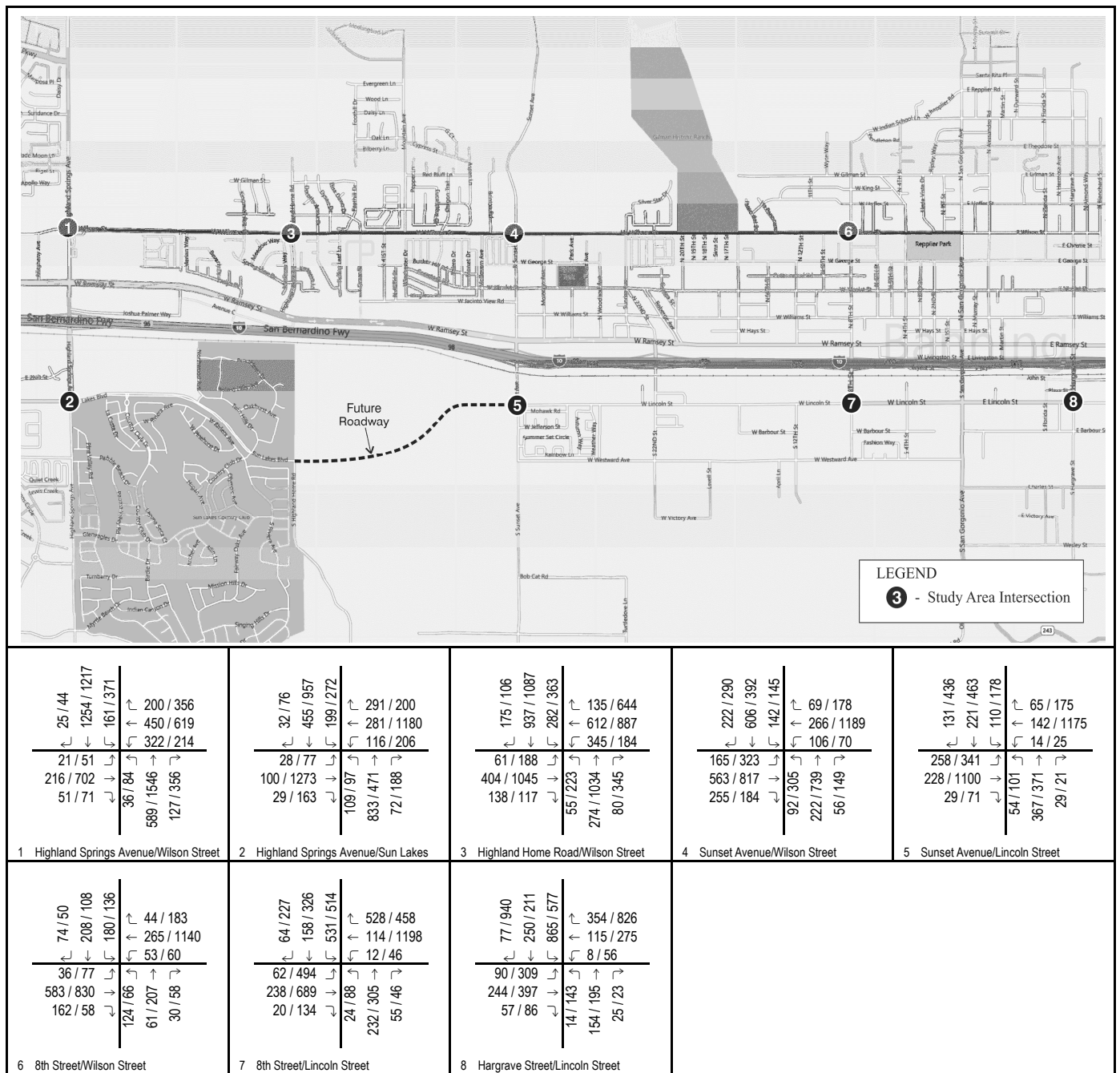


FIGURE 3

Legend

123 / 456 AM / PM Volume

Banning General Plan Amendment
Change in LOS Policy
 General Plan Buildout Peak Hour Volumes

Table A: General Plan Buildout Intersection LOS Summary

Intersection ¹	Control	Baseline			
		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1 Highland Springs Avenue/Wilson Street ²					
Adopted General Plan	AWSC	>50.0 sec	F ³	>50.0 sec	F
Existing Geometrics	Signal	32.2 sec	C	>80.0 sec	F
2 Highland Springs Avenue/Sun Lakes Boulevard ¹					
Adopted General Plan	AWSC	>50.0 sec	F	>50.0 sec	F
Existing Geometrics	Signal	27.5 sec	C	>80.0 sec	F
3 Highland Home Road/Wilson Street	TWSC	>50.0 sec	F	>50.0 sec	F
4 Sunset Avenue/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
5 Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	F	>50.0 sec	F
6 8th Street/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
7 8th Street/Lincoln Street	AWSC	> 50.0 sec	F	>50.0 sec	F
8 Hargrave Street/Lincoln Street	AWSC	> 50.0 sec	F	>50.0 sec	F

¹ Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.² The intersection control and geometrics have been improved since the General Plan was adopted.³ **Bold** = exceeds City's of LOS criteria

AWSC = all-way stop-controlled

LOS = level of service

sec = seconds

TWSC = two-way stop-controlled

4.0 GENERAL PLAN IMPROVEMENTS

At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. Discussions on necessary improvements required at each deficient intersection are provided below. It should be noted that signal timing/phasing changes may also be required. Only physical intersection improvements (i.e., additional lanes) are listed below.

4.1 General Plan Buildout LOS C Improvements

The adopted City General Plan Circulation Element identified the following LOS C improvements for the deficient study area intersections, as shown in Figure 4:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a designated northbound right-turn lane, a second southbound left-turn lane, a third southbound through lane (with the conversion of the free southbound right-turn lane to an inclusive right-turn lane), a second eastbound left-turn lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a second westbound through lane (with the conversion of the free westbound right-turn lane to an inclusive right-turn lane).

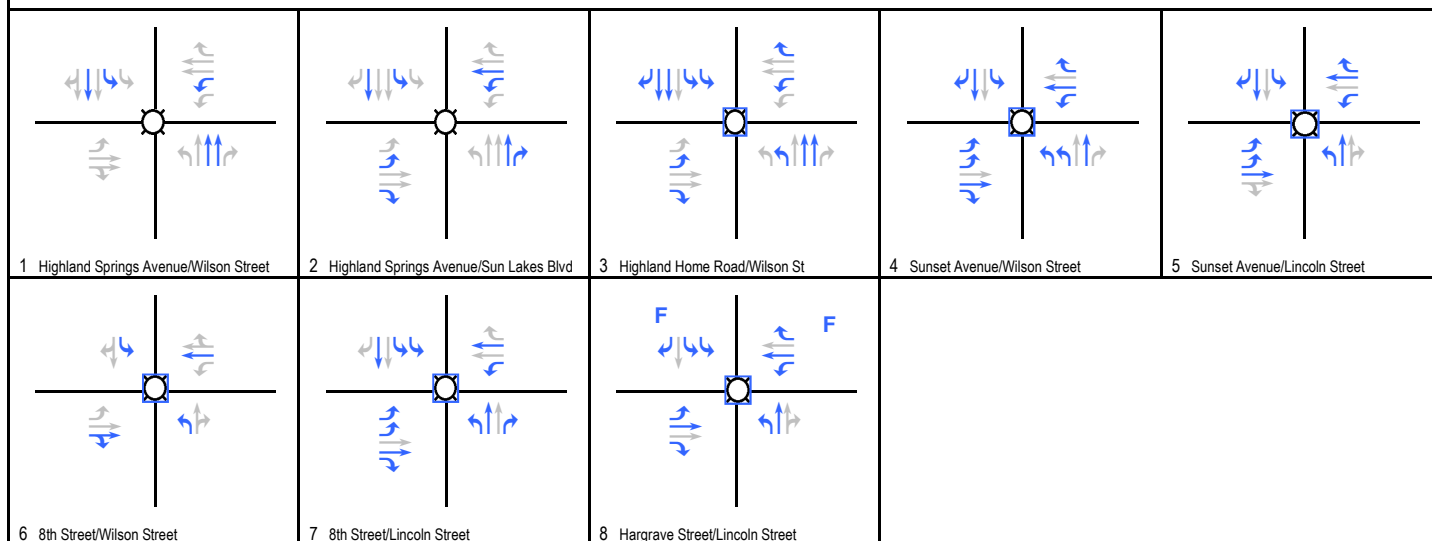
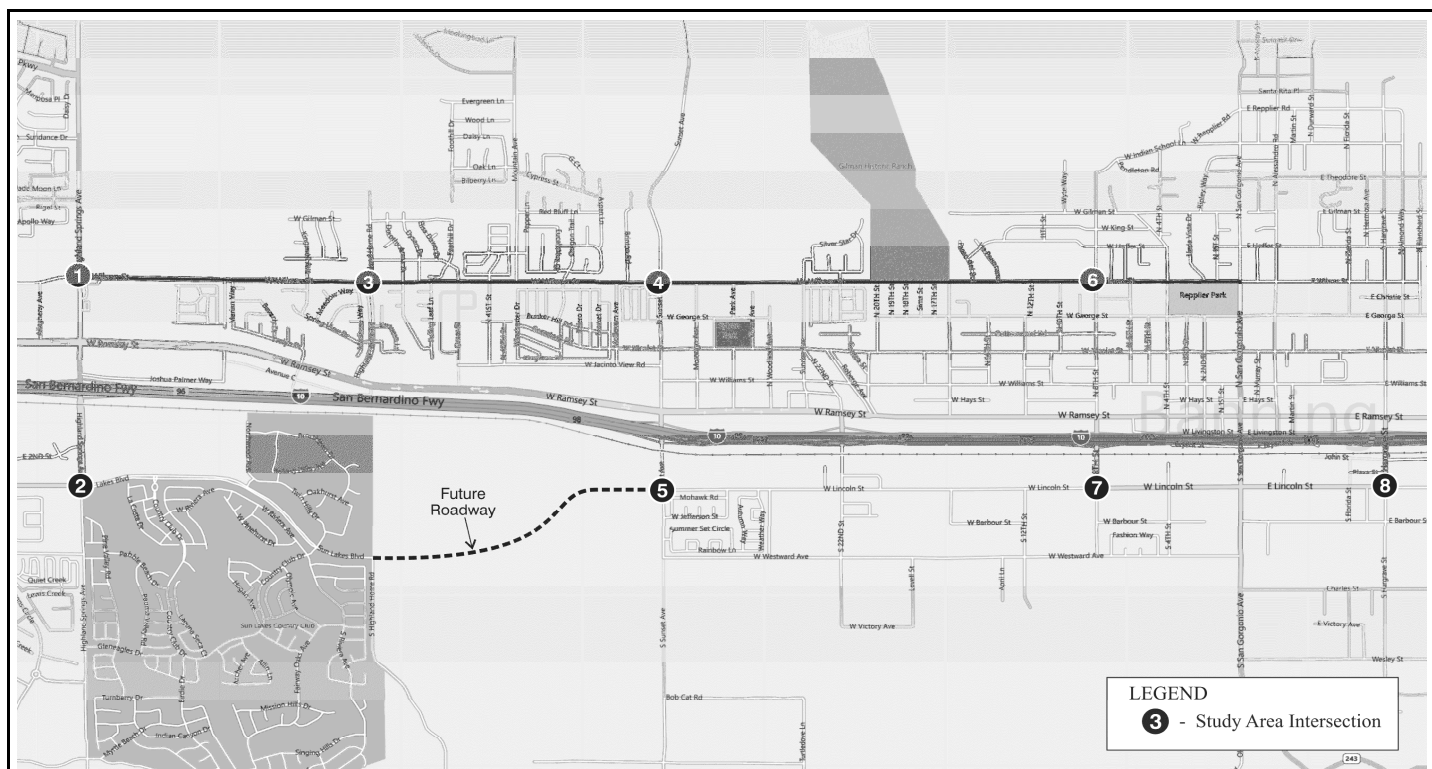


FIGURE 4

Legend

- | | | | |
|--|-----------|--|-------------------|
| | Signal | | Existing |
| | Stop Sign | | LOS C Improvement |
| | F | | Free Right |

*Banning General Plan Amendment
Change in LOS Policy*

General Plan Buildout with LOS C Improvements Intersection Geometrics

- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound left-turn lane, two northbound through lanes, two southbound left-turn lanes, two southbound through lanes, a designated southbound right-turn lane, a second eastbound left-turn lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **8th Street/Wilson Street:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane), and a second westbound through lane.
- **8th Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a designated northbound right-turn lane, two southbound left-turn lanes, a second southbound through lane, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, and a second westbound through lane.
- **Hargrave Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, two southbound left-turn lanes, a free southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a free westbound right-turn lane.

Based on the intersection LOS analysis, the improvements described above would result in acceptable LOS C during both peak hours. Table B summarizes the results of the analysis.

Table B: General Plan Buildout with LOS C Improvements Intersection LOS Summary

Intersection		With LOS C Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	25.2 sec	C	32.4 sec	C
2	Highland Springs Avenue/Sun Lakes Boulevard	Signal	28.9 sec	C	31.2 sec	C
3	Highland Home Road/Wilson Street	Signal	28.1 sec	C	34.1 sec	C
4	Sunset Avenue/Wilson Street	Signal	26.9 sec	C	33.8 sec	C
5	Sunset Avenue/Lincoln Street	Signal	28.7 sec	C	31.6 sec	C
6	8th Street/Wilson Street	Signal	29.4 sec	C	28.1 sec	C
7	8th Street/Lincoln Street	Signal	23.9 sec	C	33.6 sec	C
8	Hargrave Street/Lincoln Street	Signal	23.7 sec	C	33.1 sec	C

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

LOS = level of service

sec = seconds

4.2 General Plan Buildout LOS D Improvements

In order to improve the intersection deficiencies under General Plan Buildout baseline conditions to the proposed LOS standard of LOS D, the following improvements would be needed, as shown in Figure 5:

- **Highland Springs Avenue/Wilson Street:** Add a second northbound through lane, a shared northbound through/right-turn lane (i.e., conversion of the designated northbound right-turn lane and widening of the departure leg to accept the northbound through lane), a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a third southbound through lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add two northbound through lanes, a southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, an eastbound left-turn lane, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **8th Street/Wilson Street:** Install a traffic signal. Add a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane) and a second westbound through lane.

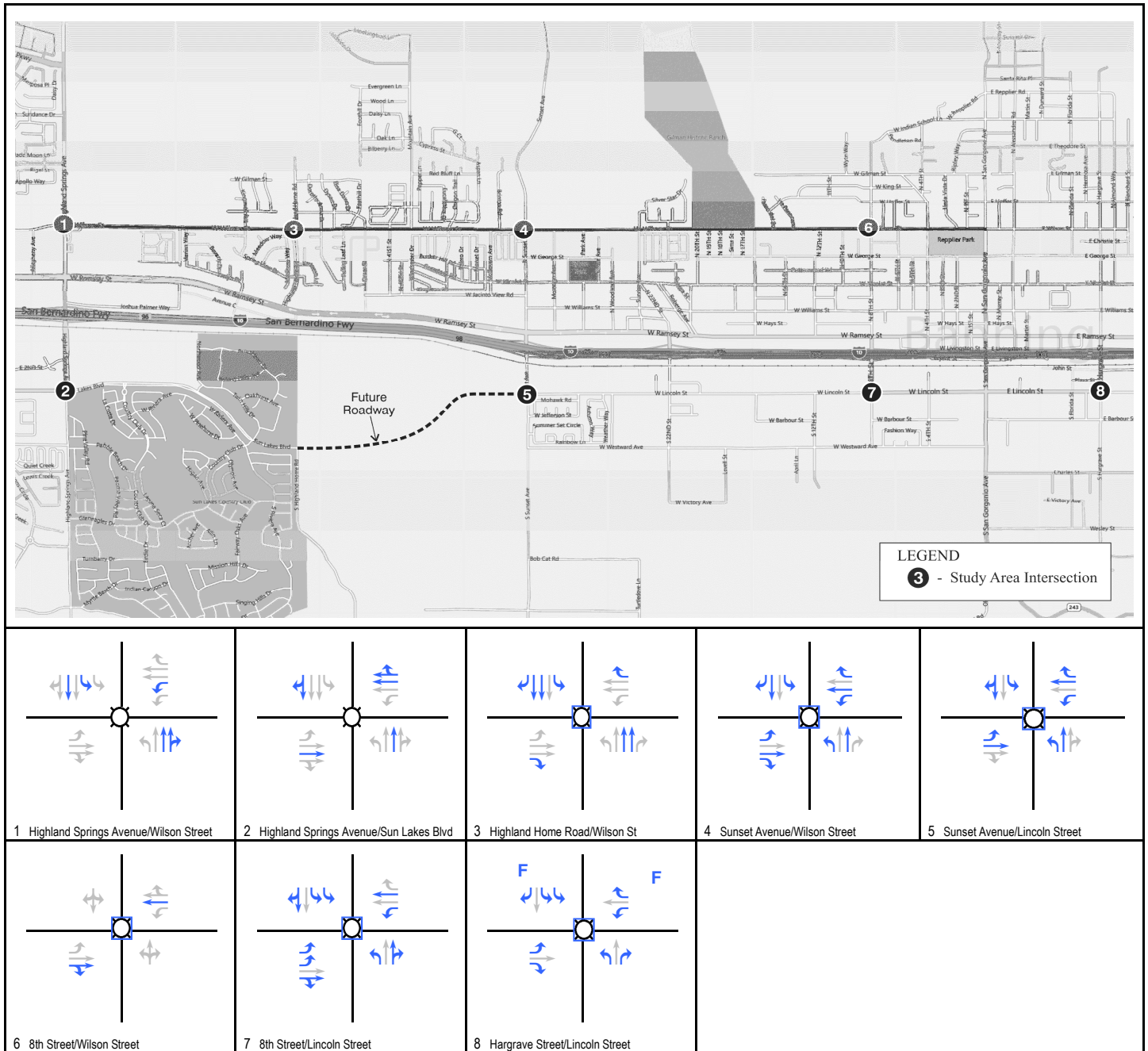


FIGURE 5

Legend

	Signal		Existing
	Stop Sign		LOS D Improvement
	F		Free Right

*Banning General Plan Amendment
 Change in LOS Policy*

General Plan Buildout with LOS D Improvements Intersection Geometrics

- **8th Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, two southbound left-turn lanes, a second southbound through lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, and a second westbound through lane.
- **Hargrave Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a designated northbound right-turn lane, two southbound left-turn lanes, a free southbound right-turn lane, an eastbound left-turn lane, a designated eastbound right-turn lane, a westbound left-turn lane, and a free westbound right-turn lane.

Table C summarizes the results of the General Plan Buildout with LOS D improvements analysis. The LOS worksheets are provided in Appendix A.

Table C: General Plan Buildout with LOS D Improvements Intersection LOS Summary

Intersection		With LOS D Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	25.6 sec	C	37.0 sec	D
2	Highland Springs Avenue/Sun Lakes Boulevard	Signal	30.9 sec	C	46.2 sec	D
3	Highland Home Road/Wilson Street	Signal	32.1 sec	C	48.0 sec	D
4	Sunset Avenue/Wilson Street	Signal	29.1 sec	C	54.7 sec	D
5	Sunset Avenue/Lincoln Street	Signal	30.3 sec	C	51.1 sec	D
6	8th Street/Wilson Street	Signal	36.6 sec	D	41.0 sec	D
7	8th Street/Lincoln Street	Signal	24.4 sec	C	36.3 sec	D
8	Hargrave Street/Lincoln Street	Signal	26.5 sec	C	36.2 sec	D

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

LOS = level of service

sec = seconds

Figure 6 illustrates the General Plan Buildout with both LOS C and D improvements intersection geometrics and traffic control. If LOS D is adopted as the acceptable City LOS standard, reduced improvements would be required to improve the General Plan Buildout intersection deficiencies.

A summary of the LOS C improvements that are not required to achieve LOS D is provided below.

- **Highland Springs Avenue/Wilson Street:** A designated northbound right-turn lane. The addition of this turn lane would require approximately 12 feet (ft) of additional ROW on the east side of Highland Springs Avenue south of Wilson Street.
- **Highland Springs Avenue/Sun Lakes Boulevard:** A designated northbound right-turn lane, a second southbound left-turn lane, a second eastbound left-turn lane, a designated eastbound right-turn lane, and a second westbound left-turn lane.

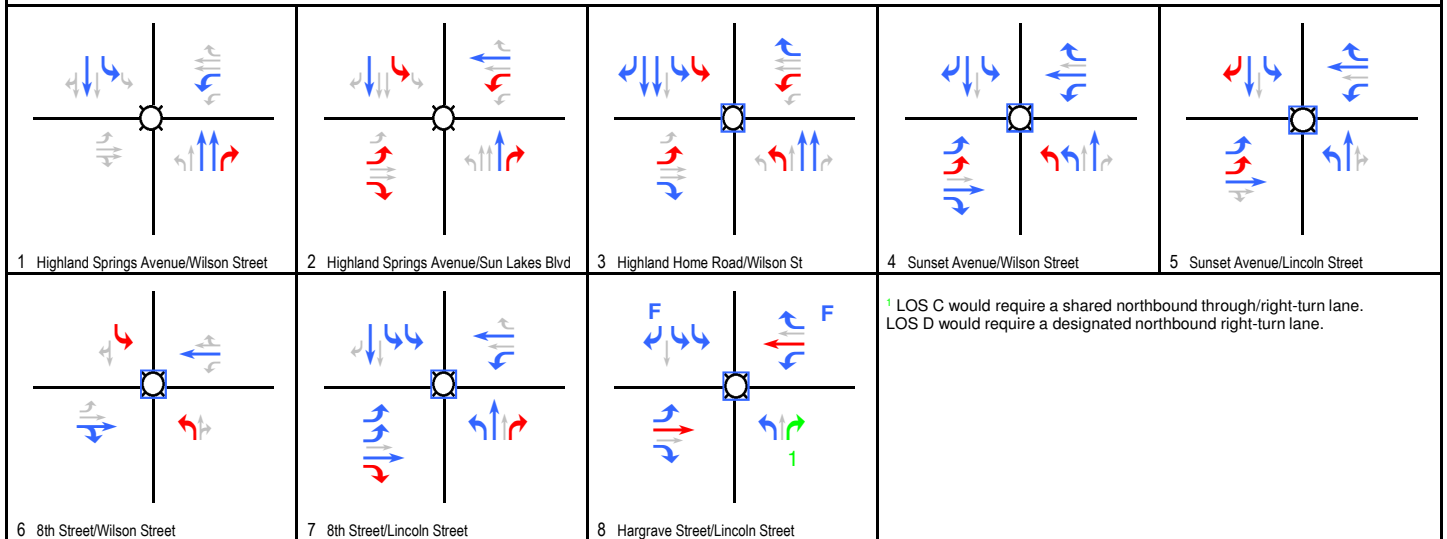
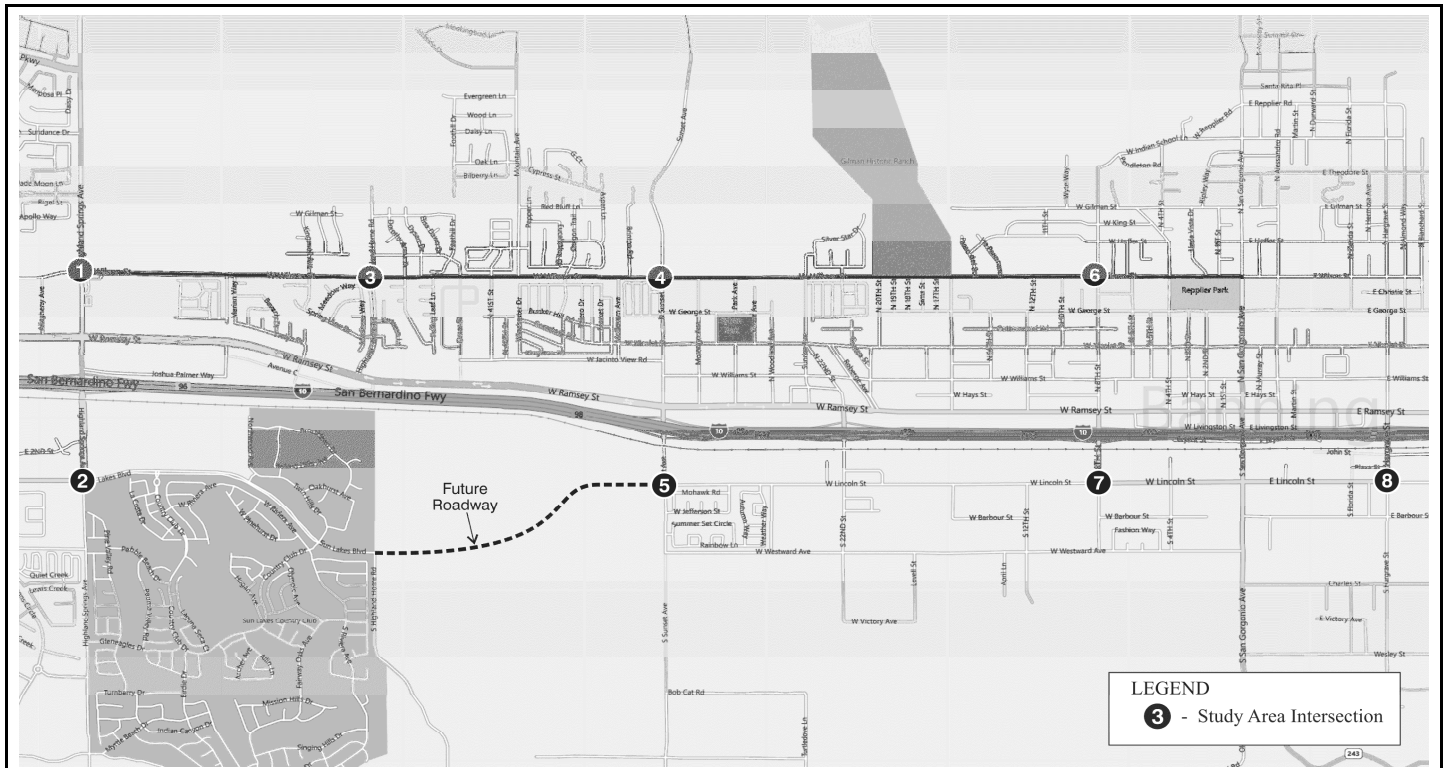


FIGURE 6

Legend

	Signal		Existing
	Stop Sign		LOS D Improvement
	Free Right		LOS C Improvement Eliminated

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Change in LOS Policy*

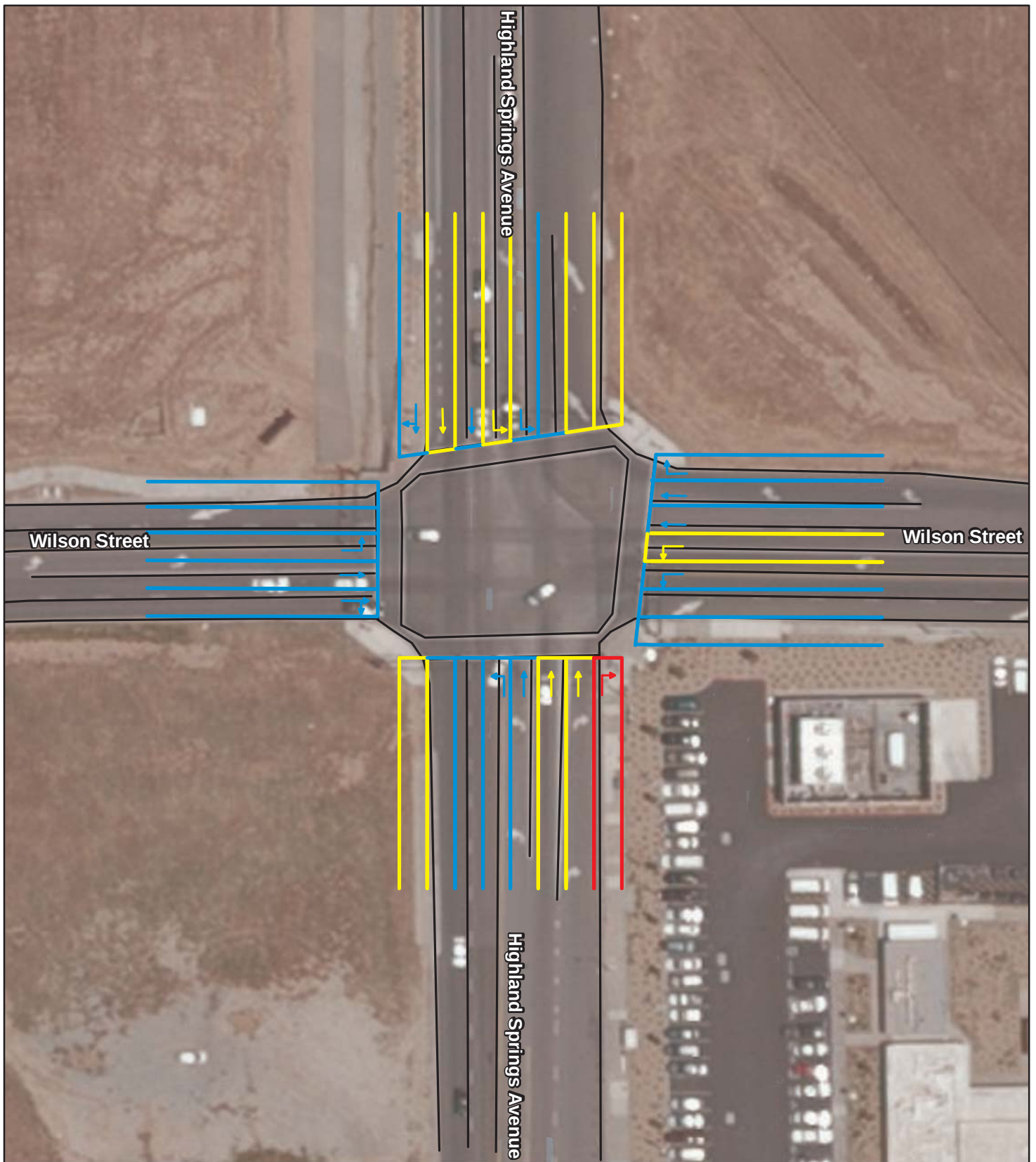
General Plan Buildout with Improvements Intersection Geometrics

The addition of these turn lanes would require approximately 12 ft of additional ROW on each side of Highland Springs Avenue, 6 ft of ROW on the north side of Sun Lakes Boulevard, 18 ft of ROW on the south side of Sun Lakes Boulevard west of Highland Springs Avenue, and 6 ft of ROW on the south side of Sun Lakes Boulevard east of Highland Springs Avenue.

- **Highland Home Road/Wilson Street:** A second northbound left-turn lane, a second southbound left-turn lane, a second eastbound left-turn lane, and a second westbound left-turn lane. The addition of these turn lanes would require approximately 6 ft of ROW on each side of Highland Home Avenue and 6 ft of ROW on each side of Wilson Street.
- **Sunset Avenue/Wilson Street:** A second northbound left-turn lane and a second eastbound left-turn lane. The addition of these turn lanes would require approximately 12 ft of additional ROW on the east side of Sunset Avenue south of Wilson Street and 12 ft of ROW on the north side of Wilson Street west of Sunset Avenue.
- **Sunset Avenue/Lincoln Street:** A designated southbound right-turn lane and a second eastbound left-turn lane. The addition of these turn lanes would approximately require 12 ft of additional ROW on the west side of Sunset Avenue north of Lincoln Street, and 12 ft of ROW on the north side of Lincoln Street west of Sunset Avenue.
- **8th Street/Wilson Street:** A northbound left-turn lane and a southbound left-turn lane. The addition of these turn lanes would require approximately 6 ft of additional ROW on each side of 8th Street.
- **8th Street/Lincoln Street:** A designated northbound right-turn lane and a designated eastbound right-turn lane. The addition of these turn lanes would require approximately 12 ft of additional ROW on the east side of 8th Street south of Lincoln Street and 12 ft of ROW on the south side of Lincoln Street west of 8th Street.
- **Hargrave Street/Lincoln Street:** A second eastbound through lane and a second westbound through lane. The addition of these turn lanes would require approximately 12 ft of additional ROW on each side of Lincoln Street. It should be noted that a second northbound through lane (i.e., a shared northbound through/right-turn lane) would not be required. A single northbound through lane with a designated northbound right-turn lane would achieve LOS D.

4.3 Conceptual Plans

In order to facilitate visualization of the extent of improvements required to maintain LOS C vs. LOS D, conceptual plans were developed for all study area intersections. Proposed improvements were overlaid on aerial base maps of each intersection location. Figures 7–14 show the existing configuration and the proposed conceptual layout of each intersection. As illustrated in these conceptual plans, if LOS D is adopted as the standard for acceptable LOS, reduced ROW and physical capacity improvements will be required in comparison to LOS criteria. It should be noted that the approach and lane alignments shown in Fig 7-14 may require additional right-of-way. The required intersection improvements and possible additional right-of-way will be monitored and implemented through a subsequent traffic fee program developed by the city. Further environmental review would be required prior to the implementation (construction) of these future intersection improvements.



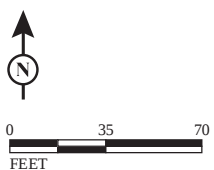
LSA

LEGEND

- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 7

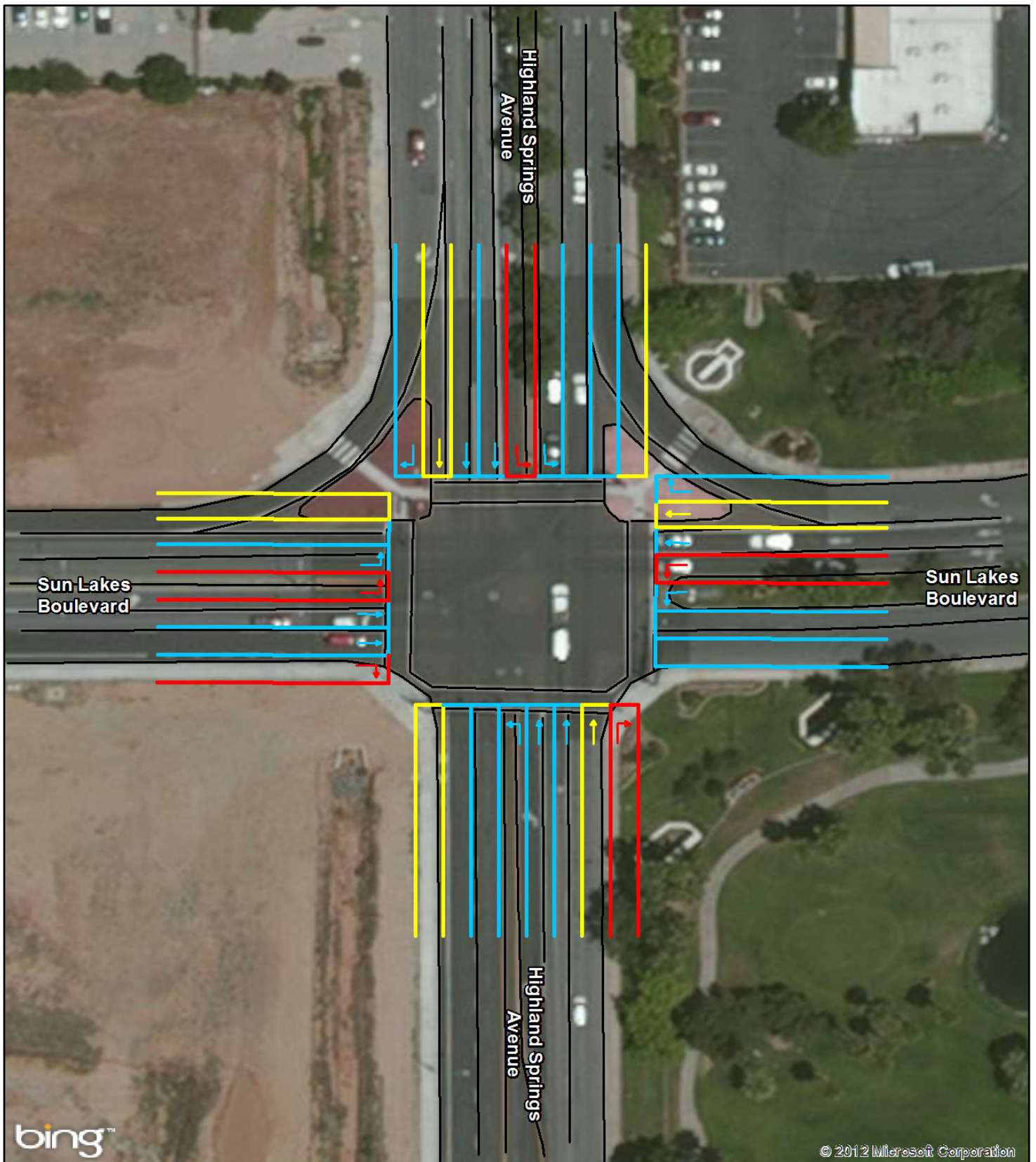


SOURCE: Aerial - Bing Maps (c.2010)

I:\COB1101\GIS\HighlandSprings_Wilson.mxd (8/7/2012)

*Banning General Plan Amendment
Change in LOS Policy*

1. Highland Springs Avenue/Wilson Street
General Plan Buildout Improvements (Conceptual Plan)



LSA

LEGEND

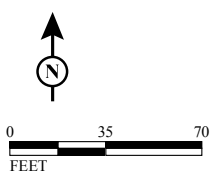
- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments may require additional Right of Way

*Banning General Plan Amendment
Change in LOS Policy*

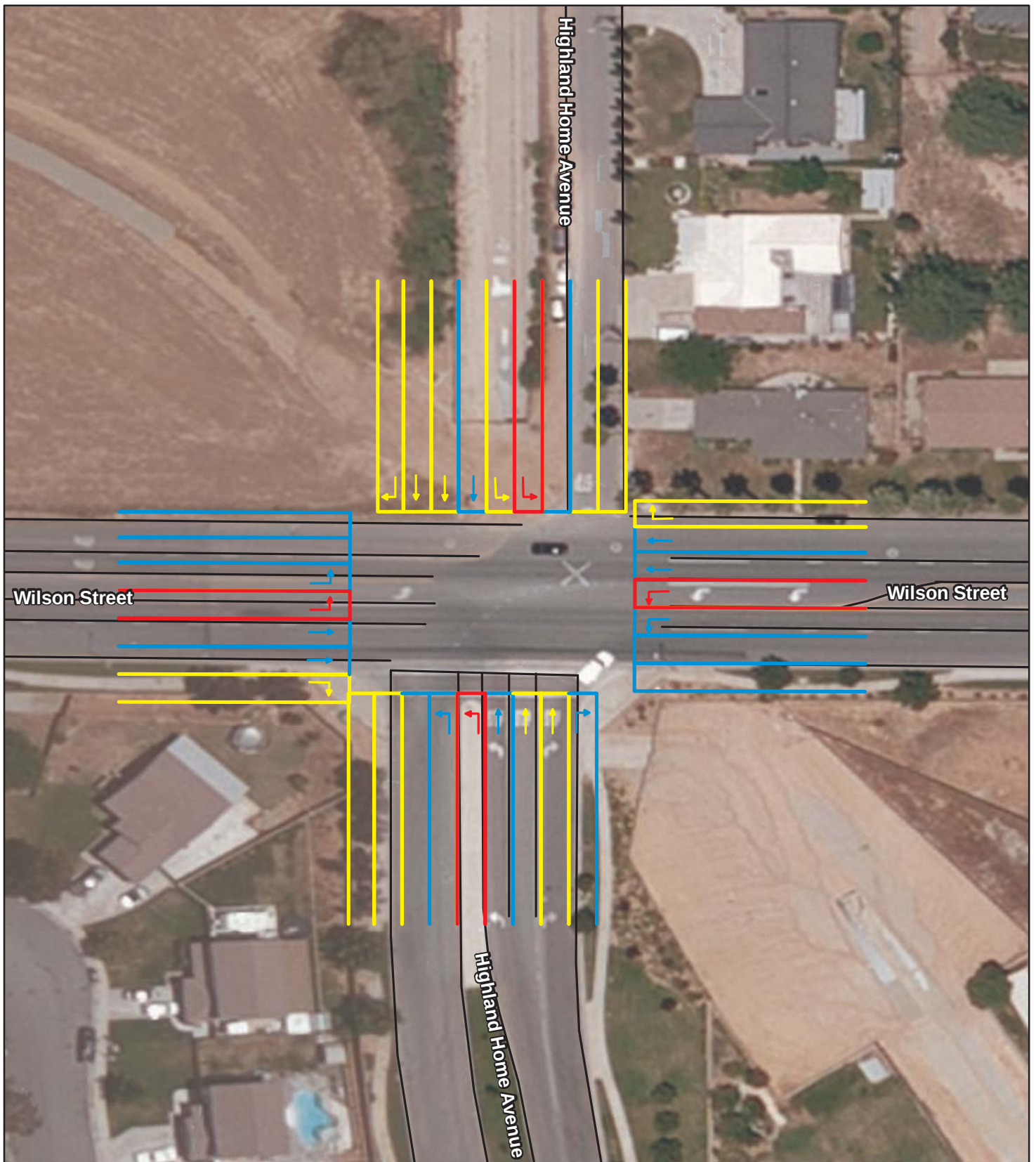
2. Highland Springs Avenue/Sun Lakes Boulevard General Plan Buildout Improvements (Conceptual Plan)

FIGURE 8



SOURCE: Aerial - Bing Maps (c.2010)

E:\COB1101\GIS\HighlandSprings_SunLakes.mxd (3/12/12)



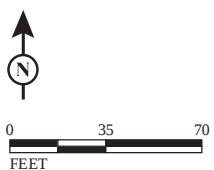
LSA

LEGEND

- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 9

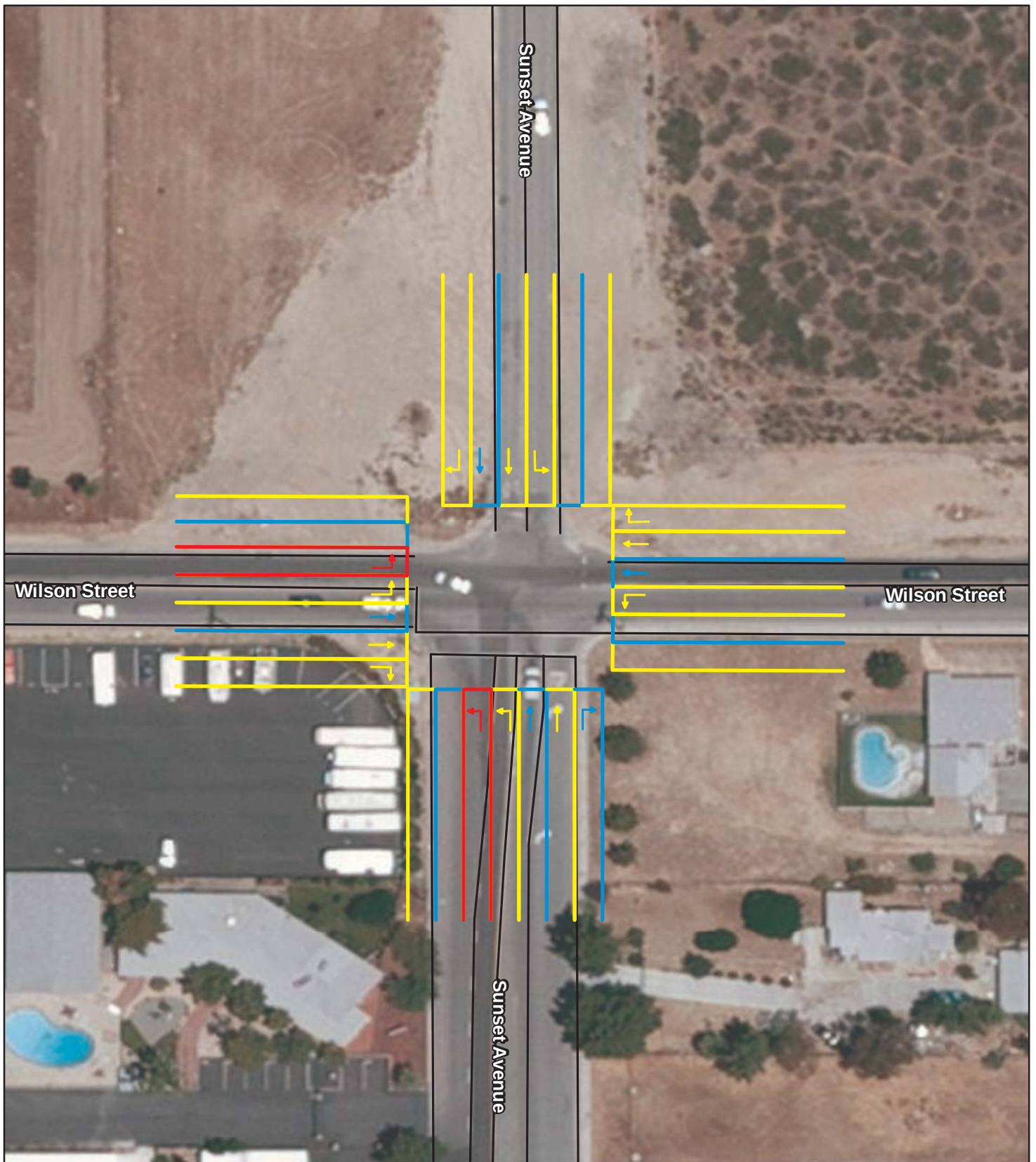


SOURCE: Aerial - Bing Maps (c.2010)

I:\COB1101\GIS\HighlandHome_Wilson.mxd (8/7/2012)

*Banning General Plan Amendment
Change in LOS Policy*

3. Highland Home Road/Wilson Street
General Plan Buildout Improvements (Conceptual Plan)



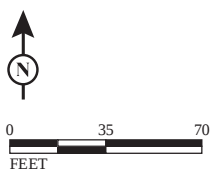
LSA

LEGEND

- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 10

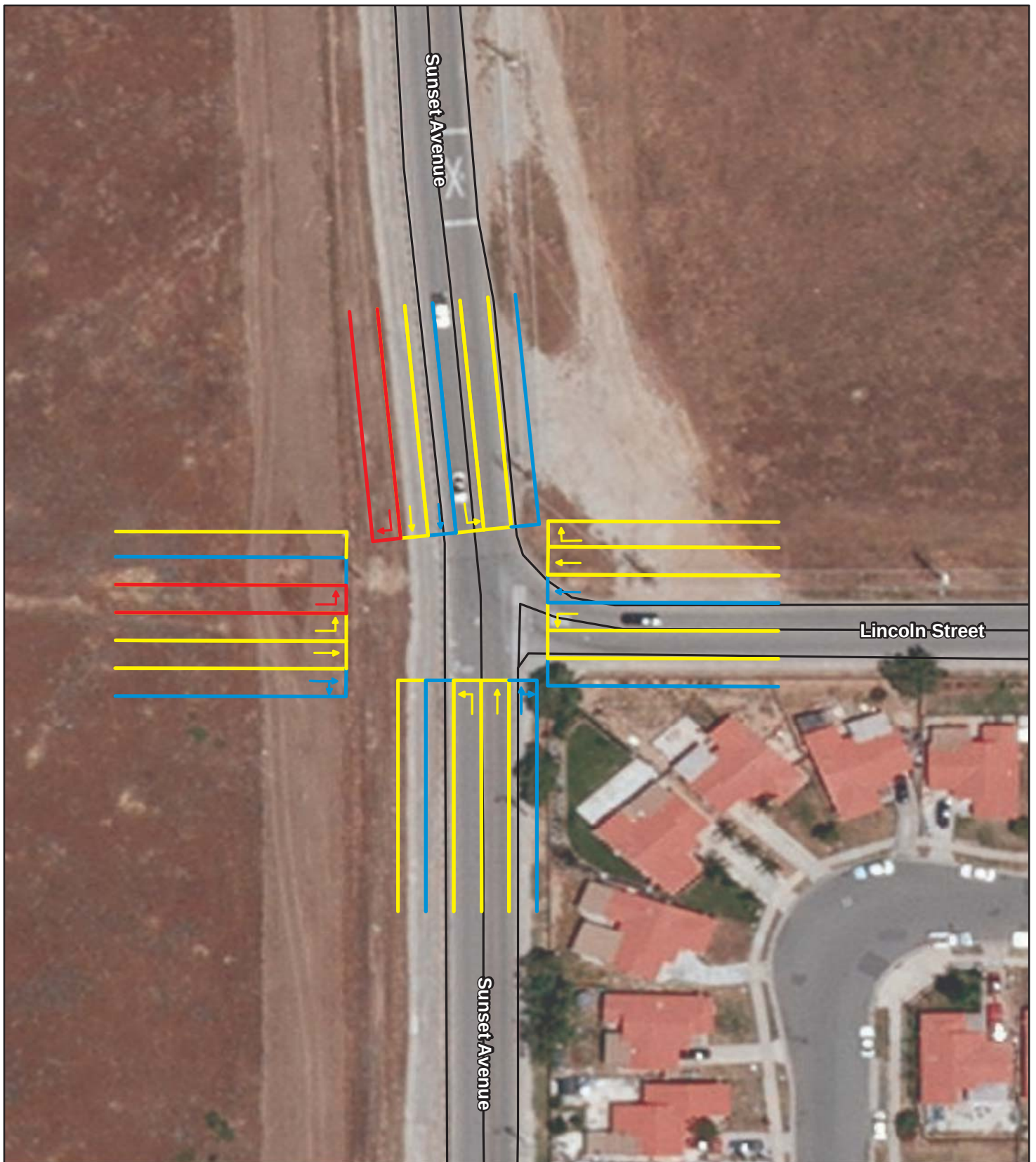


SOURCE: Aerial - Bing Maps (c.2010)

F:\COB1101\GIS\Sunset_Wilson.mxd (8/7/2012)

*Banning General Plan Amendment
Change in LOS Policy*

4. Sunset Avenue/Wilson Street
General Plan Buildout Improvements (Conceptual Plan)



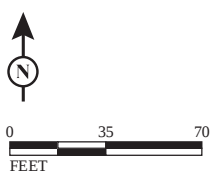
LSA

LEGEND

- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 11

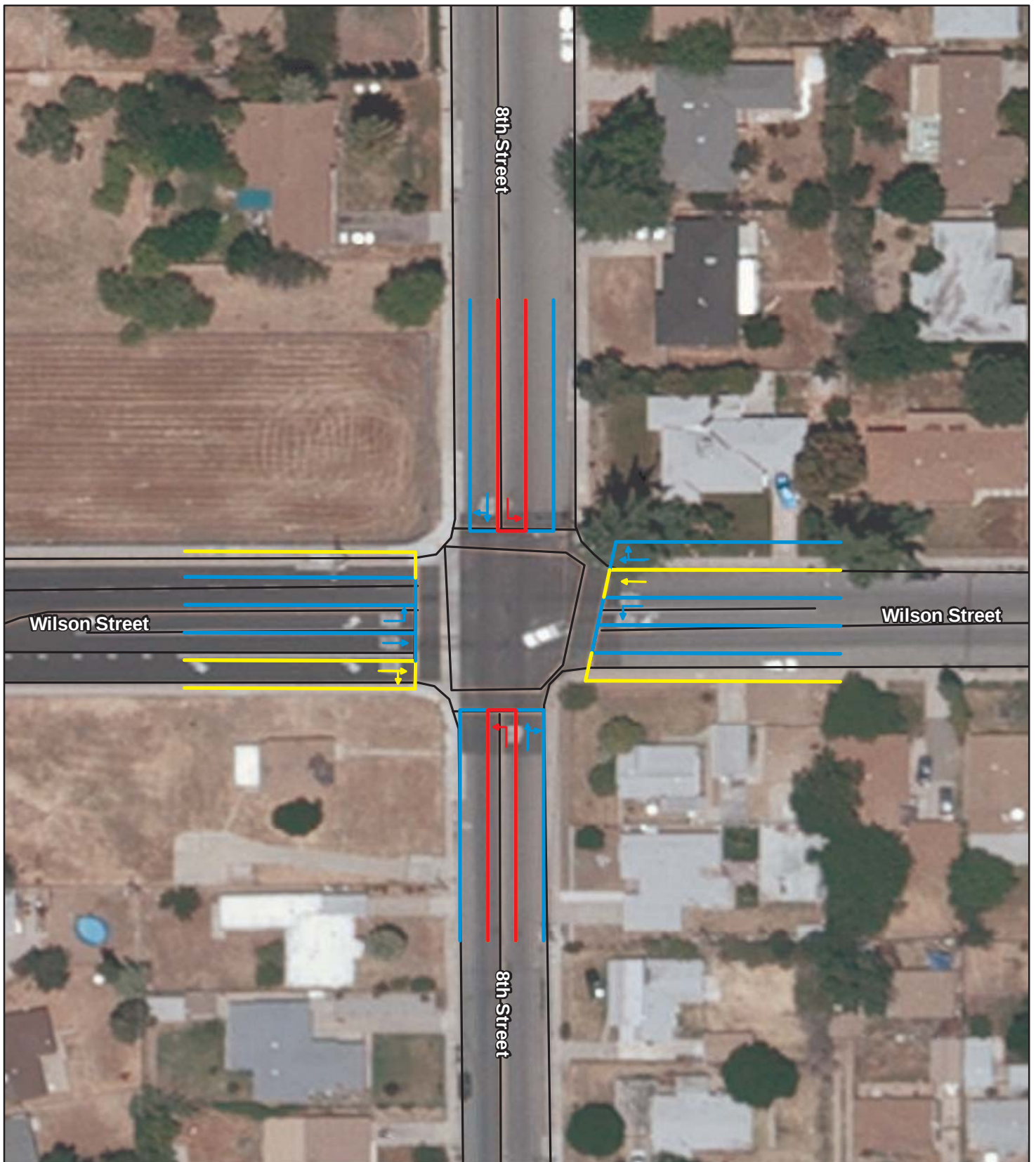


SOURCE: Aerial - Bing Maps (c.2010)

I:\COB1101\GIS\Sunset_Lincoln.mxd (8/7/2012)

*Banning General Plan Amendment
Change in LOS Policy*

5. Sunset Avenue/Lincoln Street
General Plan Buildout Improvements (Conceptual Plan)



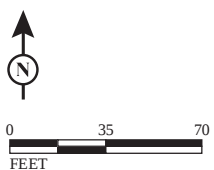
LSA

LEGEND

- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 12

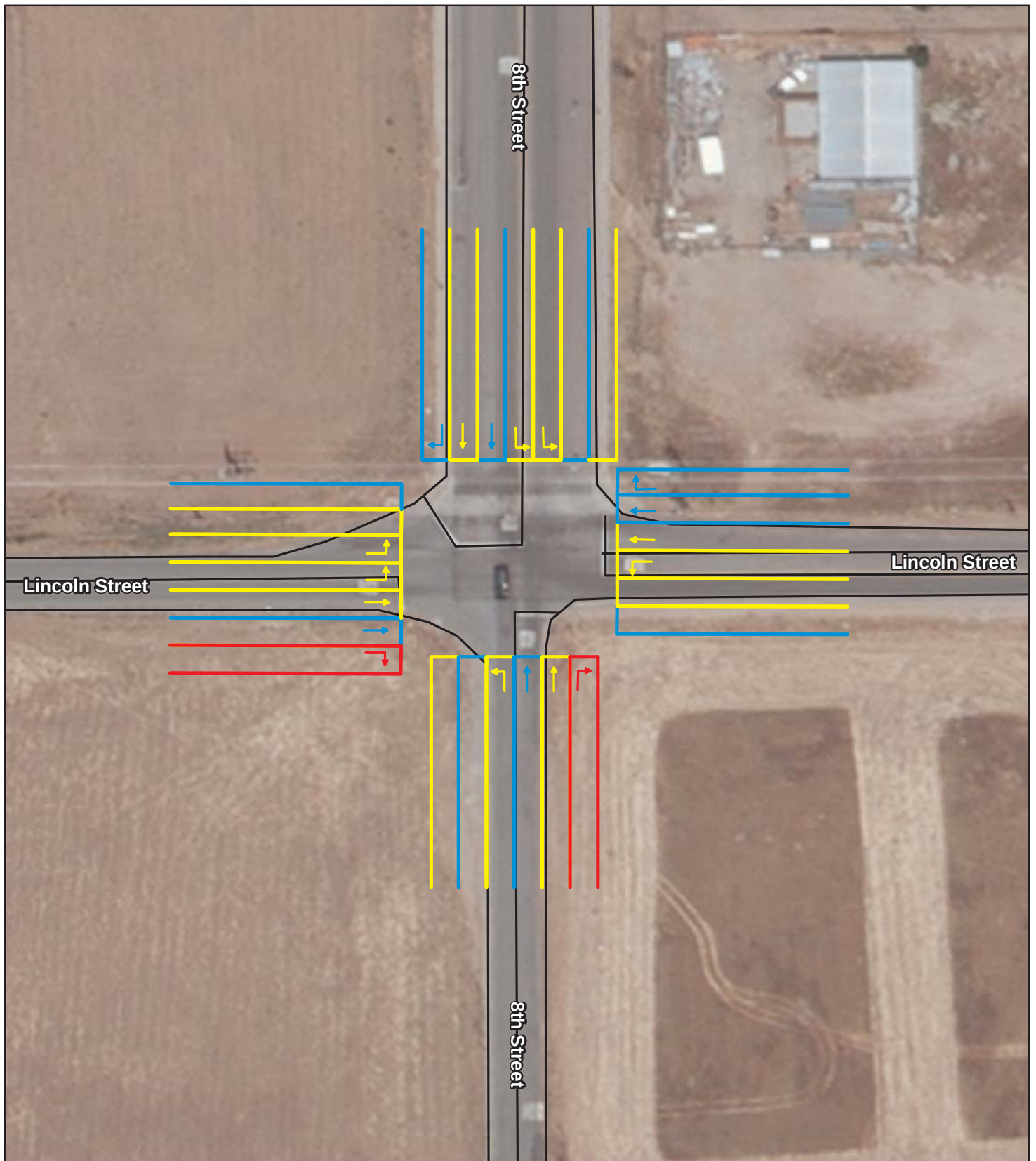


SOURCE: Aerial - Bing Maps (c.2010)

F:\COB1101\GIS\8th_Wilson.mxd (8/7/2012)

*Banning General Plan Amendment
Change in LOS Policy*

**6. 8th Street/Wilson Street
General Plan Buildout Improvements (Conceptual Plan)**



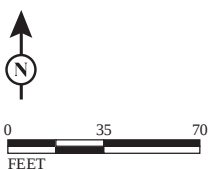
LSA

LEGEND

- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 13

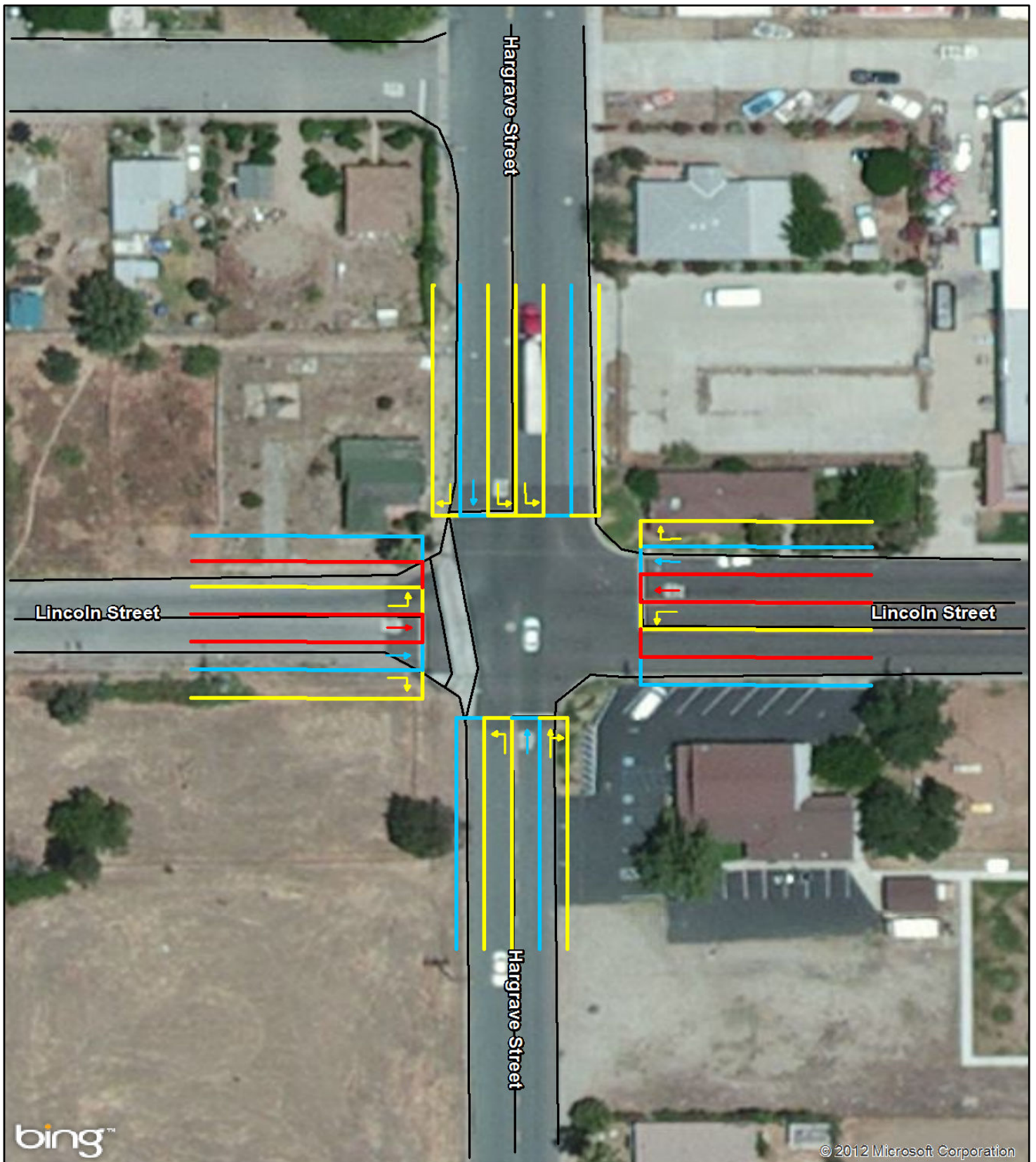


SOURCE: Aerial - Bing Maps (c.2010)

F:\COB1101\GIS\8th_Lincoln.mxd (8/7/2012)

*Banning General Plan Amendment
Change in LOS Policy*

7. 8th Street/Lincoln Street
General Plan Buildout Improvements (Conceptual Plan)



LSA

LEGEND

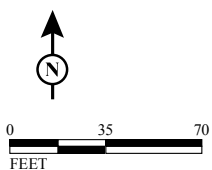
- Existing Roadway
- Existing Geometrics
- LOS D Improvement
- Additional LOS C Improvement

* Adjusting Approaches and Lane Alignments
may require additional Right of Way

FIGURE 14

*Banning General Plan Amendment
Change in LOS Policy*

8. Hargrave Street/Lincoln Street
General Plan Buildout Improvements (Conceptual Plan)



SOURCE: Aerial - Bing Maps (c.2010)

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5.0 CONCLUSION

Based on the results of this TIA, it is recommended that the City adopt the proposed change in its existing policy for acceptable LOS criteria from LOS C to LOS D for all intersections within the City. If LOS D is adopted as the acceptable LOS standard, fewer improvements and less ROW acquisition would be required to improve General Plan Buildout intersection deficiencies.

Transportation adequacy is both a technical and a public policy issue. Measuring transportation performance and adequacy also involves a policy determination regarding what level of congestion and delay is acceptable to community residents relative to the cost of reducing the congestion.

The acceptable LOS criterion for the County of Riverside is to maintain the following countywide target LOS (*Riverside County General Plan Policy C.2.1*):

LOS “C” along all County maintained roads and conventional state highways. As an exception, LOS “D” may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Urban, Expressways, conventional state highways or freeway ramp intersections. LOS “E” may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable Communities.

Per the County General Plan, the City of Banning is included in a Community Development area; thus, the applicable LOS standard for the region within the City would be LOS D. The LOS policy change from C to D would make the City’s policy consistent with the County and other jurisdictions in the region.

The City of Beaumont has established LOS D as a target LOS standard and LOS E as a threshold standard (*Circulation Element Policy 10*). The City recognizes that not all intersections within the City can meet the target LOS D. In these instances, the City Council must find that the improvements necessary to meet the target LOS D are not feasible because of one or more of the following reasons: (1) the cost of the necessary improvements exceeds available funding sources; (2) the design of the necessary improvements is not compatible with the surrounding land uses; or, (3) the design of the necessary improvements is contrary to other established City policies.

The current LOS criterion within the City of Banning includes two standards: one is LOS D for intersections along Ramsey Street and at all I-10 interchange intersections, and the second is LOS C for the remaining intersections in the City. The benefits of changing the Citywide LOS standard from LOS C (all intersections except the ones on Ramsey Street and I-10 ramps) to LOS D are listed below:

1. Consistent LOS with the City of Beaumont along the common border of Highland Springs Avenue. The City of Beaumont has established LOS D as an acceptable LOS standard, and if the City of Banning adopts the LOS D standard, the same LOS standard will then be applicable to all intersections along Highland Springs Avenue (the border between the two cities). Currently, the intersection configuration required to maintain the LOS standard at each location is different for both Cities since the LOS standard is different. The change in LOS policy (from LOS C to LOS D) will result in uniform intersection configuration at intersections along Highland Springs Avenue.

2. The change in LOS (from LOS C to LOS D) will reduce the Capital Improvement Cost and physical impact for improving an intersection to acceptable LOS per City's General Plan Policy.
3. The reduction in the Capital Improvement Cost will result in lower traffic impact fee.
4. Drivers will experience consistent LOS conditions. Without the LOS policy change, drivers would experience different LOS standards at intersections within the City. For example, if a driver traveling through the City intersections (LOS C standard) reaches an intersection along Ramsey Street or a ramp intersection (along I-10), the minor changes (increases) in delay and congestion levels that are acceptable at these locations (LOS D standard) will appear to be exaggerated (more than they really are) to the driver since he has been experiencing slightly lower levels of delay and congestion at intersections throughout the City. The change in LOS (from C to D) will eliminate this perceived exaggeration from the overall driver experience within the City.

APPENDIX A

LEVEL OF SERVICE CALCULATION WORKSHEETS

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/Wilson	C	32.2 0.778	C	32.2 0.778	+ 0.000 D/V
# 2 Highland Springs/Sun Lakes	C	27.5 0.609	C	27.5 0.609	+ 0.000 D/V
# 3 Highland Home/Wilson	F	OVRFL XXXXX	F	OVRFL XXXXX	+ 0.000 D/V
# 4 Sunset/Wilson	F	471.6 2.361	F	471.6 2.361	+ 0.000 V/C
# 5 Sunset/Lincoln	F	OVRFL 4.085	F	OVRFL 4.085	+ 0.000 D/V
# 6 8th/Wilson	F	79.1 1.289	F	79.1 1.289	+ 0.000 V/C
# 7 8th/Lincoln	F	166.5 1.725	F	166.5 1.725	+ 0.000 V/C
# 8 Hargrave/Lincoln	F	399.2 2.539	F	399.2 2.539	+ 0.000 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.778
Loss Time (sec):   16          Average Delay (sec/veh):     32.2
Optimal Cycle:     82          Level Of Service:         C
*****
Street Name:      Highland Springs          Wilson
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include           Include           Include           Include
Min. Green:       0 0 0             0 0 0             0 0 0             0 0 0
Y+R:              4.0 4.0 4.0         4.0 4.0 4.0         4.0 4.0 4.0         4.0 4.0 4.0
Lanes:            1 0 1 0 1          1 0 1 1 0          1 0 1 1 0          1 0 2 0 1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         36 589 127 161 1254 25 21 216 51 322 450 200
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      36 589 127 161 1254 25 21 216 51 322 450 200
User Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       36 589 127 161 1254 25 21 216 51 322 450 200
Reduct Vol:       0 0 0             0 0 0             0 0 0             0 0 0
Reduced Vol:      36 589 127 161 1254 25 21 216 51 322 450 200
PCE Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      36 589 127 161 1254 25 21 216 51 322 450 200
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:       0.95 1.00 0.85 0.95 0.95 0.95 0.95 0.92 0.92 0.95 0.95
Lanes:            1.00 1.00 1.00 1.00 1.96 0.04 1.00 1.62 0.38 1.00 2.00
Final Sat.:       1805 1900 1615 1805 3529 70 1805 2836 670 1805 3610
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.02 0.31 0.08 0.09 0.36 0.36 0.01 0.08 0.08 0.18 0.12
Crit Moves:       ****              ****              ****
Green/Cycle:      0.03 0.40 0.40 0.11 0.49 0.49 0.03 0.10 0.10 0.23 0.30
Volume/Cap:       0.73 0.78 0.20 0.78 0.73 0.73 0.42 0.78 0.78 0.78 0.42
Uniform Del:      48.3 26.2 19.6 43.0 20.5 20.5 47.8 44.0 44.0 36.2 28.1
IncremntDel:      43.0 5.2 0.2 17.0 1.6 1.6 5.5 10.8 10.8 9.1 0.3
InitQueueDel:     0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh:        91.3 31.4 19.8 60.0 22.1 22.1 53.3 54.8 54.8 45.2 28.3
User DelAdj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       91.3 31.4 19.8 60.0 22.1 22.1 53.3 54.8 54.8 45.2 28.3
LOS by Move:      F C B E C C D D D D C C
HCM2kAvgQ:        1 16 2 7 17 17 1 6 6 11 6 5
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.609
 Loss Time (sec): 16 Average Delay (sec/veh): 27.5
 Optimal Cycle: 58 Level Of Service: C

 Street Name: Highland Springs Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 109 833 72 199 455 32 28 100 29 116 281 291
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 109 833 72 199 455 32 28 100 29 116 281 291
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 109 833 72 199 455 0 28 100 29 116 281 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 109 833 72 199 455 0 28 100 29 116 281 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Final Volume: 109 833 72 199 455 0 28 100 29 116 281 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 1.00 0.35 0.92 0.92 0.67 1.00 1.00
 Lanes: 1.00 1.84 0.16 1.00 2.00 1.00 1.00 1.55 0.45 1.00 1.00 1.00
 Final Sat.: 1805 3283 284 1805 3610 1900 661 2703 784 1273 1900 1900
 Capacity Analysis Module:
 Vol/Sat: 0.06 0.25 0.25 0.11 0.13 0.00 0.04 0.04 0.04 0.09 0.15 0.00
 Crit Moves: ****
 Green/Cycle: 0.19 0.42 0.42 0.18 0.40 0.00 0.24 0.24 0.24 0.24 0.24 0.00
 Volume/Cap: 0.31 0.61 0.61 0.61 0.31 0.00 0.17 0.15 0.15 0.38 0.61 0.00
 Uniform Del: 34.6 22.8 22.8 37.7 20.3 0.0 29.9 29.8 29.8 31.6 33.7 0.0
 IncremntDel: 0.5 0.7 0.7 3.3 0.1 0.0 0.5 0.1 0.1 0.8 2.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 35.1 23.6 23.6 41.0 20.5 0.0 30.5 29.9 29.9 32.3 36.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 35.1 23.6 23.6 41.0 20.5 0.0 30.5 29.9 29.9 32.3 36.0 0.0
 LOS by Move: D C C D C A C C C C D A
 HCM2kAvgQ: 3 12 12 5 5 0 1 2 2 3 8 0
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #3 Highland Home/Wilson

 Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 55 274 80 282 937 175 61 404 138 345 612 135
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 55 274 80 282 937 175 61 404 138 345 612 135
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 55 274 80 282 937 175 61 404 138 345 612 135
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Volume: 55 274 80 282 937 175 61 404 138 345 612 135
 Critical Gap Module:
 Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
 FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
 Capacity Module:
 Cnflct Vol: 2060 2032 271 1831 2034 374 747 xxxx xxxxx 542 xxxx xxxxx
 Potent Cap.: 33 58 733 49 58 630 870 xxxx xxxxx 1037 xxxx xxxxx
 Move Cap.: 0 36 733 0 36 630 870 xxxx xxxxx 1037 xxxx xxxxx
 Volume/Cap: xxxx 7.63 0.11 xxxx26.15 0.28 0.07 xxxx xxxx 0.33 xxxx xxxx
 Level Of Service Module:
 2Way95thQ: xxxx 32.9 0.4 xxxx xxxx xxxxx 0.2 xxxx xxxxx 1.5 xxxx xxxxx
 Control Del:xxxxx 3200 10.5 xxxxx xxxx xxxxx 9.4 xxxx xxxxx 10.2 xxxx xxxxx
 LOS by Move: * F B * * * A * * B * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Shared LOS: * * * * * * * * * *
 ApproachDel: +Inf xxxxxx xxxxxx
 ApproachLOS: F F * *
 Note: Queue reported is the number of cars per lane.

```
-----
Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)
*****
Intersection #4 Sunset/Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      2.361
Loss Time (sec):   0           Average Delay (sec/veh):     471.6
Optimal Cycle:     0           Level Of Service:           F
*****
Street Name:      Sunset      Wilson
Approach:         North Bound  South Bound  East Bound  West Bound
Movement:         L - T - R    L - T - R    L - T - R    L - T - R
-----
Control:          Stop Sign    Stop Sign    Stop Sign    Stop Sign
Rights:           Include      Include      Include      Include
Lanes:            0 0 1! 0 0    0 0 1! 0 0    0 0 1! 0 0    0 0 1! 0 0
-----
Volume Module:
Base Vol:         92 222 56 142 606 222 165 563 255 106 266 69
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:       92 222 56 142 606 222 165 563 255 106 266 69
User Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       92 222 56 142 606 222 165 563 255 106 266 69
Reduc Vol:        0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:      92 222 56 142 606 222 165 563 255 106 266 69
PCE Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      92 222 56 142 606 222 165 563 255 106 266 69
-----
Saturation Flow Module:
Adjustment:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:            0.29 0.71 1.00 0.15 0.62 0.23 0.17 0.57 0.26 0.24 0.60 0.16
Final Sat.:       112 271 420 60 257 94 70 238 108 99 249 65
-----
Capacity Analysis Module:
Vol/Sat:          0.82 0.82 0.13 2.36 2.36 2.36 2.36 2.36 1.07 1.07 1.07
Crit Moves:       ****          ****          ****
Delay/Veh:        43.2 43.2 12.6 639.0 639 639.0 638.9 639 638.9 93.8 93.8 93.8
Delay Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       43.2 43.2 12.6 639.0 639 639.0 638.9 639 638.9 93.8 93.8 93.8
LOS by Move:      E E B F F F F F F F F F
ApproachDel:      38.6          639.0          638.9          93.8
Delay Adj:        1.00          1.00          1.00          1.00
ApprAdjDel:       38.6          639.0          638.9          93.8
LOS by Appr:      E          F          F          F
AllWayAvgQ:       3.3 3.3 0.2 71.6 71.6 71.6 72.5 72.5 72.5 9.4 9.4 9.4
*****
Note: Queue reported is the number of cars per lane.
*****
```

```
-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #5 Sunset/Lincoln
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name:      Sunset      Lincoln
Approach:         North Bound  South Bound  East Bound  West Bound
Movement:         L - T - R    L - T - R    L - T - R    L - T - R
-----
Control:          Uncontrolled  Uncontrolled  Stop Sign    Stop Sign
Rights:           Include      Include      Include      Include
Lanes:            0 0 1! 0 0    0 0 1! 0 0    0 0 1! 0 0    0 0 1! 0 0
-----
Volume Module:
Base Vol:         54 367 29 110 221 131 258 228 29 14 142 65
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:       54 367 29 110 221 131 258 228 29 14 142 65
User Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       54 367 29 110 221 131 258 228 29 14 142 65
Reduct Vol:       0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:      54 367 29 110 221 131 258 228 29 14 142 65
-----
Critical Gap Module:
Critical Gap:      4.1 xxxxx xxxxx 4.1 xxxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim:       2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----
Capacity Module:
Cnflct Vol:       352 xxxxx xxxxx 396 xxxxx xxxxx 1100 1011 287 1125 1062 382
Potent Cap.:      1218 xxxxx xxxxx 1174 xxxxx xxxxx 191 242 757 184 225 670
Move Cap.:        1218 xxxxx xxxxx 1174 xxxxx xxxxx 63 208 757 0 194 670
Volume/Cap:       0.04 xxxxx xxxxx 0.09 xxxxx xxxxx 4.08 1.10 0.04 xxxxx 0.73 0.10
-----
Level Of Service Module:
2Way95thQ:        0.1 xxxxx xxxxx 0.3 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del:      8.1 xxxxx xxxxx 8.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move:      A * * A * * * * * * * *
Movement:         LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:      xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 99 xxxxx xxxxx 0 xxxxx
SharedQueue:      xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 55.5 xxxxx xxxxx xxxxx xxxxx
Shrd ConDel:      xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1985 xxxxx xxxxx xxxxx xxxxx
Shared LOS:       * * xxxxx * * * * F * * * *
ApproachDel:      xxxxxx xxxxxx 1985.3 xxxxxx
ApproachLOS:      * * * * F * *
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #6 8th/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.289
 Loss Time (sec): 0 Average Delay (sec/veh): 79.1
 Optimal Cycle: 0 Level Of Service: F

 Street Name: 8th Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 124 61 30 180 208 74 36 583 162 53 265 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 124 61 30 180 208 74 36 583 162 53 265 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 124 61 30 180 208 74 36 583 162 53 265 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 124 61 30 180 208 74 36 583 162 53 265 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 124 61 30 180 208 74 36 583 162 53 265 44
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.58 0.28 0.14 0.39 0.45 0.16 1.00 1.00 1.00 1.00 0.86 0.14
 Final Sat.: 238 117 57 185 214 76 423 452 495 400 367 61
 Capacity Analysis Module:
 Vol/Sat: 0.52 0.52 0.52 0.97 0.97 0.97 0.09 1.29 0.33 0.13 0.72 0.72
 Crit Moves: ****
 Delay/Veh: 20.0 20.0 20.0 61.7 61.7 61.7 11.9 170 13.4 12.9 28.8 28.8
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 20.0 20.0 20.0 61.7 61.7 61.7 11.9 170 13.4 12.9 28.8 28.8
 LOS by Move: C C F F B F B D
 ApproachDel: 20.0 61.7 129.9 26.5
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 20.0 61.7 129.9 26.5
 LOS by Appr: C F F D
 AllWayAvgQ: 1.0 1.0 1.0 6.7 6.7 6.7 0.1 20.0 0.5 0.1 2.1 2.1
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #7 8th/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.725
 Loss Time (sec): 0 Average Delay (sec/veh): 166.5
 Optimal Cycle: 0 Level Of Service: F

 Street Name: 8th Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 1 0 0 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 24 232 55 531 158 64 62 238 20 12 114 528
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 24 232 55 531 158 64 62 238 20 12 114 528
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 24 232 55 531 158 64 62 238 20 12 114 528
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 24 232 55 531 158 64 62 238 20 12 114 528
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 24 232 55 531 158 64 62 238 20 12 114 528
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.08 0.74 0.18 0.77 0.23 1.00 0.19 0.75 0.06 0.10 0.90 1.00
 Final Sat.: 30 288 68 308 92 454 75 287 24 40 376 455
 Capacity Analysis Module:
 Vol/Sat: 0.80 0.80 0.80 1.72 1.72 0.14 0.83 0.83 0.83 0.30 0.30 1.16
 Crit Moves: ****
 Delay/Veh: 40.1 40.1 40.1 358.1 358 11.9 43.3 43.3 43.3 15.1 15.1 120.5
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 40.1 40.1 40.1 358.1 358 11.9 43.3 43.3 43.3 15.1 15.1 120.5
 LOS by Move: E E F F B E E C C F
 ApproachDel: 40.1 328.7 43.3 100.2
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 40.1 328.7 43.3 100.2
 LOS by Appr: E F E F
 AllWayAvgQ: 3.0 3.0 3.0 38.4 38.4 0.2 3.3 3.3 3.3 0.4 0.4 13.9
 Note: Queue reported is the number of cars per lane.

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Tue Jan 10, 2012 13:10:34

Page 10-1

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)
*****
Intersection #8 Hargrave/Lincoln
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      2.539
Loss Time (sec):   0           Average Delay (sec/veh):     399.2
Optimal Cycle:     0           Level Of Service:           F
*****
Street Name:      Hargrave          Lincoln
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:       0 0 0 0         0 0 0 0         0 0 0 0         0 0 0 0
Lanes:            0 0 1! 0 0       0 0 1! 0 0       0 0 1! 0 0       0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:         14 154 25 865 250 77 90 244 57 8 115 354
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      14 154 25 865 250 77 90 244 57 8 115 354
User Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       14 154 25 865 250 77 90 244 57 8 115 354
Reduct Vol:       0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:      14 154 25 865 250 77 90 244 57 8 115 354
PCE Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      14 154 25 865 250 77 90 244 57 8 115 354
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:            0.07 0.80 0.13 0.73 0.21 0.06 0.23 0.62 0.15 0.02 0.24 0.74
Final Sat.:       29 318 52 341 98 30 105 284 66 8 120 370
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.48 0.48 0.48 2.54 2.54 2.54 0.86 0.86 0.86 0.96 0.96 0.96
Crit Moves:       ****          ****          ****          ****
Delay/Veh:        18.7 18.7 18.7 715.6 716 715.6 40.5 40.5 40.5 56.4 56.4 56.4
Delay Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       18.7 18.7 18.7 715.6 716 715.6 40.5 40.5 40.5 56.4 56.4 56.4
LOS by Move:      C C C F F F E E E F F F
ApproachDel:      18.7          715.6          40.5          56.4
Delay Adj:        1.00          1.00          1.00          1.00
ApprAdjDel:       18.7          715.6          40.5          56.4
LOS by Appr:      C          F          E          F
AllWayAvgQ:       0.8 0.8 0.8 91.9 91.9 91.9 3.8 3.8 3.8 6.4 6.4 6.4
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Highland Springs/Wilson	F 188.8	1.613	F 188.8	1.613	+ 0.000 D/V
# 2 Highland Springs/Sun Lakes	F 120.5	1.415	F 120.5	1.415	+ 0.000 D/V
# 3 Highland Home/Wilson	F OVRFL	XXXXX	F OVRFL	XXXXX	+ 0.000 D/V
# 4 Sunset/Wilson	F 925.1	3.616	F 925.1	3.616	+ 0.000 V/C
# 5 Sunset/Lincoln	F OVRFL	XXXXX	F OVRFL	XXXXX	+ 0.000 D/V
# 6 8th/Wilson	F 545.6	3.025	F 545.6	3.025	+ 0.000 V/C
# 7 8th/Lincoln	F 756.3	3.566	F 756.3	3.566	+ 0.000 V/C
# 8 Hargrave/Lincoln	F 947.2	4.166	F 947.2	4.166	+ 0.000 V/C

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/Wilson
*****

Cycle (sec):      100          Critical Vol./Cap.(X):      1.613
Loss Time (sec):   16          Average Delay (sec/veh):     188.8
Optimal Cycle:     180          Level Of Service:         F
*****

Street Name:      Highland Springs          Wilson
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Include          Include          Include          Include
Min. Green:       0    0    0          0    0    0          0    0    0          0    0    0
Y+R:              4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0          4.0  4.0  4.0
Lanes:            1    0    1    0    1          1    0    1    1    0          1    0    1    1    0          1    0    2    0    1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         84 1546          356          371 1217          44          51 702          71          214 619          356
Growth Adj:       1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
Initial Bse:      84 1546          356          371 1217          44          51 702          71          214 619          356
User Adj:         1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
PHF Adj:          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
PHF Volume:       84 1546          356          371 1217          44          51 702          71          214 619          356
Reduct Vol:       0    0    0          0    0    0          0    0    0          0    0    0          0
Reduced Vol:      84 1546          356          371 1217          44          51 702          71          214 619          356
PCE Adj:          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
MLF Adj:          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
FinalVolume:      84 1546          356          371 1217          44          51 702          71          214 619          356
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900          1900          1900 1900          1900          1900 1900          1900          1900 1900          1900
Adjustment:       0.95 1.00          0.85          0.95 0.95          0.95          0.95 0.94          0.94          0.95 0.95          0.85
Lanes:            1.00 1.00          1.00          1.00 1.93          0.07          1.00 1.82          0.18          1.00 2.00          1.00
Final Sat.:      1805 1900          1615          1805 3467          125          1805 3233          327          1805 3610          1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.05 0.81          0.22          0.21 0.35          0.35          0.03 0.22          0.22          0.12 0.17          0.22
Crit Moves:       ****              ****              ****              ****
Green/Cycle:      0.07 0.50          0.50          0.13 0.56          0.56          0.02 0.13          0.13          0.07 0.18          0.18
Volume/Cap:       0.63 1.61          0.44          1.61 0.63          0.63          1.19 1.61          1.61          1.61 0.93          1.19
Uniform Del:      45.0 24.8          15.8          43.6 15.1          15.1          48.8 43.3          43.3          46.3 40.1          40.8
IncremntDel:      9.3 281          0.4 295.1          0.6          0.6 200.7          285 285.4          307.9 19.5          115.7
InitQueueDel:     0.0 0.0          0.0          0.0 0.0          0.0          0.0 0.0          0.0          0.0 0.0          0.0
Delay Adj:         1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
Delay/Veh:        54.2 306          16.1 338.7          15.7          15.7 249.5          329 328.7          354.2 59.7          156.5
User DelAdj:      1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
AdjDel/Veh:       54.2 306          16.1 338.7          15.7          15.7 249.5          329 328.7          354.2 59.7          156.5
LOS by Move:      D    F    B          F    B    B          F    F    F          F    E    F
HCM2kAvgQ:        2 117          6          30 14          14          5 33          33          18 14          21
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap. (X): 1.415
 Loss Time (sec): 16 Average Delay (sec/veh): 120.5
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Permitted Permitted
 Rights: Include Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0 1 0 1 0 1
 Volume Module:
 Base Vol: 97 471 188 272 957 76 77 1273 163 206 1180 200
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 97 471 188 272 957 76 77 1273 163 206 1180 200
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 97 471 188 272 957 0 77 1273 163 206 1180 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 97 471 188 272 957 0 77 1273 163 206 1180 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 97 471 188 272 957 0 77 1273 163 206 1180 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.91 0.95 0.95 1.00 0.07 0.93 0.93 0.13 1.00 1.00
 Lanes: 1.00 1.43 0.57 1.00 2.00 1.00 1.00 1.77 0.23 1.00 1.00 1.00
 Final Sat.: 1805 2469 986 1805 3610 1900 127 3146 403 243 1900 1900
 Capacity Analysis Module:
 Vol/Sat: 0.05 0.19 0.19 0.15 0.27 0.00 0.60 0.40 0.40 0.85 0.62 0.00
 Crit Moves: ****
 Green/Cycle: 0.04 0.13 0.13 0.11 0.20 0.00 0.60 0.60 0.60 0.60 0.60 0.00
 Volume/Cap: 1.32 1.41 1.41 1.41 1.32 0.00 1.01 0.68 0.68 1.41 1.04 0.00
 Uniform Del: 48.0 43.3 43.3 44.7 40.0 0.0 20.1 13.5 13.5 20.1 20.1 0.0
 IncremntDel: 213.0 199 199.0 214.5 154 0.0 106.0 0.9 0.9 222.1 36.9 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 260.9 242 242.3 259.2 194 0.0 126.0 14.4 14.4 242.2 56.9 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 260.9 242 242.3 259.2 194 0.0 126.0 14.4 14.4 242.2 56.9 0.0
 LOS by Move: F F F F F A F B B F E A
 HCM2kAvgQ: 8 25 25 18 30 0 5 16 16 16 48 0
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #3 Highland Home/Wilson

 Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 Critical Gap Module:
 Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
 FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
 Capacity Module:
 Cnflct Vol: 2835 3379 581 2993 3115 766 1531 xxxx xxxxx 1162 xxxx xxxxx
 Potent Cap.: 8 8 462 6 12 350 441 xxxx xxxxx 608 xxxx xxxxx
 Move Cap.: 0 3 462 0 5 350 441 xxxx xxxxx 608 xxxx xxxxx
 Volume/Cap: xxxx xxxx 0.75 xxxx xxxx 0.30 0.43 xxxx xxxx 0.30 xxxx xxxx
 Level Of Service Module:
 2Way95thQ: xxxx 132 6.2 xxxx xxxx xxxxx 2.1 xxxx xxxxx 1.3 xxxx xxxxx
 Control Del:xxxxx xxxx 32.4 xxxxx xxxx xxxxx 19.1 xxxx xxxxx 13.5 xxxx xxxxx
 LOS by Move: * F D * * * C * * B * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shared LOS: * * xxx * * * * * * * *
 ApproachDel: +Inf xxxxxx xxxxxx
 ApproachLOS: F F * *
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #4 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 3.616
Loss Time (sec): 0 Average Delay (sec/veh): 925.1
Optimal Cycle: 0 Level Of Service: F

Street Name: Sunset Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 305 739 149 145 392 290 323 817 184 70 1189 178
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 305 739 149 145 392 290 323 817 184 70 1189 178
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 305 739 149 145 392 290 323 817 184 70 1189 178
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 305 739 149 145 392 290 323 817 184 70 1189 178
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 305 739 149 145 392 290 323 817 184 70 1189 178
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.29 0.71 1.00 0.18 0.47 0.35 0.24 0.62 0.14 0.05 0.83 0.12
Final Sat.: 112 271 420 70 189 140 97 244 55 19 329 49
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 2.73 2.73 0.35 2.08 2.08 3.34 3.34 3.34 3.62 3.62 3.62
Crit Moves: ****
Delay/Veh: 804.7 805 15.9 514.2 514 514.2 1079 1079 1079 1202 1202 1202
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 804.7 805 15.9 514.2 514 514.2 1079 1079 1079 1202 1202 1202
LOS by Move: F F C F F F F F F F F F
ApproachDel: 706.2 514.2 1079.0 1201.6
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 706.2 514.2 1079.0 1201.6
LOS by Appr: F F F F
AllWayAvgQ: 84.2 84.2 0.5 55.5 55.5 55.5 117 117 117.4 131 131 131.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Sunset/Lincoln

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 101 371 21 178 463 436 341 1100 71 25 1175 175
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 101 371 21 178 463 436 341 1100 71 25 1175 175
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 101 371 21 178 463 436 341 1100 71 25 1175 175
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 101 371 21 178 463 436 341 1100 71 25 1175 175
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 899 xxxx xxxx 392 xxxx xxxx 2296 1631 681 2206 1839 382
Potent Cap.: 764 xxxx xxxx 1178 xxxx xxxx 28 103 454 32 76 670
Move Cap.: 764 xxxx xxxx 1178 xxxx xxxx 0 73 454 0 55 670
Volume/Cap: 0.13 xxxx xxxx 0.15 xxxx xxxx xxxx14.99 0.16 xxxx21.49 0.26
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.5 xxxx xxxx 0.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Control Del: 10.4 xxxx xxxx 8.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move: B * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 0 xxxx xxxx 0 xxxx
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx
ApproachLOS: * * F F

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 8th/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 3.025
Loss Time (sec): 0 Average Delay (sec/veh): 545.6
Optimal Cycle: 0 Level Of Service: F

Street Name: 8th Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 0 1 0
-----|-----|-----|-----|

Volume Module:
Base Vol: 66 207 58 136 108 50 77 830 58 60 1140 183
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 66 207 58 136 108 50 77 830 58 60 1140 183
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 66 207 58 136 108 50 77 830 58 60 1140 183
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 66 207 58 136 108 50 77 830 58 60 1140 183
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 66 207 58 136 108 50 77 830 58 60 1140 183
-----|-----|-----|-----|

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.20 0.63 0.17 0.46 0.37 0.17 1.00 1.00 1.00 1.00 0.86 0.14
Final Sat.: 85 266 74 191 151 70 410 434 474 408 377 60
-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.78 0.78 0.78 0.71 0.71 0.71 0.19 1.91 0.12 0.15 3.03 3.03
Crit Moves: ****

Delay/Veh: 34.4 34.4 34.4 29.4 29.4 29.4 13.5 438 11.3 13.0 934 934.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.4 34.4 34.4 29.4 29.4 29.4 13.5 438 11.3 13.0 934 934.4
LOS by Move: D D D D B F B F F
ApproachDel: 34.4 29.4 378.4 894.4
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 34.4 29.4 378.4 894.4
LOS by Appr: D D F F
AllWayAvgQ: 2.7 2.7 2.7 2.0 2.0 2.0 0.2 51.5 0.1 0.2 112 112.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 8th/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 3.566
Loss Time (sec): 0 Average Delay (sec/veh): 756.3
Optimal Cycle: 0 Level Of Service: F

Street Name: 8th Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 1 0 0 1 0 0 1 0
-----|-----|-----|-----|

Volume Module:
Base Vol: 88 305 46 514 326 227 494 689 134 46 1198 458
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 88 305 46 514 326 227 494 689 134 46 1198 458
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 88 305 46 514 326 227 494 689 134 46 1198 458
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 88 305 46 514 326 227 494 689 134 46 1198 458
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 88 305 46 514 326 227 494 689 134 46 1198 458
-----|-----|-----|-----|

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.20 0.70 0.10 0.61 0.39 1.00 0.38 0.52 0.10 0.04 0.96 1.00
Final Sat.: 74 258 39 230 146 420 139 193 38 14 373 420
-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 1.18 1.18 1.18 2.23 2.23 0.54 3.57 3.57 3.57 3.21 3.21 1.09
Crit Moves: ****

Delay/Veh: 136.7 137 136.7 584.4 584 20.9 1179 1179 1179 1019 1019 99.5
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 136.7 137 136.7 584.4 584 20.9 1179 1179 1179 1019 1019 99.5
LOS by Move: F F F F C F F F F F F
ApproachDel: 136.7 464.5 1179.1 771.9
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 136.7 464.5 1179.1 771.9
LOS by Appr: F F F F
AllWayAvgQ: 12.8 12.8 12.8 59.8 59.8 1.1 120 120 119.7 108 108 10.3

Note: Queue reported is the number of cars per lane.

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Tue Jan 10, 2012 13:11:08

Page 10-1

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)
*****
Intersection #8 Hargrave/Lincoln
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      4.166
Loss Time (sec):   0           Average Delay (sec/veh):     947.2
Optimal Cycle:     0           Level Of Service:           F
*****
Street Name:      Hargrave          Lincoln
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:       0 0 0 0         0 0 0 0         0 0 0 0         0 0 0 0
Lanes:            0 0 1! 0 0       0 0 1! 0 0       0 0 1! 0 0       0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:         143 195 23 577 211 940 309 397 86 56 275 826
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      143 195 23 577 211 940 309 397 86 56 275 826
User Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       143 195 23 577 211 940 309 397 86 56 275 826
Reduct Vol:       0 0 0 0         0 0 0 0         0 0 0 0         0 0 0 0
Reduced Vol:      143 195 23 577 211 940 309 397 86 56 275 826
PCE Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      143 195 23 577 211 940 309 397 86 56 275 826
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           0.40 0.54 0.06 0.33 0.12 0.55 0.39 0.50 0.11 0.05 0.24 0.71
Final Sat.:       156 212 25 139 51 226 157 202 44 20 100 302
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.92 0.92 0.92 4.17 4.17 4.17 1.97 1.97 1.97 2.74 2.74 2.74
Crit Moves:       ****          ****          ****          ****
Delay/Veh:        58.1 58.1 58.1 1448 1448 1448 465.6 466 465.6 806.9 807 806.9
Delay Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       58.1 58.1 58.1 1448 1448 1448 465.6 466 465.6 806.9 807 806.9
LOS by Move:      F F F F F F F F F F F F
ApproachDel:      58.1          1447.7          465.6          806.9
Delay Adj:        1.00          1.00          1.00          1.00
ApprAdjDel:       58.1          1447.7          465.6          806.9
LOS by Appr:      F          F          F          F
AllWayAvgQ:       5.0 5.0 5.0 165 165 165.5 50.7 50.7 50.7 93.4 93.4 93.4
*****
Note: Queue reported is the number of cars per lane.
*****
```

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/Wilson	C	25.2 0.518	C	25.2 0.518	+ 0.000 D/V
# 2 Highland Springs/Sun Lakes	C	28.9 0.483	C	28.9 0.483	+ 0.000 D/V
# 3 Highland Home/Wilson	C	28.1 0.484	C	28.1 0.484	+ 0.000 D/V
# 4 Sunset/Wilson	C	26.9 0.497	C	26.9 0.497	+ 0.000 D/V
# 5 Sunset/Lincoln	C	28.7 0.339	C	28.7 0.339	+ 0.000 D/V
# 6 8th/Wilson	C	29.4 0.555	C	29.4 0.555	+ 0.000 D/V
# 7 8th/Lincoln	C	23.9 0.487	C	23.9 0.487	+ 0.000 D/V
# 8 Hargrave/Lincoln	C	23.7 0.452	C	23.7 0.452	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.518
Loss Time (sec):   16          Average Delay (sec/veh):     25.2
Optimal Cycle:     50          Level Of Service:          C
*****
Street Name:      Highland Springs          Wilson
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Ovl              Include          Include          Ovl
Min. Green:       0 0 0            0 0 0            0 0 0            0 0 0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            1 0 3 0 1          2 0 2 1 0          1 0 1 1 0          2 0 2 0 1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         36 589 127        161 1254 25 21 216 51 322 450 200
Growth Adj:       1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      36 589 127        161 1254 25 21 216 51 322 450 200
User Adj:         1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       36 589 127        161 1254 25 21 216 51 322 450 200
Reduct Vol:       0 0 0            0 0 0            0 0 0            0 0 0
Reduced Vol:      36 589 127        161 1254 25 21 216 51 322 450 200
PCE Adj:          1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      36 589 127        161 1254 25 21 216 51 322 450 200
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900      1900 1900 1900 1900 1900 1900 1900
Adjustment:       0.95 0.91 0.85        0.92 0.91 0.91 0.95 0.92 0.92 0.92 0.95 0.85
Lanes:            1.00 3.00 1.00        2.00 2.94 0.06 1.00 1.62 0.38 2.00 2.00 1.00
Final Sat.:       1805 5187 1615      3502 5070 101 1805 2836 670 3502 3610 1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.02 0.11 0.08        0.05 0.25 0.25 0.01 0.08 0.08 0.09 0.12 0.12
Crit Moves:       ****              ****              ****              ****
Green/Cycle:      0.04 0.37 0.54        0.15 0.48 0.48 0.03 0.15 0.15 0.18 0.30 0.45
Volume/Cap:       0.52 0.31 0.14        0.31 0.52 0.52 0.42 0.52 0.52 0.52 0.42 0.28
Uniform Del:      47.2 22.6 11.3        38.0 18.2 18.2 47.8 39.4 39.4 37.3 28.3 17.6
IncremntDel:      6.7 0.1 0.1          0.3 0.2 0.2 5.6 0.9 0.9 0.8 0.3 0.2
InitQueueDel:     0.0 0.0 0.0          0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh:        53.9 22.7 11.3        38.3 18.4 18.4 53.4 40.3 40.3 38.0 28.5 17.8
User DelAdj:      1.00 1.00 1.00        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       53.9 22.7 11.3        38.3 18.4 18.4 53.4 40.3 40.3 38.0 28.5 17.8
LOS by Move:      D C B              D B B              D D D              D C B
HCM2kAvgQ:        1 5 2              2 10 10 1 5 5 5 6 4
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.483
 Loss Time (sec): 16 Average Delay (sec/veh): 28.9
 Optimal Cycle: 48 Level Of Service: C

 Street Name: Highland Springs Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 109 833 72 199 455 32 28 100 29 116 281 291
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 109 833 72 199 455 32 28 100 29 116 281 291
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 109 833 72 199 455 32 28 100 29 116 281 291
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 109 833 72 199 455 32 28 100 29 116 281 291
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 109 833 72 199 455 32 28 100 29 116 281 291

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 1.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.06 0.16 0.04 0.06 0.09 0.02 0.01 0.03 0.02 0.03 0.08 0.18
 Crit Moves: ****
 Green/Cycle: 0.18 0.33 0.33 0.12 0.27 0.27 0.02 0.18 0.18 0.21 0.37 0.37
 Volume/Cap: 0.33 0.48 0.13 0.48 0.33 0.07 0.48 0.16 0.10 0.16 0.21 0.48
 Uniform Del: 35.5 26.5 23.3 41.3 29.5 27.4 48.7 34.8 34.4 32.1 21.3 24.0
 IncremntDel: 0.6 0.2 0.1 0.9 0.1 0.1 6.2 0.1 0.2 0.1 0.1 0.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 36.1 26.7 23.4 42.2 29.6 27.5 55.0 34.9 34.6 32.2 21.4 24.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 36.1 26.7 23.4 42.2 29.6 27.5 55.0 34.9 34.6 32.2 21.4 24.6
 LOS by Move: D C C D C C D C C C C C
 HCM2kAvgQ: 3 8 2 3 4 1 1 1 1 2 3 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.484
 Loss Time (sec): 16 Average Delay (sec/veh): 28.1
 Optimal Cycle: 48 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 55 274 80 282 937 175 61 404 138 345 612 135
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 55 274 80 282 937 175 61 404 138 345 612 135
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 55 274 80 282 937 175 61 404 138 345 612 135
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 55 274 80 282 937 175 61 404 138 345 612 135
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 55 274 80 282 937 175 61 404 138 345 612 135

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.02 0.05 0.05 0.08 0.18 0.11 0.02 0.11 0.09 0.10 0.17 0.08
 Crit Moves: ****
 Green/Cycle: 0.03 0.16 0.36 0.24 0.37 0.37 0.04 0.23 0.23 0.20 0.39 0.64
 Volume/Cap: 0.48 0.33 0.14 0.33 0.48 0.29 0.43 0.48 0.37 0.48 0.43 0.13
 Uniform Del: 47.6 37.2 21.3 31.0 24.0 22.0 46.8 33.3 32.3 35.2 22.1 7.1
 IncremntDel: 3.2 0.2 0.1 0.2 0.2 0.3 2.1 0.4 0.6 0.5 0.2 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 50.8 37.4 21.4 31.2 24.2 22.3 48.9 33.7 32.9 35.7 22.3 7.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 50.8 37.4 21.4 31.2 24.2 22.3 48.9 33.7 32.9 35.7 22.3 7.2
 LOS by Move: D D C C C C D C C D C A
 HCM2kAvgQ: 2 3 2 4 8 4 1 5 3 5 7 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Sunset/Wilson

 Cycle (sec): 90 Critical Vol./Cap.(X): 0.497
 Loss Time (sec): 16 Average Delay (sec/veh): 26.9
 Optimal Cycle: 48 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1
 Volume Module:
 Base Vol: 92 222 56 142 606 222 165 563 255 106 266 69
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 92 222 56 142 606 222 165 563 255 106 266 69
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 92 222 56 142 606 222 165 563 255 106 266 69
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 92 222 56 142 606 222 165 563 255 106 266 69
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 92 222 56 142 606 222 165 563 255 106 266 69
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.06 0.03 0.08 0.17 0.14 0.05 0.16 0.16 0.06 0.07 0.04
 Crit Moves: ****
 Green/Cycle: 0.05 0.17 0.17 0.22 0.34 0.51 0.17 0.31 0.31 0.12 0.26 0.26
 Volume/Cap: 0.50 0.36 0.20 0.36 0.50 0.27 0.28 0.50 0.50 0.50 0.28 0.16
 Uniform Del: 41.5 32.9 32.0 29.8 23.7 12.7 32.7 25.1 25.2 37.2 26.4 25.5
 IncremntDel: 2.1 0.4 0.4 0.6 0.3 0.2 0.3 0.3 0.8 1.8 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.6 33.3 32.4 30.3 24.0 12.9 32.9 25.5 26.0 39.0 26.5 25.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.6 33.3 32.4 30.3 24.0 12.9 32.9 25.5 26.0 39.0 26.5 25.7
 LOS by Move: D C C C C B C C C D C C
 HCM2kAvgQ: 1 3 1 4 7 4 2 6 6 3 3 1
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Sunset/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.339
 Loss Time (sec): 16 Average Delay (sec/veh): 28.7
 Optimal Cycle: 40 Level Of Service: C

 Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1
 Volume Module:
 Base Vol: 54 367 29 110 221 131 258 228 29 14 142 65
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 54 367 29 110 221 131 258 228 29 14 142 65
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 54 367 29 110 221 131 258 228 29 14 142 65
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 54 367 29 110 221 131 258 228 29 14 142 65
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 54 367 29 110 221 131 258 228 29 14 142 65
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.85 0.15 1.00 2.00 1.00 2.00 1.77 0.23 1.00 2.00 1.00
 Final Sat.: 1805 3309 261 1805 3610 1615 3502 3148 400 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.11 0.11 0.06 0.06 0.08 0.07 0.07 0.07 0.01 0.04 0.04
 Crit Moves: ****
 Green/Cycle: 0.17 0.33 0.33 0.18 0.34 0.56 0.22 0.30 0.30 0.03 0.12 0.12
 Volume/Cap: 0.18 0.34 0.34 0.34 0.18 0.15 0.34 0.24 0.24 0.24 0.34 0.35
 Uniform Del: 35.8 25.5 25.5 35.8 23.2 10.6 33.1 26.3 26.3 47.2 40.7 40.7
 IncremntDel: 0.3 0.2 0.2 0.6 0.1 0.1 0.3 0.1 0.1 2.1 0.5 1.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 36.1 25.6 25.6 36.5 23.2 10.7 33.3 26.5 26.5 49.3 41.2 41.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 36.1 25.6 25.6 36.5 23.2 10.7 33.3 26.5 26.5 49.3 41.2 41.8
 LOS by Move: D C C D C B C C C D D D
 HCM2kAvgQ: 2 5 5 3 2 2 4 3 3 0 2 2
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 8th/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.555
 Loss Time (sec): 16 Average Delay (sec/veh): 29.4
 Optimal Cycle: 53 Level Of Service: C

 Street Name: 8th Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 124 61 30 180 208 74 36 583 162 53 265 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 124 61 30 180 208 74 36 583 162 53 265 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 124 61 30 180 208 74 36 583 162 53 265 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 124 61 30 180 208 74 36 583 162 53 265 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 124 61 30 180 208 74 36 583 162 53 265 44
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.95 0.95 0.96 0.96 0.95 0.92 0.92 0.95 0.93 0.93
 Lanes: 1.00 0.67 0.33 1.00 0.74 0.26 1.00 1.57 0.43 1.00 1.72 0.28
 Final Sat.: 1805 1211 596 1805 1347 479 1805 2732 759 1805 3031 503
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.05 0.05 0.10 0.15 0.15 0.02 0.21 0.21 0.03 0.09 0.09
 Crit Moves: ****
 Green/Cycle: 0.12 0.13 0.13 0.27 0.28 0.28 0.08 0.38 0.38 0.05 0.36 0.36
 Volume/Cap: 0.55 0.37 0.37 0.37 0.55 0.55 0.25 0.55 0.55 0.55 0.25 0.25
 Uniform Del: 41.2 39.4 39.4 29.8 30.8 30.8 43.1 24.1 24.1 46.2 22.7 22.7
 IncremntDel: 3.0 1.0 1.0 0.5 1.3 1.3 0.9 0.5 0.5 7.0 0.1 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 44.3 40.4 40.4 30.3 32.1 32.1 43.9 24.6 24.6 53.2 22.8 22.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 44.3 40.4 40.4 30.3 32.1 32.1 43.9 24.6 24.6 53.2 22.8 22.8
 LOS by Move: D D D C C C D C C D C C
 HCM2kAvgQ: 4 2 2 5 8 8 1 9 9 2 4 4
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 8th/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.487
 Loss Time (sec): 16 Average Delay (sec/veh): 23.9
 Optimal Cycle: 48 Level Of Service: C

 Street Name: 8th Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1
 Volume Module:
 Base Vol: 24 232 55 531 158 64 62 238 20 12 114 528
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 24 232 55 531 158 64 62 238 20 12 114 528
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 24 232 55 531 158 64 62 238 20 12 114 528
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 24 232 55 531 158 64 62 238 20 12 114 528
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 24 232 55 531 158 64 62 238 20 12 114 528
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 3502 3610 1615 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.01 0.06 0.03 0.15 0.04 0.04 0.02 0.07 0.01 0.01 0.03 0.33
 Crit Moves: ****
 Green/Cycle: 0.10 0.13 0.13 0.31 0.34 0.38 0.04 0.36 0.36 0.04 0.36 0.67
 Volume/Cap: 0.13 0.49 0.26 0.49 0.13 0.11 0.49 0.18 0.03 0.18 0.09 0.49
 Uniform Del: 40.7 40.3 39.0 27.9 22.8 20.2 47.3 21.9 20.7 46.7 21.1 8.0
 IncremntDel: 0.3 0.8 0.6 0.3 0.0 0.1 2.9 0.1 0.0 1.3 0.0 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 41.1 41.0 39.6 28.3 22.8 20.3 50.2 22.0 20.8 48.1 21.2 8.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.1 41.0 39.6 28.3 22.8 20.3 50.2 22.0 20.8 48.1 21.2 8.4
 LOS by Move: D D D C C C D C C D C A
 HCM2kAvgQ: 1 4 2 7 2 1 1 3 0 0 1 8
 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #8 Hargrave/Lincoln
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.452
Loss Time (sec):   16          Average Delay (sec/veh):     23.7
Optimal Cycle:     46          Level Of Service:          C
*****
Street Name:      Hargrave Lincoln
Approach:          North Bound South Bound East Bound West Bound
Movement:          L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control:           Protected Protected Protected Protected
Rights:            Include Ignore Include Ignore
Min. Green:        0 0 0 0 0 0 0 0 0 0 0 0
Y+R:               4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:             1 0 1 1 0 2 0 1 0 1 1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:          14 154 25 865 250 77 90 244 57 8 115 354
Growth Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:        14 154 25 865 250 77 90 244 57 8 115 354
User Adj:           1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:            1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume:         14 154 25 865 250 0 90 244 57 8 115 0
Reduct Vol:         0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:        14 154 25 865 250 0 90 244 57 8 115 0
PCE Adj:            1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:            1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume:        14 154 25 865 250 0 90 244 57 8 115 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:           1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:         0.95 0.93 0.93 0.92 1.00 1.00 0.95 0.95 0.85 0.95 0.95 1.00
Lanes:              1.00 1.72 0.28 2.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:         1805 3041 494 3502 1900 1900 1805 3610 1615 1805 3610 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:            0.01 0.05 0.05 0.25 0.13 0.00 0.05 0.07 0.04 0.00 0.03 0.00
Crit Moves:         ****
Green/Cycle:         0.04 0.11 0.11 0.55 0.62 0.00 0.11 0.17 0.17 0.01 0.07 0.00
Volume/Cap:          0.21 0.45 0.45 0.45 0.21 0.00 0.45 0.40 0.21 0.40 0.45 0.00
Uniform Del:         46.8 41.5 41.5 13.6 8.2 0.0 41.6 37.0 35.7 49.1 44.6 0.0
IncrmntDel:          1.6 0.8 0.8 0.2 0.1 0.0 1.6 0.4 0.4 12.5 1.3 0.0
InitQueueDel:        0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:           1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh:           48.4 42.3 42.3 13.8 8.3 0.0 43.3 37.4 36.1 61.6 45.9 0.0
User DelAdj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:          48.4 42.3 42.3 13.8 8.3 0.0 43.3 37.4 36.1 61.6 45.9 0.0
LOS by Move:         D D D B A A D D D E D A
HCM2kAvgQ:           1 3 3 8 3 0 3 3 1 1 2 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	LOS	Veh C	LOS	Veh C	
# 1 Highland Springs/Wilson	C	32.4 0.812	C	32.4 0.812	+ 0.000 D/V
# 2 Highland Springs/Sun Lakes	C	31.2 0.773	C	31.2 0.773	+ 0.000 D/V
# 3 Highland Home/Wilson	C	34.1 0.776	C	34.1 0.776	+ 0.000 D/V
# 4 Sunset/Wilson	C	33.8 0.859	C	33.8 0.859	+ 0.000 D/V
# 5 Sunset/Lincoln	C	31.6 0.775	C	31.6 0.775	+ 0.000 D/V
# 6 8th/Wilson	C	28.1 0.758	C	28.1 0.758	+ 0.000 D/V
# 7 8th/Lincoln	C	33.6 0.838	C	33.6 0.838	+ 0.000 D/V
# 8 Hargrave/Lincoln	C	33.1 0.564	C	33.1 0.564	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.812
Loss Time (sec):   16          Average Delay (sec/veh):    32.4
Optimal Cycle:     89          Level Of Service:         C
*****
Street Name:      Highland Springs          Wilson
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected          Protected          Protected          Protected
Rights:           Ovl              Include          Include          Ovl
Min. Green:       0   0   0          0   0   0          0   0   0          0   0   0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            1   0   3   0   1    2   0   2   1   0    1   0   1   1   0    2   0   2   0   1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         84 1546          356          371 1217          44          51 702          71          214 619          356
Growth Adj:       1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
Initial Bse:      84 1546          356          371 1217          44          51 702          71          214 619          356
User Adj:         1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
PHF Adj:          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
PHF Volume:       84 1546          356          371 1217          44          51 702          71          214 619          356
Reduct Vol:       0   0   0          0   0   0          0   0   0          0   0   0          0   0   0
Reduced Vol:      84 1546          356          371 1217          44          51 702          71          214 619          356
PCE Adj:          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
MLF Adj:          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
FinalVolume:     84 1546          356          371 1217          44          51 702          71          214 619          356
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900          1900          1900 1900          1900          1900 1900          1900          1900 1900          1900
Adjustment:       0.95 0.91          0.85          0.92 0.91          0.91          0.95 0.94          0.94          0.92 0.95          0.85
Lanes:            1.00 3.00          1.00          2.00 2.90          0.10          1.00 1.82          0.18          2.00 2.00          1.00
Final Sat.:      1805 5187          1615          3502 4981          180          1805 3233          327          3502 3610          1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.05 0.30          0.22          0.11 0.24          0.24          0.03 0.22          0.22          0.06 0.17          0.22
Crit Moves:       ****              ****              ****              ****
Green/Cycle:      0.08 0.37          0.44          0.13 0.42          0.42          0.05 0.27          0.27          0.08 0.29          0.42
Volume/Cap:       0.58 0.81          0.50          0.81 0.58          0.58          0.58 0.81          0.81          0.81 0.58          0.52
Uniform Del:      44.4 28.5          20.0          42.3 22.4          22.4          46.6 34.3          34.3          45.5 30.1          21.2
IncremntDel:      6.1 2.8          0.5          10.6 0.4          0.4          9.6 5.4          5.4          17.2 0.8          0.7
InitQueueDel:     0.0 0.0          0.0          0.0 0.0          0.0          0.0 0.0          0.0          0.0 0.0          0.0
Delay Adj:         1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
Delay/Veh:        50.5 31.3          20.5          52.9 22.8          22.8          56.2 39.7          39.7          62.7 30.9          21.9
User DelAdj:      1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00          1.00 1.00          1.00
AdjDel/Veh:       50.5 31.3          20.5          52.9 22.8          22.8          56.2 39.7          39.7          62.7 30.9          21.9
LOS by Move:      D   C           C   D   C   C   E   D   D   E   C   C
HCM2kAvgQ:        3   16           8   8   11   11   3   14   14   4   8   8
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs/Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.773
Loss Time (sec): 16 Average Delay (sec/veh): 31.2
Optimal Cycle: 81 Level Of Service: C

Street Name: Highland Springs Sun Lakes
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 97 471 188 272 957 76 77 1273 163 206 1180 200
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 97 471 188 272 957 76 77 1273 163 206 1180 200
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 97 471 188 272 957 76 77 1273 163 206 1180 200
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 97 471 188 272 957 76 77 1273 163 206 1180 200
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 97 471 188 272 957 76 77 1273 163 206 1180 200

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
Lanes: 1.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 1805 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.05 0.09 0.12 0.08 0.18 0.05 0.02 0.35 0.10 0.06 0.33 0.12
Crit Moves: ****
Green/Cycle: 0.07 0.18 0.18 0.12 0.24 0.24 0.03 0.46 0.46 0.08 0.50 0.50
Volume/Cap: 0.77 0.49 0.63 0.63 0.77 0.20 0.66 0.77 0.22 0.77 0.66 0.25
Uniform Del: 45.8 36.6 37.6 41.7 35.5 30.4 47.8 22.9 16.5 45.4 18.7 14.4
IncrmntDel: 25.2 0.4 4.3 3.0 3.1 0.3 12.7 2.3 0.2 13.1 0.9 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 71.0 36.9 41.9 44.7 38.6 30.7 60.4 25.2 16.6 58.5 19.6 14.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 71.0 36.9 41.9 44.7 38.6 30.7 60.4 25.2 16.6 58.5 19.6 14.5
LOS by Move: E D D D D C E C B E B B
HCM2kAvgQ: 5 5 6 4 10 2 2 19 3 5 15 4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Home/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 16 Average Delay (sec/veh): 34.1
Optimal Cycle: 82 Level Of Service: C

Street Name: Highland Home Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 223 1034 345 363 1087 106 188 1045 117 184 887 644
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 223 1034 345 363 1087 106 188 1045 117 184 887 644
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 223 1034 345 363 1087 106 188 1045 117 184 887 644
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 223 1034 345 363 1087 106 188 1045 117 184 887 644
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 223 1034 345 363 1087 106 188 1045 117 184 887 644

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3502 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.06 0.20 0.21 0.10 0.21 0.07 0.05 0.29 0.07 0.05 0.25 0.40
Crit Moves: ****
Green/Cycle: 0.09 0.26 0.33 0.13 0.30 0.30 0.07 0.38 0.38 0.07 0.38 0.51
Volume/Cap: 0.70 0.78 0.66 0.78 0.70 0.22 0.78 0.76 0.19 0.76 0.65 0.78
Uniform Del: 44.1 34.5 28.9 41.9 31.0 26.3 45.8 27.0 20.7 45.7 25.5 19.7
IncrmntDel: 6.8 2.9 3.0 8.0 1.4 0.2 14.5 2.5 0.2 13.2 1.1 4.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.9 37.4 31.9 49.9 32.5 26.5 60.3 29.6 20.8 58.9 26.5 24.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 50.9 37.4 31.9 49.9 32.5 26.5 60.3 29.6 20.8 58.9 26.5 24.3
LOS by Move: D D C D C C E C C E C C
HCM2kAvgQ: 5 13 10 8 12 2 3 14 2 3 11 15

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Sunset/Wilson

 Cycle (sec): 90 Critical Vol./Cap.(X): 0.859
 Loss Time (sec): 16 Average Delay (sec/veh): 33.8
 Optimal Cycle: 97 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1
 Volume Module:
 Base Vol: 305 739 149 145 392 290 323 817 184 70 1189 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 305 739 149 145 392 290 323 817 184 70 1189 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 305 739 149 145 392 290 323 817 184 70 1189 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 305 739 149 145 392 290 323 817 184 70 1189 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 305 739 149 145 392 290 323 817 184 70 1189 178
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.09 0.20 0.09 0.08 0.11 0.18 0.09 0.23 0.11 0.04 0.33 0.11
 Crit Moves: ****
 Green/Cycle: 0.15 0.24 0.24 0.09 0.18 0.29 0.11 0.42 0.42 0.07 0.38 0.38
 Volume/Cap: 0.59 0.86 0.39 0.86 0.59 0.62 0.86 0.54 0.27 0.54 0.86 0.29
 Uniform Del: 35.8 32.8 28.8 40.2 33.6 27.5 39.5 19.6 17.2 40.3 25.5 19.2
 IncremntDel: 1.8 8.7 0.6 33.2 1.4 2.5 17.7 0.4 0.2 4.6 5.7 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 37.6 41.6 29.4 73.4 35.0 30.0 57.2 20.0 17.4 44.9 31.2 19.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 37.6 41.6 29.4 73.4 35.0 30.0 57.2 20.0 17.4 44.9 31.2 19.5
 LOS by Move: D D C E D C E C B D C B
 HCM2kAvgQ: 4 11 3 7 6 8 5 8 3 2 16 3
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Sunset/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.775
 Loss Time (sec): 16 Average Delay (sec/veh): 31.6
 Optimal Cycle: 81 Level Of Service: C

 Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1
 Volume Module:
 Base Vol: 101 371 21 178 463 436 341 1100 71 25 1175 175
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 101 371 21 178 463 436 341 1100 71 25 1175 175
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 101 371 21 178 463 436 341 1100 71 25 1175 175
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 101 371 21 178 463 436 341 1100 71 25 1175 175
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 101 371 21 178 463 436 341 1100 71 25 1175 175
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.89 0.11 1.00 2.00 1.00 2.00 1.88 0.12 1.00 2.00 1.00
 Final Sat.: 1805 3389 192 1805 3610 1615 3502 3361 217 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.06 0.11 0.11 0.10 0.13 0.27 0.10 0.33 0.33 0.01 0.33 0.11
 Crit Moves: ****
 Green/Cycle: 0.07 0.16 0.16 0.14 0.22 0.35 0.13 0.52 0.52 0.02 0.42 0.42
 Volume/Cap: 0.78 0.71 0.71 0.71 0.58 0.78 0.78 0.63 0.63 0.63 0.78 0.26
 Uniform Del: 45.6 40.1 40.1 41.1 34.7 29.1 42.4 16.9 16.9 48.5 25.0 18.9
 IncremntDel: 24.8 4.1 4.1 8.8 1.0 6.7 8.4 0.7 0.7 27.3 2.6 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 70.4 44.2 44.2 49.9 35.7 35.8 50.8 17.6 17.6 75.8 27.5 19.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 70.4 44.2 44.2 49.9 35.7 35.8 50.8 17.6 17.6 75.8 27.5 19.1
 LOS by Move: E D D D D D B B E C B
 HCM2kAvgQ: 5 7 7 5 7 12 7 14 14 1 16 3
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 8th/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758
 Loss Time (sec): 16 Average Delay (sec/veh): 28.1
 Optimal Cycle: 78 Level Of Service: C

Street Name: 8th Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
 Base Vol: 66 207 58 136 108 50 77 830 58 60 1140 183
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 66 207 58 136 108 50 77 830 58 60 1140 183
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 66 207 58 136 108 50 77 830 58 60 1140 183
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 66 207 58 136 108 50 77 830 58 60 1140 183
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 66 207 58 136 108 50 77 830 58 60 1140 183

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.97 0.97 0.95 0.95 0.95 0.95 0.94 0.94 0.95 0.93 0.93
 Lanes: 1.00 0.78 0.22 1.00 0.68 0.32 1.00 1.87 0.13 1.00 1.72 0.28
 Final Sat.: 1805 1435 402 1805 1238 573 1805 3340 233 1805 3045 489

Capacity Analysis Module:
 Vol/Sat: 0.04 0.14 0.14 0.08 0.09 0.09 0.04 0.25 0.25 0.03 0.37 0.37
 Crit Moves: **** *
 Green/Cycle: 0.09 0.19 0.19 0.10 0.20 0.20 0.06 0.49 0.49 0.06 0.49 0.49
 Volume/Cap: 0.43 0.76 0.76 0.76 0.43 0.43 0.76 0.51 0.51 0.51 0.76 0.76
 Uniform Del: 43.4 38.3 38.3 43.9 34.7 34.7 46.5 17.6 17.6 45.2 20.5 20.5
 IncremntDel: 1.9 9.2 9.2 16.9 0.8 0.8 27.5 0.3 0.3 3.8 2.0 2.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.3 47.5 47.5 60.7 35.5 35.5 74.0 17.9 17.9 49.0 22.4 22.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.3 47.5 47.5 60.7 35.5 35.5 74.0 17.9 17.9 49.0 22.4 22.4
 LOS by Move: D D D E D D E B B D C C
 HCM2kAvgQ: 2 7 7 6 5 5 3 9 9 3 18 18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 8th/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
 Loss Time (sec): 16 Average Delay (sec/veh): 33.6
 Optimal Cycle: 96 Level Of Service: C

Street Name: 8th Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
 Base Vol: 88 305 46 514 326 227 494 689 134 46 1198 458
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 88 305 46 514 326 227 494 689 134 46 1198 458
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 88 305 46 514 326 227 494 689 134 46 1198 458
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 88 305 46 514 326 227 494 689 134 46 1198 458
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 88 305 46 514 326 227 494 689 134 46 1198 458

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 3502 3610 1615 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.05 0.08 0.03 0.15 0.09 0.14 0.14 0.19 0.08 0.03 0.33 0.28
 Crit Moves: **** *
 Green/Cycle: 0.10 0.10 0.10 0.18 0.18 0.35 0.17 0.50 0.50 0.07 0.40 0.57
 Volume/Cap: 0.50 0.84 0.28 0.84 0.50 0.40 0.84 0.38 0.17 0.38 0.84 0.50
 Uniform Del: 42.9 44.2 41.6 39.9 37.0 24.8 40.3 15.6 13.8 44.7 27.3 12.8
 IncremntDel: 2.3 15.7 1.0 9.9 0.6 0.5 10.3 0.1 0.1 2.0 4.6 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.2 59.8 42.6 49.8 37.7 25.3 50.6 15.7 13.9 46.8 31.9 13.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.2 59.8 42.6 49.8 37.7 25.3 50.6 15.7 13.9 46.8 31.9 13.3
 LOS by Move: D E D D D C D B B D C B
 HCM2kAvgQ: 3 7 2 9 5 5 8 7 2 1 18 8

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #8 Hargrave/Lincoln
*****
Cycle (sec):      100          Critical Vol./Cap. (X):      0.564
Loss Time (sec):   16          Average Delay (sec/veh):     33.1
Optimal Cycle:     54          Level Of Service:          C
*****
Street Name:      Hargrave          Lincoln
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Protected        Protected        Protected        Protected
Rights:           Include          Ignore          Include          Ignore
Min. Green:       0 0 0            0 0 0            0 0 0            0 0 0
Y+R:              4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:            1 0 1 1 0          2 0 1 0 1          1 0 2 0 1          1 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:         143 195 23 577 211 940 309 397 86 56 275 826
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      143 195 23 577 211 940 309 397 86 56 275 826
User Adj:         1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume:       143 195 23 577 211 0 309 397 86 56 275 0
Reduct Vol:       0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:      143 195 23 577 211 0 309 397 86 56 275 0
PCE Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume:      143 195 23 577 211 0 309 397 86 56 275 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:       0.95 0.93 0.93 0.92 1.00 1.00 0.95 0.95 0.85 0.95 0.95 1.00
Lanes:            1.00 1.79 0.21 2.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:       1805 3177 375 3502 1900 1900 1805 3610 1615 1805 3610 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.08 0.06 0.06 0.16 0.11 0.00 0.17 0.11 0.05 0.03 0.08 0.00
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.17 0.11 0.11 0.29 0.23 0.00 0.30 0.34 0.34 0.10 0.14 0.00
Volume/Cap:       0.47 0.56 0.56 0.56 0.47 0.00 0.56 0.32 0.16 0.32 0.56 0.00
Uniform Del:      37.7 42.3 42.3 30.0 33.0 0.0 29.2 24.3 22.8 42.1 40.5 0.0
IncrmntDel:       1.2 1.9 1.9 0.7 0.8 0.0 1.4 0.2 0.1 1.1 1.5 0.0
InitQueueDel:     0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh:        38.9 44.2 44.2 30.7 33.8 0.0 30.6 24.5 23.0 43.2 42.0 0.0
User DelAdj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       38.9 44.2 44.2 30.7 33.8 0.0 30.6 24.5 23.0 43.2 42.0 0.0
LOS by Move:      D D D C C A C C C D D A
HCM2kAvgQ:        4 4 4 8 6 0 8 5 2 2 5 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/Wilson	C	25.6 0.518	C	25.6 0.518	+ 0.000 D/V
# 2 Highland Springs/Sun Lakes	C	30.9 0.561	C	30.9 0.561	+ 0.000 D/V
# 3 Highland Home/Wilson	C	32.1 0.610	C	32.1 0.610	+ 0.000 D/V
# 4 Sunset/Wilson	C	29.1 0.527	C	29.1 0.527	+ 0.000 D/V
# 5 Sunset/Lincoln	C	30.3 0.422	C	30.3 0.422	+ 0.000 D/V
# 6 8th/Wilson	D	36.6 0.732	D	36.6 0.732	+ 0.000 D/V
# 7 8th/Lincoln	C	24.4 0.508	C	24.4 0.508	+ 0.000 D/V
# 8 Hargrave/Lincoln	C	26.5 0.549	C	26.5 0.549	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.518
 Loss Time (sec): 16 Average Delay (sec/veh): 25.6
 Optimal Cycle: 50 Level Of Service: C

Street Name: Highland Springs Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 2 0 2 1 0 1 0 1 1 0 2 0 2 0 1
 Volume Module:
 Base Vol: 36 589 127 161 1254 25 21 216 51 322 450 200
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 36 589 127 161 1254 25 21 216 51 322 450 200
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 36 589 127 161 1254 25 21 216 51 322 450 200
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 36 589 127 161 1254 25 21 216 51 322 450 200
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 36 589 127 161 1254 25 21 216 51 322 450 200
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.89 0.89 0.92 0.91 0.91 0.95 0.92 0.92 0.92 0.95 0.85
 Lanes: 1.00 2.47 0.53 2.00 2.94 0.06 1.00 1.62 0.38 2.00 2.00 1.00
 Final Sat.: 1805 4152 895 3502 5070 101 1805 2836 670 3502 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.02 0.14 0.14 0.05 0.25 0.25 0.01 0.08 0.08 0.09 0.12 0.12
 Crit Moves: **** **** **** ****
 Green/Cycle: 0.04 0.39 0.39 0.13 0.48 0.48 0.03 0.15 0.15 0.18 0.30 0.42
 Volume/Cap: 0.52 0.36 0.36 0.36 0.52 0.52 0.42 0.52 0.52 0.52 0.42 0.29
 Uniform Del: 47.2 21.7 21.7 40.0 18.2 18.2 47.8 39.4 39.4 37.3 28.3 19.0
 IncremntDel: 6.7 0.1 0.1 0.5 0.2 0.2 5.6 0.9 0.9 0.8 0.3 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 53.9 21.8 21.8 40.5 18.4 18.4 53.4 40.3 40.3 38.0 28.5 19.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 53.9 21.8 21.8 40.5 18.4 18.4 53.4 40.3 40.3 38.0 28.5 19.2
 LOS by Move: D C C D B B D D D C C B
 HCM2kAvgQ: 1 5 5 3 10 10 1 5 5 5 6 4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.577
 Loss Time (sec): 16 Average Delay (sec/veh): 30.7
 Optimal Cycle: 55 Level Of Service: C

 Street Name: Highland Springs Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 2 1 0

 Volume Module:
 Base Vol: 109 833 72 199 455 32 28 100 29 116 281 291
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 109 833 72 199 455 32 28 100 29 116 281 291
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 109 833 72 199 455 32 28 100 29 116 281 291
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 109 833 72 199 455 32 28 100 29 116 281 291
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 109 833 72 199 455 32 28 100 29 116 281 291

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.90 0.90 0.95 0.90 0.90 0.95 0.88 0.88 0.95 0.84 0.84
 Lanes: 1.00 2.76 0.24 1.00 2.80 0.20 1.00 2.33 0.67 1.00 2.00 1.00
 Final Sat.: 1805 4717 408 1805 4798 337 1805 3884 1126 1805 3195 1598

 Capacity Analysis Module:
 Vol/Sat: 0.06 0.18 0.18 0.11 0.09 0.09 0.02 0.03 0.03 0.06 0.09 0.18
 Crit Moves: ****
 Green/Cycle: 0.19 0.31 0.31 0.19 0.30 0.30 0.03 0.10 0.10 0.24 0.32 0.32
 Volume/Cap: 0.31 0.58 0.58 0.58 0.31 0.31 0.58 0.26 0.26 0.26 0.28 0.58
 Uniform Del: 34.6 29.2 29.2 36.8 26.8 26.8 48.1 41.8 41.8 30.5 25.7 28.6
 IncremntDel: 0.5 0.5 0.5 2.4 0.1 0.1 16.0 0.3 0.3 0.3 0.1 0.8
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 35.1 29.8 29.8 39.2 26.9 26.9 64.1 42.0 42.0 30.8 25.7 29.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 35.1 29.8 29.8 39.2 26.9 26.9 64.1 42.0 42.0 30.8 25.7 29.5
 LOS by Move: D C C D C C E D D C C A
 HCM2kAvgQ: 3 9 9 5 4 4 2 2 2 3 4 9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.610
 Loss Time (sec): 16 Average Delay (sec/veh): 32.1
 Optimal Cycle: 58 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 1 0 3 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 55 274 80 282 937 175 61 404 138 345 612 135
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 55 274 80 282 937 175 61 404 138 345 612 135
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 55 274 80 282 937 175 61 404 138 345 612 135
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 55 274 80 282 937 175 61 404 138 345 612 135
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 55 274 80 282 937 175 61 404 138 345 612 135

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 5187 1615 1805 5187 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.05 0.05 0.16 0.18 0.11 0.03 0.11 0.09 0.19 0.17 0.08
 Crit Moves: ****
 Green/Cycle: 0.05 0.09 0.09 0.26 0.29 0.29 0.08 0.18 0.18 0.31 0.41 0.67
 Volume/Cap: 0.62 0.61 0.57 0.61 0.62 0.37 0.41 0.61 0.47 0.61 0.41 0.12
 Uniform Del: 46.6 44.0 43.9 32.8 30.5 28.0 43.6 37.5 36.4 29.1 20.6 5.9
 IncremntDel: 12.2 2.4 5.6 2.4 0.8 0.5 1.8 1.7 1.2 1.9 0.2 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 58.8 46.5 49.5 35.1 31.2 28.5 45.4 39.2 37.6 31.1 20.8 6.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 58.8 46.5 49.5 35.1 31.2 28.5 45.4 39.2 37.6 31.1 20.8 6.0
 LOS by Move: E D D D C C D D D C C A
 HCM2kAvgQ: 3 4 3 8 10 4 2 6 4 9 7 1

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Sunset/Wilson

Cycle (sec): 90 Critical Vol./Cap.(X): 0.527
 Loss Time (sec): 16 Average Delay (sec/veh): 29.1
 Optimal Cycle: 50 Level Of Service: C

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
 Base Vol: 92 222 56 142 606 222 165 563 255 106 266 69
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 92 222 56 142 606 222 165 563 255 106 266 69
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 92 222 56 142 606 222 165 563 255 106 266 69
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 92 222 56 142 606 222 165 563 255 106 266 69
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 92 222 56 142 606 222 165 563 255 106 266 69

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3610 1615 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.05 0.06 0.03 0.08 0.17 0.14 0.09 0.16 0.16 0.06 0.07 0.04
 Crit Moves: ****
 Green/Cycle: 0.10 0.18 0.18 0.23 0.32 0.32 0.23 0.30 0.30 0.11 0.18 0.18
 Volume/Cap: 0.53 0.34 0.19 0.34 0.53 0.43 0.41 0.53 0.53 0.53 0.41 0.24
 Uniform Del: 38.7 32.1 31.2 28.7 25.1 24.2 29.7 26.4 26.5 37.8 32.5 31.5
 IncremntDel: 3.0 0.3 0.3 0.5 0.5 0.6 0.7 0.5 1.2 2.6 0.4 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 41.7 32.4 31.5 29.2 25.6 24.8 30.4 26.9 27.7 40.4 32.9 31.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.7 32.4 31.5 29.2 25.6 24.8 30.4 26.9 27.7 40.4 32.9 31.9
 LOS by Move: D C C C C C C C C D C D
 HCM2kAvgQ: 2 3 1 3 8 5 4 7 6 3 3 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.422
 Loss Time (sec): 16 Average Delay (sec/veh): 30.3
 Optimal Cycle: 44 Level Of Service: C

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 54 367 29 110 221 131 258 228 29 14 142 65
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 54 367 29 110 221 131 258 228 29 14 142 65
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 54 367 29 110 221 131 258 228 29 14 142 65
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 54 367 29 110 221 131 258 228 29 14 142 65
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 54 367 29 110 221 131 258 228 29 14 142 65

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.90 0.90 0.95 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.85 0.15 1.00 1.26 0.74 1.00 1.77 0.23 1.00 2.00 1.00
 Final Sat.: 1805 3309 261 1805 2140 1268 1805 3148 400 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.03 0.11 0.11 0.06 0.10 0.10 0.14 0.07 0.07 0.01 0.04 0.04
 Crit Moves: ****
 Green/Cycle: 0.09 0.26 0.26 0.14 0.32 0.32 0.34 0.39 0.39 0.04 0.09 0.09
 Volume/Cap: 0.33 0.42 0.42 0.42 0.33 0.33 0.42 0.19 0.19 0.19 0.42 0.43
 Uniform Del: 42.5 30.5 30.5 39.0 26.1 26.1 25.5 20.0 20.0 46.3 42.8 42.8
 IncremntDel: 1.2 0.3 0.3 1.1 0.2 0.2 0.5 0.1 0.1 1.2 0.9 2.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.7 30.8 30.8 40.1 26.3 26.3 26.0 20.1 20.1 47.5 43.6 44.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.7 30.8 30.8 40.1 26.3 26.3 26.0 20.1 20.1 47.5 43.6 44.8
 LOS by Move: D C C D C C C C C D D D
 HCM2kAvgQ: 2 6 6 3 4 4 6 3 3 0 2 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 8th/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.732
 Loss Time (sec): 16 Average Delay (sec/veh): 36.6
 Optimal Cycle: 74 Level Of Service: D

 Street Name: 8th Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 124 61 30 180 208 74 36 583 162 53 265 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 124 61 30 180 208 74 36 583 162 53 265 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 124 61 30 180 208 74 36 583 162 53 265 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 124 61 30 180 208 74 36 583 162 53 265 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 124 61 30 180 208 74 36 583 162 53 265 44
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.95 0.96 0.96 0.96 0.95 0.92 0.92 0.95 0.93 0.93
 Lanes: 0.58 0.28 0.14 0.39 0.45 0.16 1.00 1.57 0.43 1.00 1.72 0.28
 Final Sat.: 1045 514 253 710 821 292 1805 2732 759 1805 3031 503
 Capacity Analysis Module:
 Vol/Sat: 0.12 0.12 0.12 0.25 0.25 0.25 0.02 0.21 0.21 0.03 0.09 0.09
 Crit Moves: ****
 Green/Cycle: 0.16 0.16 0.16 0.35 0.35 0.35 0.06 0.29 0.29 0.04 0.27 0.27
 Volume/Cap: 0.73 0.73 0.73 0.73 0.73 0.73 0.32 0.73 0.73 0.73 0.32 0.32
 Uniform Del: 39.8 39.8 39.8 28.6 28.6 28.6 44.9 31.9 31.9 47.5 29.2 29.2
 IncremntDel: 9.1 9.1 9.1 4.4 4.4 4.4 1.7 2.8 2.8 31.5 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.9 48.9 48.9 33.0 33.0 33.0 46.6 34.7 34.7 79.0 29.4 29.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.9 48.9 48.9 33.0 33.0 33.0 46.6 34.7 34.7 79.0 29.4 29.4
 LOS by Move: D D D C C C D C E C C
 HCM2kAvgQ: 6 6 6 14 14 14 1 11 11 3 4 4
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 8th/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.508
 Loss Time (sec): 16 Average Delay (sec/veh): 24.4
 Optimal Cycle: 50 Level Of Service: C

 Street Name: 8th Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 2 0 1 1 0 1 0 2 0 1
 Volume Module:
 Base Vol: 24 232 55 531 158 64 62 238 20 12 114 528
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 24 232 55 531 158 64 62 238 20 12 114 528
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 24 232 55 531 158 64 62 238 20 12 114 528
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 24 232 55 531 158 64 62 238 20 12 114 528
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 24 232 55 531 158 64 62 238 20 12 114 528
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.92 0.92 0.92 0.91 0.91 0.92 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.62 0.38 2.00 1.42 0.58 2.00 1.84 0.16 1.00 2.00 1.00
 Final Sat.: 1805 2834 672 3502 2459 996 3502 3290 276 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.01 0.08 0.08 0.15 0.06 0.06 0.02 0.07 0.07 0.01 0.03 0.33
 Crit Moves: ****
 Green/Cycle: 0.08 0.16 0.16 0.30 0.38 0.38 0.03 0.35 0.35 0.03 0.35 0.64
 Volume/Cap: 0.17 0.51 0.51 0.51 0.17 0.17 0.51 0.21 0.21 0.21 0.09 0.51
 Uniform Del: 43.0 38.3 38.3 29.0 20.5 20.5 47.4 22.9 22.9 47.2 22.1 9.4
 IncremntDel: 0.6 0.8 0.8 0.4 0.1 0.1 3.5 0.1 0.1 1.8 0.0 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.6 39.1 39.1 29.4 20.5 20.5 50.9 23.0 23.0 49.0 22.2 9.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.6 39.1 39.1 29.4 20.5 20.5 50.9 23.0 23.0 49.0 22.2 9.8
 LOS by Move: D D C C C D C C D C A
 HCM2kAvgQ: 1 5 5 7 2 2 1 3 3 0 1 8
 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #8 Hargrave/Lincoln
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.549
Loss Time (sec):   16          Average Delay (sec/veh):     26.5
Optimal Cycle:     53          Level Of Service:          C
*****
Street Name:      Hargrave          Lincoln
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R        L - T - R        L - T - R        L - T - R
-----|-----|-----|-----|
Control:          Protected        Protected        Protected        Protected
Rights:           Include          Ignore          Include          Ignore
Min. Green:       0 0 0            0 0 0            0 0 0            0 0 0
Y+R:              4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:            1 0 1 0 1        2 0 1 0 1        1 0 1 0 1        1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:         14 154 25      865 250 77      90 244 57      8 115 354
Growth Adj:       1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:      14 154 25      865 250 77      90 244 57      8 115 354
User Adj:         1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Adj:          1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
PHF Volume:       14 154 25      865 250 0       90 244 57      8 115 0
Reduct Vol:       0 0 0            0 0 0            0 0 0            0 0 0
Reduced Vol:      14 154 25      865 250 0       90 244 57      8 115 0
PCE Adj:          1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
MLF Adj:          1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
FinalVolume:      14 154 25      865 250 0       90 244 57      8 115 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:       0.95 1.00 0.85  0.92 1.00 1.00  0.95 1.00 0.85  0.95 1.00 1.00
Lanes:            1.00 1.00 1.00  2.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:       1805 1900 1615  3502 1900 1900  1805 1900 1615  1805 1900 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.01 0.08 0.02  0.25 0.13 0.00  0.05 0.13 0.04  0.00 0.06 0.00
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.03 0.15 0.15  0.45 0.56 0.00  0.11 0.23 0.23  0.01 0.13 0.00
Volume/Cap:       0.23 0.55 0.10  0.55 0.23 0.00  0.46 0.55 0.15  0.55 0.46 0.00
Uniform Del:      47.1 39.5 36.9  20.1 10.9 0.0  41.7 33.7 30.4  49.4 40.0 0.0
IncrmntDel:       2.0 2.3 0.2  0.4 0.1 0.0  1.7 1.5 0.2  37.7 1.3 0.0
InitQueueDel:     0.0 0.0 0.0  0.0 0.0 0.0  0.0 0.0 0.0  0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00
Delay/Veh:        49.1 41.8 37.1  20.5 11.0 0.0  43.4 35.1 30.6  87.1 41.3 0.0
User DelAdj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:       49.1 41.8 37.1  20.5 11.0 0.0  43.4 35.1 30.6  87.1 41.3 0.0
LOS by Move:      D D D          C B A          D D C          F D A
HCM2kAvgQ:        1 5 1 10 4 0  3 6 1 1 4 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/Wilson	D	37.0 0.907	D	37.0 0.907	+ 0.000 D/V
# 2 Highland Springs/Sun Lakes	D	46.2 0.955	D	46.2 0.955	+ 0.000 D/V
# 3 Highland Home/Wilson	D	48.0 0.960	D	48.0 0.960	+ 0.000 D/V
# 4 Sunset/Wilson	D	54.7 1.042	D	54.7 1.042	+ 0.000 D/V
# 5 Sunset/Lincoln	D	51.1 0.999	D	51.1 0.999	+ 0.000 D/V
# 6 8th/Wilson	D	41.0 0.904	D	41.0 0.904	+ 0.000 D/V
# 7 8th/Lincoln	D	36.3 0.856	D	36.3 0.856	+ 0.000 D/V
# 8 Hargrave/Lincoln	D	36.2 0.694	D	36.2 0.694	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907
 Loss Time (sec): 16 Average Delay (sec/veh): 37.0
 Optimal Cycle: 119 Level Of Service: D

Street Name: Highland Springs Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 2 0 2 1 0 1 0 1 1 0 2 0 2 0 1
 Volume Module:
 Base Vol: 84 1546 356 371 1217 44 51 702 71 214 619 356
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 84 1546 356 371 1217 44 51 702 71 214 619 356
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 84 1546 356 371 1217 44 51 702 71 214 619 356
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 84 1546 356 371 1217 44 51 702 71 214 619 356
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 84 1546 356 371 1217 44 51 702 71 214 619 356
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.88 0.88 0.92 0.91 0.91 0.95 0.94 0.94 0.92 0.95 0.85
 Lanes: 1.00 2.44 0.56 2.00 2.90 0.10 1.00 1.82 0.18 2.00 2.00 1.00
 Final Sat.: 1805 4098 944 3502 4981 180 1805 3233 327 3502 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.05 0.38 0.38 0.11 0.24 0.24 0.03 0.22 0.22 0.06 0.17 0.22
 Crit Moves: ****
 Green/Cycle: 0.09 0.42 0.42 0.12 0.45 0.45 0.04 0.24 0.24 0.07 0.26 0.38
 Volume/Cap: 0.55 0.91 0.91 0.91 0.55 0.55 0.65 0.91 0.91 0.91 0.65 0.58
 Uniform Del: 43.9 27.4 27.4 43.6 20.2 20.2 47.1 36.9 36.9 46.3 32.7 24.6
 IncremntDel: 4.0 6.2 6.2 23.3 0.3 0.3 17.7 13.2 13.2 34.5 1.6 1.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 47.9 33.5 33.5 66.9 20.5 20.5 64.8 50.2 50.2 80.9 34.3 26.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 47.9 33.5 33.5 66.9 20.5 20.5 64.8 50.2 50.2 80.9 34.3 26.0
 LOS by Move: D C C E C C E D D F C C
 HCM2kAvgQ: 2 20 20 9 11 11 3 16 16 4 8 8
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.809
 Loss Time (sec): 16 Average Delay (sec/veh): 35.3
 Optimal Cycle: 89 Level Of Service: D

 Street Name: Highland Springs Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 2 1 0

 Volume Module:
 Base Vol: 97 471 188 272 957 76 77 1273 163 206 1180 200
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 97 471 188 272 957 76 77 1273 163 206 1180 200
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 97 471 188 272 957 76 77 1273 163 206 1180 200
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 97 471 188 272 957 76 77 1273 163 206 1180 200
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 97 471 188 272 957 76 77 1273 163 206 1180 200

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.87 0.87 0.95 0.90 0.90 0.95 0.89 0.89 0.95 0.89 0.89
 Lanes: 1.00 2.14 0.86 1.00 2.78 0.22 1.00 2.66 0.34 1.00 2.57 0.43
 Final Sat.: 1805 3548 1416 1805 4753 377 1805 4520 579 1805 4338 735

 Capacity Analysis Module:
 Vol/Sat: 0.05 0.13 0.13 0.15 0.20 0.20 0.04 0.28 0.28 0.11 0.27 0.27
 Crit Moves: ****
 Green/Cycle: 0.07 0.16 0.16 0.19 0.28 0.28 0.07 0.35 0.35 0.14 0.42 0.42
 Volume/Cap: 0.73 0.81 0.81 0.81 0.73 0.73 0.64 0.81 0.81 0.81 0.64 0.64
 Uniform Del: 45.3 40.3 40.3 39.0 32.8 32.8 45.5 29.6 29.6 41.6 22.9 22.9
 IncremntDel: 18.2 6.0 6.0 13.5 1.9 1.9 11.3 2.9 2.9 17.3 0.7 0.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 63.5 46.3 46.3 52.5 34.7 34.7 56.9 32.4 32.4 58.9 23.5 23.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 63.5 46.3 46.3 52.5 34.7 34.7 56.9 32.4 32.4 58.9 23.5 23.5
 LOS by Move: E D D D C C E C E C C C
 HCM2kAvgQ: 5 9 9 8 11 11 4 17 17 8 13 13

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.960
 Loss Time (sec): 16 Average Delay (sec/veh): 48.0
 Optimal Cycle: 146 Level Of Service: D

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 1 0 3 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 223 1034 345 363 1087 106 188 1045 117 184 887 644
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 223 1034 345 363 1087 106 188 1045 117 184 887 644

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 5187 1615 1805 5187 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.12 0.20 0.21 0.20 0.21 0.07 0.10 0.29 0.07 0.10 0.25 0.40
 Crit Moves: ****
 Green/Cycle: 0.16 0.22 0.22 0.21 0.27 0.27 0.12 0.30 0.30 0.11 0.29 0.50
 Volume/Cap: 0.77 0.90 0.96 0.96 0.77 0.24 0.86 0.96 0.24 0.96 0.86 0.80
 Uniform Del: 40.2 37.7 38.4 39.1 33.5 28.4 43.1 34.3 26.3 44.5 33.8 21.1
 IncremntDel: 12.0 9.3 36.8 35.7 2.7 0.3 26.9 18.3 0.3 53.2 7.3 5.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 52.2 47.0 75.2 74.8 36.2 28.7 70.0 52.6 26.5 97.7 41.0 27.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 52.2 47.0 75.2 74.8 36.2 28.7 70.0 52.6 26.5 97.7 41.0 27.1
 LOS by Move: D D E E D C E D C F D C
 HCM2kAvgQ: 9 15 15 16 13 3 6 17 2 5 13 15

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Sunset/Wilson

Cycle (sec): 90 Critical Vol./Cap.(X): 1.042
 Loss Time (sec): 16 Average Delay (sec/veh): 54.7
 Optimal Cycle: 180 Level Of Service: D

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 305 739 149 145 392 290 323 817 184 70 1189 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 305 739 149 145 392 290 323 817 184 70 1189 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 305 739 149 145 392 290 323 817 184 70 1189 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 305 739 149 145 392 290 323 817 184 70 1189 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 305 739 149 145 392 290 323 817 184 70 1189 178
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3610 1615 1805 3610 1615
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.17 0.20 0.09 0.08 0.11 0.18 0.18 0.23 0.11 0.04 0.33 0.11
 Crit Moves: **** *
 Green/Cycle: 0.16 0.24 0.24 0.09 0.17 0.17 0.17 0.42 0.42 0.07 0.32 0.32
 Volume/Cap: 1.04 0.85 0.38 0.85 0.63 1.04 1.04 0.54 0.27 0.54 1.04 0.35
 Uniform Del: 37.7 32.7 28.6 40.1 34.6 37.2 37.3 19.8 17.3 40.4 30.8 23.7
 IncremntDel: 64.0 8.1 0.6 31.6 2.1 65.4 62.5 0.4 0.2 4.7 38.3 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 101.7 40.8 29.3 71.7 36.7 102.6 99.8 20.2 17.5 45.1 69.1 24.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 101.7 40.8 29.3 71.7 36.7 102.6 99.8 20.2 17.5 45.1 69.1 24.1
 LOS by Move: F D C E D F F C B D E C
 HCM2kAvgQ: 12 11 3 7 6 14 11 8 3 2 21 3
 -----|-----|-----|-----|

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.999
 Loss Time (sec): 16 Average Delay (sec/veh): 51.1
 Optimal Cycle: 176 Level Of Service: D

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 101 371 21 178 463 436 341 1100 71 25 1175 175
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 101 371 21 178 463 436 341 1100 71 25 1175 175
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 101 371 21 178 463 436 341 1100 71 25 1175 175
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 101 371 21 178 463 436 341 1100 71 25 1175 175
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 101 371 21 178 463 436 341 1100 71 25 1175 175
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.88 0.88 0.95 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.89 0.11 1.00 1.03 0.97 1.00 1.88 0.12 1.00 2.00 1.00
 Final Sat.: 1805 3389 192 1805 1723 1623 1805 3361 217 1805 3610 1615
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.06 0.11 0.11 0.10 0.27 0.27 0.19 0.33 0.33 0.01 0.33 0.11
 Crit Moves: **** *
 Green/Cycle: 0.06 0.17 0.17 0.15 0.27 0.27 0.19 0.49 0.49 0.02 0.33 0.33
 Volume/Cap: 1.00 0.64 0.64 0.64 1.00 1.00 1.00 0.66 0.66 0.66 1.00 0.33
 Uniform Del: 47.2 38.6 38.6 39.7 36.5 36.5 40.5 19.0 19.0 48.6 33.7 25.5
 IncremntDel: 89.1 2.3 2.3 5.0 29.7 29.7 48.4 1.0 1.0 36.3 25.9 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 136.3 40.9 40.9 44.7 66.2 66.2 88.9 20.0 20.0 84.9 59.6 25.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 136.3 40.9 40.9 44.7 66.2 66.2 88.9 20.0 20.0 84.9 59.6 25.9
 LOS by Move: F D D D E E F B B F E C
 HCM2kAvgQ: 6 7 7 5 18 18 16 15 15 1 21 4
 -----|-----|-----|-----|

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 8th/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.904
 Loss Time (sec): 16 Average Delay (sec/veh): 41.0
 Optimal Cycle: 118 Level Of Service: D

 Street Name: 8th Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 66 207 58 136 108 50 77 830 58 60 1140 183
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 66 207 58 136 108 50 77 830 58 60 1140 183
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 66 207 58 136 108 50 77 830 58 60 1140 183
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 66 207 58 136 108 50 77 830 58 60 1140 183
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 66 207 58 136 108 50 77 830 58 60 1140 183
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.97 0.97 0.97 0.95 0.95 0.95 0.95 0.94 0.94 0.95 0.93 0.93
 Lanes: 0.20 0.63 0.17 0.46 0.37 0.17 1.00 1.87 0.13 1.00 1.72 0.28
 Final Sat.: 366 1148 322 839 666 308 1805 3340 233 1805 3045 489
 Capacity Analysis Module:
 Vol/Sat: 0.18 0.18 0.18 0.16 0.16 0.16 0.04 0.25 0.25 0.03 0.37 0.37
 Crit Moves: ****
 Green/Cycle: 0.20 0.20 0.20 0.18 0.18 0.18 0.05 0.41 0.41 0.05 0.41 0.41
 Volume/Cap: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.61 0.61 0.90 0.90 0.90
 Uniform Del: 39.1 39.1 39.1 40.2 40.2 40.2 47.4 23.4 23.4 46.2 27.4 27.4
 IncremntDel: 24.9 24.9 24.9 27.1 27.1 27.1 66.4 0.8 0.8 10.8 8.2 8.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 64.0 64.0 64.0 67.3 67.3 67.3 113.8 24.2 24.2 57.0 35.7 35.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 64.0 64.0 64.0 67.3 67.3 67.3 113.8 24.2 24.2 57.0 35.7 35.7
 LOS by Move: E E E E E F C C E D D
 HCM2kAvgQ: 10 10 10 12 12 12 3 11 11 3 24 24
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 8th/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.856
 Loss Time (sec): 16 Average Delay (sec/veh): 36.3
 Optimal Cycle: 101 Level Of Service: D

 Street Name: 8th Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 2 0 1 1 0 1 0 2 0 1
 Volume Module:
 Base Vol: 88 305 46 514 326 227 494 689 134 46 1198 458
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 88 305 46 514 326 227 494 689 134 46 1198 458
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 88 305 46 514 326 227 494 689 134 46 1198 458
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 88 305 46 514 326 227 494 689 134 46 1198 458
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 88 305 46 514 326 227 494 689 134 46 1198 458
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.93 0.93 0.92 0.89 0.89 0.92 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.74 0.26 2.00 1.18 0.82 2.00 1.67 0.33 1.00 2.00 1.00
 Final Sat.: 1805 3074 464 3502 1998 1391 3502 2950 574 1805 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.05 0.10 0.10 0.15 0.16 0.16 0.14 0.23 0.23 0.03 0.33 0.28
 Crit Moves: ****
 Green/Cycle: 0.07 0.12 0.12 0.17 0.22 0.22 0.16 0.50 0.50 0.05 0.39 0.56
 Volume/Cap: 0.74 0.86 0.86 0.86 0.74 0.74 0.86 0.47 0.47 0.47 0.86 0.51
 Uniform Del: 45.8 43.4 43.4 40.2 36.2 36.2 40.6 16.4 16.4 45.9 28.1 13.6
 IncremntDel: 21.2 16.1 16.1 11.6 3.9 3.9 12.0 0.2 0.2 3.5 5.4 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 67.1 59.5 59.5 51.8 40.1 40.1 52.6 16.6 16.6 49.4 33.5 14.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 67.1 59.5 59.5 51.8 40.1 40.1 52.6 16.6 16.6 49.4 33.5 14.0
 LOS by Move: E E E D D D D B B D C B
 HCM2kAvgQ: 4 8 8 8 8 8 8 8 8 1 18 8
 Note: Queue reported is the number of cars per lane.

```
-----
Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #8 Hargrave/Lincoln
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.694
Loss Time (sec):   16          Average Delay (sec/veh):     36.2
Optimal Cycle:     68          Level Of Service:          D
*****
Street Name:      Hargrave Lincoln
Approach:         North Bound South Bound East Bound West Bound
Movement:         L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control:          Protected Protected Protected Protected
Rights:           Include Ignore Include Ignore
Min. Green:       0 0 0 0 0 0 0 0 0 0 0 0
Y+R:             4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes:            1 0 1 0 1 2 0 1 0 1 1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:         143 195 23 577 211 940 309 397 86 56 275 826
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      143 195 23 577 211 940 309 397 86 56 275 826
User Adj:         1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume:       143 195 23 577 211 0 309 397 86 56 275 0
Reduct Vol:       0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:      143 195 23 577 211 0 309 397 86 56 275 0
PCE Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume:      143 195 23 577 211 0 309 397 86 56 275 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:       0.95 1.00 0.85 0.92 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00
Lanes:            1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.:       1805 1900 1615 3502 1900 1900 1805 1900 1615 1805 1900 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.08 0.10 0.01 0.16 0.11 0.00 0.17 0.21 0.05 0.03 0.14 0.00
Crit Moves:       ****
Green/Cycle:      0.16 0.15 0.15 0.24 0.22 0.00 0.25 0.40 0.40 0.06 0.21 0.00
Volume/Cap:       0.49 0.69 0.10 0.69 0.49 0.00 0.69 0.53 0.13 0.53 0.69 0.00
Uniform Del:      38.3 40.5 36.8 34.8 33.8 0.0 34.3 23.0 19.3 45.7 36.6 0.0
IncrmntDel:       1.3 7.3 0.2 2.6 0.9 0.0 4.7 0.7 0.1 4.9 5.3 0.0
InitQueueDel:     0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh:        39.6 47.8 37.0 37.4 34.7 0.0 39.0 23.8 19.4 50.6 41.9 0.0
User DelAdj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       39.6 47.8 37.0 37.4 34.7 0.0 39.0 23.8 19.4 50.6 41.9 0.0
LOS by Move:      D D D D C A D C B D D A
HCM2kAvgQ:        5 7 1 10 6 0 9 9 2 2 9 0
*****
Note: Queue reported is the number of cars per lane.
*****
```

APPENDIX B

TRAFFIC STUDIES

TRAFFIC IMPACT ANALYSIS

**BANNING GENERAL PLAN AMENDMENT
REDESIGNATION OF HIGHLAND HOME ROAD AT INTERSTATE 10
FROM AN INTERCHANGE TO AN OVERCROSSING**

**CITY OF BANNING
RIVERSIDE COUNTY, CALIFORNIA**

LSA

September 2012

TRAFFIC IMPACT ANALYSIS

BANNING GENERAL PLAN AMENDMENT REDESIGNATION OF HIGHLAND HOME ROAD AT INTERSTATE 10 FROM AN INTERCHANGE TO AN OVERCROSSING

CITY OF BANNING RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

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LSA

September 2012

EXECUTIVE SUMMARY

This traffic impact analysis (TIA) has been prepared to assess a proposed amendment to the adopted City of Banning (City) General Plan Circulation Element (adopted in January 2006). According to the current General Plan Circulation Element, Highland Home Road is shown to be extended from Ramsey Street to Lincoln Street and will provide access (via interchange) to Interstate 10 (I-10). The City is proposing to eliminate the interchange and maintain an overcrossing. This removal of interchange (while retaining the overcrossing) is being considered due to the likely unfeasible nature of an interchange at the I-10 freeway. The interchange is likely unfeasible due to approval criteria required from the California Department of Transportation (Caltrans) and the technical feasibility, which has been documented in preliminary engineering studies prepared by the City. Due to the questionable status of the potential circulation improvement, this evaluation addresses the impacts to the balance of the City's circulation system if the interchange is deleted while retaining the overcrossing.

Traffic conditions were analyzed at 16 intersections for a.m. and p.m. peak hours for the following scenarios:

- General Plan Buildout with I-10/Highland Home Road Interchange conditions
- General Plan Buildout with Highland Home Road Overcrossing conditions
- General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Road) conditions

Mitigation measures are provided in the study for both level of service (LOS) C and LOS D.

Based on the results of the TIA, it is recommended that the proposed I-10/Highland Home Road interchange be eliminated while retaining the overcrossing. The Highland Home Road Overcrossing would result in fewer improvements, less right-of-way acquisition, and lower construction costs.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
1.0 INTRODUCTION AND SUMMARY	1
1.1 Purpose of Report and Study Objective	1
2.0 STUDY AREA	1
2.1 Study Area Intersections	1
2.2 Intersection Levels of Service: Definition and Criteria	3
3.0 GENERAL PLAN BUILDOUT CONDITIONS	4
3.1 General Plan Buildout with I-10/Highland Home Road Interchange Conditions LOS	6
3.2 General Plan Buildout with Highland Home Road Overcrossing Conditions LOS	6
3.3 General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection) Conditions LOS	6
4.0 MITIGATION MEASURES	13
4.1 General Plan Buildout with Highland Home Road Interchange	13
4.2 General Plan Buildout with Highland Home Road Overcrossing	17
4.3 General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection)	22
5.0 COMPARISON OF ALTERNATIVES	27
5.1 With I-10/Highland Home Road Interchange and Overcrossing (LOS C Mitigation)	27
5.2 With I-10/Highland Home Road Interchange and Overcrossing (LOS D Mitigation)	30
5.3 With and Without I-10/Highland Home Road Interchange and Overcrossing (LOS C Mitigation)	32
5.4 With and Without I-10/Highland Home Road Interchange and Overcrossing (LOS D Mitigation)	34
6.0 CONCLUSION	37

APPENDIX

A: LEVEL OF SERVICE CALCULATION WORKSHEETS

FIGURES AND TABLES

FIGURES

Figure 1: Study Area Intersections	2
Figure 2: Existing Intersection Geometrics	5
Figure 3: General Plan Buildout Peak-Hour Volumes (with I-10/Highland Home Road Interchange) ..	7
Figure 4: General Plan Buildout Peak-Hour Volumes (with Highland Home Road Overcrossing)	9
Figure 5: General Plan Buildout Peak-Hour Volumes (without I-10/Highland Home Road Interchange and Overcrossing [No Connection])	11
Figure 6: General Plan Buildout with Mitigations Intersection Geometrics (with I-10/Highland Home Road Interchange)	14
Figure 7: General Plan Buildout with Mitigations Intersection Geometrics (with Highland Home Road Overcrossing)	19
Figure 8: General Plan Buildout with Mitigations Intersection Geometrics (without I-10/Highland Home Road Interchange and Overcrossing [No Connection])	24
Figure 9: LOS C Improvements Difference between Highland Home Road Interchange and Overcrossing Only	29
Figure 10: LOS D Improvements Difference between Highland Home Road Interchange and Overcrossing Only	31
Figure 11: LOS C Improvements Difference between Highland Home Road Interchange and No Connection Only	33
Figure 12: LOS D Improvements Difference between Highland Home Road Interchange and No Connection Only	35

TABLES

Table A: General Plan Buildout Intersection Los Summary (with I-10/Highland Home Road Interchange)	8
Table B: General Plan Buildout Intersection LOS Summary (with Highland Home Road Overcrossing)	10
Table C: General Plan Buildout Intersection LOS Summary (without I-10/Highland Home Road Interchange and Overcrossing [No Connection])	12
Table D: General Plan Buildout Intersection LOS C Summary (with I-10/Highland Home Road Interchange)	16
Table E: General Plan Buildout Intersection LOS D Summary (with I-10/Highland Home Road Interchange)	18
Table F: General Plan Buildout Intersection LOS C Summary (with Highland Home Road Overcrossing)	21
Table G: General Plan Buildout Intersection LOS D Summary (with Highland Home Road Overcrossing)	23
Table H: General Plan Buildout Intersection LOS C Summary (without I-10/Highland Home Road Interchange and Overcrossing [No Connection])	26
Table I: General Plan Buildout Intersection LOS D Summary (without I-10/Highland Home Road Interchange and Overcrossing [No Connection])	28

1.0 INTRODUCTION AND SUMMARY

1.1 Purpose of Report and Study Objective

This traffic impact analysis (TIA) has been prepared to assess a proposed amendment to the adopted City of Banning (City) General Plan Circulation Element (adopted in January 2006). According to the current General Plan Circulation Element, Highland Home Road will be extended from Ramsey Street to Lincoln Street and will provide access (via interchange) to Interstate 10 (I-10). The City is proposing the removal of the I-10/Highland Home Road interchange while retaining the overcrossing.

This report includes analysis of the following three scenarios to satisfy the requirements for the disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA).

- General Plan Buildout with I-10/Highland Home Road Interchange (current General Plan) condition
- General Plan Buildout with Highland Home Road Overcrossing condition
- General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Road) condition

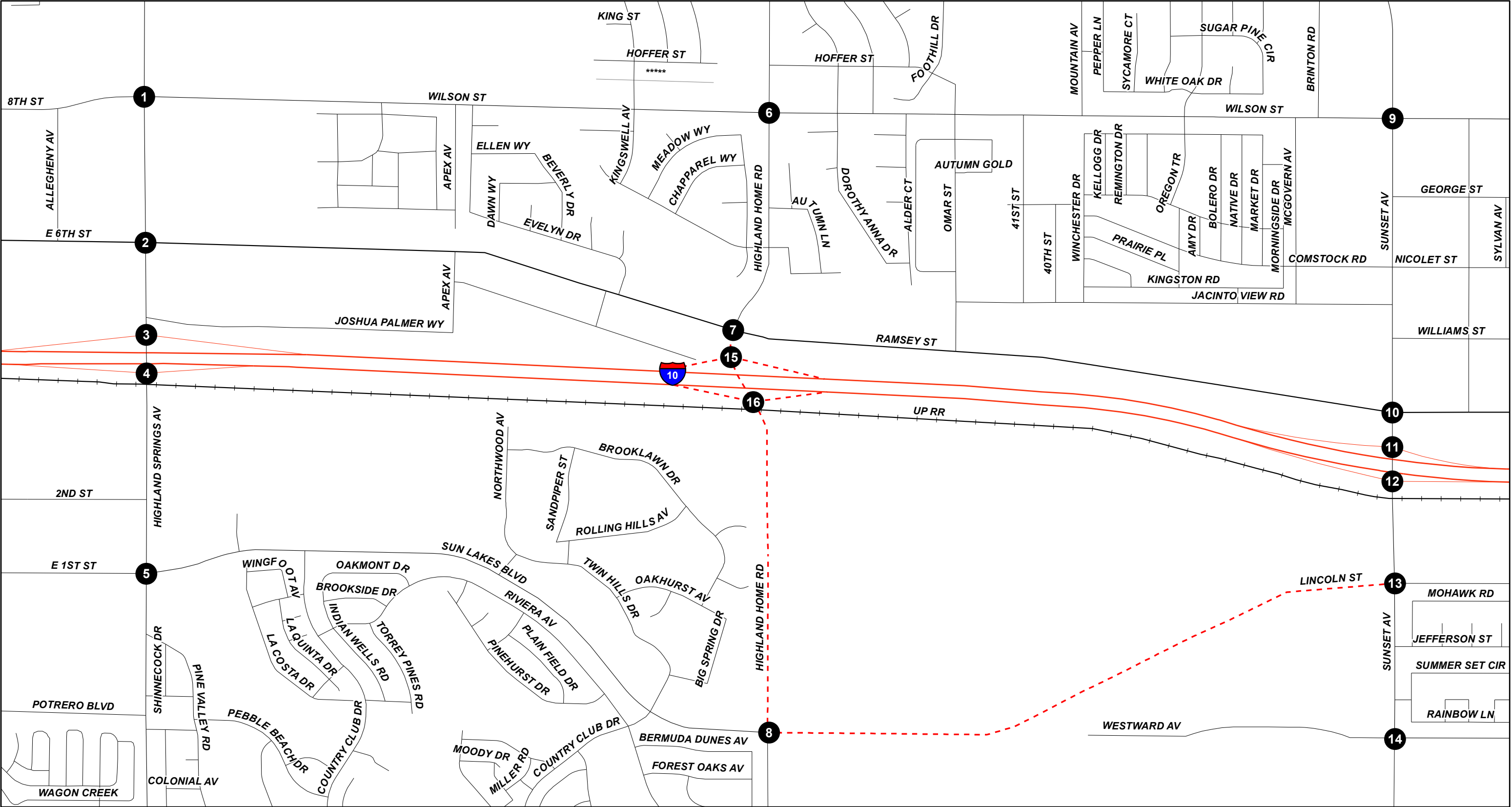
This study analyzes a.m. and p.m. peak-hour conditions for General Plan Buildout with the I-10/Highland Home Interchange, with the Highland Home Overcrossing, and with neither.

2.0 STUDY AREA

2.1 Study Area Intersections

Intersections along Highland Home Road (north and south of I-10), Highland Springs Avenue (interchange just west of Highland Home Road), and Sunset Avenue (interchange just east of Highland Home Road) were included in the analysis in order to assess the impacts of the removal of the I-10/Highland Home Road interchange. The study area includes the following intersections, as illustrated in Figure 1:

1. Highland Springs Avenue/Wilson Street
2. Highland Springs Avenue/Ramsey Street
3. Highland Springs Avenue/I-10 Westbound Ramps
4. Highland Springs Avenue/I-10 Eastbound Ramps
5. Highland Springs Avenue/Sun Lakes Boulevard
6. Highland Home Road/Wilson Street
7. Highland Home Road/Ramsey Street
8. Highland Home Road/Sun Lakes Boulevard–Westward Avenue
9. Sunset Avenue/Wilson Street
10. Sunset Avenue/Ramsey Street

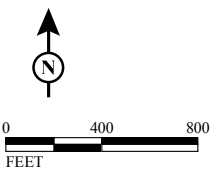


LSA

LEGEND

- 1 Study Area Intersections
- Future/Proposed Roadway

FIGURE 1



SOURCE: Thomas Bros. (2010)

I:\COB1101\GIS\StudyAreaIntersections.mxd (12/14/2011)

11. Sunset Avenue/I-10 Westbound Ramps
12. Sunset Avenue/I-10 Eastbound Ramps
13. Sunset Avenue/Lincoln Street
14. Sunset Avenue/Westward Avenue
15. Highland Home Road/I-10 Westbound Ramps
16. Highland Home Road/I-10 Eastbound Ramps

2.2 Intersection Levels of Service: Definition and Criteria

Intersection operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service (LOS), which are defined using the letter grades A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such conditions, congestion is experienced. There is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will then form and continue to expand in length until the demand volume again declines.

A complete description of the meaning of level of service can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual*. The Manual establishes LOS A through F. Brief descriptions of the six levels of service, as abstracted from the Manual, are provided below.

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

The LOS criteria for unsignalized and signalized intersections are shown below.

LOS	Unsignalized Intersection Average Delay per Vehicle (seconds)	Signalized Intersection Average Delay per Vehicle (seconds)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

Consistent with Riverside County guidelines, all study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Intersection LOS was calculated using Traffix software.

According to the current City General Plan Circulation Element, within the study area, LOS C is considered the upper limit of satisfactory operations except for intersections along Ramsey Street and interchange intersections along I-10, where LOS D is considered satisfactory.

3.0 GENERAL PLAN BUILDOUT CONDITIONS

Consistent with the previous TIA included in the adopted General Plan, the future General Plan Buildout conditions at all study area intersections were analyzed using existing intersection configurations illustrated in Figure 2.

The traffic volumes for analyzing the study area intersections for General Buildout with I-10/ Highland Home Road Interchange, with Highland Home Road Overcrossing conditions, as well as with neither, were developed from the Pass Area Traffic Model, which was used in developing traffic volumes in the adopted General Plan TIA.

The future traffic forecast for the Circulation Element of the adopted Banning General Plan (updated June 2005) was developed based on the Pass Area Model (PAM), which is an intensified/detailed version of the Riverside County Integrated Project (RCIP). This model has been used to develop General Plan build-out conditions traffic volumes for this General Plan update. PAM is a Tranplan model, which includes the Pass Area street network and Traffic Analysis Zones (TAZs). Each TAZ contains land use information, and the traffic that the land use would generate.

Following model runs were obtained from PAM to develop forecast traffic volumes for the General Plan build-out year scenario:

- General Plan Build-Out Year with I-10/Highland Home Road Interchange; and
- General Plan Build-Out Year without I-10/Highland Home Road Interchange and Overcrossing (No Road).

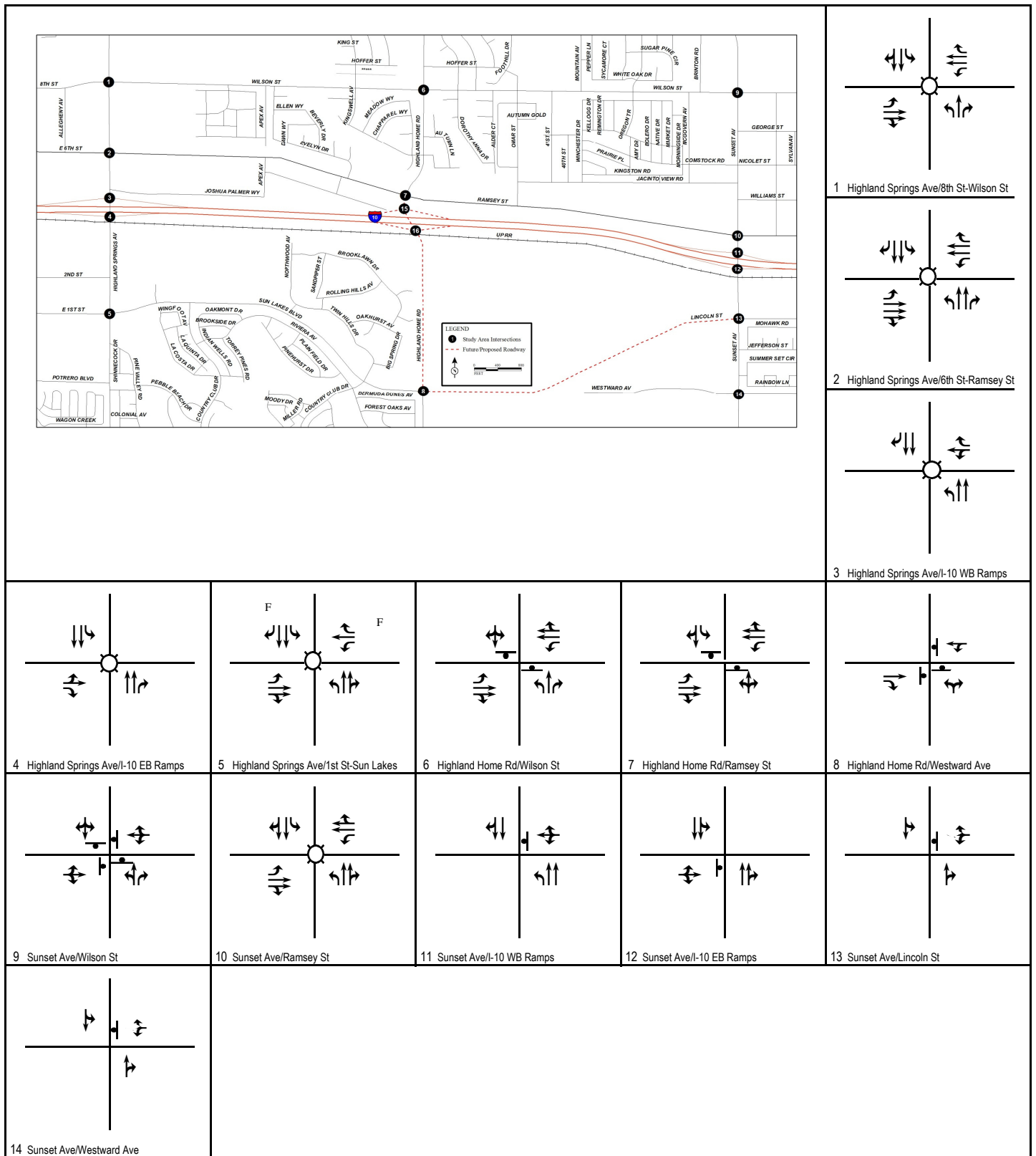


FIGURE 2

Legend

- Signal
- ⊥ Stop Sign
- F Free Right

Banning General Plan Amendment

Existing Intersection Geometrics

Peak-hour turning movement volumes (a.m. and p.m. peak hours) obtained from the model runs were used to develop turning movement volumes at study intersections for build-out year peak hour conditions. The model turning movement volumes at some study intersections were adjusted to refine minor discrepancies.

The traffic volumes for 'Highland Home Road Overcrossing scenario' were developed using the traffic volumes from the 'With Highland Home Road Interchange scenario.' The ramp volumes on the Highland Home Road interchange were reassigned to adjacent ramps (Highland Springs Avenue and Sunset Avenue) while the assignment of north-south through traffic remained unchanged during the conversion (development) of the traffic volume from 'Interchange scenario' to 'Overcrossing scenario.'

3.1 General Plan Buildout with I-10/Highland Home Road Interchange Conditions LOS

Figure 3 illustrates the a.m. and p.m. peak-hour volumes for General Plan Buildout with I-10/Highland Home Road Interchange conditions. An LOS analysis was conducted to evaluate the peak-hour traffic operations at the study area intersections. The LOS worksheets for analysis scenarios are provided in Appendix A. Table A summarizes the results of this analysis. As shown in this table, 11 study area intersections will exceed LOS thresholds. The following five intersections will operate at satisfactory LOS:

- Highland Springs Avenue/I-10 Westbound Ramps
- Highland Springs Avenue/I-10 Eastbound Ramps
- Sunset Avenue/Westward Avenue
- Highland Home Road/I-10 Westbound Ramps
- Highland Home Road/I-10 Eastbound Ramps

The LOS results include traffic demand from complete buildout of the General Plan and existing intersection geometrics.

3.2 General Plan Buildout with Highland Home Road Overcrossing Conditions LOS

Figure 4 illustrates the a.m. and p.m. peak-hour volumes for General Plan Buildout with Highland Home Road Overcrossing conditions. An LOS analysis was conducted to evaluate the peak-hour traffic operations at the study area intersections. Table B summarizes the results of this analysis. As shown in this table, all study area intersections will exceed LOS thresholds, with the exception of Sunset Avenue/Westward Avenue.

3.3 General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection) Conditions LOS

Figure 5 illustrates the a.m. and p.m. peak-hour volumes for General Plan Buildout without I-10/Highland Home Road Interchange conditions. An LOS analysis was conducted to evaluate the peak-hour traffic operations at the study area intersections. Table C summarizes the results of this analysis.

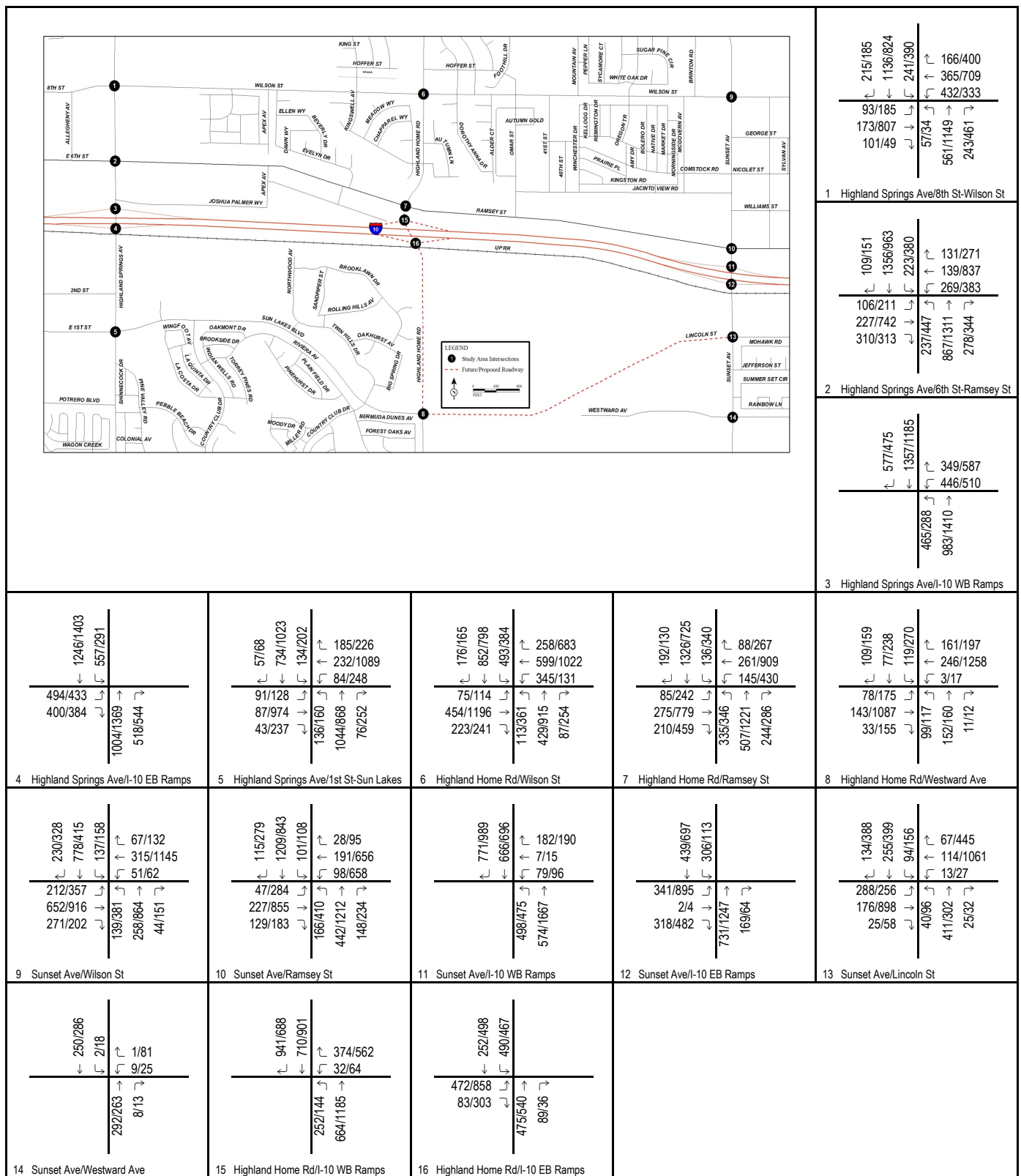


FIGURE 3

Legend
 xxx/yyy AM/PM Peak Hour Volume

Banning General Plan Amendment
 General Plan Buildout Peak Hour Volumes
 With I-10/Highland Home Road Interchange

**Table A: General Plan Buildout Intersection LOS Summary
With I-10/Highland Home Road Interchange**

Intersection		Baseline				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	43.5 sec	D	>80.0 sec	F
2	Highland Springs Avenue/Ramsey Street ¹	Signal	54.0 sec	D	>80.0 sec	F
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	49.9 sec	D	42.2 sec	D
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	49.7 sec	D	32.1 sec	C
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	24.3 sec	C	>80.0 sec	F
6	Highland Home Road/Wilson Street	TWSC	>50.0 sec	F	>50.0 sec	F
7	Highland Home Road/Ramsey Street ¹	TWSC	>50.0 sec	F	>50.0 sec	F
8	Highland Home Road/Westward Avenue	AWSC	17.6 sec	C	>50.0 sec	F
9	Sunset Avenue/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
10	Sunset Avenue/Ramsey Street ¹	Signal	19.9 sec	B	>80.0 sec	F
11	Sunset Avenue/I-10 WB Ramps ¹	TWSC	>50.0 sec	F	>50.0 sec	F
12	Sunset Avenue/I-10 EB Ramps ¹	TWSC	>50.0 sec	F	>50.0 sec	F
13	Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	F	>50.0 sec	F
14	Sunset Avenue/Westward Avenue	TWSC	12.1 sec	B	11.4 sec	B
15	Highland Home Road/I-10 WB Ramps ¹	Signal	17.6 sec	B	6.1 sec	A
16	Highland Home Road/I-10 EB Ramps ¹	Signal	28.0 sec	C	31.1 sec	C

 = exceeds City's of level of service (LOS) criteria

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

N/A = not applicable. Future intersection to be analyzed as part of LOS C and LOS D mitigations.

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

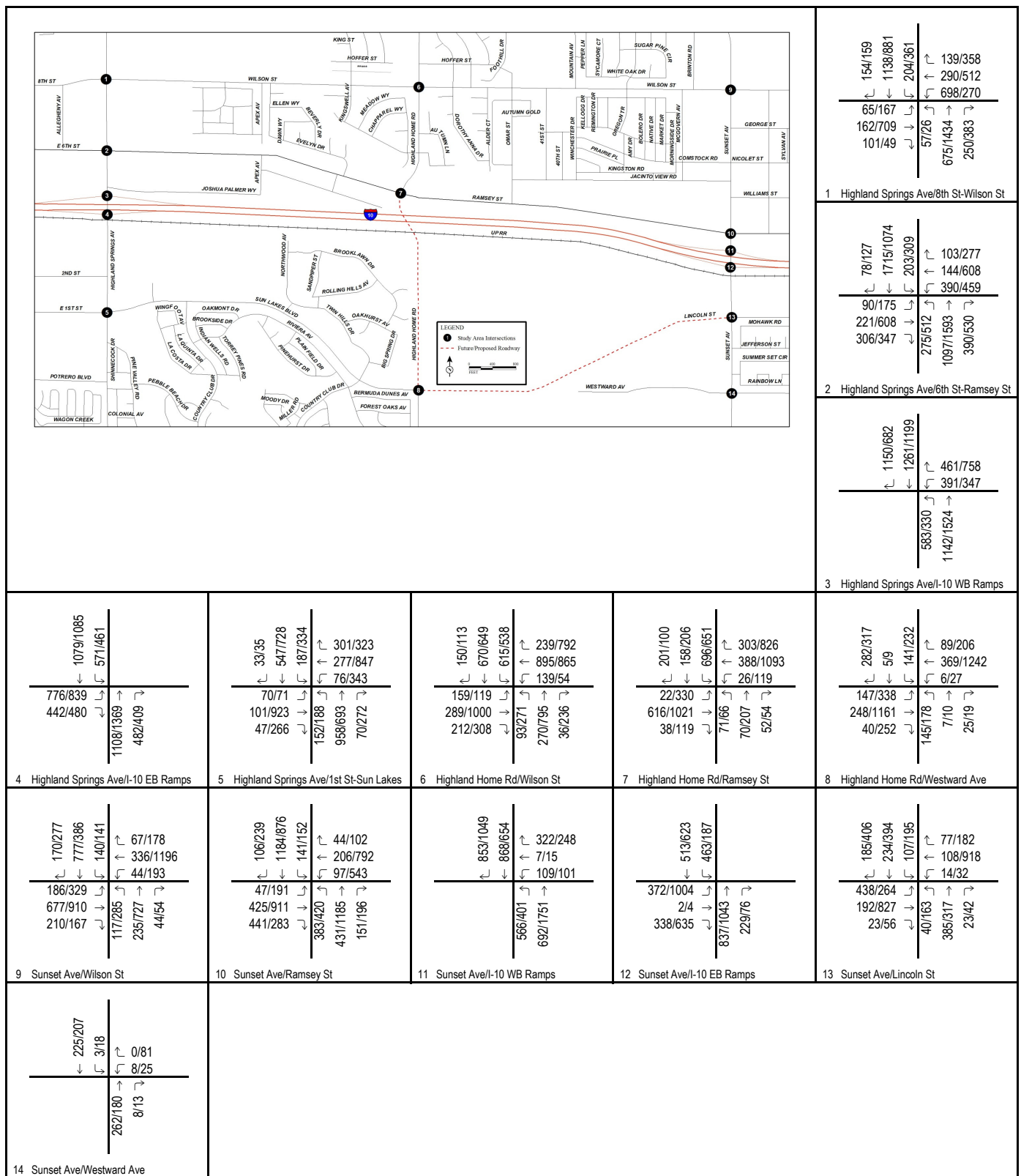


FIGURE 4

Legend

xxx/yyy AM/PM Peak Hour Volume

Banning General Plan Amendment

General Plan Buildout Peak Hour Volumes
With Highland Home Road Overcrossing

**Table B: General Plan Buildout Intersection LOS Summary
With Highland Home Road Overcrossing**

Intersection		Baseline				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	77.1 sec	E	>80.0 sec	F
2	Highland Springs Avenue/Ramsey Street ¹	Signal	>80.0 sec	F	>80.0 sec	F
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	>80.0 sec	F	77.1 sec	E
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	>80.0 sec	F	>80.0 sec	F
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	27.4 sec	C	>80.0 sec	F
6	Highland Home Road/Wilson Street	TWSC	>50.0 sec	F	>50.0 sec	F
7	Highland Home Road/Ramsey Street ¹	TWSC	>50.0 sec	F	>50.0 sec	F
8	Highland Home Road/Westward Avenue	AWSC	42.2 sec	E	>50.0 sec	F
9	Sunset Avenue/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
10	Sunset Avenue/Ramsey Street ¹	Signal	>80.0 sec	F	>80.0 sec	F
11	Sunset Avenue/I-10 WB Ramps ¹	TWSC	>50.0 sec	F	>50.0 sec	F
12	Sunset Avenue/I-10 EB Ramps ¹	TWSC	>50.0 sec	F	>50.0 sec	F
13	Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	F	>50.0 sec	F
14	Sunset Avenue/Westward Avenue	TWSC	11.8 sec	B	10.4 sec	B

 = exceeds City's of level of service (LOS) criteria

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

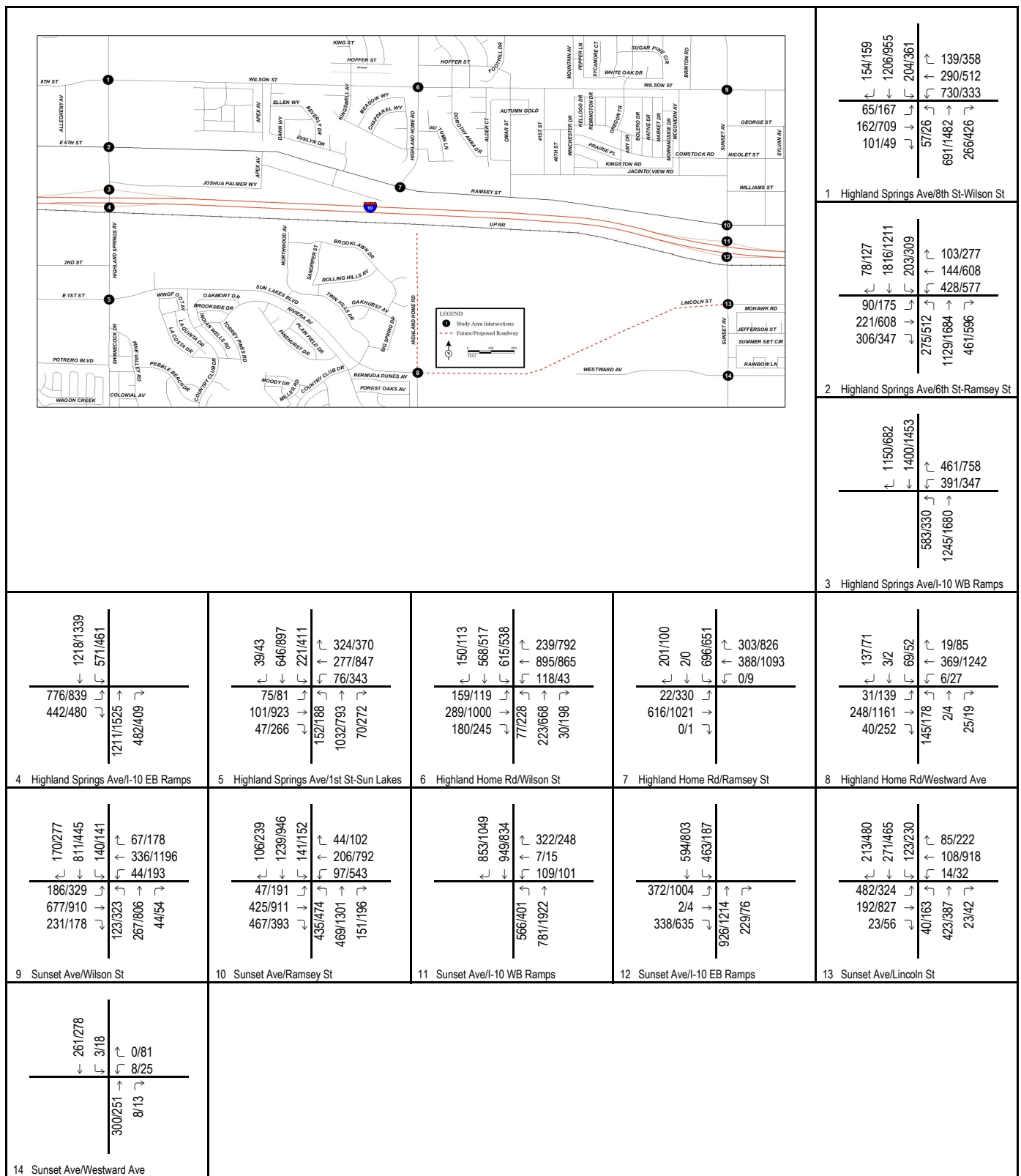


FIGURE 5

Legend

xxx/yyy AM/PM Peak Hour Volume

Banning General Plan Amendment

General Plan Buildout Peak Hour Volumes
Without I-10/Highland Home Road Interchange/Overcrossing (No Connection)

Table C: General Plan Buildout Intersection LOS Summary
Without I-10/Highland Home Road Interchange/Overcrossing (No Connection)

Intersection		Baseline				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	>80.0 sec	F	>80.0 sec	F
2	Highland Springs Avenue/Ramsey Street ¹	Signal	>80.0 sec	F	>80.0 sec	F
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	>80.0 sec	F	>80.0 sec	F
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	>80.0 sec	F	>80.0 sec	F
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	28.2 sec	C	>80.0 sec	F
6	Highland Home Road/Wilson Street	TWSC	>50.0 sec	F	>50.0 sec	F
7	Highland Home Road/Ramsey Street ¹	TWSC	>50.0 sec	F	>50.0 sec	F
8	Highland Home Road/Westward Avenue	AWSC	14.4 sec	B	>50.0 sec	F
9	Sunset Avenue/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
10	Sunset Avenue/Ramsey Street ¹	Signal	>80.0 sec	F	>80.0 sec	F
11	Sunset Avenue/I-10 WB Ramps ¹	TWSC	>50.0 sec	F	>50.0 sec	F
12	Sunset Avenue/I-10 EB Ramps ¹	TWSC	>50.0 sec	F	>50.0 sec	F
13	Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	F	>50.0 sec	F
14	Sunset Avenue/Westward Avenue	TWSC	12.6 sec	B	0.9 sec	B

 = exceeds City's of level of service (LOS) criteria

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

As shown in Table C, all study area intersections will exceed LOS thresholds, with the exception of Sunset Avenue/Westward Avenue.

4.0 MITIGATION MEASURES

The current General Plan traffic study lists mitigation measures to improve the intersection LOS in the General Plan Buildout conditions. Some of these measures have already been implemented, while others will be implemented as development is undertaken in the future. The Highland Springs Avenue Corridor and I-10 interchange is an example of such a location where interim traffic operations improvements (signal coordination and phasing) have been implemented, and a Project Study Report (PSR) is currently underway for studying alternatives for improving the interchange in the long term.

These improvements have been undertaken in coordination and cooperation with Beaumont since Highland Springs is the municipal boundary. These improvements are intended to improve the flow of traffic and reduce congestion along this corridor.

At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. Discussions on necessary improvements required at each deficient intersection are provided below. It should be noted that signal timing/phasing changes may also be required. Only physical intersection improvements (i.e., additional lanes) are listed below.

4.1 General Plan Buildout with Highland Home Road Interchange

LOS C Mitigation Requirements. The adopted City General Plan Circulation Element identified the following mitigation measures, as shown in Figure 6, to improve the deficient study area intersection LOS to LOS C:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a designated northbound right-turn lane, a second southbound left-turn lane, a third southbound through lane, a second eastbound left-turn lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound left-turn lane, two northbound through lanes, two southbound left-turn lanes, two southbound through lanes, a designated southbound right-turn lane, a second eastbound left-turn lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, two eastbound through lanes, and two westbound through lanes.

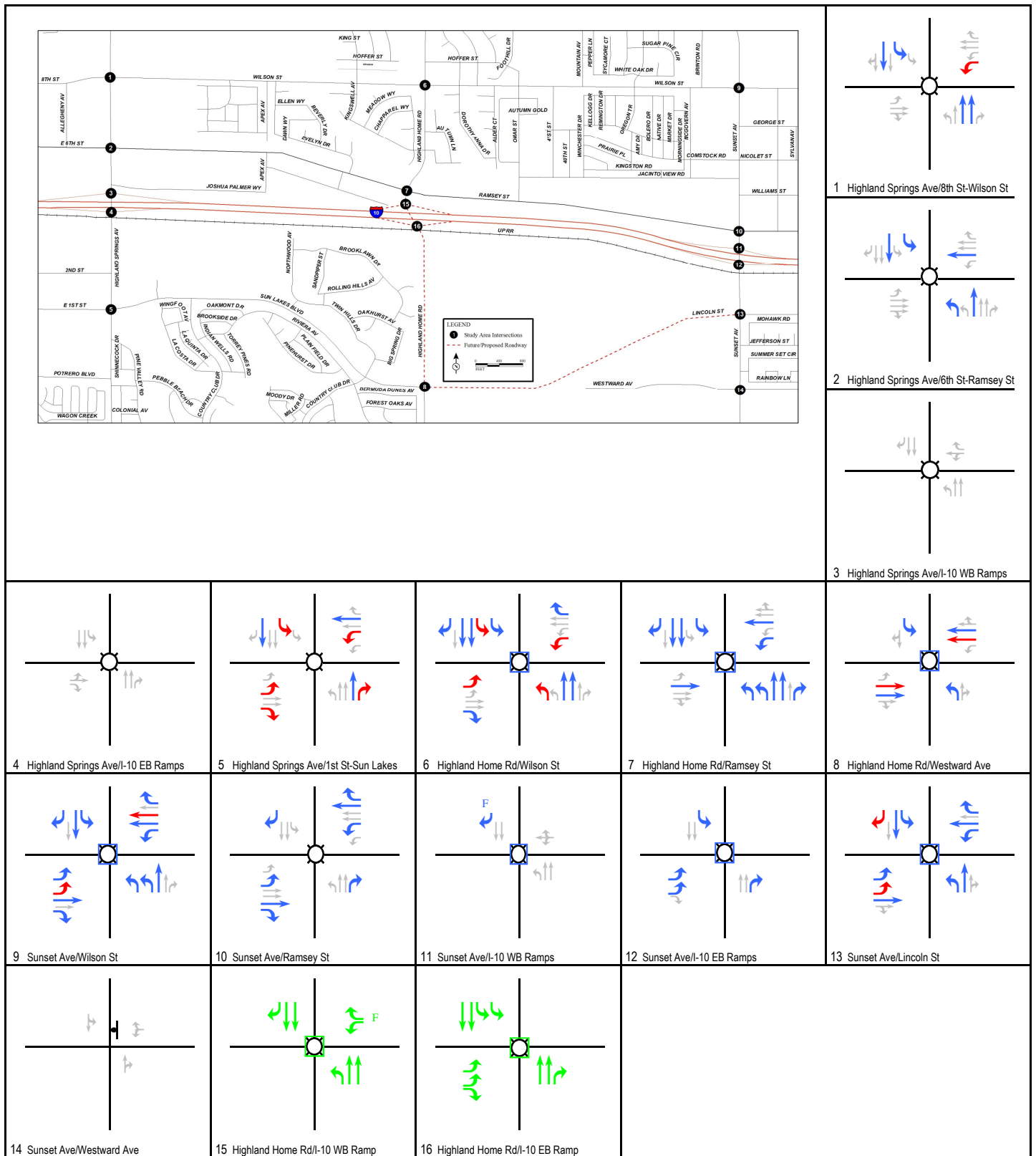


FIGURE 6

Banning General Plan Amendment

General Plan Buildout with Mitigations Intersection Geometrics
With I-10/Highland Home Road Interchange

- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, two westbound through lanes, and a designated westbound right-turn lane.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

The intersections along Ramsey Street and the I-10 interchange intersections operate at unacceptable LOS with existing geometrics and will require improvements to mitigate the deficiencies to acceptable LOS D. The improvements to these intersections are included in the next section, which discusses LOS D requirements.

Table D summarizes the results of the General Plan Buildout with the I-10/Highland Home Road Interchange and LOS C Improvements analysis.

LOS D Mitigation Requirements. In order to mitigate the intersection deficiencies under General Plan Buildout with I-10/Highland Home Road Interchange conditions to the proposed LOS standard of LOS D, the following improvements would be needed, as shown in Figure 6:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, and a third southbound through lane.
- **Highland Springs Avenue/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a second southbound left-turn lane, a third southbound through lane, and a third westbound through lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a third southbound through lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add two northbound through lanes, a southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Ramsey Street:** Install a traffic signal. Add two northbound left-turn lanes, two northbound through lanes, a designated northbound right-turn lane, a second southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, a second eastbound through lane, and a second westbound through lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane,

**Table D: General Plan Buildout Intersection LOS C Summary
With I-10/Highland Home Road Interchange**

Intersection		With LOS C Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	28.2 sec	C	35.0 sec	C
2	Highland Springs Avenue/Ramsey Street ¹	Signal	35.1 sec	D	45.4 sec	D
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	49.9 sec	D	42.2 sec	D
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	49.7 sec	D	32.1 sec	C
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	26.6 sec	C	33.4 sec	C
6	Highland Home Road/Wilson Street	Signal	29.8 sec	C	33.1 sec	C
7	Highland Home Road/Ramsey Street ¹	Signal	28.8 sec	C	40.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	30.0 sec	C	32.6 sec	C
9	Sunset Avenue/Wilson Street	Signal	28.5 sec	C	34.3 sec	C
10	Sunset Avenue/Ramsey Street ¹	Signal	24.4 sec	C	43.8 sec	D
11	Sunset Avenue/I-10 WB Ramps ¹	Signal	28.8 sec	C	34.3 sec	C
12	Sunset Avenue/I-10 EB Ramps ¹	Signal	28.7 sec	C	30.8 sec	C
13	Sunset Avenue/Lincoln Street	Signal	27.5 sec	C	29.3 sec	C
14	Sunset Avenue/Westward Avenue	TWSC	12.1 sec	B	11.4 sec	B
15	Highland Home Road/I-10 WB Ramps ¹	Signal	17.6 sec	B	6.1 sec	A
16	Highland Home Road/I-10 EB Ramps ¹	Signal	28.0 sec	C	31.1 sec	C

LOS = level of service

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

a designated southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

- **Sunset Avenue/Ramsey Street:** Add a designated northbound right-turn lane, a designated southbound right-turn lane, a second eastbound left-turn lane, a third eastbound through lane, a designated eastbound right-turn lane, a second westbound left-turn lane, a third westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Westbound Ramps:** Install a traffic signal and add a free southbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Install a traffic signal. Add a designated northbound right-turn lane, a southbound left-turn lane, and two eastbound left-turn lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, an eastbound left-turn lane, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

Table E summarizes the results of the General Plan Buildout with I-10/Highland Home Road Interchange and LOS D Improvements analysis. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10.

Figure 6 illustrates the General Plan Buildout with mitigation intersection geometrics and control (with I-10/Highland Home Road Interchange). If LOS D is adopted as the acceptable City LOS standard, fewer mitigation measures would be required to improve the intersection deficiencies.

4.2 General Plan Buildout with Highland Home Road Overcrossing

LOS C Mitigation Requirements. The following mitigation measures, as shown in Figure 7, improve the deficient study area intersection LOS to LOS C:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, a designated southbound right-turn lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a designated northbound right-turn lane, a second southbound left-turn lane, a third southbound through lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound left-turn lane, two northbound through lanes, two southbound left-turn lanes, a second southbound through lane, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, two eastbound left-turn lanes, two eastbound through lanes, and two westbound through lanes.

**Table E: General Plan Buildout Intersection LOS D Summary
With I-10/Highland Home Road Interchange**

Intersection		With LOS D Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	31.6 sec	C	39.6 sec	D
2	Highland Springs Avenue/Ramsey Street ¹	Signal	35.1 sec	D	45.4 sec	D
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	49.9 sec	D	42.2 sec	D
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	49.7 sec	D	32.1 sec	C
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	29.2 sec	C	52.7 sec	D
6	Highland Home Road/Wilson Street	Signal	36.9 sec	D	45.8 sec	D
7	Highland Home Road/Ramsey Street ¹	Signal	28.8 sec	C	40.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	29.9 sec	C	42.5 sec	D
9	Sunset Avenue/Wilson Street	Signal	29.0 sec	C	49.9 sec	D
10	Sunset Avenue/Ramsey Street ¹	Signal	24.4 sec	C	43.8 sec	D
11	Sunset Avenue/I-10 WB Ramps ¹	Signal	28.8 sec	C	34.3 sec	C
12	Sunset Avenue/I-10 EB Ramps ¹	Signal	28.7 sec	C	30.8 sec	C
13	Sunset Avenue/Lincoln Street	Signal	29.7 sec	C	37.5 sec	D
14	Sunset Avenue/Westward Avenue	TWSC	12.1 sec	B	11.4 sec	B
15	Highland Home Road/I-10 WB Ramps ¹	Signal	17.6 sec	B	6.1 sec	A
16	Highland Home Road/I-10 EB Ramps ¹	Signal	28.0 sec	C	31.1 sec	C

LOS = level of service

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

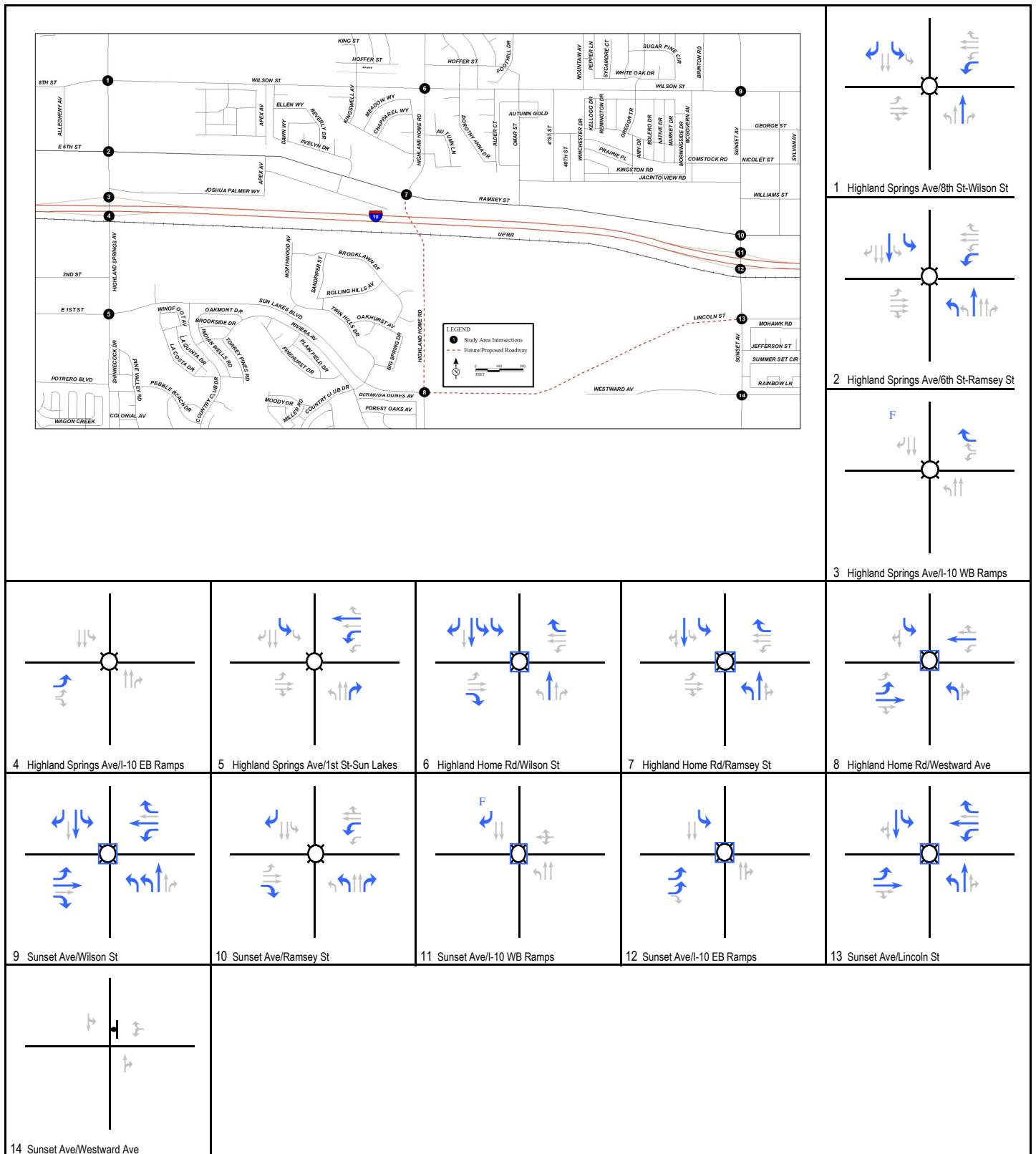


FIGURE 7

Banning General Plan Amendment

General Plan Buildout with Mitigations Intersection Geometrics
With Highland Home Road Overcrossing

- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, two westbound through lanes, and a designated westbound right-turn lane.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

The intersections along Ramsey Street and I-10 interchange intersections operate at unacceptable LOS with existing geometrics and will require improvements to mitigate the deficiencies to acceptable LOS D. The improvements to these intersections are included in the next section, which discusses LOS D requirements.

Table F summarizes the results of the General Plan Buildout with Highland Home Road Overcrossing and LOS C Improvements analysis.

LOS D Mitigation Requirements. In order to mitigate the intersection deficiencies under General Plan Buildout with Highland Home Road Overcrossing conditions to the proposed LOS standard of LOS D, the following improvements would be needed, as shown in Figure 7:

- **Highland Springs Avenue/Wilson Street:** Add a second northbound through lane, a second southbound left-turn lane, a designated southbound right-turn lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane, and add a second westbound right-turn lane.
- **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second eastbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a designated northbound right-turn lane, a second southbound left-turn lane, a second westbound left-turn lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound through lane, two southbound left-turn lanes, a second southbound through lane, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Ramsey Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a second southbound left-turn lane, a second southbound through lane, and a designated westbound right-turn lane.

**Table F: General Plan Buildout Intersection LOS C Summary
With Highland Home Road Overcrossing**

Intersection		With LOS C Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	30.2 sec	C	33.3 sec	C
2	Highland Springs Avenue/Ramsey Street ¹	Signal	34.2 sec	C	39.6 sec	D
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	47.7 sec	D	32.4 sec	C
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	52.6 sec	D	54.4 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	27.3 sec	C	34.1 sec	C
6	Highland Home Road/Wilson Street	Signal	31.8 sec	C	34.9 sec	C
7	Highland Home Road/Ramsey Street ¹	Signal	24.3 sec	C	39.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	31.6 sec	C	33.1 sec	C
9	Sunset Avenue/Wilson Street	Signal	28.4 sec	C	34.5 sec	C
10	Sunset Avenue/Ramsey Street ¹	Signal	35.4 sec	D	45.5 sec	D
11	Sunset Avenue/I-10 WB Ramps ¹	Signal	50.4 sec	D	28.5 sec	C
12	Sunset Avenue/I-10 EB Ramps ¹	Signal	40.5 sec	D	43.1 sec	D
13	Sunset Avenue/Lincoln Street	Signal	27.7 sec	C	31.8 sec	C
14	Sunset Avenue/Westward Avenue	TWSC	11.8 sec	B	10.4 sec	B

LOS = level of service

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, a second eastbound left-turn lane, a second eastbound through lane, and a second westbound through lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane, a designated northbound right-turn lane, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Westbound Ramps:** Install a traffic signal and add a free southbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Install a traffic signal. Add a southbound left-turn lane and two eastbound left-turn lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, an eastbound left-turn lane, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

Table G summarizes the results of the General Plan Buildout with Highland Home Road Overcrossing and LOS D Improvements analysis. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10.

Figure 7 illustrates the General Plan Buildout with mitigation intersection geometrics and control (with Highland Home Road Overcrossing). If LOS D is adopted as the acceptable City LOS standard, fewer mitigation measures would be required to improve the intersection deficiencies.

4.3 General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection)

LOS C Mitigation Requirements. The following mitigation measures, as shown in Figure 8, improve the deficient study area intersection LOS to LOS C:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, a designated southbound right-turn lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a designated northbound right-turn lane, a second southbound left-turn lane, a second westbound left-turn lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound through lane, a designated northbound right-turn lane, two southbound left-turn lanes, a second southbound through lane, a designated southbound right-turn lane, a second eastbound left-turn

**Table G: General Plan Buildout Intersection LOS D Summary
With Highland Home Road Overcrossing**

Intersection		With LOS D Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	31.4 sec	C	41.7 sec	D
2	Highland Springs Avenue/Ramsey Street ¹	Signal	34.2 sec	C	39.6 sec	D
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	47.7 sec	D	32.4 sec	C
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	52.6 sec	D	54.4 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	26.3 sec	C	42.6 sec	D
6	Highland Home Road/Wilson Street	Signal	33.1 sec	C	40.8 sec	D
7	Highland Home Road/Ramsey Street ¹	Signal	24.3 sec	C	39.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	31.0 sec	C	44.0 sec	D
9	Sunset Avenue/Wilson Street	Signal	28.8 sec	C	43.9 sec	D
10	Sunset Avenue/Ramsey Street ¹	Signal	35.4 sec	D	45.5 sec	D
11	Sunset Avenue/I-10 WB Ramps ¹	Signal	50.4 sec	D	28.5 sec	C
12	Sunset Avenue/I-10 EB Ramps ¹	Signal	40.5 sec	D	43.1 sec	D
13	Sunset Avenue/Lincoln Street	Signal	31.0 sec	C	39.5 sec	D
14	Sunset Avenue/Westward Avenue	TWSC	11.8 sec	B	10.4 sec	B

LOS = level of service

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

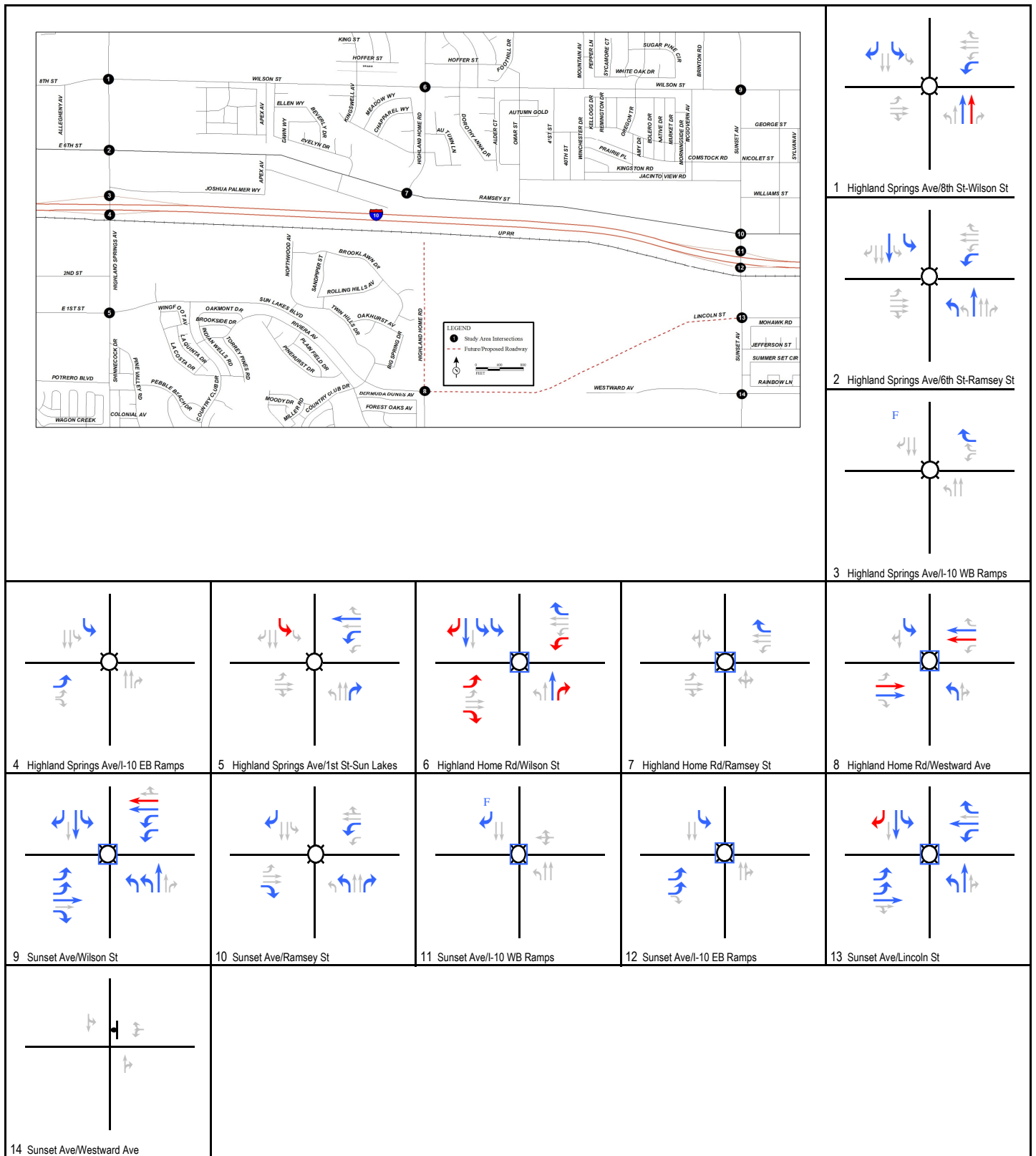


FIGURE 8

Legend

- Study Area Intersections
- Signal
- ⊥ Stop Sign
- F Free Right
- ↑ Existing Geometries
- ↑ LOS D Mitigation
- ↑ Additional Mitigation for LOS C

Banning General Plan Amendment

General Plan Buildout with Mitigations Intersection Geometries
Without I-10/Highland Home Road Interchange/Overcrossing (No Connection)

lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a designated westbound right-turn lane.

- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, two eastbound through lanes, and two westbound through lanes.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, two westbound left-turn lanes, and two westbound through lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

The intersections along Ramsey Street and I-10 interchange intersections operate at unacceptable LOS with existing geometrics and will require improvements to mitigate the deficiencies to acceptable LOS D. The improvements to these intersections are included in the next section, which discusses LOS D requirements.

Table H summarizes the results of the General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection) and LOS C Improvements analysis.

LOS D Mitigation Requirements. In order to mitigate the intersection deficiencies under General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection) conditions to the proposed LOS standard of LOS D, the following improvements would be needed, as shown in Figure 8:

- **Highland Springs Avenue/Wilson Street:** Add a second northbound through lane, a second southbound left-turn lane, a designated southbound right-turn lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane, and add a second westbound right-turn lane.
- **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second southbound left-turn lane and a second eastbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a designated northbound right-turn lane, a second westbound left-turn lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound through lane, two southbound left-turn lanes, a second southbound through lane, and a designated westbound right-turn lane.

Table H: General Plan Buildout Intersection LOS C Summary
Without I-10/Highland Home Road Interchange/Overcrossing (No Connection)

Intersection		With LOS C Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	30.8 sec	C	34.4 sec	C
2	Highland Springs Avenue/Ramsey Street ¹	Signal	36.6 sec	D	48.0 sec	D
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	54.5 sec	D	38.9 sec	D
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	32.7 sec	C	37.9 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	23.4 sec	C	34.1 sec	C
6	Highland Home Road/Wilson Street	Signal	29.6 sec	C	33.9 sec	C
7	Highland Home Road/Ramsey Street ¹	Signal	23.4 sec	C	45.2 sec	D
8	Highland Home Road/Westward Avenue	Signal	28.2 sec	C	20.4 sec	C
9	Sunset Avenue/Wilson Street	Signal	28.1 sec	C	34.9 sec	C
10	Sunset Avenue/Ramsey Street ¹	Signal	30.4 sec	C	48.5 sec	D
11	Sunset Avenue/I-10 WB Ramps ¹	Signal	54.3 sec	D	31.1 sec	C
12	Sunset Avenue/I-10 EB Ramps ¹	Signal	43.2 sec	D	51.3 sec	D
13	Sunset Avenue/Lincoln Street	Signal	27.9 sec	C	33.8 sec	C
14	Sunset Avenue/Westward Avenue	TWSC	12.6 sec	B	0.9 sec	B

LOS = level of service

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

- **Highland Home Road/Ramsey Street:** Install a traffic signal and add a designated westbound right-turn lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, an eastbound through lane, and a westbound through lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, two westbound left-turn lanes, and a second westbound through lane.
- **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane, a designated northbound right-turn lane, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a second westbound left-turn lane.
- **Sunset Avenue/I-10 Westbound Ramps:** Install a traffic signal and add a free southbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Install a traffic signal. Add a southbound left-turn lane and two eastbound left-turn lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

Table I summarizes the results of the General Plan Buildout without I-10/Highland Home Road Interchange and Overcrossing (No Connection) and LOS D Improvements analysis. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10.

Figure 8 illustrates the General Plan Buildout with mitigation intersection geometrics and control (without I-10/Highland Home Road Interchange and Overcrossing). If LOS D is adopted as the acceptable City LOS standard, fewer mitigation measures would be required to improve the intersection deficiencies.

5.0 COMPARISON OF ALTERNATIVES

The differences in mitigation measures for the current General Plan (with I-10/Highland Home Road Interchange) compared to the alternatives of with Highland Home Road Overcrossing, and without I-10/Highland Home Road Interchange and Overcrossing (No Connection) are described for both LOS C and D below.

5.1 With I-10/Highland Home Road Interchange and Overcrossing (LOS C Mitigation)

Figure 9 illustrates the LOS C mitigation measures for with I-10/Highland Home Road Interchange and Overcrossing. This figure highlights the geometric differences between the two scenarios. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and

Table I: General Plan Buildout Intersection LOS D Summary
Without I-10/Highland Home Road Interchange/Overcrossing (No Connection)

Intersection		With LOS D Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	32.0 sec	C	45.9 sec	D
2	Highland Springs Avenue/Ramsey Street ¹	Signal	36.6 sec	D	48.0 sec	D
3	Highland Springs Avenue/I-10 WB Ramps ¹	Signal	54.5 sec	D	38.9 sec	D
4	Highland Springs Avenue/I-10 EB Ramps ¹	Signal	32.7 sec	C	37.9 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	25.3 sec	C	41.5 sec	D
6	Highland Home Road/Wilson Street	Signal	33.0 sec	C	46.5 sec	D
7	Highland Home Road/Ramsey Street ¹	Signal	23.4 sec	C	45.2 sec	D
8	Highland Home Road/Westward Avenue	Signal	25.9 sec	C	48.6 sec	D
9	Sunset Avenue/Wilson Street	Signal	28.2 sec	C	41.8 sec	D
10	Sunset Avenue/Ramsey Street ¹	Signal	30.4 sec	C	48.5 sec	D
11	Sunset Avenue/I-10 WB Ramps ¹	Signal	54.3 sec	D	31.1 sec	C
12	Sunset Avenue/I-10 EB Ramps ¹	Signal	43.2 sec	D	51.3 sec	D
13	Sunset Avenue/Lincoln Street	Signal	29.5 sec	C	39.1 sec	D
14	Sunset Avenue/Westward Avenue	TWSC	12.6 sec	B	0.9 sec	B

LOS = level of service

AWSC = all-way stop-controlled, TWSC = two-way stop controlled

WB = westbound, EB = eastbound

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.

Delay is reported in seconds (sec).

¹ Intersection with LOS D criteria.

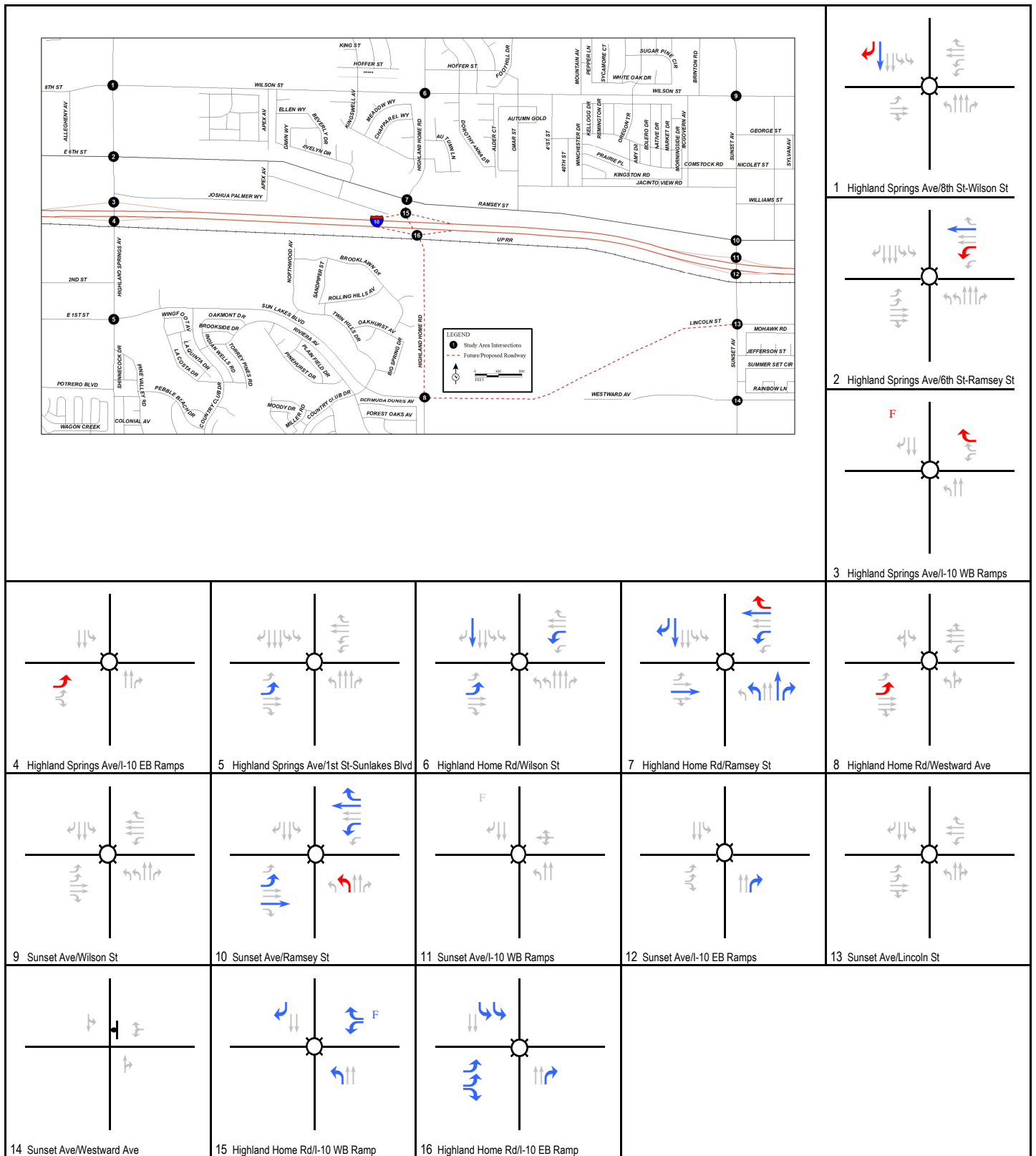


FIGURE 9

Banning General Plan Amendment

LOS C Improvements

Difference Between Highland Home Road Interchange and Overcrossing Only

interchange intersections along I-10. The differences in mitigation measures for these two alternatives have been identified below.

- **With I-10/Highland Home Road Interchange**
 - **Highland Springs Avenue/Wilson Street:** Add a third southbound through lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a third westbound through lane.
 - **Highland Springs Avenue/Sun Lakes Boulevard:** Add a second eastbound left-turn lane.
 - **Highland Home Road/Wilson Street:** Add a third southbound through lane, a second eastbound left-turn lane, and a second westbound left-turn lane.
 - **Highland Home Road/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a designated northbound right-turn lane, a third southbound through lane, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
 - **Sunset Avenue/Ramsey Street:** Add a second eastbound left-turn lane, a third eastbound through lane, a second westbound left-turn lane, a third westbound through lane, and a designated westbound right-turn lane.
 - **Sunset Avenue/I-10 Eastbound Ramps:** Add a designated northbound right-turn lane.
- **With Highland Home Road Overcrossing**
 - **Highland Springs Avenue/Wilson Street:** Add a designated southbound right-turn lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a second westbound left-turn lane
 - **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane, and add a second westbound right-turn lane.
 - **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second eastbound left-turn lane.
 - **Highland Home Road/Ramsey Street:** Add a designated westbound right-turn lane.
 - **Highland Home Road/Westward Avenue:** Add a second eastbound left-turn lane.
 - **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane.

5.2 With I-10/Highland Home Road Interchange and Overcrossing (LOS D Mitigation)

Figure 10 illustrates the LOS D mitigation measures for with I-10/Highland Home Road Interchange and Overcrossing. This figure highlights the geometric differences between the two scenarios. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10. The differences in mitigation measures for these two alternatives have been identified below.

- **With I-10/Highland Home Road Interchange**
 - **Highland Springs Avenue/Wilson Street:** Add a third northbound through lane and a third southbound through lane.

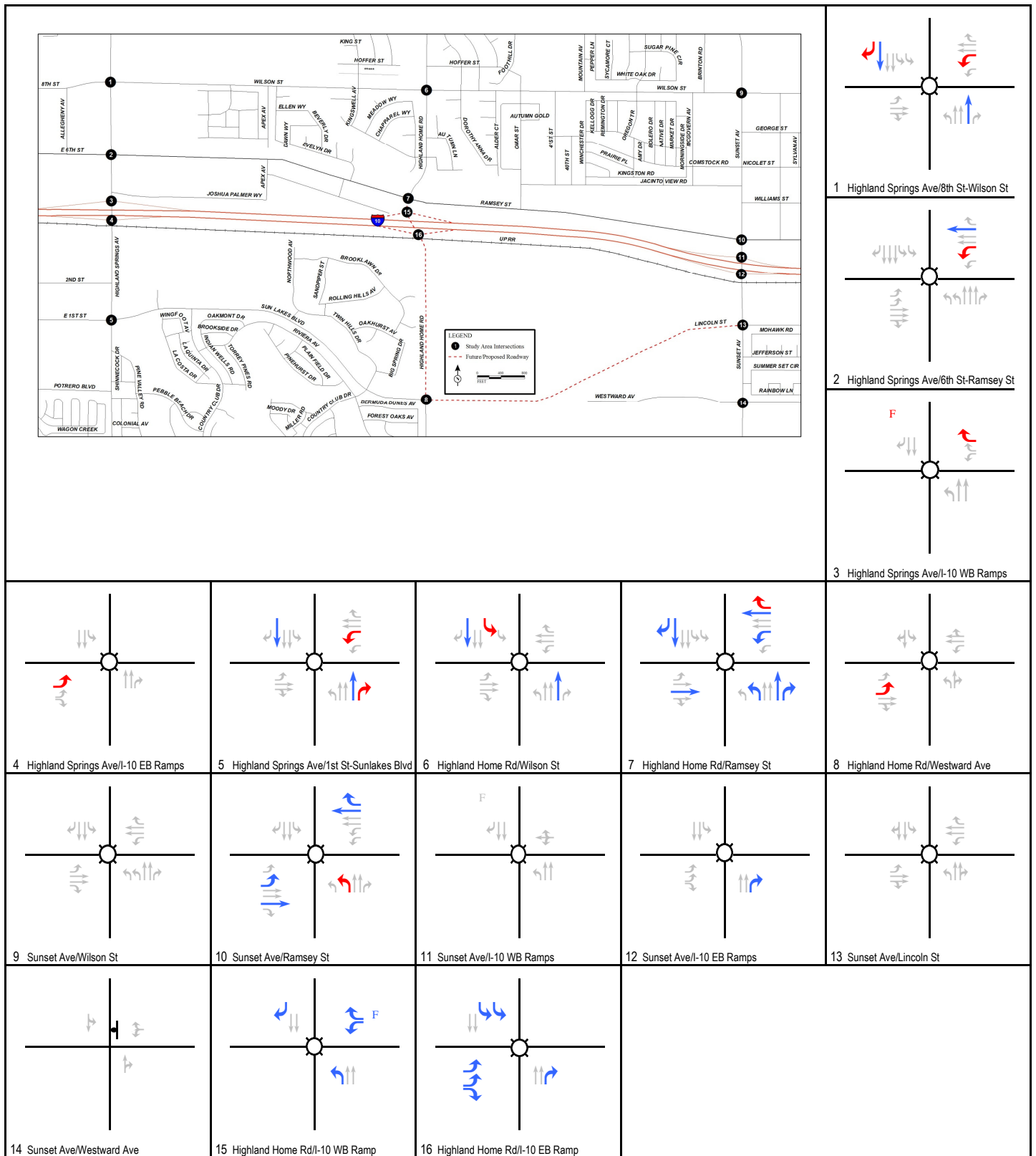


FIGURE 10

Legend

- Signal
- ⊥ Stop Sign
- F Free Right
- ↑ Current General Plan
- ↑ Improvements Eliminated
- ↑ Improvements Added

Banning General Plan Amendment

LOS D Improvements

Difference Between Highland Home Road Interchange and Overcrossing Only

- **Highland Springs Avenue/Ramsey Street:** Add a third westbound through lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane and a third southbound through lane.
- **Highland Home Road/Wilson Street:** Add a third northbound through lane and a third southbound through lane.
- **Highland Home Road/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a designated northbound right-turn lane, a third southbound through lane, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
- **Sunset Avenue/Ramsey Street:** Add a second eastbound left-turn lane, a third eastbound through lane, a third westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Add a designated northbound right-turn lane.
- **With Highland Home Road Overcrossing**
 - **Highland Springs Avenue/Wilson Street:** Add a designated southbound right-turn lane and a second westbound left-turn lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a second westbound left-turn lane
 - **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane, and add a second westbound right-turn lane.
 - **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second eastbound left-turn lane.
 - **Highland Springs Avenue/Sun Lakes Boulevard:** Add a designated northbound right-turn lane and a second westbound left-turn lane.
 - **Highland Home Road/Wilson Street:** Add a second southbound left-turn lane.
 - **Highland Home Road/Ramsey Street:** Add a designated westbound right-turn lane.
 - **Highland Home Road/Westward Avenue:** Add a second eastbound left-turn lane.
 - **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane.

5.3 With and Without I-10/Highland Home Road Interchange and Overcrossing (LOS C Mitigation)

Figure 11 illustrates the LOS C mitigation measures for with and without I-10/Highland Home Road Interchange conditions. This figure highlights the geometric differences between the two scenarios. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10. The differences in mitigation measures for these two alternatives have been identified below.

- **With I-10/Highland Home Road Interchange**
 - **Highland Springs Avenue/Wilson Street:** Add a third southbound through lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a third westbound through lane.

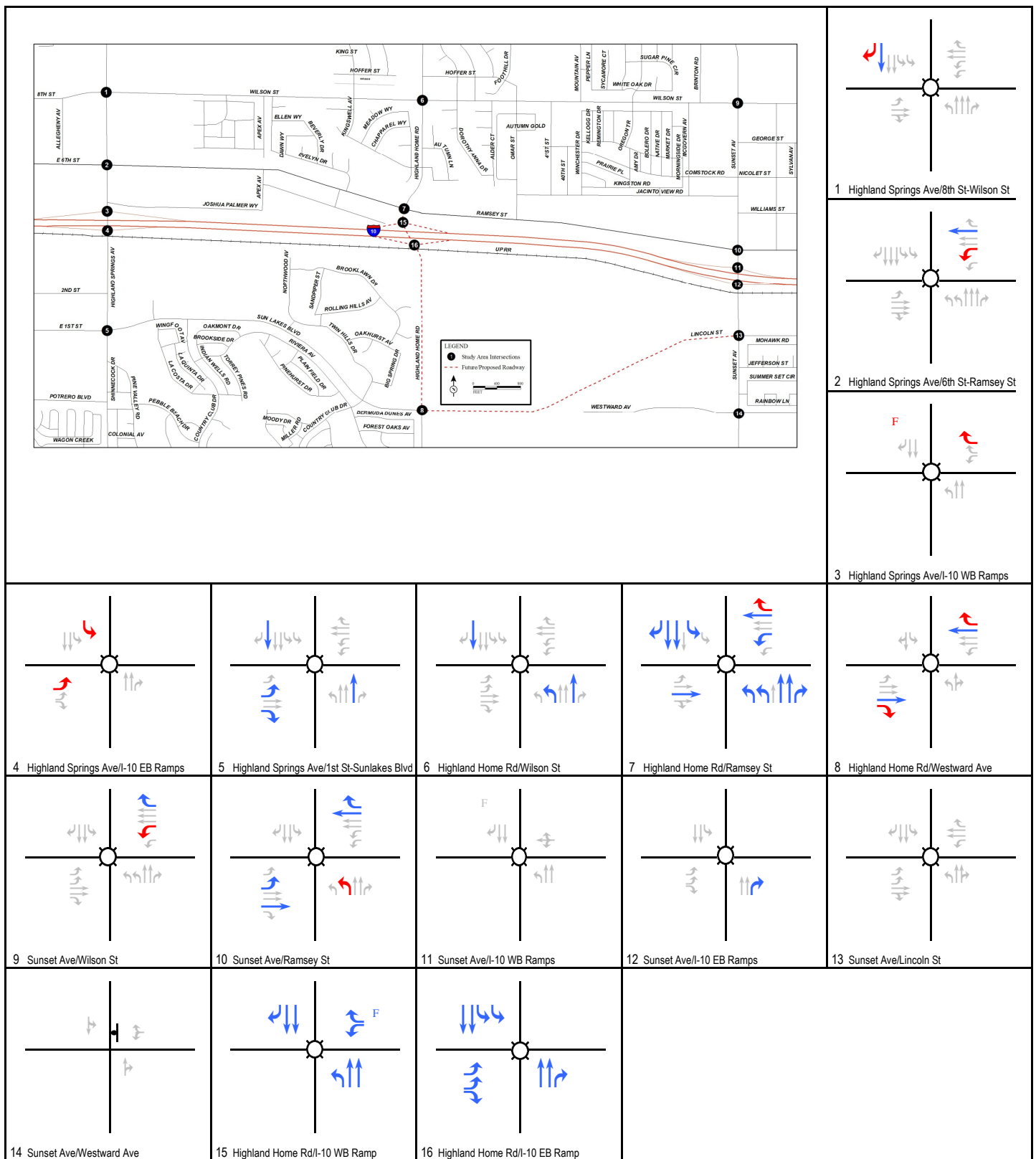


FIGURE 11

Legend

- Signal
- Stop Sign
- F Free Right
- ↑ Current General Plan
- ↑ Improvements Eliminated
- ↑ Improvements Added

Banning General Plan Amendment

LOS C Improvements

Difference Between Highland Home Road Interchange and No Connection Only

- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a third southbound through lane, a second eastbound left-turn lane, and a designated eastbound right-turn lane.
- **Highland Home Road/Wilson Street:** Add a second northbound left-turn lane, a third northbound through lane, and a third southbound through lane.
- **Highland Home Road/Ramsey Street:** Add two northbound left-turn lanes, two northbound through lanes, a designated northbound right-turn lane, a second southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
- **Highland Home Road/Westward Avenue:** Add a third eastbound through lane and a third westbound through lane.
- **Sunset Avenue/Wilson Street:** Add a designated eastbound right-turn lane.
- **Sunset Avenue/Ramsey Street:** Add a second eastbound left-turn lane, a third eastbound through lane, a third westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Add a designated northbound right-turn lane.
- **Without I-10/Highland Home Road Interchange and Overcrossing (No Connection)**
 - **Highland Springs Avenue/Wilson Street:** Add a designated southbound right-turn lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a second westbound left-turn lane.
 - **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane, and add a second westbound right-turn lane.
 - **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second southbound left-turn lane and a second eastbound left-turn lane.
 - **Highland Home Road/Ramsey Street:** Add a designated westbound right-turn lane.
 - **Highland Home Road/Westward Avenue:** Add a designated eastbound right-turn lane and a designated westbound right-turn lane.
 - **Sunset Avenue/Wilson Street:** Add a second westbound left-turn lane.
 - **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane.

5.4 With and Without I-10/Highland Home Road Interchange and Overcrossing (LOS D Mitigation)

Figure 12 illustrates the LOS D mitigation measures for the with and without I-10/Highland Home Road Interchange condition. This figure highlights the geometric differences between the two scenarios. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10. The differences in mitigation measures for these two alternatives have been identified below.

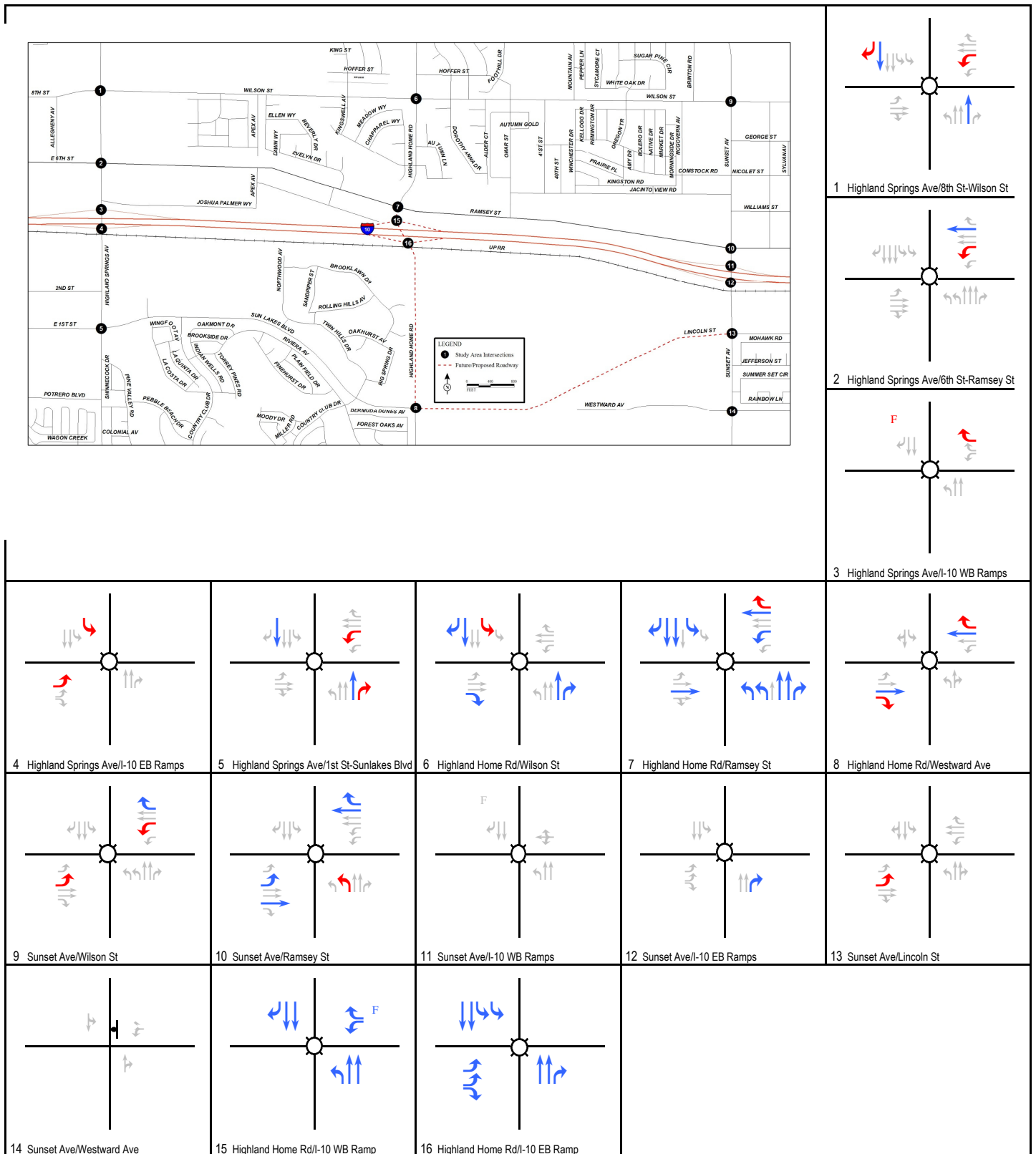


FIGURE 12

Banning General Plan Amendment

LOS D Improvements

Difference Between Highland Home Road Interchange and No Connection Only

- **With I-10/Highland Home Road Interchange**
 - **Highland Springs Avenue/Wilson Street:** Add a third northbound through lane and a third southbound through lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a third westbound through lane.
 - **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane and a third southbound through lane.
 - **Highland Home Road/Wilson Street:** Add a third northbound through lane, a designated northbound right-turn lane, a third southbound through lane, a designated southbound right-turn lane, and a designated eastbound right-turn lane.
 - **Highland Home Road/Ramsey Street:** Add two northbound left-turn lanes, two northbound through lanes, a designated northbound right-turn lane, a second southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
 - **Highland Home Road/Westward Avenue:** Add a second eastbound through lane and a second westbound through lane.
 - **Sunset Avenue/Wilson Street:** Add a designated westbound right-turn lane.
 - **Sunset Avenue/Ramsey Street:** Add a second eastbound left-turn lane, a third eastbound through lane, a third westbound through lane, and a designated westbound right-turn lane.
 - **Sunset Avenue/I-10 Eastbound Ramps:** Add a designated northbound right-turn lane.
- **Without I-10/Highland Home Road Interchange and Overcrossing (No Connection)**
 - **Highland Springs Avenue/Wilson Street:** Add a designated southbound right-turn lane and a second westbound left-turn lane.
 - **Highland Springs Avenue/Ramsey Street:** Add a second westbound left-turn lane.
 - **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane, and add a second westbound right-turn lane.
 - **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second southbound left-turn lane and a second eastbound left-turn lane.
 - **Highland Springs Avenue/Sun Lakes Boulevard:** Add a designated northbound right-turn lane and a second westbound left-turn lane.
 - **Highland Home Road/Wilson Street:** Add a second southbound left-turn lane.
 - **Highland Home Road/Ramsey Street:** Add a designated westbound right-turn lane.
 - **Highland Home Road/Westward Avenue:** Add a designated eastbound right-turn lane and a designated westbound right-turn lane.
 - **Sunset Avenue/Wilson Street:** Add a second eastbound left-turn lane and a second westbound left-turn lane.
 - **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane.
 - **Sunset Avenue/Lincoln Street:** Add a second eastbound left-turn lane.

6.0 CONCLUSION

The I-10/Highland Home Road interchange improvements are neither recommended nor included in the Pass Area Regional Transportation Needs Assessment Report (PARTNAR), prepared by the California Department of Transportation (Caltrans) in 2010. The PARTNAR identifies capacity improvements to select locations along I-10 (per the Capacity and Interchange Improvements Map), such as ramp modifications at Sunset Avenue (east of Highland Home Road) and the widening of I-10 from four lanes to six lanes at Highland Springs Avenue (west of Highland Home Road). According to the PARTNAR, the I-10/Highland Home Road interchange does not meet minimum interstate spacing criteria, and therefore is not included in any long-range freeway planning studies by the County of Riverside, the Southern California Association of Governments (SCAG), or Caltrans.

Although the provision of an interchange at I-10/Highland Home Road could slightly alleviate vehicle demand, delay, and congestion at the adjacent I-10 interchange intersections, the construction of an interchange would require additional right-of-way, including partial and full acquisitions of commercial properties, residential properties, a golf course, an electrical substation, and a water tank. Therefore, the impacts caused by the cost of construction of the interchange and the extensive amount of right-of-way required for the interchange would not outweigh the slight beneficial impact to vehicle demand, delay, and congestion.

Because the construction of the I-10/Highland Home Road interchange is not consistent with the recommendations in the PARTNAR, and the cost for property acquisition, relocation, and construction of the interchange or overcrossing would not outweigh the minimal traffic benefits, it is recommended that the proposed I-10/Highland Home Road interchange be eliminated from further consideration.

In addition, the added circulation improvements that are required to address redistribution of traffic to parallel streets, as shown on Figures 9 (LOS C) and 10 (LOS D), are conventional intersection improvements (i.e., added turn lanes only) that are offset by eliminated lanes in many cases.

APPENDIX A

LEVEL OF SERVICE CALCULATION WORKSHEETS

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/8th-Wilson	D	43.5 0.891	D	43.5 0.891	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	54.0 1.015	D	54.0 1.015	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	49.9 1.000	D	49.9 1.000	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	49.7 1.025	D	49.7 1.025	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	24.3 0.608	C	24.3 0.608	+ 0.000 D/V
# 6 Highland Home/Wilson	F	OVRFL XXXXX	F	OVRFL XXXXX	+ 0.000 D/V
# 7 Highland Home/Ramsey	F	OVRFL 9.434	F	OVRFL 9.434	Nan D/V
# 8 Highland Home/Sun Lakes-Westwa	C	17.6 0.722	C	17.6 0.722	+ 0.000 V/C
# 9 Sunset/Wilson	F	653.2 2.903	F	653.2 2.903	+ 0.000 V/C
# 10 Sunset/Ramsey	B	19.9 0.805	B	19.9 0.805	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	F	OVRFL 1.041	F	OVRFL 1.041	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	F	OVRFL 4.213	F	OVRFL 4.213	+ 0.000 D/V
# 13 Sunset/Lincoln	F	OVRFL 3.465	F	OVRFL 3.465	+ 0.000 D/V
# 14 Sunset/Westward	B	12.1 0.018	B	12.1 0.018	+ 0.000 D/V
# 15 Highland Home Road/I-10 Westbo	B	17.6 0.461	B	17.6 0.461	+ 0.000 D/V
# 16 Highland Home Road/I-10 Eastbo	C	28.0 0.547	C	28.0 0.547	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.891
Loss Time (sec):   16          Average Delay (sec/veh):    43.5
Optimal Cycle:    113          Level Of Service:        D
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ignore        Include        Include        Include
Min. Green:       0 0 0          0 0 0          0 0 0          0 0 0
Y+R:              4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:            1 0 1 0 1        1 0 1 1 0        1 0 1 1 0        1 0 2 0 1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         57 561 243      241 1136 215      93 173 101      432 365 166
Growth Adj:       1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      57 561 243      241 1136 215      93 173 101      432 365 166
User Adj:         1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:          1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:       57 561 0          241 1136 215      93 173 101      432 365 166
Reduct Vol:       0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol:      57 561 0          241 1136 215      93 173 101      432 365 166
PCE Adj:          1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:          1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      57 561 0          241 1136 215      93 173 101      432 365 166
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900      1900 1900 1900      1900 1900 1900      1900 1900 1900
Adjustment:       0.95 1.00 1.00      0.95 0.93 0.93      0.95 0.90 0.90      0.95 0.95 0.85
Lanes:            1.00 1.00 1.00      1.00 1.68 0.32      1.00 1.26 0.74      1.00 2.00 1.00
Final Sat.:       1805 1900 1900      1805 2963 561      1805 2154 1258      1805 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.30 0.00      0.13 0.38 0.38      0.05 0.08 0.08      0.24 0.10 0.10
Crit Moves:       ****              ****              ****              ****
Green/Cycle:      0.04 0.33 0.00      0.15 0.44 0.44      0.12 0.09 0.09      0.27 0.24 0.24
Volume/Cap:       0.86 0.89 0.00      0.89 0.86 0.86      0.43 0.89 0.89      0.89 0.42 0.43
Uniform Del:      47.9 31.7 0.0        41.7 25.0 25.0      40.8 45.0 45.0      35.2 32.2 32.3
IncrmntDel:       65.0 14.8 0.0        28.4 5.2 5.2        1.4 25.9 25.9      18.3 0.3 0.8
InitQueueDel:     0.0 0.0 0.0          0.0 0.0 0.0          0.0 0.0 0.0          0.0 0.0 0.0
Delay Adj:        1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Delay/Veh:        112.9 46.5 0.0        70.1 30.2 30.2      42.2 70.9 70.9      53.4 32.6 33.0
User DelAdj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
AdjDel/Veh:       112.9 46.5 0.0        70.1 30.2 30.2      42.2 70.9 70.9      53.4 32.6 33.0
LOS by Move:      F D A          E C C          D E E          D C C
HCM2kAvgQ:        2 17 0          11 22 22          3 7 7          16 5 5
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.015
 Loss Time (sec): 16 Average Delay (sec/veh): 54.0
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 237 867 278 223 1356 109 106 227 310 269 139 131
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 237 867 278 223 1356 109 106 227 310 269 139 131
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 237 867 278 223 1356 109 106 227 310 269 139 131
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 237 867 278 223 1356 109 106 227 310 269 139 131
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 237 867 278 223 1356 109 106 227 310 269 139 131

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.83 0.83 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3157 1579 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.13 0.24 0.17 0.12 0.38 0.07 0.06 0.07 0.20 0.15 0.04 0.08
 Crit Moves: ****
 Green/Cycle: 0.13 0.33 0.33 0.17 0.37 0.37 0.14 0.19 0.19 0.15 0.20 0.20
 Volume/Cap: 1.01 0.73 0.52 0.73 1.01 0.18 0.41 0.37 1.01 1.01 0.20 0.41
 Uniform Del: 43.5 29.5 27.1 39.3 31.5 21.3 39.0 35.0 40.3 42.7 33.5 35.0
 IncremntDel: 62.7 2.3 0.9 8.5 28.3 0.1 1.1 0.2 42.9 59.1 0.1 0.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 106.2 31.8 28.1 47.8 59.8 21.4 40.1 35.2 83.2 101.7 33.6 35.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 106.2 31.8 28.1 47.8 59.8 21.4 40.1 35.2 83.2 101.7 33.6 35.9
 LOS by Move: F C C D E C D D F F C D
 HCM2kAvgQ: 10 12 7 6 25 2 3 4 16 11 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.000
 Loss Time (sec): 12 Average Delay (sec/veh): 49.9
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

 Volume Module:
 Base Vol: 465 983 0 0 1357 577 0 0 0 446 0 349
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 465 983 0 0 1357 577 0 0 0 446 0 349
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 465 983 0 0 1357 577 0 0 0 446 0 349
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 465 983 0 0 1357 577 0 0 0 446 0 349
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 465 983 0 0 1357 577 0 0 0 446 0 349

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.26 0.27 0.00 0.00 0.38 0.36 0.00 0.00 0.00 0.25 0.00 0.22
 Crit Moves: ****
 Green/Cycle: 0.26 0.63 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.25 0.00 0.25
 Volume/Cap: 1.00 0.43 0.00 0.00 1.00 0.95 0.00 0.00 0.00 1.00 0.00 0.88
 Uniform Del: 37.1 9.2 0.0 0.0 31.2 30.3 0.0 0.0 0.0 37.7 0.0 36.2
 IncremntDel: 41.8 0.1 0.0 0.0 24.5 24.8 0.0 0.0 0.0 42.6 0.0 19.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 78.9 9.4 0.0 0.0 55.7 55.1 0.0 0.0 0.0 80.3 0.0 55.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 78.9 9.4 0.0 0.0 55.7 55.1 0.0 0.0 0.0 80.3 0.0 55.4
 LOS by Move: E A A A E E A A A F A E
 HCM2kAvgQ: 16 7 0 0 22 16 0 0 0 20 0 14

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.025
 Loss Time (sec): 12 Average Delay (sec/veh): 49.7
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1004 518 557 1246 0 494 0 400 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1004 518 557 1246 0 494 0 400 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1004 518 557 1246 0 494 0 400 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1004 518 557 1246 0 494 0 400 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1004 518 557 1246 0 494 0 400 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.28 0.32 0.31 0.35 0.00 0.27 0.00 0.25 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.31 0.31 0.30 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00
 Volume/Cap: 0.00 0.89 1.03 1.03 0.56 0.00 1.03 0.00 0.93 0.00 0.00 0.00
 Uniform Del: 0.0 32.7 34.4 35.0 11.4 0.0 36.7 0.0 35.8 0.0 0.0 0.0
 IncremntDel: 0.0 8.9 46.7 45.3 0.3 0.0 47.7 0.0 26.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 41.6 81.1 80.2 11.7 0.0 84.3 0.0 62.5 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 41.6 81.1 80.2 11.7 0.0 84.3 0.0 62.5 0.0 0.0 0.0
 LOS by Move: A D F F B A F A E A A A
 HCM2kAvgQ: 0 16 20 18 11 0 22 0 16 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.608
 Loss Time (sec): 16 Average Delay (sec/veh): 24.3
 Optimal Cycle: 58 Level Of Service: C

 Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0 1

 Volume Module:
 Base Vol: 136 1044 76 134 734 57 91 87 43 84 232 185
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 136 1044 76 134 734 57 91 87 43 84 232 185
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 136 1044 76 134 734 0 91 87 43 84 232 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 136 1044 76 134 734 0 91 87 43 84 232 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 136 1044 76 134 734 0 91 87 43 84 232 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 1.00 0.39 0.90 0.90 0.67 1.00 1.00
 Lanes: 1.00 1.86 0.14 1.00 2.00 1.00 1.00 1.34 0.66 1.00 1.00 1.00
 Final Sat.: 1805 3331 243 1805 3610 1900 737 2295 1134 1271 1900 1900

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.31 0.31 0.07 0.20 0.00 0.12 0.04 0.04 0.07 0.12 0.00
 Crit Moves: ****
 Green/Cycle: 0.17 0.52 0.52 0.12 0.46 0.00 0.20 0.20 0.20 0.20 0.20 0.00
 Volume/Cap: 0.44 0.61 0.61 0.61 0.44 0.00 0.61 0.19 0.19 0.33 0.60 0.00
 Uniform Del: 37.0 17.1 17.1 41.6 18.0 0.0 36.2 33.0 33.0 34.0 36.2 0.0
 IncremntDel: 1.0 0.6 0.6 4.9 0.2 0.0 7.1 0.1 0.1 0.7 2.7 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 38.0 17.7 17.7 46.5 18.2 0.0 43.3 33.2 33.2 34.8 38.9 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 38.0 17.7 17.7 46.5 18.2 0.0 43.3 33.2 33.2 34.8 38.9 0.0
 LOS by Move: D B B D B A D C C C D A
 HCM2kAvgQ: 4 13 13 4 8 0 4 2 2 2 7 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Highland Home/Wilson

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 113 429 87 493 852 176 75 454 223 345 599 258
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 113 429 87 493 852 176 75 454 223 345 599 258
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 113 429 87 493 852 176 75 454 223 345 599 258
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 113 429 87 493 852 176 75 454 223 345 599 258

Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 2131 2263 339 2010 2245 429 857 xxxx xxxxx 677 xxxx xxxxx
Potent Cap.: 29 41 663 36 42 580 792 xxxx xxxxx 924 xxxx xxxxx
Move Cap.: 0 23 663 0 24 580 792 xxxx xxxxx 924 xxxx xxxxx
Volume/Cap: xxxx18.26 0.13 xxxx35.35 0.30 0.09 xxxx xxxx 0.37 xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx 53.7 0.5 xxxx xxxx xxxxx 0.3 xxxx xxxxx 1.7 xxxx xxxxx
Control Del:xxxxx 8083 11.2 xxxxx xxxx xxxxx 10.0 xxxx xxxxx 11.2 xxxx xxxxx
LOS by Move: * F B * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: +Inf xxxxxx xxxxxx xxxxxx
ApproachLOS: F F *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Highland Home/Ramsey

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Highland Home Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 335 507 244 136 1326 192 85 275 210 145 261 88
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 335 507 244 136 1326 192 85 275 210 145 261 88
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 335 507 244 136 1326 192 85 275 210 145 261 88
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 335 507 244 136 1326 192 85 275 210 145 261 88

Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 1634 1189 243 1156 1250 175 349 xxxx xxxxx 485 xxxx xxxxx
Potent Cap.: 68 190 764 154 174 845 1221 xxxx xxxxx 1088 xxxx xxxxx
Move Cap.: 0 153 764 0 141 845 1221 xxxx xxxxx 1088 xxxx xxxxx
Volume/Cap: xxxx 3.32 0.32 xxxx 9.43 0.23 0.07 xxxx xxxx 0.13 xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.2 xxxx xxxxx 0.5 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.2 xxxx xxxxx 8.8 xxxx xxxxx
LOS by Move: * * * * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx xxxx 157 xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx 173.4 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx 3951 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * xxx * * F * * * * *
ApproachDel: xxxxxx +Inf xxxxxx xxxxxx
ApproachLOS: F F * xxxxxx

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.722
 Loss Time (sec): 0 Average Delay (sec/veh): 17.6
 Optimal Cycle: 0 Level Of Service: C

Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 1 0 0 1! 0 0
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 99 152 11 119 77 109 78 143 33 3 246 161
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 99 152 11 119 77 109 78 143 33 3 246 161
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 99 152 11 119 77 109 78 143 33 3 246 161
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 99 152 11 119 77 109 78 143 33 3 246 161
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 99 152 11 119 77 109 78 143 33 3 246 161
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.38 0.58 0.04 0.39 0.25 0.36 0.35 0.65 1.00 0.01 0.60 0.39
 Final Sat.: 188 289 21 205 133 188 164 301 524 4 341 223
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.53 0.53 0.53 0.58 0.58 0.58 0.48 0.48 0.06 0.72 0.72 0.72
 Crit Moves: **** *
 Delay/Veh: 15.6 15.6 15.6 16.5 16.5 16.5 15.3 15.3 9.4 21.7 21.7 21.7
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 15.6 15.6 15.6 16.5 16.5 16.5 15.3 15.3 9.4 21.7 21.7 21.7
 LOS by Move: C C C C C C C A C C C
 ApproachDel: 15.6 16.5 14.6 21.7
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 15.6 16.5 14.6 21.7
 LOS by Appr: C C B C
 AllWayAvgQ: 0.8 0.8 0.8 1.0 1.0 1.0 0.7 0.7 0.1 2.0 2.0 2.0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 2.903
 Loss Time (sec): 0 Average Delay (sec/veh): 653.2
 Optimal Cycle: 0 Level Of Service: F

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 0 1! 0 0 0 0 1! 0 0
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 139 258 44 137 778 230 212 652 271 51 315 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 139 258 44 137 778 230 212 652 271 51 315 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 139 258 44 137 778 230 212 652 271 51 315 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 139 258 44 137 778 230 212 652 271 51 315 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 139 258 44 137 778 230 212 652 271 51 315 67
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.35 0.65 1.00 0.12 0.68 0.20 0.19 0.57 0.24 0.12 0.73 0.15
 Final Sat.: 134 248 420 47 268 79 74 229 95 47 289 62
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 1.04 1.04 0.10 2.90 2.90 2.90 2.85 2.85 2.85 1.09 1.09 1.09
 Crit Moves: **** *
 Delay/Veh: 88.5 88.5 12.3 882.0 882 882.0 855.0 855 855.0 101.6 102 101.6
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 88.5 88.5 12.3 882.0 882 882.0 855.0 855 855.0 101.6 102 101.6
 LOS by Move: F F B F F F F F F F F F
 ApproachDel: 80.9 882.0 855.0 101.6
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 80.9 882.0 855.0 101.6
 LOS by Appr: F F F F
 AllWayAvgQ: 8.1 8.1 0.1 95.3 95.3 95.3 93.4 93.4 93.4 9.9 9.9 9.9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.805
 Loss Time (sec): 12 Average Delay (sec/veh): 19.9
 Optimal Cycle: 78 Level Of Service: B

 Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|-----|
 Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 -----|-----|-----|-----|-----|
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
 -----|-----|-----|-----|-----|
 Volume Module:
 Base Vol: 166 442 148 101 1209 115 47 227 129 98 191 28
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 166 442 148 101 1209 115 47 227 129 98 191 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 166 442 148 101 1209 115 47 227 129 98 191 28
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 166 442 148 101 1209 115 47 227 129 98 191 28
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 166 442 148 101 1209 115 47 227 129 98 191 28
 -----|-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.16 0.91 0.91 0.41 0.94 0.94 0.95 0.90 0.90 0.95 0.93 0.93
 Lanes: 1.00 1.50 0.50 1.00 1.83 0.17 1.00 1.28 0.72 1.00 1.74 0.26
 Final Sat.: 302 2602 871 777 3254 309 1805 2178 1237 1805 3089 453
 -----|-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.55 0.17 0.17 0.13 0.37 0.37 0.03 0.10 0.10 0.05 0.06 0.06
 Crit Moves: ****
 Green/Cycle: 0.68 0.68 0.68 0.68 0.68 0.68 0.06 0.13 0.13 0.07 0.14 0.14
 Volume/Cap: 0.80 0.25 0.25 0.19 0.54 0.54 0.45 0.80 0.80 0.80 0.45 0.45
 Uniform Del: 11.2 6.1 6.1 5.8 8.0 8.0 45.5 42.3 42.3 46.0 39.5 39.5
 IncremntDel: 20.1 0.1 0.1 0.2 0.3 0.3 3.0 10.3 10.3 30.9 0.6 0.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 31.3 6.1 6.1 6.0 8.3 8.3 48.5 52.6 52.6 76.9 40.2 40.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 31.3 6.1 6.1 6.0 8.3 8.3 48.5 52.6 52.6 76.9 40.2 40.2
 LOS by Move: C A A A A D D E D D
 HCM2kAvgQ: 6 4 4 1 11 11 1 6 6 5 4 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

 Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

 Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1! 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 498 574 0 0 666 771 0 0 0 79 7 182
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 498 574 0 0 666 771 0 0 0 79 7 182
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 498 574 0 0 666 771 0 0 0 79 7 182
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 498 574 0 0 666 771 0 0 0 79 7 182
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
 FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: 1437 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1903 3007 287
 Potent Cap: 479 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 62 14 716
 Move Cap: 479 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 0 716
 Volume/Cap: 1.04 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.25
 -----|-----|-----|-----|
 Level Of Service Module:
 2Way95thQ: 14.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del: 81.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: F * * * * * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * * * * * * * * * * * *
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: * * * * F

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Sunset/I-10 EB ramps

Average Delay (sec/veh): 493.5 Worst Case Level Of Service: F[1715.6]

Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 1! 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 731 169 306 439 0 341 2 318 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 731 169 306 439 0 341 2 318 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 731 169 306 439 0 341 2 318 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 731 169 306 439 0 341 2 318 0 0 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 6.8 6.5 6.9 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 900 xxxx xxxxx 1417 1951 220 xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 763 xxxx xxxxx 130 65 791 xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 763 xxxx xxxxx 81 34 791 xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.40 xxxx xxxx 4.21 0.06 0.40 xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 1.9 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 12.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * B * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 141 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 1.9 xxxx xxxxx xxxxx 68.6 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 12.8 xxxx xxxxx xxxxx 1716 xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * B * * * * F * * * *
ApproachDel: xxxxxx xxxxxx 1715.6 xxxxxx
ApproachLOS: * * * F *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 Sunset/Lincoln

Average Delay (sec/veh): 484.1 Worst Case Level Of Service: F[1582.2]

Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 40 411 25 94 255 134 288 176 25 13 114 67
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 40 411 25 94 255 134 288 176 25 13 114 67
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 40 411 25 94 255 134 288 176 25 13 114 67
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 40 411 25 94 255 134 288 176 25 13 114 67

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 389 xxxx xxxxx 436 xxxx xxxxx 1104 1026 322 1114 1081 424
Potent Cap.: 1181 xxxx xxxxx 1134 xxxx xxxxx 190 237 724 187 220 635
Move Cap.: 1181 xxxx xxxxx 1134 xxxx xxxxx 83 208 724 48 194 635
Volume/Cap: 0.03 xxxx xxxx 0.08 xxxx xxxx 3.46 0.84 0.03 0.27 0.59 0.11

Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.3 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: 8.2 xxxx xxxxx 8.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: A * * A * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 113 xxxxx xxxx 201 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 50.7 xxxxx xxxxx 8.1 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 1582 xxxxx xxxxx 103 xxxxx
Shared LOS: * * * * * F * * F *
ApproachDel: xxxxxx xxxxxx 1582.2 xxxxxx 103.1
ApproachLOS: * * * F *

Note: Queue reported is the number of cars per lane.

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-----
Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #16 Highland Home Road/I-10 Eastbound Ramps
*****
Cycle (sec):      100          Critical Vol./Cap. (X):      0.547
Loss Time (sec):   12          Average Delay (sec/veh):      28.0
Optimal Cycle:     44          Level Of Service:      C
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      0 0 2 0 1      2 0 1 0 0      2 0 0 0 1      0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 475 89      490 252 0      472 0 83      0 0 0
Growth Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      0 475 89      490 252 0      472 0 83      0 0 0
User Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:      0 475 89      490 252 0      472 0 83      0 0 0
Reduct Vol:      0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Reduced Vol:      0 475 89      490 252 0      472 0 83      0 0 0
PCE Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      0 475 89      490 252 0      472 0 83      0 0 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900      1900 1900 1900      1900 1900 1900      1900 1900 1900
Adjustment:      1.00 0.95 0.85      0.92 1.00 1.00      0.59 1.00 0.85      1.00 1.00 1.00
Lanes:      0.00 2.00 1.00      2.00 1.00 0.00      2.00 0.00 1.00      0.00 0.00 0.00
Final Sat.:      0 3610 1615      3502 1900 0      2245 0 1615      0 0 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.00 0.13 0.06      0.14 0.13 0.00      0.21 0.00 0.05      0.00 0.00 0.00
Crit Moves:      ****      ****      ****
Green/Cycle:      0.00 0.24 0.24      0.26 0.50 0.00      0.38 0.00 0.38      0.00 0.00 0.00
Volume/Cap:      0.00 0.55 0.23      0.55 0.27 0.00      0.55 0.00 0.13      0.00 0.00 0.00
Uniform Del:      0.0 33.2 30.5      32.2 14.6 0.0      24.0 0.0 20.0      0.0 0.0 0.0
IncrcmntDel:      0.0 0.7 0.3      0.7 0.2 0.0      0.7 0.0 0.1      0.0 0.0 0.0
InitQueueDel:      0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0
Delay Adj:      0.00 1.00 1.00      1.00 1.00 0.00      1.00 0.00 1.00      0.00 0.00 0.00
Delay/Veh:      0.0 34.0 30.8      32.9 14.8 0.0      24.8 0.0 20.1      0.0 0.0 0.0
User DelAdj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
AdjDel/Veh:      0.0 34.0 30.8      32.9 14.8 0.0      24.8 0.0 20.1      0.0 0.0 0.0
LOS by Move:      A C C      C B A      A C A      A A A
HCM2kAvgQ:      0 7 2      7 4 0      6 0 2      0 0 0
*****
Note: Queue reported is the number of cars per lane.
*****
```

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Highland Springs/8th-Wilson	F 175.7	1.482	F 175.7	1.482	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	F 104.0	1.189	F 104.0	1.189	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D 42.2	0.967	D 42.2	0.967	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	C 32.1	0.886	C 32.1	0.886	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	F 178.5	1.678	F 178.5	1.678	+ 0.000 D/V
# 6 Highland Home/Wilson	F OVRFL	XXXXX	F OVRFL	XXXXX	Nan D/V
# 7 Highland Home/Ramsey	F OVRFL	XXXXX	F OVRFL	XXXXX	Nan D/V
# 8 Highland Home/Sun Lakes-Westwa	F 810.7	3.495	F 810.7	3.495	+ 0.000 V/C
# 9 Sunset/Wilson	F OVRFL	3.724	F OVRFL	3.724	+ 0.000 V/C
# 10 Sunset/Ramsey	F 236.8	2.127	F 236.8	2.127	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	F OVRFL	1.235	F OVRFL	1.235	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	F OVRFL	XXXXX	F OVRFL	XXXXX	+ 0.000 D/V
# 13 Sunset/Lincoln	F OVRFL	XXXXX	F OVRFL	XXXXX	+ 0.000 D/V
# 14 Sunset/Westward	B 11.4	0.105	B 11.4	0.105	+ 0.000 D/V
# 15 Highland Home Road/I-10 Westbo	A 6.1	0.759	A 6.1	0.759	+ 0.000 D/V
# 16 Highland Home Road/I-10 Eastbo	C 31.1	0.758	C 31.1	0.758	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.482
Loss Time (sec):   16          Average Delay (sec/veh):    175.7
Optimal Cycle:     180          Level Of Service:         F
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ignore         Include        Include        Include
Min. Green:       0 0 0         0 0 0         0 0 0         0 0 0
Y+R:             4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0
Lanes:            1 0 1 0 1       1 0 1 1 0       1 0 1 1 0       1 0 2 0 1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         34 1149      461 390 824 185 185 807 49 333 709 400
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      34 1149      461 390 824 185 185 807 49 333 709 400
User Adj:         1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       34 1149      0 390 824 185 185 807 49 333 709 400
Reduct Vol:       0 0 0         0 0 0         0 0 0         0 0 0
Reduced Vol:      34 1149      0 390 824 185 185 807 49 333 709 400
PCE Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      34 1149      0 390 824 185 185 807 49 333 709 400
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:       0.95 1.00 1.00 0.95 0.92 0.92 0.95 0.94 0.94 0.95 0.95 0.85
Lanes:           1.00 1.00 1.00 1.00 1.63 0.37 1.00 1.89 0.11 1.00 2.00 1.00
Final Sat.:       1805 1900 1900 1805 2869 644 1805 3373 205 1805 3610 1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.02 0.60 0.00 0.22 0.29 0.29 0.10 0.24 0.24 0.18 0.20 0.25
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.03 0.41 0.00 0.15 0.52 0.52 0.08 0.16 0.16 0.12 0.20 0.20
Volume/Cap:       0.55 1.48 0.00 1.48 0.55 0.55 1.22 1.48 1.48 1.48 0.97 1.22
Uniform Del:      47.5 29.6 0.0 42.7 16.2 16.2 45.8 41.9 41.9 43.8 39.6 39.9
IncremntDel:      10.4 224 0.0 236.0 0.4 0.4 145.9 226 225.9 239.1 26.1 125.2
InitQueueDel:     0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh:        58.0 253 0.0 278.8 16.5 16.5 191.7 268 267.9 282.8 65.7 165.1
User DelAdj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       58.0 253 0.0 278.8 16.5 16.5 191.7 268 267.9 282.8 65.7 165.1
LOS by Move:      E F A F B B F F F F E F
HCM2kAvgQ:        1 79 0 29 11 11 13 34 34 25 16 24
*****
Note: Queue reported is the number of cars per lane.
*****

```

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 1.189
Loss Time (sec): 16 Average Delay (sec/veh): 104.0
Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs 6th-Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 1 0 1 0 2 0 1

Volume Module:
Base Vol: 447 1311 344 380 963 151 211 742 313 383 837 271
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 447 1311 344 380 963 151 211 742 313 383 837 271
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 447 1311 344 380 963 151 211 742 313 383 837 271
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 447 1311 344 380 963 151 211 742 313 383 837 271
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 447 1311 344 380 963 151 211 742 313 383 837 271

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.87 0.87 0.95 0.95 0.85
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.11 0.89 1.00 2.00 1.00
Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3484 1470 1805 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.25 0.36 0.21 0.21 0.27 0.09 0.12 0.21 0.21 0.21 0.23 0.17
Crit Moves: ****
Green/Cycle: 0.23 0.31 0.31 0.18 0.25 0.25 0.12 0.18 0.18 0.18 0.24 0.24
Volume/Cap: 1.07 1.19 0.70 1.19 1.07 0.37 0.98 1.19 1.19 1.19 0.98 0.71
Uniform Del: 38.4 34.7 30.7 41.1 37.5 31.0 43.9 41.0 41.0 41.1 37.8 34.9
IncrmntDel: 62.7 94.4 4.4 112.0 49.2 0.6 54.0 96.4 96.4 111.8 24.7 5.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 101.1 129 35.0 153.2 86.7 31.6 97.8 137 137.4 152.9 62.5 40.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 101.1 129 35.0 153.2 86.7 31.6 97.8 137 137.4 152.9 62.5 40.8
LOS by Move: F F D F F C F F F F E D
HCM2kAvgQ: 18 34 9 20 21 4 11 23 23 18 13 7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.967
Loss Time (sec): 12 Average Delay (sec/veh): 42.2
Optimal Cycle: 153 Level Of Service: D

Street Name: Highland Springs I-10 WB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

Volume Module:
Base Vol: 288 1410 0 0 1185 475 0 0 0 510 0 587
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 288 1410 0 0 1185 475 0 0 0 510 0 587
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 288 1410 0 0 1185 475 0 0 0 510 0 587
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 288 1410 0 0 1185 475 0 0 0 510 0 587
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 288 1410 0 0 1185 475 0 0 0 510 0 587

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

Capacity Analysis Module:
Vol/Sat: 0.16 0.39 0.00 0.00 0.33 0.29 0.00 0.00 0.00 0.28 0.00 0.36
Crit Moves: ****
Green/Cycle: 0.16 0.50 0.00 0.00 0.34 0.34 0.00 0.00 0.00 0.38 0.00 0.38
Volume/Cap: 0.97 0.77 0.00 0.00 0.97 0.87 0.00 0.00 0.00 0.75 0.00 0.97
Uniform Del: 41.5 20.2 0.0 0.0 32.5 30.9 0.0 0.0 0.0 27.1 0.0 30.6
IncrmntDel: 43.1 2.1 0.0 0.0 18.4 13.7 0.0 0.0 0.0 4.7 0.0 28.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 84.6 22.3 0.0 0.0 50.8 44.6 0.0 0.0 0.0 31.8 0.0 59.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 84.6 22.3 0.0 0.0 50.8 44.6 0.0 0.0 0.0 31.8 0.0 59.0
LOS by Move: F C A A D D A A A C A E
HCM2kAvgQ: 10 18 0 0 18 13 0 0 0 15 0 23

Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.886
 Loss Time (sec): 12 Average Delay (sec/veh): 32.1
 Optimal Cycle: 104 Level Of Service: C

 Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1369 544 291 1403 0 433 0 384 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1369 544 291 1403 0 433 0 384 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1369 544 291 1403 0 433 0 384 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1369 544 291 1403 0 433 0 384 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1369 544 291 1403 0 433 0 384 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.34 0.16 0.39 0.00 0.24 0.00 0.24 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.43 0.43 0.18 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00
 Volume/Cap: 0.00 0.89 0.79 0.89 0.64 0.00 0.89 0.00 0.88 0.00 0.00 0.00
 Uniform Del: 0.0 26.4 24.7 39.9 12.4 0.0 35.0 0.0 34.9 0.0 0.0 0.0
 IncremntDel: 0.0 6.6 6.0 23.8 0.6 0.0 17.5 0.0 18.3 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 32.9 30.7 63.7 13.1 0.0 52.5 0.0 53.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 32.9 30.7 63.7 13.1 0.0 52.5 0.0 53.2 0.0 0.0 0.0
 LOS by Move: A C C E B A D A D A A A
 HCM2kAvgQ: 0 19 13 8 13 0 16 0 15 0 0 0

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.678
 Loss Time (sec): 16 Average Delay (sec/veh): 178.5
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0 1

 Volume Module:
 Base Vol: 160 868 252 202 1023 68 128 974 237 248 1089 226
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 160 868 252 202 1023 68 128 974 237 248 1089 226
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 160 868 252 202 1023 0 128 974 237 248 1089 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 160 868 252 202 1023 0 128 974 237 248 1089 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 160 868 252 202 1023 0 128 974 237 248 1089 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.92 0.92 0.95 0.95 1.00 0.07 0.92 0.92 0.18 1.00 1.00
 Lanes: 1.00 1.55 0.45 1.00 2.00 1.00 1.00 1.61 0.39 1.00 1.00 1.00
 Final Sat.: 1805 2703 785 1805 3610 1900 131 2819 686 342 1900 1900

 Capacity Analysis Module:
 Vol/Sat: 0.09 0.32 0.32 0.11 0.28 0.00 0.98 0.35 0.35 0.73 0.57 0.00
 Crit Moves: ****
 Green/Cycle: 0.06 0.19 0.19 0.07 0.20 0.00 0.58 0.58 0.58 0.58 0.58 0.00
 Volume/Cap: 1.44 1.68 1.68 1.68 1.44 0.00 1.68 0.59 0.59 1.25 0.98 0.00
 Uniform Del: 46.9 40.4 40.4 46.7 40.2 0.0 20.9 13.4 13.4 20.9 20.5 0.0
 IncremntDel: 242.1 312 311.6 338.4 207 0.0 355.2 0.5 0.5 145.6 23.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 289.0 352 352.0 385.1 247 0.0 376.1 13.8 13.8 166.5 43.9 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 289.0 352 352.0 385.1 247 0.0 376.1 13.8 13.8 166.5 43.9 0.0
 LOS by Move: F F F F F A F B B F D A
 HCM2kAvgQ: 13 48 48 16 36 0 12 13 13 16 40 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #6 Highland Home/Wilson
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 361 915 254 384 798 165 114 1196 241 131 1022 683
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 361 915 254 384 798 165 114 1196 241 131 1022 683
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 361 915 254 384 798 165 114 1196 241 131 1022 683
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 361 915 254 384 798 165 114 1196 241 131 1022 683
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 2717 3512 719 2909 3291 853 1705 xxxx xxxxx 1437 xxxx xxxxx
Potent Cap.: 10 6 376 7 9 307 378 xxxx xxxxx 479 xxxx xxxxx
Move Cap.: 0 3 376 0 5 307 378 xxxx xxxxx 479 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.68 xxxx xxxx 0.54 0.30 xxxx xxxx 0.27 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx 117 4.8 xxxx xxxx xxxxx 1.2 xxxx xxxxx 1.1 xxxx xxxxx
Control Del:xxxxx xxxx 32.4 xxxxx xxxx xxxxx 18.6 xxxx xxxxx 15.3 xxxx xxxxx
LOS by Move: * F D * * * C * * C * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: +Inf xxxxxx xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #7 Highland Home/Ramsey
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 346 1221 286 340 725 130 242 779 459 430 909 267
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 346 1221 286 340 725 130 242 779 459 430 909 267
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 346 1221 286 340 725 130 242 779 459 430 909 267
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 346 1221 286 340 725 130 242 779 459 430 909 267
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 3170 3529 619 3387 3625 588 1176 xxxx xxxxx 1238 xxxx xxxxx
Potent Cap.: 5 6 436 3 5 457 601 xxxx xxxxx 570 xxxx xxxxx
Move Cap.: 0 1 436 0 1 457 601 xxxx xxxxx 570 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.66 xxxx xxxx 0.28 0.40 xxxx xxxx 0.75 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 1.9 xxxx xxxxx 6.7 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxx xxxx xxxxx 15.0 xxxx xxxxx 28.2 xxxx xxxxx
LOS by Move: * * * * * B * * D * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx xxxx 1 xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxx xxxx 109.7 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * xxxxx * * F * * * *
ApproachDel: xxxxxx +Inf xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 3.495
Loss Time (sec): 0 Average Delay (sec/veh): 810.7
Optimal Cycle: 0 Level Of Service: F

Street Name: Highland Home Sun Lakes-Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 1 0 0 1! 0 0

Volume Module:
Base Vol: 117 160 12 270 238 159 175 1087 155 17 1258 197
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 117 160 12 270 238 159 175 1087 155 17 1258 197
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 117 160 12 270 238 159 175 1087 155 17 1258 197
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 117 160 12 270 238 159 175 1087 155 17 1258 197
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 117 160 12 270 238 159 175 1087 155 17 1258 197

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.40 0.56 0.04 0.40 0.36 0.24 0.14 0.86 1.00 0.01 0.86 0.13
Final Sat.: 159 217 16 172 152 101 56 350 445 5 360 56

Capacity Analysis Module:
Vol/Sat: 0.74 0.74 0.74 1.57 1.57 1.57 3.10 3.10 0.35 3.49 3.49 3.49
Crit Moves: **** ****
Delay/Veh: 33.9 33.9 33.9 288.6 289 288.6 971.2 971 15.0 1146 1146 1146
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.9 33.9 33.9 288.6 289 288.6 971.2 971 15.0 1146 1146 1146
LOS by Move: D D D F F F F F C F F F
ApproachDel: 33.9 288.6 866.6 1146.0
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 33.9 288.6 866.6 1146.0
LOS by Appr: D F F F
AllWayAvgQ: 2.4 2.4 2.4 32.7 32.7 32.7 108 108 0.5 133 133 132.7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 3.724
Loss Time (sec): 0 Average Delay (sec/veh): 1006.4
Optimal Cycle: 0 Level Of Service: F

Street Name: Sunset Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 381 864 151 158 415 328 357 916 202 62 1145 132
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 381 864 151 158 415 328 357 916 202 62 1145 132
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 381 864 151 158 415 328 357 916 202 62 1145 132
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 381 864 151 158 415 328 357 916 202 62 1145 132
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 381 864 151 158 415 328 357 916 202 62 1145 132

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.31 0.69 1.00 0.18 0.46 0.36 0.24 0.62 0.14 0.05 0.85 0.10
Final Sat.: 117 265 420 70 183 145 96 246 54 18 339 39

Capacity Analysis Module:
Vol/Sat: 3.26 3.26 0.36 2.26 2.26 2.26 3.72 3.72 3.72 3.37 3.37 3.37
Crit Moves: **** ****
Delay/Veh: 1041 1041 16.0 595.9 596 595.9 1250 1250 1250 1093 1093 1093
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 1041 1041 16.0 595.9 596 595.9 1250 1250 1250 1093 1093 1093
LOS by Move: F F C F F F F F F F F F
ApproachDel: 930.2 595.9 1250.2 1093.4
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 930.2 595.9 1250.2 1093.4
LOS by Appr: F F F F
AllWayAvgQ: 109 109 0.6 64.6 64.6 64.6 136 136 136.2 119 119 119.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 2.127
 Loss Time (sec): 12 Average Delay (sec/veh): 236.8
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 1 0 1 1 0 1 0 1 1 0
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 410 1212 234 108 843 279 284 855 183 658 656 95
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 410 1212 234 108 843 279 284 855 183 658 656 95
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 410 1212 234 108 843 279 284 855 183 658 656 95
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 410 1212 234 108 843 279 284 855 183 658 656 95
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 410 1212 234 108 843 279 284 855 183 658 656 95
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.18 0.93 0.93 0.10 0.91 0.91 0.95 0.93 0.93 0.95 0.93 0.93
 Lanes: 1.00 1.68 0.32 1.00 1.50 0.50 1.00 1.65 0.35 1.00 1.75 0.25
 Final Sat.: 338 2953 570 181 2612 864 1805 2896 620 1805 3093 448
 Capacity Analysis Module:
 Vol/Sat: 1.21 0.41 0.41 0.60 0.32 0.32 0.16 0.30 0.30 0.36 0.21 0.21
 Crit Moves: ****
 Green/Cycle: 0.57 0.57 0.57 0.57 0.57 0.57 0.13 0.14 0.14 0.17 0.18 0.18
 Volume/Cap: 2.13 0.72 0.72 1.05 0.57 0.57 1.19 2.13 2.13 2.13 1.19 1.19
 Uniform Del: 21.5 15.7 15.7 21.5 13.7 13.7 43.4 43.1 43.1 41.4 41.1 41.1
 IncremntDel: 524.4 1.3 1.3 102.9 0.4 0.4 119.8 514 514.2 518.1 101 101.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 545.9 17.0 17.0 124.4 14.0 14.0 163.2 557 557.2 559.5 142 142.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 545.9 17.0 17.0 124.4 14.0 14.0 163.2 557 557.2 559.5 142 142.2
 LOS by Move: F B B F B B F F F F F F
 HCM2kAvgQ: 40 18 18 7 12 12 14 51 51 64 23 23
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

 Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

 Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1! 0 0
 Volume Module:
 Base Vol: 475 1667 0 0 696 989 0 0 0 96 15 190
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 475 1667 0 0 696 989 0 0 0 96 15 190
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 475 1667 0 0 696 989 0 0 0 96 15 190
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 475 1667 0 0 696 989 0 0 0 96 15 190
 Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
 FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3
 Capacity Module:
 Cnflct Vol: 1685 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 2965 4302 834
 Potent Cap.: 385 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12 2 316
 Move Cap.: 385 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 0 316
 Volume/Cap: 1.23 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.60
 Level Of Service Module:
 2Way95thQ: 20.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del: 156.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: F * * * * * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * * * * * * * * * * * *
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: * * * * F
 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #12 Sunset/I-10 EB ramps
*****
Average Delay (sec/veh): 1795.1 Worst Case Level Of Service: F[4551.0]
*****
Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 1! 0 0 0 0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 1247 64 113 697 0 895 4 482 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1247 64 113 697 0 895 4 482 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1247 64 113 697 0 895 4 482 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 1247 64 113 697 0 895 4 482 0 0 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 6.8 6.5 6.9 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 1311 xxxx xxxxx 1547 2234 349 xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 534 xxxx xxxxx 107 43 653 xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 534 xxxx xxxxx 89 33 653 xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.21 xxxx xxxx 10.11 0.12 0.74 xxxx xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.8 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 13.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * B * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 126 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.8 xxxx xxxxx xxxxx 160 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 13.5 xxxx xxxxx xxxxx 4551 xxxxx xxxx xxxxx xxxxx
Shared LOS: * * * B * * * F * * * * *
ApproachDel: xxxxxx xxxxxx 4551.0 xxxxxx
ApproachLOS: * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #13 Sunset/Lincoln
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 96 302 32 156 399 388 256 898 58 27 1061 445
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 96 302 32 156 399 388 256 898 58 27 1061 445
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 96 302 32 156 399 388 256 898 58 27 1061 445
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 96 302 32 156 399 388 256 898 58 27 1061 445
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 787 xxxx xxxxx 334 xxxx xxxxx 2168 1431 593 1893 1609 318
Potent Cap.: 841 xxxx xxxxx 1237 xxxx xxxxx 34 136 509 54 106 727
Move Cap.: 841 xxxx xxxxx 1237 xxxx xxxxx 0 103 509 0 80 727
Volume/Cap: 0.11 xxxx xxxx 0.13 xxxx xxxx xxxx 8.73 0.11 xxxxx13.23 0.61
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.4 xxxx xxxxx 0.4 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: 9.8 xxxx xxxxx 8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx 0 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * xxxxx * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx
ApproachLOS: * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #14 Sunset/Westward

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[11.4]

Street Name: Sunset Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 0 263 13 18 286 0 0 0 0 25 0 81
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 263 13 18 286 0 0 0 0 25 0 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 263 13 18 286 0 0 0 0 25 0 81
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 263 13 18 286 0 0 0 0 25 0 81

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 6.5 6.2
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 276 xxxx xxxxx xxxx xxxx xxxxx 592 592 270
Potent Cap.: xxxx xxxx xxxxx 1299 xxxx xxxxx xxxx xxxx xxxxx 473 422 774
Move Cap.: xxxx xxxx xxxxx 1299 xxxx xxxxx xxxx xxxx xxxxx 468 416 774
Volume/Cap: xxxx xxxx xxxx 0.01 xxxx xxxx xxxx xxxx xxxx 0.05 0.00 0.10

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * A * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 670 xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.6 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.4 xxxxx
Shared LOS: * * * A * * * * * * * * * * * B *
ApproachDel: xxxxxx xxxxxx xxxxxx 11.4
ApproachLOS: * * * * * B

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Highland Home Road/I-10 Westbound Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.759
Loss Time (sec): 12 Average Delay (sec/veh): 6.1
Optimal Cycle: 69 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Permitted Permitted
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 0 0 0 1 0 1 0 0 0 0 0 0 1

Volume Module:
Base Vol: 144 1185 0 0 901 688 0 0 0 64 0 562
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 144 1185 0 0 901 688 0 0 0 64 0 562
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 144 1185 0 0 901 688 0 0 0 64 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 144 1185 0 0 901 688 0 0 0 64 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 144 1185 0 0 901 688 0 0 0 64 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.27 1.00 1.00 1.00 1.00 0.85 1.00 1.00 1.00 0.77 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 519 1900 0 0 1900 1615 0 0 0 1461 0 1900

Capacity Analysis Module:
Vol/Sat: 0.28 0.62 0.00 0.00 0.47 0.43 0.00 0.00 0.00 0.04 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.82 0.82 0.00 0.00 0.82 0.82 0.00 0.00 0.00 0.06 0.00 0.00
Volume/Cap: 0.34 0.76 0.00 0.00 0.58 0.52 0.00 0.00 0.00 0.76 0.00 0.00
Uniform Del: 2.2 4.2 0.0 0.0 3.0 2.8 0.0 0.0 0.0 46.4 0.0 0.0
IncremntDel: 0.5 2.2 0.0 0.0 0.5 0.4 0.0 0.0 0.0 32.3 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 0.00
Delay/Veh: 2.7 6.4 0.0 0.0 3.5 3.1 0.0 0.0 0.0 78.7 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 2.7 6.4 0.0 0.0 3.5 3.1 0.0 0.0 0.0 78.7 0.0 0.0
LOS by Move: A A A A A A A A A E A A
HCM2kAvgQ: 1 17 0 0 10 7 0 0 0 4 0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #16 Highland Home Road/I-10 Eastbound Ramps
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.758
Loss Time (sec):   12          Average Delay (sec/veh):    31.1
Optimal Cycle:     68          Level Of Service:          C
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:    0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Y+R:          4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:         0 0 2 0 1      2 0 1 0 0      2 0 0 0 1      0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 540 36 467 498 0 858 0 303 0 0 0
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    0 540 36 467 498 0 858 0 303 0 0 0
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 540 36 467 498 0 858 0 303 0 0 0
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   0 540 36 467 498 0 858 0 303 0 0 0
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   0 540 36 467 498 0 858 0 303 0 0 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    1.00 0.95 0.85 0.92 1.00 1.00 0.59 1.00 0.85 1.00 1.00
Lanes:         0.00 2.00 1.00 2.00 1.00 0.00 2.00 0.00 1.00 0.00 0.00
Final Sat.:    0 3610 1615 3502 1900 0 2234 0 1615 0 0 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.15 0.02 0.13 0.26 0.00 0.38 0.00 0.19 0.00 0.00
Crit Moves:    ****      ****      ****
Green/Cycle:   0.00 0.20 0.20 0.18 0.37 0.00 0.51 0.00 0.51 0.00 0.00
Volume/Cap:    0.00 0.76 0.11 0.76 0.70 0.00 0.76 0.00 0.37 0.00 0.00
Uniform Del:    0.0 37.9 32.9 39.2 26.6 0.0 19.8 0.0 15.0 0.0 0.0
IncrcmntDel:   0.0 4.7 0.2 5.4 3.2 0.0 3.0 0.0 0.3 0.0 0.0
InitQueueDel:  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:     0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00
Delay/Veh:     0.0 42.6 33.1 44.6 29.8 0.0 22.8 0.0 15.3 0.0 0.0
User DelAdj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    0.0 42.6 33.1 44.6 29.8 0.0 22.8 0.0 15.3 0.0 0.0
LOS by Move:   A D C D C A C A B A A A
HCM2kAvgQ:     0 10 1 7 13 0 13 0 6 0 0 0
*****
Note: Queue reported is the number of cars per lane.
*****
```

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	Del/ LOS	V/ Veh	C	Del/ LOS	V/ Veh	C	
# 1 Highland Springs/8th-Wilson	E	77.1	1.110	E	77.1	1.110	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	F	98.7	1.235	F	98.7	1.235	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	F	135.8	1.501	F	135.8	1.501	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	F	97.6	1.196	F	97.6	1.196	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	27.4	0.639	C	27.4	0.639	+ 0.000 D/V
# 6 Highland Home/Wilson	F	OVRFL	XXXXX	F	OVRFL	XXXXX	+ 0.000 D/V
# 7 Highland Home/Ramsey	F	OVRFL	6.537	F	OVRFL	6.537	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	E	42.2	0.951	E	42.2	0.951	+ 0.000 V/C
# 9 Sunset/Wilson	F	586.0	2.716	F	586.0	2.716	+ 0.000 V/C
# 10 Sunset/Ramsey	F	140.0	1.709	F	140.0	1.709	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	F	OVRFL	1.519	F	OVRFL	1.519	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	F	OVRFL	XXXXX	F	OVRFL	XXXXX	+ 0.000 D/V
# 13 Sunset/Lincoln	F	OVRFL	5.419	F	OVRFL	5.419	+ 0.000 D/V
# 14 Sunset/Westward	B	11.8	0.015	B	11.8	0.015	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/8th-Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 1.110
Loss Time (sec): 16 Average Delay (sec/veh): 77.1
Optimal Cycle: 180 Level Of Service: E

Street Name: Highland Springs 8th-Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
Base Vol: 57 675 250 204 1138 154 65 162 101 698 290 139
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 57 675 250 204 1138 154 65 162 101 698 290 139
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 57 675 0 204 1138 154 65 162 101 698 290 139
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 675 0 204 1138 154 65 162 101 698 290 139
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 57 675 0 204 1138 154 65 162 101 698 290 139

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 1.00 0.95 0.93 0.93 0.95 0.89 0.89 0.95 0.95 0.85
Lanes: 1.00 1.00 1.00 1.00 1.76 0.24 1.00 1.23 0.77 1.00 2.00 1.00
Final Sat.: 1805 1900 1900 1805 3122 423 1805 2095 1306 1805 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.03 0.36 0.00 0.11 0.36 0.36 0.04 0.08 0.08 0.39 0.08 0.09
Crit Moves: ****
Green/Cycle: 0.03 0.32 0.00 0.10 0.39 0.39 0.12 0.07 0.07 0.35 0.29 0.29
Volume/Cap: 0.94 1.11 0.00 1.11 0.94 0.94 0.29 1.11 1.11 1.11 0.27 0.29
Uniform Del: 48.2 34.0 0.0 44.9 29.4 29.4 39.9 46.5 46.5 32.6 27.0 27.2
IncremntDel: 93.4 70.4 0.0 98.9 12.4 12.4 0.7 91.1 91.1 69.9 0.1 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 141.6 104 0.0 143.8 41.9 41.9 40.6 138 137.6 102.5 27.2 27.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 141.6 104 0.0 143.8 41.9 41.9 40.6 138 137.6 102.5 27.2 27.6
LOS by Move: F F A F D D D F F F C C
HCM2kAvgQ: 2 29 0 12 25 25 2 9 9 34 4 3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.235
 Loss Time (sec): 16 Average Delay (sec/veh): 98.7
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 275 1097 390 203 1715 78 90 221 306 390 144 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 275 1097 390 203 1715 78 90 221 306 390 144 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 275 1097 390 203 1715 78 90 221 306 390 144 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 275 1097 390 203 1715 78 90 221 306 390 144 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 275 1097 390 203 1715 78 90 221 306 390 144 103

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.83 0.83 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3157 1579 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.15 0.30 0.24 0.11 0.48 0.05 0.05 0.07 0.19 0.22 0.04 0.06
 Crit Moves: ****
 Green/Cycle: 0.12 0.37 0.37 0.14 0.38 0.38 0.15 0.16 0.16 0.17 0.19 0.19
 Volume/Cap: 1.23 0.82 0.65 0.82 1.23 0.13 0.34 0.45 1.23 1.23 0.21 0.34
 Uniform Del: 43.8 28.4 26.1 41.9 30.8 19.9 38.4 38.2 42.2 41.3 34.5 35.4
 IncremntDel: 138.2 4.1 2.6 19.0 112 0.1 0.8 0.3 124.5 130.1 0.2 0.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 182.0 32.6 28.6 60.9 143 20.0 39.2 38.5 166.7 171.3 34.6 36.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 182.0 32.6 28.6 60.9 143 20.0 39.2 38.5 166.7 171.3 34.6 36.0
 LOS by Move: F C C E F B D D F F C D
 HCM2kAvgQ: 15 17 10 6 47 1 3 4 21 22 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.501
 Loss Time (sec): 12 Average Delay (sec/veh): 135.8
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

 Volume Module:
 Base Vol: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 583 1142 0 0 1261 1150 0 0 0 391 0 461

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.32 0.32 0.00 0.00 0.35 0.71 0.00 0.00 0.00 0.22 0.00 0.29
 Crit Moves: ****
 Green/Cycle: 0.22 0.69 0.00 0.00 0.47 0.47 0.00 0.00 0.00 0.19 0.00 0.19
 Volume/Cap: 1.50 0.46 0.00 0.00 0.74 1.50 0.00 0.00 0.00 1.14 0.00 1.50
 Uniform Del: 39.2 7.0 0.0 0.0 21.2 26.3 0.0 0.0 0.0 40.5 0.0 40.5
 IncremntDel: 238.4 0.1 0.0 0.0 1.7 232.1 0.0 0.0 0.0 90.8 0.0 241.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 277.6 7.2 0.0 0.0 22.9 258.4 0.0 0.0 0.0 131.3 0.0 282.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 277.6 7.2 0.0 0.0 22.9 258.4 0.0 0.0 0.0 131.3 0.0 282.1
 LOS by Move: F A A A C F A A A F A F
 HCM2kAvgQ: 41 8 0 0 15 80 0 0 0 21 0 35

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.196
 Loss Time (sec): 12 Average Delay (sec/veh): 97.6
 Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

Volume Module:
 Base Vol: 0 1108 482 571 1079 0 776 0 442 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1108 482 571 1079 0 776 0 442 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1108 482 571 1079 0 776 0 442 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1108 482 571 1079 0 776 0 442 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1108 482 571 1079 0 776 0 442 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.31 0.30 0.32 0.30 0.00 0.43 0.00 0.27 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.26 0.26 0.26 0.52 0.00 0.36 0.00 0.36 0.00 0.00 0.00
 Volume/Cap: 0.00 1.20 1.16 1.20 0.57 0.00 1.20 0.00 0.76 0.00 0.00 0.00
 Uniform Del: 0.0 37.2 37.2 36.8 16.3 0.0 32.1 0.0 28.3 0.0 0.0 0.0
 IncremntDel: 0.0 98.7 96.7 107.0 0.4 0.0 102.6 0.0 5.9 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 136 133.9 143.8 16.8 0.0 134.7 0.0 34.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 136 133.9 143.8 16.8 0.0 134.7 0.0 34.2 0.0 0.0 0.0
 LOS by Move: A F F F B A F A C A A A
 HCM2kAvgQ: 0 30 24 29 11 0 42 0 14 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.639
 Loss Time (sec): 16 Average Delay (sec/veh): 27.4
 Optimal Cycle: 61 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0 1

Volume Module:
 Base Vol: 152 958 70 187 547 33 70 101 47 76 277 301
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 958 70 187 547 33 70 101 47 76 277 301
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 152 958 70 187 547 0 70 101 47 76 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 958 70 187 547 0 70 101 47 76 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 152 958 70 187 547 0 70 101 47 76 277 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 1.00 0.33 0.90 0.90 0.66 1.00 1.00
 Lanes: 1.00 1.86 0.14 1.00 2.00 1.00 1.00 1.36 0.64 1.00 1.00 1.00
 Final Sat.: 1805 3331 243 1805 3610 1900 633 2345 1091 1248 1900 1900

Capacity Analysis Module:
 Vol/Sat: 0.08 0.29 0.29 0.10 0.15 0.00 0.11 0.04 0.04 0.06 0.15 0.00
 Crit Moves: ****

Green/Cycle: 0.22 0.45 0.45 0.16 0.39 0.00 0.23 0.23 0.23 0.23 0.23 0.00
 Volume/Cap: 0.39 0.64 0.64 0.64 0.39 0.00 0.49 0.19 0.19 0.27 0.64 0.00
 Uniform Del: 33.3 21.2 21.2 39.2 21.7 0.0 33.5 31.1 31.1 31.7 34.9 0.0
 IncremntDel: 0.6 0.9 0.9 4.7 0.2 0.0 2.6 0.1 0.1 0.5 3.2 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 34.0 22.1 22.1 43.9 21.9 0.0 36.1 31.3 31.3 32.2 38.1 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 34.0 22.1 22.1 43.9 21.9 0.0 36.1 31.3 31.3 32.2 38.1 0.0
 LOS by Move: C C C D C A D C C C D A
 HCM2kAvgQ: 4 13 13 5 6 0 3 2 2 2 9 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #6 Highland Home/Wilson
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 93 270 36 615 670 150 159 289 212 139 895 239
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 93 270 36 615 670 150 159 289 212 139 895 239
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 93 270 36 615 670 150 159 289 212 139 895 239
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 93 270 36 615 670 150 159 289 212 139 895 239
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 1774 2125 251 1890 2112 567 1134 xxxx xxxxx 501 xxxx xxxxx
Potent Cap.: 54 51 755 44 52 472 623 xxxx xxxxx 1074 xxxx xxxxx
Move Cap.: 0 33 755 0 33 472 623 xxxx xxxxx 1074 xxxx xxxxx
Volume/Cap: xxxx 8.23 0.05 xxxx20.02 0.32 0.26 xxxx xxxx 0.13 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx 32.7 0.1 xxxx xxxx xxxxx 1.0 xxxx xxxxx 0.4 xxxx xxxxx
Control Del:xxxxx 3488 10.0 xxxxx xxxx xxxxx 12.7 xxxx xxxxx 8.9 xxxx xxxxx
LOS by Move: * F B * * * B * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: +Inf xxxxxx xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #7 Highland Home/Ramsey
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 71 70 52 696 158 201 22 616 38 26 388 303
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 71 70 52 696 158 201 22 616 38 26 388 303
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 71 70 52 696 158 201 22 616 38 26 388 303
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 71 70 52 696 158 201 22 616 38 26 388 303
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 1004 1422 327 979 1290 346 691 xxxx xxxxx 654 xxxx xxxxx
Potent Cap.: 199 137 675 208 165 656 913 xxxx xxxxx 943 xxxx xxxxx
Move Cap.: 0 130 675 106 157 656 913 xxxx xxxxx 943 xxxx xxxxx
Volume/Cap: xxxx 0.54 0.08 6.54 1.01 0.31 0.02 xxxx xxxx 0.03 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 77.1 xxxx xxxxx 0.1 xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 2570 xxxx xxxxx 9.0 xxxx xxxxx 8.9 xxxx xxxxx
LOS by Move: * * * F * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx xxxx 273 xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx 18.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx 202.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * xxxxx * * F * * * * *
ApproachDel: xxxxxx 1764.1 xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.951
 Loss Time (sec): 0 Average Delay (sec/veh): 42.2
 Optimal Cycle: 0 Level Of Service: E

Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 1 0 0 1! 0 0

-----|-----|-----|-----|
 Volume Module:
 Base Vol: 145 7 25 141 5 282 147 248 40 6 369 89
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 145 7 25 141 5 282 147 248 40 6 369 89
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 145 7 25 141 5 282 147 248 40 6 369 89
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 145 7 25 141 5 282 147 248 40 6 369 89
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 145 7 25 141 5 282 147 248 40 6 369 89

-----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.82 0.04 0.14 0.33 0.01 0.66 0.37 0.63 1.00 0.01 0.80 0.19
 Final Sat.: 320 15 55 160 6 320 164 277 496 6 388 94

-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.45 0.45 0.45 0.88 0.88 0.88 0.89 0.89 0.08 0.95 0.95 0.95
 Crit Moves: ****

Delay/Veh: 17.5 17.5 17.5 39.4 39.4 39.4 45.6 45.6 10.4 54.0 54.0 54.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 17.5 17.5 17.5 39.4 39.4 39.4 45.6 45.6 10.4 54.0 54.0 54.0
 LOS by Move: C C C E E E E B F F F
 ApproachDel: 17.5 39.4 42.4 54.0
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 17.5 39.4 42.4 54.0
 LOS by Appr: C E E F
 AllWayAvgQ: 0.6 0.6 0.6 3.9 3.9 3.9 4.3 4.3 0.1 5.9 5.9 5.9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 2.716
 Loss Time (sec): 0 Average Delay (sec/veh): 586.0
 Optimal Cycle: 0 Level Of Service: F

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|
 Volume Module:
 Base Vol: 117 235 44 140 777 170 186 677 210 44 336 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 117 235 44 140 777 170 186 677 210 44 336 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 117 235 44 140 777 170 186 677 210 44 336 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 117 235 44 140 777 170 186 677 210 44 336 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 117 235 44 140 777 170 186 677 210 44 336 67

-----|-----|-----|-----|
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.33 0.67 1.00 0.13 0.71 0.16 0.17 0.63 0.20 0.10 0.75 0.15
 Final Sat.: 127 255 420 52 286 63 70 256 79 40 304 61

-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.92 0.92 0.10 2.72 2.72 2.72 2.65 2.65 2.65 1.10 1.10 1.10
 Crit Moves: ****

Delay/Veh: 59.6 59.6 12.3 798.3 798 798.3 767.1 767 767.1 105.9 106 105.9
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 59.6 59.6 12.3 798.3 798 798.3 767.1 767 767.1 105.9 106 105.9
 LOS by Move: F F B F F F F F F F F
 ApproachDel: 54.3 798.3 767.1 105.9
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 54.3 798.3 767.1 105.9
 LOS by Appr: F F F F
 AllWayAvgQ: 5.0 5.0 0.1 87.4 87.4 87.4 85.0 85.0 85.0 10.6 10.6 10.6

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #12 Sunset/I-10 EB ramps
*****
Average Delay (sec/veh): 4180.5 Worst Case Level Of Service: F[16155.6]
*****
Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 1! 0 0 0 0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 837 229 463 513 0 372 2 338 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 837 229 463 513 0 372 2 338 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 837 229 463 513 0 372 2 338 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 837 229 463 513 0 372 2 338 0 0 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 6.8 6.5 6.9 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 1066 xxxx xxxxx 1858 2505 257 xxxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 661 xxxx xxxxx 67 29 749 xxxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 661 xxxx xxxxx 11 2 749 xxxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.70 xxxx xxxx 34.42 1.20 0.45 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 5.7 xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 22.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * C * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 20 xxxxx xxxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 5.7 xxxxx xxxxx xxxxx 89.5 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 22.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * C * * * * F * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx
ApproachLOS: * * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #13 Sunset/Lincoln
*****
Average Delay (sec/veh): 917.0 Worst Case Level Of Service: F[2505.2]
*****
Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 40 385 23 107 234 185 438 192 23 14 108 77
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 40 385 23 107 234 185 438 192 23 14 108 77
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 40 385 23 107 234 185 438 192 23 14 108 77
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 40 385 23 107 234 185 438 192 23 14 108 77
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 419 xxxx xxxxx 408 xxxx xxxxx 1110 1029 327 1125 1110 397
Potent Cap.: 1151 xxxx xxxxx 1162 xxxx xxxxx 188 236 719 184 211 657
Move Cap.: 1151 xxxx xxxxx 1162 xxxx xxxxx 81 205 719 28 184 657
Volume/Cap: 0.03 xxxx xxxx 0.09 xxxx xxxx 5.42 0.94 0.03 0.49 0.59 0.12
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.3 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: 8.2 xxxx xxxxx 8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: A * * A * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 102 xxxxx xxxxx 166 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 72.2 xxxxx xxxxx 10.9 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 2505 xxxxx xxxxx 188 xxxxx
Shared LOS: * * * * * F * * F *
ApproachDel: xxxxxx xxxxxx 2505.2 187.7
ApproachLOS: * * * F
*****
Note: Queue reported is the number of cars per lane.
*****
```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh):      0.2      Worst Case Level Of Service: B[ 11.8]
*****
Street Name:      Sunset      Westward
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 1 0      0 1 0 0 0      0 0 0 0 0      1 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 262      8      3 225      0      0 0 0 0      8 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 262      8      3 225      0      0 0 0 0      8 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 262      8      3 225      0      0 0 0 0      8 0 0 0
Reduct Vol: 0 0 0      0      0 0 0      0      0 0 0 0      0 0 0 0
FinalVolume: 0 262      8      3 225      0      0 0 0 0      8 0 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx      4.1 xxxx xxxxx xxxxx xxxxx xxxxx      6.4 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx      2.2 xxxx xxxxx xxxxx xxxxx xxxxx      3.5 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx      270 xxxx xxxxx xxxx xxxxx xxxxx      497 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx      1305 xxxx xxxxx xxxx xxxxx xxxxx      536 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx      1305 xxxx xxxxx xxxx xxxxx xxxxx      535 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx      0.00 xxxx xxxx xxxx xxxxx xxxxx      0.01 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx      0.0 xxxx xxxxx xxxx xxxxx xxxxx      0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx      7.8 xxxx xxxxx xxxxx xxxxx xxxxx      11.8 xxxx xxxxx
LOS by Move: * * * * *      A * * * * *      B * * * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx      0.0 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx      7.8 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS:      * * *      A * * * * *      * * * * *      * * * * *
ApproachDel: xxxxxx      xxxxxx      xxxxxx      11.8
ApproachLOS:      *      *      *      B
*****
Note: Queue reported is the number of cars per lane.
*****
```

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS	Veh	LOS	Veh	
# 1 Highland Springs/8th-Wilson	F	205.8 1.567	F	205.8 1.567	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	F	130.4 1.284	F	130.4 1.284	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	E	77.1 1.221	E	77.1 1.221	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	F	102.4 1.248	F	102.4 1.248	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	F	166.0 1.727	F	166.0 1.727	+ 0.000 D/V
# 6 Highland Home/Wilson	F	OVRFL XXXXX	F	OVRFL XXXXX	Nan D/V
# 7 Highland Home/Ramsey	F	OVRFL 1.056	F	OVRFL 1.056	Nan D/V
# 8 Highland Home/Sun Lakes-Westwa	F	853.5 3.549	F	853.5 3.549	+ 0.000 V/C
# 9 Sunset/Wilson	F	OVRFL 3.956	F	OVRFL 3.956	+ 0.000 V/C
# 10 Sunset/Ramsey	F	237.2 2.112	F	237.2 2.112	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	F	OVRFL 1.059	F	OVRFL 1.059	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	F	OVRFL XXXXX	F	OVRFL XXXXX	+ 0.000 D/V
# 13 Sunset/Lincoln	F	OVRFL XXXXX	F	OVRFL XXXXX	+ 0.000 D/V
# 14 Sunset/Westward	B	10.4 0.094	B	10.4 0.094	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.567
Loss Time (sec):   16          Average Delay (sec/veh):      205.8
Optimal Cycle:     180          Level Of Service:          F
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ignore         Include        Include        Include
Min. Green:       0   0   0       0   0   0       0   0   0       0   0   0
Y+R:              4.0  4.0  4.0     4.0  4.0  4.0     4.0  4.0  4.0     4.0  4.0  4.0
Lanes:            1   0   1   0   1   0     1   0   1   1   0     1   0   2   0   1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         26 1434      383      361 881      159      167 709      49      270 512      358
Growth Adj:       1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:      26 1434      383      361 881      159      167 709      49      270 512      358
User Adj:         1.00 1.00      0.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:          1.00 1.00      0.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:       26 1434      0      361 881      159      167 709      49      270 512      358
Reduct Vol:       0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:      26 1434      0      361 881      159      167 709      49      270 512      358
PCE Adj:          1.00 1.00      0.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:          1.00 1.00      0.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      26 1434      0      361 881      159      167 709      49      270 512      358
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900      1900      1900 1900      1900      1900 1900      1900      1900 1900      1900
Adjustment:       0.95 1.00      1.00      0.95 0.93      0.93      0.95 0.94      0.94      0.95 0.95      0.85
Lanes:            1.00 1.00      1.00      1.00 1.69      0.31      1.00 1.87      0.13      1.00 2.00      1.00
Final Sat.:       1805 1900      1900      1805 2988      539      1805 3343      231      1805 3610      1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.01 0.75      0.00      0.20 0.29      0.29      0.09 0.21      0.21      0.15 0.14      0.22
Crit Moves:       ****              ****              ****
Green/Cycle:      0.03 0.48      0.00      0.13 0.58      0.58      0.07 0.14      0.14      0.10 0.16      0.16
Volume/Cap:       0.51 1.57      0.00      1.57 0.51      0.51      1.36 1.57      1.57      1.57 0.87      1.36
Uniform Del:      47.9 25.9      0.0      43.6 12.5      12.5      46.6 43.2      43.2      45.2 40.8      41.9
IncremntDel:      8.1 261      0.0      275.2 0.2      0.2      206.2 265      265.1      281.4 13.3      185.3
InitQueueDel:     0.0 0.0      0.0      0.0 0.0      0.0      0.0 0.0      0.0      0.0 0.0      0.0
Delay Adj:        1.00 1.00      0.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Delay/Veh:        56.0 286      0.0      318.9 12.7      12.7      252.8 308      308.4      326.6 54.2      227.1
User DelAdj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
AdjDel/Veh:       56.0 286      0.0      318.9 12.7      12.7      252.8 308      308.4      326.6 54.2      227.1
LOS by Move:      E   F   A       F   B   B       F   F   F       F   D   F
HCM2kAvgQ:        1 105      0      29 10 10      13 32      32      22 11 25
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 1.284
 Loss Time (sec): 16 Average Delay (sec/veh): 130.4
 Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
 Base Vol: 512 1593 530 309 1074 127 175 608 347 459 608 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 512 1593 530 309 1074 127 175 608 347 459 608 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 512 1593 530 309 1074 127 175 608 347 459 608 277
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 512 1593 530 309 1074 127 175 608 347 459 608 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 512 1593 530 309 1074 127 175 608 347 459 608 277

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.86 0.86 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3271 1636 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.28 0.44 0.33 0.17 0.30 0.08 0.10 0.19 0.21 0.25 0.17 0.17
 Crit Moves: ****
 Green/Cycle: 0.23 0.34 0.34 0.13 0.24 0.24 0.13 0.17 0.17 0.20 0.23 0.23
 Volume/Cap: 1.22 1.28 0.96 1.28 1.22 0.32 0.74 1.13 1.28 1.28 0.73 0.74
 Uniform Del: 38.4 32.8 32.1 43.3 37.8 31.0 41.8 41.7 41.7 40.1 35.5 35.6
 IncremntDel: 118.3 134 27.3 155.8 109 0.5 11.7 71.4 138.1 147.7 3.2 7.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 156.7 167 59.4 199.1 147 31.5 53.5 113 179.9 187.8 38.7 43.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 156.7 167 59.4 199.1 147 31.5 53.5 113 179.9 187.8 38.7 43.2
 LOS by Move: F F E F F C D F F F D D
 HCM2kAvgQ: 27 48 17 18 30 3 7 18 25 26 8 7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.221
 Loss Time (sec): 12 Average Delay (sec/veh): 77.1
 Optimal Cycle: 180 Level Of Service: E

Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

Volume Module:
 Base Vol: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 330 1524 0 0 0 1199 682 0 0 0 347 0 758

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

Capacity Analysis Module:
 Vol/Sat: 0.18 0.42 0.00 0.00 0.33 0.42 0.00 0.00 0.00 0.19 0.00 0.47
 Crit Moves: ****
 Green/Cycle: 0.15 0.50 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.38 0.00 0.38
 Volume/Cap: 1.22 0.85 0.00 0.00 0.96 1.22 0.00 0.00 0.00 0.50 0.00 1.22
 Uniform Del: 42.5 22.0 0.0 0.0 32.0 32.7 0.0 0.0 0.0 23.4 0.0 30.8
 IncremntDel: 128.0 4.2 0.0 0.0 16.8 114.9 0.0 0.0 0.0 0.6 0.0 113.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 170.5 26.2 0.0 0.0 48.9 147.6 0.0 0.0 0.0 24.0 0.0 144.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 170.5 26.2 0.0 0.0 48.9 147.6 0.0 0.0 0.0 24.0 0.0 144.3
 LOS by Move: F C A A D F A A C A F
 HCM2kAvgQ: 17 20 0 0 18 35 0 0 0 8 0 43

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.248
 Loss Time (sec): 12 Average Delay (sec/veh): 102.4
 Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

Volume Module:
 Base Vol: 0 1369 409 461 1085 0 839 0 480 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1369 409 461 1085 0 839 0 480 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1369 409 461 1085 0 839 0 480 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1369 409 461 1085 0 839 0 480 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1369 409 461 1085 0 839 0 480 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.25 0.26 0.30 0.00 0.46 0.00 0.30 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.30 0.30 0.20 0.51 0.00 0.37 0.00 0.37 0.00 0.00 0.00
 Volume/Cap: 0.00 1.25 0.83 1.25 0.59 0.00 1.25 0.00 0.80 0.00 0.00 0.00
 Uniform Del: 0.0 34.8 32.5 39.8 17.3 0.0 31.4 0.0 28.1 0.0 0.0 0.0
 IncremntDel: 0.0 11.9 11.7 132.4 0.5 0.0 123.9 0.0 7.5 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 154 44.1 172.2 17.8 0.0 155.3 0.0 35.6 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 154 44.1 172.2 17.8 0.0 155.3 0.0 35.6 0.0 0.0 0.0
 LOS by Move: A F D F B A F A D A A A
 HCM2kAvgQ: 0 38 11 25 11 0 48 0 15 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 1.727
 Loss Time (sec): 16 Average Delay (sec/veh): 166.0
 Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0 1

Volume Module:
 Base Vol: 188 693 272 334 728 35 71 923 266 343 847 323
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 188 693 272 334 728 35 71 923 266 343 847 323
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 188 693 272 334 728 0 71 923 266 343 847 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 188 693 272 334 728 0 71 923 266 343 847 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 188 693 272 334 728 0 71 923 266 343 847 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.91 0.95 0.95 1.00 0.12 0.92 0.92 0.18 1.00 1.00
 Lanes: 1.00 1.44 0.56 1.00 2.00 1.00 1.00 1.55 0.45 1.00 1.00 1.00
 Final Sat.: 1805 2484 975 1805 3610 1900 224 2707 780 348 1900 1900

Capacity Analysis Module:
 Vol/Sat: 0.10 0.28 0.28 0.19 0.20 0.00 0.32 0.34 0.34 0.99 0.45 0.00
 Crit Moves: ****
 Green/Cycle: 0.09 0.16 0.16 0.11 0.18 0.00 0.57 0.57 0.57 0.57 0.57 0.00
 Volume/Cap: 1.14 1.73 1.73 1.73 1.14 0.00 0.55 0.60 0.60 1.73 0.78 0.00
 Uniform Del: 45.4 41.9 41.9 44.6 41.1 0.0 13.5 13.9 13.9 21.4 16.6 0.0
 IncremntDel: 111.9 335 334.6 347.9 80.1 0.0 5.2 0.5 0.5 347.4 3.7 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 157.4 376 376.5 392.5 121 0.0 18.7 14.4 14.4 368.8 20.3 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 157.4 376 376.5 392.5 121 0.0 18.7 14.4 14.4 368.8 20.3 0.0
 LOS by Move: F F F F F A B B B F C A
 HCM2kAvgQ: 12 43 43 27 18 0 2 13 13 30 21 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #6 Highland Home/Wilson
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 271 795 236 538 649 113 119 1000 308 54 865 792
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 271 795 236 538 649 113 119 1000 308 54 865 792
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 271 795 236 538 649 113 119 1000 308 54 865 792
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 271 795 236 538 649 113 119 1000 308 54 865 792
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 2257 3157 654 2505 2915 829 1657 xxxx xxxxx 1308 xxxx xxxxx
Potent Cap.: 23 11 414 15 16 318 394 xxxx xxxxx 536 xxxx xxxxx
Move Cap.: 0 7 414 0 10 318 394 xxxx xxxxx 536 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.57 xxxx65.79 0.36 0.30 xxxx xxxx 0.10 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx 101 3.4 xxxx xxxx xxxxx 1.3 xxxx xxxxx 0.3 xxxx xxxxx
Control Del:xxxxx xxxx 24.6 xxxxx xxxx xxxxx 18.0 xxxx xxxxx 12.5 xxxx xxxxx
LOS by Move: * F C * * * C * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: +Inf xxxxxx xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #7 Highland Home/Ramsey
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 66 207 54 651 206 100 330 1021 119 119 1093 826
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 66 207 54 651 206 100 330 1021 119 119 1093 826
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 66 207 54 651 206 100 330 1021 119 119 1093 826
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 66 207 54 651 206 100 330 1021 119 119 1093 826
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 2628 3898 570 3018 3544 960 1919 xxxx xxxxx 1140 xxxx xxxxx
Potent Cap.: 12 3 470 6 6 261 312 xxxx xxxxx 620 xxxx xxxxx
Move Cap.: 0 0 470 0 0 261 312 xxxx xxxxx 620 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.11 xxxx xxxx 0.38 1.06 xxxx xxxx 0.19 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 12.3 xxxx xxxxx 0.7 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxx xxxx xxxxx 104.2 xxxx xxxxx 12.2 xxxx xxxxx
LOS by Move: * * * * * F * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx xxxx 0 xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * xxx * * * * * * *
ApproachDel: xxxxxx +Inf xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 3.549
 Loss Time (sec): 0 Average Delay (sec/veh): 853.5
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0 0

 Volume Module:
 Base Vol: 178 10 19 232 9 317 338 1161 252 27 1242 206
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 178 10 19 232 9 317 338 1161 252 27 1242 206
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 178 10 19 232 9 317 338 1161 252 27 1242 206
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 178 10 19 232 9 317 338 1161 252 27 1242 206
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 178 10 19 232 9 317 338 1161 252 27 1242 206

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.86 0.05 0.09 0.41 0.02 0.57 0.23 0.77 1.00 0.02 0.84 0.14
 Final Sat.: 335 19 36 192 7 262 95 327 467 8 375 62

 Capacity Analysis Module:
 Vol/Sat: 0.53 0.53 0.53 1.21 1.21 1.21 3.55 3.55 0.54 3.31 3.31 3.31
 Crit Moves: ****
 Delay/Veh: 22.2 22.2 22.2 138.1 138 138.1 1170 1170 19.1 1062 1062 1062
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 22.2 22.2 22.2 138.1 138 138.1 1170 1170 19.1 1062 1062 1062
 LOS by Move: C C C F F F F F F F F F
 ApproachDel: 22.2 138.1 1004.4 1061.7
 Delay Adj: 1.00 1.00 1.00
 ApprAdjDel: 22.2 138.1 1004.4 1061.7
 LOS by Appr: C F F F
 AllWayAvgQ: 1.1 1.1 1.1 16.3 16.3 16.3 136 136 1.1 130 130 130.1

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 3.956
 Loss Time (sec): 0 Average Delay (sec/veh): 1019.9
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 0 0 1! 0 0 0 0 0 1! 0 0

 Volume Module:
 Base Vol: 285 727 54 141 386 277 329 910 167 193 1196 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 285 727 54 141 386 277 329 910 167 193 1196 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 285 727 54 141 386 277 329 910 167 193 1196 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 285 727 54 141 386 277 329 910 167 193 1196 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 285 727 54 141 386 277 329 910 167 193 1196 178

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.28 0.72 1.00 0.18 0.48 0.34 0.23 0.65 0.12 0.12 0.77 0.11
 Final Sat.: 108 275 421 70 191 137 93 256 47 49 302 45

 Capacity Analysis Module:
 Vol/Sat: 2.64 2.64 0.13 2.02 2.02 2.02 3.55 3.55 3.55 3.96 3.96 3.96
 Crit Moves: ****
 Delay/Veh: 766.6 767 12.5 489.0 489 489.0 1174 1174 1174 1353 1353 1353
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 766.6 767 12.5 489.0 489 489.0 1174 1174 1174 1353 1353 1353
 LOS by Move: F F B F F F F F F F F F
 ApproachDel: 728.4 489.0 1173.7 1352.6
 Delay Adj: 1.00 1.00 1.00
 ApprAdjDel: 728.4 489.0 1173.7 1352.6
 LOS by Appr: F F F F
 AllWayAvgQ: 80.2 80.2 0.1 52.7 52.7 52.7 128 128 127.7 147 147 147.5

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #12 Sunset/I-10 EB ramps
*****
Average Delay (sec/veh): 2537.5 Worst Case Level Of Service: F[5515.1]
*****
Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 1! 0 0 0 0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 1043 76 187 623 0 1004 4 635 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1043 76 187 623 0 1004 4 635 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1043 76 187 623 0 1004 4 635 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 1043 76 187 623 0 1004 4 635 0 0 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 6.8 6.5 6.9 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 1119 xxxx xxxxx 1519 2116 312 xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 632 xxxx xxxxx 112 51 690 xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 632 xxxx xxxxx 83 34 690 xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.30 xxxx xxxx 12.08 0.12 0.92 xxxx xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 1.2 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 13.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * B * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 125 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 1.2 xxxx xxxxx xxxxx 193 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 13.1 xxxx xxxxx xxxxx 5515 xxxxx xxxx xxxx xxxxx
Shared LOS: * * * B * * * * F * * * *
ApproachDel: xxxxxx xxxxxx 5515.1 xxxxxx
ApproachLOS: * * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #13 Sunset/Lincoln
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 163 317 42 195 394 406 264 827 56 32 918 182
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 163 317 42 195 394 406 264 827 56 32 918 182
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 163 317 42 195 394 406 264 827 56 32 918 182
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 163 317 42 195 394 406 264 827 56 32 918 182
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 800 xxxx xxxxx 359 xxxx xxxxx 2201 1672 597 2093 1854 338
Potent Cap.: 832 xxxx xxxxx 1211 xxxx xxxxx 32 97 507 39 75 709
Move Cap.: 832 xxxx xxxxx 1211 xxxx xxxxx 0 62 507 0 48 709
Volume/Cap: 0.20 xxxx xxxx 0.16 xxxx xxxx xxxx13.29 0.11 xxxx19.11 0.26
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.7 xxxx xxxxx 0.6 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: 10.4 xxxx xxxxx 8.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: B * * A * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx 0 xxxxx xxxxx 0 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx
ApproachLOS: * * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh):      2.4      Worst Case Level Of Service: B[ 10.4]
*****
Street Name:      Sunset      Westward
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 1 0      0 1 0 0 0      0 0 0 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 180 13      18 207 0      0 0 0 0      25 0 81
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 180 13      18 207 0      0 0 0 0      25 0 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 180 13      18 207 0      0 0 0 0      25 0 81
Reduct Vol: 0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
FinalVolume: 0 180 13      18 207 0      0 0 0 0      25 0 81
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 6.5 6.2
FollowUpTim:xxxxxx xxxx xxxxxx 2.2 xxxxx xxxxxx xxxxx xxxx xxxxxx 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxx 193 xxxxx xxxxx xxxxx xxxxx xxxxx 430 430 187
Potent Cap.: xxxxx xxxxx xxxxxx 1392 xxxxx xxxxxx xxxxx xxxxx xxxxxx 586 521 861
Move Cap.: xxxxx xxxxx xxxxxx 1392 xxxxx xxxxxx xxxxx xxxxx xxxxxx 580 514 861
Volume/Cap: xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxx 0.04 0.00 0.09
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx 7.6 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 773 xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx 0.5 xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx 7.6 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx 10.4 xxxxxx
Shared LOS: * * * A * * * * * * B *
ApproachDel: xxxxxx xxxxxx xxxxxx 10.4
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****
```

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	Del/ LOS	V/ Veh	C	Del/ LOS	V/ Veh	C	
# 1 Highland Springs/8th-Wilson	F	86.8	1.141	F	86.8	1.141	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	F	112.7	1.293	F	112.7	1.293	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	F	131.1	1.501	F	131.1	1.501	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	F	100.7	1.228	F	100.7	1.228	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	28.2	0.686	C	28.2	0.686	+ 0.000 D/V
# 6 Highland Home/Wilson	F	OVRFL	XXXXX	F	OVRFL	XXXXX	Nan D/V
# 7 Highland Home/Ramsey	F	549.8	2.483	F	549.8	2.483	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	B	14.4	0.639	B	14.4	0.639	+ 0.000 V/C
# 9 Sunset/Wilson	F	624.5	2.851	F	624.5	2.851	+ 0.000 V/C
# 10 Sunset/Ramsey	F	183.0	1.996	F	183.0	1.996	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	F	OVRFL	1.632	F	OVRFL	1.632	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	F	OVRFL	0.756	F	OVRFL	0.756	+ 0.000 D/V
# 13 Sunset/Lincoln	F	OVRFL	9.726	F	OVRFL	9.726	+ 0.000 D/V
# 14 Sunset/Westward	B	12.6	0.017	B	12.6	0.017	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.141
Loss Time (sec):   16          Average Delay (sec/veh):      86.8
Optimal Cycle:     180          Level Of Service:      F
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ignore      Include      Include      Include
Min. Green:       0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:            1 0 1 0 1      1 0 1 1 0      1 0 1 1 0      1 0 2 0 1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         57 691 266      204 1206 154      65 162 101      730 290 139
Growth Adj:       1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      57 691 266      204 1206 154      65 162 101      730 290 139
User Adj:         1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:          1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:       57 691 0      204 1206 154      65 162 101      730 290 139
Reduct Vol:       0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:      57 691 0      204 1206 154      65 162 101      730 290 139
PCE Adj:          1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:          1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      57 691 0      204 1206 154      65 162 101      730 290 139
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900      1900 1900 1900      1900 1900 1900      1900 1900 1900
Adjustment:       0.95 1.00 1.00      0.95 0.93 0.93      0.95 0.89 0.89      0.95 0.95 0.85
Lanes:            1.00 1.00 1.00      1.00 1.77 0.23      1.00 1.23 0.77      1.00 2.00 1.00
Final Sat.:       1805 1900 1900      1805 3147 402      1805 2095 1306      1805 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.36 0.00      0.11 0.38 0.38      0.04 0.08 0.08      0.40 0.08 0.09
Crit Moves:       ****              ****              ****              ****
Green/Cycle:      0.03 0.32 0.00      0.10 0.39 0.39      0.12 0.07 0.07      0.35 0.30 0.30
Volume/Cap:       0.99 1.14 0.00      1.14 0.99 0.99      0.29 1.14 1.14      1.14 0.27 0.29
Uniform Del:      48.4 34.1 0.0      45.0 30.6 30.6      39.8 46.6 46.6      32.3 26.8 27.0
IncremntDel:116.1 82.1 0.0      110.3 22.6 22.6      0.7 103 102.6      81.2 0.1 0.3
InitQueueDel:     0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0
Delay Adj:        1.00 1.00 0.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Delay/Veh:        164.5 116 0.0      155.4 53.1 53.1      40.5 149 149.2      113.5 27.0 27.3
User DelAdj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
AdjDel/Veh:       164.5 116 0.0      155.4 53.1 53.1      40.5 149 149.2      113.5 27.0 27.3
LOS by Move:      F F A      F D D      D F F      F C C
HCM2kAvgQ:        2 32 0      13 29 29      2 9 9      37 4 3
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.293
 Loss Time (sec): 16 Average Delay (sec/veh): 112.7
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 275 1129 461 203 1816 78 90 221 306 428 144 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 275 1129 461 203 1816 78 90 221 306 428 144 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 275 1129 461 203 1816 78 90 221 306 428 144 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 275 1129 461 203 1816 78 90 221 306 428 144 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 275 1129 461 203 1816 78 90 221 306 428 144 103

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.83 0.83 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3157 1579 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.15 0.31 0.29 0.11 0.50 0.05 0.05 0.07 0.19 0.24 0.04 0.06
 Crit Moves: ****
 Green/Cycle: 0.12 0.37 0.37 0.13 0.39 0.39 0.15 0.15 0.15 0.18 0.19 0.19
 Volume/Cap: 1.29 0.84 0.77 0.84 1.29 0.12 0.34 0.47 1.29 1.29 0.21 0.34
 Uniform Del: 44.1 28.6 27.5 42.2 30.6 19.6 38.4 38.9 42.5 40.8 34.4 35.3
 IncremntDel:162.3 4.9 5.9 22.1 137 0.1 0.8 0.3 149.2 152.7 0.2 0.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 206.4 33.5 33.4 64.3 168 19.7 39.1 39.2 191.7 193.5 34.6 36.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 206.4 33.5 33.4 64.3 168 19.7 39.1 39.2 191.7 193.5 34.6 36.0
 LOS by Move: F C C E F B D D F F C D
 HCM2kAvgQ: 16 17 13 6 54 1 3 4 22 25 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.501
 Loss Time (sec): 12 Average Delay (sec/veh): 131.1
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

 Volume Module:
 Base Vol: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 583 1245 0 0 1400 1150 0 0 0 391 0 461

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.32 0.34 0.00 0.00 0.39 0.71 0.00 0.00 0.00 0.22 0.00 0.29
 Crit Moves: ****
 Green/Cycle: 0.22 0.69 0.00 0.00 0.47 0.47 0.00 0.00 0.00 0.19 0.00 0.19
 Volume/Cap: 1.50 0.50 0.00 0.00 0.82 1.50 0.00 0.00 0.00 1.14 0.00 1.50
 Uniform Del: 39.2 7.3 0.0 0.0 22.6 26.3 0.0 0.0 0.0 40.5 0.0 40.5
 IncremntDel:238.4 0.2 0.0 0.0 3.2 232.1 0.0 0.0 0.0 90.8 0.0 241.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 277.6 7.5 0.0 0.0 25.8 258.4 0.0 0.0 0.0 131.3 0.0 282.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 277.6 7.5 0.0 0.0 25.8 258.4 0.0 0.0 0.0 131.3 0.0 282.1
 LOS by Move: F A A A C F A A A F A F
 HCM2kAvgQ: 41 9 0 0 18 80 0 0 0 21 0 35

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.228
 Loss Time (sec): 12 Average Delay (sec/veh): 100.7
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1211 482 571 1218 0 776 0 442 0 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.30 0.32 0.34 0.00 0.43 0.00 0.27 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.27 0.27 0.26 0.53 0.00 0.35 0.00 0.35 0.00 0.00 0.00
 Volume/Cap: 0.00 1.23 1.09 1.23 0.64 0.00 1.23 0.00 0.78 0.00 0.00 0.00
 Uniform Del: 0.0 36.3 36.3 37.1 16.6 0.0 32.5 0.0 29.1 0.0 0.0 0.0
 IncremntDel: 0.0 112 70.3 120.5 0.7 0.0 116.2 0.0 7.1 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 148 106.6 157.6 17.3 0.0 148.8 0.0 36.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 148 106.6 157.6 17.3 0.0 148.8 0.0 36.2 0.0 0.0 0.0
 LOS by Move: A F F F B A F A D A A A
 HCM2kAvgQ: 0 34 21 30 13 0 44 0 14 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
 Loss Time (sec): 16 Average Delay (sec/veh): 28.2
 Optimal Cycle: 67 Level Of Service: C

 Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0 1

 Volume Module:
 Base Vol: 152 1032 70 221 646 39 75 101 47 76 277 324
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 1032 70 221 646 39 75 101 47 76 277 324
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 152 1032 70 221 646 0 75 101 47 76 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 1032 70 221 646 0 75 101 47 76 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 152 1032 70 221 646 0 75 101 47 76 277 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 1.00 0.31 0.90 0.90 0.66 1.00 1.00
 Lanes: 1.00 1.87 0.13 1.00 2.00 1.00 1.00 1.36 0.64 1.00 1.00 1.00
 Final Sat.: 1805 3347 227 1805 3610 1900 583 2345 1091 1248 1900 1900

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.31 0.31 0.12 0.18 0.00 0.13 0.04 0.04 0.06 0.15 0.00
 Crit Moves: ****
 Green/Cycle: 0.20 0.45 0.45 0.18 0.43 0.00 0.21 0.21 0.21 0.21 0.21 0.00
 Volume/Cap: 0.42 0.69 0.69 0.69 0.42 0.00 0.61 0.20 0.20 0.29 0.69 0.00
 Uniform Del: 34.9 21.9 21.9 38.5 20.0 0.0 35.6 32.4 32.4 33.0 36.3 0.0
 IncremntDel: 0.8 1.3 1.3 6.1 0.2 0.0 8.3 0.1 0.1 0.6 4.9 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 35.7 23.2 23.2 44.5 20.2 0.0 43.9 32.5 32.5 33.6 41.2 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 35.7 23.2 23.2 44.5 20.2 0.0 43.9 32.5 32.5 33.6 41.2 0.0
 LOS by Move: D C C D C A D C C C D A
 HCM2kAvgQ: 4 15 15 6 7 0 3 2 2 2 9 0

 Note: Queue reported is the number of cars per lane.

```
-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #6 Highland Home/Wilson
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Highland Home Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 77 223 30 615 568 150 159 289 180 118 895 239
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 77 223 30 615 568 150 159 289 180 118 895 239
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 77 223 30 615 568 150 159 289 180 118 895 239
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 77 223 30 615 568 150 159 289 180 118 895 239
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 1665 2067 235 1825 2038 567 1134 xxxx xxxxx 469 xxxx xxxxx
Potent Cap.: 65 55 773 49 57 472 623 xxxx xxxxx 1103 xxxx xxxxx
Move Cap.: 0 37 773 0 38 472 623 xxxx xxxxx 1103 xxxx xxxxx
Volume/Cap: xxxx 6.09 0.04 xxxxx14.87 0.32 0.26 xxxx xxxxx 0.11 xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx 26.5 0.1 xxxx xxxx xxxxx 1.0 xxxx xxxxx 0.4 xxxx xxxxx
Control Del:xxxxx 2507 9.8 xxxxx xxxx xxxxx 12.7 xxxx xxxxx 8.7 xxxx xxxxx
LOS by Move: * F A * * * B * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: +Inf xxxxxx xxxxxx
ApproachLOS: F F *
*****
Note: Queue reported is the number of cars per lane.
*****
```

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #7 Highland Home/Ramsey
*****
Average Delay (sec/veh): 221.9 Worst Case Level Of Service: F[549.8]
*****
Street Name: Highland Home Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 0 0 696 2 201 22 616 0 0 388 303
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 696 2 201 22 616 0 0 388 303
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 696 2 201 22 616 0 0 388 303
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 696 2 201 22 616 0 0 388 303
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 6.8 6.5 6.9 4.1 xxxx xxxxx xxxx xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 855 1351 308 892 1200 346 691 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: 255 152 694 286 187 656 913 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: 172 148 694 280 182 656 913 xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: 0.00 0.00 0.00 2.48 0.01 0.31 0.02 xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 56.6 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 706.3 xxxx xxxxx 9.0 xxxx xxxxx xxxx xxxx xxxxx
LOS by Move: * * * F * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 0 xxxxx xxxx xxxx 640 xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxx 1.4 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxx 13.2 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Shared LOS: * * xxxxx * * B * * * * *
ApproachDel: xxxxxx 549.8 xxxxxx
ApproachLOS: * F *
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.639
 Loss Time (sec): 0 Average Delay (sec/veh): 14.4
 Optimal Cycle: 0 Level Of Service: B

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 1 0 0 1! 0 0

 Volume Module:
 Base Vol: 145 2 25 69 3 137 31 248 40 6 369 19
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 145 2 25 69 3 137 31 248 40 6 369 19
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 145 2 25 69 3 137 31 248 40 6 369 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 145 2 25 69 3 137 31 248 40 6 369 19
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 145 2 25 69 3 137 31 248 40 6 369 19

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.84 0.01 0.15 0.33 0.01 0.66 0.11 0.89 1.00 0.01 0.94 0.05
 Final Sat.: 432 6 75 184 8 364 61 491 626 9 578 30

 Capacity Analysis Module:
 Vol/Sat: 0.34 0.34 0.34 0.38 0.38 0.38 0.50 0.50 0.06 0.64 0.64 0.64
 Crit Moves: ****
 Delay/Veh: 12.0 12.0 12.0 11.8 11.8 11.8 14.5 14.5 8.5 17.3 17.3 17.3
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 12.0 12.0 12.0 11.8 11.8 11.8 14.5 14.5 8.5 17.3 17.3 17.3
 LOS by Move: B B B B B B B A C C C
 ApproachDel: 12.0 11.8 13.8 17.3
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 12.0 11.8 13.8 17.3
 LOS by Appr: B B B C
 AllWayAvgQ: 0.4 0.4 0.4 0.5 0.5 0.5 0.9 0.9 0.1 1.5 1.5 1.5

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 2.851
 Loss Time (sec): 0 Average Delay (sec/veh): 624.5
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 1 0 0 1 0 0 0 1! 0 0 0 0 1! 0 0

 Volume Module:
 Base Vol: 123 267 44 140 811 170 186 677 231 44 336 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 123 267 44 140 811 170 186 677 231 44 336 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 123 267 44 140 811 170 186 677 231 44 336 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 123 267 44 140 811 170 186 677 231 44 336 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 123 267 44 140 811 170 186 677 231 44 336 67

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.32 0.68 1.00 0.12 0.73 0.15 0.17 0.62 0.21 0.10 0.75 0.15
 Final Sat.: 121 262 420 49 284 60 68 247 84 39 299 60

 Capacity Analysis Module:
 Vol/Sat: 1.02 1.02 0.10 2.85 2.85 2.85 2.74 2.74 2.74 1.12 1.12 1.12
 Crit Moves: ****
 Delay/Veh: 82.7 82.7 12.3 859.2 859 859.2 810.9 811 810.9 113.2 113 113.2
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 82.7 82.7 12.3 859.2 859 859.2 810.9 811 810.9 113.2 113 113.2
 LOS by Move: F F B F F F F F F F F F
 ApproachDel: 75.6 859.2 810.9 113.2
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 75.6 859.2 810.9 113.2
 LOS by Appr: F F F F
 AllWayAvgQ: 7.5 7.5 0.1 92.5 92.5 92.5 88.5 88.5 88.5 11.2 11.2 11.2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 1.996
 Loss Time (sec): 12 Average Delay (sec/veh): 183.0
 Optimal Cycle: 180 Level Of Service: F

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 0

Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
 Base Vol: 435 469 151 141 1239 106 47 425 467 97 206 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 435 469 151 141 1239 106 47 425 467 97 206 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 435 469 151 141 1239 106 47 425 467 97 206 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 435 469 151 141 1239 106 47 425 467 97 206 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 435 469 151 141 1239 106 47 425 467 97 206 44

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.16 0.91 0.91 0.40 0.94 0.94 0.95 0.87 0.87 0.95 0.93 0.93
 Lanes: 1.00 1.51 0.49 1.00 1.84 0.16 1.00 1.00 1.00 1.00 1.65 0.35
 Final Sat.: 306 2630 847 754 3286 281 1805 1662 1662 1805 2897 619

Capacity Analysis Module:
 Vol/Sat: 1.42 0.18 0.18 0.19 0.38 0.38 0.03 0.26 0.28 0.05 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.71 0.71 0.71 0.71 0.71 0.71 0.04 0.14 0.14 0.03 0.12 0.12
 Volume/Cap: 2.00 0.25 0.25 0.26 0.53 0.53 0.58 1.82 2.00 2.00 0.58 0.58
 Uniform Del: 14.4 5.0 5.0 5.1 6.6 6.6 46.8 43.0 43.0 48.7 41.4 41.4
 IncremntDel:464.3 0.1 0.1 0.3 0.2 0.2 10.1 375 456.2 513.2 2.0 2.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 478.7 5.1 5.1 5.4 6.9 6.9 56.9 418 499.2 561.8 43.4 43.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 478.7 5.1 5.1 5.4 6.9 6.9 56.9 418 499.2 561.8 43.4 43.4
 LOS by Move: F A A A A E F F F D D
 HCM2kAvgQ: 41 4 4 2 10 10 1 38 45 10 5 5

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 566 781 0 0 949 853 0 0 0 109 7 322
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 566 781 0 0 949 853 0 0 0 109 7 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 566 781 0 0 949 853 0 0 0 109 7 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 566 781 0 0 949 853 0 0 0 109 7 322

Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.8 6.5 6.9
 FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3

Capacity Module:
 Cnflct Vol: 1802 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 2388 3715 391
 Potent Cap.: 347 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 29 5 614
 Move Cap.: 347 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 0 614
 Volume/Cap: 1.63 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.52

Level Of Service Module:
 2Way95thQ: 33.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Control Del:324.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: F * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0 xxxxx
 SharedQueue:xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd ConDel:xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * * * * * * * *
 ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
 ApproachLOS: * * * * F

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #12 Sunset/I-10 EB ramps
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 1! 0 0 0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 926 229 463 594 0 372 2 338 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 926 229 463 594 0 372 2 338 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 926 229 463 594 0 372 2 338 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 926 229 463 594 0 372 2 338 0 0 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx 4.1 xxxx xxxx 6.8 6.5 6.9 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 1155 xxxx xxxxx 1983 2675 297 xxxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 612 xxxx xxxxx 55 23 705 xxxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 612 xxxx xxxxx 0 0 705 xxxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.76 xxxx xxxx xxxxx xxxx 0.48 xxxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 6.8 xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 26.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * D * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0 xxxxx xxxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 6.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 26.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * D * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx
ApproachLOS: * * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #13 Sunset/Lincoln
*****
Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]
*****
Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 40 423 23 123 271 213 482 192 23 14 108 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 40 423 23 123 271 213 482 192 23 14 108 85
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 40 423 23 123 271 213 482 192 23 14 108 85
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 40 423 23 123 271 213 482 192 23 14 108 85
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 484 xxxxx xxxxx 446 xxxxx xxxxx 1235 1150 378 1246 1245 435
Potent Cap.: 1089 xxxxx xxxxx 1125 xxxxx xxxxx 155 200 674 152 176 626
Move Cap.: 1089 xxxxx xxxxx 1125 xxxxx xxxxx 50 170 674 0 149 626
Volume/Cap: 0.04 xxxxx xxxxx 0.11 xxxxx xxxxx 9.73 1.13 0.03 xxxxx 0.72 0.14
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxxx xxxxx 0.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: 8.4 xxxxx xxxxx 8.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 64 xxxxx xxxxx 0 xxxxx
SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 82.3 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 4573 xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * xxxxx * * * F * * * *
ApproachDel: xxxxxx xxxxxx 4572.9 xxxxxx
ApproachLOS: * * * F *
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 12.6]
*****
Street Name: Sunset Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 300 8 3 261 0 0 0 0 8 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 300 8 3 261 0 0 0 0 8 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 300 8 3 261 0 0 0 0 8 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 300 8 3 261 0 0 0 0 8 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 308 xxxx xxxxx xxxx xxxx xxxxx 571 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 1264 xxxx xxxxx xxxx xxxx xxxxx 486 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 1264 xxxx xxxxx xxxx xxxx xxxxx 485 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxxx 0.00 xxxx xxxx xxxx xxxx xxxxx 0.02 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxx xxxxx 12.6 xxxx xxxxx
LOS by Move: * * * A * * * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 12.6
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****

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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change
	Del/	V/	Del/	V/	in
	LOS	Veh	LOS	Veh	
# 1 Highland Springs/8th-Wilson	F 220.3	1.639	F 220.3	1.639	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	F 171.4	1.392	F 171.4	1.392	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	F 95.1	1.221	F 95.1	1.221	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	F 111.5	1.297	F 111.5	1.297	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	F 164.7	1.691	F 164.7	1.691	+ 0.000 D/V
# 6 Highland Home/Wilson	F OVRFL	0.000	F OVRFL	0.000	+ 0.000 D/V
# 7 Highland Home/Ramsey	F OVRFL	0.000	F OVRFL	0.000	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	F 527.5	2.405	F 527.5	2.405	+ 0.000 V/C
# 9 Sunset/Wilson	F OVRFL	3.494	F OVRFL	3.494	+ 0.000 V/C
# 10 Sunset/Ramsey	F 302.6	2.439	F 302.6	2.439	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	F OVRFL	0.000	F OVRFL	0.000	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	F OVRFL	0.000	F OVRFL	0.000	+ 0.000 D/V
# 13 Sunset/Lincoln	F OVRFL	0.000	F OVRFL	0.000	+ 0.000 D/V
# 14 Sunset/Westward	B 0.9	0.000	B 0.9	0.000	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      1.639
Loss Time (sec):   16          Average Delay (sec/veh):     220.3
Optimal Cycle:     180          Level Of Service:          F
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ignore         Include        Include        Include
Min. Green:       0 0 0         0 0 0         0 0 0         0 0 0
Y+R:              4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0
Lanes:            1 0 1 0 1       1 0 1 1 0       1 0 1 1 0       1 0 2 0 1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         26 1482      426 361 955 159 167 709 49 333 512 358
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      26 1482      426 361 955 159 167 709 49 333 512 358
User Adj:         1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       26 1482      0 361 955 159 167 709 49 333 512 358
Reduct Vol:       0 0 0         0 0 0         0 0 0         0 0 0
Reduced Vol:      26 1482      0 361 955 159 167 709 49 333 512 358
PCE Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      26 1482      0 361 955 159 167 709 49 333 512 358
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:       0.95 1.00 1.00 0.95 0.93 0.93 0.95 0.94 0.94 0.95 0.95 0.85
Lanes:            1.00 1.00 1.00 1.00 1.71 0.29 1.00 1.87 0.13 1.00 2.00 1.00
Final Sat.:       1805 1900 1900 1805 3030 504 1805 3343 231 1805 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.01 0.78 0.00 0.20 0.32 0.32 0.09 0.21 0.21 0.18 0.14 0.22
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.03 0.48 0.00 0.12 0.57 0.57 0.07 0.13 0.13 0.11 0.17 0.17
Volume/Cap:       0.55 1.64 0.00 1.64 0.55 0.55 1.30 1.64 1.64 1.64 0.83 1.30
Uniform Del:      48.1 26.2 0.0 43.9 13.4 13.4 46.4 43.5 43.5 44.4 40.1 41.5
IncremntDel:      13.3 292 0.0 307.1 0.3 0.3 179.7 297 297.1 308.6 9.3 158.3
InitQueueDel:     0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh:        61.4 319 0.0 351.0 13.7 13.7 226.2 341 340.6 353.0 49.4 199.8
User DelAdj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       61.4 319 0.0 351.0 13.7 13.7 226.2 341 340.6 353.0 49.4 199.8
LOS by Move:      E F A F B B F F F F D F
HCM2kAvgQ:        1 114 0 30 11 11 12 33 33 28 11 24
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.392
 Loss Time (sec): 16 Average Delay (sec/veh): 171.4
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 512 1684 596 309 1211 127 175 608 347 577 608 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 512 1684 596 309 1211 127 175 608 347 577 608 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 512 1684 596 309 1211 127 175 608 347 577 608 277
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 512 1684 596 309 1211 127 175 608 347 577 608 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 512 1684 596 309 1211 127 175 608 347 577 608 277

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.86 0.86 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 1805 3271 1636 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.28 0.47 0.37 0.17 0.34 0.08 0.10 0.19 0.21 0.32 0.17 0.17
 Crit Moves: ****
 Green/Cycle: 0.21 0.34 0.34 0.12 0.25 0.25 0.14 0.15 0.15 0.23 0.24 0.24
 Volume/Cap: 1.35 1.39 1.10 1.39 1.35 0.32 0.70 1.22 1.39 1.39 0.69 0.70
 Uniform Del: 39.5 33.2 33.2 43.9 37.6 30.7 41.1 42.4 42.4 38.5 34.4 34.5
 IncremntDel: 174.8 182 69.4 201.7 166 0.5 8.7 110 185.4 190.8 2.3 5.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 214.3 215 102.6 245.6 203 31.1 49.9 153 227.8 229.3 36.7 40.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 214.3 215 102.6 245.6 203 31.1 49.9 153 227.8 229.3 36.7 40.1
 LOS by Move: F F F F F C D F F F D D
 HCM2kAvgQ: 31 56 25 20 40 3 7 21 27 36 8 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.221
 Loss Time (sec): 12 Average Delay (sec/veh): 95.1
 Optimal Cycle: 180 Level Of Service: F

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

 Volume Module:
 Base Vol: 330 1680 0 0 1453 682 0 0 0 347 0 758
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 330 1680 0 0 1453 682 0 0 0 347 0 758
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 330 1680 0 0 1453 682 0 0 0 347 0 758
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 330 1680 0 0 1453 682 0 0 0 347 0 758
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 330 1680 0 0 1453 682 0 0 0 347 0 758

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.18 0.47 0.00 0.00 0.40 0.42 0.00 0.00 0.00 0.19 0.00 0.47
 Crit Moves: ****
 Green/Cycle: 0.15 0.50 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.38 0.00 0.38
 Volume/Cap: 1.22 0.94 0.00 0.00 1.16 1.22 0.00 0.00 0.00 0.50 0.00 1.22
 Uniform Del: 42.5 23.8 0.0 0.0 32.7 32.7 0.0 0.0 0.0 23.4 0.0 30.8
 IncremntDel: 128.0 10.2 0.0 0.0 82.8 114.9 0.0 0.0 0.0 0.6 0.0 113.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 170.5 34.0 0.0 0.0 116 147.6 0.0 0.0 0.0 24.0 0.0 144.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 170.5 34.0 0.0 0.0 116 147.6 0.0 0.0 0.0 24.0 0.0 144.3
 LOS by Move: F C A A F F A A C A F
 HCM2kAvgQ: 17 24 0 0 35 35 0 0 0 8 0 43

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.297
 Loss Time (sec): 12 Average Delay (sec/veh): 111.5
 Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1525 409 461 1339 0 839 0 480 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.42 0.25 0.26 0.37 0.00 0.46 0.00 0.30 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.33 0.33 0.20 0.52 0.00 0.36 0.00 0.36 0.00 0.00 0.00
 Volume/Cap: 0.00 1.30 0.78 1.30 0.71 0.00 1.30 0.00 0.83 0.00 0.00 0.00
 Uniform Del: 0.0 33.7 30.5 40.2 18.1 0.0 32.1 0.0 29.4 0.0 0.0 0.0
 IncremntDel: 0.0 140 7.2 153.1 1.3 0.0 145.0 0.0 9.9 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 174 37.7 193.3 19.4 0.0 177.1 0.0 39.3 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 174 37.7 193.3 19.4 0.0 177.1 0.0 39.3 0.0 0.0 0.0
 LOS by Move: A F D F B A F A D A A A A
 HCM2kAvgQ: 0 46 10 26 15 0 51 0 16 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 1.691
 Loss Time (sec): 16 Average Delay (sec/veh): 164.7
 Optimal Cycle: 180 Level Of Service: F

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 188 793 272 411 897 43 81 923 266 343 847 370
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 188 793 272 411 897 43 81 923 266 343 847 370
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 188 793 272 411 897 0 81 923 266 343 847 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 188 793 272 411 897 0 81 923 266 343 847 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 188 793 272 411 897 0 81 923 266 343 847 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.91 0.95 0.95 1.00 0.18 0.92 0.92 0.20 1.00 1.00
 Lanes: 1.00 1.49 0.51 1.00 2.00 1.00 1.00 1.55 0.45 1.00 1.00 1.00
 Final Sat.: 1805 2586 887 1805 3610 1900 335 2707 780 387 1900 1900

Capacity Analysis Module:
 Vol/Sat: 0.10 0.31 0.31 0.23 0.25 0.00 0.24 0.34 0.34 0.89 0.45 0.00
 Crit Moves: ****
 Green/Cycle: 0.09 0.18 0.18 0.13 0.22 0.00 0.52 0.52 0.52 0.52 0.52 0.00
 Volume/Cap: 1.12 1.69 1.69 1.69 1.12 0.00 0.46 0.65 0.65 1.69 0.85 0.00
 Uniform Del: 45.3 40.9 40.9 43.3 38.9 0.0 14.9 17.2 17.2 23.8 20.4 0.0
 IncremntDel: 103.8 318 317.7 328.0 68.5 0.0 1.9 0.8 0.8 331.3 7.1 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 149.1 359 358.6 371.3 107 0.0 16.9 18.0 18.0 355.1 27.5 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 149.1 359 358.6 371.3 107 0.0 16.9 18.0 18.0 355.1 27.5 0.0
 LOS by Move: F F F F F A B B B F C A A
 HCM2kAvgQ: 11 46 46 33 21 0 2 14 14 29 25 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 1994 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 1 0 1 0 1 0 0 1! 0 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 228 668 198 538 517 113 119 1000 245 43 865 792
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 228 668 198 538 517 113 119 1000 245 43 865 792
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 228 668 198 538 517 113 119 1000 245 43 865 792
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 228 668 198 538 517 113 119 1000 245 43 865 792
 Adjusted Volume Module:
 Grade: 0% 0% 0% 0%
 % Cycle/Cars: xxxx xxxx xxxx xxxx xxxx xxxx
 % Truck/Comb: xxxx xxxx xxxx xxxx xxxx xxxx
 PCE Adj: 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10
 Cycl/Car PCE: xxxx xxxx xxxx xxxx xxxx xxxx
 Trck/Cmb PCE: xxxx xxxx xxxx xxxx xxxx xxxx
 Adj Vol.: 251 735 218 592 569 124 131 1000 245 47 865 792
 Critical Gap Module:
 MoveUp Time: 3.4 3.3 2.6 3.4 3.3 2.6 2.1 xxxx xxxxx 2.1 xxxx xxxxx
 Crit Gp Adj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Critical Gp: 7.0 6.5 5.5 7.0 6.5 5.5 5.5 xxxx xxxxx 5.5 xxxx xxxxx
 Capacity Module:
 Cnflct Vol: 2408 2942 623 2757 2668 829 1657 xxxx xxxxx 1245 xxxx xxxxx
 Potent Cap.: 31 21 670 18 30 527 221 xxxx xxxxx 368 xxxx xxxxx
 Adj Cap: 0.00 0.36 1.00 0.00 0.36 1.00 1.00 xxxx xxxxx 1.00 xxxx xxxxx
 Move Cap.: 0 7 670 0 11 527 221 xxxx xxxxx 368 xxxx xxxxx
 Level Of Service Module:
 Control Del:xxxxx xxxx 7.6 xxxxx xxxx 8.7 34.9 xxxx xxxxx 11.1 xxxx xxxxx
 LOS by Move: F F B * * * E * * C * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shared LOS: * * * * F * * * * *
 ApproachDel: xxxxxx xxxxxx 3.3 0.3
 ApproachLOS: * * A A

Level Of Service Computation Report
 1994 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 1 0 1 0 1 1 0
 Volume Module:
 Base Vol: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 651 0 100 330 1021 1 9 1093 826
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Adjusted Volume Module:
 Grade: 0% 0% 0% 0%
 % Cycle/Cars: xxxx xxxx xxxx xxxx xxxx xxxx
 % Truck/Comb: xxxx xxxx xxxx xxxx xxxx xxxx
 PCE Adj: 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1.10
 Cycl/Car PCE: xxxx xxxx xxxx xxxx xxxx xxxx
 Trck/Cmb PCE: xxxx xxxx xxxx xxxx xxxx xxxx
 Adj Vol.: 0 0 0 716 0 110 363 1021 1 10 1093 826
 Critical Gap Module:
 MoveUp Time:xxxxx xxxx xxxxx 3.4 xxxx 2.6 2.1 xxxx xxxxx 2.1 xxxx xxxxx
 Crit Gp Adj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Critical Gp:xxxxx xxxx xxxxx 7.0 xxxx 5.5 5.5 xxxx xxxxx 5.5 xxxx xxxxx
 Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 2866 xxxx 960 1919 xxxx xxxxx 1022 xxxx xxxxx
 Potent Cap.: xxxx xxxx xxxxx 16 xxxx 452 160 xxxx xxxxx 485 xxxx xxxxx
 Adj Cap: xxxx xxxx xxxxx 0.00 xxxx 1.00 1.00 xxxx xxxxx 1.00 xxxx xxxxx
 Move Cap.: xxxx xxxx xxxxx 0 xxxx 452 160 xxxx xxxxx 485 xxxx xxxxx
 Level Of Service Module:
 Control Del:xxxxx xxxx xxxxx xxxx 10.2 1980 xxxx xxxxx 7.6 xxxx xxxxx
 LOS by Move: * * * F * * F * * B * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shared LOS: * * * * F * * * * *
 ApproachDel: xxxxxx xxxxxx 518.9 0.0
 ApproachLOS: * * F A

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 2.405
 Loss Time (sec): 0 Average Delay (sec/veh): 527.5
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 1 0 0 1! 0 0

 Volume Module:
 Base Vol: 178 4 19 52 2 71 139 1161 252 27 1242 85
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 178 4 19 52 2 71 139 1161 252 27 1242 85
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 178 4 19 52 2 71 139 1161 252 27 1242 85
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 178 4 19 52 2 71 139 1161 252 27 1242 85
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 178 4 19 52 2 71 139 1161 252 27 1242 85

 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.89 0.02 0.09 0.41 0.02 0.57 0.11 0.89 1.00 0.02 0.92 0.06
 Final Sat.: 416 9 44 193 7 263 58 483 611 11 529 36

 Capacity Analysis Module:
 Vol/Sat: 0.43 0.43 0.43 0.27 0.27 0.27 2.41 2.41 0.41 2.35 2.35 2.35
 Crit Moves: ****
 Delay/Veh: 16.0 16.0 16.0 13.2 13.2 13.2 651.9 652 12.7 627.3 627 627.3
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 16.0 16.0 16.0 13.2 13.2 13.2 651.9 652 12.7 627.3 627 627.3
 LOS by Move: C C B B F F B F F F
 ApproachDel: 16.0 13.2 548.1 627.3
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 16.0 13.2 548.1 627.3
 LOS by Appr: C B F F
 AllWayAvgQ: 0.7 0.7 0.7 0.3 0.3 0.3 96.5 96.5 0.7 98.9 98.9 98.9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 1994 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 1 Critical Vol./Cap.(X): 3.494
 Loss Time (sec): 0 Average Delay (sec/veh): 121485.4
 Optimal Cycle: 0 Level Of Service: F

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 1 0 0 1 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

 Volume Module:
 Base Vol: 323 806 54 141 445 277 329 910 178 193 1196 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 323 806 54 141 445 277 329 910 178 193 1196 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 323 806 54 141 445 277 329 910 178 193 1196 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 323 806 54 141 445 277 329 910 178 193 1196 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 323 806 54 141 445 277 329 910 178 193 1196 178

 Saturation Flow Module:
 Sat/Lane: 327 327 327 247 247 247 566 566 566 545 545 545
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.29 0.71 1.00 0.16 0.52 0.32 0.23 0.64 0.13 0.12 0.77 0.11
 Final Sat.: 94 233 327 40 127 79 131 363 71 67 416 62

 Capacity Analysis Module:
 Vol/Sat: 3.45 3.45 0.17 3.49 3.49 3.49 2.50 2.50 2.50 2.88 2.88 2.88
 Crit Moves: ****
 ApproachV/S: 1.81 3.49 2.50 2.88
 Delay/Veh: xxxxx xxxx 1.9 xxxxx xxxx xxxxx 13540 xxxxx 13540 55596 xxxxx 55596
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: xxxxx xxxx 1.9 xxxxx xxxx xxxxx 13540 xxxxx 13540 55596 xxxxx 55596
 LOS by Move: F F A F F F F F F F F F
 ApproachDel: 966.5 xxxxxx xxxxxx
 Delay Adj: 1.00 1.00 1.00 1.00
 ApprAdjDel: 966.5 xxxxxx xxxxxx
 LOS by Appr: F F F F F F F F

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 2.439
 Loss Time (sec): 12 Average Delay (sec/veh): 302.6
 Optimal Cycle: 180 Level Of Service: F

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 0 0

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1

Volume Module:
 Base Vol: 474 1301 196 152 946 239 191 911 393 543 792 102
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 474 1301 196 152 946 239 191 911 393 543 792 102
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 474 1301 196 152 946 239 191 911 393 543 792 102
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 474 1301 196 152 946 239 191 911 393 543 792 102
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 474 1301 196 152 946 239 191 911 393 543 792 102

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.17 0.93 0.93 0.10 0.92 0.92 0.95 0.91 0.91 0.95 0.93 0.93
 Lanes: 1.00 1.74 0.26 1.00 1.60 0.40 1.00 1.40 0.60 1.00 1.77 0.23
 Final Sat.: 323 3075 463 182 2795 706 1805 2409 1039 1805 3144 405

Capacity Analysis Module:
 Vol/Sat: 1.47 0.42 0.42 0.83 0.34 0.34 0.11 0.38 0.38 0.30 0.25 0.25
 Crit Moves: ****
 Green/Cycle: 0.60 0.60 0.60 0.60 0.60 0.60 0.08 0.16 0.16 0.12 0.20 0.20
 Volume/Cap: 2.44 0.70 0.70 1.39 0.56 0.56 1.29 2.44 2.44 2.44 1.29 1.29
 Uniform Del: 19.9 13.8 13.8 19.9 12.0 12.0 45.9 42.2 42.2 43.8 40.2 40.2
 IncremntDel: 663.0 1.1 1.1 219.8 0.4 0.4 169.6 653 653.3 661.1 139 139.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 682.9 14.8 14.8 239.8 12.3 12.3 215.5 696 695.6 704.9 179 179.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 682.9 14.8 14.8 239.8 12.3 12.3 215.5 696 695.6 704.9 179 179.2
 LOS by Move: F B B F B B F F F F F F
 HCM2kAvgQ: 50 17 17 12 12 12 11 70 70 57 30 30

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 1994 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 2 0 0 0 0 1 1 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 401 1922 0 0 834 1049 0 0 0 101 15 248
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 401 1922 0 0 834 1049 0 0 0 101 15 248
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 401 1922 0 0 834 1049 0 0 0 101 15 248
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 401 1922 0 0 834 1049 0 0 0 101 15 248

Adjusted Volume Module:
 Grade: 0% 0% 0% 0%
 % Cycle/Cars: xxxx xxxx xxxx xxxx xxxx xxxx
 % Truck/Comb: xxxx xxxx xxxx xxxx xxxx xxxx
 PCE Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.10 1.10 1.10 1.10 1.10
 Cycl/Car PCE: xxxx xxxx xxxx xxxx xxxx xxxx
 Trck/Cmb PCE: xxxx xxxx xxxx xxxx xxxx xxxx
 Adj Vol.: 441 1922 0 0 834 1049 0 0 0 111 17 273

Critical Gap Module:
 MoveUp Time: 2.1 xxxx xxxx xxxx xxxx xxxx xxxx 3.4 3.3 2.6
 Crit Gp Adj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Critical Gp: 5.5 xxxx xxxx xxxx xxxx xxxx xxxx 7.0 6.5 5.5

Capacity Module:
 Cnflct Vol: 1883 xxxx xxxx xxxx xxxx xxxx 3157 4206 961
 Potent Cap.: 167 xxxx xxxx xxxx xxxx xxxx 10 4 451
 Adj Cap: 1.00 xxxx xxxx xxxx xxxx xxxx 0.00 0.00 1.00
 Move Cap.: 167 xxxx xxxx xxxx xxxx xxxx 0 0 451

Level Of Service Module:
 Control Del: 2575 xxxx xxxx xxxx xxxx xxxx xxxx 17.6
 LOS by Move: F * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 Shrd ConDel: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 Shared LOS: * * * * * * * * * * * *
 ApproachDel: 480.7 0.0 xxxxxx xxxxxx
 ApproachLOS: F A * *

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Sunset/I-10 EB ramps

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

Street Name:

Sunset				I-10 EB ramps			
North Bound		South Bound		East Bound		West Bound	
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign			
Rights:	Include	Include	Include	Include			
Lanes:	0 0 1 1 0	0 1 1 0 0	0 0 1! 0 0	0 0 0 0 0			

Volume Module:

Base Vol:	0	1214	76	187	803	0	1004	4	635	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1214	76	187	803	0	1004	4	635	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1214	76	187	803	0	1004	4	635	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1214	76	187	803	0	1004	4	635	0	0	0

Adjusted Volume Module:

Grade:	0%	0%	0%	0%
% Cycle/Cars:	xxxx	xxxx	xxxx	xxxx
% Truck/Comb:	xxxx	xxxx	xxxx	xxxx
PCE Adj:	1.10	1.00	1.00	1.10
Cycl/Car PCE:	xxxx	xxxx	xxxx	xxxx
Trck/Cmb PCE:	xxxx	xxxx	xxxx	xxxx
Adj Vol.:	0	1214	76	206
				803
			0	1104
			4	699
			0	0
			0	0

Critical Gap Module:

MoveUp Time:	xxxxx	xxxx	xxxxx	2.1	xxxx	xxxxx	3.4	3.3	2.6	xxxxx	xxxx	xxxxx
Crit Gp Adj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Critical Gp:	xxxxx	xxxx	xxxxx	5.5	xxxx	xxxxx	7.0	6.5	5.5	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1290	xxxx	xxxxx	2204	2280	402	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	348	xxxx	xxxxx	41	51	867	xxxx	xxxx	xxxxx
Adj Cap:	xxxx	xxxx	xxxxx	1.00	xxxx	xxxxx	0.00	0.00	1.00	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	348	xxxx	xxxxx	0	0	867	xxxx	xxxx	xxxxx

Level Of Service Module:

Control Del:	xxxxx	xxxx	xxxxx	22.2	xxxx	xxxxx	xxxxx	xxxx	15.3	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	D	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	348	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	3347	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	F	*	*	*	F
ApproachDel:	0.0			4.5			xxxxxxx		xxxxxxx			
ApproachLOS:	A			A			*		*			*

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 Sunset/Lincoln

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

Street Name:

Sunset				Lincoln			
North Bound		South Bound		East Bound		West Bound	
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign			
Rights:	Include	Include	Include	Include			
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0			

Volume Module:

Base Vol:	163	387	42	230	465	480	324	827	56	32	918	222
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	387	42	230	465	480	324	827	56	32	918	222
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	387	42	230	465	480	324	827	56	32	918	222
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	163	387	42	230	465	480	324	827	56	32	918	222

Adjusted Volume Module:

Grade:	0%	0%	0%	0%
% Cycle/Cars:	xxxx	xxxx	xxxx	xxxx
% Truck/Comb:	xxxx	xxxx	xxxx	xxxx
PCE Adj:	1.10	1.00	1.00	1.10
Cycl/Car PCE:	xxxx	xxxx	xxxx	xxxx
Trck/Cmb PCE:	xxxx	xxxx	xxxx	xxxx
Adj Vol.:	179	387	42	253
				465
			480	356
			910	62
			35	1010
			244	

Critical Gap Module:

MoveUp Time:	2.1	xxxx	xxxxx	2.1	xxxx	xxxxx	3.4	3.3	2.6	3.4	3.3	2.6
Crit Gp Adj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Critical Gp:	5.0	xxxx	xxxxx	5.0	xxxx	xxxxx	6.5	6.0	5.5	6.5	6.0	5.5

Capacity Module:

Cnflct Vol:	945	xxxx	xxxxx	429	xxxx	xxxxx	2076	1527	705	1948	1746	408
Potent Cap.:	608	xxxx	xxxxx	1071	xxxx	xxxxx	66	172	608	79	132	860
Adj Cap:	1.00	xxxx	xxxxx	1.00	xxxx	xxxxx	0.00	0.28	1.00	0.00	0.28	1.00
Move Cap.:	608	xxxx	xxxxx	1071	xxxx	xxxxx	0	49	608	0	37	860

Level Of Service Module:

Control Del:	8.1	xxxx	xxxxx	4.3	xxxx	xxxxx	xxxxx	xxxx	6.5	xxxxx	xxxx	5.6
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	2.4			0.9			xxxxxxx		xxxxxxx			
ApproachLOS:	A			A			*		*			*

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Level Of Service Computation Report
1994 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh):      0.9      Worst Case Level Of Service: B
*****
Street Name:      Sunset      Westward
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 1 0      0 1 0 0 0      0 0 0 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 251 13      18 278 0      0 0 0 0      25 0 81
Growth Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      0 251 13      18 278 0      0 0 0 0      25 0 81
User Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:      0 251 13      18 278 0      0 0 0 0      25 0 81
Reduct Vol:      0 0 0      0 0 0      0 0 0 0      0 0 0 0
FinalVolume:      0 251 13      18 278 0      0 0 0 0      25 0 81
-----|-----|-----|-----|
Adjusted Volume Module:
Grade:      0%      0%      0%      0%
% Cycle/Cars:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
% Truck/Comb:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
PCE Adj:      1.10 1.00 1.00      1.10 1.00 1.00      1.10 1.10 1.10      1.10 1.10 1.10
Cycl/Car PCE:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
Trck/Cmb PCE:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
Adj Vol.:      0 251 13      20 278 0      0 0 0 0      28 0 89
-----|-----|-----|-----|
Critical Gap Module:
MoveUp Time:xxxxx xxxx xxxxx      2.1 xxxx xxxxx xxxxx xxxx xxxxx      3.4 xxxx 2.6
Crit Gp Adj: 0.00 0.00 0.00      0.00 0.00 0.00 0.00 0.00 0.00      0.00 0.00 0.00
Critical Gp:xxxxx xxxx xxxxx      5.0 xxxx xxxxx xxxxx xxxx xxxxx      6.5 xxxx 5.5
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx      264 xxxx xxxxx xxxx xxxx xxxxx      554 xxxx 258
Potent Cap.: xxxx xxxx xxxxx      1283 xxxx xxxxx xxxx xxxx xxxxx      506 xxxx 1025
Adj Cap:      xxxx xxxx xxxxx      1.00 xxxx xxxxx xxxx xxxx xxxxx      0.98 xxxx 1.00
Move Cap.:      xxxx xxxx xxxxx      1283 xxxx xxxxx xxxx xxxx xxxxx      497 xxxx 1025
-----|-----|-----|-----|
Level Of Service Module:
Control Del:xxxxx xxxx xxxxx      2.8 xxxx xxxxx xxxxx xxxx xxxxx      7.6 xxxx 3.8
LOS by Move:      * * *      A * * * * *      * * * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx      1283 xxxx xxxxx xxxx xxxx xxxxx      xxxx 820 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx      3.6 xxxx xxxxx xxxxx xxxx xxxxx      xxxxx 5.0 xxxxx
Shared LOS:      * * *      A * * * * *      * * * * *
ApproachDel:      0.0      0.2      xxxxxx      5.0
ApproachLOS:      A      A      *      B
-----
```

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/8th-Wilson	C	28.2 0.598	C	28.2 0.598	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	35.1 0.803	D	35.1 0.803	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	49.9 1.000	D	49.9 1.000	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	49.7 1.025	D	49.7 1.025	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	26.6 0.452	C	26.6 0.452	+ 0.000 D/V
# 6 Highland Home/Wilson	C	29.8 0.548	C	29.8 0.548	+ 0.000 D/V
# 7 Highland Home/Ramsey	C	28.8 0.622	C	28.8 0.622	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	30.0 0.351	C	30.0 0.351	+ 0.000 D/V
# 9 Sunset/Wilson	C	28.5 0.552	C	28.5 0.552	+ 0.000 D/V
# 10 Sunset/Ramsey	C	24.4 0.608	C	24.4 0.608	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	28.8 0.741	C	28.8 0.741	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	C	28.7 0.688	C	28.7 0.688	+ 0.000 D/V
# 13 Sunset/Lincoln	C	27.5 0.354	C	27.5 0.354	+ 0.000 D/V
# 14 Sunset/Westward	B	12.1 0.018	B	12.1 0.018	+ 0.000 D/V
# 15 Highland Home/I-10 WB ramps	B	17.6 0.461	B	17.6 0.461	+ 0.000 D/V
# 16 Highland Home/I-10 EB ramps	C	28.0 0.547	C	28.0 0.547	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/8th-Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.598
 Loss Time (sec): 16 Average Delay (sec/veh): 28.2
 Optimal Cycle: 57 Level Of Service: C

Street Name: Highland Springs 8th-Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 2 1 0 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 57 561 243 241 1136 215 93 173 101 432 365 166
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 57 561 243 241 1136 215 93 173 101 432 365 166
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 57 561 243 241 1136 215 93 173 101 432 365 166
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 57 561 243 241 1136 215 93 173 101 432 365 166
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 57 561 243 241 1136 215 93 173 101 432 365 166

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.89 0.89 0.95 0.90 0.90 0.92 0.95 0.85
 Lanes: 1.00 3.00 1.00 2.00 2.52 0.48 1.00 1.26 0.74 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 4257 806 1805 2154 1258 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.03 0.11 0.15 0.07 0.27 0.27 0.05 0.08 0.08 0.12 0.10 0.10
 Crit Moves: ****
 Green/Cycle: 0.05 0.31 0.51 0.19 0.45 0.45 0.12 0.13 0.13 0.21 0.23 0.42
 Volume/Cap: 0.60 0.35 0.29 0.35 0.60 0.60 0.45 0.60 0.60 0.60 0.45 0.24
 Uniform Del: 46.3 27.1 14.0 34.9 20.9 20.9 41.3 40.7 40.7 35.9 33.3 18.8
 IncremntDel: 10.0 0.1 0.2 0.3 0.4 0.4 1.5 2.2 2.2 1.4 0.4 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 56.3 27.2 14.2 35.2 21.3 21.3 42.8 42.9 42.9 37.3 33.7 18.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 56.3 27.2 14.2 35.2 21.3 21.3 42.8 42.9 42.9 37.3 33.7 18.9
 LOS by Move: E C B D C C D D D C B
 HCM2kAvgQ: 2 5 4 4 12 12 3 5 5 6 5 3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.803
 Loss Time (sec): 16 Average Delay (sec/veh): 35.1
 Optimal Cycle: 87 Level Of Service: D

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 237 867 278 223 1356 109 106 227 310 269 139 131
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 237 867 278 223 1356 109 106 227 310 269 139 131
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 237 867 278 223 1356 109 106 227 310 269 139 131
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 237 867 278 223 1356 109 106 227 310 269 139 131
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 237 867 278 223 1356 109 106 227 310 269 139 131

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.83 0.83 0.95 0.91 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3157 1579 1805 5187 1615

 Capacity Analysis Module:
 Vol/Sat: 0.07 0.17 0.17 0.06 0.26 0.07 0.06 0.07 0.20 0.15 0.03 0.08
 Crit Moves: ****
 Green/Cycle: 0.08 0.30 0.48 0.11 0.33 0.33 0.18 0.24 0.24 0.19 0.25 0.25
 Volume/Cap: 0.80 0.56 0.36 0.56 0.80 0.21 0.33 0.29 0.80 0.80 0.11 0.33
 Uniform Del: 45.0 29.7 16.2 42.0 30.8 24.4 35.7 30.7 35.5 39.0 28.9 30.6
 IncremntDel: 14.6 0.5 0.3 1.9 2.9 0.2 0.6 0.1 7.0 13.1 0.0 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 59.6 30.2 16.5 43.9 33.7 24.6 36.2 30.8 42.5 52.0 29.0 31.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 59.6 30.2 16.5 43.9 33.7 24.6 36.2 30.8 42.5 52.0 29.0 31.1
 LOS by Move: E C B D C C D C D C A E
 HCM2kAvgQ: 4 8 5 3 14 2 3 3 12 8 1 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.000
 Loss Time (sec): 12 Average Delay (sec/veh): 49.9
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

 Volume Module:
 Base Vol: 465 983 0 0 1357 577 0 0 0 446 0 349
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 465 983 0 0 1357 577 0 0 0 446 0 349
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 465 983 0 0 1357 577 0 0 0 446 0 349
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 465 983 0 0 1357 577 0 0 0 446 0 349
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 465 983 0 0 1357 577 0 0 0 446 0 349

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.26 0.27 0.00 0.00 0.38 0.36 0.00 0.00 0.00 0.25 0.00 0.22
 Crit Moves: ****
 Green/Cycle: 0.26 0.63 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.25 0.00 0.25
 Volume/Cap: 1.00 0.43 0.00 0.00 1.00 0.95 0.00 0.00 0.00 1.00 0.00 0.88
 Uniform Del: 37.1 9.2 0.0 0.0 31.2 30.3 0.0 0.0 0.0 37.7 0.0 36.2
 IncremntDel: 41.8 0.1 0.0 0.0 24.5 24.8 0.0 0.0 0.0 42.6 0.0 19.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 78.9 9.4 0.0 0.0 55.7 55.1 0.0 0.0 0.0 80.3 0.0 55.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 78.9 9.4 0.0 0.0 55.7 55.1 0.0 0.0 0.0 80.3 0.0 55.4
 LOS by Move: E A A A E E A A A F A E
 HCM2kAvgQ: 16 7 0 0 25 18 0 0 0 20 0 14

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.025
 Loss Time (sec): 12 Average Delay (sec/veh): 49.7
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1004 518 557 1246 0 494 0 400 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1004 518 557 1246 0 494 0 400 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1004 518 557 1246 0 494 0 400 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1004 518 557 1246 0 494 0 400 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1004 518 557 1246 0 494 0 400 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.28 0.32 0.31 0.35 0.00 0.27 0.00 0.25 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.31 0.31 0.30 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00
 Volume/Cap: 0.00 0.89 1.03 1.03 0.56 0.00 1.03 0.00 0.93 0.00 0.00 0.00
 Uniform Del: 0.0 32.7 34.4 35.0 11.4 0.0 36.7 0.0 35.8 0.0 0.0 0.0
 IncremntDel: 0.0 8.9 46.7 45.3 0.3 0.0 47.7 0.0 26.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 41.6 81.0 80.2 11.7 0.0 84.4 0.0 62.5 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 41.6 81.0 80.2 11.7 0.0 84.4 0.0 62.5 0.0 0.0 0.0
 LOS by Move: A D F F B A F A E A A A
 HCM2kAvgQ: 0 17 21 18 11 0 22 0 16 0 0 0

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.452
 Loss Time (sec): 16 Average Delay (sec/veh): 26.6
 Optimal Cycle: 46 Level Of Service: C

 Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 136 1044 76 134 734 57 91 87 43 84 232 185
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 136 1044 76 134 734 57 91 87 43 84 232 185
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 136 1044 76 134 734 57 91 87 43 84 232 185
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 136 1044 76 134 734 57 91 87 43 84 232 185
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 136 1044 76 134 734 57 91 87 43 84 232 185

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 1.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.20 0.05 0.04 0.14 0.04 0.03 0.02 0.03 0.02 0.06 0.11
 Crit Moves: ****
 Green/Cycle: 0.18 0.44 0.44 0.08 0.35 0.35 0.06 0.16 0.16 0.15 0.25 0.25
 Volume/Cap: 0.41 0.45 0.11 0.45 0.41 0.10 0.45 0.15 0.16 0.16 0.25 0.45
 Uniform Del: 36.0 19.3 16.2 43.6 25.0 22.2 45.6 35.9 36.0 37.3 29.8 31.5
 IncremntDel: 0.8 0.1 0.1 1.1 0.2 0.1 1.6 0.1 0.3 0.1 0.1 0.8
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 36.8 19.4 16.2 44.7 25.1 22.3 47.2 36.0 36.2 37.4 30.0 32.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 36.8 19.4 16.2 44.7 25.1 22.3 47.2 36.0 36.2 37.4 30.0 32.3
 LOS by Move: D B B D C C D D D D C C
 HCM2kAvgQ: 4 8 1 2 6 1 2 1 1 1 3 5

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.548
 Loss Time (sec): 16 Average Delay (sec/veh): 29.8
 Optimal Cycle: 53 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 113 429 87 493 852 176 75 454 223 345 599 258
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 113 429 87 493 852 176 75 454 223 345 599 258
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 113 429 87 493 852 176 75 454 223 345 599 258
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 113 429 87 493 852 176 75 454 223 345 599 258
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 113 429 87 493 852 176 75 454 223 345 599 258

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.08 0.05 0.14 0.16 0.11 0.02 0.13 0.14 0.10 0.17 0.16
 Crit Moves: ****
 Green/Cycle: 0.07 0.15 0.33 0.26 0.34 0.34 0.05 0.25 0.25 0.18 0.38 0.64
 Volume/Cap: 0.48 0.55 0.16 0.55 0.48 0.32 0.43 0.50 0.55 0.55 0.43 0.25
 Uniform Del: 45.0 39.3 23.7 32.1 26.0 24.4 46.2 32.0 32.4 37.3 22.9 7.7
 IncremntDel: 1.6 0.8 0.1 0.7 0.2 0.3 1.7 0.4 1.6 1.0 0.2 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 46.5 40.1 23.8 32.8 26.2 24.7 47.9 32.4 34.0 38.3 23.1 7.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 46.5 40.1 23.8 32.8 26.2 24.7 47.9 32.4 34.0 38.3 23.1 7.9
 LOS by Move: D D C C C C D C C D C A
 HCM2kAvgQ: 2 4 2 7 8 4 1 6 6 5 7 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
 Loss Time (sec): 16 Average Delay (sec/veh): 28.8
 Optimal Cycle: 59 Level Of Service: C

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 1 0

 Volume Module:
 Base Vol: 335 507 244 136 1326 192 85 275 210 145 261 88
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 335 507 244 136 1326 192 85 275 210 145 261 88
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 335 507 244 136 1326 192 85 275 210 145 261 88
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 335 507 244 136 1326 192 85 275 210 145 261 88
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 335 507 244 136 1326 192 85 275 210 145 261 88

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.85 0.85 0.92 0.88 0.88
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.24 0.76
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3233 1617 3502 3732 1258

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.10 0.15 0.04 0.26 0.12 0.05 0.09 0.13 0.04 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.15 0.45 0.45 0.12 0.41 0.41 0.11 0.21 0.21 0.07 0.16 0.16
 Volume/Cap: 0.62 0.22 0.34 0.34 0.62 0.29 0.43 0.41 0.62 0.62 0.43 0.43
 Uniform Del: 39.6 16.8 17.9 40.7 23.3 19.7 41.5 34.2 36.0 45.4 37.5 37.5
 IncremntDel: 2.3 0.0 0.3 0.5 0.6 0.2 1.5 0.2 1.6 5.1 0.4 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 41.9 16.9 18.1 41.2 23.9 19.9 42.9 34.4 37.5 50.6 37.9 37.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.9 16.9 18.1 41.2 23.9 19.9 42.9 34.4 37.5 50.6 37.9 37.9
 LOS by Move: D B B D C B D C D D D D
 HCM2kAvgQ: 5 3 5 2 12 4 2 4 6 2 3 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.351
Loss Time (sec): 16 Average Delay (sec/veh): 30.0
Optimal Cycle: 40 Level Of Service: C

Street Name: Highland Home Sun Lakes-Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 99 152 11 119 77 109 78 143 33 3 246 161
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 99 152 11 119 77 109 78 143 33 3 246 161
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 99 152 11 119 77 109 78 143 33 3 246 161
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 99 152 11 119 77 109 78 143 33 3 246 161
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 99 152 11 119 77 109 78 143 33 3 246 161

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.99 0.99 0.95 0.91 0.91 0.95 0.88 0.88 0.95 0.86 0.86
Lanes: 1.00 0.93 0.07 1.00 0.41 0.59 1.00 2.44 0.56 1.00 2.00 1.00
Final Sat.: 1805 1754 127 1805 717 1015 1805 4096 945 1805 3254 1627

Capacity Analysis Module:
Vol/Sat: 0.05 0.09 0.09 0.07 0.11 0.11 0.04 0.03 0.03 0.00 0.08 0.10
Crit Moves: ****
Green/Cycle: 0.15 0.25 0.25 0.19 0.29 0.29 0.12 0.39 0.39 0.02 0.28 0.28
Volume/Cap: 0.37 0.35 0.35 0.35 0.37 0.37 0.35 0.09 0.09 0.09 0.27 0.35
Uniform Del: 38.5 31.0 31.0 35.3 28.4 28.4 40.2 19.5 19.5 48.3 27.9 28.6
IncrmntDel: 0.9 0.5 0.5 0.6 0.5 0.5 1.0 0.0 0.0 1.2 0.1 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 39.4 31.5 31.5 35.9 28.9 28.9 41.1 19.5 19.5 49.4 28.0 28.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 39.4 31.5 31.5 35.9 28.9 28.9 41.1 19.5 19.5 49.4 28.0 28.8
LOS by Move: D C C D C C D B B D C C
HCM2kAvgQ: 3 4 4 3 5 5 2 1 1 0 3 4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.552
Loss Time (sec): 16 Average Delay (sec/veh): 28.5
Optimal Cycle: 53 Level Of Service: C

Street Name: Sunset Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 3 0 1

Volume Module:
Base Vol: 139 258 44 137 778 230 212 652 271 51 315 67
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 139 258 44 137 778 230 212 652 271 51 315 67
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 139 258 44 137 778 230 212 652 271 51 315 67
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 258 44 137 778 230 212 652 271 51 315 67
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 139 258 44 137 778 230 212 652 271 51 315 67

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.91 0.85
Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00
Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.04 0.07 0.03 0.08 0.22 0.14 0.06 0.18 0.17 0.03 0.06 0.04
Crit Moves: ****
Green/Cycle: 0.07 0.22 0.22 0.24 0.39 0.58 0.19 0.33 0.40 0.05 0.19 0.19
Volume/Cap: 0.55 0.32 0.12 0.32 0.55 0.25 0.32 0.55 0.42 0.55 0.32 0.22
Uniform Del: 44.9 32.4 31.0 31.4 23.7 10.3 35.0 27.6 21.7 46.3 35.0 34.3
IncrmntDel: 2.6 0.2 0.2 0.4 0.5 0.1 0.3 0.6 0.4 7.1 0.2 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 47.5 32.7 31.1 31.9 24.2 10.5 35.3 28.2 22.2 53.4 35.2 34.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 47.5 32.7 31.1 31.9 24.2 10.5 35.3 28.2 22.2 53.4 35.2 34.6
LOS by Move: D C C C C B D C C D D C
HCM2kAvgQ: 2 3 1 4 10 3 3 8 6 2 3 2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.608
 Loss Time (sec): 12 Average Delay (sec/veh): 24.4
 Optimal Cycle: 49 Level Of Service: C

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 2 0 3 0 1

Volume Module:
 Base Vol: 166 442 148 101 1209 115 47 227 129 98 191 28
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 166 442 148 101 1209 115 47 227 129 98 191 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 166 442 148 101 1209 115 47 227 129 98 191 28
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 166 442 148 101 1209 115 47 227 129 98 191 28
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 166 442 148 101 1209 115 47 227 129 98 191 28

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.91 0.85 0.92 0.91 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 3502 5187 1615 3502 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.09 0.12 0.09 0.06 0.33 0.07 0.01 0.04 0.08 0.03 0.04 0.02
 Crit Moves: ****
 Green/Cycle: 0.15 0.48 0.48 0.22 0.55 0.55 0.05 0.13 0.13 0.05 0.13 0.13
 Volume/Cap: 0.61 0.25 0.19 0.25 0.61 0.13 0.28 0.33 0.61 0.61 0.28 0.13
 Uniform Del: 39.7 15.3 14.8 32.2 15.1 10.8 46.0 39.4 41.0 46.8 39.3 38.5
 IncremntDel: 3.9 0.1 0.1 0.3 0.5 0.1 0.9 0.3 5.0 6.5 0.2 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.6 15.4 14.9 32.5 15.7 10.9 46.9 39.7 46.0 53.3 39.5 38.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.6 15.4 14.9 32.5 15.7 10.9 46.9 39.7 46.0 53.3 39.5 38.8
 LOS by Move: D B B C B B D D D D D D
 HCM2kAvgQ: 5 4 2 2 13 2 1 2 4 3 2 1

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741
 Loss Time (sec): 16 Average Delay (sec/veh): 28.8
 Optimal Cycle: 75 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1! 0 0

Volume Module:
 Base Vol: 498 574 0 0 666 771 0 0 0 79 7 182
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 498 574 0 0 666 771 0 0 0 79 7 182
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 498 574 0 0 666 0 0 0 0 79 7 182
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 498 574 0 0 666 0 0 0 0 79 7 182
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 498 574 0 0 666 0 0 0 0 79 7 182

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.29 0.03 0.68
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 488 43 1125

Capacity Analysis Module:
 Vol/Sat: 0.28 0.16 0.00 0.00 0.18 0.00 0.00 0.00 0.00 0.16 0.16 0.16
 Crit Moves: ****
 Green/Cycle: 0.37 0.62 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.22 0.22 0.22
 Volume/Cap: 0.74 0.26 0.00 0.00 0.74 0.00 0.00 0.00 0.00 0.74 0.74 0.74
 Uniform Del: 27.2 8.5 0.0 0.0 34.6 0.0 0.0 0.0 0.0 36.4 36.4 36.4
 IncremntDel: 4.4 0.1 0.0 0.0 3.3 0.0 0.0 0.0 0.0 7.9 7.9 7.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 31.6 8.6 0.0 0.0 37.9 0.0 0.0 0.0 0.0 44.4 44.4 44.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 31.6 8.6 0.0 0.0 37.9 0.0 0.0 0.0 0.0 44.4 44.4 44.4
 LOS by Move: C A A A D A A A A D D D
 HCM2kAvgQ: 13 4 0 0 10 0 0 0 0 9 9 9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.688
 Loss Time (sec): 16 Average Delay (sec/veh): 28.7
 Optimal Cycle: 67 Level Of Service: C

Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 731 169 306 439 0 341 2 318 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 731 169 306 439 0 341 2 318 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 731 169 306 439 0 341 2 318 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 731 169 306 439 0 341 2 318 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 731 169 306 439 0 341 2 318 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3074 18 1546 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.20 0.10 0.17 0.12 0.00 0.11 0.11 0.21 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.29 0.29 0.25 0.54 0.00 0.30 0.30 0.30 0.00 0.00 0.00
 Volume/Cap: 0.00 0.69 0.36 0.69 0.22 0.00 0.37 0.37 0.69 0.00 0.00 0.00
 Uniform Del: 0.0 31.2 27.8 34.2 12.0 0.0 27.6 27.6 30.9 0.0 0.0 0.0
 IncremntDel: 0.0 1.9 0.5 4.5 0.1 0.0 0.1 0.1 2.1 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 33.1 28.3 38.7 12.1 0.0 27.8 27.8 33.0 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 33.1 28.3 38.7 12.1 0.0 27.8 27.8 33.0 0.0 0.0 0.0
 LOS by Move: A C C D B A C C C A A A
 HCM2kAvgQ: 0 10 4 8 3 0 5 5 10 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.354
 Loss Time (sec): 16 Average Delay (sec/veh): 27.5
 Optimal Cycle: 40 Level Of Service: C

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 40 411 25 94 255 134 288 176 25 13 114 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 40 411 25 94 255 134 288 176 25 13 114 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 40 411 25 94 255 134 288 176 25 13 114 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 40 411 25 94 255 134 288 176 25 13 114 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 40 411 25 94 255 134 288 176 25 13 114 67

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.89 0.11 1.00 2.00 1.00 2.00 1.75 0.25 1.00 2.00 1.00
 Final Sat.: 1805 3372 205 1805 3610 1615 3502 3101 440 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.02 0.12 0.12 0.05 0.07 0.08 0.08 0.06 0.06 0.01 0.03 0.04
 Crit Moves: ****
 Green/Cycle: 0.12 0.34 0.34 0.15 0.37 0.61 0.23 0.31 0.31 0.04 0.12 0.12
 Volume/Cap: 0.19 0.35 0.35 0.35 0.19 0.14 0.35 0.18 0.18 0.18 0.27 0.35
 Uniform Del: 39.8 24.5 24.5 38.4 21.1 8.5 32.1 25.2 25.2 46.5 40.2 40.7
 IncremntDel: 0.4 0.2 0.2 0.8 0.1 0.1 0.3 0.1 0.1 1.2 0.3 1.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 40.3 24.7 24.7 39.2 21.2 8.5 32.4 25.3 25.3 47.7 40.6 41.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 40.3 24.7 24.7 39.2 21.2 8.5 32.4 25.3 25.3 47.7 40.6 41.8
 LOS by Move: D C C D C A C C C D D D
 HCM2kAvgQ: 1 5 5 3 3 2 4 2 2 1 2 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #14 Sunset/Westward

 Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[12.1]

 Street Name: Sunset Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
 Volume Module:
 Base Vol: 0 292 8 2 250 0 0 0 0 9 0 1
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 292 8 2 250 0 0 0 0 9 0 1
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 292 8 2 250 0 0 0 0 9 0 1
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 292 8 2 250 0 0 0 0 9 0 1
 Critical Gap Module:
 Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
 FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 300 xxxx xxxxx 551 554 250 550 550 296
 Potent Cap.: xxxx xxxx xxxxx 1273 xxxx xxxxx 449 443 794 500 446 748
 Move Cap.: xxxx xxxx xxxxx 1273 xxxx xxxxx 447 443 794 499 445 748
 Volume/Cap: xxxx xxxx xxxx 0.00 xxxx xxxx 0.00 0.00 0.00 0.02 0.00 0.00
 Level Of Service Module:
 2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 LOS by Move: * * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx 516 xxxxx
 SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxxx 0.1 xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxx xxxx xxxxx xxxxx 12.1 xxxxx
 Shared LOS: * * * A * * * * * * * B *
 ApproachDel: xxxxxx xxxxxx xxxxxx 12.1
 ApproachLOS: * * * * * B

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #15 Highland Home/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.461
 Loss Time (sec): 12 Average Delay (sec/veh): 17.6
 Optimal Cycle: 38 Level Of Service: B

 Street Name: Highland Home I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Protected Permitted Permitted
 Rights: Include Include Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 1
 Volume Module:
 Base Vol: 252 664 0 0 710 941 0 0 0 32 0 374
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 252 664 0 0 710 941 0 0 0 32 0 374
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 252 664 0 0 710 941 0 0 0 32 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 252 664 0 0 710 941 0 0 0 32 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MEF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 252 664 0 0 710 941 0 0 0 32 0 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.34 1.00 1.00 1.00 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 648 1900 0 0 1900 1615 0 0 0 1900 0 1900
 Capacity Analysis Module:
 Vol/Sat: 0.39 0.35 0.00 0.00 0.37 0.58 0.00 0.00 0.00 0.02 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.42 0.42 0.00 0.00 0.86 0.86 0.00 0.00 0.00 0.02 0.00 0.00
 Volume/Cap: 0.94 0.84 0.00 0.00 0.43 0.68 0.00 0.00 0.00 0.44 0.00 0.00
 Uniform Del: 27.9 26.2 0.0 0.0 1.6 2.3 0.0 0.0 0.0 48.5 0.0 0.0
 IncremntDel: 37.9 8.1 0.0 0.0 0.2 1.4 0.0 0.0 0.0 4.3 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 0.00
 Delay/Veh: 65.8 34.3 0.0 0.0 1.8 3.7 0.0 0.0 0.0 52.8 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 65.8 34.3 0.0 0.0 1.8 3.7 0.0 0.0 0.0 52.8 0.0 0.0
 LOS by Move: E C A A A A A A A D A A
 HCM2kAvgQ: 9 19 0 0 5 10 0 0 0 2 0 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #16 Highland Home/I-10 EB ramps
*****
Cycle (sec):      100          Critical Vol./Cap. (X):      0.547
Loss Time (sec):   12          Average Delay (sec/veh):      28.0
Optimal Cycle:     44          Level Of Service:      C
*****
Street Name:      Highland Home          I-10 EB ramps
Approach:          North Bound          South Bound          East Bound          West Bound
Movement:          L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:           Protected           Protected           Permitted           Permitted
Rights:            Include             Include             Include             Include
Min. Green:        0 0 0              0 0 0              0 0 0              0 0 0
Y+R:               4.0 4.0 4.0          4.0 4.0 4.0          4.0 4.0 4.0          4.0 4.0 4.0
Lanes:             0 0 2 0 1            2 0 1 0 0          2 0 0 0 1            0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:          0 475 89           490 252 0           472 0 83           0 0 0
Growth Adj:        1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:        0 475 89           490 252 0           472 0 83           0 0 0
User Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:         0 475 89           490 252 0           472 0 83           0 0 0
Reduct Vol:        0 0 0              0 0 0              0 0 0              0 0 0
Reduced Vol:       0 475 89           490 252 0           472 0 83           0 0 0
PCE Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:           1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:       0 475 89           490 252 0           472 0 83           0 0 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:          1900 1900 1900      1900 1900 1900      1900 1900 1900      1900 1900 1900
Adjustment:        1.00 0.95 0.85        0.92 1.00 1.00        0.59 1.00 0.85        1.00 1.00 1.00
Lanes:             0.00 2.00 1.00          2.00 1.00 0.00          2.00 0.00 1.00          0.00 0.00 0.00
Final Sat.:        0 3610 1615          3502 1900 0           2245 0 1615          0 0 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:           0.00 0.13 0.06        0.14 0.13 0.00        0.21 0.00 0.05        0.00 0.00 0.00
Crit Moves:        ****              ****              ****
Green/Cycle:       0.00 0.24 0.24          0.26 0.50 0.00          0.38 0.00 0.38          0.00 0.00 0.00
Volume/Cap:        0.00 0.55 0.23          0.55 0.27 0.00          0.55 0.00 0.13          0.00 0.00 0.00
Uniform Del:       0.0 33.2 30.5          32.2 14.6 0.0          24.0 0.0 20.0          0.0 0.0 0.0
IncrmntDel:        0.0 0.7 0.3            0.7 0.2 0.0          0.7 0.0 0.1            0.0 0.0 0.0
InitQueueDel:      0.0 0.0 0.0            0.0 0.0 0.0          0.0 0.0 0.0            0.0 0.0 0.0
Delay Adj:         0.00 1.00 1.00          1.00 1.00 0.00          1.00 0.00 1.00          0.00 0.00 0.00
Delay/Veh:         0.0 34.0 30.8          32.9 14.8 0.0          24.8 0.0 20.1          0.0 0.0 0.0
User DelAdj:       1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00          1.00 1.00 1.00
AdjDel/Veh:        0.0 34.0 30.8          32.9 14.8 0.0          24.8 0.0 20.1          0.0 0.0 0.0
LOS by Move:       A C C              C B A              C A C              A A A
HCM2kAvgQ:         0 7 2              7 4 0              6 0 2              0 0 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh	
# 1 Highland Springs/8th-Wilson	C	35.0 0.794	C	35.0 0.794	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	45.4 0.936	D	45.4 0.936	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	42.2 0.967	D	42.2 0.967	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	C	32.1 0.886	C	32.1 0.886	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	33.4 0.746	C	33.4 0.746	+ 0.000 D/V
# 6 Highland Home/Wilson	C	33.1 0.779	C	33.1 0.779	+ 0.000 D/V
# 7 Highland Home/Ramsey	D	40.9 0.877	D	40.9 0.877	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	32.6 0.798	C	32.6 0.798	+ 0.000 D/V
# 9 Sunset/Wilson	C	34.3 0.773	C	34.3 0.773	+ 0.000 D/V
# 10 Sunset/Ramsey	D	43.8 0.924	D	43.8 0.924	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	34.3 0.765	C	34.3 0.765	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	C	30.8 0.857	C	30.8 0.857	+ 0.000 D/V
# 13 Sunset/Lincoln	C	29.3 0.699	C	29.3 0.699	+ 0.000 D/V
# 14 Sunset/Westward	B	11.4 0.105	B	11.4 0.105	+ 0.000 D/V
# 15 Highland Home/I-10 WB ramps	A	6.1 0.759	A	6.1 0.759	+ 0.000 D/V
# 16 Highland Home/I-10 EB ramps	C	31.1 0.758	C	31.1 0.758	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.794
Loss Time (sec):   16          Average Delay (sec/veh):     35.0
Optimal Cycle:     85          Level Of Service:          C
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ovl           Include       Include       Ovl
Min. Green:       0   0   0       0   0   0       0   0   0       0   0   0
Y+R:              4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0
Lanes:            1   0   3   0   1     2   0   2   1   0     1   0   1   1   0     2   0   2   0   1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         34 1149 461     390 824 185     185 807 49     333 709 400
Growth Adj:       1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Initial Bse:      34 1149 461     390 824 185     185 807 49     333 709 400
User Adj:         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Volume:       34 1149 461     390 824 185     185 807 49     333 709 400
Reduct Vol:       0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:      34 1149 461     390 824 185     185 807 49     333 709 400
PCE Adj:          1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
FinalVolume:      34 1149 461     390 824 185     185 807 49     333 709 400
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900     1900 1900 1900     1900 1900 1900     1900 1900 1900
Adjustment:       0.95 0.91 0.85     0.92 0.89 0.89     0.95 0.94 0.94     0.92 0.95 0.85
Lanes:            1.00 3.00 1.00     2.00 2.45 0.55     1.00 1.89 0.11     2.00 2.00 1.00
Final Sat.:       1805 5187 1615     3502 4122 925     1805 3373 205     3502 3610 1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.02 0.22 0.29     0.11 0.20 0.20     0.10 0.24 0.24     0.10 0.20 0.25
Crit Moves:       ****              ****              ****
Green/Cycle:      0.04 0.28 0.40     0.14 0.38 0.38     0.14 0.30 0.30     0.12 0.28 0.42
Volume/Cap:       0.52 0.79 0.72     0.79 0.52 0.52     0.71 0.79 0.79     0.79 0.71 0.59
Uniform Del:      47.3 33.4 25.3     41.6 23.8 23.8     40.8 32.1 32.1     42.8 32.6 22.6
IncremntDel:      7.4 3.1 3.9       8.7 0.3 0.3       8.8 4.2 4.2     10.1 2.4 1.4
InitQueueDel:     0.0 0.0 0.0       0.0 0.0 0.0       0.0 0.0 0.0       0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Delay/Veh:        54.8 36.5 29.2     50.3 24.1 24.1     49.6 36.2 36.2     52.9 35.0 24.0
User DelAdj:      1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
AdjDel/Veh:       54.8 36.5 29.2     50.3 24.1 24.1     49.6 36.2 36.2     52.9 35.0 24.0
LOS by Move:      D   D   C       D   C   C       D   D   D       D   D   C
HCM2kAvgQ:        1  11  11       8   9   9       7  15  15       5  10  9
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.936
 Loss Time (sec): 16 Average Delay (sec/veh): 45.4
 Optimal Cycle: 133 Level Of Service: D

Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
 Base Vol: 447 1311 344 380 963 151 211 742 313 383 837 271
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 447 1311 344 380 963 151 211 742 313 383 837 271
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 447 1311 344 380 963 151 211 742 313 383 837 271
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 447 1311 344 380 963 151 211 742 313 383 837 271
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 447 1311 344 380 963 151 211 742 313 383 837 271

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.87 0.87 0.95 0.91 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.11 0.89 1.00 3.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3484 1470 1805 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.13 0.25 0.21 0.11 0.19 0.09 0.12 0.21 0.21 0.21 0.16 0.17
 Crit Moves: ****
 Green/Cycle: 0.16 0.27 0.50 0.12 0.23 0.23 0.19 0.23 0.23 0.23 0.27 0.27
 Volume/Cap: 0.81 0.94 0.43 0.94 0.81 0.41 0.63 0.94 0.94 0.94 0.60 0.63
 Uniform Del: 40.7 35.7 16.1 43.8 36.5 32.8 37.5 37.9 37.9 38.0 32.0 32.2
 IncremntDel: 8.9 12.0 0.4 29.1 4.4 0.7 3.7 14.1 14.1 28.9 0.8 2.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 49.6 47.6 16.5 72.9 40.9 33.6 41.2 52.0 52.0 66.9 32.7 35.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 49.6 47.6 16.5 72.9 40.9 33.6 41.2 52.0 52.0 66.9 32.7 35.1
 LOS by Move: D D B E D C D D D E C D
 HCM2kAvgQ: 7 15 6 7 11 4 7 16 16 12 8 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.967
 Loss Time (sec): 12 Average Delay (sec/veh): 42.2
 Optimal Cycle: 153 Level Of Service: D

Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

Volume Module:
 Base Vol: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 288 1410 0 0 0 1185 475 0 0 0 510 0 587

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

Capacity Analysis Module:
 Vol/Sat: 0.16 0.39 0.00 0.00 0.33 0.29 0.00 0.00 0.00 0.28 0.00 0.36
 Crit Moves: ****
 Green/Cycle: 0.16 0.50 0.00 0.00 0.34 0.34 0.00 0.00 0.00 0.38 0.00 0.38
 Volume/Cap: 0.97 0.77 0.00 0.00 0.97 0.87 0.00 0.00 0.00 0.75 0.00 0.97
 Uniform Del: 41.5 20.2 0.0 0.0 32.5 30.9 0.0 0.0 0.0 27.1 0.0 30.6
 IncremntDel: 43.1 2.1 0.0 0.0 18.4 13.7 0.0 0.0 0.0 4.7 0.0 28.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 84.6 22.3 0.0 0.0 50.8 44.6 0.0 0.0 0.0 31.8 0.0 59.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 84.6 22.3 0.0 0.0 50.8 44.6 0.0 0.0 0.0 31.8 0.0 59.0
 LOS by Move: F C A A D D A A A C A E
 HCM2kAvgQ: 10 18 0 0 21 14 0 0 0 15 0 23

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.886
 Loss Time (sec): 12 Average Delay (sec/veh): 32.1
 Optimal Cycle: 104 Level Of Service: C

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

Volume Module:
 Base Vol: 0 1369 544 291 1403 0 433 0 384 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1369 544 291 1403 0 433 0 384 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1369 544 291 1403 0 433 0 384 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1369 544 291 1403 0 433 0 384 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1369 544 291 1403 0 433 0 384 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.34 0.16 0.39 0.00 0.24 0.00 0.24 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.43 0.43 0.18 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00
 Volume/Cap: 0.00 0.89 0.79 0.89 0.64 0.00 0.89 0.00 0.88 0.00 0.00 0.00
 Uniform Del: 0.0 26.4 24.7 39.9 12.4 0.0 35.0 0.0 34.9 0.0 0.0 0.0
 IncremntDel: 0.0 6.6 6.0 23.8 0.6 0.0 17.5 0.0 18.3 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 32.9 30.7 63.7 13.1 0.0 52.5 0.0 53.3 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 32.9 30.7 63.7 13.1 0.0 52.5 0.0 53.3 0.0 0.0 0.0
 LOS by Move: A C C E B A D A D A A A
 HCM2kAvgQ: 0 22 15 8 13 0 16 0 15 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.746
 Loss Time (sec): 16 Average Delay (sec/veh): 33.4
 Optimal Cycle: 76 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
 Base Vol: 160 868 252 202 1023 68 128 974 237 248 1089 226
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 160 868 252 202 1023 68 128 974 237 248 1089 226
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 160 868 252 202 1023 68 128 974 237 248 1089 226
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 160 868 252 202 1023 68 128 974 237 248 1089 226
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 160 868 252 202 1023 68 128 974 237 248 1089 226

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 1.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.09 0.17 0.16 0.06 0.20 0.04 0.04 0.27 0.15 0.07 0.30 0.14
 Crit Moves: ****
 Green/Cycle: 0.12 0.29 0.29 0.10 0.26 0.26 0.05 0.36 0.36 0.09 0.41 0.41
 Volume/Cap: 0.75 0.59 0.55 0.59 0.75 0.16 0.74 0.75 0.41 0.75 0.74 0.34
 Uniform Del: 42.6 30.7 30.3 43.1 33.7 28.2 46.9 27.9 23.9 44.1 25.1 20.4
 IncremntDel: 13.3 0.6 1.4 2.6 2.3 0.2 15.6 2.4 0.5 8.9 2.0 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 55.9 31.3 31.7 45.8 36.0 28.4 62.5 30.3 24.3 53.0 27.2 20.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 55.9 31.3 31.7 45.8 36.0 28.4 62.5 30.3 24.3 53.0 27.2 20.7
 LOS by Move: E C C D D C E C C D C C
 HCM2kAvgQ: 7 9 7 3 11 2 4 15 6 4 14 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.779
 Loss Time (sec): 16 Average Delay (sec/veh): 33.1
 Optimal Cycle: 82 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 361 915 254 384 798 165 114 1196 241 131 1022 683
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 361 915 254 384 798 165 114 1196 241 131 1022 683
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 361 915 254 384 798 165 114 1196 241 131 1022 683
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 361 915 254 384 798 165 114 1196 241 131 1022 683
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 361 915 254 384 798 165 114 1196 241 131 1022 683

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 3502 3610 1615 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.18 0.16 0.11 0.15 0.10 0.03 0.33 0.15 0.04 0.28 0.42
 Crit Moves: **** *
 Green/Cycle: 0.15 0.23 0.27 0.14 0.22 0.22 0.04 0.43 0.43 0.05 0.43 0.57
 Volume/Cap: 0.70 0.78 0.57 0.78 0.70 0.46 0.73 0.78 0.35 0.78 0.66 0.74
 Uniform Del: 40.5 36.3 31.2 41.5 36.0 33.9 47.2 24.7 19.4 47.1 22.8 16.1
 IncremntDel: 4.3 3.4 1.8 7.8 2.0 1.0 16.2 2.6 0.3 20.4 1.1 3.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 44.8 39.8 33.1 49.3 37.9 34.9 63.3 27.4 19.7 67.5 23.9 19.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 44.8 39.8 33.1 49.3 37.9 34.9 63.3 27.4 19.7 67.5 23.9 19.4
 LOS by Move: D D C D D C E C B E C B
 HCM2kAvgQ: 5 9 6 8 10 5 2 16 5 2 13 15

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.877
 Loss Time (sec): 16 Average Delay (sec/veh): 40.9
 Optimal Cycle: 108 Level Of Service: D

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 1 0

 Volume Module:
 Base Vol: 346 1221 286 340 725 130 242 779 459 430 909 267
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 346 1221 286 340 725 130 242 779 459 430 909 267
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 346 1221 286 340 725 130 242 779 459 430 909 267
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 346 1221 286 340 725 130 242 779 459 430 909 267
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 346 1221 286 340 725 130 242 779 459 430 909 267

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.86 0.86 0.92 0.88 0.88
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.32 0.68
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3264 1632 3502 3873 1138

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.24 0.18 0.10 0.14 0.08 0.13 0.24 0.28 0.12 0.23 0.23
 Crit Moves: **** *
 Green/Cycle: 0.16 0.27 0.27 0.11 0.22 0.22 0.17 0.32 0.32 0.14 0.29 0.29
 Volume/Cap: 0.63 0.88 0.66 0.88 0.63 0.36 0.80 0.74 0.88 0.88 0.80 0.80
 Uniform Del: 39.4 35.0 32.5 43.8 35.2 32.9 40.0 30.3 32.1 42.2 32.6 32.6
 IncremntDel: 2.3 6.6 3.7 19.6 1.1 0.6 14.0 1.9 6.5 16.2 3.2 3.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 41.8 41.6 36.2 63.4 36.3 33.5 54.1 32.2 38.6 58.4 35.9 35.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.8 41.6 36.2 63.4 36.3 33.5 54.1 32.2 38.6 58.4 35.9 35.9
 LOS by Move: D D D E D C D C D E D D
 HCM2kAvgQ: 5 14 8 6 7 3 7 11 14 7 13 13

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 16 Average Delay (sec/veh): 32.6
Optimal Cycle: 86 Level Of Service: C

Street Name: Highland Home Sun Lakes-Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 117 160 12 270 238 159 175 1087 155 17 1258 197
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 117 160 12 270 238 159 175 1087 155 17 1258 197
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 117 160 12 270 238 159 175 1087 155 17 1258 197
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 117 160 12 270 238 159 175 1087 155 17 1258 197
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 117 160 12 270 238 159 175 1087 155 17 1258 197

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.99 0.99 0.95 0.94 0.94 0.95 0.89 0.89 0.95 0.89 0.89
Lanes: 1.00 0.93 0.07 1.00 0.60 0.40 1.00 2.63 0.37 1.00 2.59 0.41
Final Sat.: 1805 1750 131 1805 1071 715 1805 4453 635 1805 4395 688

Capacity Analysis Module:
Vol/Sat: 0.06 0.09 0.09 0.15 0.22 0.22 0.10 0.24 0.24 0.01 0.29 0.29
Crit Moves: ****
Green/Cycle: 0.08 0.14 0.14 0.22 0.28 0.28 0.12 0.46 0.46 0.02 0.36 0.36
Volume/Cap: 0.80 0.67 0.67 0.67 0.80 0.80 0.80 0.53 0.53 0.80 0.80 0.80
Uniform Del: 45.1 41.0 41.0 35.5 33.5 33.5 42.7 19.1 19.1 48.7 28.8 28.8
IncrmntDel: 25.6 6.7 6.7 4.3 8.8 8.8 18.3 0.2 0.2 15.4 2.6 2.6
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 70.7 47.7 47.7 39.8 42.3 42.3 61.0 19.3 19.3 64.1 31.4 31.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 70.7 47.7 47.7 39.8 42.3 42.3 61.0 19.3 19.3 64.1 31.4 31.4
LOS by Move: E D D D D E B B E C C C
HCM2kAvgQ: 6 6 6 9 13 13 5 9 9 1 17 17

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.773
Loss Time (sec): 16 Average Delay (sec/veh): 34.3
Optimal Cycle: 81 Level Of Service: C

Street Name: Sunset Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 3 0 1

Volume Module:
Base Vol: 381 864 151 158 415 328 357 916 202 62 1145 132
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 381 864 151 158 415 328 357 916 202 62 1145 132
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 381 864 151 158 415 328 357 916 202 62 1145 132
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 381 864 151 158 415 328 357 916 202 62 1145 132
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 381 864 151 158 415 328 357 916 202 62 1145 132

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.91 0.85
Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00
Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.11 0.24 0.09 0.09 0.11 0.20 0.10 0.25 0.13 0.03 0.22 0.08
Crit Moves: ****
Green/Cycle: 0.21 0.31 0.31 0.11 0.22 0.35 0.13 0.37 0.57 0.05 0.29 0.29
Volume/Cap: 0.53 0.77 0.30 0.77 0.53 0.58 0.77 0.69 0.22 0.69 0.77 0.29
Uniform Del: 35.4 31.3 26.3 43.1 34.6 26.6 42.0 26.8 10.4 46.8 32.8 27.8
IncrmntDel: 0.7 3.4 0.3 16.6 0.7 1.5 7.9 1.6 0.1 20.4 2.6 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 36.2 34.8 26.6 59.7 35.3 28.1 49.9 28.4 10.5 67.2 35.4 28.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 36.2 34.8 26.6 59.7 35.3 28.1 49.9 28.4 10.5 67.2 35.4 28.1
LOS by Move: D C C E D C D C B E D C
HCM2kAvgQ: 5 12 3 7 6 9 5 12 3 3 14 3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
 Loss Time (sec): 12 Average Delay (sec/veh): 43.8
 Optimal Cycle: 122 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 2 0 3 0 1

Volume Module:
 Base Vol: 410 1212 234 108 843 279 284 855 183 658 656 95
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 410 1212 234 108 843 279 284 855 183 658 656 95
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 410 1212 234 108 843 279 284 855 183 658 656 95
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 410 1212 234 108 843 279 284 855 183 658 656 95
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 410 1212 234 108 843 279 284 855 183 658 656 95

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.91 0.85 0.92 0.91 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 3502 5187 1615 3502 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.23 0.34 0.14 0.06 0.23 0.17 0.08 0.16 0.11 0.19 0.13 0.06
 Crit Moves: ****
 Green/Cycle: 0.25 0.42 0.42 0.08 0.25 0.25 0.15 0.18 0.18 0.20 0.23 0.23
 Volume/Cap: 0.92 0.79 0.34 0.79 0.92 0.68 0.54 0.92 0.64 0.92 0.54 0.25
 Uniform Del: 36.8 25.1 19.5 45.5 36.4 33.8 39.4 40.4 38.1 39.1 33.7 31.3
 IncremntDel: 25.1 3.0 0.3 26.6 14.8 4.7 1.2 14.6 4.6 17.8 0.5 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 61.9 28.0 19.8 72.0 51.2 38.5 40.6 55.0 42.7 56.9 34.2 31.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 61.9 28.0 19.8 72.0 51.2 38.5 40.6 55.0 42.7 56.9 34.2 31.6
 LOS by Move: E C B E D D D E D E C C
 HCM2kAvgQ: 13 17 5 4 15 8 4 10 5 14 7 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.765
 Loss Time (sec): 16 Average Delay (sec/veh): 34.3
 Optimal Cycle: 173 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1! 0 0

Volume Module:
 Base Vol: 475 1667 0 0 696 989 0 0 0 96 15 190
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 475 1667 0 0 696 989 0 0 0 96 15 190
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 475 1667 0 0 696 0 0 0 0 96 15 190
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 475 1667 0 0 696 0 0 0 0 96 15 190
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 475 1667 0 0 696 0 0 0 0 96 15 190

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.88 0.88 0.88
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.32 0.05 0.63
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 531 83 1050

Capacity Analysis Module:
 Vol/Sat: 0.26 0.46 0.00 0.00 0.19 0.00 0.00 0.00 0.00 0.18 0.18 0.18
 Crit Moves: ****
 Green/Cycle: 0.46 0.66 0.00 0.00 0.19 0.00 0.00 0.00 0.00 0.18 0.18 0.18
 Volume/Cap: 0.57 0.70 0.00 0.00 0.99 0.00 0.00 0.00 0.00 0.99 0.99 0.99
 Uniform Del: 19.5 10.9 0.0 0.0 40.3 0.0 0.0 0.0 0.0 40.9 40.9 40.9
 IncremntDel: 0.9 1.0 0.0 0.0 32.7 0.0 0.0 0.0 0.0 50.2 50.2 50.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 20.4 11.8 0.0 0.0 72.9 0.0 0.0 0.0 0.0 91.0 91.0 91.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 20.4 11.8 0.0 0.0 72.9 0.0 0.0 0.0 0.0 91.0 91.0 91.0
 LOS by Move: C B A A E A A A A F F F
 HCM2kAvgQ: 10 16 0 0 12 0 0 0 0 14 14 14

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.857
 Loss Time (sec): 16 Average Delay (sec/veh): 30.8
 Optimal Cycle: 101 Level Of Service: C

 Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1247 64 113 697 0 895 4 482 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1247 64 113 697 0 895 4 482 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1247 64 113 697 0 895 4 482 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1247 64 113 697 0 895 4 482 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1247 64 113 697 0 895 4 482 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3077 14 1545 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.35 0.04 0.06 0.19 0.00 0.29 0.29 0.31 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.40 0.40 0.07 0.48 0.00 0.36 0.36 0.36 0.00 0.00 0.00
 Volume/Cap: 0.00 0.86 0.10 0.86 0.41 0.00 0.80 0.80 0.86 0.00 0.00 0.00
 Uniform Del: 0.0 27.2 18.6 45.8 17.0 0.0 28.5 28.5 29.4 0.0 0.0 0.0
 IncremntDel: 0.0 5.3 0.1 39.4 0.2 0.0 2.7 2.7 4.8 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 32.5 18.6 85.2 17.2 0.0 31.3 31.3 34.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 32.5 18.6 85.2 17.2 0.0 31.3 31.3 34.2 0.0 0.0 0.0
 LOS by Move: A C B F B A C C C A A A
 HCM2kAvgQ: 0 19 1 3 7 0 15 15 17 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
 Loss Time (sec): 16 Average Delay (sec/veh): 29.3
 Optimal Cycle: 69 Level Of Service: C

 Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 96 302 32 156 399 388 256 898 58 27 1061 445
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 96 302 32 156 399 388 256 898 58 27 1061 445
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 96 302 32 156 399 388 256 898 58 27 1061 445
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 96 302 32 156 399 388 256 898 58 27 1061 445
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 96 302 32 156 399 388 256 898 58 27 1061 445

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.81 0.19 1.00 2.00 1.00 2.00 1.88 0.12 1.00 2.00 1.00
 Final Sat.: 1805 3218 341 1805 3610 1615 3502 3360 217 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.05 0.09 0.09 0.09 0.11 0.24 0.07 0.27 0.27 0.01 0.29 0.28
 Crit Moves: ****
 Green/Cycle: 0.08 0.16 0.16 0.15 0.24 0.34 0.10 0.50 0.50 0.03 0.42 0.42
 Volume/Cap: 0.70 0.57 0.57 0.57 0.46 0.70 0.70 0.54 0.54 0.54 0.70 0.66
 Uniform Del: 45.1 38.6 38.6 39.4 32.6 28.4 43.3 17.3 17.3 48.0 23.8 23.2
 IncremntDel: 14.8 1.4 1.4 2.9 0.4 3.9 5.9 0.3 0.3 11.1 1.5 2.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 59.9 39.9 39.9 42.4 32.9 32.3 49.2 17.6 17.6 59.1 25.3 25.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 59.9 39.9 39.9 42.4 32.9 32.3 49.2 17.6 17.6 59.1 25.3 25.5
 LOS by Move: E D D D C C D B B E C C
 HCM2kAvgQ: 4 6 6 4 5 10 5 11 11 2 15 12

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #14 Sunset/Westward

 Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[11.4]

 Street Name: Sunset Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
 Volume Module:
 Base Vol: 0 263 13 18 286 0 0 0 0 25 0 81
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 263 13 18 286 0 0 0 0 25 0 81
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 263 13 18 286 0 0 0 0 25 0 81
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 263 13 18 286 0 0 0 0 25 0 81
 Critical Gap Module:
 Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
 FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 276 xxxx xxxxx 632 598 286 592 592 270
 Potent Cap.: xxxx xxxx xxxxx 1299 xxxx xxxxx 396 418 758 473 422 774
 Move Cap.: xxxx xxxx xxxxx 1299 xxxx xxxxx 351 413 758 468 416 774
 Volume/Cap: xxxx xxxx xxxx 0.01 xxxx xxxx 0.00 0.00 0.00 0.05 0.00 0.10
 Level Of Service Module:
 2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx 670 xxxxx
 SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.6 xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.4 xxxxx
 Shared LOS: * * * A * * * * * * * B *
 ApproachDel: xxxxxx xxxxxx xxxxxx 11.4
 ApproachLOS: * * * * * B

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #15 Highland Home/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.759
 Loss Time (sec): 12 Average Delay (sec/veh): 6.1
 Optimal Cycle: 69 Level Of Service: A

 Street Name: Highland Home I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Protected Permitted Permitted
 Rights: Include Include Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 1
 Volume Module:
 Base Vol: 144 1185 0 0 901 688 0 0 0 64 0 562
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 144 1185 0 0 901 688 0 0 0 64 0 562
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 144 1185 0 0 901 688 0 0 0 64 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 144 1185 0 0 901 688 0 0 0 64 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MEF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 144 1185 0 0 901 688 0 0 0 64 0 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.27 1.00 1.00 1.00 1.00 0.85 1.00 1.00 1.00 0.77 1.00 1.00
 Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 519 1900 0 0 1900 1615 0 0 0 1461 0 1900
 Capacity Analysis Module:
 Vol/Sat: 0.28 0.62 0.00 0.00 0.47 0.43 0.00 0.00 0.00 0.04 0.00 0.00
 Crit Moves: **** *
 Green/Cycle: 0.82 0.82 0.00 0.00 0.82 0.82 0.00 0.00 0.00 0.06 0.00 0.00
 Volume/Cap: 0.34 0.76 0.00 0.00 0.58 0.52 0.00 0.00 0.00 0.76 0.00 0.00
 Uniform Del: 2.2 4.2 0.0 0.0 3.0 2.8 0.0 0.0 0.0 46.4 0.0 0.0
 IncremntDel: 0.5 2.2 0.0 0.0 0.5 0.4 0.0 0.0 0.0 32.3 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 0.00
 Delay/Veh: 2.7 6.4 0.0 0.0 3.5 3.1 0.0 0.0 0.0 78.7 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 2.7 6.4 0.0 0.0 3.5 3.1 0.0 0.0 0.0 78.7 0.0 0.0
 LOS by Move: A A A A A A A A A E A A
 HCM2kAvgQ: 1 17 0 0 9 7 0 0 0 4 0 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #16 Highland Home/I-10 EB ramps
*****
Cycle (sec):      100          Critical Vol./Cap. (X):      0.758
Loss Time (sec):   12          Average Delay (sec/veh):     31.1
Optimal Cycle:     68          Level Of Service:          C
*****
Street Name:      Highland Home          I-10 EB ramps
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Permitted          Permitted
Rights:           Include           Include           Include           Include
Min. Green:       0 0 0            0 0 0            0 0 0            0 0 0
Y+R:             4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:           0 0 2 0 1          2 0 1 0 0          2 0 0 0 1          0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:         0 540 36         467 498 0 858 0 303 0 0 0
Growth Adj:       1.00 1.00 1.00    1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      0 540 36         467 498 0 858 0 303 0 0 0
User Adj:         1.00 1.00 1.00    1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00    1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       0 540 36         467 498 0 858 0 303 0 0 0
Reduct Vol:       0 0 0            0 0 0            0 0 0            0 0 0
Reduced Vol:      0 540 36         467 498 0 858 0 303 0 0 0
PCE Adj:          1.00 1.00 1.00    1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00    1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:      0 540 36         467 498 0 858 0 303 0 0 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900    1900 1900 1900 1900 1900 1900
Adjustment:       1.00 0.95 0.85    0.92 1.00 1.00 0.59 1.00 0.85 1.00 1.00 1.00
Lanes:           0.00 2.00 1.00    2.00 1.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:       0 3610 1615      3502 1900 0 2234 0 1615 0 0 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.00 0.15 0.02    0.13 0.26 0.00 0.38 0.00 0.19 0.00 0.00 0.00
Crit Moves:       ****          ****          ****
Green/Cycle:      0.00 0.20 0.20    0.18 0.37 0.00 0.51 0.00 0.51 0.00 0.00 0.00
Volume/Cap:       0.00 0.76 0.11    0.76 0.70 0.00 0.76 0.00 0.37 0.00 0.00 0.00
Uniform Del:      0.0 37.9 32.9    39.2 26.6 0.0 19.8 0.0 15.0 0.0 0.0 0.0
IncrmntDel:       0.0 4.7 0.2       5.4 3.2 0.0 3.0 0.0 0.3 0.0 0.0 0.0
InitQueueDel:     0.0 0.0 0.0       0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:        0.00 1.00 1.00    1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
Delay/Veh:        0.0 42.6 33.1    44.6 29.8 0.0 22.8 0.0 15.3 0.0 0.0 0.0
User DelAdj:      1.00 1.00 1.00    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:       0.0 42.6 33.1    44.6 29.8 0.0 22.8 0.0 15.3 0.0 0.0 0.0
LOS by Move:      A D C          D C A C A B A A A
HCM2kAvgQ:        0 10 1          7 13 0 13 0 6 0 0 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/8th-Wilson	C	31.6 0.736	C	31.6 0.736	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	35.1 0.803	D	35.1 0.803	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	49.9 1.000	D	49.9 1.000	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	49.7 1.025	D	49.7 1.025	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	29.2 0.555	C	29.2 0.555	+ 0.000 D/V
# 6 Highland Home/Wilson	D	36.9 0.816	D	36.9 0.816	+ 0.000 D/V
# 7 Highland Home/Ramsey	C	28.8 0.622	C	28.8 0.622	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	29.9 0.376	C	29.9 0.376	+ 0.000 D/V
# 9 Sunset/Wilson	C	29.0 0.548	C	29.0 0.548	+ 0.000 D/V
# 10 Sunset/Ramsey	C	24.4 0.608	C	24.4 0.608	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	28.8 0.741	C	28.8 0.741	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	C	28.7 0.688	C	28.7 0.688	+ 0.000 D/V
# 13 Sunset/Lincoln	C	29.7 0.446	C	29.7 0.446	+ 0.000 D/V
# 14 Sunset/Westward	B	12.1 0.018	B	12.1 0.018	+ 0.000 D/V
# 15 Highland Home/I-10 WB ramps	B	17.6 0.461	B	17.6 0.461	+ 0.000 D/V
# 16 Highland Home/I-10 EB ramps	C	28.0 0.547	C	28.0 0.547	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.736
Loss Time (sec):   16          Average Delay (sec/veh):     31.6
Optimal Cycle:     74          Level Of Service:          C
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ovl           Include       Include       Ovl
Min. Green:       0   0   0       0   0   0       0   0   0       0   0   0
Y+R:             4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0
Lanes:            1   0   3   0   1     2   0   2   1   0     1   0   1   1   0     1   0   2   0   1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         57  561  243      241 1136  215      93  173  101  432  365  166
Growth Adj:       1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:      57  561  243      241 1136  215      93  173  101  432  365  166
User Adj:         1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:       57  561  243      241 1136  215      93  173  101  432  365  166
Reduct Vol:       0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:     57  561  243      241 1136  215      93  173  101  432  365  166
PCE Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:          1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:     57  561  243      241 1136  215      93  173  101  432  365  166
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900  1900      1900 1900  1900      1900 1900  1900  1900 1900  1900
Adjustment:       0.95 0.91  0.85      0.92 0.89  0.89      0.95 0.90  0.90  0.95 0.95  0.85
Lanes:            1.00 3.00  1.00      2.00 2.52  0.48      1.00 1.26  0.74  1.00 2.00  1.00
Final Sat.:      1805 5187  1615      3502 4257  806      1805 2154  1258  1805 3610  1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.11  0.15      0.07 0.27  0.27      0.05 0.08  0.08  0.24 0.10  0.10
Crit Moves:      ****              ****              ****
Green/Cycle:      0.04 0.25  0.57      0.16 0.36  0.36      0.15 0.11  0.11  0.33 0.29  0.45
Volume/Cap:       0.74 0.44  0.26      0.44 0.74  0.74      0.35 0.74  0.74  0.74 0.35  0.23
Uniform Del:      47.3 31.7  10.7      38.1 27.7  27.7      38.4 43.1  43.1  29.9 28.2  17.1
IncrcmntDel:      30.4 0.2  0.2       0.6 1.6  1.6       0.8 7.5  7.5  4.8 0.2  0.2
InitQueueDel:     0.0 0.0  0.0       0.0 0.0  0.0       0.0 0.0  0.0  0.0 0.0  0.0
Delay Adj:        1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:        77.7 32.0  10.9      38.6 29.3  29.3      39.2 50.6  50.6  34.8 28.4  17.3
User DelAdj:      1.00 1.00  1.00      1.00 1.00  1.00      1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:       77.7 32.0  10.9      38.6 29.3  29.3      39.2 50.6  50.6  34.8 28.4  17.3
LOS by Move:      E   C   B       D   C   C       D   D   D       D   C   C   B
HCM2kAvgQ:        2   5   4       4  14  14       3   6   6       6  12  4   3
*****
Note: Queue reported is the number of cars per lane.
*****

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 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.803
 Loss Time (sec): 16 Average Delay (sec/veh): 35.1
 Optimal Cycle: 87 Level Of Service: D

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 237 867 278 223 1356 109 106 227 310 269 139 131
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 237 867 278 223 1356 109 106 227 310 269 139 131
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 237 867 278 223 1356 109 106 227 310 269 139 131
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 237 867 278 223 1356 109 106 227 310 269 139 131
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 237 867 278 223 1356 109 106 227 310 269 139 131

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.83 0.83 0.95 0.91 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3157 1579 1805 5187 1615

 Capacity Analysis Module:
 Vol/Sat: 0.07 0.17 0.17 0.06 0.26 0.07 0.06 0.07 0.20 0.15 0.03 0.08
 Crit Moves: ****
 Green/Cycle: 0.08 0.30 0.48 0.11 0.33 0.33 0.18 0.24 0.24 0.19 0.25 0.25
 Volume/Cap: 0.80 0.56 0.36 0.56 0.80 0.21 0.33 0.29 0.80 0.80 0.11 0.33
 Uniform Del: 45.0 29.7 16.2 42.0 30.8 24.4 35.7 30.7 35.5 39.0 28.9 30.6
 IncremntDel: 14.6 0.5 0.3 1.9 2.9 0.2 0.6 0.1 7.0 13.1 0.0 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 59.6 30.2 16.5 43.9 33.7 24.6 36.2 30.8 42.5 52.0 29.0 31.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 59.6 30.2 16.5 43.9 33.7 24.6 36.2 30.8 42.5 52.0 29.0 31.1
 LOS by Move: E C B D C C D C D C C
 HCM2kAvgQ: 4 8 5 3 14 2 3 3 12 8 1 3

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.000
 Loss Time (sec): 12 Average Delay (sec/veh): 49.9
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

 Volume Module:
 Base Vol: 465 983 0 0 1357 577 0 0 0 446 0 349
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 465 983 0 0 1357 577 0 0 0 446 0 349
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 465 983 0 0 1357 577 0 0 0 446 0 349
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 465 983 0 0 1357 577 0 0 0 446 0 349
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 465 983 0 0 1357 577 0 0 0 446 0 349

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.26 0.27 0.00 0.00 0.38 0.36 0.00 0.00 0.00 0.25 0.00 0.22
 Crit Moves: ****
 Green/Cycle: 0.26 0.63 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.25 0.00 0.25
 Volume/Cap: 1.00 0.43 0.00 0.00 1.00 0.95 0.00 0.00 0.00 1.00 0.00 0.88
 Uniform Del: 37.1 9.2 0.0 0.0 31.2 30.3 0.0 0.0 0.0 37.7 0.0 36.2
 IncremntDel: 41.8 0.1 0.0 0.0 24.5 24.8 0.0 0.0 0.0 42.6 0.0 19.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 78.9 9.4 0.0 0.0 55.7 55.1 0.0 0.0 0.0 80.3 0.0 55.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 78.9 9.4 0.0 0.0 55.7 55.1 0.0 0.0 0.0 80.3 0.0 55.4
 LOS by Move: E A A A E E A A A F A E
 HCM2kAvgQ: 16 7 0 0 25 18 0 0 0 20 0 14

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.025
 Loss Time (sec): 12 Average Delay (sec/veh): 49.7
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1004 518 557 1246 0 494 0 400 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1004 518 557 1246 0 494 0 400 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1004 518 557 1246 0 494 0 400 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1004 518 557 1246 0 494 0 400 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1004 518 557 1246 0 494 0 400 0 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.28 0.32 0.31 0.35 0.00 0.27 0.00 0.25 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.31 0.31 0.30 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00
 Volume/Cap: 0.00 0.89 1.03 1.03 0.56 0.00 1.03 0.00 0.93 0.00 0.00 0.00
 Uniform Del: 0.0 32.7 34.4 35.0 11.4 0.0 36.7 0.0 35.8 0.0 0.0 0.0
 IncremntDel: 0.0 8.9 46.7 45.3 0.3 0.0 47.7 0.0 26.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 41.6 81.1 80.2 11.7 0.0 84.3 0.0 62.5 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 41.6 81.1 80.2 11.7 0.0 84.3 0.0 62.5 0.0 0.0 0.0
 LOS by Move: A D F F B A F A E A A A
 HCM2kAvgQ: 0 17 20 18 11 0 22 0 16 0 0 0 0

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.555
 Loss Time (sec): 16 Average Delay (sec/veh): 29.2
 Optimal Cycle: 53 Level Of Service: C

 Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 1 0 1 0 1 1 0

 Volume Module:
 Base Vol: 136 1044 76 134 734 57 91 87 43 84 232 185
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 136 1044 76 134 734 57 91 87 43 84 232 185
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 136 1044 76 134 734 57 91 87 43 84 232 185
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 136 1044 76 134 734 57 91 87 43 84 232 185
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 136 1044 76 134 734 57 91 87 43 84 232 185

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.90 0.90 0.95 0.90 0.90 0.95 0.90 0.90 0.95 0.89 0.89
 Lanes: 1.00 2.80 0.20 1.00 2.78 0.22 1.00 1.34 0.66 1.00 1.11 0.89
 Final Sat.: 1805 4787 348 1805 4760 370 1805 2295 1134 1805 1874 1494

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.22 0.22 0.07 0.15 0.15 0.05 0.04 0.04 0.05 0.12 0.12
 Crit Moves: ****
 Green/Cycle: 0.17 0.39 0.39 0.13 0.35 0.35 0.09 0.14 0.14 0.17 0.22 0.22
 Volume/Cap: 0.44 0.56 0.56 0.56 0.44 0.44 0.56 0.27 0.27 0.27 0.56 0.56
 Uniform Del: 37.0 23.6 23.6 40.5 24.7 24.7 43.5 38.4 38.4 35.9 34.5 34.5
 IncremntDel: 1.0 0.3 0.3 2.8 0.2 0.2 4.2 0.3 0.3 0.5 0.9 0.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 38.0 23.9 23.9 43.4 24.9 24.9 47.7 38.7 38.7 36.3 35.4 35.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 38.0 23.9 23.9 43.4 24.9 24.9 47.7 38.7 38.7 36.3 35.4 35.4
 LOS by Move: D C C D C C D D D D D D
 HCM2kAvgQ: 4 10 10 4 7 7 4 2 2 2 6 6

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.816
 Loss Time (sec): 16 Average Delay (sec/veh): 36.9
 Optimal Cycle: 90 Level Of Service: D

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 1 0 3 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 113 429 87 493 852 176 75 454 223 345 599 258
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 113 429 87 493 852 176 75 454 223 345 599 258
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 113 429 87 493 852 176 75 454 223 345 599 258
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 113 429 87 493 852 176 75 454 223 345 599 258
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 113 429 87 493 852 176 75 454 223 345 599 258

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 5187 1615 1805 5187 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.06 0.08 0.05 0.27 0.16 0.11 0.04 0.13 0.14 0.19 0.17 0.16
 Crit Moves: ****
 Green/Cycle: 0.12 0.10 0.10 0.33 0.32 0.32 0.08 0.17 0.17 0.23 0.32 0.66
 Volume/Cap: 0.52 0.82 0.53 0.82 0.52 0.34 0.51 0.74 0.82 0.82 0.51 0.24
 Uniform Del: 41.3 44.0 42.7 30.4 28.0 26.3 44.1 39.5 40.0 36.2 27.5 7.0
 IncremntDel: 2.2 9.6 3.3 8.4 0.3 0.4 3.1 4.9 17.0 11.6 0.4 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.5 53.6 46.0 38.9 28.3 26.7 47.2 44.4 57.1 47.9 27.9 7.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.5 53.6 46.0 38.9 28.3 26.7 47.2 44.4 57.1 47.9 27.9 7.1
 LOS by Move: D D D D C D D E D C A
 HCM2kAvgQ: 3 5 3 16 8 4 2 7 7 10 8 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
 Loss Time (sec): 16 Average Delay (sec/veh): 28.8
 Optimal Cycle: 59 Level Of Service: C

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 1 0

 Volume Module:
 Base Vol: 335 507 244 136 1326 192 85 275 210 145 261 88
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 335 507 244 136 1326 192 85 275 210 145 261 88
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 335 507 244 136 1326 192 85 275 210 145 261 88
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 335 507 244 136 1326 192 85 275 210 145 261 88
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 335 507 244 136 1326 192 85 275 210 145 261 88

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.85 0.85 0.92 0.88 0.88
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.24 0.76
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3233 1617 3502 3732 1258

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.10 0.15 0.04 0.26 0.12 0.05 0.09 0.13 0.04 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.15 0.45 0.45 0.12 0.41 0.41 0.11 0.21 0.21 0.07 0.16 0.16
 Volume/Cap: 0.62 0.22 0.34 0.34 0.62 0.29 0.43 0.41 0.62 0.62 0.43 0.43
 Uniform Del: 39.6 16.8 17.9 40.7 23.3 19.7 41.5 34.2 36.0 45.4 37.5 37.5
 IncremntDel: 2.3 0.0 0.3 0.5 0.6 0.2 1.5 0.2 1.6 5.1 0.4 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 41.9 16.9 18.1 41.2 23.9 19.9 42.9 34.4 37.5 50.6 37.9 37.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.9 16.9 18.1 41.2 23.9 19.9 42.9 34.4 37.5 50.6 37.9 37.9
 LOS by Move: D B B D C B D C D D D
 HCM2kAvgQ: 3 5 2 12 4 2 4 6 2 3 3 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.376
 Loss Time (sec): 16 Average Delay (sec/veh): 29.9
 Optimal Cycle: 41 Level Of Service: C

Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 1 0 1

Volume Module:
 Base Vol: 99 152 11 119 77 109 78 143 33 3 246 161
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 99 152 11 119 77 109 78 143 33 3 246 161
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 99 152 11 119 77 109 78 143 33 3 246 161
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 99 152 11 119 77 109 78 143 33 3 246 161
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 99 152 11 119 77 109 78 143 33 3 246 161

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.99 0.99 0.95 0.91 0.91 0.95 0.92 0.92 0.95 0.89 0.89
 Lanes: 1.00 0.93 0.07 1.00 0.41 0.59 1.00 1.62 0.38 1.00 1.21 0.79
 Final Sat.: 1805 1754 127 1805 717 1015 1805 2851 658 1805 2053 1344

Capacity Analysis Module:
 Vol/Sat: 0.05 0.09 0.09 0.07 0.11 0.11 0.04 0.05 0.05 0.00 0.12 0.12
 Crit Moves: ****

Green/Cycle: 0.14 0.23 0.23 0.18 0.27 0.27 0.12 0.42 0.42 0.01 0.32 0.32
 Volume/Cap: 0.40 0.38 0.38 0.38 0.40 0.40 0.38 0.12 0.12 0.12 0.38 0.38
 Uniform Del: 39.4 32.4 32.4 36.4 29.9 29.9 40.9 17.7 17.7 48.7 26.4 26.4
 IncremntDel: 1.1 0.5 0.5 0.8 0.6 0.6 1.1 0.0 0.0 2.1 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 40.4 33.0 33.0 37.1 30.5 30.5 42.1 17.7 17.7 50.8 26.6 26.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 40.4 33.0 33.0 37.1 30.5 30.5 42.1 17.7 17.7 50.8 26.6 26.6
 LOS by Move: D C C D C C D B B D C C
 HCM2kAvgQ: 3 4 4 4 5 5 2 2 2 0 5 5

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.548
 Loss Time (sec): 16 Average Delay (sec/veh): 29.0
 Optimal Cycle: 53 Level Of Service: C

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
 Base Vol: 139 258 44 137 778 230 212 652 271 51 315 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 139 258 44 137 778 230 212 652 271 51 315 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 139 258 44 137 778 230 212 652 271 51 315 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 139 258 44 137 778 230 212 652 271 51 315 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 139 258 44 137 778 230 212 652 271 51 315 67

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.04 0.07 0.03 0.08 0.22 0.14 0.12 0.18 0.17 0.03 0.09 0.04
 Crit Moves: ****

Green/Cycle: 0.07 0.23 0.23 0.24 0.39 0.61 0.21 0.32 0.40 0.05 0.16 0.16
 Volume/Cap: 0.55 0.32 0.12 0.32 0.55 0.23 0.55 0.56 0.42 0.56 0.55 0.26
 Uniform Del: 44.8 32.3 30.8 31.2 23.4 9.0 35.0 27.9 21.9 46.4 38.7 36.9
 IncremntDel: 2.5 0.2 0.1 0.4 0.5 0.1 1.7 0.6 0.5 7.5 1.1 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 47.3 32.5 30.9 31.7 23.9 9.1 36.6 28.6 22.4 53.9 39.8 37.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 47.3 32.5 30.9 31.7 23.9 9.1 36.6 28.6 22.4 53.9 39.8 37.4
 LOS by Move: D C C C C A D C C D D D
 HCM2kAvgQ: 2 3 1 4 10 3 6 8 6 2 5 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.608
 Loss Time (sec): 12 Average Delay (sec/veh): 24.4
 Optimal Cycle: 49 Level Of Service: C

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 2 0 3 0 1

Volume Module:
 Base Vol: 166 442 148 101 1209 115 47 227 129 98 191 28
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 166 442 148 101 1209 115 47 227 129 98 191 28
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 166 442 148 101 1209 115 47 227 129 98 191 28
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 166 442 148 101 1209 115 47 227 129 98 191 28
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 166 442 148 101 1209 115 47 227 129 98 191 28

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.91 0.85 0.92 0.91 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 3502 5187 1615 3502 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.09 0.12 0.09 0.06 0.33 0.07 0.01 0.04 0.08 0.03 0.04 0.02
 Crit Moves: ****
 Green/Cycle: 0.15 0.48 0.48 0.22 0.55 0.55 0.05 0.13 0.13 0.05 0.13 0.13
 Volume/Cap: 0.61 0.25 0.19 0.25 0.61 0.13 0.28 0.33 0.61 0.61 0.28 0.13
 Uniform Del: 39.7 15.3 14.8 32.2 15.1 10.8 46.0 39.4 41.0 46.8 39.3 38.5
 IncremntDel: 3.9 0.1 0.1 0.3 0.5 0.1 0.9 0.3 5.0 6.5 0.2 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.6 15.4 14.9 32.5 15.7 10.9 46.9 39.7 46.0 53.3 39.5 38.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.6 15.4 14.9 32.5 15.7 10.9 46.9 39.7 46.0 53.3 39.5 38.8
 LOS by Move: D B B C B B D D D D D D
 HCM2kAvgQ: 5 4 2 2 13 2 1 2 4 3 2 1

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741
 Loss Time (sec): 16 Average Delay (sec/veh): 28.8
 Optimal Cycle: 75 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1! 0 0

Volume Module:
 Base Vol: 498 574 0 0 0 666 771 0 0 0 79 7 182
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 498 574 0 0 0 666 771 0 0 0 79 7 182
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 498 574 0 0 666 0 0 0 0 0 79 7 182
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 498 574 0 0 666 0 0 0 0 0 79 7 182
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 498 574 0 0 666 0 0 0 0 0 79 7 182

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.29 0.03 0.68
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 488 43 1125

Capacity Analysis Module:
 Vol/Sat: 0.28 0.16 0.00 0.00 0.18 0.00 0.00 0.00 0.00 0.16 0.16 0.16
 Crit Moves: ****
 Green/Cycle: 0.37 0.62 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.22 0.22 0.22
 Volume/Cap: 0.74 0.26 0.00 0.00 0.74 0.00 0.00 0.00 0.00 0.74 0.74 0.74
 Uniform Del: 27.2 8.5 0.0 0.0 34.6 0.0 0.0 0.0 0.0 36.4 36.4 36.4
 IncremntDel: 4.4 0.1 0.0 0.0 3.3 0.0 0.0 0.0 0.0 7.9 7.9 7.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 31.6 8.6 0.0 0.0 37.9 0.0 0.0 0.0 0.0 44.4 44.4 44.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 31.6 8.6 0.0 0.0 37.9 0.0 0.0 0.0 0.0 44.4 44.4 44.4
 LOS by Move: C A A A D A A A A D D D
 HCM2kAvgQ: 13 4 0 0 10 0 0 0 0 9 9 9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.688
 Loss Time (sec): 16 Average Delay (sec/veh): 28.7
 Optimal Cycle: 67 Level Of Service: C

Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 731 169 306 439 0 341 2 318 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 731 169 306 439 0 341 2 318 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 731 169 306 439 0 341 2 318 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 731 169 306 439 0 341 2 318 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 731 169 306 439 0 341 2 318 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3074 18 1546 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.20 0.10 0.17 0.12 0.00 0.11 0.11 0.21 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.29 0.29 0.25 0.54 0.00 0.30 0.30 0.30 0.00 0.00 0.00
 Volume/Cap: 0.00 0.69 0.36 0.69 0.22 0.00 0.37 0.37 0.69 0.00 0.00 0.00
 Uniform Del: 0.0 31.2 27.8 34.2 12.0 0.0 27.6 27.6 30.9 0.0 0.0 0.0
 IncremntDel: 0.0 1.9 0.5 4.5 0.1 0.0 0.1 0.1 2.1 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 33.1 28.3 38.7 12.1 0.0 27.8 27.8 33.0 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 33.1 28.3 38.7 12.1 0.0 27.8 27.8 33.0 0.0 0.0 0.0
 LOS by Move: A C C D B A C C C A A A
 HCM2kAvgQ: 0 10 4 8 3 0 5 5 10 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.446
 Loss Time (sec): 16 Average Delay (sec/veh): 29.7
 Optimal Cycle: 45 Level Of Service: C

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 40 411 25 94 255 134 288 176 25 13 114 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 40 411 25 94 255 134 288 176 25 13 114 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 40 411 25 94 255 134 288 176 25 13 114 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 40 411 25 94 255 134 288 176 25 13 114 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 40 411 25 94 255 134 288 176 25 13 114 67

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.90 0.90 0.95 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.89 0.11 1.00 1.31 0.69 1.00 1.75 0.25 1.00 2.00 1.00
 Final Sat.: 1805 3372 205 1805 2243 1179 1805 3101 440 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.02 0.12 0.12 0.05 0.11 0.11 0.16 0.06 0.06 0.01 0.03 0.04
 Crit Moves: ****
 Green/Cycle: 0.06 0.27 0.27 0.12 0.33 0.33 0.36 0.40 0.40 0.05 0.09 0.09
 Volume/Cap: 0.35 0.45 0.45 0.45 0.35 0.35 0.45 0.14 0.14 0.14 0.34 0.45
 Uniform Del: 44.8 30.1 30.1 41.2 25.6 25.6 24.6 19.1 19.1 45.4 42.5 42.9
 IncremntDel: 1.8 0.3 0.3 1.5 0.2 0.2 0.5 0.0 0.0 0.7 0.6 2.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 46.7 30.4 30.4 42.7 25.8 25.8 25.1 19.2 19.2 46.1 43.1 45.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 46.7 30.4 30.4 42.7 25.8 25.8 25.1 19.2 19.2 46.1 43.1 45.0
 LOS by Move: D C C D C C C B B D D D
 HCM2kAvgQ: 2 6 6 3 5 5 7 2 2 1 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #14 Sunset/Westward

 Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[12.1]

 Street Name: Sunset Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
 Volume Module:
 Base Vol: 0 292 8 2 250 0 0 0 0 9 0 1
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 292 8 2 250 0 0 0 0 9 0 1
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 292 8 2 250 0 0 0 0 9 0 1
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 292 8 2 250 0 0 0 0 9 0 1
 Critical Gap Module:
 Critical Gap:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
 FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 300 xxxx xxxxx 551 554 250 550 550 296
 Potent Cap.: xxxx xxxx xxxxx 1273 xxxx xxxxx 449 443 794 500 446 748
 Move Cap.: xxxx xxxx xxxxx 1273 xxxx xxxxx 447 443 794 499 445 748
 Volume/Cap: xxxx xxxx xxxxx 0.00 xxxx xxxxx 0.00 0.00 0.00 0.02 0.00 0.00
 Level Of Service Module:
 2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx 516 xxxxx
 SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.1 xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 12.1 xxxxx
 Shared LOS: * * * A * * * * * * * B *
 ApproachDel: xxxxxx xxxxxx xxxxxx 12.1
 ApproachLOS: * * * *

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #15 Highland Home/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.461
 Loss Time (sec): 12 Average Delay (sec/veh): 17.6
 Optimal Cycle: 38 Level Of Service: B

 Street Name: Highland Home I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Protected Permitted Permitted
 Rights: Include Include Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 1
 Volume Module:
 Base Vol: 252 664 0 0 710 941 0 0 0 32 0 374
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 252 664 0 0 710 941 0 0 0 32 0 374
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 252 664 0 0 710 941 0 0 0 32 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 252 664 0 0 710 941 0 0 0 32 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MEF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 252 664 0 0 710 941 0 0 0 32 0 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.34 1.00 1.00 1.00 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 648 1900 0 0 1900 1615 0 0 0 1900 0 1900
 Capacity Analysis Module:
 Vol/Sat: 0.39 0.35 0.00 0.00 0.37 0.58 0.00 0.00 0.00 0.02 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.42 0.42 0.00 0.00 0.86 0.86 0.00 0.00 0.00 0.02 0.00 0.00
 Volume/Cap: 0.94 0.84 0.00 0.00 0.43 0.68 0.00 0.00 0.00 0.44 0.00 0.00
 Uniform Del: 27.9 26.2 0.0 0.0 1.6 2.3 0.0 0.0 0.0 48.5 0.0 0.0
 IncremntDel: 37.9 8.1 0.0 0.0 0.2 1.4 0.0 0.0 0.0 4.3 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 0.00
 Delay/Veh: 65.8 34.3 0.0 0.0 1.8 3.7 0.0 0.0 0.0 52.8 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 65.8 34.3 0.0 0.0 1.8 3.7 0.0 0.0 0.0 52.8 0.0 0.0
 LOS by Move: E C A A A A A A A D A A
 HCM2kAvgQ: 9 19 0 0 5 10 0 0 0 2 0 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #16 Highland Home/I-10 EB ramps
*****
Cycle (sec):      100          Critical Vol./Cap. (X):      0.547
Loss Time (sec):   12          Average Delay (sec/veh):      28.0
Optimal Cycle:     44          Level Of Service:           C
*****
Street Name:      Highland Home          I-10 EB ramps
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Permitted          Permitted
Rights:           Include           Include           Include           Include
Min. Green:       0 0 0          0 0 0          0 0 0          0 0 0
Y+R:             4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:           0 0 2 0 1          2 0 1 0 0          2 0 0 0 1          0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:         0 475 89          490 252 0          472 0 83          0 0 0
Growth Adj:       1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      0 475 89          490 252 0          472 0 83          0 0 0
User Adj:         1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:       0 475 89          490 252 0          472 0 83          0 0 0
Reduct Vol:       0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol:      0 475 89          490 252 0          472 0 83          0 0 0
PCE Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      0 475 89          490 252 0          472 0 83          0 0 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900      1900 1900 1900      1900 1900 1900      1900 1900 1900
Adjustment:       1.00 0.95 0.85        0.92 1.00 1.00        0.59 1.00 0.85        1.00 1.00 1.00
Lanes:           0.00 2.00 1.00        2.00 1.00 0.00        2.00 0.00 1.00        0.00 0.00 0.00
Final Sat.:       0 3610 1615          3502 1900 0          2245 0 1615          0 0 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.00 0.13 0.06        0.14 0.13 0.00        0.21 0.00 0.05        0.00 0.00 0.00
Crit Moves:       ****              ****              ****
Green/Cycle:      0.00 0.24 0.24        0.26 0.50 0.00        0.38 0.00 0.38        0.00 0.00 0.00
Volume/Cap:       0.00 0.55 0.23        0.55 0.27 0.00        0.55 0.00 0.13        0.00 0.00 0.00
Uniform Del:      0.0 33.2 30.5          32.2 14.6 0.0        24.0 0.0 20.0          0.0 0.0 0.0
IncrmntDel:       0.0 0.7 0.3          0.7 0.2 0.0        0.7 0.0 0.1          0.0 0.0 0.0
InitQueueDel:     0.0 0.0 0.0          0.0 0.0 0.0        0.0 0.0 0.0          0.0 0.0 0.0
Delay Adj:        0.00 1.00 1.00        1.00 1.00 0.00        1.00 0.00 1.00        0.00 0.00 0.00
Delay/Veh:        0.0 34.0 30.8          32.9 14.8 0.0        24.8 0.0 20.1          0.0 0.0 0.0
User DelAdj:      1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
AdjDel/Veh:       0.0 34.0 30.8          32.9 14.8 0.0        24.8 0.0 20.1          0.0 0.0 0.0
LOS by Move:      A C C          C B A          C A C          A A A
HCM2kAvgQ:        0 7 2          7 4 0          6 0 2          0 0 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	Del/ LOS	V/ Veh	C	Del/ LOS	V/ Veh	C	
# 1 Highland Springs/8th-Wilson	D	39.6	0.901	D	39.6	0.901	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	45.4	0.936	D	45.4	0.936	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	42.2	0.967	D	42.2	0.967	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	C	32.1	0.886	C	32.1	0.886	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	D	52.7	0.974	D	52.7	0.974	+ 0.000 D/V
# 6 Highland Home/Wilson	D	45.8	0.944	D	45.8	0.944	+ 0.000 D/V
# 7 Highland Home/Ramsey	D	40.9	0.877	D	40.9	0.877	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	D	42.5	0.947	D	42.5	0.947	+ 0.000 D/V
# 9 Sunset/Wilson	D	49.9	1.002	D	49.9	1.002	+ 0.000 D/V
# 10 Sunset/Ramsey	D	43.8	0.924	D	43.8	0.924	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	34.3	0.765	C	34.3	0.765	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	C	30.8	0.857	C	30.8	0.857	+ 0.000 D/V
# 13 Sunset/Lincoln	D	37.5	0.862	D	37.5	0.862	+ 0.000 D/V
# 14 Sunset/Westward	B	11.4	0.105	B	11.4	0.105	+ 0.000 D/V
# 15 Highland Home/I-10 WB ramps	A	6.1	0.759	A	6.1	0.759	+ 0.000 D/V
# 16 Highland Home/I-10 EB ramps	C	31.1	0.758	C	31.1	0.758	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.901
Loss Time (sec):   16          Average Delay (sec/veh):    39.6
Optimal Cycle:    117          Level Of Service:        D
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R            L - T - R            L - T - R            L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected            Protected            Protected            Protected
Rights:           Ovl                  Include             Include             Ovl
Min. Green:       0 0 0                0 0 0                0 0 0                0 0 0
Y+R:              4.0 4.0 4.0          4.0 4.0 4.0          4.0 4.0 4.0          4.0 4.0 4.0
Lanes:            1 0 3 0 1            2 0 2 1 0            1 0 1 1 0            1 0 2 0 1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         34 1149 461          390 824 185          185 807 49          333 709 400
Growth Adj:       1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Initial Bse:      34 1149 461          390 824 185          185 807 49          333 709 400
User Adj:         1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
PHF Volume:       34 1149 461          390 824 185          185 807 49          333 709 400
Reduct Vol:       0 0 0                0 0 0                0 0 0                0 0 0
Reduced Vol:      34 1149 461          390 824 185          185 807 49          333 709 400
PCE Adj:          1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
FinalVolume:      34 1149 461          390 824 185          185 807 49          333 709 400
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900        1900 1900 1900        1900 1900 1900        1900 1900 1900
Adjustment:       0.95 0.91 0.85          0.92 0.89 0.89          0.95 0.94 0.94          0.95 0.95 0.85
Lanes:            1.00 3.00 1.00          2.00 2.45 0.55          1.00 1.89 0.11          1.00 2.00 1.00
Final Sat.:       1805 5187 1615          3502 4122 925          1805 3373 205          1805 3610 1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.02 0.22 0.29          0.11 0.20 0.20          0.10 0.24 0.24          0.18 0.20 0.25
Crit Moves:       ****                  ****                  ****                  ****
Green/Cycle:      0.03 0.25 0.45          0.12 0.34 0.34          0.16 0.27 0.27          0.20 0.31 0.43
Volume/Cap:       0.59 0.90 0.63          0.90 0.59 0.59          0.64 0.90 0.90          0.90 0.64 0.57
Uniform Del:      47.8 36.5 21.1          43.2 27.4 27.4          39.2 35.4 35.4          38.8 29.7 21.4
IncremntDel:      15.4 9.0 1.8            21.4 0.6 0.6          4.6 11.5 11.5          24.1 1.2 1.2
InitQueueDel:     0.0 0.0 0.0            0.0 0.0 0.0          0.0 0.0 0.0          0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00          1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
Delay/Veh:        63.2 45.5 22.9          64.7 28.0 28.0          43.8 46.9 46.9          62.9 30.9 22.5
User DelAdj:      1.00 1.00 1.00          1.00 1.00 1.00        1.00 1.00 1.00        1.00 1.00 1.00
AdjDel/Veh:       63.2 45.5 22.9          64.7 28.0 28.0          43.8 46.9 46.9          62.9 30.9 22.5
LOS by Move:      E D C                  E C C                  D D D                  E C C
HCM2kAvgQ:        1 12 10                9 10 10              6 17 17              10 9 9
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.936
 Loss Time (sec): 16 Average Delay (sec/veh): 45.4
 Optimal Cycle: 133 Level Of Service: D

Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
 Base Vol: 447 1311 344 380 963 151 211 742 313 383 837 271
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 447 1311 344 380 963 151 211 742 313 383 837 271
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 447 1311 344 380 963 151 211 742 313 383 837 271
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 447 1311 344 380 963 151 211 742 313 383 837 271
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 447 1311 344 380 963 151 211 742 313 383 837 271

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.87 0.87 0.95 0.91 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.11 0.89 1.00 3.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3484 1470 1805 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.13 0.25 0.21 0.11 0.19 0.09 0.12 0.21 0.21 0.21 0.16 0.17
 Crit Moves: ****
 Green/Cycle: 0.16 0.27 0.50 0.12 0.23 0.23 0.19 0.23 0.23 0.23 0.27 0.27
 Volume/Cap: 0.81 0.94 0.43 0.94 0.81 0.41 0.63 0.94 0.94 0.94 0.60 0.63
 Uniform Del: 40.7 35.7 16.1 43.8 36.5 32.8 37.5 37.9 37.9 38.0 32.0 32.2
 IncremntDel: 8.9 12.0 0.4 29.1 4.4 0.7 3.7 14.1 14.1 28.9 0.8 2.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 49.6 47.6 16.5 72.9 40.9 33.6 41.2 52.0 52.0 66.9 32.7 35.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 49.6 47.6 16.5 72.9 40.9 33.6 41.2 52.0 52.0 66.9 32.7 35.1
 LOS by Move: D D B E D C D D D E C D
 HCM2kAvgQ: 7 15 6 7 11 4 7 16 16 12 8 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.967
 Loss Time (sec): 12 Average Delay (sec/veh): 42.2
 Optimal Cycle: 153 Level Of Service: D

Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 1 0 0 1

Volume Module:
 Base Vol: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 288 1410 0 0 0 1185 475 0 0 0 510 0 587
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 288 1410 0 0 0 1185 475 0 0 0 510 0 587

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 0.85 1.00 1.00 1.00 0.95 1.00 0.85
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 1805 3610 0 0 3610 1615 0 0 0 1809 0 1615

Capacity Analysis Module:
 Vol/Sat: 0.16 0.39 0.00 0.00 0.33 0.29 0.00 0.00 0.00 0.28 0.00 0.36
 Crit Moves: ****
 Green/Cycle: 0.16 0.50 0.00 0.00 0.34 0.34 0.00 0.00 0.00 0.38 0.00 0.38
 Volume/Cap: 0.97 0.77 0.00 0.00 0.97 0.87 0.00 0.00 0.00 0.75 0.00 0.97
 Uniform Del: 41.5 20.2 0.0 0.0 32.5 30.9 0.0 0.0 0.0 27.1 0.0 30.6
 IncremntDel: 43.1 2.1 0.0 0.0 18.4 13.7 0.0 0.0 0.0 4.7 0.0 28.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 84.6 22.3 0.0 0.0 50.8 44.6 0.0 0.0 0.0 31.8 0.0 59.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 84.6 22.3 0.0 0.0 50.8 44.6 0.0 0.0 0.0 31.8 0.0 59.0
 LOS by Move: F C A A D D A A A C A E
 HCM2kAvgQ: 10 18 0 0 21 14 0 0 0 15 0 23

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.886
 Loss Time (sec): 12 Average Delay (sec/veh): 32.1
 Optimal Cycle: 104 Level Of Service: C

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 1 0 0 0 0 0

Volume Module:
 Base Vol: 0 1369 544 291 1403 0 433 0 384 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1369 544 291 1403 0 433 0 384 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1369 544 291 1403 0 433 0 384 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1369 544 291 1403 0 433 0 384 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1369 544 291 1403 0 433 0 384 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.95 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 1809 0 1615 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.34 0.16 0.39 0.00 0.24 0.00 0.24 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.43 0.43 0.18 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00
 Volume/Cap: 0.00 0.89 0.79 0.89 0.64 0.00 0.89 0.00 0.88 0.00 0.00 0.00
 Uniform Del: 0.0 26.4 24.7 39.9 12.4 0.0 35.0 0.0 34.9 0.0 0.0 0.0
 IncremntDel: 0.0 6.6 6.0 23.8 0.6 0.0 17.5 0.0 18.3 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 32.9 30.7 63.7 13.1 0.0 52.5 0.0 53.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 32.9 30.7 63.7 13.1 0.0 52.5 0.0 53.2 0.0 0.0 0.0
 LOS by Move: A C C E B A D A D A A A
 HCM2kAvgQ: 0 19 13 8 13 0 16 0 15 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.974
 Loss Time (sec): 16 Average Delay (sec/veh): 52.7
 Optimal Cycle: 156 Level Of Service: D

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
 Base Vol: 160 868 252 202 1023 68 128 974 237 248 1089 226
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 160 868 252 202 1023 68 128 974 237 248 1089 226
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 160 868 252 202 1023 68 128 974 237 248 1089 226
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 160 868 252 202 1023 68 128 974 237 248 1089 226
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 160 868 252 202 1023 68 128 974 237 248 1089 226

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.88 0.88 0.95 0.90 0.90 0.95 0.92 0.92 0.95 0.93 0.93
 Lanes: 1.00 2.33 0.67 1.00 2.81 0.19 1.00 1.61 0.39 1.00 1.66 0.34
 Final Sat.: 1805 3883 1127 1805 4820 320 1805 2819 686 1805 2912 604

Capacity Analysis Module:
 Vol/Sat: 0.09 0.22 0.22 0.11 0.21 0.21 0.07 0.35 0.35 0.14 0.37 0.37
 Crit Moves: ****
 Green/Cycle: 0.10 0.23 0.23 0.11 0.24 0.24 0.08 0.35 0.35 0.14 0.42 0.42
 Volume/Cap: 0.87 0.97 0.97 0.97 0.87 0.87 0.90 0.97 0.97 0.97 0.90 0.90
 Uniform Del: 44.3 38.2 38.2 44.1 36.4 36.4 45.6 31.8 31.8 42.8 27.2 27.2
 IncremntDel: 34.0 20.5 20.5 54.9 7.1 7.1 46.2 19.5 19.5 49.0 7.7 7.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 78.3 58.7 58.7 99.0 43.5 43.5 91.8 51.4 51.4 91.8 34.9 34.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 78.3 58.7 58.7 99.0 43.5 43.5 91.8 51.4 51.4 91.8 34.9 34.9
 LOS by Move: E E E F D D F D D F C C
 HCM2kAvgQ: 8 18 18 8 13 13 7 25 25 8 19 19

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.944
 Loss Time (sec): 16 Average Delay (sec/veh): 45.8
 Optimal Cycle: 137 Level Of Service: D

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 1 0 3 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 361 915 254 384 798 165 114 1196 241 131 1022 683
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 361 915 254 384 798 165 114 1196 241 131 1022 683
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 361 915 254 384 798 165 114 1196 241 131 1022 683
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 361 915 254 384 798 165 114 1196 241 131 1022 683
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 361 915 254 384 798 165 114 1196 241 131 1022 683

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 5187 1615 1805 5187 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.20 0.18 0.16 0.21 0.15 0.10 0.06 0.33 0.15 0.07 0.28 0.42
 Crit Moves: **** *
 Green/Cycle: 0.23 0.19 0.19 0.23 0.18 0.18 0.08 0.35 0.35 0.08 0.35 0.58
 Volume/Cap: 0.86 0.94 0.84 0.94 0.86 0.57 0.81 0.94 0.43 0.94 0.81 0.74
 Uniform Del: 36.8 40.1 39.2 38.1 39.8 37.5 45.4 31.5 24.8 45.9 29.5 15.6
 IncremntDel: 16.0 17.0 18.7 30.7 8.1 2.7 28.3 14.0 0.5 59.4 4.0 3.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 52.8 57.2 58.0 68.8 47.9 40.2 73.7 45.5 25.3 105.3 33.5 18.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 52.8 57.2 58.0 68.8 47.9 40.2 73.7 45.5 25.3 105.3 33.5 18.7
 LOS by Move: D E E E D D E D C F C B
 HCM2kAvgQ: 10 11 7 16 12 5 3 19 5 4 14 14

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.877
 Loss Time (sec): 16 Average Delay (sec/veh): 40.9
 Optimal Cycle: 108 Level Of Service: D

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 1 0

 Volume Module:
 Base Vol: 346 1221 286 340 725 130 242 779 459 430 909 267
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 346 1221 286 340 725 130 242 779 459 430 909 267
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 346 1221 286 340 725 130 242 779 459 430 909 267
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 346 1221 286 340 725 130 242 779 459 430 909 267
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 346 1221 286 340 725 130 242 779 459 430 909 267

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.86 0.86 0.92 0.88 0.88
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.32 0.68
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3264 1632 3502 3873 1138

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.24 0.18 0.10 0.14 0.08 0.13 0.24 0.28 0.12 0.23 0.23
 Crit Moves: **** *
 Green/Cycle: 0.16 0.27 0.27 0.11 0.22 0.22 0.17 0.32 0.32 0.14 0.29 0.29
 Volume/Cap: 0.63 0.88 0.66 0.88 0.63 0.36 0.80 0.74 0.88 0.88 0.80 0.80
 Uniform Del: 39.4 35.0 32.5 43.8 35.2 32.9 40.0 30.3 32.1 42.2 32.6 32.6
 IncremntDel: 2.3 6.6 3.7 19.6 1.1 0.6 14.0 1.9 6.5 16.2 3.2 3.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 41.8 41.6 36.2 63.4 36.3 33.5 54.1 32.2 38.6 58.4 35.9 35.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.8 41.6 36.2 63.4 36.3 33.5 54.1 32.2 38.6 58.4 35.9 35.9
 LOS by Move: D D D E D C D C D E D D
 HCM2kAvgQ: 5 14 8 5 7 3 7 11 14 7 13 13

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.947
 Loss Time (sec): 16 Average Delay (sec/veh): 42.5
 Optimal Cycle: 139 Level Of Service: D

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 1 0

 Volume Module:
 Base Vol: 117 160 12 270 238 159 175 1087 155 17 1258 197
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 117 160 12 270 238 159 175 1087 155 17 1258 197
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 117 160 12 270 238 159 175 1087 155 17 1258 197
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 117 160 12 270 238 159 175 1087 155 17 1258 197
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 117 160 12 270 238 159 175 1087 155 17 1258 197

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.99 0.99 0.95 0.94 0.94 0.95 0.93 0.93 0.95 0.93 0.93
 Lanes: 1.00 0.93 0.07 1.00 0.60 0.40 1.00 1.75 0.25 1.00 1.73 0.27
 Final Sat.: 1805 1750 131 1805 1071 715 1805 3099 442 1805 3059 479

 Capacity Analysis Module:
 Vol/Sat: 0.06 0.09 0.09 0.15 0.22 0.22 0.10 0.35 0.35 0.01 0.41 0.41
 Crit Moves: ****
 Green/Cycle: 0.07 0.12 0.12 0.19 0.23 0.23 0.10 0.52 0.52 0.01 0.43 0.43
 Volume/Cap: 0.95 0.79 0.79 0.79 0.95 0.95 0.95 0.67 0.67 0.67 0.95 0.95
 Uniform Del: 46.4 43.1 43.1 38.7 37.6 37.6 44.6 17.5 17.5 49.1 27.2 27.2
 IncremntDel: 64.3 18.1 18.1 12.2 30.7 30.7 50.8 1.0 1.0 52.7 12.5 12.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 110.7 61.2 61.2 50.9 68.3 68.3 95.4 18.5 18.5 101.8 39.7 39.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 110.7 61.2 61.2 50.9 68.3 68.3 95.4 18.5 18.5 101.8 39.7 39.7
 LOS by Move: F E E D E E F B B F D D
 HCM2kAvgQ: 7 7 7 10 17 17 5 14 14 1 28 28

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.002
 Loss Time (sec): 16 Average Delay (sec/veh): 49.9
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 381 864 151 158 415 328 357 916 202 62 1145 132
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 381 864 151 158 415 328 357 916 202 62 1145 132
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 381 864 151 158 415 328 357 916 202 62 1145 132
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 381 864 151 158 415 328 357 916 202 62 1145 132
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 381 864 151 158 415 328 357 916 202 62 1145 132

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.11 0.24 0.09 0.09 0.11 0.20 0.20 0.25 0.13 0.03 0.32 0.08
 Crit Moves: ****
 Green/Cycle: 0.16 0.24 0.24 0.09 0.17 0.36 0.20 0.45 0.61 0.06 0.32 0.32
 Volume/Cap: 0.69 1.00 0.39 1.00 0.69 0.56 1.00 0.56 0.20 0.56 1.00 0.26
 Uniform Del: 39.7 38.1 32.0 45.6 39.1 25.3 40.1 20.1 8.6 45.6 34.2 25.4
 IncremntDel: 3.6 31.2 0.7 72.2 3.3 1.2 48.2 0.4 0.1 6.4 27.1 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.3 69.2 32.6 117.9 42.4 26.5 88.4 20.5 8.7 52.0 61.3 25.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.3 69.2 32.6 117.9 42.4 26.5 88.4 20.5 8.7 52.0 61.3 25.7
 LOS by Move: D E C F D C F C A D E C
 HCM2kAvgQ: 6 16 4 9 8 8 12 10 3 3 26 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
 Loss Time (sec): 12 Average Delay (sec/veh): 43.8
 Optimal Cycle: 122 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 2 0 3 0 1

Volume Module:
 Base Vol: 410 1212 234 108 843 279 284 855 183 658 656 95
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 410 1212 234 108 843 279 284 855 183 658 656 95
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 410 1212 234 108 843 279 284 855 183 658 656 95
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 410 1212 234 108 843 279 284 855 183 658 656 95
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 410 1212 234 108 843 279 284 855 183 658 656 95

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.91 0.85 0.92 0.91 0.85
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1615 3502 5187 1615 3502 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.23 0.34 0.14 0.06 0.23 0.17 0.08 0.16 0.11 0.19 0.13 0.06
 Crit Moves: ****
 Green/Cycle: 0.25 0.42 0.42 0.08 0.25 0.25 0.15 0.18 0.18 0.20 0.23 0.23
 Volume/Cap: 0.92 0.79 0.34 0.79 0.92 0.68 0.54 0.92 0.64 0.92 0.54 0.25
 Uniform Del: 36.8 25.1 19.5 45.5 36.4 33.8 39.4 40.4 38.1 39.1 33.7 31.3
 IncremntDel: 25.1 3.0 0.3 26.6 14.8 4.7 1.2 14.6 4.6 17.8 0.5 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 61.9 28.0 19.8 72.0 51.2 38.5 40.6 55.0 42.7 56.9 34.2 31.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 61.9 28.0 19.8 72.0 51.2 38.5 40.6 55.0 42.7 56.9 34.2 31.6
 LOS by Move: E C B E D D D E D E C C
 HCM2kAvgQ: 13 17 5 3 15 8 4 10 5 14 7 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.765
 Loss Time (sec): 16 Average Delay (sec/veh): 34.3
 Optimal Cycle: 173 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Permitted Permitted
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1! 0 0

Volume Module:
 Base Vol: 475 1667 0 0 696 989 0 0 0 96 15 190
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 475 1667 0 0 696 989 0 0 0 96 15 190
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 475 1667 0 0 696 0 0 0 0 96 15 190
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 475 1667 0 0 696 0 0 0 0 96 15 190
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 475 1667 0 0 696 0 0 0 0 96 15 190

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.88 0.88 0.88
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.32 0.05 0.63
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 531 83 1050

Capacity Analysis Module:
 Vol/Sat: 0.26 0.46 0.00 0.00 0.19 0.00 0.00 0.00 0.00 0.18 0.18 0.18
 Crit Moves: ****
 Green/Cycle: 0.46 0.66 0.00 0.00 0.19 0.00 0.00 0.00 0.00 0.18 0.18 0.18
 Volume/Cap: 0.57 0.70 0.00 0.00 0.99 0.00 0.00 0.00 0.00 0.99 0.99 0.99
 Uniform Del: 19.5 10.9 0.0 0.0 40.3 0.0 0.0 0.0 0.0 40.9 40.9 40.9
 IncremntDel: 0.9 1.0 0.0 0.0 32.7 0.0 0.0 0.0 0.0 50.2 50.2 50.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 20.4 11.8 0.0 0.0 72.9 0.0 0.0 0.0 0.0 91.0 91.0 91.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 20.4 11.8 0.0 0.0 72.9 0.0 0.0 0.0 0.0 91.0 91.0 91.0
 LOS by Move: C B A A E A A A A F F F
 HCM2kAvgQ: 10 16 0 0 12 0 0 0 0 14 14 14

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.857
 Loss Time (sec): 16 Average Delay (sec/veh): 30.8
 Optimal Cycle: 101 Level Of Service: C

Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1247 64 113 697 0 895 4 482 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1247 64 113 697 0 895 4 482 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1247 64 113 697 0 895 4 482 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1247 64 113 697 0 895 4 482 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1247 64 113 697 0 895 4 482 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3077 14 1545 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.35 0.04 0.06 0.19 0.00 0.29 0.29 0.31 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.40 0.40 0.07 0.48 0.00 0.36 0.36 0.36 0.00 0.00 0.00
 Volume/Cap: 0.00 0.86 0.10 0.86 0.41 0.00 0.80 0.80 0.86 0.00 0.00 0.00
 Uniform Del: 0.0 27.2 18.6 45.8 17.0 0.0 28.5 28.5 29.4 0.0 0.0 0.0
 IncremntDel: 0.0 5.3 0.1 39.2 0.2 0.0 2.7 2.7 4.8 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 32.5 18.6 85.1 17.2 0.0 31.3 31.3 34.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 32.5 18.6 85.1 17.2 0.0 31.3 31.3 34.2 0.0 0.0 0.0
 LOS by Move: A C B F B A C C C A A A
 HCM2kAvgQ: 0 19 1 3 7 0 15 15 17 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.862
 Loss Time (sec): 16 Average Delay (sec/veh): 37.5
 Optimal Cycle: 103 Level Of Service: D

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 96 302 32 156 399 388 256 898 58 27 1061 445
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 96 302 32 156 399 388 256 898 58 27 1061 445
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 96 302 32 156 399 388 256 898 58 27 1061 445
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 96 302 32 156 399 388 256 898 58 27 1061 445
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 96 302 32 156 399 388 256 898 58 27 1061 445

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.88 0.88 0.95 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.81 0.19 1.00 1.01 0.99 1.00 1.88 0.12 1.00 2.00 1.00
 Final Sat.: 1805 3218 341 1805 1695 1648 1805 3360 217 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.05 0.09 0.09 0.09 0.24 0.24 0.14 0.27 0.27 0.01 0.29 0.28
 Crit Moves: ****

Green/Cycle: 0.06 0.17 0.17 0.16 0.27 0.27 0.16 0.48 0.48 0.03 0.34 0.34
 Volume/Cap: 0.86 0.54 0.54 0.54 0.86 0.86 0.86 0.56 0.56 0.56 0.86 0.81
 Uniform Del: 46.5 37.6 37.6 38.6 34.6 34.6 40.7 18.6 18.6 48.1 30.8 30.0
 IncremntDel: 45.5 1.0 1.0 2.0 8.5 8.5 21.9 0.4 0.4 13.8 6.5 8.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 92.0 38.6 38.6 40.6 43.0 43.0 62.6 19.0 19.0 61.9 37.2 38.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 92.0 38.6 38.6 40.6 43.0 43.0 62.6 19.0 19.0 61.9 37.2 38.7
 LOS by Move: F D D D D E B B E D D
 HCM2kAvgQ: 5 6 6 4 13 13 11 11 11 2 19 15

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #14 Sunset/Westward

 Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[11.4]

 Street Name: Sunset Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0

 Volume Module:
 Base Vol: 0 263 13 18 286 0 0 0 0 25 0 81
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 263 13 18 286 0 0 0 0 25 0 81
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 263 13 18 286 0 0 0 0 25 0 81
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 0 263 13 18 286 0 0 0 0 25 0 81

 Critical Gap Module:
 Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
 FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

 Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 276 xxxx xxxxx 632 598 286 592 592 270
 Potent Cap.: xxxx xxxx xxxxx 1299 xxxx xxxxx 396 418 758 473 422 774
 Move Cap.: xxxx xxxx xxxxx 1299 xxxx xxxxx 351 413 758 468 416 774
 Volume/Cap: xxxx xxxx xxxx 0.01 xxxx xxxx 0.00 0.00 0.00 0.05 0.00 0.10

 Level Of Service Module:
 2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx 670 xxxxx
 SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.6 xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.4 xxxxx
 Shared LOS: * * * A * * * * * * * B *
 ApproachDel: xxxxxx xxxxxx xxxxxx 11.4
 ApproachLOS: * * * * * B

 Note: Queue reported is the number of cars per lane.

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #15 Highland Home/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.759
 Loss Time (sec): 12 Average Delay (sec/veh): 6.1
 Optimal Cycle: 69 Level Of Service: A

 Street Name: Highland Home I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Protected Permitted Permitted
 Rights: Include Include Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 1

 Volume Module:
 Base Vol: 144 1185 0 0 901 688 0 0 0 64 0 562
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 144 1185 0 0 901 688 0 0 0 64 0 562
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 144 1185 0 0 901 688 0 0 0 64 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 144 1185 0 0 901 688 0 0 0 64 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MEF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 144 1185 0 0 901 688 0 0 0 64 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.27 1.00 1.00 1.00 1.00 0.85 1.00 1.00 1.00 0.77 1.00 1.00
 Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 519 1900 0 0 1900 1615 0 0 0 1461 0 1900

 Capacity Analysis Module:
 Vol/Sat: 0.28 0.62 0.00 0.00 0.47 0.43 0.00 0.00 0.00 0.04 0.00 0.00
 Crit Moves: **** *
 Green/Cycle: 0.82 0.82 0.00 0.00 0.82 0.82 0.00 0.00 0.00 0.06 0.00 0.00
 Volume/Cap: 0.34 0.76 0.00 0.00 0.58 0.52 0.00 0.00 0.00 0.76 0.00 0.00
 Uniform Del: 2.2 4.2 0.0 0.0 3.0 2.8 0.0 0.0 0.0 46.4 0.0 0.0
 IncremntDel: 0.5 2.2 0.0 0.0 0.5 0.4 0.0 0.0 0.0 32.3 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.00 0.00
 Delay/Veh: 2.7 6.4 0.0 0.0 3.5 3.1 0.0 0.0 0.0 78.7 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 2.7 6.4 0.0 0.0 3.5 3.1 0.0 0.0 0.0 78.7 0.0 0.0
 LOS by Move: A A A A A A A A A E A A
 HCM2kAvgQ: 1 17 0 0 9 7 0 0 0 4 0 0

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #16 Highland Home/I-10 EB ramps
*****
Cycle (sec):      100          Critical Vol./Cap. (X):      0.758
Loss Time (sec):   12          Average Delay (sec/veh):     31.1
Optimal Cycle:     68          Level Of Service:          C
*****
Street Name:      Highland Home          I-10 EB ramps
Approach:         North Bound          South Bound          East Bound          West Bound
Movement:         L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:          Protected          Protected          Permitted          Permitted
Rights:           Include           Include           Include           Include
Min. Green:       0 0 0          0 0 0          0 0 0          0 0 0
Y+R:             4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:           0 0 2 0 1          2 0 1 0 0          2 0 0 0 1          0 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:         0 540 36          467 498          0 858 0 303          0 0 0
Growth Adj:       1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      0 540 36          467 498          0 858 0 303          0 0 0
User Adj:         1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:       0 540 36          467 498          0 858 0 303          0 0 0
Reduct Vol:       0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol:      0 540 36          467 498          0 858 0 303          0 0 0
PCE Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
FinalVolume:      0 540 36          467 498          0 858 0 303          0 0 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900      1900 1900 1900      1900 1900 1900      1900 1900 1900
Adjustment:       1.00 0.95 0.85      0.92 1.00 1.00      0.59 1.00 0.85      1.00 1.00 1.00
Lanes:           0.00 2.00 1.00      2.00 1.00 0.00      2.00 0.00 1.00      0.00 0.00 0.00
Final Sat.:      0 3610 1615          3502 1900          0 2234 0 1615          0 0 0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.00 0.15 0.02      0.13 0.26 0.00      0.38 0.00 0.19      0.00 0.00 0.00
Crit Moves:       ****              ****              ****
Green/Cycle:      0.00 0.20 0.20      0.18 0.37 0.00      0.51 0.00 0.51      0.00 0.00 0.00
Volume/Cap:       0.00 0.76 0.11      0.76 0.70 0.00      0.76 0.00 0.37      0.00 0.00 0.00
Uniform Del:      0.0 37.9 32.9      39.2 26.6 0.0      19.8 0.0 15.0      0.0 0.0 0.0
IncrmntDel:       0.0 4.7 0.2          5.4 3.2 0.0      3.0 0.0 0.3      0.0 0.0 0.0
InitQueueDel:     0.0 0.0 0.0          0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0
Delay Adj:        0.00 1.00 1.00      1.00 1.00 0.00      1.00 0.00 1.00      0.00 0.00 0.00
Delay/Veh:        0.0 42.6 33.1      44.6 29.8 0.0      22.8 0.0 15.3      0.0 0.0 0.0
User DelAdj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
AdjDel/Veh:       0.0 42.6 33.1      44.6 29.8 0.0      22.8 0.0 15.3      0.0 0.0 0.0
LOS by Move:      A D C          D C A          C A B          A A A
HCM2kAvgQ:        0 10 1          7 13 0          0 13 0          6 0 0
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 Highland Springs/8th-Wilson	C	30.2	0.742	C	30.2	0.742	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	C	34.2	0.850	C	34.2	0.850	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	47.7	1.010	D	47.7	1.010	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	52.6	1.019	D	52.6	1.019	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	27.3	0.421	C	27.3	0.421	+ 0.000 D/V
# 6 Highland Home/Wilson	C	31.8	0.671	C	31.8	0.671	+ 0.000 D/V
# 7 Highland Home/Ramsey	C	24.3	0.514	C	24.3	0.514	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	31.6	0.465	C	31.6	0.465	+ 0.000 D/V
# 9 Sunset/Wilson	C	28.4	0.548	C	28.4	0.548	+ 0.000 D/V
# 10 Sunset/Ramsey	D	35.4	0.839	D	35.4	0.839	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	D	50.4	0.975	D	50.4	0.975	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	40.5	0.929	D	40.5	0.929	+ 0.000 D/V
# 13 Sunset/Lincoln	C	27.7	0.412	C	27.7	0.412	+ 0.000 D/V
# 14 Sunset/Westward	B	11.8	0.015	B	11.8	0.015	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.742
Loss Time (sec):   16          Average Delay (sec/veh):     30.2
Optimal Cycle:     75          Level Of Service:         C
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ovl           Include       Include       Ovl
Min. Green:       0   0   0       0   0   0       0   0   0       0   0   0
Y+R:              4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0     4.0 4.0 4.0
Lanes:            1   0   3   0   1     2   0   2   0   1     1   0   1   1   0     2   0   2   0   1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         57   675   250     204 1138   154     65   162   101     698 290   139
Growth Adj:       1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Initial Bse:      57   675   250     204 1138   154     65   162   101     698 290   139
User Adj:         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Volume:       57   675   250     204 1138   154     65   162   101     698 290   139
Reduct Vol:       0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:      57   675   250     204 1138   154     65   162   101     698 290   139
PCE Adj:          1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
FinalVolume:      57   675   250     204 1138   154     65   162   101     698 290   139
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900     1900 1900 1900     1900 1900 1900     1900 1900 1900
Adjustment:       0.95 0.91 0.85     0.92 0.95 0.85     0.95 0.89 0.89     0.92 0.95 0.85
Lanes:            1.00 3.00 1.00     2.00 2.00 1.00     1.00 1.23 0.77     2.00 2.00 1.00
Final Sat.:      1805 5187 1615     3502 3610 1615     1805 2095 1306     3502 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.13 0.15     0.06 0.32 0.10     0.04 0.08 0.08     0.20 0.08 0.09
Crit Moves:       ****              ****              ****
Green/Cycle:      0.04 0.32 0.59     0.14 0.42 0.42     0.12 0.10 0.10     0.27 0.26 0.40
Volume/Cap:       0.74 0.40 0.26     0.40 0.74 0.22     0.31 0.74 0.74     0.74 0.31 0.21
Uniform Del:      47.3 26.4 9.9      38.9 24.2 18.3     40.6 43.5 43.5     33.4 30.0 19.6
IncrmntDel:       31.7 0.2 0.1       0.5 2.0 0.2       0.9 8.2 8.2       3.2 0.2 0.2
InitQueueDel:     0.0 0.0 0.0       0.0 0.0 0.0       0.0 0.0 0.0       0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Delay/Veh:        79.1 26.5 10.0     39.4 26.2 18.5     41.5 51.7 51.7     36.6 30.2 19.7
User DelAdj:      1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
AdjDel/Veh:       79.1 26.5 10.0     39.4 26.2 18.5     41.5 51.7 51.7     36.6 30.2 19.7
LOS by Move:      E   C   B         D   C   B         D   D   D         D   C   B
HCM2kAvgQ:        2   6   4         3   17  3         2   6   6         10  4   3
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.850
 Loss Time (sec): 16 Average Delay (sec/veh): 34.2
 Optimal Cycle: 99 Level Of Service: C

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1

 Volume Module:
 Base Vol: 275 1097 390 203 1715 78 90 221 306 390 144 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 275 1097 390 203 1715 78 90 221 306 390 144 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 275 1097 390 203 1715 78 90 221 306 390 144 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 275 1097 390 203 1715 78 90 221 306 390 144 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 275 1097 390 203 1715 78 90 221 306 390 144 103

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.83 0.83 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3157 1579 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.21 0.24 0.06 0.33 0.05 0.05 0.07 0.19 0.11 0.04 0.06
 Crit Moves: ****
 Green/Cycle: 0.09 0.38 0.51 0.10 0.39 0.39 0.16 0.23 0.23 0.13 0.20 0.20
 Volume/Cap: 0.85 0.56 0.47 0.56 0.85 0.12 0.32 0.31 0.85 0.85 0.20 0.32
 Uniform Del: 44.7 24.6 15.9 42.7 27.9 19.6 37.4 32.0 37.0 42.5 33.2 34.1
 IncremntDel: 18.8 0.4 0.4 2.0 3.7 0.1 0.6 0.1 10.8 14.0 0.1 0.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 63.5 24.9 16.4 44.6 31.6 19.7 38.0 32.2 47.8 56.5 33.3 34.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 63.5 24.9 16.4 44.6 31.6 19.7 38.0 32.2 47.8 56.5 33.3 34.6
 LOS by Move: E C B D C B D C D E C C
 HCM2kAvgQ: 5 9 8 3 18 1 3 3 13 7 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.010
 Loss Time (sec): 12 Average Delay (sec/veh): 47.7
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2

 Volume Module:
 Base Vol: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 583 1142 0 0 1261 0 0 0 0 391 0 461
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 583 1142 0 0 1261 0 0 0 0 391 0 461
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 583 1142 0 0 1261 0 0 0 0 391 0 461

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842

 Capacity Analysis Module:
 Vol/Sat: 0.32 0.32 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.22 0.00 0.16
 Crit Moves: ****
 Green/Cycle: 0.32 0.67 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.21 0.00 0.21
 Volume/Cap: 1.01 0.48 0.00 0.00 1.01 0.00 0.00 0.00 0.00 1.01 0.00 0.76
 Uniform Del: 34.0 8.2 0.0 0.0 32.7 0.0 0.0 0.0 0.0 39.3 0.0 36.8
 IncremntDel: 40.0 0.1 0.0 0.0 28.0 0.0 0.0 0.0 0.0 48.3 0.0 5.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 74.0 8.3 0.0 0.0 60.7 0.0 0.0 0.0 0.0 87.6 0.0 42.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 74.0 8.3 0.0 0.0 60.7 0.0 0.0 0.0 0.0 87.6 0.0 42.2
 LOS by Move: E A A A E A A A A F A D
 HCM2kAvgQ: 18 8 0 0 23 0 0 0 0 18 0 9

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.019
 Loss Time (sec): 12 Average Delay (sec/veh): 52.6
 Optimal Cycle: 180 Level Of Service: D

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

-----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1108 482 571 1079 0 776 0 442 0 0 0 0

-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3502 0 1615 0 0 0 0

-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.31 0.30 0.32 0.30 0.00 0.22 0.00 0.27 0.00 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.30 0.30 0.31 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00 0.00
 Volume/Cap: 0.00 1.02 0.99 1.02 0.49 0.00 0.83 0.00 1.02 0.00 0.00 0.00 0.00
 Uniform Del: 0.0 34.9 34.8 34.5 10.8 0.0 34.4 0.0 36.6 0.0 0.0 0.0 0.0
 IncremntDel: 0.0 32.2 38.4 43.0 0.2 0.0 6.1 0.0 48.2 0.0 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00
 Delay/Veh: 0.0 67.2 73.2 77.4 10.9 0.0 40.4 0.0 84.8 0.0 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 67.2 73.2 77.4 10.9 0.0 40.4 0.0 84.8 0.0 0.0 0.0 0.0
 LOS by Move: A E E E B A D A F A A A A
 HCM2kAvgQ: 0 23 18 18 9 0 14 0 20 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.421
 Loss Time (sec): 16 Average Delay (sec/veh): 27.3
 Optimal Cycle: 44 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Ovl Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 3 0 1 1 0 2 0 1 2 0 2 0 1

-----|-----|-----|-----|
 Volume Module:
 Base Vol: 152 958 70 187 547 33 70 101 47 76 277 301
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 958 70 187 547 33 70 101 47 76 277 301
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 152 958 70 187 547 0 70 101 47 76 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 958 70 187 547 0 70 101 47 76 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 152 958 70 187 547 0 70 101 47 76 277 0

-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.91 1.00 0.95 0.95 0.85 0.92 0.95 1.00
 Lanes: 1.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 5187 1900 1805 3610 1615 3502 3610 1900

-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.08 0.18 0.04 0.05 0.11 0.00 0.04 0.03 0.03 0.02 0.08 0.00
 Crit Moves: ****

Green/Cycle: 0.25 0.44 0.56 0.13 0.31 0.00 0.09 0.16 0.16 0.12 0.18 0.00
 Volume/Cap: 0.34 0.42 0.08 0.42 0.34 0.00 0.42 0.18 0.19 0.19 0.42 0.00
 Uniform Del: 30.6 19.3 10.3 40.3 26.3 0.0 42.9 36.5 36.6 39.8 36.2 0.0
 IncremntDel: 0.4 0.1 0.0 0.6 0.1 0.0 1.7 0.2 0.4 0.2 0.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 31.1 19.4 10.3 40.9 26.4 0.0 44.6 36.7 36.9 40.0 36.6 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 31.1 19.4 10.3 40.9 26.4 0.0 44.6 36.7 36.9 40.0 36.6 0.0
 LOS by Move: C B B D C A D D D D D A
 HCM2kAvgQ: 4 7 1 3 4 0 3 1 1 1 4 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.671
 Loss Time (sec): 16 Average Delay (sec/veh): 31.8
 Optimal Cycle: 65 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 93 270 36 615 670 150 159 289 212 139 895 239
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 93 270 36 615 670 150 159 289 212 139 895 239
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 93 270 36 615 670 150 159 289 212 139 895 239
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 93 270 36 615 670 150 159 289 212 139 895 239
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 93 270 36 615 670 150 159 289 212 139 895 239

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 3610 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.05 0.02 0.18 0.19 0.09 0.09 0.08 0.13 0.08 0.25 0.15
 Crit Moves: ****
 Green/Cycle: 0.04 0.08 0.08 0.26 0.30 0.30 0.13 0.32 0.32 0.19 0.37 0.63
 Volume/Cap: 0.63 0.67 0.29 0.67 0.63 0.31 0.67 0.25 0.42 0.42 0.67 0.23
 Uniform Del: 47.1 44.9 43.5 33.1 30.4 27.3 41.4 25.5 27.0 36.0 26.4 8.0
 IncremntDel: 8.1 4.4 1.3 2.0 1.2 0.4 7.3 0.1 0.6 0.8 1.3 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 55.2 49.3 44.8 35.0 31.5 27.6 48.7 25.6 27.5 36.8 27.8 8.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 55.2 49.3 44.8 35.0 31.5 27.6 48.7 25.6 27.5 36.8 27.8 8.1
 LOS by Move: E D D D C C D C D C A
 HCM2kAvgQ: 2 3 1 10 10 4 5 3 5 4 12 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.514
 Loss Time (sec): 16 Average Delay (sec/veh): 24.3
 Optimal Cycle: 50 Level Of Service: C

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 1 0 1 1 0

 Volume Module:
 Base Vol: 71 70 52 696 158 201 22 616 38 26 388 303
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 71 70 52 696 158 201 22 616 38 26 388 303
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 71 70 52 696 158 201 22 616 38 26 388 303
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 70 52 696 158 201 22 616 38 26 388 303
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 71 70 52 696 158 201 22 616 38 26 388 303

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.89 0.89 0.92 0.87 0.87 0.95 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.15 0.85 2.00 1.00 1.00 1.00 1.88 0.12 1.00 2.00 1.00
 Final Sat.: 1805 1939 1440 3502 1653 1653 1805 3370 208 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.04 0.04 0.04 0.20 0.10 0.12 0.01 0.18 0.18 0.01 0.11 0.19
 Crit Moves: ****
 Green/Cycle: 0.11 0.07 0.07 0.39 0.34 0.34 0.04 0.36 0.36 0.03 0.34 0.73
 Volume/Cap: 0.35 0.51 0.51 0.51 0.28 0.35 0.31 0.51 0.51 0.51 0.31 0.26
 Uniform Del: 41.1 44.8 44.8 23.5 23.7 24.4 46.7 25.4 25.4 47.9 24.1 4.5
 IncremntDel: 1.1 1.9 1.9 0.3 0.1 0.2 2.5 0.4 0.4 8.8 0.1 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 42.1 46.8 46.8 23.8 23.8 24.6 49.3 25.8 25.8 56.7 24.2 4.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.1 46.8 46.8 23.8 23.8 24.6 49.3 25.8 25.8 56.7 24.2 4.6
 LOS by Move: D D C C C D C C E C A
 HCM2kAvgQ: 2 2 2 8 3 5 1 8 8 1 4 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.465
 Loss Time (sec): 16 Average Delay (sec/veh): 31.6
 Optimal Cycle: 47 Level Of Service: C

Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 2 0 2 1 0 1 0 2 1 0

Volume Module:
 Base Vol: 145 7 25 141 5 282 147 248 40 6 369 89
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 145 7 25 141 5 282 147 248 40 6 369 89
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 145 7 25 141 5 282 147 248 40 6 369 89
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 145 7 25 141 5 282 147 248 40 6 369 89
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 145 7 25 141 5 282 147 248 40 6 369 89

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.88 0.88 0.95 0.85 0.85 0.92 0.89 0.89 0.95 0.88 0.88
 Lanes: 1.00 0.22 0.78 1.00 0.02 0.98 2.00 2.58 0.42 1.00 2.42 0.58
 Final Sat.: 1805 367 1311 1805 28 1592 3502 4373 705 1805 4058 979

Capacity Analysis Module:
 Vol/Sat: 0.08 0.02 0.02 0.08 0.18 0.18 0.04 0.06 0.06 0.00 0.09 0.09
 Crit Moves: ****
 Green/Cycle: 0.17 0.11 0.11 0.45 0.38 0.38 0.09 0.27 0.27 0.02 0.20 0.20
 Volume/Cap: 0.46 0.18 0.18 0.18 0.46 0.46 0.46 0.21 0.21 0.21 0.46 0.46
 Uniform Del: 37.2 40.5 40.5 16.7 23.3 23.3 43.2 28.2 28.2 48.6 35.6 35.6
 IncremntDel: 1.1 0.5 0.5 0.1 0.6 0.6 1.1 0.1 0.1 3.6 0.3 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 38.3 41.0 41.0 16.8 23.8 23.8 44.3 28.3 28.3 52.2 35.9 35.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 38.3 41.0 41.0 16.8 23.8 23.8 44.3 28.3 28.3 52.2 35.9 35.9
 LOS by Move: D D D B C C D C C D D D
 HCM2kAvgQ: 4 1 1 3 7 7 2 2 2 0 5 5

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.548
 Loss Time (sec): 16 Average Delay (sec/veh): 28.4
 Optimal Cycle: 53 Level Of Service: C

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 3 0 1

Volume Module:
 Base Vol: 117 235 44 140 777 170 186 677 210 44 336 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 117 235 44 140 777 170 186 677 210 44 336 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 117 235 44 140 777 170 186 677 210 44 336 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 117 235 44 140 777 170 186 677 210 44 336 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 117 235 44 140 777 170 186 677 210 44 336 67

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.91 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 1805 5187 1615

Capacity Analysis Module:
 Vol/Sat: 0.03 0.07 0.03 0.08 0.22 0.11 0.05 0.19 0.13 0.02 0.06 0.04
 Crit Moves: ****
 Green/Cycle: 0.06 0.21 0.21 0.25 0.39 0.57 0.17 0.34 0.40 0.04 0.21 0.21
 Volume/Cap: 0.55 0.31 0.13 0.31 0.55 0.19 0.31 0.55 0.32 0.55 0.31 0.20
 Uniform Del: 45.6 33.6 32.3 30.8 23.5 10.5 36.0 26.6 20.5 46.8 33.2 32.4
 IncremntDel: 3.0 0.2 0.2 0.4 0.5 0.1 0.3 0.5 0.3 7.8 0.2 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.6 33.9 32.5 31.2 24.0 10.6 36.3 27.2 20.8 54.6 33.3 32.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.6 33.9 32.5 31.2 24.0 10.6 36.3 27.2 20.8 54.6 33.3 32.6
 LOS by Move: D C C C C B D C C D C C
 HCM2kAvgQ: 2 3 1 4 10 3 2 9 4 2 3 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.839
 Loss Time (sec): 12 Average Delay (sec/veh): 35.4
 Optimal Cycle: 87 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 383 431 151 141 1184 106 47 425 441 97 206 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 383 431 151 141 1184 106 47 425 441 97 206 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 383 431 151 141 1184 106 47 425 441 97 206 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 383 431 151 141 1184 106 47 425 441 97 206 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 383 431 151 141 1184 106 47 425 441 97 206 44

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.65 0.35
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 2897 619

Capacity Analysis Module:
 Vol/Sat: 0.11 0.12 0.09 0.08 0.33 0.07 0.03 0.12 0.27 0.03 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.13 0.32 0.32 0.21 0.39 0.39 0.10 0.33 0.33 0.03 0.26 0.26
 Volume/Cap: 0.84 0.38 0.30 0.38 0.84 0.17 0.27 0.36 0.84 0.84 0.27 0.27
 Uniform Del: 42.5 26.6 25.9 34.2 27.6 19.8 41.9 25.8 31.3 48.1 29.3 29.3
 IncremntDel: 12.9 0.2 0.3 0.6 4.6 0.1 0.8 0.2 11.4 39.1 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 55.4 26.8 26.2 34.8 32.2 20.0 42.8 26.0 42.7 87.1 29.4 29.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 55.4 26.8 26.2 34.8 32.2 20.0 42.8 26.0 42.7 87.1 29.4 29.4
 LOS by Move: E C C C C B D C D F C C
 HCM2kAvgQ: 7 5 3 4 18 2 1 5 13 3 3 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.975
 Loss Time (sec): 16 Average Delay (sec/veh): 50.4
 Optimal Cycle: 157 Level Of Service: D

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 566 692 0 0 0 868 853 0 0 0 109 7 322
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 566 692 0 0 0 868 853 0 0 0 109 7 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 566 692 0 0 868 0 0 0 0 0 109 7 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 566 692 0 0 868 0 0 0 0 0 109 7 322
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 566 692 0 0 868 0 0 0 0 0 109 7 322

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.25 0.02 0.73
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 412 26 1216

Capacity Analysis Module:
 Vol/Sat: 0.31 0.19 0.00 0.00 0.24 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Crit Moves: ****
 Green/Cycle: 0.32 0.57 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.27 0.27 0.27
 Volume/Cap: 0.97 0.34 0.00 0.00 0.97 0.00 0.00 0.00 0.00 0.97 0.97 0.97
 Uniform Del: 33.5 11.5 0.0 0.0 37.4 0.0 0.0 0.0 0.0 36.1 36.1 36.1
 IncremntDel: 30.9 0.1 0.0 0.0 24.1 0.0 0.0 0.0 0.0 35.8 35.8 35.8
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 64.4 11.6 0.0 0.0 61.4 0.0 0.0 0.0 0.0 71.9 71.9 71.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 64.4 11.6 0.0 0.0 61.4 0.0 0.0 0.0 0.0 71.9 71.9 71.9
 LOS by Move: E B A A E A A A A E E E
 HCM2kAvgQ: 18 6 0 0 15 0 0 0 0 19 19 19

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 16 Average Delay (sec/veh): 40.5
Optimal Cycle: 129 Level Of Service: D

Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
Base Vol: 0 837 229 463 513 0 372 2 338 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 837 229 463 513 0 372 2 338 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 837 229 463 513 0 372 2 338 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 837 229 463 513 0 372 2 338 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 837 229 463 513 0 372 2 338 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
Lanes: 0.00 1.57 0.43 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
Final Sat.: 0 2744 751 1805 3610 0 3076 17 1546 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.31 0.31 0.26 0.14 0.00 0.12 0.12 0.22 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.33 0.33 0.28 0.60 0.00 0.24 0.24 0.24 0.00 0.00 0.00
Volume/Cap: 0.00 0.93 0.93 0.93 0.24 0.00 0.51 0.51 0.93 0.00 0.00 0.00
Uniform Del: 0.0 32.4 32.4 35.2 9.1 0.0 33.3 33.3 37.4 0.0 0.0 0.0
IncrmntDel: 0.0 12.9 12.9 23.9 0.1 0.0 0.3 0.3 17.5 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
Delay/Veh: 0.0 45.4 45.4 59.1 9.2 0.0 33.6 33.6 54.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 45.4 45.4 59.1 9.2 0.0 33.6 33.6 54.9 0.0 0.0 0.0
LOS by Move: A D D E A A C C D A A A
HCM2kAvgQ: 0 19 19 13 3 0 6 6 15 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.412
Loss Time (sec): 16 Average Delay (sec/veh): 27.7
Optimal Cycle: 43 Level Of Service: C

Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ovl Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1

Volume Module:
Base Vol: 40 385 23 107 234 185 438 192 23 14 108 77
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 40 385 23 107 234 185 438 192 23 14 108 77
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 40 385 23 107 234 185 438 192 23 14 108 77
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 40 385 23 107 234 185 438 192 23 14 108 77
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 40 385 23 107 234 185 438 192 23 14 108 77

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.93 0.93 0.95 0.95 0.85
Lanes: 1.00 1.89 0.11 1.00 2.00 1.00 2.00 1.79 0.21 1.00 2.00 1.00
Final Sat.: 1805 3379 202 1805 3610 1615 3502 3172 380 1805 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.11 0.11 0.06 0.06 0.11 0.13 0.06 0.06 0.01 0.03 0.05
Crit Moves: ****
Green/Cycle: 0.11 0.28 0.28 0.14 0.31 0.62 0.30 0.37 0.37 0.05 0.12 0.12
Volume/Cap: 0.21 0.41 0.41 0.41 0.21 0.19 0.41 0.16 0.16 0.16 0.26 0.41
Uniform Del: 40.8 29.5 29.5 39.0 25.2 8.3 27.7 21.0 21.0 45.7 40.3 41.1
IncrmntDel: 0.5 0.3 0.3 1.1 0.1 0.1 0.3 0.1 0.1 0.9 0.3 1.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 41.3 29.8 29.8 40.0 25.3 8.4 28.0 21.1 21.1 46.6 40.6 42.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.3 29.8 29.8 40.0 25.3 8.4 28.0 21.1 21.1 46.6 40.6 42.5
LOS by Move: D C C D C A C C C D D D
HCM2kAvgQ: 1 6 6 3 3 2 6 2 2 1 2 3

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 11.8]
*****
Street Name:
Sunset
Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 262 8 3 225 0 0 0 0 8 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 262 8 3 225 0 0 0 0 8 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 262 8 3 225 0 0 0 0 8 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 262 8 3 225 0 0 0 0 8 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 270 xxxx xxxxx 497 501 225 497 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 1305 xxxx xxxxx 487 475 819 536 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 1305 xxxx xxxxx 486 474 819 535 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.00 xxxx xxxx 0.00 0.00 0.00 0.01 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxxx xxxxx 11.8 xxxx xxxxx
LOS by Move: * * * A * * * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 11.8
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****

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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/8th-Wilson	C	33.3 0.796	C	33.3 0.796	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	39.6 0.879	D	39.6 0.879	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	C	32.4 0.888	C	32.4 0.888	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	54.4 1.059	D	54.4 1.059	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	34.1 0.712	C	34.1 0.712	+ 0.000 D/V
# 6 Highland Home/Wilson	C	34.9 0.845	C	34.9 0.845	+ 0.000 D/V
# 7 Highland Home/Ramsey	D	39.9 0.915	D	39.9 0.915	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	33.1 0.811	C	33.1 0.811	+ 0.000 D/V
# 9 Sunset/Wilson	C	34.5 0.760	C	34.5 0.760	+ 0.000 D/V
# 10 Sunset/Ramsey	D	45.5 0.932	D	45.5 0.932	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	28.5 0.838	C	28.5 0.838	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	43.1 0.986	D	43.1 0.986	+ 0.000 D/V
# 13 Sunset/Lincoln	C	31.8 0.710	C	31.8 0.710	+ 0.000 D/V
# 14 Sunset/Westward	B	10.4 0.094	B	10.4 0.094	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/8th-Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.796
Loss Time (sec): 16 Average Delay (sec/veh): 33.3
Optimal Cycle: 86 Level Of Service: C

Street Name: Highland Springs 8th-Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
Base Vol: 26 1434 383 361 881 159 167 709 49 270 512 358
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 26 1434 383 361 881 159 167 709 49 270 512 358
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 26 1434 383 361 881 159 167 709 49 270 512 358
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 26 1434 383 361 881 159 167 709 49 270 512 358
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MEF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 26 1434 383 361 881 159 167 709 49 270 512 358

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.92 0.95 0.85 0.95 0.94 0.94 0.92 0.95 0.85
Lanes: 1.00 3.00 1.00 2.00 2.00 1.00 1.00 1.87 0.13 2.00 2.00 1.00
Final Sat.: 1805 5187 1615 3502 3610 1615 1805 3343 231 3502 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.01 0.28 0.24 0.10 0.24 0.10 0.09 0.21 0.21 0.08 0.14 0.22
Crit Moves: ****
Green/Cycle: 0.03 0.35 0.44 0.13 0.45 0.45 0.14 0.27 0.27 0.10 0.22 0.35
Volume/Cap: 0.54 0.80 0.53 0.80 0.54 0.22 0.65 0.80 0.80 0.80 0.65 0.63
Uniform Del: 48.1 29.4 20.3 42.2 20.0 16.8 40.4 34.2 34.2 44.2 35.5 27.2
IncremntDel: 12.1 2.6 0.8 9.5 0.4 0.2 5.5 4.7 4.7 12.3 1.8 2.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 60.1 32.0 21.0 51.7 20.4 16.9 46.0 38.9 38.9 56.5 37.3 29.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 60.1 32.0 21.0 51.7 20.4 16.9 46.0 38.9 38.9 56.5 37.3 29.6
LOS by Move: E C C D C B D D D E D C
HCM2kAvgQ: 1 14 8 8 11 3 6 13 13 4 7 9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.879
 Loss Time (sec): 16 Average Delay (sec/veh): 39.6
 Optimal Cycle: 109 Level Of Service: D

Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 512 1593 530 309 1074 127 175 608 347 459 608 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 512 1593 530 309 1074 127 175 608 347 459 608 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 512 1593 530 309 1074 127 175 608 347 459 608 277
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 512 1593 530 309 1074 127 175 608 347 459 608 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 512 1593 530 309 1074 127 175 608 347 459 608 277

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.86 0.86 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3271 1636 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.15 0.31 0.33 0.09 0.21 0.08 0.10 0.19 0.21 0.13 0.17 0.17
 Crit Moves: ****
 Green/Cycle: 0.19 0.35 0.50 0.10 0.26 0.26 0.14 0.24 0.24 0.15 0.25 0.25
 Volume/Cap: 0.79 0.88 0.66 0.88 0.79 0.30 0.69 0.77 0.88 0.88 0.68 0.69
 Uniform Del: 38.8 30.6 18.7 44.4 34.2 29.4 40.9 35.4 36.5 41.7 33.9 34.0
 IncremntDel: 6.3 5.3 2.0 21.5 3.1 0.4 7.7 3.0 8.4 15.7 2.1 4.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.1 35.9 20.7 65.9 37.3 29.8 48.5 38.4 45.0 57.4 35.9 39.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.1 35.9 20.7 65.9 37.3 29.8 48.5 38.4 45.0 57.4 35.9 39.0
 LOS by Move: D D C E D C D D D E D D
 HCM2kAvgQ: 8 17 12 5 11 3 6 11 15 7 8 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.888
 Loss Time (sec): 12 Average Delay (sec/veh): 32.4
 Optimal Cycle: 104 Level Of Service: C

Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2

Volume Module:
 Base Vol: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 330 1524 0 0 0 1199 0 0 0 0 347 0 758
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 330 1524 0 0 0 1199 0 0 0 0 347 0 758
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 330 1524 0 0 0 1199 0 0 0 0 347 0 758

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842

Capacity Analysis Module:
 Vol/Sat: 0.18 0.42 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.19 0.00 0.27
 Crit Moves: ****
 Green/Cycle: 0.21 0.58 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.30 0.00 0.30
 Volume/Cap: 0.89 0.73 0.00 0.00 0.89 0.00 0.00 0.00 0.00 0.64 0.00 0.89
 Uniform Del: 38.6 15.3 0.0 0.0 29.3 0.0 0.0 0.0 0.0 30.3 0.0 33.4
 IncremntDel: 22.0 1.3 0.0 0.0 7.6 0.0 0.0 0.0 0.0 2.6 0.0 11.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 60.6 16.6 0.0 0.0 36.9 0.0 0.0 0.0 0.0 32.9 0.0 44.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 60.6 16.6 0.0 0.0 36.9 0.0 0.0 0.0 0.0 32.9 0.0 44.6
 LOS by Move: E B A A D A A A A C A D
 HCM2kAvgQ: 9 16 0 0 18 0 0 0 0 10 0 16

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.059
 Loss Time (sec): 12 Average Delay (sec/veh): 54.4
 Optimal Cycle: 180 Level Of Service: D

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1369 409 461 1085 0 839 0 480 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3502 0 1615 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.25 0.26 0.30 0.00 0.24 0.00 0.30 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.36 0.36 0.24 0.60 0.00 0.28 0.00 0.28 0.00 0.00 0.00
 Volume/Cap: 0.00 1.06 0.71 1.06 0.50 0.00 0.85 0.00 1.06 0.00 0.00 0.00
 Uniform Del: 0.0 32.1 27.6 37.9 11.5 0.0 34.0 0.0 36.0 0.0 0.0 0.0
 IncremntDel: 0.0 42.2 4.0 59.6 0.2 0.0 7.4 0.0 58.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 74.3 31.6 97.5 11.7 0.0 41.4 0.0 94.7 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 74.3 31.6 97.5 11.7 0.0 41.4 0.0 94.7 0.0 0.0 0.0
 LOS by Move: A E C F B A D A F A A A
 HCM2kAvgQ: 0 29 11 18 9 0 15 0 23 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.712
 Loss Time (sec): 16 Average Delay (sec/veh): 34.1
 Optimal Cycle: 71 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 3 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
 Base Vol: 188 693 272 334 728 35 71 923 266 343 847 323
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 188 693 272 334 728 35 71 923 266 343 847 323
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 188 693 272 334 728 0 71 923 266 343 847 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 188 693 272 334 728 0 71 923 266 343 847 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 188 693 272 334 728 0 71 923 266 343 847 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.91 1.00 0.95 0.95 0.85 0.92 0.95 1.00
 Lanes: 1.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 5187 1900 1805 3610 1615 3502 3610 1900

Capacity Analysis Module:
 Vol/Sat: 0.10 0.13 0.17 0.10 0.14 0.00 0.04 0.26 0.16 0.10 0.23 0.00
 Crit Moves: ****

Green/Cycle: 0.15 0.20 0.34 0.14 0.20 0.00 0.07 0.36 0.36 0.14 0.43 0.00
 Volume/Cap: 0.71 0.67 0.50 0.67 0.71 0.00 0.55 0.71 0.46 0.71 0.55 0.00
 Uniform Del: 40.7 36.9 26.4 40.6 37.5 0.0 44.9 27.6 24.6 41.2 21.6 0.0
 IncremntDel: 8.8 1.7 0.7 3.4 2.4 0.0 5.1 1.9 0.6 5.0 0.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 49.5 38.6 27.1 44.0 39.9 0.0 50.0 29.5 25.2 46.2 22.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 49.5 38.6 27.1 44.0 39.9 0.0 50.0 29.5 25.2 46.2 22.0 0.0
 LOS by Move: D D C D D A D C C D C A
 HCM2kAvgQ: 7 8 7 5 8 0 3 14 6 5 10 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.845
 Loss Time (sec): 16 Average Delay (sec/veh): 34.9
 Optimal Cycle: 98 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 271 795 236 538 649 113 119 1000 308 54 865 792
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 271 795 236 538 649 113 119 1000 308 54 865 792
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 271 795 236 538 649 113 119 1000 308 54 865 792
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 271 795 236 538 649 113 119 1000 308 54 865 792
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 271 795 236 538 649 113 119 1000 308 54 865 792

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 3610 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.15 0.15 0.15 0.18 0.07 0.07 0.28 0.19 0.03 0.24 0.49
 Crit Moves: ****
 Green/Cycle: 0.11 0.18 0.18 0.18 0.25 0.25 0.08 0.43 0.43 0.05 0.40 0.58
 Volume/Cap: 0.71 0.84 0.81 0.84 0.71 0.28 0.84 0.64 0.44 0.64 0.60 0.84
 Uniform Del: 43.0 39.6 39.2 39.5 33.9 29.9 45.5 22.5 20.1 46.9 23.8 17.3
 IncremntDel: 6.0 7.1 15.0 10.1 2.6 0.4 34.9 0.9 0.5 15.9 0.7 7.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 49.0 46.7 54.2 49.6 36.5 30.3 80.4 23.4 20.5 62.8 24.5 24.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 49.0 46.7 54.2 49.6 36.5 30.3 80.4 23.4 20.5 62.8 24.5 24.4
 LOS by Move: D D D D D C F C C E C C
 HCM2kAvgQ: 4 8 7 11 11 3 4 12 6 2 11 20

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.915
 Loss Time (sec): 16 Average Delay (sec/veh): 39.9
 Optimal Cycle: 123 Level Of Service: D

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 1 0 1 1 0

 Volume Module:
 Base Vol: 66 207 54 651 206 100 330 1021 119 119 1093 826
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 66 207 54 651 206 100 330 1021 119 119 1093 826
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 66 207 54 651 206 100 330 1021 119 119 1093 826
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 66 207 54 651 206 100 330 1021 119 119 1093 826
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 66 207 54 651 206 100 330 1021 119 119 1093 826

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.92 0.92 0.92 0.90 0.90 0.95 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.59 0.41 2.00 1.35 0.65 1.00 1.79 0.21 1.00 2.00 1.00
 Final Sat.: 1805 2774 724 3502 2311 1122 1805 3181 371 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.04 0.07 0.07 0.19 0.09 0.09 0.18 0.32 0.32 0.07 0.30 0.51
 Crit Moves: ****
 Green/Cycle: 0.08 0.08 0.08 0.20 0.20 0.20 0.20 0.46 0.46 0.09 0.36 0.56
 Volume/Cap: 0.44 0.92 0.92 0.92 0.44 0.44 0.92 0.70 0.70 0.70 0.85 0.92
 Uniform Del: 43.7 45.6 45.6 39.0 35.0 35.0 39.2 21.4 21.4 43.9 29.8 19.9
 IncremntDel: 2.1 32.0 32.0 16.5 0.5 0.5 27.2 1.3 1.3 11.9 5.6 13.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.7 77.6 77.6 55.5 35.4 35.4 66.4 22.7 22.7 55.8 35.4 33.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.7 77.6 77.6 55.5 35.4 35.4 66.4 22.7 22.7 55.8 35.4 33.6
 LOS by Move: D E E E D D E C C E D C
 HCM2kAvgQ: 2 5 5 11 4 4 11 14 14 3 16 23

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.811
 Loss Time (sec): 16 Average Delay (sec/veh): 33.1
 Optimal Cycle: 89 Level Of Service: C

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 2 0 2 1 0 1 0 2 1 0

 Volume Module:
 Base Vol: 178 10 19 232 9 317 338 1161 252 27 1242 206
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 178 10 19 232 9 317 338 1161 252 27 1242 206
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 178 10 19 232 9 317 338 1161 252 27 1242 206
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 178 10 19 232 9 317 338 1161 252 27 1242 206
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 178 10 19 232 9 317 338 1161 252 27 1242 206

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.90 0.90 0.95 0.85 0.85 0.92 0.89 0.89 0.95 0.89 0.89
 Lanes: 1.00 0.34 0.66 1.00 0.03 0.97 2.00 2.46 0.54 1.00 2.57 0.43
 Final Sat.: 1805 591 1123 1805 45 1578 3502 4147 900 1805 4356 722

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.02 0.02 0.13 0.20 0.20 0.10 0.28 0.28 0.01 0.29 0.29
 Crit Moves: ****
 Green/Cycle: 0.12 0.04 0.04 0.33 0.25 0.25 0.12 0.45 0.45 0.02 0.35 0.35
 Volume/Cap: 0.81 0.39 0.39 0.39 0.81 0.81 0.81 0.63 0.63 0.63 0.81 0.81
 Uniform Del: 42.8 46.6 46.6 26.0 35.4 35.4 43.0 21.3 21.3 48.4 29.4 29.4
 IncremntDel: 19.9 3.4 3.4 0.4 11.8 11.8 11.4 0.6 0.6 25.7 2.9 2.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 62.7 50.0 50.0 26.5 47.2 47.2 54.3 21.8 21.8 74.1 32.3 32.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 62.7 50.0 50.0 26.5 47.2 47.2 54.3 21.8 21.8 74.1 32.3 32.3
 LOS by Move: E D D C D C D C E C C C
 HCM2kAvgQ: 8 1 1 6 12 12 5 12 12 2 17 17

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.760
 Loss Time (sec): 16 Average Delay (sec/veh): 34.5
 Optimal Cycle: 79 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 1 0 3 0 1

 Volume Module:
 Base Vol: 285 727 54 141 386 277 329 910 167 193 1196 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 285 727 54 141 386 277 329 910 167 193 1196 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 285 727 54 141 386 277 329 910 167 193 1196 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 285 727 54 141 386 277 329 910 167 193 1196 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 285 727 54 141 386 277 329 910 167 193 1196 178

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.91 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 1805 5187 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.20 0.03 0.08 0.11 0.17 0.09 0.25 0.10 0.11 0.23 0.11
 Crit Moves: ****
 Green/Cycle: 0.16 0.26 0.26 0.10 0.21 0.35 0.14 0.33 0.49 0.14 0.34 0.34
 Volume/Cap: 0.51 0.76 0.13 0.76 0.51 0.50 0.69 0.76 0.21 0.76 0.69 0.33
 Uniform Del: 38.5 33.8 28.0 43.7 35.0 25.9 41.1 29.9 14.5 41.3 28.7 24.8
 IncremntDel: 0.8 3.6 0.1 16.6 0.6 0.7 4.2 2.9 0.1 12.6 1.2 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 39.3 37.4 28.1 60.3 35.6 26.5 45.3 32.8 14.6 53.9 29.9 25.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 39.3 37.4 28.1 60.3 35.6 26.5 45.3 32.8 14.6 53.9 29.9 25.2
 LOS by Move: D D C E D C D C B D C C
 HCM2kAvgQ: 4 10 1 6 6 7 5 13 3 8 13 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.932
 Loss Time (sec): 12 Average Delay (sec/veh): 45.5
 Optimal Cycle: 127 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 420 1185 196 152 876 239 191 911 283 543 792 102
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 420 1185 196 152 876 239 191 911 283 543 792 102
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 420 1185 196 152 876 239 191 911 283 543 792 102
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 420 1185 196 152 876 239 191 911 283 543 792 102
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 420 1185 196 152 876 239 191 911 283 543 792 102

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.77 0.23
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 3144 405

Capacity Analysis Module:
 Vol/Sat: 0.12 0.33 0.12 0.08 0.24 0.15 0.11 0.25 0.18 0.16 0.25 0.25
 Crit Moves: ****

Green/Cycle: 0.15 0.35 0.35 0.09 0.30 0.30 0.13 0.27 0.27 0.17 0.31 0.31
 Volume/Cap: 0.82 0.93 0.34 0.93 0.82 0.50 0.82 0.93 0.65 0.93 0.82 0.82
 Uniform Del: 41.4 31.2 23.9 45.2 32.7 29.1 42.4 35.6 32.2 41.1 32.0 32.0
 IncremntDel: 10.0 12.3 0.4 50.6 5.1 0.8 19.8 15.0 3.4 21.9 5.0 5.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 51.4 43.5 24.2 95.8 37.8 29.9 62.2 50.6 35.6 63.0 37.0 37.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 51.4 43.5 24.2 95.8 37.8 29.9 62.2 50.6 35.6 63.0 37.0 37.0
 LOS by Move: D D C F D C E D D E D D
 HCM2kAvgQ: 6 19 4 6 14 6 6 16 7 12 16 16

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
 Loss Time (sec): 16 Average Delay (sec/veh): 28.5
 Optimal Cycle: 96 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 401 1751 0 0 654 1049 0 0 0 101 15 248
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 401 1751 0 0 654 1049 0 0 0 101 15 248
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 401 1751 0 0 654 0 0 0 0 101 15 248
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 401 1751 0 0 654 0 0 0 0 101 15 248
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 401 1751 0 0 654 0 0 0 0 101 15 248

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.28 0.04 0.68
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 461 68 1132

Capacity Analysis Module:
 Vol/Sat: 0.22 0.49 0.00 0.00 0.18 0.00 0.00 0.00 0.00 0.22 0.22 0.22
 Crit Moves: ****

Green/Cycle: 0.32 0.58 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Volume/Cap: 0.70 0.84 0.00 0.00 0.70 0.00 0.00 0.00 0.00 0.84 0.84 0.84
 Uniform Del: 29.8 17.2 0.0 0.0 33.4 0.0 0.0 0.0 0.0 34.9 34.9 34.9
 IncremntDel: 3.7 3.2 0.0 0.0 2.3 0.0 0.0 0.0 0.0 13.4 13.4 13.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 33.6 20.4 0.0 0.0 35.8 0.0 0.0 0.0 0.0 48.4 48.4 48.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 33.6 20.4 0.0 0.0 35.8 0.0 0.0 0.0 0.0 48.4 48.4 48.4
 LOS by Move: C C A A D A A A A D D D
 HCM2kAvgQ: 10 21 0 0 9 0 0 0 0 13 13 13

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.986
 Loss Time (sec): 16 Average Delay (sec/veh): 43.1
 Optimal Cycle: 165 Level Of Service: D

Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1043 76 187 623 0 1004 4 635 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1043 76 187 623 0 1004 4 635 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1043 76 187 623 0 1004 4 635 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1043 76 187 623 0 1004 4 635 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1043 76 187 623 0 1004 4 635 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.94 0.94 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 1.86 0.14 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3331 243 1805 3610 0 3076 12 1544 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.31 0.31 0.10 0.17 0.00 0.33 0.33 0.41 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.32 0.32 0.11 0.42 0.00 0.42 0.42 0.42 0.00 0.00 0.00
 Volume/Cap: 0.00 0.99 0.99 0.99 0.41 0.00 0.78 0.78 0.99 0.00 0.00 0.00
 Uniform Del: 0.0 33.9 33.9 44.7 20.1 0.0 25.2 25.2 28.8 0.0 0.0 0.0
 IncremntDel: 0.0 23.2 23.2 61.0 0.2 0.0 2.0 2.0 18.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 57.1 57.1 105.7 20.3 0.0 27.2 27.2 47.5 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 57.1 57.1 105.7 20.3 0.0 27.2 27.2 47.5 0.0 0.0 0.0
 LOS by Move: A E E F C A C C D A A A
 HCM2kAvgQ: 0 21 21 7 7 0 16 16 27 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.710
 Loss Time (sec): 16 Average Delay (sec/veh): 31.8
 Optimal Cycle: 70 Level Of Service: C

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 163 317 42 195 394 406 264 827 56 32 918 182
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 163 317 42 195 394 406 264 827 56 32 918 182
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 163 317 42 195 394 406 264 827 56 32 918 182
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 163 317 42 195 394 406 264 827 56 32 918 182
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 163 317 42 195 394 406 264 827 56 32 918 182

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.93 0.93 0.95 0.95 0.85 0.92 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.77 0.23 1.00 2.00 1.00 2.00 1.87 0.13 1.00 2.00 1.00
 Final Sat.: 1805 3130 415 1805 3610 1615 3502 3351 227 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.09 0.10 0.10 0.11 0.11 0.25 0.08 0.25 0.25 0.02 0.25 0.11
 Crit Moves: ****

Green/Cycle: 0.13 0.18 0.18 0.19 0.25 0.35 0.11 0.43 0.43 0.03 0.36 0.36
 Volume/Cap: 0.71 0.56 0.56 0.56 0.44 0.71 0.71 0.57 0.57 0.57 0.71 0.31
 Uniform Del: 41.9 37.3 37.3 36.4 31.7 27.8 43.2 21.3 21.3 47.8 27.6 23.2
 IncremntDel: 9.8 1.1 1.1 2.0 0.3 4.1 6.2 0.5 0.5 13.1 1.9 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 51.7 38.4 38.4 38.4 32.1 32.0 49.4 21.8 21.8 60.9 29.5 23.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 51.7 38.4 38.4 38.4 32.1 32.0 49.4 21.8 21.8 60.9 29.5 23.5
 LOS by Move: D D D D C C D C C E C C
 HCM2kAvgQ: 6 6 6 5 5 11 6 11 11 2 14 4

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 2.4 Worst Case Level Of Service: B[ 10.4]
*****
Street Name:
Sunset
Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 180 13 18 207 0 0 0 0 25 0 81
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 180 13 18 207 0 0 0 0 25 0 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 180 13 18 207 0 0 0 0 25 0 81
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 180 13 18 207 0 0 0 0 25 0 81
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 193 xxxx xxxxx 470 436 207 430 430 187
Potent Cap.: xxxx xxxx xxxxx 1392 xxxx xxxxx 507 517 839 586 521 861
Move Cap.: xxxx xxxx xxxxx 1392 xxxx xxxxx 455 510 839 580 514 861
Volume/Cap: xxxx xxxx xxxxx 0.01 xxxx xxxxx 0.00 0.00 0.00 0.04 0.00 0.09
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * A * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0 xxxxx xxxxx 773 xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.5 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.6 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 10.4 xxxxx
Shared LOS: * * * A * * * * * * B *
ApproachDel: xxxxxx xxxxxx xxxxxx 10.4
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****

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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/8th-Wilson	C	31.4 0.742	C	31.4 0.742	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	C	34.2 0.850	C	34.2 0.850	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	47.7 1.010	D	47.7 1.010	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	52.6 1.019	D	52.6 1.019	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	26.3 0.517	C	26.3 0.517	+ 0.000 D/V
# 6 Highland Home/Wilson	C	33.1 0.698	C	33.1 0.698	+ 0.000 D/V
# 7 Highland Home/Ramsey	C	24.3 0.514	C	24.3 0.514	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	31.0 0.512	C	31.0 0.512	+ 0.000 D/V
# 9 Sunset/Wilson	C	28.8 0.548	C	28.8 0.548	+ 0.000 D/V
# 10 Sunset/Ramsey	D	35.4 0.839	D	35.4 0.839	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	D	50.4 0.975	D	50.4 0.975	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	40.5 0.929	D	40.5 0.929	+ 0.000 D/V
# 13 Sunset/Lincoln	C	31.0 0.552	C	31.0 0.552	+ 0.000 D/V
# 14 Sunset/Westward	B	11.8 0.015	B	11.8 0.015	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.742
Loss Time (sec):   16          Average Delay (sec/veh):    31.4
Optimal Cycle:     75          Level Of Service:         C
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Include      Include      Include      Ovl
Min. Green:       0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:            1 0 2 0 1      2 0 2 0 1      1 0 1 1 0      2 0 2 0 1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         57 675 250      204 1138 154      65 162 101      698 290 139
Growth Adj:       1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:      57 675 250      204 1138 154      65 162 101      698 290 139
User Adj:         1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Volume:       57 675 250      204 1138 154      65 162 101      698 290 139
Reduct Vol:       0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:      57 675 250      204 1138 154      65 162 101      698 290 139
PCE Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:      57 675 250      204 1138 154      65 162 101      698 290 139
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900    1900 1900 1900    1900 1900 1900    1900 1900 1900
Adjustment:       0.95 0.95 0.85    0.92 0.95 0.85    0.95 0.89 0.89    0.92 0.95 0.85
Lanes:            1.00 2.00 1.00    2.00 2.00 1.00    1.00 1.23 0.77    2.00 2.00 1.00
Final Sat.:       1805 3610 1615    3502 3610 1615    1805 2095 1306    3502 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.19 0.15    0.06 0.32 0.10    0.04 0.08 0.08    0.20 0.08 0.09
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.04 0.36 0.36    0.11 0.42 0.42    0.12 0.10 0.10    0.27 0.26 0.37
Volume/Cap:       0.74 0.52 0.43    0.52 0.74 0.22    0.31 0.74 0.74    0.74 0.31 0.23
Uniform Del:      47.3 25.5 24.5    42.0 24.2 18.3    40.6 43.5 43.5    33.4 30.0 21.8
IncrcmntDel:      31.7 0.4 0.5      1.3 2.0 0.2      0.9 8.2 8.2      3.2 0.2 0.2
InitQueueDel:     0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Delay/Veh:        79.1 25.9 25.0    43.3 26.2 18.5    41.5 51.7 51.7    36.6 30.2 22.0
User DelAdj:      1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
AdjDel/Veh:       79.1 25.9 25.0    43.3 26.2 18.5    41.5 51.7 51.7    36.6 30.2 22.0
LOS by Move:      E C C      D C B      D D D      D C C
HCM2kAvgQ:        2 8 6      4 17 3      2 6 6      10 4 3
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.850
 Loss Time (sec): 16 Average Delay (sec/veh): 34.2
 Optimal Cycle: 99 Level Of Service: C

Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 275 1097 390 203 1715 78 90 221 306 390 144 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 275 1097 390 203 1715 78 90 221 306 390 144 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 275 1097 390 203 1715 78 90 221 306 390 144 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 275 1097 390 203 1715 78 90 221 306 390 144 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 275 1097 390 203 1715 78 90 221 306 390 144 103

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.83 0.83 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3157 1579 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.08 0.21 0.24 0.06 0.33 0.05 0.05 0.07 0.19 0.11 0.04 0.06
 Crit Moves: ****
 Green/Cycle: 0.09 0.38 0.51 0.10 0.39 0.39 0.16 0.23 0.23 0.13 0.20 0.20
 Volume/Cap: 0.85 0.56 0.47 0.56 0.85 0.12 0.32 0.31 0.85 0.85 0.20 0.32
 Uniform Del: 44.7 24.6 15.9 42.7 27.9 19.6 37.4 32.0 37.0 42.5 33.2 34.1
 IncremntDel: 18.8 0.4 0.4 2.0 3.7 0.1 0.6 0.1 10.8 14.0 0.1 0.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 63.5 24.9 16.4 44.6 31.6 19.7 38.0 32.2 47.8 56.5 33.3 34.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 63.5 24.9 16.4 44.6 31.6 19.7 38.0 32.2 47.8 56.5 33.3 34.6
 LOS by Move: E C B D C B D C D E C C
 HCM2kAvgQ: 5 9 8 3 18 1 3 3 13 7 2 3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.010
 Loss Time (sec): 12 Average Delay (sec/veh): 47.7
 Optimal Cycle: 180 Level Of Service: D

Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2

Volume Module:
 Base Vol: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 583 1142 0 0 1261 1150 0 0 0 391 0 461
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 583 1142 0 0 1261 0 0 0 0 391 0 461
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 583 1142 0 0 1261 0 0 0 0 391 0 461
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 583 1142 0 0 1261 0 0 0 0 391 0 461

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842

Capacity Analysis Module:
 Vol/Sat: 0.32 0.32 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.22 0.00 0.16
 Crit Moves: ****
 Green/Cycle: 0.32 0.67 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.21 0.00 0.21
 Volume/Cap: 1.01 0.48 0.00 0.00 1.01 0.00 0.00 0.00 0.00 1.01 0.00 0.76
 Uniform Del: 34.0 8.2 0.0 0.0 32.7 0.0 0.0 0.0 0.0 39.3 0.0 36.8
 IncremntDel: 40.0 0.1 0.0 0.0 28.0 0.0 0.0 0.0 0.0 48.3 0.0 5.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 74.0 8.3 0.0 0.0 60.7 0.0 0.0 0.0 0.0 87.6 0.0 42.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 74.0 8.3 0.0 0.0 60.7 0.0 0.0 0.0 0.0 87.6 0.0 42.2
 LOS by Move: E A A A E A A A A F A D
 HCM2kAvgQ: 18 8 0 0 23 0 0 0 0 18 0 9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.019
 Loss Time (sec): 12 Average Delay (sec/veh): 52.6
 Optimal Cycle: 180 Level Of Service: D

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

-----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1108 482 571 1079 0 776 0 442 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1108 482 571 1079 0 776 0 442 0 0 0 0

-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3502 0 1615 0 0 0 0

-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.31 0.30 0.32 0.30 0.00 0.22 0.00 0.27 0.00 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.30 0.30 0.31 0.61 0.00 0.27 0.00 0.27 0.00 0.00 0.00 0.00
 Volume/Cap: 0.00 1.02 0.99 1.02 0.49 0.00 0.83 0.00 1.02 0.00 0.00 0.00 0.00
 Uniform Del: 0.0 34.9 34.8 34.5 10.8 0.0 34.4 0.0 36.6 0.0 0.0 0.0 0.0
 IncremntDel: 0.0 32.2 38.4 43.0 0.2 0.0 6.1 0.0 48.2 0.0 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00
 Delay/Veh: 0.0 67.2 73.2 77.4 10.9 0.0 40.4 0.0 84.8 0.0 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 67.2 73.2 77.4 10.9 0.0 40.4 0.0 84.8 0.0 0.0 0.0 0.0
 LOS by Move: A E E E B A D A F A A A A
 HCM2kAvgQ: 0 23 18 18 9 0 14 0 20 0 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.517
 Loss Time (sec): 16 Average Delay (sec/veh): 26.3
 Optimal Cycle: 50 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1 0

-----|-----|-----|-----|
 Volume Module:
 Base Vol: 152 958 70 187 547 33 70 101 47 76 277 301
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 958 70 187 547 33 70 101 47 76 277 301
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 152 958 70 187 547 0 70 101 47 76 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 958 70 187 547 0 70 101 47 76 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 152 958 70 187 547 0 70 101 47 76 277 0

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 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 1.00 0.95 0.90 0.90 0.92 0.95 1.00
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 1.36 0.64 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1900 1805 2345 1091 3502 3610 1900

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 Capacity Analysis Module:
 Vol/Sat: 0.08 0.27 0.04 0.05 0.15 0.00 0.04 0.04 0.04 0.02 0.08 0.00
 Crit Moves: ****

Green/Cycle: 0.22 0.51 0.51 0.10 0.40 0.00 0.08 0.15 0.15 0.07 0.15 0.00
 Volume/Cap: 0.38 0.52 0.08 0.52 0.38 0.00 0.52 0.29 0.29 0.29 0.52 0.00
 Uniform Del: 33.2 16.1 12.4 42.5 21.5 0.0 44.5 37.9 37.9 43.7 39.3 0.0
 IncremntDel: 0.6 0.3 0.0 1.3 0.2 0.0 3.5 0.3 0.3 0.6 0.9 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 33.8 16.4 12.4 43.8 21.6 0.0 48.0 38.2 38.2 44.4 40.2 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 33.8 16.4 12.4 43.8 21.6 0.0 48.0 38.2 38.2 44.4 40.2 0.0
 LOS by Move: C B B D C A D D D D D A
 HCM2kAvgQ: 4 10 1 3 6 0 3 2 2 1 4 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.698
 Loss Time (sec): 16 Average Delay (sec/veh): 33.1
 Optimal Cycle: 69 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 93 270 36 615 670 150 159 289 212 139 895 239
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 93 270 36 615 670 150 159 289 212 139 895 239
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 93 270 36 615 670 150 159 289 212 139 895 239
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 93 270 36 615 670 150 159 289 212 139 895 239
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 93 270 36 615 670 150 159 289 212 139 895 239

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.05 0.07 0.02 0.18 0.19 0.09 0.09 0.08 0.13 0.08 0.25 0.15
 Crit Moves: ****
 Green/Cycle: 0.08 0.11 0.11 0.25 0.28 0.28 0.13 0.30 0.30 0.18 0.36 0.61
 Volume/Cap: 0.66 0.70 0.21 0.70 0.66 0.33 0.70 0.26 0.43 0.43 0.70 0.24
 Uniform Del: 44.8 43.1 40.8 34.0 31.8 28.5 41.9 26.4 27.9 36.6 27.6 9.1
 IncremntDel: 11.1 5.6 0.6 2.5 1.6 0.4 9.2 0.1 0.6 0.9 1.7 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 55.9 48.6 41.4 36.5 33.4 28.9 51.1 26.5 28.5 37.5 29.4 9.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 55.9 48.6 41.4 36.5 33.4 28.9 51.1 26.5 28.5 37.5 29.4 9.2
 LOS by Move: E D D D C C D C C D C A
 HCM2kAvgQ: 3 4 1 10 10 4 5 3 5 4 12 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.514
 Loss Time (sec): 16 Average Delay (sec/veh): 24.3
 Optimal Cycle: 50 Level Of Service: C

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 1 0 1 1 0

 Volume Module:
 Base Vol: 71 70 52 696 158 201 22 616 38 26 388 303
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 71 70 52 696 158 201 22 616 38 26 388 303
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 71 70 52 696 158 201 22 616 38 26 388 303
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 70 52 696 158 201 22 616 38 26 388 303
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 71 70 52 696 158 201 22 616 38 26 388 303

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.89 0.89 0.92 0.87 0.87 0.95 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.15 0.85 2.00 1.00 1.00 1.00 1.88 0.12 1.00 2.00 1.00
 Final Sat.: 1805 1939 1440 3502 1653 1653 1805 3370 208 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.04 0.04 0.04 0.20 0.10 0.12 0.01 0.18 0.18 0.01 0.11 0.19
 Crit Moves: ****
 Green/Cycle: 0.11 0.07 0.07 0.39 0.34 0.34 0.04 0.36 0.36 0.03 0.34 0.73
 Volume/Cap: 0.35 0.51 0.51 0.51 0.28 0.35 0.31 0.51 0.51 0.51 0.31 0.26
 Uniform Del: 41.1 44.8 44.8 23.5 23.7 24.4 46.7 25.4 25.4 47.9 24.1 4.5
 IncremntDel: 1.1 1.9 1.9 0.3 0.1 0.2 2.5 0.4 0.4 8.8 0.1 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 42.1 46.8 46.8 23.8 23.8 24.6 49.3 25.8 25.8 56.7 24.2 4.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.1 46.8 46.8 23.8 23.8 24.6 49.3 25.8 25.8 56.7 24.2 4.6
 LOS by Move: D D C C C D C C E C A
 HCM2kAvgQ: 2 2 2 8 3 5 1 8 8 1 4 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.512
 Loss Time (sec): 16 Average Delay (sec/veh): 31.0
 Optimal Cycle: 50 Level Of Service: C

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 1 0

 Volume Module:
 Base Vol: 145 7 25 141 5 282 147 248 40 6 369 89
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 145 7 25 141 5 282 147 248 40 6 369 89
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 145 7 25 141 5 282 147 248 40 6 369 89
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 145 7 25 141 5 282 147 248 40 6 369 89
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 145 7 25 141 5 282 147 248 40 6 369 89

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.88 0.88 0.95 0.85 0.85 0.92 0.93 0.93 0.95 0.92 0.92
 Lanes: 1.00 0.22 0.78 1.00 0.02 0.98 2.00 1.72 0.28 1.00 1.61 0.39
 Final Sat.: 1805 367 1311 1805 28 1592 3502 3043 491 1805 2824 681

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.02 0.02 0.08 0.18 0.18 0.04 0.08 0.08 0.00 0.13 0.13
 Crit Moves: ****
 Green/Cycle: 0.16 0.10 0.10 0.40 0.35 0.35 0.08 0.32 0.32 0.01 0.26 0.26
 Volume/Cap: 0.51 0.19 0.19 0.19 0.51 0.51 0.51 0.25 0.25 0.25 0.51 0.51
 Uniform Del: 38.6 41.4 41.4 19.3 26.0 26.0 44.0 24.9 24.9 48.8 31.9 31.9
 IncremntDel: 1.6 0.6 0.6 0.1 0.8 0.8 1.6 0.1 0.1 5.5 0.5 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 40.2 42.0 42.0 19.4 26.8 26.8 45.5 25.0 25.0 54.3 32.4 32.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 40.2 42.0 42.0 19.4 26.8 26.8 45.5 25.0 25.0 54.3 32.4 32.4
 LOS by Move: D D D B C C D C C D C C
 HCM2kAvgQ: 5 1 1 3 7 7 2 3 3 0 7 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.548
 Loss Time (sec): 16 Average Delay (sec/veh): 28.8
 Optimal Cycle: 53 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Ovl Ovl Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 117 235 44 140 777 170 186 677 210 44 336 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 117 235 44 140 777 170 186 677 210 44 336 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 117 235 44 140 777 170 186 677 210 44 336 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 117 235 44 140 777 170 186 677 210 44 336 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 117 235 44 140 777 170 186 677 210 44 336 67

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.07 0.03 0.08 0.22 0.11 0.10 0.19 0.13 0.02 0.09 0.04
 Crit Moves: ****
 Green/Cycle: 0.06 0.21 0.21 0.25 0.39 0.60 0.20 0.34 0.40 0.04 0.18 0.18
 Volume/Cap: 0.55 0.31 0.13 0.31 0.55 0.18 0.51 0.55 0.32 0.55 0.51 0.23
 Uniform Del: 45.6 33.6 32.3 30.8 23.5 9.1 35.4 26.6 20.5 46.8 36.8 34.8
 IncremntDel: 3.0 0.2 0.2 0.4 0.5 0.1 1.2 0.5 0.3 7.8 0.6 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.6 33.9 32.5 31.2 24.0 9.2 36.6 27.2 20.8 54.6 37.4 35.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.6 33.9 32.5 31.2 24.0 9.2 36.6 27.2 20.8 54.6 37.4 35.2
 LOS by Move: D C C C C A D C C D D D
 HCM2kAvgQ: 2 3 1 4 10 2 5 9 4 2 5 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.839
 Loss Time (sec): 12 Average Delay (sec/veh): 35.4
 Optimal Cycle: 87 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 383 431 151 141 1184 106 47 425 441 97 206 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 383 431 151 141 1184 106 47 425 441 97 206 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 383 431 151 141 1184 106 47 425 441 97 206 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 383 431 151 141 1184 106 47 425 441 97 206 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 383 431 151 141 1184 106 47 425 441 97 206 44

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.65 0.35
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 2897 619

Capacity Analysis Module:
 Vol/Sat: 0.11 0.12 0.09 0.08 0.33 0.07 0.03 0.12 0.27 0.03 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.13 0.32 0.32 0.21 0.39 0.39 0.10 0.33 0.33 0.03 0.26 0.26
 Volume/Cap: 0.84 0.38 0.30 0.38 0.84 0.17 0.27 0.36 0.84 0.84 0.27 0.27
 Uniform Del: 42.5 26.6 25.9 34.2 27.6 19.8 41.9 25.8 31.3 48.1 29.3 29.3
 IncremntDel: 12.9 0.2 0.3 0.6 4.6 0.1 0.8 0.2 11.4 39.1 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 55.4 26.8 26.2 34.8 32.2 20.0 42.8 26.0 42.7 87.1 29.4 29.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 55.4 26.8 26.2 34.8 32.2 20.0 42.8 26.0 42.7 87.1 29.4 29.4
 LOS by Move: E C C C C B D C D F C C
 HCM2kAvgQ: 7 5 3 4 18 2 1 5 13 3 3 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.975
 Loss Time (sec): 16 Average Delay (sec/veh): 50.4
 Optimal Cycle: 157 Level Of Service: D

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 566 692 0 0 0 868 853 0 0 0 109 7 322
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 566 692 0 0 0 868 853 0 0 0 109 7 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 566 692 0 0 868 0 0 0 0 109 7 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 566 692 0 0 868 0 0 0 0 109 7 322
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 566 692 0 0 868 0 0 0 0 109 7 322

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.25 0.02 0.73
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 412 26 1216

Capacity Analysis Module:
 Vol/Sat: 0.31 0.19 0.00 0.00 0.24 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Crit Moves: ****
 Green/Cycle: 0.32 0.57 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.27 0.27 0.27
 Volume/Cap: 0.97 0.34 0.00 0.00 0.97 0.00 0.00 0.00 0.00 0.97 0.97 0.97
 Uniform Del: 33.5 11.5 0.0 0.0 37.4 0.0 0.0 0.0 0.0 36.1 36.1 36.1
 IncremntDel: 30.9 0.1 0.0 0.0 24.1 0.0 0.0 0.0 0.0 35.8 35.8 35.8
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 64.4 11.6 0.0 0.0 61.4 0.0 0.0 0.0 0.0 71.9 71.9 71.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 64.4 11.6 0.0 0.0 61.4 0.0 0.0 0.0 0.0 71.9 71.9 71.9
 LOS by Move: E B A A E A A A A E E E
 HCM2kAvgQ: 18 6 0 0 15 0 0 0 0 19 19 19

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
 Loss Time (sec): 16 Average Delay (sec/veh): 40.5
 Optimal Cycle: 129 Level Of Service: D

Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 837 229 463 513 0 372 2 338 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 837 229 463 513 0 372 2 338 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 837 229 463 513 0 372 2 338 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 837 229 463 513 0 372 2 338 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 837 229 463 513 0 372 2 338 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.92 0.92 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 1.57 0.43 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 2744 751 1805 3610 0 3076 17 1546 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.31 0.31 0.26 0.14 0.00 0.12 0.12 0.22 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.33 0.33 0.28 0.60 0.00 0.24 0.24 0.24 0.00 0.00 0.00
 Volume/Cap: 0.00 0.93 0.93 0.93 0.24 0.00 0.51 0.51 0.93 0.00 0.00 0.00
 Uniform Del: 0.0 32.4 32.4 35.2 9.1 0.0 33.3 33.3 37.4 0.0 0.0 0.0
 IncremntDel: 0.0 12.9 12.9 23.9 0.1 0.0 0.3 0.3 17.5 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 45.4 45.4 59.1 9.2 0.0 33.6 33.6 54.9 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 45.4 45.4 59.1 9.2 0.0 33.6 33.6 54.9 0.0 0.0 0.0
 LOS by Move: A D D E A A C C D A A A
 HCM2kAvgQ: 0 19 19 13 3 0 6 6 15 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.552
 Loss Time (sec): 16 Average Delay (sec/veh): 31.0
 Optimal Cycle: 53 Level Of Service: C

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 40 385 23 107 234 185 438 192 23 14 108 77
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 40 385 23 107 234 185 438 192 23 14 108 77
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 40 385 23 107 234 185 438 192 23 14 108 77
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 40 385 23 107 234 185 438 192 23 14 108 77
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 40 385 23 107 234 185 438 192 23 14 108 77

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.89 0.89 0.95 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.89 0.11 1.00 1.12 0.88 1.00 1.79 0.21 1.00 2.00 1.00
 Final Sat.: 1805 3379 202 1805 1883 1489 1805 3172 380 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.02 0.11 0.11 0.06 0.12 0.12 0.24 0.06 0.06 0.01 0.03 0.05
 Crit Moves: ****
 Green/Cycle: 0.05 0.21 0.21 0.11 0.27 0.27 0.44 0.47 0.47 0.06 0.09 0.09
 Volume/Cap: 0.47 0.55 0.55 0.55 0.47 0.47 0.55 0.13 0.13 0.13 0.35 0.55
 Uniform Del: 46.4 35.5 35.5 42.3 30.7 30.7 20.7 15.2 15.2 44.5 43.0 43.8
 IncremntDel: 4.0 0.9 0.9 3.4 0.4 0.4 0.8 0.0 0.0 0.5 0.7 4.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 50.4 36.4 36.4 45.8 31.1 31.1 21.6 15.2 15.2 45.1 43.7 48.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 50.4 36.4 36.4 45.8 31.1 31.1 21.6 15.2 15.2 45.1 43.7 48.5
 LOS by Move: D D D D C C C B B D D D
 HCM2kAvgQ: 2 7 7 3 6 6 10 2 2 1 2 3

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 11.8]
*****
Street Name:
Sunset
Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 262 8 3 225 0 0 0 0 8 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 262 8 3 225 0 0 0 0 8 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 262 8 3 225 0 0 0 0 8 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 262 8 3 225 0 0 0 0 8 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 270 xxxx xxxxx 497 501 225 497 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 1305 xxxx xxxxx 487 475 819 536 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 1305 xxxx xxxxx 486 474 819 535 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.00 xxxx xxxx 0.00 0.00 0.00 0.01 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx 11.8 xxxx xxxxx
LOS by Move: * * * A * * * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 11.8
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****

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Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Veh	V/ C	LOS	Veh	V/ C	
# 1 Highland Springs/8th-Wilson	D	41.7	0.940	D	41.7	0.940	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	39.6	0.879	D	39.6	0.879	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	C	32.4	0.888	C	32.4	0.888	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	54.4	1.059	D	54.4	1.059	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	D	42.6	0.887	D	42.6	0.887	+ 0.000 D/V
# 6 Highland Home/Wilson	D	40.8	0.924	D	40.8	0.924	+ 0.000 D/V
# 7 Highland Home/Ramsey	D	39.9	0.915	D	39.9	0.915	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	D	44.0	0.959	D	44.0	0.959	+ 0.000 D/V
# 9 Sunset/Wilson	D	43.9	0.944	D	43.9	0.944	+ 0.000 D/V
# 10 Sunset/Ramsey	D	45.5	0.932	D	45.5	0.932	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	28.5	0.838	C	28.5	0.838	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	43.1	0.986	D	43.1	0.986	+ 0.000 D/V
# 13 Sunset/Lincoln	D	39.5	0.866	D	39.5	0.866	+ 0.000 D/V
# 14 Sunset/Westward	B	10.4	0.094	B	10.4	0.094	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/8th-Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.940
 Loss Time (sec): 16 Average Delay (sec/veh): 41.7
 Optimal Cycle: 135 Level Of Service: D

Street Name: Highland Springs 8th-Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 26 1434 383 361 881 159 167 709 49 270 512 358
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 26 1434 383 361 881 159 167 709 49 270 512 358
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 26 1434 383 361 881 159 167 709 49 270 512 358
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 26 1434 383 361 881 159 167 709 49 270 512 358
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 26 1434 383 361 881 159 167 709 49 270 512 358

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.94 0.94 0.92 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 1.87 0.13 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 1805 3343 231 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.01 0.40 0.24 0.10 0.24 0.10 0.09 0.21 0.21 0.08 0.14 0.22
 Crit Moves: ****
 Green/Cycle: 0.03 0.42 0.42 0.11 0.50 0.50 0.12 0.23 0.23 0.08 0.19 0.30
 Volume/Cap: 0.49 0.94 0.56 0.94 0.49 0.20 0.76 0.94 0.94 0.94 0.76 0.75
 Uniform Del: 47.8 27.7 21.8 44.2 16.4 13.7 42.5 38.1 38.1 45.7 38.6 31.8
 IncremntDel: 6.8 11.7 1.1 30.9 0.2 0.1 14.5 18.7 18.7 37.3 5.1 6.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 54.5 39.3 22.9 75.1 16.6 13.8 57.0 56.7 56.7 82.9 43.7 38.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 54.5 39.3 22.9 75.1 16.6 13.8 57.0 56.7 56.7 82.9 43.7 38.3
 LOS by Move: D D C E B B E E F D D
 HCM2kAvgQ: 1 23 8 9 9 3 7 17 17 5 8 10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.879
 Loss Time (sec): 16 Average Delay (sec/veh): 39.6
 Optimal Cycle: 109 Level Of Service: D

Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 512 1593 530 309 1074 127 175 608 347 459 608 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 512 1593 530 309 1074 127 175 608 347 459 608 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 512 1593 530 309 1074 127 175 608 347 459 608 277
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 512 1593 530 309 1074 127 175 608 347 459 608 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 512 1593 530 309 1074 127 175 608 347 459 608 277
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.86 0.86 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3271 1636 3502 3610 1615
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.15 0.31 0.33 0.09 0.21 0.08 0.10 0.19 0.21 0.13 0.17 0.17
 Crit Moves: ****
 Green/Cycle: 0.19 0.35 0.50 0.10 0.26 0.26 0.14 0.24 0.24 0.15 0.25 0.25
 Volume/Cap: 0.79 0.88 0.66 0.88 0.79 0.30 0.69 0.77 0.88 0.88 0.68 0.69
 Uniform Del: 38.8 30.6 18.7 44.4 34.2 29.4 40.9 35.4 36.5 41.7 33.9 34.0
 IncremntDel: 6.3 5.3 2.0 21.5 3.1 0.4 7.7 3.0 8.4 15.7 2.1 4.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.1 35.9 20.7 65.9 37.3 29.8 48.5 38.4 45.0 57.4 35.9 39.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.1 35.9 20.7 65.9 37.3 29.8 48.5 38.4 45.0 57.4 35.9 39.0
 LOS by Move: D D C E D C D D D E D D
 HCM2kAvgQ: 8 17 12 6 12 3 6 11 15 7 8 7
 -----|-----|-----|-----|

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.888
 Loss Time (sec): 12 Average Delay (sec/veh): 32.4
 Optimal Cycle: 104 Level Of Service: C

Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|
 Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 330 1524 0 0 0 1199 682 0 0 0 347 0 758
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 330 1524 0 0 0 1199 0 0 0 0 347 0 758
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 330 1524 0 0 0 1199 0 0 0 0 347 0 758
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 330 1524 0 0 0 1199 0 0 0 0 347 0 758
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.18 0.42 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.19 0.00 0.27
 Crit Moves: ****
 Green/Cycle: 0.21 0.58 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.30 0.00 0.30
 Volume/Cap: 0.89 0.73 0.00 0.00 0.89 0.00 0.00 0.00 0.00 0.64 0.00 0.89
 Uniform Del: 38.6 15.3 0.0 0.0 29.3 0.0 0.0 0.0 0.0 30.3 0.0 33.4
 IncremntDel: 22.0 1.3 0.0 0.0 7.6 0.0 0.0 0.0 0.0 2.6 0.0 11.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 60.6 16.6 0.0 0.0 36.9 0.0 0.0 0.0 0.0 32.9 0.0 44.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 60.6 16.6 0.0 0.0 36.9 0.0 0.0 0.0 0.0 32.9 0.0 44.6
 LOS by Move: E B A A D A A A A C A D
 HCM2kAvgQ: 9 16 0 0 18 0 0 0 0 10 0 16
 -----|-----|-----|-----|

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.059
 Loss Time (sec): 12 Average Delay (sec/veh): 54.4
 Optimal Cycle: 180 Level Of Service: D

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1369 409 461 1085 0 839 0 480 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1369 409 461 1085 0 839 0 480 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.95 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 1805 3610 0 3502 0 1615 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.38 0.25 0.26 0.30 0.00 0.24 0.00 0.30 0.00 0.00 0.00
 Crit Moves: ****

Green/Cycle: 0.00 0.36 0.36 0.24 0.60 0.00 0.28 0.00 0.28 0.00 0.00 0.00
 Volume/Cap: 0.00 1.06 0.71 1.06 0.50 0.00 0.85 0.00 1.06 0.00 0.00 0.00
 Uniform Del: 0.0 32.1 27.6 37.9 11.5 0.0 34.0 0.0 36.0 0.0 0.0 0.0
 IncremntDel: 0.0 42.2 4.0 59.6 0.2 0.0 7.4 0.0 58.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 74.3 31.6 97.5 11.7 0.0 41.4 0.0 94.7 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 74.3 31.6 97.5 11.7 0.0 41.4 0.0 94.7 0.0 0.0 0.0
 LOS by Move: A E C F B A D A F A A A A
 HCM2kAvgQ: 0 28 10 18 9 0 15 0 23 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.887
 Loss Time (sec): 16 Average Delay (sec/veh): 42.6
 Optimal Cycle: 111 Level Of Service: D

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 188 693 272 334 728 35 71 923 266 343 847 323
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 188 693 272 334 728 35 71 923 266 343 847 323
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 188 693 272 334 728 0 71 923 266 343 847 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 188 693 272 334 728 0 71 923 266 343 847 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 188 693 272 334 728 0 71 923 266 343 847 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 1.00 0.95 0.92 0.92 0.92 0.95 1.00
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 1.55 0.45 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1900 1805 2707 780 3502 3610 1900

Capacity Analysis Module:
 Vol/Sat: 0.10 0.19 0.17 0.10 0.20 0.00 0.04 0.34 0.34 0.10 0.23 0.00
 Crit Moves: ****

Green/Cycle: 0.12 0.23 0.23 0.11 0.23 0.00 0.07 0.38 0.38 0.11 0.42 0.00
 Volume/Cap: 0.89 0.83 0.73 0.83 0.89 0.00 0.55 0.89 0.89 0.89 0.55 0.00
 Uniform Del: 43.5 36.6 35.6 43.3 37.4 0.0 44.9 28.7 28.7 43.9 21.7 0.0
 IncremntDel: 33.0 7.2 7.2 13.9 11.5 0.0 5.2 7.5 7.5 21.1 0.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 76.5 43.9 42.8 57.2 48.8 0.0 50.1 36.2 36.2 64.9 22.1 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 76.5 43.9 42.8 57.2 48.8 0.0 50.1 36.2 36.2 64.9 22.1 0.0
 LOS by Move: E D D E D A D D D E C A A
 HCM2kAvgQ: 9 13 9 6 12 0 3 21 21 5 9 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
 Loss Time (sec): 16 Average Delay (sec/veh): 40.8
 Optimal Cycle: 127 Level Of Service: D

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 271 795 236 538 649 113 119 1000 308 54 865 792
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 271 795 236 538 649 113 119 1000 308 54 865 792
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 271 795 236 538 649 113 119 1000 308 54 865 792
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 271 795 236 538 649 113 119 1000 308 54 865 792
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 271 795 236 538 649 113 119 1000 308 54 865 792

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.15 0.22 0.15 0.15 0.18 0.07 0.07 0.28 0.19 0.03 0.24 0.49
 Crit Moves: ****
 Green/Cycle: 0.18 0.24 0.24 0.17 0.22 0.22 0.07 0.39 0.39 0.04 0.36 0.53
 Volume/Cap: 0.82 0.92 0.61 0.92 0.82 0.32 0.92 0.70 0.49 0.70 0.66 0.92
 Uniform Del: 39.2 37.2 34.0 41.1 37.1 32.7 46.2 25.5 22.8 47.3 26.6 21.6
 IncremntDel: 14.4 15.5 2.9 20.7 6.6 0.5 56.5 1.6 0.6 25.7 1.2 15.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 53.6 52.7 36.9 61.8 43.6 33.2 102.7 27.1 23.3 72.9 27.8 37.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 53.6 52.7 36.9 61.8 43.6 33.2 102.7 27.1 23.3 72.9 27.8 37.2
 LOS by Move: D D D E D C F C C E C D
 HCM2kAvgQ: 8 13 6 12 12 3 4 13 7 2 11 22

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.915
 Loss Time (sec): 16 Average Delay (sec/veh): 39.9
 Optimal Cycle: 123 Level Of Service: D

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 1 0 1 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 66 207 54 651 206 100 330 1021 119 119 1093 826
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 66 207 54 651 206 100 330 1021 119 119 1093 826
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 66 207 54 651 206 100 330 1021 119 119 1093 826
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 66 207 54 651 206 100 330 1021 119 119 1093 826
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 66 207 54 651 206 100 330 1021 119 119 1093 826

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.92 0.92 0.92 0.90 0.90 0.95 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.59 0.41 2.00 1.35 0.65 1.00 1.79 0.21 1.00 2.00 1.00
 Final Sat.: 1805 2774 724 3502 2311 1122 1805 3181 371 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.04 0.07 0.07 0.19 0.09 0.09 0.18 0.32 0.32 0.07 0.30 0.51
 Crit Moves: ****
 Green/Cycle: 0.08 0.08 0.08 0.20 0.20 0.20 0.20 0.46 0.46 0.09 0.36 0.56
 Volume/Cap: 0.44 0.92 0.92 0.92 0.44 0.44 0.92 0.70 0.70 0.70 0.85 0.92
 Uniform Del: 43.7 45.6 45.6 39.0 35.0 35.0 39.2 21.4 21.4 43.9 29.8 19.9
 IncremntDel: 2.1 32.0 32.0 16.5 0.5 0.5 27.2 1.3 1.3 11.9 5.6 13.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.7 77.6 77.6 55.5 35.4 35.4 66.4 22.7 22.7 55.8 35.4 33.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.7 77.6 77.6 55.5 35.4 35.4 66.4 22.7 22.7 55.8 35.4 33.6
 LOS by Move: D E E E D D E C C E D C
 HCM2kAvgQ: 2 5 5 11 4 4 11 14 14 3 16 23

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 0.959
 Loss Time (sec): 16 Average Delay (sec/veh): 44.0
 Optimal Cycle: 146 Level Of Service: D

Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
 Base Vol: 178 10 19 232 9 317 338 1161 252 27 1242 206
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 178 10 19 232 9 317 338 1161 252 27 1242 206
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 178 10 19 232 9 317 338 1161 252 27 1242 206
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 178 10 19 232 9 317 338 1161 252 27 1242 206
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 178 10 19 232 9 317 338 1161 252 27 1242 206

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.90 0.90 0.95 0.85 0.85 0.92 0.92 0.92 0.95 0.93 0.93
 Lanes: 1.00 0.34 0.66 1.00 0.03 0.97 2.00 1.64 0.36 1.00 1.72 0.28
 Final Sat.: 1805 591 1123 1805 45 1578 3502 2886 626 1805 3031 503

Capacity Analysis Module:
 Vol/Sat: 0.10 0.02 0.02 0.13 0.20 0.20 0.10 0.40 0.40 0.01 0.41 0.41
 Crit Moves: ****
 Green/Cycle: 0.10 0.04 0.04 0.28 0.21 0.21 0.10 0.51 0.51 0.02 0.43 0.43
 Volume/Cap: 0.96 0.47 0.47 0.47 0.96 0.96 0.96 0.79 0.79 0.96 0.96
 Uniform Del: 44.7 47.2 47.2 30.1 39.1 39.1 44.8 20.2 20.2 48.9 27.8 27.8
 IncremntDel: 54.1 5.4 5.4 0.7 38.0 38.0 37.1 2.5 2.5 74.2 14.6 14.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 98.7 52.7 52.7 30.8 77.1 77.1 81.9 22.7 22.7 123.1 42.4 42.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 98.7 52.7 52.7 30.8 77.1 77.1 81.9 22.7 22.7 123.1 42.4 42.4
 LOS by Move: F D D C E E F C C F D D
 HCM2kAvgQ: 9 2 2 6 15 15 6 18 18 2 28 28

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.944
 Loss Time (sec): 16 Average Delay (sec/veh): 43.9
 Optimal Cycle: 137 Level Of Service: D

Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
 Base Vol: 285 727 54 141 386 277 329 910 167 193 1196 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 285 727 54 141 386 277 329 910 167 193 1196 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 285 727 54 141 386 277 329 910 167 193 1196 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 285 727 54 141 386 277 329 910 167 193 1196 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 285 727 54 141 386 277 329 910 167 193 1196 178

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.08 0.20 0.03 0.08 0.11 0.17 0.18 0.25 0.10 0.11 0.33 0.11
 Crit Moves: ****
 Green/Cycle: 0.13 0.21 0.21 0.08 0.17 0.36 0.19 0.38 0.51 0.16 0.35 0.35
 Volume/Cap: 0.64 0.94 0.16 0.94 0.64 0.47 0.94 0.66 0.20 0.66 0.94 0.31
 Uniform Del: 41.4 38.7 32.0 45.6 38.7 24.6 39.8 25.5 13.4 39.3 31.5 23.7
 IncremntDel: 3.0 20.0 0.2 56.9 2.2 0.6 33.9 1.2 0.1 5.5 14.0 0.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 44.4 58.8 32.2 102.5 41.0 25.2 73.7 26.7 13.5 44.8 45.5 24.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 44.4 58.8 32.2 102.5 41.0 25.2 73.7 26.7 13.5 44.8 45.5 24.0
 LOS by Move: D E C F D C E C B D D C
 HCM2kAvgQ: 4 12 1 8 7 7 11 12 3 7 24 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.932
 Loss Time (sec): 12 Average Delay (sec/veh): 45.5
 Optimal Cycle: 127 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 420 1185 196 152 876 239 191 911 283 543 792 102
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 420 1185 196 152 876 239 191 911 283 543 792 102
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 420 1185 196 152 876 239 191 911 283 543 792 102
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 420 1185 196 152 876 239 191 911 283 543 792 102
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 420 1185 196 152 876 239 191 911 283 543 792 102

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.77 0.23
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 3144 405

Capacity Analysis Module:
 Vol/Sat: 0.12 0.33 0.12 0.08 0.24 0.15 0.11 0.25 0.18 0.16 0.25 0.25
 Crit Moves: ****

Green/Cycle: 0.15 0.35 0.35 0.09 0.30 0.30 0.13 0.27 0.27 0.17 0.31 0.31
 Volume/Cap: 0.82 0.93 0.34 0.93 0.82 0.50 0.82 0.93 0.65 0.93 0.82 0.82
 Uniform Del: 41.4 31.2 23.9 45.2 32.7 29.1 42.4 35.6 32.2 41.1 32.0 32.0
 IncremntDel: 10.0 12.3 0.4 50.6 5.1 0.8 19.8 15.0 3.4 21.9 5.0 5.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 51.4 43.5 24.2 95.8 37.8 29.9 62.2 50.6 35.6 63.0 37.0 37.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 51.4 43.5 24.2 95.8 37.8 29.9 62.2 50.6 35.6 63.0 37.0 37.0
 LOS by Move: D D C F D C E D D E D D
 HCM2kAvgQ: 6 19 4 5 13 6 6 16 7 12 16 16

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
 Loss Time (sec): 16 Average Delay (sec/veh): 28.5
 Optimal Cycle: 96 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 401 1751 0 0 654 1049 0 0 0 101 15 248
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 401 1751 0 0 654 1049 0 0 0 101 15 248
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 401 1751 0 0 654 0 0 0 0 101 15 248
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 401 1751 0 0 654 0 0 0 0 101 15 248
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 401 1751 0 0 654 0 0 0 0 101 15 248

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.28 0.04 0.68
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 461 68 1132

Capacity Analysis Module:
 Vol/Sat: 0.22 0.49 0.00 0.00 0.18 0.00 0.00 0.00 0.00 0.22 0.22 0.22
 Crit Moves: ****

Green/Cycle: 0.32 0.58 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Volume/Cap: 0.70 0.84 0.00 0.00 0.70 0.00 0.00 0.00 0.00 0.84 0.84 0.84
 Uniform Del: 29.8 17.2 0.0 0.0 33.4 0.0 0.0 0.0 0.0 34.9 34.9 34.9
 IncremntDel: 3.7 3.2 0.0 0.0 2.3 0.0 0.0 0.0 0.0 13.4 13.4 13.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 33.6 20.4 0.0 0.0 35.8 0.0 0.0 0.0 0.0 48.4 48.4 48.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 33.6 20.4 0.0 0.0 35.8 0.0 0.0 0.0 0.0 48.4 48.4 48.4
 LOS by Move: C C A A D A A A A D D D
 HCM2kAvgQ: 10 21 0 0 9 0 0 0 0 13 13 13

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.986
 Loss Time (sec): 16 Average Delay (sec/veh): 43.1
 Optimal Cycle: 165 Level Of Service: D

Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1043 76 187 623 0 1004 4 635 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1043 76 187 623 0 1004 4 635 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1043 76 187 623 0 1004 4 635 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1043 76 187 623 0 1004 4 635 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1043 76 187 623 0 1004 4 635 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.94 0.94 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 1.86 0.14 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3331 243 1805 3610 0 3076 12 1544 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.31 0.31 0.10 0.17 0.00 0.33 0.33 0.41 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.32 0.32 0.11 0.42 0.00 0.42 0.42 0.42 0.00 0.00 0.00
 Volume/Cap: 0.00 0.99 0.99 0.99 0.41 0.00 0.78 0.78 0.99 0.00 0.00 0.00
 Uniform Del: 0.0 33.9 33.9 44.7 20.1 0.0 25.2 25.2 28.8 0.0 0.0 0.0
 IncremntDel: 0.0 23.2 23.2 61.0 0.2 0.0 2.0 2.0 18.7 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 57.1 57.1 105.7 20.3 0.0 27.2 27.2 47.5 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 57.1 57.1 105.7 20.3 0.0 27.2 27.2 47.5 0.0 0.0 0.0
 LOS by Move: A E E F C A C C D A A A
 HCM2kAvgQ: 0 21 21 7 7 0 16 16 27 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.866
 Loss Time (sec): 16 Average Delay (sec/veh): 39.5
 Optimal Cycle: 104 Level Of Service: D

Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1

Volume Module:
 Base Vol: 163 317 42 195 394 406 264 827 56 32 918 182
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 163 317 42 195 394 406 264 827 56 32 918 182
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 163 317 42 195 394 406 264 827 56 32 918 182
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 163 317 42 195 394 406 264 827 56 32 918 182
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 163 317 42 195 394 406 264 827 56 32 918 182

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.93 0.93 0.95 0.88 0.88 0.95 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.77 0.23 1.00 1.00 1.00 1.00 1.87 0.13 1.00 2.00 1.00
 Final Sat.: 1805 3130 415 1805 1668 1668 1805 3351 227 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.09 0.10 0.10 0.11 0.24 0.24 0.15 0.25 0.25 0.02 0.25 0.11
 Crit Moves: ****
 Green/Cycle: 0.10 0.18 0.18 0.19 0.27 0.27 0.17 0.43 0.43 0.03 0.29 0.29
 Volume/Cap: 0.87 0.55 0.55 0.55 0.87 0.89 0.87 0.57 0.57 0.57 0.87 0.38
 Uniform Del: 44.1 37.2 37.2 36.4 34.6 34.9 40.4 21.4 21.4 47.8 33.4 28.1
 IncremntDel: 31.7 1.1 1.1 1.9 8.6 11.1 21.9 0.5 0.5 13.4 7.6 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 75.8 38.2 38.2 38.3 43.2 46.1 62.3 22.0 22.0 61.2 41.1 28.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 75.8 38.2 38.2 38.3 43.2 46.1 62.3 22.0 22.0 61.2 41.1 28.6
 LOS by Move: E D D D D E C C E D C
 HCM2kAvgQ: 8 6 6 5 13 14 11 11 11 2 17 5

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh):      2.4      Worst Case Level Of Service: B[ 10.4]
*****
Street Name:      Sunset      Westward
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 1 0      0 1 0 0 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 180 13      18 207 0      0 0 0 0      25 0 81
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 180 13      18 207 0      0 0 0 0      25 0 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 180 13      18 207 0      0 0 0 0      25 0 81
Reduct Vol: 0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
FinalVolume: 0 180 13      18 207 0      0 0 0 0      25 0 81
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 6.5 6.2
FollowUpTim:xxxxxx xxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 193 xxxx xxxxx 470 436 207 430 430 187
Potent Cap.: xxxx xxxx xxxxxx 1392 xxxxx xxxxxx 507 517 839 586 521 861
Move Cap.: xxxx xxxx xxxxxx 1392 xxxxx xxxxxx 455 510 839 580 514 861
Volume/Cap: xxxx xxxx xxxxx 0.01 xxxxx xxxxx 0.00 0.00 0.00 0.04 0.00 0.09
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx 7.6 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 0 xxxxxx xxxxx 773 xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx 0.5 xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx 7.6 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx 10.4 xxxxxx
Shared LOS: * * * A * * * * * * * B *
ApproachDel: xxxxxx xxxxxx xxxxxx 10.4
ApproachLOS: * * * * B
*****
Note: Queue reported is the number of cars per lane.
*****
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Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 Highland Springs/8th-Wilson	C	30.8	0.776	C	30.8	0.776	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	36.6	0.887	D	36.6	0.887	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	54.5	1.054	D	54.5	1.054	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	C	32.7	0.878	C	32.7	0.878	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	23.4	0.510	C	23.4	0.510	+ 0.000 D/V
# 6 Highland Home/Wilson	C	29.6	0.632	C	29.6	0.632	+ 0.000 D/V
# 7 Highland Home/Ramsey	C	23.4	0.716	C	23.4	0.716	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	28.2	0.341	C	28.2	0.341	+ 0.000 D/V
# 9 Sunset/Wilson	C	28.1	0.547	C	28.1	0.547	+ 0.000 D/V
# 10 Sunset/Ramsey	C	30.4	0.750	C	30.4	0.750	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	D	54.3	1.002	D	54.3	1.002	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	43.2	0.958	D	43.2	0.958	+ 0.000 D/V
# 13 Sunset/Lincoln	C	27.9	0.456	C	27.9	0.456	+ 0.000 D/V
# 14 Sunset/Westward	B	12.6	0.017	B	12.6	0.017	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Highland Springs/8th-Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
 Loss Time (sec): 16 Average Delay (sec/veh): 30.8
 Optimal Cycle: 81 Level Of Service: C

Street Name: Highland Springs 8th-Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ovl Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 3 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 57 691 266 204 1206 154 65 162 101 730 290 139
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 57 691 266 204 1206 154 65 162 101 730 290 139
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 57 691 266 204 1206 154 65 162 101 730 290 139
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 57 691 266 204 1206 154 65 162 101 730 290 139
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 57 691 266 204 1206 154 65 162 101 730 290 139

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.92 0.95 0.85 0.95 0.89 0.89 0.92 0.95 0.85
 Lanes: 1.00 3.00 1.00 2.00 2.00 1.00 1.00 1.23 0.77 2.00 2.00 1.00
 Final Sat.: 1805 5187 1615 3502 3610 1615 1805 2095 1306 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.03 0.13 0.16 0.06 0.33 0.10 0.04 0.08 0.08 0.21 0.08 0.09
 Crit Moves: ****
 Green/Cycle: 0.04 0.33 0.60 0.14 0.43 0.43 0.11 0.10 0.10 0.27 0.25 0.40
 Volume/Cap: 0.78 0.41 0.28 0.41 0.78 0.22 0.32 0.78 0.78 0.78 0.32 0.22
 Uniform Del: 47.5 26.0 9.7 39.0 24.3 17.9 40.7 43.9 43.9 33.8 30.2 19.8
 IncremntDel: 39.3 0.2 0.2 0.5 2.5 0.2 0.9 10.7 10.7 4.1 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 86.8 26.2 9.9 39.5 26.8 18.1 41.6 54.6 54.6 37.9 30.4 20.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 86.8 26.2 9.9 39.5 26.8 18.1 41.6 54.6 54.6 37.9 30.4 20.0
 LOS by Move: F C A D C B D D D D C C
 HCM2kAvgQ: 2 6 4 3 18 3 2 6 6 11 4 3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.887
 Loss Time (sec): 16 Average Delay (sec/veh): 36.6
 Optimal Cycle: 111 Level Of Service: D

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1

 Volume Module:
 Base Vol: 275 1129 461 203 1816 78 90 221 306 428 144 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 275 1129 461 203 1816 78 90 221 306 428 144 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 275 1129 461 203 1816 78 90 221 306 428 144 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 275 1129 461 203 1816 78 90 221 306 428 144 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 275 1129 461 203 1816 78 90 221 306 428 144 103

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.83 0.83 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3157 1579 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.22 0.29 0.06 0.35 0.05 0.05 0.07 0.19 0.12 0.04 0.06
 Crit Moves: ****
 Green/Cycle: 0.09 0.40 0.40 0.08 0.39 0.39 0.16 0.22 0.22 0.14 0.20 0.20
 Volume/Cap: 0.89 0.54 0.71 0.71 0.89 0.12 0.32 0.32 0.89 0.89 0.20 0.32
 Uniform Del: 45.1 22.9 25.0 44.8 28.2 19.2 37.4 32.8 37.9 42.3 33.3 34.2
 IncremntDel: 24.9 0.3 3.7 8.1 5.1 0.1 0.7 0.1 15.0 17.7 0.1 0.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 70.0 23.2 28.7 52.8 33.3 19.3 38.1 32.9 52.8 60.0 33.5 34.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 70.0 23.2 28.7 52.8 33.3 19.3 38.1 32.9 52.8 60.0 33.5 34.7
 LOS by Move: E C C D C B D C D E C C
 HCM2kAvgQ: 5 9 12 3 19 1 3 3 13 8 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.054
 Loss Time (sec): 12 Average Delay (sec/veh): 54.5
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2

 Volume Module:
 Base Vol: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 583 1245 0 0 1400 0 0 0 0 391 0 461
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 583 1245 0 0 1400 0 0 0 0 391 0 461
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 583 1245 0 0 1400 0 0 0 0 391 0 461

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842

 Capacity Analysis Module:
 Vol/Sat: 0.32 0.34 0.00 0.00 0.39 0.00 0.00 0.00 0.00 0.22 0.00 0.16
 Crit Moves: ****
 Green/Cycle: 0.31 0.67 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.21 0.00 0.21
 Volume/Cap: 1.05 0.51 0.00 0.00 1.05 0.00 0.00 0.00 0.00 1.05 0.00 0.79
 Uniform Del: 34.7 8.1 0.0 0.0 31.6 0.0 0.0 0.0 0.0 39.7 0.0 37.7
 IncremntDel: 53.2 0.2 0.0 0.0 40.2 0.0 0.0 0.0 0.0 61.6 0.0 7.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 87.9 8.3 0.0 0.0 71.8 0.0 0.0 0.0 0.0 101.3 0.0 44.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 87.9 8.3 0.0 0.0 71.8 0.0 0.0 0.0 0.0 101.3 0.0 44.8
 LOS by Move: F A A A E A A A A F A D
 HCM2kAvgQ: 22 9 0 0 28 0 0 0 0 19 0 10

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878
 Loss Time (sec): 12 Average Delay (sec/veh): 32.7
 Optimal Cycle: 100 Level Of Service: C

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 2 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1211 482 571 1218 0 776 0 442 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.92 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 2.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 3502 3610 0 3502 0 1615 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.30 0.16 0.34 0.00 0.22 0.00 0.27 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.38 0.38 0.19 0.57 0.00 0.31 0.00 0.31 0.00 0.00 0.00
 Volume/Cap: 0.00 0.88 0.78 0.88 0.59 0.00 0.71 0.00 0.88 0.00 0.00 0.00
 Uniform Del: 0.0 28.7 27.2 39.6 14.1 0.0 30.4 0.0 32.6 0.0 0.0 0.0
 IncremntDel: 0.0 6.7 6.4 12.9 0.5 0.0 2.2 0.0 16.0 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 35.4 33.6 52.5 14.6 0.0 32.6 0.0 48.6 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 35.4 33.6 52.5 14.6 0.0 32.6 0.0 48.6 0.0 0.0 0.0
 LOS by Move: A D C D B A C A D A A A
 HCM2kAvgQ: 0 19 13 8 12 0 12 0 16 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.510
 Loss Time (sec): 16 Average Delay (sec/veh): 23.4
 Optimal Cycle: 50 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Ovl Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 152 1032 70 221 646 39 75 101 47 76 277 324
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 1032 70 221 646 39 75 101 47 76 277 324
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 152 1032 70 221 646 0 75 101 47 76 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 1032 70 221 646 0 75 101 47 76 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 152 1032 70 221 646 0 75 101 47 76 277 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 1.00 0.50 0.90 0.90 0.46 0.95 1.00
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 1.36 0.64 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1900 944 2345 1091 1747 3610 1900

Capacity Analysis Module:
 Vol/Sat: 0.08 0.29 0.04 0.06 0.18 0.00 0.08 0.04 0.04 0.04 0.08 0.00
 Crit Moves: ****
 Green/Cycle: 0.22 0.56 0.56 0.12 0.47 0.00 0.16 0.16 0.16 0.16 0.16 0.00
 Volume/Cap: 0.38 0.51 0.08 0.51 0.38 0.00 0.51 0.28 0.28 0.28 0.49 0.00
 Uniform Del: 33.3 13.5 10.1 41.0 17.4 0.0 38.7 37.2 37.2 37.3 38.6 0.0
 IncremntDel: 0.6 0.2 0.0 1.0 0.1 0.0 3.0 0.3 0.3 0.6 0.7 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 33.9 13.7 10.1 42.0 17.6 0.0 41.7 37.5 37.5 37.8 39.3 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 33.9 13.7 10.1 42.0 17.6 0.0 41.7 37.5 37.5 37.8 39.3 0.0
 LOS by Move: C B B D B A D D D D D A
 HCM2kAvgQ: 4 10 1 3 6 0 3 2 2 1 4 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.632
 Loss Time (sec): 16 Average Delay (sec/veh): 29.6
 Optimal Cycle: 61 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 77 223 30 615 568 150 159 289 180 118 895 239
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 77 223 30 615 568 150 159 289 180 118 895 239
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 77 223 30 615 568 150 159 289 180 118 895 239
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 77 223 30 615 568 150 159 289 180 118 895 239
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 77 223 30 615 568 150 159 289 180 118 895 239
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 3502 3610 1615 3502 3610 1615
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.06 0.02 0.18 0.16 0.09 0.05 0.08 0.11 0.03 0.25 0.15
 Crit Moves: ****
 Green/Cycle: 0.08 0.10 0.10 0.28 0.30 0.30 0.07 0.36 0.36 0.11 0.39 0.67
 Volume/Cap: 0.53 0.63 0.19 0.63 0.53 0.31 0.63 0.22 0.31 0.31 0.63 0.22
 Uniform Del: 44.2 43.4 41.5 31.6 29.4 27.3 45.1 22.5 23.3 41.2 24.5 6.4
 IncremntDel: 3.8 3.7 0.6 1.4 0.5 0.4 5.1 0.1 0.3 0.5 0.9 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.0 47.1 42.1 33.0 30.0 27.7 50.3 22.6 23.6 41.7 25.5 6.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.0 47.1 42.1 33.0 30.0 27.7 50.3 22.6 23.6 41.7 25.5 6.5
 LOS by Move: D D D C C C D C C D C A
 HCM2kAvgQ: 2 4 1 9 8 4 2 3 4 2 12 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.716
 Loss Time (sec): 16 Average Delay (sec/veh): 23.4
 Optimal Cycle: 71 Level Of Service: C

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 0 0 696 2 201 22 616 0 0 388 303
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 696 2 201 22 616 0 0 388 303
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 696 2 201 22 616 0 0 388 303
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 696 2 201 22 616 0 0 388 303
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 696 2 201 22 616 0 0 388 303
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.85 0.85 0.85 0.95 0.95 0.95 1.00 0.95 0.85
 Lanes: 0.00 1.00 0.00 1.00 0.01 0.99 1.00 2.00 0.00 1.00 2.00 1.00
 Final Sat.: 0 1900 0 1615 16 1603 1805 3610 0 1900 3610 1615
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.43 0.13 0.13 0.01 0.17 0.00 0.00 0.11 0.19
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.60 0.60 0.60 0.02 0.24 0.00 0.00 0.21 0.82
 Volume/Cap: 0.00 0.00 0.00 0.72 0.21 0.21 0.50 0.72 0.00 0.00 0.50 0.23
 Uniform Del: 0.0 0.0 0.0 13.9 9.1 9.1 48.2 35.0 0.0 0.0 34.6 2.1
 IncremntDel: 0.0 0.0 0.0 2.6 0.1 0.1 8.9 2.9 0.0 0.0 0.5 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
 Delay/Veh: 0.0 0.0 0.0 16.5 9.2 9.2 57.1 37.9 0.0 0.0 35.1 2.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 16.5 9.2 9.2 57.1 37.9 0.0 0.0 35.1 2.2
 LOS by Move: A A A B A A E D A A D A
 HCM2kAvgQ: 0 0 0 15 3 3 1 9 0 0 5 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.341
 Loss Time (sec): 16 Average Delay (sec/veh): 28.2
 Optimal Cycle: 40 Level Of Service: C

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 145 2 25 69 3 137 31 248 40 6 369 19
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 145 2 25 69 3 137 31 248 40 6 369 19
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 145 2 25 69 3 137 31 248 40 6 369 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 145 2 25 69 3 137 31 248 40 6 369 19
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 145 2 25 69 3 137 31 248 40 6 369 19

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.86 0.86 0.95 0.85 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 0.07 0.93 1.00 0.02 0.98 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 121 1515 1805 35 1586 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.02 0.02 0.04 0.09 0.09 0.02 0.07 0.02 0.00 0.10 0.01
 Crit Moves: ****
 Green/Cycle: 0.24 0.15 0.15 0.34 0.25 0.25 0.05 0.33 0.33 0.02 0.30 0.30
 Volume/Cap: 0.34 0.11 0.11 0.11 0.34 0.34 0.34 0.21 0.07 0.21 0.34 0.04
 Uniform Del: 31.7 36.9 36.9 22.5 30.5 30.5 45.9 23.8 22.7 48.6 27.3 24.8
 IncremntDel: 0.5 0.2 0.2 0.1 0.5 0.5 2.2 0.1 0.1 3.5 0.2 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 32.2 37.1 37.1 22.6 31.0 31.0 48.1 23.9 22.8 52.0 27.5 24.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 32.2 37.1 37.1 22.6 31.0 31.0 48.1 23.9 22.8 52.0 27.5 24.8
 LOS by Move: C D D C C C D C D C C
 HCM2kAvgQ: 4 1 1 1 4 4 1 3 1 0 5 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.547
 Loss Time (sec): 16 Average Delay (sec/veh): 28.1
 Optimal Cycle: 53 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 123 267 44 140 811 170 186 677 231 44 336 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 123 267 44 140 811 170 186 677 231 44 336 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 123 267 44 140 811 170 186 677 231 44 336 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 123 267 44 140 811 170 186 677 231 44 336 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 123 267 44 140 811 170 186 677 231 44 336 67

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.89 0.89
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.50 0.50
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 3502 4217 841

 Capacity Analysis Module:
 Vol/Sat: 0.04 0.07 0.03 0.08 0.22 0.11 0.05 0.19 0.14 0.01 0.08 0.08
 Crit Moves: ****
 Green/Cycle: 0.06 0.23 0.23 0.24 0.41 0.56 0.15 0.34 0.41 0.02 0.22 0.22
 Volume/Cap: 0.55 0.32 0.12 0.32 0.55 0.19 0.36 0.55 0.35 0.55 0.36 0.36
 Uniform Del: 45.4 31.9 30.3 31.1 22.4 11.0 38.5 26.6 20.5 48.3 33.1 33.1
 IncremntDel: 2.8 0.2 0.1 0.4 0.4 0.1 0.4 0.5 0.3 7.7 0.2 0.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.2 32.1 30.5 31.5 22.9 11.1 38.9 27.1 20.9 56.1 33.3 33.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.2 32.1 30.5 31.5 22.9 11.1 38.9 27.1 20.9 56.1 33.3 33.3
 LOS by Move: D C C C C B D C C E C C
 HCM2kAvgQ: 2 3 1 4 10 3 3 9 5 2 4 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.750
 Loss Time (sec): 12 Average Delay (sec/veh): 30.4
 Optimal Cycle: 67 Level Of Service: C

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Ovl Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 435 469 151 141 1239 106 47 425 467 97 206 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 435 469 151 141 1239 106 47 425 467 97 206 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 435 469 151 141 1239 106 47 425 467 97 206 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 435 469 151 141 1239 106 47 425 467 97 206 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 435 469 151 141 1239 106 47 425 467 97 206 44

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.65 0.35
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 2897 619

Capacity Analysis Module:
 Vol/Sat: 0.12 0.13 0.09 0.08 0.34 0.07 0.03 0.12 0.29 0.03 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.17 0.39 0.39 0.23 0.46 0.53 0.07 0.22 0.39 0.04 0.19 0.19
 Volume/Cap: 0.75 0.33 0.24 0.33 0.75 0.12 0.38 0.54 0.75 0.75 0.38 0.38
 Uniform Del: 39.7 21.4 20.6 31.8 22.4 12.0 44.5 34.5 26.6 47.7 35.5 35.5
 IncremntDel: 5.4 0.1 0.2 0.5 2.0 0.1 1.9 0.7 5.1 21.4 0.4 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.2 21.6 20.8 32.3 24.4 12.1 46.4 35.2 31.6 69.1 35.9 35.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.2 21.6 20.8 32.3 24.4 12.1 46.4 35.2 31.6 69.1 35.9 35.9
 LOS by Move: D C C C C B D D C E D D
 HCM2kAvgQ: 7 5 3 3 17 2 1 6 12 3 4 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.002
 Loss Time (sec): 16 Average Delay (sec/veh): 54.3
 Optimal Cycle: 179 Level Of Service: D

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 566 781 0 0 0 949 853 0 0 0 109 7 322
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 566 781 0 0 0 949 853 0 0 0 109 7 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 566 781 0 0 949 0 0 0 0 0 109 7 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 566 781 0 0 949 0 0 0 0 0 109 7 322
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 566 781 0 0 949 0 0 0 0 0 109 7 322

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.25 0.02 0.73
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 412 26 1216

Capacity Analysis Module:
 Vol/Sat: 0.31 0.22 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Crit Moves: ****
 Green/Cycle: 0.31 0.58 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Volume/Cap: 1.00 0.38 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Uniform Del: 34.3 11.5 0.0 0.0 36.9 0.0 0.0 0.0 0.0 36.8 36.8 36.8
 IncremntDel: 38.2 0.1 0.0 0.0 29.6 0.0 0.0 0.0 0.0 43.4 43.4 43.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 72.6 11.6 0.0 0.0 66.5 0.0 0.0 0.0 0.0 80.2 80.2 80.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 72.6 11.6 0.0 0.0 66.5 0.0 0.0 0.0 0.0 80.2 80.2 80.2
 LOS by Move: E B A A E A A A A F F F
 HCM2kAvgQ: 18 6 0 0 18 0 0 0 0 20 20 20

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.958
 Loss Time (sec): 16 Average Delay (sec/veh): 43.2
 Optimal Cycle: 146 Level Of Service: D

 Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

 Volume Module:
 Base Vol: 0 926 229 463 594 0 372 2 338 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 926 229 463 594 0 372 2 338 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 926 229 463 594 0 372 2 338 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 926 229 463 594 0 372 2 338 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 926 229 463 594 0 372 2 338 0 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.92 0.92 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 1.60 0.40 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 2807 694 1805 3610 0 3076 17 1546 0 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.33 0.33 0.26 0.16 0.00 0.12 0.12 0.22 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.34 0.34 0.27 0.61 0.00 0.23 0.23 0.23 0.00 0.00 0.00
 Volume/Cap: 0.00 0.96 0.96 0.96 0.27 0.00 0.53 0.53 0.96 0.00 0.00 0.00
 Uniform Del: 0.0 32.1 32.1 36.1 9.0 0.0 33.9 33.9 38.1 0.0 0.0 0.0
 IncremntDel: 0.0 16.9 16.9 30.5 0.1 0.0 0.4 0.4 23.2 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 49.0 49.0 66.5 9.1 0.0 34.3 34.3 61.3 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 49.0 49.0 66.5 9.1 0.0 34.3 34.3 61.3 0.0 0.0 0.0
 LOS by Move: A D D E A A C C E A A A
 HCM2kAvgQ: 0 21 21 13 4 0 6 6 16 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.456
 Loss Time (sec): 16 Average Delay (sec/veh): 27.9
 Optimal Cycle: 46 Level Of Service: C

 Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 40 423 23 123 271 213 482 192 23 14 108 85
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 40 423 23 123 271 213 482 192 23 14 108 85
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 40 423 23 123 271 213 482 192 23 14 108 85
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 40 423 23 123 271 213 482 192 23 14 108 85
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 40 423 23 123 271 213 482 192 23 14 108 85

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.90 0.10 1.00 2.00 1.00 2.00 1.79 0.21 1.00 2.00 1.00
 Final Sat.: 1805 3396 185 1805 3610 1615 3502 3172 380 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.02 0.12 0.12 0.07 0.08 0.13 0.14 0.06 0.06 0.01 0.03 0.05
 Crit Moves: ****
 Green/Cycle: 0.10 0.27 0.27 0.15 0.33 0.63 0.30 0.37 0.37 0.05 0.12 0.12
 Volume/Cap: 0.23 0.46 0.46 0.46 0.23 0.21 0.46 0.16 0.16 0.16 0.26 0.46
 Uniform Del: 41.8 30.2 30.2 38.8 24.5 8.0 28.3 21.1 21.1 45.7 40.3 41.3
 IncremntDel: 0.7 0.3 0.3 1.2 0.1 0.1 0.3 0.1 0.1 0.9 0.3 1.8
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 42.4 30.5 30.5 40.0 24.6 8.1 28.6 21.2 21.2 46.6 40.7 43.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.4 30.5 30.5 40.0 24.6 8.1 28.6 21.2 21.2 46.6 40.7 43.1
 LOS by Move: D C C D C A C C C D D D
 HCM2kAvgQ: 1 6 6 3 3 3 6 2 2 1 2 3

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 12.6]
*****
Street Name: Sunset Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 300 8 3 261 0 0 0 0 8 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 300 8 3 261 0 0 0 0 8 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 300 8 3 261 0 0 0 0 8 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 300 8 3 261 0 0 0 0 8 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 308 xxxx xxxxx 571 575 261 571 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 1264 xxxx xxxxx 435 431 783 486 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 1264 xxxx xxxxx 434 430 783 485 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.00 xxxx xxxx 0.00 0.00 0.00 0.02 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxxx xxxxx 12.6 xxxx xxxxx
LOS by Move: * * * A * * * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 12.6
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****

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Impact Analysis Report
Level Of Service

Intersection		Base Del/ LOS Veh C	V/ C	Future Del/ LOS Veh C	V/ C	Change in
# 1 Highland Springs/8th-Wilson		C 34.4	0.829	C 34.4	0.829	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	48.0	0.993	D 48.0	0.993	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	38.9	0.968	D 38.9	0.968	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	37.9	0.967	D 37.9	0.967	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	34.1	0.826	C 34.1	0.826	+ 0.000 D/V
# 6 Highland Home/Wilson	C	33.9	0.845	C 33.9	0.845	+ 0.000 D/V
# 7 Highland Home/Ramsey	D	45.2	1.007	D 45.2	1.007	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	20.4	0.672	C 20.4	0.672	+ 0.000 D/V
# 9 Sunset/Wilson	C	34.9	0.792	C 34.9	0.792	+ 0.000 D/V
# 10 Sunset/Ramsey	D	48.5	0.968	D 48.5	0.968	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	31.1	0.895	C 31.1	0.895	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	51.3	1.042	D 51.3	1.042	+ 0.000 D/V
# 13 Sunset/Lincoln	C	33.8	0.764	C 33.8	0.764	+ 0.000 D/V
# 14 Sunset/Westward	B	0.9	0.000	B 0.9	0.000	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.829
Loss Time (sec):   16          Average Delay (sec/veh):     34.4
Optimal Cycle:     93          Level Of Service:          C
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Ovl          Include      Include      Ovl
Min. Green:       0 0 0        0 0 0        0 0 0        0 0 0
Y+R:              4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:            1 0 3 0 1      2 0 2 0 1      1 0 1 1 0      2 0 2 0 1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         26 1482 426    361 955 159    167 709 49    333 512 358
Growth Adj:       1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:      26 1482 426    361 955 159    167 709 49    333 512 358
User Adj:         1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Volume:       26 1482 426    361 955 159    167 709 49    333 512 358
Reduct Vol:       0 0 0          0 0 0        0 0 0        0 0 0
Reduced Vol:      26 1482 426    361 955 159    167 709 49    333 512 358
PCE Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:      26 1482 426    361 955 159    167 709 49    333 512 358
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900    1900 1900 1900    1900 1900 1900    1900 1900 1900
Adjustment:       0.95 0.91 0.85    0.92 0.95 0.85    0.95 0.94 0.94    0.92 0.95 0.85
Lanes:            1.00 3.00 1.00    2.00 2.00 1.00    1.00 1.87 0.13    2.00 2.00 1.00
Final Sat.:       1805 5187 1615    3502 3610 1615    1805 3343 231    3502 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.01 0.29 0.26    0.10 0.26 0.10    0.09 0.21 0.21    0.10 0.14 0.22
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.02 0.34 0.46    0.12 0.45 0.45    0.15 0.26 0.26    0.11 0.22 0.35
Volume/Cap:       0.59 0.83 0.57    0.83 0.59 0.22    0.63 0.83 0.83    0.83 0.63 0.64
Uniform Del:      48.3 30.0 19.8    42.7 20.9 17.1    40.1 35.1 35.1    43.3 35.1 27.2
IncremntDel:      20.2 3.4 1.1      12.5 0.6 0.2      4.9 6.4 6.4      13.4 1.6 2.4
InitQueueDel:     0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0
Delay Adj:         1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Delay/Veh:        68.5 33.4 20.9    55.2 21.5 17.2    45.1 41.5 41.5    56.7 36.7 29.6
User DelAdj:      1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
AdjDel/Veh:       68.5 33.4 20.9    55.2 21.5 17.2    45.1 41.5 41.5    56.7 36.7 29.6
LOS by Move:      E C C          E C B          D D D          E D C
HCM2kAvgQ:        1 15 9          8 12 3          6 14 14          6 7 9
*****
Note: Queue reported is the number of cars per lane.
*****

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Highland Springs/6th-Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.993
Loss Time (sec): 16 Average Delay (sec/veh): 48.0
Optimal Cycle: 171 Level Of Service: D

Street Name: Highland Springs 6th-Ramsey
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol: 512 1684 596 309 1211 127 175 608 347 577 608 277
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 512 1684 596 309 1211 127 175 608 347 577 608 277
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 512 1684 596 309 1211 127 175 608 347 577 608 277
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 512 1684 596 309 1211 127 175 608 347 577 608 277
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 512 1684 596 309 1211 127 175 608 347 577 608 277
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.86 0.86 0.92 0.95 0.85
Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3271 1636 3502 3610 1615
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.15 0.32 0.37 0.09 0.23 0.08 0.10 0.19 0.21 0.16 0.17 0.17
Crit Moves: ****
Green/Cycle: 0.18 0.37 0.37 0.09 0.28 0.28 0.14 0.21 0.21 0.17 0.24 0.24
Volume/Cap: 0.82 0.87 0.99 0.99 0.82 0.28 0.71 0.87 0.99 0.99 0.69 0.71
Uniform Del: 39.6 29.2 31.3 45.5 33.5 27.9 41.2 38.0 39.2 41.6 34.5 34.6
IncrmntDel: 8.8 4.8 34.9 49.0 3.9 0.3 9.1 7.7 27.3 35.5 2.4 5.9
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 48.5 34.0 66.2 94.6 37.5 28.2 50.3 45.7 66.5 77.1 36.9 40.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.5 34.0 66.2 94.6 37.5 28.2 50.3 45.7 66.5 77.1 36.9 40.5
LOS by Move: D C E F D C D D E D D D
HCM2kAvgQ: 8 18 21 6 13 3 7 13 17 9 8 7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Highland Springs/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.968
Loss Time (sec): 12 Average Delay (sec/veh): 38.9
Optimal Cycle: 154 Level Of Service: D

Street Name: Highland Springs I-10 WB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Split Phase Split Phase
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2
-----|-----|-----|-----|
Volume Module:
Base Vol: 330 1680 0 0 1453 682 0 0 0 347 0 758
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 330 1680 0 0 1453 682 0 0 0 347 0 758
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 330 1680 0 0 1453 0 0 0 0 347 0 758
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 330 1680 0 0 1453 0 0 0 0 347 0 758
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 330 1680 0 0 1453 0 0 0 0 347 0 758
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.18 0.47 0.00 0.00 0.40 0.00 0.00 0.00 0.00 0.19 0.00 0.27
Crit Moves: ****
Green/Cycle: 0.19 0.60 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.28 0.00 0.28
Volume/Cap: 0.97 0.77 0.00 0.00 0.97 0.00 0.00 0.00 0.00 0.70 0.00 0.97
Uniform Del: 40.3 14.6 0.0 0.0 28.6 0.0 0.0 0.0 0.0 32.5 0.0 35.8
IncrmntDel: 40.1 1.7 0.0 0.0 16.2 0.0 0.0 0.0 0.0 4.4 0.0 24.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Delay/Veh: 80.4 16.4 0.0 0.0 44.8 0.0 0.0 0.0 0.0 36.8 0.0 60.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 80.4 16.4 0.0 0.0 44.8 0.0 0.0 0.0 0.0 36.8 0.0 60.3
LOS by Move: F B A A D A A A A D A E
HCM2kAvgQ: 10 19 0 0 25 0 0 0 0 11 0 18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.967
 Loss Time (sec): 12 Average Delay (sec/veh): 37.9
 Optimal Cycle: 153 Level Of Service: D

 Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Permitted Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 2 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1525 409 461 1339 0 839 0 480 0 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.92 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 2.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 3502 3610 0 3502 0 1615 0 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.42 0.25 0.13 0.37 0.00 0.24 0.00 0.30 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.44 0.44 0.14 0.57 0.00 0.31 0.00 0.31 0.00 0.00 0.00
 Volume/Cap: 0.00 0.97 0.58 0.97 0.65 0.00 0.78 0.00 0.97 0.00 0.00 0.00
 Uniform Del: 0.0 27.5 21.2 43.0 14.5 0.0 31.6 0.0 34.1 0.0 0.0 0.0
 IncremntDel: 0.0 15.6 1.2 32.8 0.7 0.0 3.7 0.0 32.1 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 43.0 22.5 75.8 15.2 0.0 35.3 0.0 66.2 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 43.0 22.5 75.8 15.2 0.0 35.3 0.0 66.2 0.0 0.0 0.0
 LOS by Move: A D C E B A D A E A A A
 HCM2kAvgQ: 0 26 9 7 14 0 14 0 20 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.826
 Loss Time (sec): 16 Average Delay (sec/veh): 34.1
 Optimal Cycle: 93 Level Of Service: C

 Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Ovl Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 1 0 1 1 0 2 0 2 0 1

 Volume Module:
 Base Vol: 188 793 272 411 897 43 81 923 266 343 847 370
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 188 793 272 411 897 43 81 923 266 343 847 370
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 188 793 272 411 897 0 81 923 266 343 847 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 188 793 272 411 897 0 81 923 266 343 847 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 188 793 272 411 897 0 81 923 266 343 847 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 1.00 0.22 0.92 0.92 0.34 0.95 1.00
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 1.00 1.55 0.45 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1900 414 2707 780 1294 3610 1900

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.22 0.17 0.12 0.25 0.00 0.20 0.34 0.34 0.27 0.23 0.00
 Crit Moves: ****
 Green/Cycle: 0.13 0.28 0.28 0.15 0.30 0.00 0.41 0.41 0.41 0.41 0.41 0.00
 Volume/Cap: 0.83 0.79 0.61 0.79 0.83 0.00 0.47 0.83 0.83 0.64 0.57 0.00
 Uniform Del: 42.6 33.4 31.3 41.1 32.5 0.0 21.4 26.1 26.1 23.4 22.5 0.0
 IncremntDel: 21.2 4.3 2.4 7.9 5.3 0.0 2.1 4.1 4.1 2.7 0.5 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 63.9 37.6 33.7 49.0 37.8 0.0 23.5 30.2 30.2 26.1 23.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 63.9 37.6 33.7 49.0 37.8 0.0 23.5 30.2 30.2 26.1 23.0 0.0
 LOS by Move: E D C D D A C C C C C A
 HCM2kAvgQ: 8 14 8 6 14 0 2 19 19 4 10 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.845
 Loss Time (sec): 16 Average Delay (sec/veh): 33.9
 Optimal Cycle: 98 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 228 668 198 538 517 113 119 1000 245 43 865 792
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 228 668 198 538 517 113 119 1000 245 43 865 792
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 228 668 198 538 517 113 119 1000 245 43 865 792
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 228 668 198 538 517 113 119 1000 245 43 865 792
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 228 668 198 538 517 113 119 1000 245 43 865 792

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.95 0.85 0.92 0.95 0.85
 Lanes: 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 3502 3610 1615 3502 3610 1615 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.13 0.19 0.12 0.15 0.14 0.07 0.03 0.28 0.15 0.01 0.24 0.49
 Crit Moves: ****
 Green/Cycle: 0.19 0.22 0.22 0.18 0.21 0.21 0.04 0.42 0.42 0.02 0.40 0.58
 Volume/Cap: 0.67 0.84 0.56 0.84 0.67 0.33 0.84 0.66 0.36 0.66 0.60 0.84
 Uniform Del: 37.7 37.4 34.8 39.5 36.1 33.3 47.7 23.2 19.8 48.8 23.8 17.3
 IncremntDel: 5.2 8.3 2.0 10.1 2.3 0.6 34.8 1.1 0.3 22.1 0.7 7.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 42.9 45.7 36.8 49.6 38.5 33.9 82.5 24.3 20.1 70.9 24.5 24.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.9 45.7 36.8 49.6 38.5 33.9 82.5 24.3 20.1 70.9 24.5 24.4
 LOS by Move: D D D D D C F C E C C
 HCM2kAvgQ: 7 11 5 11 9 3 2 12 5 1 10 20

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.007
 Loss Time (sec): 16 Average Delay (sec/veh): 45.2
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 651 0 100 330 1021 1 9 1093 826
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 651 0 100 330 1021 1 9 1093 826
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 651 0 100 330 1021 1 9 1093 826

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 0.95 0.95 0.95 0.95 0.85
 Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.99 0.01 1.00 2.00 1.00
 Final Sat.: 0 1900 0 1805 0 1615 1805 3606 4 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.36 0.00 0.06 0.18 0.28 0.28 0.00 0.30 0.51
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.36 0.00 0.36 0.18 0.47 0.47 0.01 0.30 0.66
 Volume/Cap: 0.00 0.00 0.00 1.01 0.00 0.17 1.01 0.60 0.60 0.60 1.01 0.78
 Uniform Del: 0.0 0.0 0.0 32.1 0.0 22.0 40.9 19.3 19.3 49.4 35.0 11.9
 IncremntDel: 0.0 0.0 0.0 37.3 0.0 0.1 51.6 0.6 0.6 51.9 29.2 3.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 0.0 0.0 0.0 69.4 0.0 22.1 92.5 19.9 19.9 101.3 64.1 15.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 69.4 0.0 22.1 92.5 19.9 19.9 101.3 64.1 15.6
 LOS by Move: A A A E A C F B B F E B
 HCM2kAvgQ: 0 0 0 24 0 2 12 11 11 0 20 17

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
 Loss Time (sec): 16 Average Delay (sec/veh): 20.4
 Optimal Cycle: 65 Level Of Service: C

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

 Volume Module:
 Base Vol: 178 4 19 52 2 71 139 1161 252 27 1242 85
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 178 4 19 52 2 71 139 1161 252 27 1242 85
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 178 4 19 52 2 71 139 1161 252 27 1242 85
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 178 4 19 52 2 71 139 1161 252 27 1242 85
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 178 4 19 52 2 71 139 1161 252 27 1242 85

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.88 0.88 0.95 0.85 0.85 0.95 0.95 0.85 0.95 0.95 0.85
 Lanes: 1.00 0.17 0.83 1.00 0.03 0.97 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1805 289 1375 1805 44 1578 1805 3610 1615 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.10 0.01 0.01 0.03 0.04 0.04 0.08 0.32 0.16 0.01 0.34 0.05
 Crit Moves: ****
 Green/Cycle: 0.15 0.07 0.07 0.14 0.07 0.07 0.11 0.60 0.60 0.03 0.51 0.51
 Volume/Cap: 0.67 0.20 0.20 0.20 0.67 0.67 0.67 0.54 0.26 0.54 0.67 0.10
 Uniform Del: 40.4 43.9 43.9 37.7 45.6 45.6 42.5 11.9 9.5 48.0 18.2 12.6
 IncremntDel: 6.6 0.9 0.9 0.4 15.3 15.3 8.4 0.3 0.1 11.1 1.0 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 47.0 44.8 44.8 38.1 60.8 60.8 50.8 12.1 9.7 59.0 19.2 12.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 47.0 44.8 44.8 38.1 60.8 60.8 50.8 12.1 9.7 59.0 19.2 12.6
 LOS by Move: D D D D E E D B A E B B
 HCM2kAvgQ: 6 1 1 2 4 4 4 10 3 2 15 1

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.792
 Loss Time (sec): 16 Average Delay (sec/veh): 34.9
 Optimal Cycle: 85 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 323 806 54 141 445 277 329 910 178 193 1196 178
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 323 806 54 141 445 277 329 910 178 193 1196 178
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 323 806 54 141 445 277 329 910 178 193 1196 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 323 806 54 141 445 277 329 910 178 193 1196 178
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 323 806 54 141 445 277 329 910 178 193 1196 178

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.89 0.89
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.61 0.39
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 3502 4429 659

 Capacity Analysis Module:
 Vol/Sat: 0.09 0.22 0.03 0.08 0.12 0.17 0.09 0.25 0.11 0.06 0.27 0.27
 Crit Moves: ****
 Green/Cycle: 0.16 0.28 0.28 0.10 0.22 0.34 0.12 0.38 0.54 0.08 0.34 0.34
 Volume/Cap: 0.57 0.79 0.12 0.79 0.57 0.51 0.79 0.67 0.20 0.67 0.79 0.79
 Uniform Del: 38.6 33.2 26.7 44.1 34.9 26.6 42.9 25.9 11.9 44.6 29.8 29.8
 IncremntDel: 1.3 4.3 0.1 21.0 1.0 0.8 10.0 1.3 0.1 5.9 2.6 2.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 39.9 37.5 26.8 65.1 35.9 27.4 52.9 27.2 12.0 50.5 32.3 32.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 39.9 37.5 26.8 65.1 35.9 27.4 52.9 27.2 12.0 50.5 32.3 32.3
 LOS by Move: D D C E D C D C B D C C
 HCM2kAvgQ: 4 11 1 6 7 7 5 12 3 4 16 16

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.968
 Loss Time (sec): 12 Average Delay (sec/veh): 48.5
 Optimal Cycle: 154 Level Of Service: D

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Ovl Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 474 1301 196 152 946 239 191 911 393 543 792 102
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 474 1301 196 152 946 239 191 911 393 543 792 102
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 474 1301 196 152 946 239 191 911 393 543 792 102
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 474 1301 196 152 946 239 191 911 393 543 792 102
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 474 1301 196 152 946 239 191 911 393 543 792 102

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.77 0.23
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 3144 405

Capacity Analysis Module:
 Vol/Sat: 0.14 0.36 0.12 0.08 0.26 0.15 0.11 0.25 0.24 0.16 0.25 0.25
 Crit Moves: ****

Green/Cycle: 0.16 0.37 0.37 0.09 0.30 0.43 0.12 0.26 0.42 0.16 0.30 0.30
 Volume/Cap: 0.87 0.97 0.33 0.97 0.87 0.35 0.85 0.97 0.58 0.97 0.85 0.85
 Uniform Del: 41.2 30.8 22.4 45.5 32.9 19.3 42.9 36.6 22.5 41.7 33.1 33.1
 IncremntDel: 13.6 17.4 0.3 62.1 7.4 0.3 25.2 21.9 1.3 30.0 6.7 6.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 54.7 48.3 22.7 107.6 40.3 19.6 68.0 58.4 23.8 71.7 39.8 39.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 54.7 48.3 22.7 107.6 40.3 19.6 68.0 58.4 23.8 71.7 39.8 39.8
 LOS by Move: D D C F D B E E C E D D
 HCM2kAvgQ: 7 22 4 6 15 5 6 17 9 13 16 16

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.895
 Loss Time (sec): 16 Average Delay (sec/veh): 31.1
 Optimal Cycle: 114 Level Of Service: C

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 401 1922 0 0 834 1049 0 0 0 101 15 248
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 401 1922 0 0 834 1049 0 0 0 101 15 248
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 401 1922 0 0 834 0 0 0 0 101 15 248
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 401 1922 0 0 834 0 0 0 0 101 15 248
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 401 1922 0 0 834 0 0 0 0 101 15 248

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.28 0.04 0.68
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 461 68 1132

Capacity Analysis Module:
 Vol/Sat: 0.22 0.53 0.00 0.00 0.23 0.00 0.00 0.00 0.00 0.22 0.22 0.22
 Crit Moves: ****

Green/Cycle: 0.29 0.60 0.00 0.00 0.30 0.00 0.00 0.00 0.00 0.24 0.24 0.24
 Volume/Cap: 0.76 0.89 0.00 0.00 0.76 0.00 0.00 0.00 0.00 0.89 0.89 0.89
 Uniform Del: 32.2 17.5 0.0 0.0 31.6 0.0 0.0 0.0 0.0 36.5 36.5 36.5
 IncremntDel: 6.4 5.3 0.0 0.0 3.2 0.0 0.0 0.0 0.0 21.5 21.5 21.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 38.7 22.8 0.0 0.0 34.7 0.0 0.0 0.0 0.0 58.0 58.0 58.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 38.7 22.8 0.0 0.0 34.7 0.0 0.0 0.0 0.0 58.0 58.0 58.0
 LOS by Move: D C A A C A A A A E E E
 HCM2kAvgQ: 10 25 0 0 12 0 0 0 0 14 14 14

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Sunset/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.042
Loss Time (sec): 16 Average Delay (sec/veh): 51.3
Optimal Cycle: 180 Level Of Service: D

Street Name: Sunset I-10 EB ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

Volume Module:
Base Vol: 0 1214 76 187 803 0 1004 4 635 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1214 76 187 803 0 1004 4 635 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1214 76 187 803 0 1004 4 635 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1214 76 187 803 0 1004 4 635 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1214 76 187 803 0 1004 4 635 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.94 0.94 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
Lanes: 0.00 1.88 0.12 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
Final Sat.: 0 3367 211 1805 3610 0 3076 12 1544 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.36 0.36 0.10 0.22 0.00 0.33 0.33 0.41 0.00 0.00 0.00
Crit Moves: ****

Green/Cycle: 0.00 0.35 0.35 0.10 0.45 0.00 0.39 0.39 0.39 0.00 0.00 0.00
Volume/Cap: 0.00 1.04 1.04 1.04 0.50 0.00 0.83 0.83 1.04 0.00 0.00 0.00
Uniform Del: 0.0 32.7 32.7 45.0 19.8 0.0 27.2 27.2 30.3 0.0 0.0 0.0
IncrmntDel: 0.0 37.3 37.3 78.8 0.2 0.0 3.0 3.0 34.5 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
Delay/Veh: 0.0 70.0 70.0 123.8 20.0 0.0 30.2 30.2 64.8 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 70.0 70.0 123.8 20.0 0.0 30.2 30.2 64.8 0.0 0.0 0.0
LOS by Move: A E E F C A C C E A A A
HCM2kAvgQ: 0 27 27 8 9 0 17 17 30 0 0 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 Sunset/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.764
Loss Time (sec): 16 Average Delay (sec/veh): 33.8
Optimal Cycle: 79 Level Of Service: C

Street Name: Sunset Lincoln
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 2 0 1

Volume Module:
Base Vol: 163 387 42 230 465 480 324 827 56 32 918 222
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 163 387 42 230 465 480 324 827 56 32 918 222
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 163 387 42 230 465 480 324 827 56 32 918 222
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 163 387 42 230 465 480 324 827 56 32 918 222
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 163 387 42 230 465 480 324 827 56 32 918 222

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.95 0.95 0.85 0.92 0.94 0.94 0.95 0.95 0.85
Lanes: 1.00 1.80 0.20 1.00 2.00 1.00 2.00 1.87 0.13 1.00 2.00 1.00
Final Sat.: 1805 3208 348 1805 3610 1615 3502 3351 227 1805 3610 1615

Capacity Analysis Module:
Vol/Sat: 0.09 0.12 0.12 0.13 0.13 0.30 0.09 0.25 0.25 0.02 0.25 0.14
Crit Moves: ****

Green/Cycle: 0.12 0.19 0.19 0.20 0.27 0.39 0.12 0.42 0.42 0.03 0.33 0.33
Volume/Cap: 0.76 0.64 0.64 0.64 0.48 0.76 0.76 0.58 0.58 0.58 0.76 0.41
Uniform Del: 42.7 37.5 37.5 36.8 30.8 26.6 42.6 22.1 22.1 47.9 29.8 25.8
IncrmntDel: 15.1 2.1 2.1 4.0 0.4 5.6 8.0 0.6 0.6 15.0 3.0 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 57.8 39.7 39.7 40.8 31.1 32.1 50.6 22.6 22.6 62.8 32.8 26.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 57.8 39.7 39.7 40.8 31.1 32.1 50.6 22.6 22.6 62.8 32.8 26.3
LOS by Move: E D D C C D C E C E C C
HCM2kAvgQ: 7 7 7 6 6 13 7 11 11 2 15 5

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
1994 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh):      0.9      Worst Case Level Of Service: B
*****
Street Name:      Sunset      Westward
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      0 0 0 1 0      0 1 0 0 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 251 13      18 278 0      0 0 0 0      25 0 81
Growth Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      0 251 13      18 278 0      0 0 0 0      25 0 81
User Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Volume:      0 251 13      18 278 0      0 0 0 0      25 0 81
Reduct Vol:      0 0 0      0 0 0      0 0 0 0      0 0 0 0
FinalVolume:      0 251 13      18 278 0      0 0 0 0      25 0 81
-----|-----|-----|-----|
Adjusted Volume Module:
Grade:      0%      0%      0%      0%
% Cycle/Cars:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
% Truck/Comb:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
PCE Adj:      1.10 1.00 1.00      1.10 1.00 1.00      1.10 1.10 1.10      1.10 1.10 1.10
Cycl/Car PCE:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
Trck/Cmb PCE:      xxxx xxxx      xxxx xxxx      xxxx xxxx      xxxx xxxx
Adj Vol.:      0 251 13      20 278 0      0 0 0 0      28 0 89
-----|-----|-----|-----|
Critical Gap Module:
MoveUp Time:xxxxx xxxx xxxxx      2.1 xxxx xxxxx xxxxx xxxx xxxxx      3.4 xxxx 2.6
Crit Gp Adj: 0.00 0.00 0.00      0.00 0.00 0.00 0.00 0.00 0.00      0.00 0.00 0.00
Critical Gp:xxxxx xxxx xxxxx      5.0 xxxx xxxxx xxxxx xxxx xxxxx      6.5 xxxx 5.5
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx      264 xxxx xxxxx xxxx xxxx xxxxx      554 xxxx 258
Potent Cap.: xxxx xxxx xxxxx      1283 xxxx xxxxx xxxx xxxx xxxxx      506 xxxx 1025
Adj Cap:      xxxx xxxx xxxxx      1.00 xxxx xxxxx xxxx xxxx xxxxx      0.98 xxxx 1.00
Move Cap.:      xxxx xxxx xxxxx      1283 xxxx xxxxx xxxx xxxx xxxxx      497 xxxx 1025
-----|-----|-----|-----|
Level Of Service Module:
Control Del:xxxxx xxxx xxxxx      2.8 xxxx xxxxx xxxxx xxxx xxxxx      7.6 xxxx 3.8
LOS by Move:      * * *      A * * * * *      * * * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx      1283 xxxx xxxxx xxxx xxxx xxxxx      xxxx 820 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx      3.6 xxxx xxxxx xxxxx xxxx xxxxx      xxxxx 5.0 xxxxx
Shared LOS:      * * *      A * * * * *      * * * * *
ApproachDel:      0.0      0.2      xxxxxx      5.0
ApproachLOS:      A      A      *      B
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```

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Highland Springs/8th-Wilson	C	32.0 0.776	C	32.0 0.776	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	36.6 0.887	D	36.6 0.887	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	54.5 1.054	D	54.5 1.054	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	C	32.7 0.878	C	32.7 0.878	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	C	25.3 0.583	C	25.3 0.583	+ 0.000 D/V
# 6 Highland Home/Wilson	C	33.0 0.694	C	33.0 0.694	+ 0.000 D/V
# 7 Highland Home/Ramsey	C	23.4 0.716	C	23.4 0.716	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	C	25.9 0.450	C	25.9 0.450	+ 0.000 D/V
# 9 Sunset/Wilson	C	28.2 0.547	C	28.2 0.547	+ 0.000 D/V
# 10 Sunset/Ramsey	C	30.4 0.750	C	30.4 0.750	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	D	54.3 1.002	D	54.3 1.002	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	43.2 0.958	D	43.2 0.958	+ 0.000 D/V
# 13 Sunset/Lincoln	C	29.5 0.456	C	29.5 0.456	+ 0.000 D/V
# 14 Sunset/Westward	B	12.6 0.017	B	12.6 0.017	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.776
Loss Time (sec):   16          Average Delay (sec/veh):     32.0
Optimal Cycle:     81          Level Of Service:          C
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Include      Include      Include      Ovl
Min. Green:       0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:            1 0 2 0 1      2 0 2 0 1      1 0 1 1 0      2 0 2 0 1
-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         57 691 266      204 1206 154      65 162 101      730 290 139
Growth Adj:       1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:      57 691 266      204 1206 154      65 162 101      730 290 139
User Adj:         1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Volume:       57 691 266      204 1206 154      65 162 101      730 290 139
Reduct Vol:       0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:      57 691 266      204 1206 154      65 162 101      730 290 139
PCE Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:      57 691 266      204 1206 154      65 162 101      730 290 139
-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900 1900    1900 1900 1900    1900 1900 1900    1900 1900 1900
Adjustment:       0.95 0.95 0.85    0.92 0.95 0.85    0.95 0.89 0.89    0.92 0.95 0.85
Lanes:            1.00 2.00 1.00    2.00 2.00 1.00    1.00 1.23 0.77    2.00 2.00 1.00
Final Sat.:      1805 3610 1615    3502 3610 1615    1805 2095 1306    3502 3610 1615
-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.03 0.19 0.16    0.06 0.33 0.10    0.04 0.08 0.08    0.21 0.08 0.09
Crit Moves:       ****          ****          ****          ****
Green/Cycle:      0.04 0.36 0.36    0.11 0.43 0.43    0.11 0.10 0.10    0.27 0.25 0.36
Volume/Cap:       0.78 0.53 0.46    0.53 0.78 0.22    0.32 0.78 0.78    0.78 0.32 0.24
Uniform Del:      47.5 25.2 24.4    42.1 24.3 17.9    40.7 43.9 43.9    33.8 30.2 22.1
IncrcmntDel:      39.3 0.4 0.6      1.4 2.5 0.2      0.9 10.7 10.7    4.1 0.2 0.2
InitQueueDel:     0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0      0.0 0.0 0.0
Delay Adj:        1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Delay/Veh:        86.8 25.6 25.0    43.5 26.8 18.1    41.6 54.6 54.6    37.9 30.4 22.3
User DelAdj:      1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
AdjDel/Veh:       86.8 25.6 25.0    43.5 26.8 18.1    41.6 54.6 54.6    37.9 30.4 22.3
LOS by Move:      F C C      D C B      D D D      D D C C
HCM2kAvgQ:        2 9 6      4 18 3      2 6 6      11 4 3
*****
Note: Queue reported is the number of cars per lane.
*****
```

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.887
 Loss Time (sec): 16 Average Delay (sec/veh): 36.6
 Optimal Cycle: 111 Level Of Service: D

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1

 Volume Module:
 Base Vol: 275 1129 461 203 1816 78 90 221 306 428 144 103
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 275 1129 461 203 1816 78 90 221 306 428 144 103
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 275 1129 461 203 1816 78 90 221 306 428 144 103
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 275 1129 461 203 1816 78 90 221 306 428 144 103
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 275 1129 461 203 1816 78 90 221 306 428 144 103

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.83 0.83 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3157 1579 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.08 0.22 0.29 0.06 0.35 0.05 0.05 0.07 0.19 0.12 0.04 0.06
 Crit Moves: ****
 Green/Cycle: 0.09 0.40 0.40 0.08 0.39 0.39 0.16 0.22 0.22 0.14 0.20 0.20
 Volume/Cap: 0.89 0.54 0.71 0.71 0.89 0.12 0.32 0.32 0.89 0.89 0.20 0.32
 Uniform Del: 45.1 22.9 25.0 44.8 28.2 19.2 37.4 32.8 37.9 42.3 33.3 34.2
 IncremntDel: 24.9 0.3 3.7 8.1 5.1 0.1 0.7 0.1 15.0 17.7 0.1 0.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 70.0 23.2 28.7 52.8 33.3 19.3 38.1 32.9 52.8 60.0 33.5 34.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 70.0 23.2 28.7 52.8 33.3 19.3 38.1 32.9 52.8 60.0 33.5 34.7
 LOS by Move: E C C D C B D C D E C C
 HCM2kAvgQ: 5 9 12 3 19 1 3 3 13 8 2 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.054
 Loss Time (sec): 12 Average Delay (sec/veh): 54.5
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2

 Volume Module:
 Base Vol: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 583 1245 0 0 1400 1150 0 0 0 391 0 461
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 583 1245 0 0 1400 0 0 0 0 391 0 461
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 583 1245 0 0 1400 0 0 0 0 391 0 461
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 583 1245 0 0 1400 0 0 0 0 391 0 461

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842

 Capacity Analysis Module:
 Vol/Sat: 0.32 0.34 0.00 0.00 0.39 0.00 0.00 0.00 0.00 0.22 0.00 0.16
 Crit Moves: ****
 Green/Cycle: 0.31 0.67 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.21 0.00 0.21
 Volume/Cap: 1.05 0.51 0.00 0.00 1.05 0.00 0.00 0.00 0.00 1.05 0.00 0.79
 Uniform Del: 34.7 8.1 0.0 0.0 31.6 0.0 0.0 0.0 0.0 39.7 0.0 37.7
 IncremntDel: 53.2 0.2 0.0 0.0 40.2 0.0 0.0 0.0 0.0 61.6 0.0 7.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 87.9 8.3 0.0 0.0 71.8 0.0 0.0 0.0 0.0 101.3 0.0 44.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 87.9 8.3 0.0 0.0 71.8 0.0 0.0 0.0 0.0 101.3 0.0 44.8
 LOS by Move: F A A A E A A A A F A D
 HCM2kAvgQ: 22 9 0 0 28 0 0 0 0 19 0 10

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878
 Loss Time (sec): 12 Average Delay (sec/veh): 32.7
 Optimal Cycle: 100 Level Of Service: C

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 2 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1211 482 571 1218 0 776 0 442 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1211 482 571 1218 0 776 0 442 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.92 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 2.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 3502 3610 0 3502 0 1615 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.34 0.30 0.16 0.34 0.00 0.22 0.00 0.27 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.38 0.38 0.19 0.57 0.00 0.31 0.00 0.31 0.00 0.00 0.00
 Volume/Cap: 0.00 0.88 0.78 0.88 0.59 0.00 0.71 0.00 0.88 0.00 0.00 0.00
 Uniform Del: 0.0 28.7 27.2 39.6 14.1 0.0 30.4 0.0 32.6 0.0 0.0 0.0
 IncremntDel: 0.0 6.7 6.4 12.9 0.5 0.0 2.2 0.0 16.0 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 35.4 33.6 52.5 14.6 0.0 32.6 0.0 48.6 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 35.4 33.6 52.5 14.6 0.0 32.6 0.0 48.6 0.0 0.0 0.0
 LOS by Move: A D C D B A C A D A A A
 HCM2kAvgQ: 0 19 13 8 12 0 12 0 16 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.583
 Loss Time (sec): 16 Average Delay (sec/veh): 25.3
 Optimal Cycle: 56 Level Of Service: C

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Ovl Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 152 1032 70 221 646 39 75 101 47 76 277 324
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 1032 70 221 646 39 75 101 47 76 277 324
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 152 1032 70 221 646 0 75 101 47 76 277 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 1032 70 221 646 0 75 101 47 76 277 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 152 1032 70 221 646 0 75 101 47 76 277 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 1.00 0.48 0.90 0.90 0.46 0.95 1.00
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.36 0.64 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1900 918 2345 1091 1758 3610 1900

Capacity Analysis Module:
 Vol/Sat: 0.08 0.29 0.04 0.12 0.18 0.00 0.08 0.04 0.04 0.04 0.08 0.00
 Crit Moves: ****
 Green/Cycle: 0.22 0.49 0.49 0.21 0.48 0.00 0.14 0.14 0.14 0.14 0.14 0.00
 Volume/Cap: 0.38 0.58 0.09 0.58 0.38 0.00 0.58 0.31 0.31 0.31 0.55 0.00
 Uniform Del: 32.9 18.2 13.6 35.6 16.7 0.0 40.3 38.6 38.6 38.6 40.0 0.0
 IncremntDel: 0.6 0.5 0.0 2.3 0.1 0.0 6.7 0.4 0.4 0.7 1.3 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 33.5 18.7 13.6 37.9 16.9 0.0 47.0 39.0 39.0 39.4 41.3 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 33.5 18.7 13.6 37.9 16.9 0.0 47.0 39.0 39.0 39.4 41.3 0.0
 LOS by Move: C B B D B A D D D D D A
 HCM2kAvgQ: 4 12 1 6 6 0 3 2 2 1 4 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.694
 Loss Time (sec): 16 Average Delay (sec/veh): 33.0
 Optimal Cycle: 68 Level Of Service: C

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 77 223 30 615 568 150 159 289 180 118 895 239
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 77 223 30 615 568 150 159 289 180 118 895 239
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 77 223 30 615 568 150 159 289 180 118 895 239
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 77 223 30 615 568 150 159 289 180 118 895 239
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 77 223 30 615 568 150 159 289 180 118 895 239
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.93 0.93 0.92 0.92 0.92 0.95 0.89 0.89 0.95 0.95 0.85
 Lanes: 1.00 1.76 0.24 2.00 1.58 0.42 1.00 1.23 0.77 1.00 2.00 1.00
 Final Sat.: 1805 3125 420 3502 2767 731 1805 2095 1305 1805 3610 1615
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.07 0.07 0.18 0.21 0.21 0.09 0.14 0.14 0.07 0.25 0.15
 Crit Moves: ****
 Green/Cycle: 0.06 0.10 0.10 0.25 0.29 0.29 0.13 0.33 0.33 0.16 0.36 0.61
 Volume/Cap: 0.70 0.69 0.69 0.69 0.70 0.70 0.69 0.42 0.42 0.42 0.69 0.24
 Uniform Del: 46.0 43.3 43.3 33.8 31.3 31.3 41.8 26.2 26.2 38.1 27.5 8.9
 IncremntDel: 17.7 5.7 5.7 2.4 2.1 2.1 8.9 0.3 0.3 1.0 1.7 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 63.7 49.0 49.0 36.2 33.4 33.4 50.7 26.4 26.4 39.2 29.1 9.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 63.7 49.0 49.0 36.2 33.4 33.4 50.7 26.4 26.4 39.2 29.1 9.0
 LOS by Move: E D D D C C D C D C A
 HCM2kAvgQ: 3 4 4 10 11 11 5 6 6 3 12 3

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.716
 Loss Time (sec): 16 Average Delay (sec/veh): 23.4
 Optimal Cycle: 71 Level Of Service: C

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 0 2 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 0 0 0 696 2 201 22 616 0 0 388 303
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 696 2 201 22 616 0 0 388 303
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 696 2 201 22 616 0 0 388 303
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 696 2 201 22 616 0 0 388 303
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 696 2 201 22 616 0 0 388 303
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.85 0.85 0.85 0.95 0.95 0.95 1.00 0.95 0.85
 Lanes: 0.00 1.00 0.00 1.00 0.01 0.99 1.00 2.00 0.00 1.00 2.00 1.00
 Final Sat.: 0 1900 0 1615 16 1603 1805 3610 0 1900 3610 1615
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.43 0.13 0.13 0.01 0.17 0.00 0.00 0.11 0.19
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.60 0.60 0.60 0.02 0.24 0.00 0.00 0.21 0.82
 Volume/Cap: 0.00 0.00 0.00 0.72 0.21 0.21 0.50 0.72 0.00 0.00 0.50 0.23
 Uniform Del: 0.0 0.0 0.0 13.9 9.1 9.1 48.2 35.0 0.0 0.0 34.6 2.1
 IncremntDel: 0.0 0.0 0.0 2.6 0.1 0.1 8.9 2.9 0.0 0.0 0.5 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
 Delay/Veh: 0.0 0.0 0.0 16.5 9.2 9.2 57.1 37.9 0.0 0.0 35.1 2.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 16.5 9.2 9.2 57.1 37.9 0.0 0.0 35.1 2.2
 LOS by Move: A A A B A A E D A A D A
 HCM2kAvgQ: 0 0 0 15 3 3 1 9 0 0 5 2

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #8 Highland Home/Sun Lakes-Westward

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.450
 Loss Time (sec): 16 Average Delay (sec/veh): 25.9
 Optimal Cycle: 46 Level Of Service: C

 Street Name: Highland Home Sun Lakes-Westward
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 0 1 0 0 1 0 1 1 0 1 0 1
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 145 2 25 69 3 137 31 248 40 6 369 19
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 145 2 25 69 3 137 31 248 40 6 369 19
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 145 2 25 69 3 137 31 248 40 6 369 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 145 2 25 69 3 137 31 248 40 6 369 19
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 145 2 25 69 3 137 31 248 40 6 369 19
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.86 0.86 0.95 0.85 0.85 0.95 1.00 0.85 0.95 1.00 0.85
 Lanes: 1.00 0.07 0.93 1.00 0.02 0.98 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1805 121 1515 1805 35 1586 1805 1900 1615 1805 1900 1615
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.08 0.02 0.02 0.04 0.09 0.09 0.02 0.13 0.02 0.00 0.19 0.01
 Crit Moves: ****
 Green/Cycle: 0.18 0.11 0.11 0.26 0.19 0.19 0.04 0.46 0.46 0.01 0.43 0.43
 Volume/Cap: 0.45 0.15 0.15 0.15 0.45 0.45 0.45 0.29 0.05 0.29 0.45 0.03
 Uniform Del: 36.7 40.1 40.1 28.6 35.7 35.7 47.1 16.9 15.1 49.0 20.1 16.4
 IncremntDel: 1.0 0.4 0.4 0.1 1.0 1.0 4.6 0.2 0.0 7.3 0.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 37.7 40.5 40.5 28.7 36.8 36.8 51.7 17.1 15.1 56.3 20.5 16.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 37.7 40.5 40.5 28.7 36.8 36.8 51.7 17.1 15.1 56.3 20.5 16.4
 LOS by Move: D D D C D D D B B E C B
 HCM2kAvgQ: 4 1 1 2 4 4 1 5 1 1 8 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 Sunset/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.547
 Loss Time (sec): 16 Average Delay (sec/veh): 28.2
 Optimal Cycle: 53 Level Of Service: C

 Street Name: Sunset Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Protected Protected
 Rights: Include Include Ovl Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 1 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 123 267 44 140 811 170 186 677 231 44 336 67
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 123 267 44 140 811 170 186 677 231 44 336 67
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 123 267 44 140 811 170 186 677 231 44 336 67
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 123 267 44 140 811 170 186 677 231 44 336 67
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 123 267 44 140 811 170 186 677 231 44 336 67
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 1.67 0.33
 Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 3502 2935 585
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.07 0.03 0.08 0.22 0.11 0.05 0.19 0.14 0.01 0.11 0.11
 Crit Moves: ****
 Green/Cycle: 0.06 0.23 0.23 0.24 0.41 0.53 0.12 0.34 0.41 0.02 0.25 0.25
 Volume/Cap: 0.55 0.32 0.12 0.32 0.55 0.20 0.46 0.55 0.35 0.55 0.46 0.46
 Uniform Del: 45.4 31.9 30.3 31.1 22.4 12.5 41.3 26.6 20.5 48.3 31.8 31.8
 IncremntDel: 2.8 0.2 0.1 0.4 0.4 0.1 0.8 0.5 0.3 7.7 0.4 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.2 32.1 30.5 31.5 22.9 12.7 42.1 27.1 20.9 56.1 32.2 32.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.2 32.1 30.5 31.5 22.9 12.7 42.1 27.1 20.9 56.1 32.2 32.2
 LOS by Move: D C C C C B D C C E C C
 HCM2kAvgQ: 2 3 1 4 10 3 3 9 5 2 6 6

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

Cycle (sec): 100 Critical Vol./Cap.(X): 0.750
 Loss Time (sec): 12 Average Delay (sec/veh): 30.4
 Optimal Cycle: 67 Level Of Service: C

Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Ovl Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

Volume Module:
 Base Vol: 435 469 151 141 1239 106 47 425 467 97 206 44
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 435 469 151 141 1239 106 47 425 467 97 206 44
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 435 469 151 141 1239 106 47 425 467 97 206 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 435 469 151 141 1239 106 47 425 467 97 206 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 435 469 151 141 1239 106 47 425 467 97 206 44

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.65 0.35
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 2897 619

Capacity Analysis Module:
 Vol/Sat: 0.12 0.13 0.09 0.08 0.34 0.07 0.03 0.12 0.29 0.03 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.17 0.39 0.39 0.23 0.46 0.53 0.07 0.22 0.39 0.04 0.19 0.19
 Volume/Cap: 0.75 0.33 0.24 0.33 0.75 0.12 0.38 0.54 0.75 0.75 0.38 0.38
 Uniform Del: 39.7 21.4 20.6 31.8 22.4 12.0 44.5 34.5 26.6 47.7 35.5 35.5
 IncremntDel: 5.4 0.1 0.2 0.5 2.0 0.1 1.9 0.7 5.1 21.4 0.4 0.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 45.2 21.6 20.8 32.3 24.4 12.1 46.4 35.2 31.6 69.1 35.9 35.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.2 21.6 20.8 32.3 24.4 12.1 46.4 35.2 31.6 69.1 35.9 35.9
 LOS by Move: D C C C C B D D C E D D
 HCM2kAvgQ: 7 5 3 3 17 2 1 6 12 3 4 4

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 1.002
 Loss Time (sec): 16 Average Delay (sec/veh): 54.3
 Optimal Cycle: 179 Level Of Service: D

Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1 0 0

Volume Module:
 Base Vol: 566 781 0 0 0 949 853 0 0 0 109 7 322
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 566 781 0 0 0 949 853 0 0 0 109 7 322
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 566 781 0 0 949 0 0 0 0 0 109 7 322
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 566 781 0 0 949 0 0 0 0 0 109 7 322
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 566 781 0 0 949 0 0 0 0 0 109 7 322

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.25 0.02 0.73
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 412 26 1216

Capacity Analysis Module:
 Vol/Sat: 0.31 0.22 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Crit Moves: ****
 Green/Cycle: 0.31 0.58 0.00 0.00 0.26 0.00 0.00 0.00 0.00 0.26 0.26 0.26
 Volume/Cap: 1.00 0.38 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Uniform Del: 34.3 11.5 0.0 0.0 36.9 0.0 0.0 0.0 0.0 36.8 36.8 36.8
 IncremntDel: 38.2 0.1 0.0 0.0 29.6 0.0 0.0 0.0 0.0 43.4 43.4 43.4
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 72.6 11.6 0.0 0.0 66.5 0.0 0.0 0.0 0.0 80.2 80.2 80.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 72.6 11.6 0.0 0.0 66.5 0.0 0.0 0.0 0.0 80.2 80.2 80.2
 LOS by Move: E B A A E A A A A F F F
 HCM2kAvgQ: 18 6 0 0 18 0 0 0 0 20 20 20

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.958
 Loss Time (sec): 16 Average Delay (sec/veh): 43.2
 Optimal Cycle: 146 Level Of Service: D

 Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

 Volume Module:
 Base Vol: 0 926 229 463 594 0 372 2 338 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 926 229 463 594 0 372 2 338 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 926 229 463 594 0 372 2 338 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 926 229 463 594 0 372 2 338 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 926 229 463 594 0 372 2 338 0 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.92 0.92 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 1.60 0.40 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 2807 694 1805 3610 0 3076 17 1546 0 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.33 0.33 0.26 0.16 0.00 0.12 0.12 0.22 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.34 0.34 0.27 0.61 0.00 0.23 0.23 0.23 0.00 0.00 0.00
 Volume/Cap: 0.00 0.96 0.96 0.96 0.27 0.00 0.53 0.53 0.96 0.00 0.00 0.00
 Uniform Del: 0.0 32.1 32.1 36.1 9.0 0.0 33.9 33.9 38.1 0.0 0.0 0.0
 IncremntDel: 0.0 16.9 16.9 30.5 0.1 0.0 0.4 0.4 23.2 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 49.0 49.0 66.5 9.1 0.0 34.3 34.3 61.3 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 49.0 49.0 66.5 9.1 0.0 34.3 34.3 61.3 0.0 0.0 0.0
 LOS by Move: A D D E A A C C E A A A
 HCM2kAvgQ: 0 21 21 13 4 0 6 6 16 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.456
 Loss Time (sec): 16 Average Delay (sec/veh): 29.5
 Optimal Cycle: 46 Level Of Service: C

 Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 40 423 23 123 271 213 482 192 23 14 108 85
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 40 423 23 123 271 213 482 192 23 14 108 85
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 40 423 23 123 271 213 482 192 23 14 108 85
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 40 423 23 123 271 213 482 192 23 14 108 85
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 40 423 23 123 271 213 482 192 23 14 108 85

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.89 0.89 0.92 0.93 0.93 0.95 0.95 0.85
 Lanes: 1.00 1.90 0.10 1.00 1.12 0.88 2.00 1.79 0.21 1.00 2.00 1.00
 Final Sat.: 1805 3396 185 1805 1888 1484 3502 3172 380 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.02 0.12 0.12 0.07 0.14 0.14 0.14 0.06 0.06 0.01 0.03 0.05
 Crit Moves: ****
 Green/Cycle: 0.06 0.27 0.27 0.15 0.37 0.37 0.30 0.37 0.37 0.05 0.12 0.12
 Volume/Cap: 0.39 0.46 0.46 0.46 0.39 0.39 0.46 0.16 0.16 0.16 0.26 0.46
 Uniform Del: 45.5 30.2 30.2 38.8 23.5 23.5 28.3 21.1 21.1 45.7 40.3 41.3
 IncremntDel: 2.5 0.3 0.3 1.2 0.2 0.2 0.3 0.1 0.1 0.9 0.3 1.8
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.0 30.5 30.5 40.0 23.7 23.7 28.6 21.2 21.2 46.6 40.7 43.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.0 30.5 30.5 40.0 23.7 23.7 28.6 21.2 21.2 46.6 40.7 43.1
 LOS by Move: D C C D C C C C D D D D
 HCM2kAvgQ: 2 6 6 3 6 6 6 2 2 1 2 3

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 12.6]
*****
Street Name: Sunset Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1 0 0 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol: 0 300 8 3 261 0 0 0 0 8 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 300 8 3 261 0 0 0 0 8 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 300 8 3 261 0 0 0 0 8 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 300 8 3 261 0 0 0 0 8 0 0
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 6.4 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 308 xxxx xxxxx 571 575 261 571 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 1264 xxxx xxxxx 435 431 783 486 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 1264 xxxx xxxxx 434 430 783 485 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.00 xxxx xxxx 0.00 0.00 0.00 0.02 xxxx xxxx
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx 0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxx xxxxx 12.6 xxxx xxxxx
LOS by Move: * * * A * * * * * B * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0 xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 7.9 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 12.6
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.
*****

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Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 Highland Springs/8th-Wilson	D	45.9	0.977	D	45.9	0.977	+ 0.000 D/V
# 2 Highland Springs/6th-Ramsey	D	48.0	0.993	D	48.0	0.993	+ 0.000 D/V
# 3 Highland Springs/I-10 WB ramps	D	38.9	0.968	D	38.9	0.968	+ 0.000 D/V
# 4 Highland Springs/I-10 EB ramps	D	37.9	0.967	D	37.9	0.967	+ 0.000 D/V
# 5 Highland Springs/1st-Sun Lakes	D	41.5	0.938	D	41.5	0.938	+ 0.000 D/V
# 6 Highland Home/Wilson	D	46.5	0.958	D	46.5	0.958	+ 0.000 D/V
# 7 Highland Home/Ramsey	D	45.2	1.007	D	45.2	1.007	+ 0.000 D/V
# 8 Highland Home/Sun Lakes-Westwa	D	48.6	1.041	D	48.6	1.041	+ 0.000 D/V
# 9 Sunset/Wilson	D	41.8	0.933	D	41.8	0.933	+ 0.000 D/V
# 10 Sunset/Ramsey	D	48.5	0.968	D	48.5	0.968	+ 0.000 D/V
# 11 Sunset/I-10 WB ramps	C	31.1	0.895	C	31.1	0.895	+ 0.000 D/V
# 12 Sunset/I-10 EB ramps	D	51.3	1.042	D	51.3	1.042	+ 0.000 D/V
# 13 Sunset/Lincoln	D	39.1	0.863	D	39.1	0.863	+ 0.000 D/V
# 14 Sunset/Westward	B	0.9	0.000	B	0.9	0.000	+ 0.000 D/V

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

```
*****
Intersection #1 Highland Springs/8th-Wilson
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.977
Loss Time (sec):   16          Average Delay (sec/veh):     45.9
Optimal Cycle:    158          Level Of Service:         D
*****
Street Name:      Highland Springs      8th-Wilson
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|-----|-----|
Control:          Protected      Protected      Protected      Protected
Rights:           Include      Include      Include      Ovl
Min. Green:       0 0 0      0 0 0      0 0 0      0 0 0
Y+R:              4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:            1 0 2 0 1      2 0 2 0 1      1 0 1 1 0      2 0 2 0 1
-----|-----|-----|-----|-----|-----|-----|
Volume Module:
Base Vol:         26 1482      426      361 955      159      167 709      49      333 512      358
Growth Adj:       1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:      26 1482      426      361 955      159      167 709      49      333 512      358
User Adj:         1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:          1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:       26 1482      426      361 955      159      167 709      49      333 512      358
Reduct Vol:       0 0 0      0 0 0      0 0 0      0 0 0
Reduced Vol:      26 1482      426      361 955      159      167 709      49      333 512      358
PCE Adj:          1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:          1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      26 1482      426      361 955      159      167 709      49      333 512      358
-----|-----|-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:         1900 1900      1900      1900 1900      1900      1900 1900      1900      1900 1900      1900
Adjustment:       0.95 0.95      0.85      0.92 0.95      0.85      0.95 0.94      0.94      0.92 0.95      0.85
Lanes:            1.00 2.00      1.00      2.00 2.00      1.00      1.00 1.87      0.13      2.00 2.00      1.00
Final Sat.:       1805 3610      1615      3502 3610      1615      1805 3343      231      3502 3610      1615
-----|-----|-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:          0.01 0.41      0.26      0.10 0.26      0.10      0.09 0.21      0.21      0.10 0.14      0.22
Crit Moves:       ****              ****              ****
Green/Cycle:      0.03 0.42      0.42      0.11 0.50      0.50      0.12 0.22      0.22      0.10 0.19      0.30
Volume/Cap:       0.53 0.98      0.63      0.98 0.53      0.20      0.75 0.98      0.98      0.98 0.75      0.75
Uniform Del:      48.0 28.5      22.8      44.6 17.1      13.9      42.3 38.9      38.9      45.0 38.2      31.9
IncremntDel:      10.6 17.9      1.9      40.6 0.3      0.1      12.8 26.6      26.6      42.4 4.5      6.5
InitQueueDel:     0.0 0.0      0.0      0.0 0.0      0.0      0.0 0.0      0.0      0.0 0.0      0.0
Delay Adj:         1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Delay/Veh:        58.7 46.4      24.7      85.2 17.4      14.1      55.0 65.5      65.5      87.5 42.7      38.4
User DelAdj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
AdjDel/Veh:       58.7 46.4      24.7      85.2 17.4      14.1      55.0 65.5      65.5      87.5 42.7      38.4
LOS by Move:      E D C      F B B      E E E      F D D
HCM2kAvgQ:        1 25 10      10 11 3      7 18 18      6 8 10
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Highland Springs/6th-Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.993
 Loss Time (sec): 16 Average Delay (sec/veh): 48.0
 Optimal Cycle: 171 Level Of Service: D

 Street Name: Highland Springs 6th-Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 3 0 1 2 0 3 0 1 1 0 2 1 0 2 0 2 0 1

 Volume Module:
 Base Vol: 512 1684 596 309 1211 127 175 608 347 577 608 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 512 1684 596 309 1211 127 175 608 347 577 608 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 512 1684 596 309 1211 127 175 608 347 577 608 277
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 512 1684 596 309 1211 127 175 608 347 577 608 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 512 1684 596 309 1211 127 175 608 347 577 608 277

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.95 0.86 0.86 0.92 0.95 0.85
 Lanes: 2.00 3.00 1.00 2.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3502 5187 1615 3502 5187 1615 1805 3271 1636 3502 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.15 0.32 0.37 0.09 0.23 0.08 0.10 0.19 0.21 0.16 0.17 0.17
 Crit Moves: ****
 Green/Cycle: 0.18 0.37 0.37 0.09 0.28 0.28 0.14 0.21 0.21 0.17 0.24 0.24
 Volume/Cap: 0.82 0.87 0.99 0.99 0.82 0.28 0.71 0.87 0.99 0.99 0.69 0.71
 Uniform Del: 39.6 29.2 31.3 45.5 33.5 27.9 41.2 38.0 39.2 41.6 34.5 34.6
 IncremntDel: 8.8 4.8 34.9 49.0 3.9 0.3 9.1 7.7 27.3 35.5 2.4 5.9
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.5 34.0 66.2 94.6 37.5 28.2 50.3 45.7 66.5 77.1 36.9 40.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.5 34.0 66.2 94.6 37.5 28.2 50.3 45.7 66.5 77.1 36.9 40.5
 LOS by Move: D C E F D C D D E E D D
 HCM2kAvgQ: 8 18 21 6 13 3 7 13 17 9 8 7

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Highland Springs/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.968
 Loss Time (sec): 12 Average Delay (sec/veh): 38.9
 Optimal Cycle: 154 Level Of Service: D

 Street Name: Highland Springs I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 2

 Volume Module:
 Base Vol: 330 1680 0 0 1453 682 0 0 0 347 0 758
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 330 1680 0 0 1453 682 0 0 0 347 0 758
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 330 1680 0 0 1453 0 0 0 0 347 0 758
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 330 1680 0 0 1453 0 0 0 0 347 0 758
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 330 1680 0 0 1453 0 0 0 0 347 0 758

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.95 1.00 0.75
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00 0.00 2.00
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 1805 0 2842

 Capacity Analysis Module:
 Vol/Sat: 0.18 0.47 0.00 0.00 0.40 0.00 0.00 0.00 0.00 0.19 0.00 0.27
 Crit Moves: ****
 Green/Cycle: 0.19 0.60 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.28 0.00 0.28
 Volume/Cap: 0.97 0.77 0.00 0.00 0.97 0.00 0.00 0.00 0.00 0.70 0.00 0.97
 Uniform Del: 40.3 14.6 0.0 0.0 28.6 0.0 0.0 0.0 0.0 32.5 0.0 35.8
 IncremntDel: 40.1 1.7 0.0 0.0 16.2 0.0 0.0 0.0 0.0 4.4 0.0 24.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Delay/Veh: 80.4 16.4 0.0 0.0 44.8 0.0 0.0 0.0 0.0 36.8 0.0 60.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 80.4 16.4 0.0 0.0 44.8 0.0 0.0 0.0 0.0 36.8 0.0 60.3
 LOS by Move: F B A A D A A A A D A E
 HCM2kAvgQ: 10 19 0 0 25 0 0 0 0 11 0 18

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 Highland Springs/I-10 EB ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.967
 Loss Time (sec): 12 Average Delay (sec/veh): 37.9
 Optimal Cycle: 153 Level Of Service: D

Street Name: Highland Springs I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 2 0 2 0 0 2 0 0 0 1 0 0 0 0 0 0

Volume Module:
 Base Vol: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1525 409 461 1339 0 839 0 480 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1525 409 461 1339 0 839 0 480 0 0 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 0.85 0.92 0.95 1.00 0.92 1.00 0.85 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 2.00 2.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00
 Final Sat.: 0 3610 1615 3502 3610 0 3502 0 1615 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.42 0.25 0.13 0.37 0.00 0.24 0.00 0.30 0.00 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.44 0.44 0.14 0.57 0.00 0.31 0.00 0.31 0.00 0.00 0.00 0.00
 Volume/Cap: 0.00 0.97 0.58 0.97 0.65 0.00 0.78 0.00 0.97 0.00 0.00 0.00 0.00
 Uniform Del: 0.0 27.5 21.2 43.0 14.5 0.0 31.6 0.0 34.1 0.0 0.0 0.0 0.0
 IncremntDel: 0.0 15.6 1.2 32.8 0.7 0.0 3.7 0.0 32.1 0.0 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00
 Delay/Veh: 0.0 43.0 22.5 75.8 15.2 0.0 35.3 0.0 66.2 0.0 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 43.0 22.5 75.8 15.2 0.0 35.3 0.0 66.2 0.0 0.0 0.0 0.0
 LOS by Move: A D C E B A D A E A A A A
 HCM2kAvgQ: 0 24 9 7 14 0 14 0 20 0 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Highland Springs/1st-Sun Lakes

Cycle (sec): 100 Critical Vol./Cap.(X): 0.938
 Loss Time (sec): 16 Average Delay (sec/veh): 41.5
 Optimal Cycle: 134 Level Of Service: D

Street Name: Highland Springs 1st-Sun Lakes
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
 Rights: Ovl Ignore Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 188 793 272 411 897 43 81 923 266 343 847 370
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 188 793 272 411 897 43 81 923 266 343 847 370
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Volume: 188 793 272 411 897 0 81 923 266 343 847 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 188 793 272 411 897 0 81 923 266 343 847 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 188 793 272 411 897 0 81 923 266 343 847 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 0.85 0.95 0.95 1.00 0.19 0.92 0.92 0.43 0.95 1.00
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.55 0.45 2.00 2.00 1.00
 Final Sat.: 1805 3610 1615 1805 3610 1900 357 2707 780 1618 3610 1900

Capacity Analysis Module:
 Vol/Sat: 0.10 0.22 0.17 0.23 0.25 0.00 0.23 0.34 0.34 0.21 0.23 0.00
 Crit Moves: ****
 Green/Cycle: 0.14 0.23 0.23 0.24 0.34 0.00 0.36 0.36 0.36 0.36 0.36 0.00
 Volume/Cap: 0.74 0.94 0.72 0.94 0.74 0.00 0.62 0.94 0.94 0.58 0.65 0.00
 Uniform Del: 41.2 37.6 35.3 37.1 29.3 0.0 26.2 30.8 30.8 25.7 26.5 0.0
 IncremntDel: 11.0 17.8 6.6 28.1 2.5 0.0 9.1 13.2 13.2 1.5 1.1 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 52.2 55.4 41.9 65.2 31.8 0.0 35.4 44.0 44.0 27.2 27.6 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 AdjDel/Veh: 52.2 55.4 41.9 65.2 31.8 0.0 35.4 44.0 44.0 27.2 27.6 0.0
 LOS by Move: D E D E C A D D D C C A A
 HCM2kAvgQ: 7 17 9 14 13 0 3 23 23 4 10 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #6 Highland Home/Wilson

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.958
 Loss Time (sec): 16 Average Delay (sec/veh): 46.5
 Optimal Cycle: 145 Level Of Service: D

 Street Name: Highland Home Wilson
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 2 0 1 1 0 1 0 1 1 0 1

 Volume Module:
 Base Vol: 228 668 198 538 517 113 119 1000 245 43 865 792
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 228 668 198 538 517 113 119 1000 245 43 865 792
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 228 668 198 538 517 113 119 1000 245 43 865 792
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 228 668 198 538 517 113 119 1000 245 43 865 792
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 228 668 198 538 517 113 119 1000 245 43 865 792

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.92 0.92 0.92 0.92 0.92 0.95 0.92 0.92 0.95 0.95 0.85
 Lanes: 1.00 1.54 0.46 2.00 1.64 0.36 1.00 1.61 0.39 1.00 2.00 1.00
 Final Sat.: 1805 2690 797 3502 2883 630 1805 2813 689 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.13 0.25 0.25 0.15 0.18 0.18 0.07 0.36 0.36 0.02 0.24 0.49
 Crit Moves: ****
 Green/Cycle: 0.17 0.26 0.26 0.16 0.25 0.25 0.07 0.39 0.39 0.03 0.35 0.51
 Volume/Cap: 0.73 0.96 0.96 0.96 0.73 0.73 0.96 0.90 0.90 0.90 0.68 0.96
 Uniform Del: 39.1 36.5 36.5 41.6 34.6 34.6 46.4 28.5 28.5 48.6 27.6 23.4
 IncremntDel: 8.4 20.4 20.4 27.7 3.2 3.2 67.4 8.5 8.5 93.9 1.5 21.6
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 47.5 56.9 56.9 69.3 37.8 37.8 113.9 37.0 37.0 142.5 29.2 45.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 47.5 56.9 56.9 69.3 37.8 37.8 113.9 37.0 37.0 142.5 29.2 45.0
 LOS by Move: D E E E D D F D D F C D
 HCM2kAvgQ: 7 17 17 13 11 11 4 18 18 1 11 23

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 Highland Home/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.007
 Loss Time (sec): 16 Average Delay (sec/veh): 45.2
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Highland Home Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Ovl
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1! 0 0 1 0 0 1 0 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 651 0 100 330 1021 1 9 1093 826
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 651 0 100 330 1021 1 9 1093 826
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 651 0 100 330 1021 1 9 1093 826
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 651 0 100 330 1021 1 9 1093 826

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 0.95 0.95 0.95 0.95 0.85
 Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.99 0.01 1.00 2.00 1.00
 Final Sat.: 0 1900 0 1805 0 1615 1805 3606 4 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.36 0.00 0.06 0.18 0.28 0.28 0.00 0.30 0.51
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.36 0.00 0.36 0.18 0.47 0.47 0.01 0.30 0.66
 Volume/Cap: 0.00 0.00 0.00 1.01 0.00 0.17 1.01 0.60 0.60 0.60 1.01 0.78
 Uniform Del: 0.0 0.0 0.0 32.1 0.0 22.0 40.9 19.3 19.3 49.4 35.0 11.9
 IncremntDel: 0.0 0.0 0.0 37.3 0.0 0.1 51.6 0.6 0.6 51.9 29.2 3.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 0.0 0.0 0.0 69.4 0.0 22.1 92.5 19.9 19.9 101.3 64.1 15.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 69.4 0.0 22.1 92.5 19.9 19.9 101.3 64.1 15.6
 LOS by Move: A A A E A C F B B F E B
 HCM2kAvgQ: 0 0 0 24 0 2 12 11 11 0 20 17

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Highland Home/Sun Lakes-Westward

Cycle (sec): 100 Critical Vol./Cap.(X): 1.041
Loss Time (sec): 16 Average Delay (sec/veh): 48.6
Optimal Cycle: 180 Level Of Service: D

Street Name: Highland Home Sun Lakes-Westward
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 178 4 19 52 2 71 139 1161 252 27 1242 85
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 178 4 19 52 2 71 139 1161 252 27 1242 85
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 178 4 19 52 2 71 139 1161 252 27 1242 85
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 178 4 19 52 2 71 139 1161 252 27 1242 85
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 178 4 19 52 2 71 139 1161 252 27 1242 85

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.88 0.88 0.95 0.85 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Lanes: 1.00 0.17 0.83 1.00 0.03 0.97 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 289 1375 1805 44 1578 1805 1900 1615 1805 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.10 0.01 0.01 0.03 0.04 0.04 0.08 0.61 0.16 0.01 0.65 0.05
Crit Moves: ****
Green/Cycle: 0.09 0.04 0.04 0.09 0.04 0.04 0.07 0.69 0.69 0.02 0.63 0.63
Volume/Cap: 1.04 0.31 0.31 0.31 1.04 1.04 1.04 0.89 0.23 0.89 1.04 0.08
Uniform Del: 45.3 46.3 46.3 42.3 47.8 47.8 46.3 12.7 5.9 49.1 18.6 7.3
IncrmntDel: 80.0 2.4 2.4 1.0 119 119.2 89.2 8.1 0.1 118.2 37.3 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 125.3 48.6 48.6 43.4 167 167.0 135.5 20.8 6.0 167.2 55.9 7.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 125.3 48.6 48.6 43.4 167 167.0 135.5 20.8 6.0 167.2 55.9 7.3
LOS by Move: F D D D F F F C A F E A
HCM2kAvgQ: 10 1 1 2 5 5 5 28 3 2 50 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Sunset/Wilson

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 16 Average Delay (sec/veh): 41.8
Optimal Cycle: 131 Level Of Service: D

Street Name: Sunset Wilson
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ovl Ovl Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 1 1 0

Volume Module:
Base Vol: 323 806 54 141 445 277 329 910 178 193 1196 178
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 323 806 54 141 445 277 329 910 178 193 1196 178
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 323 806 54 141 445 277 329 910 178 193 1196 178
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 323 806 54 141 445 277 329 910 178 193 1196 178
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 323 806 54 141 445 277 329 910 178 193 1196 178

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.92 0.95 0.85 0.92 0.93 0.93
Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 1.74 0.26
Final Sat.: 3502 3610 1615 1805 3610 1615 3502 3610 1615 3502 3083 459

Capacity Analysis Module:
Vol/Sat: 0.09 0.22 0.03 0.08 0.12 0.17 0.09 0.25 0.11 0.06 0.39 0.39
Crit Moves: ****
Green/Cycle: 0.14 0.24 0.24 0.08 0.18 0.29 0.10 0.42 0.56 0.09 0.42 0.42
Volume/Cap: 0.67 0.93 0.14 0.93 0.67 0.60 0.93 0.59 0.20 0.59 0.93 0.93
Uniform Del: 40.9 37.2 29.9 45.5 37.9 30.8 44.6 22.2 10.8 43.6 27.9 27.9
IncrmntDel: 3.5 16.6 0.2 53.3 2.6 2.2 31.1 0.6 0.1 3.0 11.0 11.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 44.4 53.8 30.1 98.8 40.5 33.0 75.7 22.8 10.9 46.5 38.9 38.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.4 53.8 30.1 98.8 40.5 33.0 75.7 22.8 10.9 46.5 38.9 38.9
LOS by Move: D D C F D C E C B D D D
HCM2kAvgQ: 4 12 1 8 8 8 5 11 2 4 26 26

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #10 Sunset/Ramsey

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.968
 Loss Time (sec): 12 Average Delay (sec/veh): 48.5
 Optimal Cycle: 154 Level Of Service: D

 Street Name: Sunset Ramsey
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Ovl Ovl Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 1 0 2 0 1 2 0 1 1 0

 Volume Module:
 Base Vol: 474 1301 196 152 946 239 191 911 393 543 792 102
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 474 1301 196 152 946 239 191 911 393 543 792 102
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 474 1301 196 152 946 239 191 911 393 543 792 102
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 474 1301 196 152 946 239 191 911 393 543 792 102
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 474 1301 196 152 946 239 191 911 393 543 792 102

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.95 0.85 0.95 0.95 0.85 0.95 0.95 0.85 0.92 0.93 0.93
 Lanes: 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 2.00 1.77 0.23
 Final Sat.: 3502 3610 1615 1805 3610 1615 1805 3610 1615 3502 3144 405

 Capacity Analysis Module:
 Vol/Sat: 0.14 0.36 0.12 0.08 0.26 0.15 0.11 0.25 0.24 0.16 0.25 0.25
 Crit Moves: ****
 Green/Cycle: 0.16 0.37 0.37 0.09 0.30 0.43 0.12 0.26 0.42 0.16 0.30 0.30
 Volume/Cap: 0.87 0.97 0.33 0.97 0.87 0.35 0.85 0.97 0.58 0.97 0.85 0.85
 Uniform Del: 41.2 30.8 22.4 45.5 32.9 19.3 42.9 36.6 22.5 41.7 33.1 33.1
 IncremntDel: 13.6 17.4 0.3 62.1 7.4 0.3 25.2 21.9 1.3 30.0 6.7 6.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 54.7 48.3 22.7 107.6 40.3 19.6 68.0 58.4 23.8 71.7 39.8 39.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 54.7 48.3 22.7 107.6 40.3 19.6 68.0 58.4 23.8 71.7 39.8 39.8
 LOS by Move: D D C F D B E E C E D D
 HCM2kAvgQ: 7 22 4 6 15 5 6 17 9 13 16 16

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #11 Sunset/I-10 WB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.895
 Loss Time (sec): 16 Average Delay (sec/veh): 31.1
 Optimal Cycle: 114 Level Of Service: C

 Street Name: Sunset I-10 WB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Ignore Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 1 0 0

 Volume Module:
 Base Vol: 401 1922 0 0 834 1049 0 0 0 101 15 248
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 401 1922 0 0 834 1049 0 0 0 101 15 248
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 401 1922 0 0 834 0 0 0 0 101 15 248
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 401 1922 0 0 834 0 0 0 0 101 15 248
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 401 1922 0 0 834 0 0 0 0 101 15 248

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.87 0.87 0.87
 Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.28 0.04 0.68
 Final Sat.: 1805 3610 0 0 3610 1900 0 0 0 461 68 1132

 Capacity Analysis Module:
 Vol/Sat: 0.22 0.53 0.00 0.00 0.23 0.00 0.00 0.00 0.00 0.22 0.22 0.22
 Crit Moves: ****
 Green/Cycle: 0.29 0.60 0.00 0.00 0.30 0.00 0.00 0.00 0.00 0.24 0.24 0.24
 Volume/Cap: 0.76 0.89 0.00 0.00 0.76 0.00 0.00 0.00 0.00 0.89 0.89 0.89
 Uniform Del: 32.2 17.5 0.0 0.0 31.6 0.0 0.0 0.0 0.0 36.5 36.5 36.5
 IncremntDel: 6.4 5.3 0.0 0.0 3.2 0.0 0.0 0.0 0.0 21.5 21.5 21.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00
 Delay/Veh: 38.7 22.8 0.0 0.0 34.7 0.0 0.0 0.0 0.0 58.0 58.0 58.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 38.7 22.8 0.0 0.0 34.7 0.0 0.0 0.0 0.0 58.0 58.0 58.0
 LOS by Move: D C A A C A A A A E E E
 HCM2kAvgQ: 10 25 0 0 12 0 0 0 0 14 14 14

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #12 Sunset/I-10 EB ramps

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.042
 Loss Time (sec): 16 Average Delay (sec/veh): 51.3
 Optimal Cycle: 180 Level Of Service: D

 Street Name: Sunset I-10 EB ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 1 0 1 0 2 0 0 1 1 0 1 0 0 0 0 0 0

 Volume Module:
 Base Vol: 0 1214 76 187 803 0 1004 4 635 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1214 76 187 803 0 1004 4 635 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1214 76 187 803 0 1004 4 635 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1214 76 187 803 0 1004 4 635 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1214 76 187 803 0 1004 4 635 0 0 0 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.94 0.94 0.95 0.95 1.00 0.81 0.81 0.81 1.00 1.00 1.00
 Lanes: 0.00 1.88 0.12 1.00 2.00 0.00 1.99 0.01 1.00 0.00 0.00 0.00
 Final Sat.: 0 3367 211 1805 3610 0 3076 12 1544 0 0 0 0

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.36 0.36 0.10 0.22 0.00 0.33 0.33 0.41 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.35 0.35 0.10 0.45 0.00 0.39 0.39 0.39 0.00 0.00 0.00
 Volume/Cap: 0.00 1.04 1.04 1.04 0.50 0.00 0.83 0.83 1.04 0.00 0.00 0.00
 Uniform Del: 0.0 32.7 32.7 45.0 19.8 0.0 27.2 27.2 30.3 0.0 0.0 0.0
 IncremntDel: 0.0 37.3 37.3 78.8 0.2 0.0 3.0 3.0 34.5 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00
 Delay/Veh: 0.0 70.0 70.0 123.8 20.0 0.0 30.2 30.2 64.8 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 70.0 70.0 123.8 20.0 0.0 30.2 30.2 64.8 0.0 0.0 0.0
 LOS by Move: A E E F C A C C E A A A
 HCM2kAvgQ: 0 27 27 8 9 0 17 17 30 0 0 0

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #13 Sunset/Lincoln

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.863
 Loss Time (sec): 16 Average Delay (sec/veh): 39.1
 Optimal Cycle: 103 Level Of Service: D

 Street Name: Sunset Lincoln
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 1 0 2 0 1

 Volume Module:
 Base Vol: 163 387 42 230 465 480 324 827 56 32 918 222
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 163 387 42 230 465 480 324 827 56 32 918 222
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 163 387 42 230 465 480 324 827 56 32 918 222
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 163 387 42 230 465 480 324 827 56 32 918 222
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 163 387 42 230 465 480 324 827 56 32 918 222

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.88 0.88 0.92 0.94 0.94 0.95 0.95 0.85
 Lanes: 1.00 1.80 0.20 1.00 1.00 1.00 2.00 1.87 0.13 1.00 2.00 1.00
 Final Sat.: 1805 3208 348 1805 1668 1668 3502 3351 227 1805 3610 1615

 Capacity Analysis Module:
 Vol/Sat: 0.09 0.12 0.12 0.13 0.28 0.29 0.09 0.25 0.25 0.02 0.25 0.14
 Crit Moves: ****
 Green/Cycle: 0.10 0.21 0.21 0.23 0.33 0.33 0.11 0.37 0.37 0.03 0.29 0.29
 Volume/Cap: 0.86 0.57 0.57 0.57 0.84 0.86 0.86 0.66 0.66 0.66 0.86 0.47
 Uniform Del: 44.1 35.2 35.2 34.4 30.8 31.2 43.9 25.9 25.9 48.2 33.4 28.8
 IncremntDel: 31.1 1.0 1.0 1.9 5.6 7.2 18.2 1.2 1.2 28.5 7.4 0.7
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 75.2 36.2 36.2 36.3 36.4 38.4 62.1 27.2 27.2 76.7 40.8 29.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 75.2 36.2 36.2 36.3 36.4 38.4 62.1 27.2 27.2 76.7 40.8 29.6
 LOS by Move: E D D D D E C C E D C
 HCM2kAvgQ: 8 7 7 6 15 15 8 13 13 2 17 6

 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
1994 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #14 Sunset/Westward
*****
Average Delay (sec/veh): 0.9 Worst Case Level Of Service: B
*****
Street Name:
Approach: North Bound Sunset South Bound East Bound Westward West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol: 0 251 13 18 278 0 0 0 0 25 0 81
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 251 13 18 278 0 0 0 0 25 0 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 251 13 18 278 0 0 0 0 25 0 81
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 251 13 18 278 0 0 0 0 25 0 81
-----|-----|-----|-----|-----|
Adjusted Volume Module:
Grade: 0% 0% 0% 0%
% Cycle/Cars: xxxx xxxx xxxx xxxx xxxx xxxx
% Truck/Comb: xxxx xxxx xxxx xxxx xxxx xxxx
PCE Adj: 1.10 1.00 1.00 1.10 1.00 1.00 1.10 1.10 1.10 1.10 1.10 1.10
Cycl/Car PCE: xxxx xxxx xxxx xxxx xxxx xxxx
Trck/Cmb PCE: xxxx xxxx xxxx xxxx xxxx xxxx
Adj Vol.: 0 251 13 20 278 0 0 0 0 28 0 89
-----|-----|-----|-----|-----|
Critical Gap Module:
MoveUp Time:xxxxx xxxx xxxxx 2.1 xxxx xxxxx xxxxx xxxx xxxxx 3.4 xxxx 2.6
Crit Gp Adj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Critical Gp:xxxxx xxxx xxxxx 5.0 xxxx xxxxx xxxxx xxxx xxxxx 6.5 xxxx 5.5
-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 264 xxxx xxxxx xxxx xxxx xxxxx 554 xxxx 258
Potent Cap.: xxxx xxxx xxxxx 1283 xxxx xxxxx xxxx xxxx xxxxx 506 xxxx 1025
Adj Cap: xxxx xxxx xxxxx 1.00 xxxx xxxxx xxxx xxxx xxxxx 0.98 xxxx 1.00
Move Cap.: xxxx xxxx xxxxx 1283 xxxx xxxxx xxxx xxxx xxxxx 497 xxxx 1025
-----|-----|-----|-----|-----|
Level Of Service Module:
Control Del:xxxxx xxxx xxxxx 2.8 xxxx xxxxx xxxxx xxxx xxxxx 7.6 xxxx 3.8
LOS by Move: * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx 1283 xxxx xxxxx xxxx xxxx xxxxx xxxx 820 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx 3.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 5.0 xxxxx
Shared LOS: * * * A * * * * * B *
ApproachDel: 0.0 0.2 xxxxxx 5.0
ApproachLOS: A A * B

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